The Paradigm Shift in Energy Procurement: A Strategic Sourcing How-To Guide

Energy buyers today are required to make complex procurement decisions due to market deregulation, coupled with a host of new financial intermediaries and energy products, advances in energy technology and a new emphasis on sustainability. These fundamental changes are creating both challenges and opportunities for businesses with geographically-dispersed facilities and require new methods for sourcing energy supply. Organizations that embrace and employ energy-sourcing best practices use data analytics to identify cost savings and improve risk management, aggregate energy spends, and align their sourcing programs' strategies and management functions. This report sets forth energy procurement best practices adopted by leading businesses in North America.

Implementing Procurement Best Practices

Energy markets aren't simple. With market conditions, regulations, and prices that change quickly, it can be overwhelming for anyone trying to manage spend, forecasts, several contracts, and risk across different regions. Key concepts in this monograph are that 1) energy is a financial commodity traded using financial tools, and that 2) financial methods should drive energy decision making.

Emphasis on financial management is critical and buyers should approach energy procurement using three best practice principles: Aggregation, Alignment, and Analytics.

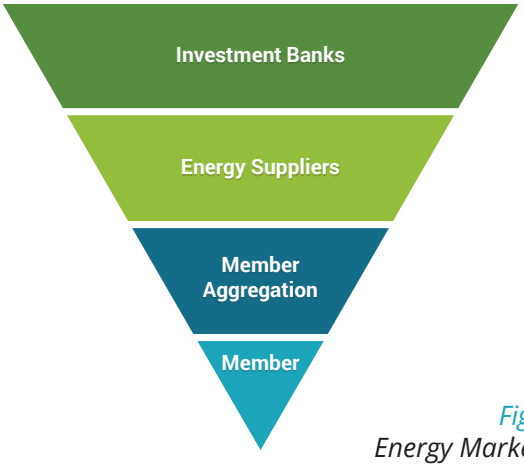


Figure 1: Energy Markets Are Financial Markets

A. Aggregation

Acting alone, a single facility's energy spend may not command the respect of suppliers. However, a group of facilities can aggregate to create buying power in the market, leveraging lower costs and greater access to the best products and contracts. Aggregations of individual buyers are attractive to suppliers, and buyers should seek collaborative arrangements with peer institutions to obtain these benefits. Procurement professionals are well placed to help implement this kind of aggregation strategy.

Figure 1 on the right depicts the energy market's financial hierarchy. Financial institutions and global energy giants dominate the wholesale market and trade billions of dollars in energy each day. These institutions use financial agreements to set pricing.

- Retail suppliers enter into financial transactions with wholesale trading operations to set a price for a specific amount of energy. Suppliers add their profit margins onto each unit of electricity or natural gas delivered to and consumed by buyers pursuant to retail supply agreements.
- Individual buyers are at the bottom of the energy market's hierarchy and typically buy higher-cost, fixed-rate contracts from retail suppliers.

What Makes an Effective Energy Committee

An energy committee will have duties related to strategic energy management, including sourcing, operations, tracking, reporting and communications.

While this monograph focuses only on procurement-related issues, when seeking the participation of the various members of the energy committee, the following guidelines should be considered:

- The facility department has specific knowledge of the energy needs, including usage and anticipated changes in demand. This information will be crucial when deciding how to layer energy purchases over the life of the contract. Facility staff will provide information regarding the relationship between market energy and on-site operations.

- Corporate treasury/finance manages the institution's financial investments, including bond interest rates, insurance and other products traded in financial markets. Because energy is traded in a financial market, it is vitally important to recruit the treasury or finance department to share its expertise in this area, as well as provide its fundamental understanding of financial products and strategies. The participation of treasury/finance professionals in the energy procurement process will be crucial because this group also is responsible for managing the institution's budget, knows just how much market risk the institution is willing to take, and has a fundamental understanding of financial products.

- Supply chain/purchasing provides in-depth knowledge about the institution's purchasing practices. The energy committee will rely on this group's expertise in negotiating energy contracts and terms.

B. Alignment

Energy buyers with multiple locations and/or significant energy spends should form energy committees that include experienced in-house staff from the finance, procurement, and facilities departments. The committee's job is to develop a consensus-based energy purchasing strategy that is consistent with the organization's long-term financial risk management strategy.

For decades, energy has been the exclusive responsibility of on-site facility directors. Today, changes in the market mean that professionals from other departments, particularly finance and purchasing, can provide substantial value in energy procurement.

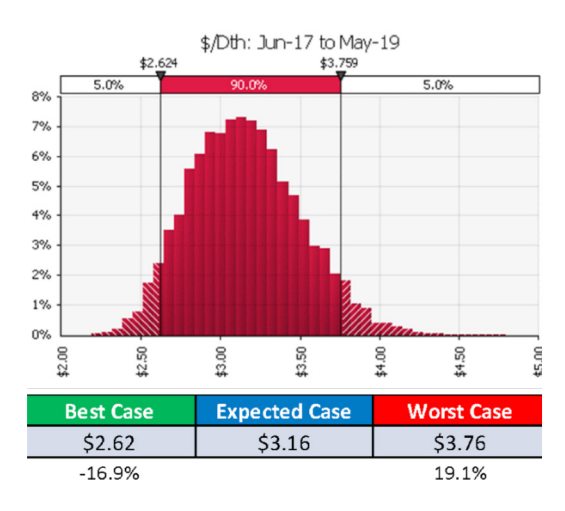
Energy buyers must understand that the most effective way to buy energy is to consider the bundle of energy aspects as a whole, and to manage investments in them simultaneously. Decisions to respond to opportunities in rates for bulk energy purchasing, renewable energy and environmental offsets, fuel switching, consumption management and reduction and facility operation all affect one another and must be considered simultaneously for optimal outcomes. Ideally, the organization should develop its energy purchasing strategy with a multidisciplinary team from finance, procurement and facilities to ensure that procurement is part of a comprehensive strategy.

C. Analytics

The energy committee should use financial analytics and risk management tools when determining the energy purchasing strategy, which should balance budget stability and cost savings. For short-term budget stability, a fixed rate may be best. If cost savings is the priority, a market index rate approach may be best. A blended approach offers some of the savings of the market index rate approach with less risk.

Retail energy suppliers typically determine pricing for the products they sell to energy buyers using statistical probability modeling. This involves testing the likelihood that a particular price will occur in the wholesale market during the upcoming contract period. This information helps the supplier determine the price it will pay at wholesale and resell at retail. It also helps determine the quantity of energy to be purchased or sold at that price now and in the future.

Buyers can also use these tools to optimize their energy purchase, and they will tend to pay less when they do so. A statistical model for electricity or natural gas provides an energy buyer with the probability that the supplier's contract price will be higher or lower during the contract term.



Statistical models can help improve budget decisions by quantifying a best case and a worst case around current market conditions (expected case). Using a model such as the one on the left, the energy committee can decide whether it wishes to purchase all or some of its required energy at the expected rate, or wait for the market to move lower, toward the best case (while also taking the risk that it may move higher, toward the worst case). This information allows the buyer to build a ladder of layered purchases in which portions of the energy spend are fixed at intervals throughout the contract term, rather than all at once. Alternatively, the buyer might form a set of "investment rules," buying at certain price levels to both mitigate risk and seize opportunities.

Challenges and Opportunities for Hospitality

Hospitality energy buyers with multiple facilities across geographically-dispersed areas, including lodging, resort, gaming and restaurants, face unique challenges when buying energy.

A. Operating in multiple energy markets

While major financial institutions trade energy contracts nationally at the highest level, there are several differences in energy transportation, utility rate structures and market pricing mechanisms. These vary from state to state in the United States, province to province in Canada, and sometimes even within the same cities.

There are hundreds of local delivery companies (LDCs or energy utilities) in North America. Each has their own set of tariffs and pricing mechanisms that can affect negotiable energy supply. Additionally, electric transmission systems and natural gas pipelines can cross several states. Managing energy spends across several markets creates obvious challenges for buyers, but also diversifies risk. Procurement professionals with operations and knowledge that span geographic locations can help you leverage your spend in certain places (such as a large electric transmission area) and provide insights into local market dynamics that will ultimately help you make a more informed purchasing decision.

EXAMPLE A:

In Southern California, the SoCal Edison utility gives natural gas buyers the choice to receive utility delivery under core or non-core rate structures. Core and non-core are similar to firm or interruptible rate classes in other areas. Interruptible, as the name implies, means that on very high gas consumption days the utility has the right to interrupt your gas supply. In exchange for the flexibility, the utility's non-core (interruptible) delivery costs are approximately 40% lower.

B. Contracting before expiration

Energy contracts, as a financial transaction, can be entered into well in advance of any current energy contract's expiration. Often, energy buyers with several facilities manage contracts when they are near expiration because they lack the resources and expertise to monitor their spend across multiple markets. This creates a situation in which the buyer risks taking whatever price is available in the market near their contract expiration. A best practice is to monitor the energy markets, or seek the services of an energy professional to do so, so that you can stay informed of opportune times to consider revisiting or extending an energy contract.

EXAMPLE B:

Natural gas reached both a 17-year-low point and a two-year-high point in 2016 within a span of eight months. Fixed-price contracts ranged from $1.71 to $3.23 per Dekatherm over this timeframe. That's a 61% difference. Knowing where the market is trading, regardless of a current contract cycle, helps to avoid risk and provides the opportunity to take advantage of market downturns.

C. Determine contact term lengths based on market conditions

While an ideal contract term length will vary over time and by market, it's not uncommon for energy buyers to stick to a set timeframe of one or two years. However, setting the term length regardless of market conditions can close the door on market opportunities. When determining contract length, it's best to consider not only the pricing for different term lengths, but also the pricing trend, probability of price decreases/increases during various terms, and fundamental market conditions.

EXAMPLE C:

For natural gas buyers, technological advances as well as planned and new gas pipeline projects can greatly impact a buyer's basis (transportation) costs. Basis rates can be a credit in some markets and a cost in others depending on the supply and demand of gas on a physical pipeline. Knowing the historical basis rates in a market, as well as the future fixed rates and the stages of various pipeline projects, can lead to better decisions on term lengths.

D. Explore your choice to join the competitive energy supply market

If your natural gas or electric utility allows choice, it's advisable for you to consider your options and periodically revisit the topic of utility-supplied energy. Natural gas is widely deregulated and electricity is deregulated for many buyers in 18 U.S. states and two Canadian provinces. Switching from utility-supplied energy to competitively-supplied energy is often a simple way to reduce your energy costs. Studies have shown that competitive energy markets reduce the cost of generating power by about $3 billion per year through increased efficiencies and coordination both within and across areas (*).

E. Contract language about changes in facility ownership

In the hospitality sector, especially in lodging, properties commonly change ownership more frequently than other businesses. For this reason, many hospitality buyers see longer-term energy contracts as a risk. When a property might be sold, the management company works to avoid any supply contracts. While most energy contracts do not have a "favorable" or well-defined assignment clause, it is in the retail energy supplier's best interest to continue to serve the facility. In most instances the energy seller will not seek to liquidate the contract (even for a possible short-term gain) since they would rather continue service to any credit-worthy buyer.

Summary: Triple Bottom Line Benefits of Best Practices

A. Cost Benefits

Effective procurement of electricity, natural gas, district energy, renewable energy, on-site or off-site power generation and energy storage is fundamentally a risk-mitigation and cost-saving opportunity. Employing energy-purchasing best practices can prevent unwelcome surprises and result in potential budget savings for energy buyers.

B. Environmental Benefits

Market procurement of energy allows businesses to obtain access to renewable or cleaner fossil-fuel-generated sources of electricity.

C. Social Benefits

Resources saved through effective management of energy costs can be redirected toward business operations and client services and encourage the continued deployment of viable sustainability strategies that benefit our communities, nations, and world.

ZENITH energy

ABOUT ZENITH ENERGY:

Zenith Energy was founded in 1995 and has grown to be a leading energy procurement organization with more than $1 billion in contracts under management. Zenith specializes in energy business planning that aligns multi-site clients around a central procurement and/or energy reduction strategy. Zenith works directly with Avendra clients to determine the current energy usage, strategies and objectives of each organization. Zenith then recommends and implements solutions to help clients reduce energy costs and market risk while meeting sustainability goals.

AVENDRA

ABOUT AVENDRA:

Avendra is North America's leading hospitality procurement services provider. Our supply chain management solutions are tailored to our clients' business strategies and deliver benefits beyond great savings. We combine years of hospitality expertise, purchasing power, services and software to help customers impact the bottom line, improve operational performance and better serve guests. More than 8,000 customers rely on Avendra as a trusted partner. Avendra is headquartered in Rockville, Maryland and has regional offices throughout North America.

*Energy Policy Institute at The University of Chicago