

POWER PRICE STRUCTURING

WHITE PAPER

CUSTOM ELECTRICITY SUPPLY STRUCTURES

Competitive retail energy markets provide significant opportunities for end users to control their energy expenses, but the high volatility of energy commodities can greatly impact costs if not carefully managed.

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Electricity Price Summary

Electricity cost components are complex. The chart illustrates these components for retail and wholesale electricity. While suppliers can hedge against market changes, regulatory costs are hard to control. It's critical for consumers to understand how suppliers account for these components in their contracts to develop a purchasing plan and achieve budgetary goals.

Some buyers choose the lowest fixed-priced energy supplier, assuming it represents the best value. However, the fixed price might not maximize cost savings, particularly for those consumers with significant off-peak usage. Buyers should seek expert advice to thoroughly review and negotiate contract terms. This white paper will outline the risks and opportunities in choosing the right electricity product structure.

It explores the most common electricity product structures, outlining their key risks and opportunities. It also discusses essential factors that end users should consider when choosing a product. The associated risks are described with each price structure:

Price Risk: The danger of prices moving unfavorably against an open position.

Budget Risk: The risk that actual costs will surpass the budget for the fiscal year.

Opportunity Risk: The risk of market prices falling below pre-established fixed prices.

Volume Risk: The risk that actual future consumption will significantly deviate from contracted amounts.

Energy – Can Be Hedged
60% of price

Capacity – Tariff No Hedge
20% of price

Transmission – Tariff No Hedge
7% of price

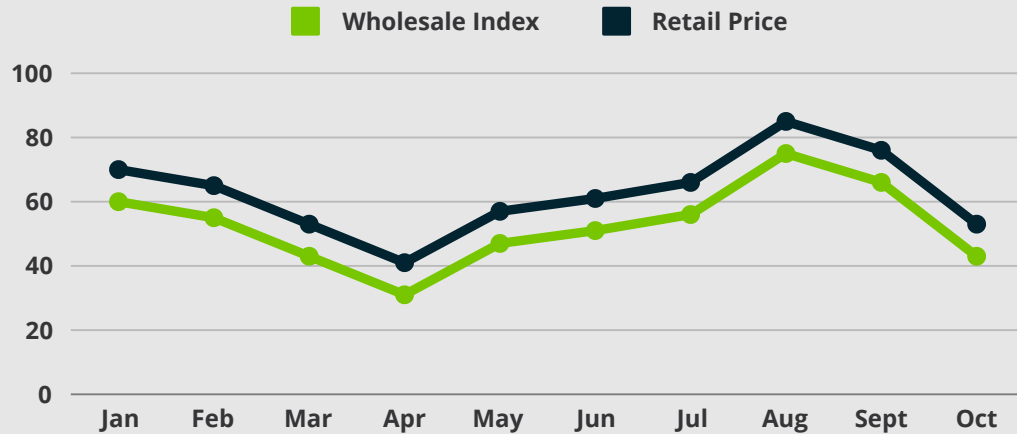
Ancillaries – Regulatory No Hedge
3% of price

RPS – Regulatory No Hedge
8% of price

ISO Fees – Regulatory No Hedge
2% of price

Index Product

Index products in the energy market refer to electricity pricing plans that are tied directly to the fluctuating wholesale market prices. These types of products are influenced by a variety of factors, each playing a role in determining the ultimate cost of electricity for the consumer. Retail index prices are typically set as a summation of the wholesale index rate plus a fixed adder amount.



Product Structure

Risk Profile

aggressive

Risk Tolerance

high

Price Risk

high

Budget Risk

high

Opportunity Risk

low

Volume Risk

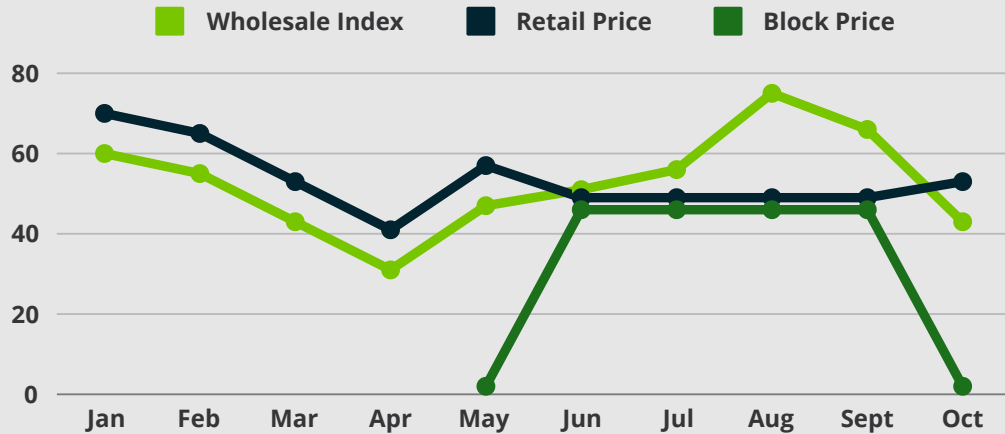
low

Purchasing an Index Product allows customers to fully participate in the market. In deregulated electricity markets, there are typically two pricing options: Day Ahead (DA) and Real Time (RT). Generally, DA prices are higher as they offer a buffer against sudden price spikes that are more common in RT pricing. Index products, however, do not ensure fixed budget costs and are more susceptible to variables such as power demand, generation availability, system outages, transmission limits, and weather conditions. It's important to note that RT index products can lead to additional balancing charges as the costs for activating extra capacity are distributed among RT users based on consumption.

For customers who are comfortable with higher risks, Index Products can be appealing during periods of low demand or when cheaper fuel sources are in use. Historically, these products have often outperformed fixed-rate contracts.

Block + Index Product

A Block and Index product is a type of energy purchasing strategy that blends fixed and variable pricing components to manage financial risk related to electricity costs. This strategy is particularly useful in deregulated energy markets where prices can fluctuate significantly and be less expensive during off-peak periods.



Product Structure

Risk Profile
medium

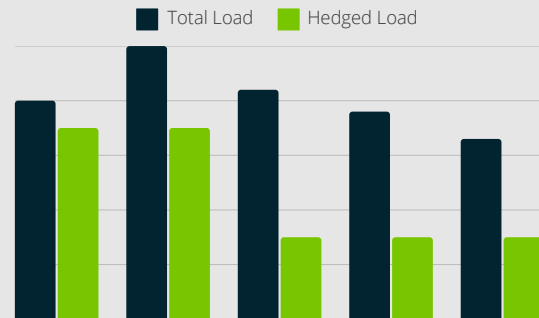
Risk Tolerance
medium-high

Price Risk
low-medium

Budget Risk
low-medium

Opportunity Risk
medium

Volume Risk
medium

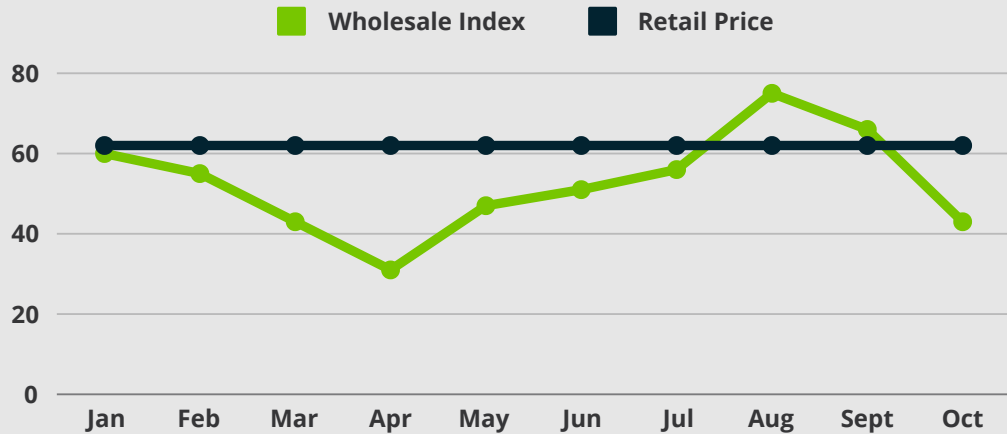


This approach involves purchasing a portion of energy needs at a fixed wholesale block rate, with any imbalances being settled at Day Ahead (DA) and/or Real Time (RT) market prices. Additionally, a Retail Adder is included to cover all electric delivery service charges.

Customers using this product have the flexibility to hedge incrementally over the contract period, opt for index pricing in certain months, and avoid the premiums often associated with forward pricing for future months. In terms of pricing structure, customers can choose to lock in their blocks at a fixed price or opt for a Heat Rate product, which ties prices to the cost of the fuel used to generate electric.

Load-Following Fixed Price

A Fixed Price Load Following product is a straightforward risk management tool where the customer pays a set price for energy within a certain tolerance band. This tolerance band protects against variations from expected usage, which is typically estimated based on historical consumption. Adjustments may be made for factors like weather that can affect usage.



Product Structure

Risk Profile

conservative

Risk Tolerance

low

Price Risk

low

Budget Risk

low

Opportunity Risk

high

Volume Risk

low

Fixed-rate tolerance bands are typically applied to monthly energy usage, allowing customers to choose a specified range (e.g., $\pm 10\%$, $\pm 25\%$, or full swing), but these come at a cost. Wider bands increase the premium charged by suppliers, so it's advisable for buyers to seek expert advice to determine the optimal bandwidth for their needs. For customers with consistent energy usage, paying extra for a wider band may be unnecessary.

In recent years, suppliers have offered broader bandwidth options but often include a "material adverse change (MAC)" clause. This clause gives suppliers considerable leeway to define what constitutes a significant change, potentially undermining the contract's price stability. If "material" is not clearly defined, it can lead to disagreements over contract breaches.

In addition, consumers pay premiums for bundling regulatory costs like transmission and capacity into the fixed rate.

Decision Process

Effective product structuring is complex, given the numerous variables organizations must consider. Consequently, many opt to work with a firm like Puleo Energy, which functions as an in-house energy advisor. Partnering with Puleo Energy provides clarity, detailed analysis, and insights, streamlining the process significantly and achieving results. We evaluate:

Customer's Risk Tolerance: Aligning risk tolerance with product choice is crucial to meeting budget or savings goals.

Market Conditions: Different products allow buyers to capitalize on market fluctuations. For instance, locking in a Fixed Price during high natural gas prices may result in overpaying, whereas an Index or Heat Rate product could lower costs.

Imbalance Penalties: Buyers should be aware of potential additional charges from Independent System Operators (ISOs) with certain products like a Real Time (RT) index.

Future Consumption: Understanding future energy needs is beneficial, but uncertainty requires careful product selection.

Load Factor: This efficiency measure impacts costs; a low load factor indicates peaky demand, raising costs, whereas a high load factor indicates steady demand, which is less costly.

Load Profile: This is the energy usage pattern over time, varying by customer type (commercial, industrial, residential). It helps in assessing risk management options.

Price Components: Different treatment of pricing components by suppliers makes direct comparisons challenging. Expert advice can clarify and add value.

Risk Transfer: Customers can choose to take on the commodity risk with an index product or transfer it to the supplier with a Fixed Price Load Following product. Understanding these risks and their costs is vital.

Contact us today for more insights.

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