

WSDOT Ferries Division Fuel Cost Mitigation Report

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2010 Fuel Cost Mitigation Plan Update

- The 2010 Fuel Cost Mitigation Plan will work as one cohesive strategy to help mitigate ferry fuel price risk.
- The key elements of the Plan are:
 - **Budget Management Strategies.** Improve fuel budgeting and forecasting practices and price hedging.
 - **Conservation Strategies.** Continue to implement fuel efficiency measures and explore new ways to conserve fuel.
 - **Revenue Strategies.** Implement a fuel surcharge mechanism to recover a portion of the fuel costs that exceed the budget.
- Additional analysis and policy implications associated with hedging, fuel surcharge, and fuel budgeting were needed.
- An updated report, due to the Senate and House Transportation Committees and WSTC prior to the 2011 Legislative Session, will serve as an detailed update on the progress for each of the three key elements.

Budget Management Strategies:

Improving Budgeting and Forecasting Practices

- In 2010, a fuel budgeting practices group was formed to review WSDOT's method for fuel forecasting and budgeting.
- The group has recommended a consensus forecast be used to develop WSDOT's 2011 Supplemental and the 2011-13 Biennium budgets.
- The consensus forecast is an average of 5 different forecasts. Nos. 1 and 2 were used in the previous forecasts.

1.) Energy Information
Administration (EIA)

2.) Global Insights

3.) NYMEX Futures

4.) Consensus Economics

5.) Economy.com

- The new method was used to develop the November forecast.

Budget Management Strategies:

Fuel Hedging

WSDOT-Controlled Hedging

- NYMEX Heating Oil Futures Contracts
 - WSF's agent acts as buyer and seller of heating oil contracts
- NYMEX Options on Heating Oil Futures Contracts

WSF's agent acts as buyer of options and could construct a ceiling price or collar strategy

Bank-Provided Hedging

- Banks offer “costless collars”, ceilings, and fixed price hedges.
- Market is not transparent; not possible to see how much the bank and other market agents are making on a deal.
- Another means of hedging without direct management by WSF.

Distributor Hedging

- Fixed Price contracts
 - WSDOT would contract with a fuel distributor for a fixed price on a specified quantity of fuel.
 - The contracted time period is flexible, and may be for 1 to 18 months in the future.
 - Market is not transparent; not possible to see how much the distributor is making on the deal.

Hedging Strategies and Assessment

- Hedging options were evaluated on program costs, fit with budget process, transparency, risk, and implementation challenges.
- Conclusion: Distributor hedging strategy is the best option because of ease of implementation, no start-up costs, low ongoing costs, low risk, and good fit with current budget policies and schedule. WSDOT's current fuel distributor can offer fixed price contracts up to a maximum of 24 months.
- Below is a summary of how the strategies were ranked:

	Program Costs	Budget & Policy Fit	Transparency	Program Risk	Implementation Challenges	Overall Rating
NYMEX Heating Oil Futures	○	○	◐	◐	○	◐
NYMEX Options on Heating Oil Futures	○	○	◐	◐	○	◐
Bank-Provided Hedging	◐	◐	○	○	◐	○
Distributor-Controlled Hedging	●	●	◐	●	◐	◐

● - More Advantageous
○ - Less Advantageous

Policy Choices with Hedging

- Should there be any hedging?
- What should the maximum hedge ratio be (i.e. % of gallons to hedge): 95%, 50%, etc? Hedge calculation needs to account for potential reductions in consumption.
 - Higher percentage provides more certainty, at the cost of less ability to take advantage of falling prices.
 - Higher percentage reduces the probability and size of a fuel surcharge.
- Hedging is for the purpose of stabilizing the fuel budget, not to save money.

Fixed Price Hedging Risks and Tradeoffs

- WSDOT has no control over market price volatility, but does have control over its exposure to market price volatility.
- A fixed price hedging strategy can reduce this exposure, but is heavily reliant on timing and the acceptance of certain risks and tradeoffs.



- Maximum price risk exists when WSDOT is 100% unhedged and subject to all market price volatility.
- Once hedging positions are taken and market prices move above or below the actual price paid for fuel with hedging, the out-of-pocket costs of fuel could be above or below market costs.
- The tradeoff for minimizing price risk is the increased risk of “overpayment” for fuel at some point.
- It is not possible to construct a hedging program that would eliminate both types of risk.

Proposed Decision Process

- A proposed Fuel Steering Committee would be established to set parameters for management of the hedging program. This committee could include the WSDOT Ferries Division Assistant Secretary and designated appointees from OFM, WSDOT Finance, the Department of General Administration, and representatives from the Legislature.
- WSDOT would manage the program within parameters set by the committee and Legislature.
- Between budget setting periods, the committee would periodically review results and hedging strategy, and provide direction for the program.
- WSDOT would lock in prices for a percentage of fuel within the current fuel contract.
- An annual report to the legislature would be provided under RCW 47.60.830, and reports would be provided at key budget setting times.

Example Decision Process and Schedule: Budget Setting Periods

- **For the Governor-** Each December, the Governor would propose a budget that includes a fiscal year service plan and fuel budget including some portion of future fuel purchases which are already contracted.
 - To ensure both that the Legislature has appropriate discretion over the budgeting process and that WSDOT does not contract for more fuel than it needs, the contracted portion in the proposed budget would not exceed a certain percentage of the next fiscal year's fuel.
- **For the Legislature-** During each legislative session (March or April), the Legislature would adopt a ferries service plan and provide WSDOT with the budget authority to purchase fuel. The adopted budget would be based on assumed gallons to support a service plan and could be based on updated fixed price contract opportunities:
 - Could be based on the maximum hedge ratio for the next fiscal year and the first three to four months of the second fiscal year.
 - Once the legislature has acted, WSDOT can build the balance of its hedged position based on the legislative budget appropriation and consistent with the hedging policies.

Conservation Strategies: Reducing Fuel Consumption

- A key to minimizing the overall impacts of fuel costs is to ensure that WSDOT is managing its ferry fuelconsumption effectively.
- Several strategies are being pursued.
 - Operating on fewer engines while maintaining speed
 - Slower boat speeds while still meeting schedule
 - Passive restraint systems at the dock
 - Faster loading and unloading, to enable slower boat speeds during transit
- Safety is paramount. All strategies for saving fuel must maintain safe operations.

Fuel Saving Strategies

Vessel Investment Strategies

Jumbo Mark II	Operate on two engines – implemented except during landings	540,000 gal/year for 3 ferries. Implemented.
Super Class	Upgrade engines and associated systems to enable running on 2 or 3 engines instead of 4	540,000 gal/year for 3 ferries. In Engineering and Design phase.
Jumbo MK II, Jumbo MKI, Super & Issaquah Classes	Install Fuel Monitoring Systems to determine best engine operating practice to slow vessel without negating schedule.	300,000 to 450,000 gal /year potential savings if implemented. Awaiting approval of grant request.

System Wide Operational Strategies

Develop alternate tie-up method(s) for Jumbo MK II, Jumbo MK I and Super Classes allowing a reduction in shaft speed while docked	Up to 400,000 gal/year if implemented on routes serviced by these vessels. Two unsuccessful grant requests for pilot project to date.
Slow vessels down 0.5 to 1.0 knots	Up to 2.5% savings for 0.5 knot reduction and 5% for 1.0 knot reduction. Assessing service impacts at route level.
Improve loading and unloading times at Seattle And Bainbridge Island Terminals	Not yet determined.
Jumbo MK I Operate the vessels on 3 instead of 4 engines at reduced speed	120,000 gal /year potential savings. Operational Procedures and impact on schedule must be determined.

Revenue Strategies:

Fuel Surcharge

- The proposed fuel surcharge would be an automatic formula-driven process that would determine if and how much a surcharge would be.
- Calculating the surcharge would follow a four step process:
 1. Each quarter, an average price paid for diesel fuel for the previous quarter is calculated. The price paid would include the effects of hedging.
 2. If the price is greater than the budgeted price , a potential fuel surcharge amount is calculated.
 3. The cumulative cost of fuel paid would be compared to the budget for fuel.
 4. If the surcharge amount is greater than 2.5% then a surcharge would be applied only if the cumulative fuel budget has been exceeded.

	Percent Increase over Budgeted Price (Current Quarter)		Fuel Share of Operating Costs (Budget)		Farebox Recovery Rate (Budget)		Surcharge Amount
EXAMPLE	10%		20%		70%		2.9%

- Once a surcharge amount is established, it would apply to all fare categories.

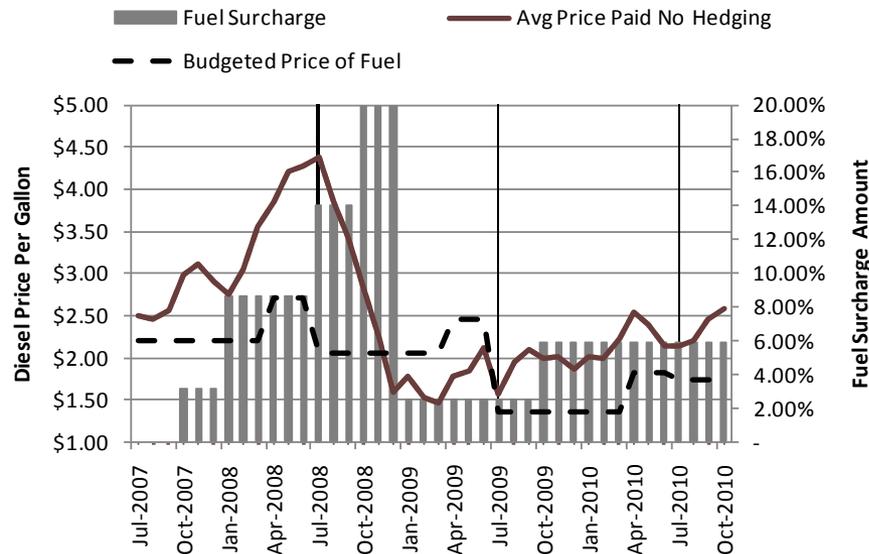
NOTE: The original proposal assumed a monthly review process and did not take current fuel budget status into account. Implementing a quarterly review process lessens the administrative and customer burdens of frequent fare changes. Recognizing past budget performance gives credit for periods in which WSDOT paid less for ferry fuel in that budget period.

Budget Deficit Carryover Question

- Even if a fuel surcharge mechanism is in place to recover cumulative deficits in the fuel budget, the entire amount may not be recovered before the end of the biennium.
- The key question is whether deficits should be carried over into the next biennium and the surcharge be kept in place.
 - Would be collecting money in the current biennium for costs incurred in the previous biennium.
 - Would increase portion of over-budget fuel costs that are recovered from customers vs. state taxpayers.
- If deficits are carried over, would surpluses carry over?
- Carrying over biennium fuel budget deficit would mean a budget could be passed with surcharge revenues in it.

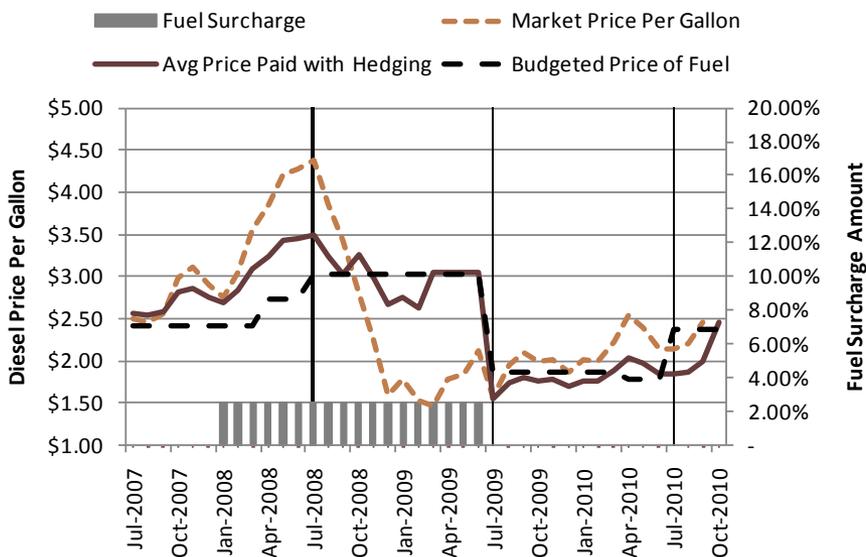
Looking Back: A Fuel Surcharge, If No Hedging

- Based on a quarterly fuel surcharge review process and two-part surcharge trigger:
- \$14.3M of fuel surcharge revenues would have been generated in FY 2007-09.
- \$7.0M of fuel surcharge revenues would have been generated in FY 2009-11 YTD.
- The surcharge would have remained in place so long as there was a negative balance in the fuel budget.



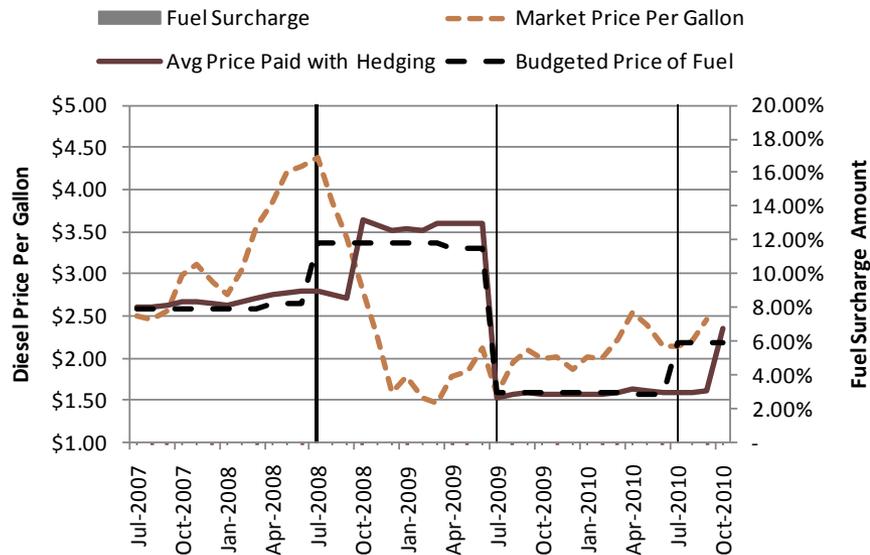
Looking Back: A fuel Surcharge With A 50% Hedge Ratio

- Fuel surcharge of 2.5% would have been imposed from January-08 until June-09.
- Even with a fuel surcharge in place, FY 2007-09 would have ended with a cumulative budget deficit.
- A total of \$4.3M would have been generated in surcharge revenues in FY 2007-09.
- No surcharge would have been imposed so far in FY 2009-11.
- Fixed price contracts would have resulted in lower actual fuel expenditures for FY 2009-11 (Biennium to Date).



Looking Back: Surcharge With A 90% Hedge Ratio

- New budgeting practices, which incorporate fixed contract fuel purchases, would have resulted in higher budgeted fuel expenditures for both biennia.
- Fixed price contracts would have resulted in lower actual fuel expenditures for FY 2009-11 (Biennium to Date).
- Actual expenditures would have deviated slightly from budgeted levels, due to the large swings in the diesel fuel market for the 10% of fuel purchased at market prices.
- No surcharge imposed



Plan Implementation Status

- **Improving fuel budgeting and forecasting practices.** (Completed)
- **Hedging** – Fixed price contract strategy could be implemented quickly since it would be accomplished through current fuel distributor.
- **Conservation Strategies** – Ongoing implementation of measures cited in Plan.
- **Fuel Surcharge**
 - WAC would need to be revised through the regular rulemaking process. Targeted implementation would be October 2011.
 - Initiative 1053 may require legislative action and language allowing the surcharge to be applied automatically, pending AG opinion.
 - FAC-T will be consulted on the fuel surcharge during tariff process

Questions?

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