Fuel Hedging

Fuel Prices – What could be the problem?

In the summer of 2008, the United States experienced volatility in fuel prices as costs increased to well over $4.00 per gallon at the pump. Some transit agencies had adequate reserves at that time and budgeted a reasonable average price to absorb the high summer prices. However, others have had to use reserves towards operating expenses and are less able to absorb increases in fuel prices above budgeted levels. A solution to this potential problem is to implement a fuel price risk management policy and a related strategy to reduce or limit exposure to cost increases. This policy would establish guidelines for the execution and management of various financial tools to protect the budget from the impacts of increased high fuel price changes during the year. This is commonly referred to as "Fuel Hedging."

Why do a fuel hedge?

- Protects against unforeseen price increases
- Allows greater budget certainty
- Allows the reduction of a budgetary fuel reserve
- Hedge term can coincide with the budget year

Types of Hedging Instruments

There are three types of hedging instruments that are commonly considered by transit agencies: a.) Over-the-Counter financial contracts such as an index-based swap or related option, b.) Forward Supply Contracts, and c.) Exchange Traded futures contracts.

Over-the-Counter financial contracts include an index-based swap or related option to hedge fuel costs. The transit agency enters into a separate contract with a financial institution and does not change its current arrangement with its fuel supplier. Under a basic swap contract, the transit agency agrees to a fixed rate per gallon for a set number of gallons per month. If over time, the value of a chosen fuel-related index increases, the financial institution pays the transit agency the difference between the index and the contract fixed rate (which can be used to offset the higher fuel costs). If the index decreases, the transit agency pays the financial institution.

Forward Contracts involve entering into a fixed-price, forward purchase contract with a fuel supplier. While this mechanism seems straightforward, most suppliers are not able to provide cost-effective rates due to the general inability to hedge their supply costs and to incorporate the cost of storing adequate supplies for the term of the hedge. Moreover, transit agencies are directly exposed to the financial condition of the fuel supplier and its ability to deliver fuel at the contracted cost during the term of the hedge.

Exchange-Traded futures and options require the daily management of the margin position of the contract and the posting of funds in the event that the contract value (margin position) becomes negative. Many transit agencies do not have the risk management infrastructure required to actively manage such contracts, including the resources necessary when commodities exchanges may be open while offices are closed.

Fuel Hedge Examples

A. Swap Contracts involve an agreement between the transit agency and a stable financial institution. Under a basic diesel fuel swap contract example, the transit agency would agree to a fixed rate of, for example, $3.10 per gallon for a set number of gallons per month. The cost would be based on a nationally recognized, fuel-related index closely correlated to the transit agency's actual fuel cost. The transit agency then budgets an amount slightly greater than $3.10 per gallon (e.g., $3.20/gallon) for the amount of fuel covered by the

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swap contract, with the difference between the budgeted amount and the fixed priced set to address any potential "basis risk" between the swap index and the actual price paid. If the index value (price) increases during the budget year, the financial institution will pay the transit agency for the amount over $3.10 per gallon. If the index value (price) drops below $3.10 per gallon, the transit agency pays the amount below $3.10 per gallon. In this example, the transit agency is effectively locked into the price of $3.10 per gallon, plus or minus the cost of the "basis risk" for the budget year.

B. An Option Contract is similar to the Swap Contract outlined above, but rather than being a two-way contract under which the transit agency has protection from rising fuel prices in exchange for limiting its ability to benefit from index (price) decreases, an Option Contract puts a "cap" on the fuel index (price). The transit agency pays a "premium" up-front to purchase the price protection and is compensated whenever the fuel index (price) exceeds the contractual cap, but would be able to benefit from any decline in fuel price. Using an example similar to the Swap Contract example above, the transit agency could pay a premium to purchase a price cap at $3.25 per gallon for fuel. If the fuel index/price of the capped fuel increases during the budget year, the transit agency will be reimbursed for the amount that the index exceeds $3.25 per gallon. If the fuel index/price drops the transit agency continues to receive the benefit of the reduction in price.

Working with Qualified Financial Counterparties

Negotiating fuel hedge contracts only with financially sound contractual counterparties is an essential element of a good risk management program. Transit agencies can benefit by working with professionals (hedge advisor) experienced in negotiating hedging contracts with qualified counterparties and then bidding the financial terms of the contract among this qualified group to get the best financial result. It may also be beneficial for transit agencies to work with hedging advisors that are SEC registered and regulated advisors compelled to act in a fiduciary capacity when advising and only in the transit agency's best interest.

Costs of Fuel Hedging Programs

The cost of using these hedging tools is similar and composed of two parts, the fixed fees and the market based costs. The fixed fees will be composed of fees for an advisor, legal fees related to the contracts and administrative costs of the program over time. These direct costs should total less than $40,000 in a given year. The market based costs are a slightly more esoteric concept.

In a typical market environment, the future or "forward" price of any fuel will generally be higher than the current or "spot price" of that same fuel. If a consumer of fuel wanted to purchase fuel for the year, that consumer could purchase a full year's worth of fuel today. That fuel would need to be stored, at a cost, and the funds needed to purchase that fuel up-front would need to be financed. Due to these storage and financing costs, the price of fuel purchased today for future use is typically higher than fuel purchased for consumption today. This market cost is approximately 15-18 cents/gallon and is indirectly borne by the entity with which the transit agency would hedge its fuel cost. The market cost is passed through to the transit agency and becomes part of the cost of getting increased budget stability associated with fuel purchases.

The decision of which type of hedging instrument to use will depend on the price and market at the time the transit agency is looking to enter a transaction.

Pooled or Joint Hedges

Many California transit agencies consume a relatively small amount of fuel in comparison to the largest urban operators, and the purchase of a hedge may not be the most cost effective. These agencies can reduce the relative cost of a hedge by pooling the hedge with other agencies. A pooled hedge among multiple agencies reduces the relative fixed costs paid for the hedge and also provides sufficient volume for the hedge counterparty to participate and potentially offer better pricing. A hedging advisor can bring multiple transit agencies together to enter into a pooled hedge, using standardized documents.