



## WHITEPAPER

# WHAT IS THE BEST ENERGY PLAN FOR YOU?

The commencement of the Retail Market in Singapore has provided an opportunity for small and large businesses to choose a retailer for their energy needs. However, with more than twenty (20) retail suppliers offering a variety of energy products, shopping for competitive pricing offers become overwhelming for most businesses, causing some to miss the chance of getting the best deal.

In this whitepaper, we will help you get familiar with some of the major energy plans and pricing structures available in the market.

For a better appreciation, let us start on trying to understand where and how the energy retailers purchase and derive their energy offers.

Retailers generally use three (3) avenues to source electricity for its customers:



### Power Generation Companies

Direct purchase from a power plant



### Wholesale Spot Market

Purchase from a market with different prices per time interval



### Futures Market

Purchase forward contracts at standard terms

At present, most retailers get their supply from the first two (2) avenues, as observed from the low volume of transactions in the futures market. Retailers who purchase power from a generation company typically derive their energy offers based on the power plant cost; this approach is called Cost-Based Pricing. Furthermore, other retailers price their energy product to match their purchases in the wholesale spot market and is called Market-Based Pricing.

## COST-BASED PRICING

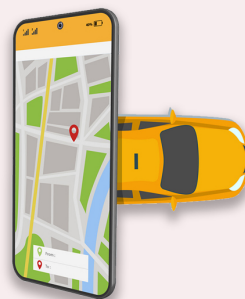
In Cost-Based Pricing, retailers price their offer based on the power plant cost to generate 1kWh of electricity.

This is similar to a car rental service fee, which has three (3) components: 1) the charge for using the car (capital recovery and fixed operations and maintenance fees), 2) the driver's fee (variable operations and maintenance fees) and 3) the charge for the gas consumed (fuel fee). So in terms of a power plant, the energy cost incorporates fees to recover the capital expense in putting up the power plant, the operations and maintenance fees to operate the plant continuously and the cost of fuel burned and converted into electricity. Almost all (~95%) of the electricity in Singapore is produced using natural gas. Hence, most retailers peg the cost of fuel to the price of natural gas which is referenced to oil prices, either High Sulfur Fuel Oil (HSFO) or crude oil quoted in London (Brent).



## MARKET-BASED PRICING

On the other hand, Market-Based Pricing can be compared to a ride-hailing app, which is driven by supply and demand. The ride's fare surges during rush hour when the demand is high and relatively lower during off-peak hours. In the energy market, a market-based approach is when a retailer bases their energy offers to projected prices in the Wholesale Electricity Market, which changes every 30 minutes and is driven by energy supply and demand. In a daily basis, the pool prices are relatively higher during noontime and early afternoon, when demand is high, as compared to other times of the day. Other factors affecting the market price are plant bid offers, installed grid power plant capacity and outages, commodities, weather and consumption patterns of electricity end-users.



These pricing methodologies are the backbone of different energy plans being offered by retailers namely the Pool Price Energy Plan, the Fuel Indexed Plan and the Fixed Rate Plan, each offers unique benefits for the customer.



## POOL PRICE ENERGY PLAN

The Pool Price Energy Plan, patterned after the market-based approach, is where a retailer bills the customer at the actual spot market price which varies every 30 minutes. Retailers use this pricing to pass through the price volatility in the spot market to the customer. For the past two years, spot prices have varied from 0.021c/kWh to 135c/kWh. That means, if the pool-based pricing is your energy plan, your energy rate can be as low as 0.021c/kWh in one interval and can get as high as 135c/kWh in the next interval. These values are very volatile when compared to a fixed energy rate of SP Group at around 12c/kWh.

The Pool-based pricing is ideal when the market is down and if the customer is capable to manage the risk of exposure or load consumption in exchange for potentially low energy rates.



## FUEL INDEXED PLAN

Derived from the Cost-Based Pricing approach, where a certain portion of your rate is tied up to a formula based on prevailing fuel price. The energy cost of generating 1kWh of electricity is equivalent to the sum of the Capacity Fee, O&M Fee and Fuel Fee. The Fuel Fee, which comprised about 50-60% of the total energy price, is pegged to the oil price. From 2019 to 2020, the oil price has moved from 23.34\$/bbl to 71.20\$/bbl which will bring 34% increase or 50% decrease on the fuel fee on the average.

This plan allows a retailer to pass on the price volatility to the customers. On the other hand, it is advantageous to customers as they avoid the price premium that may be charged for fixed price products and able to get the benefits of when the oil market is low.

## FIXED RATE PLAN

Fixed rate pricing means that for the whole contract duration electricity rate is the same. Regardless whether the spot price or the oil price moves up or down, the price is fixed. Retailers who use Cost-Based Pricing can fix their energy offers by deriving or projecting a fixed price for oil prices and just adding a risk premium to cover the volatility. On the other hand, retailers who use a Market-Based approach are able to fix their rate by projecting the future spot price and adding risk premium to somehow protect their revenue from price volatility.

The fixed prices for electricity provide you stability and predictability that you can use in budgeting and planning. If the market price rises, you are protected, but if the price falls, you cannot capitalize on market dips. A fixed rate may seem relatively higher as compared to the previous two (2) plans as retailers are adding premium for taking the risk of price volatility. Timing is important; locking in a low rate at the right time can produce savings over time.

There are many available energy plans in the market, and might differ in name, but somehow it revolves around these 3 major plans. The key differences of these 3 are the price volatility and the party to whom the volatility will be passed through. The Pool Price Energy Plan has the highest volatility as 100% of the energy cost moves with the wholesale market price, while the Fuel Indexed Plan, only 50-60% of the total energy cost is subject to oil price change. Lastly, there is zero volatility in the Fixed Rate Plan compared to a Fixed Price, where retailers shoulder all the risk in oil and spot market, the Pool Price and the Fuel Indexed Plan allow retailers to pass the risk of getting price spikes or dips to the customer.

Shopping for energy plans can be confusing, but now that you understand the basics of market shifts, what goes into an energy price and how energy plans are priced, you're ready to shop for energy quotes. AECO Energy can assist you more on evaluating and choosing the products and services that are best for you.



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