

Sample Report

Utility Optimization Analysis Report

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Executive Summary

All accounts are on the proper rate structure, and most are taking full sales tax exemptions. The following report describes in detail our utility analysis of each account.

Status Key ● **ON TRACK** ● **NEEDS ATTENTION** ● **CRITICAL ACTION**

Electricity Overview

7 Accounts

- **ELECTRIC UTILITY RATE (TARIFF)**
All accounts are on the proper rate structure, no changes are required.
- **ELECTRIC SUPPLY (PROCUREMENT)**
Monitoring electric prices and running regular RFPs in Connecticut are recommended.
- **SALES TAX ON ELECTRICITY**
ABC Company is taking 100% sales tax exemptions on all accounts, except for its Site 2 accounts which are paying full 6% sales tax.
- **POWER FACTOR PENALTIES**
ABC Company did not incur any power factor penalties this year.

Natural Gas Overview

4 Accounts

- **GAS UTILITY RATE (TARIFF)**
All accounts are on the proper rate, no changes are required.
- **GAS SUPPLY (PROCUREMENT)**
Monitoring gas prices and running regular RFPs in Connecticut are recommended.
- **SALES TAX ON GAS**
Site 1 and Site 3 are taking 100% sales tax exemptions, Site 2 is paying full 6% sales tax and Site 4 is paying full 6.35% sales tax.

Electric Tariff Analysis

YEAR-OVER-YEAR OVERVIEW

Year	# of Accounts	Usage (kWh)	Total Cost
2021	7	6,971,350	\$734,373
2022	7	7,003,522	\$777,952

DATA FROM JANUARY – DECEMBER 2022

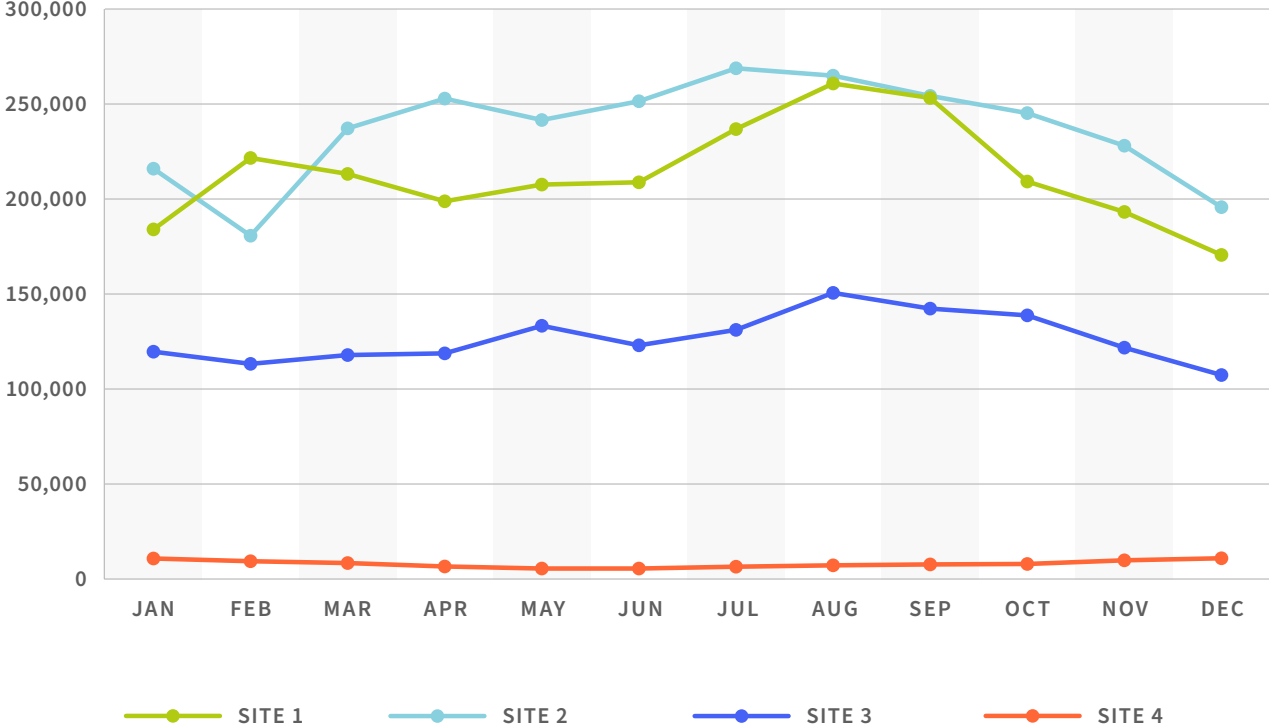
Location	Utility Provider	Account Number	Utility Rate	Sales Tax Exemption	Annual Usage (kWh)	Annual Cost
Site 1	1a	0000000000	LPT	100%	2,557,768	\$160,860
	1b	0000000000	Supply			\$201,694
		0000000000	Renewable			\$2,843
Site 2	2a	0000000000	TODS	0%	1,891,080	\$160,325
			GS		234	\$766
			PSS		945,400	\$100,892
Site 3	3a	0000000000	LGS - 09S	100%	632,600	\$54,787
		0000000000	LGS - 09S		885,120	\$74,454
Site 4	4a	0000000000	GS	100%	91,320	\$11,064
			Supply			\$10,268
Total					7,003,522	\$777,952

Key Takeaways & Action Items

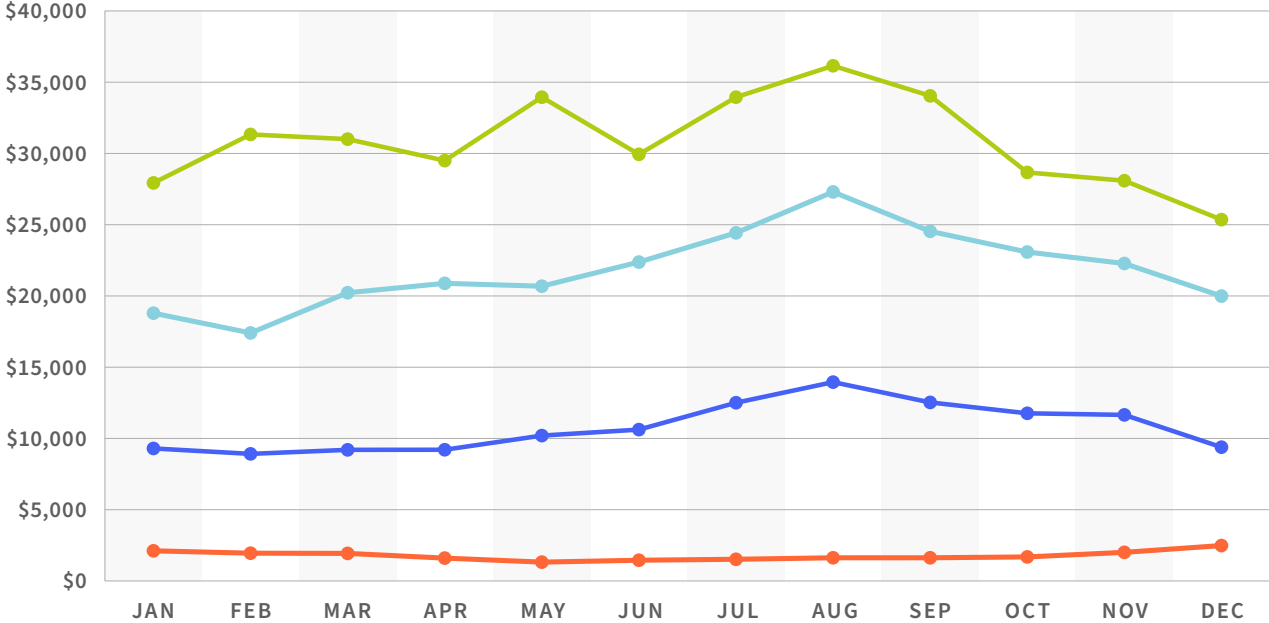
- All accounts are on the proper utility rate structure. No changes are required.
- All accounts except those in Site 2 are taking 100% sales tax exemptions; Site 2 is paying full 6% sales tax. There are no exemptions available for manufacturing currently in Kentucky unless you are a large energy consumer.
- ABC Company did not incur any power factor penalties in 2022. Nice work!

Electric Usage & Cost

2022 ELECTRICITY USAGE (IN kWh)



2022 ELECTRICITY COST (IN USD)



Natural Gas Tariff Analysis

YEAR-OVER-YEAR OVERVIEW

Year	# of Accounts	Usage (MCF)	Total Cost
2021	4	8,703	\$74,855
2022	4	9,881	\$103,141

DATA FROM JANUARY – DECEMBER 2022

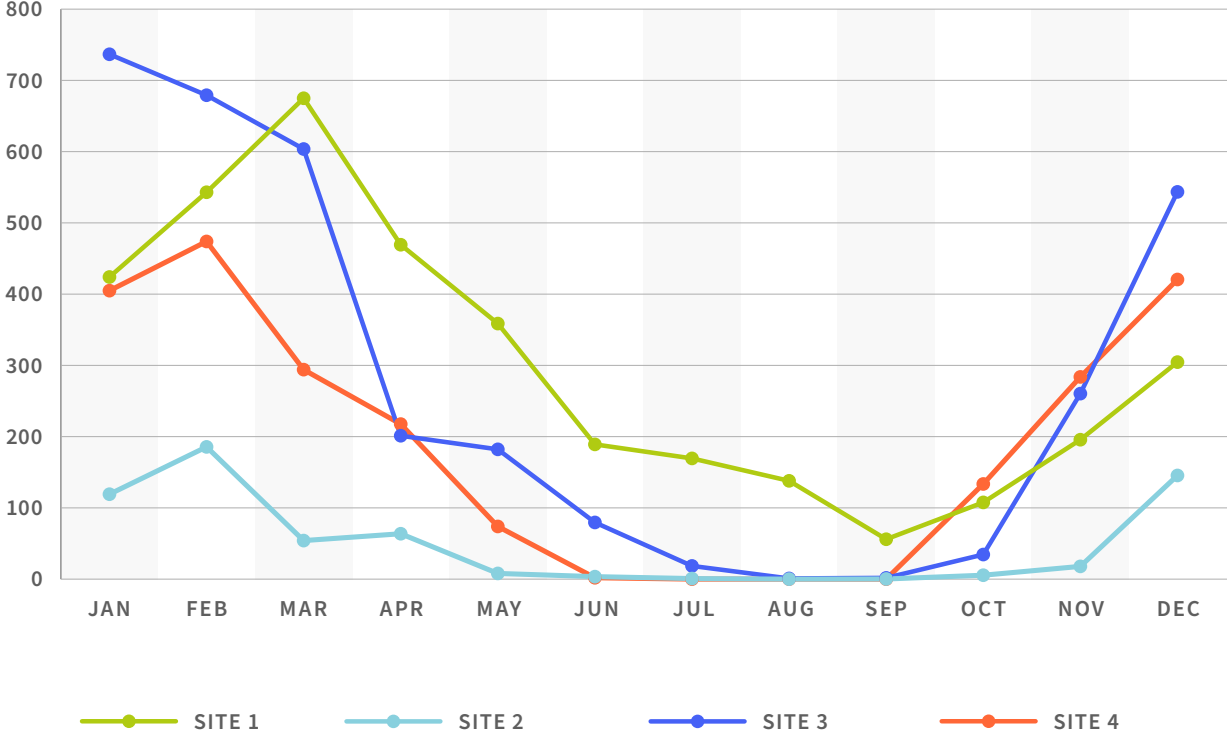
Location	Utility Provider	Account Number	Utility Rate	Sales Tax Exemption	Annual Usage (MCF)	Annual Cost
Site 1	1a	0000000000	LGS	100%	3,630	\$38,573
Site 2	2a	0000000000	Firm Commercial	0%	604	\$11,256
Site 3	3a	0000000000	GS1 - General	100%	3,342	\$21,788
Site 4	4a	0000000000	MGS	0%	2,304	\$31,523
Total					9,881	\$103,141

Key Takeaways & Action Items

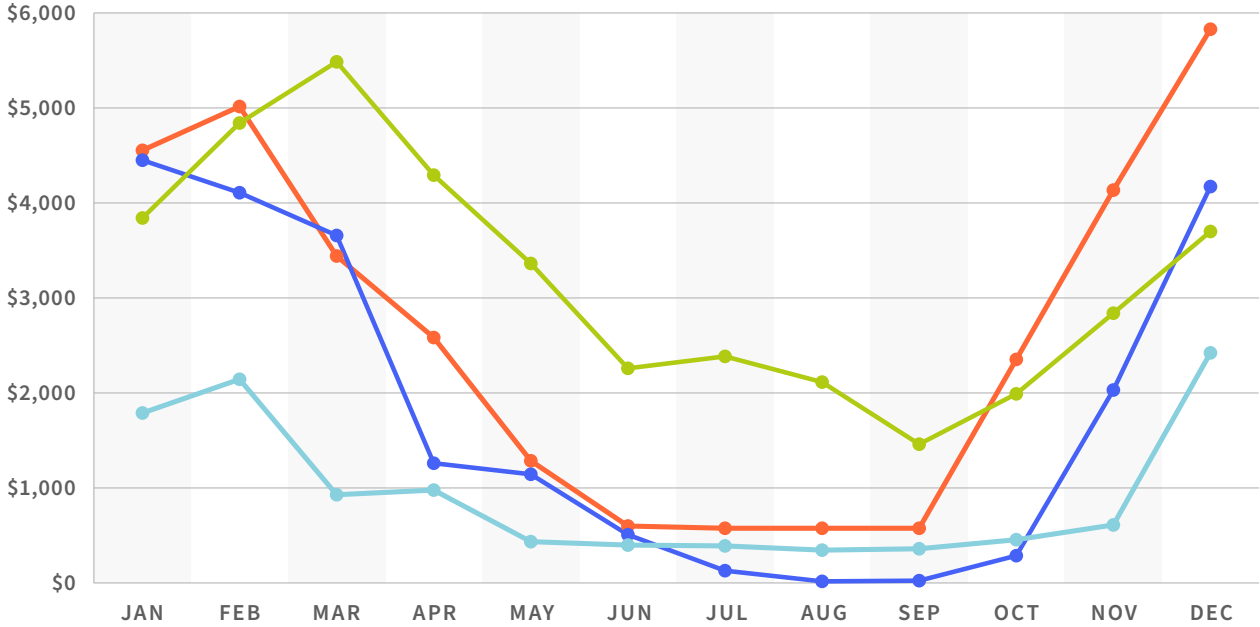
- All accounts are on the proper utility rate structure. No changes are required.
- Site 1 and Site 3 are both 100% tax exempt. Site 2 and Site 4 are paying full sales tax at rates of 6% and 6.35%, respectively. It is our understanding that Site 4 is a warehouse and does not have any production activities.

Natural Gas Usage & Cost

2022 NATURAL GAS USAGE (IN MCF)



2022 NATURAL GAS COST (IN USD)



Energy Use Intensity

Below are two tables displaying all ABC Company’s sites’ electricity and natural gas use and cost. The heat map displays how much each location consumes and spends on energy relative to the size of the location. The larger users tend to have higher consumption and cost values relative to their size, but some smaller locations, such as Site 4, stand out for relatively high natural gas usage. Normalizing energy usage and cost by square footage is a way ABC Company can target improvement opportunities that will achieve the best return on investment.

ELECTRICITY USAGE BY SITE HEAT MAP

Location	Square Footage	Annual Usage (kWh)	Annual Cost	kWh/sq ft	Cost/sq ft
Site 1	107,078	2,557,768	\$365,397	23.89	\$3.41
Site 2	97,348	2,836,714	\$261,982	29.14	\$2.69
Site 3	75,405	1,517,720	\$129,241	20.13	\$1.71
Site 4	43,600	91,320	\$21,332	2.09	\$0.49
Total/Average	323,431	7,003,522	\$777,952	21.65	\$2.41

NATURAL GAS USAGE BY SITE HEAT MAP

Location	Square Footage	Annual Usage (MCF)	Annual Cost	MCF/ thousand sq ft	Cost/ sq ft
Site 1	107,078	3,630	\$38,573	33.93	\$0.36
Site 2	97,348	604	\$11,256	6.20	\$0.12
Site 3	75,405	3,342	\$21,788	44.32	\$0.29
Site 4	43,600	2,304	\$31,523	52.85	\$0.72
Total/Average	323,431	9,881	\$103,141	30.55	\$0.32

Key

LEAST INTENSE

MOST INTENSE

Procurement Analysis

Foresight Management reviewed the four (4) facilities below across ABC Company's portfolio of companies located in three (3) states.

DEREGULATION ENVIRONMENT BY STATE

State	Gas	Electricity
State 1	Partially	Yes
State 2	No	No
State 3	No	No

Of the three (3) states, only State 1 has deregulation opportunities for ABC Company. Foresight Management has provided details and recommendations by site below.

State 1

State 1 is deregulated for both electricity and natural gas. Natural gas, however, is only partially deregulated and is limited.

Electricity

ABC Company is currently purchasing its electricity from Company 1, an Alternative Energy Supplier (AES). The current price is \$0.14186 / kWh, and the contract comes up for expiration in November of 2024.

Electricity Next Steps

No action is needed at this time. With the market seeing such a large dip so far this winter, it may be beneficial to start looking at shopping this contract to secure a lower price. Foresight would be happy to put together a proposal with procurement options if ABC Company would like assistance in their procurement efforts.

Natural Gas

ABC Company is currently purchasing its natural gas from the Company 2 which is the local utility. With the market seeing a large dip so far this winter, Foresight would recommend looking at alternative suppliers for both accounts in the spring to see if an opportunity may be available to secure a lower price. Prices from an alternative energy supplier can also be compared to the rates the utility is projecting.

Natural Gas Next Steps

Would ABC Company like assistance from Foresight running the RFP process or will you be handing this internally? Foresight would be happy to put together a proposal outlining procurement options if ABC Company would like assistance in their procurement efforts.

PROCUREMENT ANALYSIS

State 2

In 2000, The State 2 Public Service Commission initiated the deregulation of natural gas; however, currently there are only opportunities if you are within the Gas Company 2 service area.

State 3

Currently there are no opportunities for deregulation within State 3 for either electricity or natural gas. ABC Company's only opportunity currently is to purchase each commodity from the local utility. Large industrial customers can transport gas, however, based on ABC Company's volume this location would not be eligible.

Renewable Electricity

If desired, there are several options for ABC Company to “green up” electricity purchases. Each carries a different level of cost, risk, and additionality.

Additionality answers the question: *Does my decision directly result in the construction of new (additional) renewable assets?*

Renewable Energy Credits (RECs)

COST	RISK	ADDITIONALITY
Low	Low	Low

ABC Company currently purchases RECs at its Site 1 site, spending approximately \$2,800 for Site 1 in 2022. Site 2 purchased RECs annually until 2022, when it moved to a monthly green-e purchase offered by LG&E.

Green Tariffs in Regulated Markets

COST	RISK	ADDITIONALITY
Low	Low	Low

ABC Company’s Site 3 facility is currently participating in a green tariff program provided by State 3 Power. ABC Company spent approximately \$16,500 in 2022 participating in this program.

Starting in 2022, Site 2 moved from an annual REC purchase to a monthly green-e purchase through LG&E, and spent \$8,580 on this initiative over the course of the year.

On-site (Rooftop) Solar

COST	RISK	ADDITIONALITY
High	Med/Low	High

Investing in solar is the most viable option for you to generate your own on-site renewable electricity. Covering 100,000 ft² of your roof would cost about \$2,000,000 in upfront capital. This solar system would offset about 20% of your annual electricity consumption and cost. The solar install would qualify for a 30% tax credit resulting in a net cost of \$1,400,000. If you needed to replace the roof at your facility, those costs could be integrated into the solar project resulting in quicker a ROI.

Virtual Power Purchase Agreement (VPPA) – Not Available

COST	RISK	ADDITIONALITY
N/A	N/A	N/A

VPPAs are generally long-term and complicated financial instruments for large clients. You would need to consume substantially more electricity annually before this option is viable.

Next Steps

We are grateful for the opportunity to partner with ABC Company on developing an energy management strategy. If you have any questions, please do not hesitate to ask.



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Followup Questions & Meeting Notes

A large, empty light gray rectangular area intended for follow-up questions and meeting notes.



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