WSDOT Ferries Division
Fuel Cost Mitigation Report

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March 23, 2010

Washington State
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2010 Fuel Cost Mitigation Plan Update

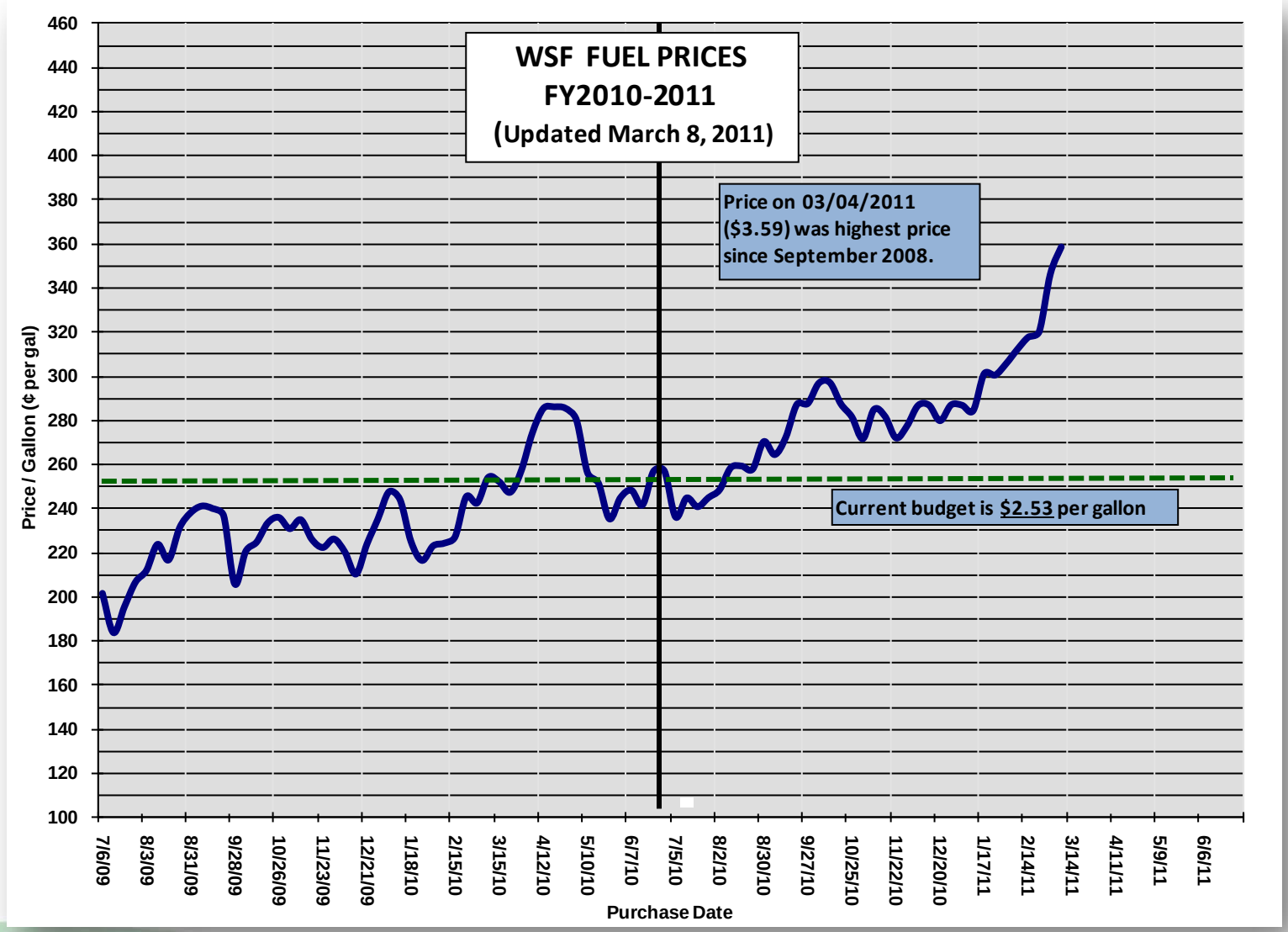
What's new:

- New method for determining budgeted diesel price
- Recommended hedging method
- Revised surcharge calculation

Three elements of the Plan:

- **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 to recover a portion of the fuel costs that exceed the budget.

Fuel Price Update



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Budget Management Strategies:

Improving Budgeting and Forecasting Practices

- A fuel budgeting practices 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 five different forecasts. The first two were used in the previous forecasts.
  - Energy Information Administration (EIA)
  - Global Insights
  - NYMEX Futures
  - Consensus Economics
  - Economy.com
- The hope is that using five forecasts will have a better chance of being closer to actual experience.

Budget Management Strategies:

Fuel Hedging

- Hedging is for the purpose of stabilizing the fuel budget, not to save money.
- Questions: should there be any hedging, and what should the maximum hedge ratio be (i.e. % of gallons to hedge): 95%, 50%, etc?
  - 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 Strategies 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.
- This chart shows a summary of how various hedging 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

Hedging with our Distributor

- 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 one to 18 months in the future.
- Market is not transparent; it is not possible to see how much the distributor is making on the deal.

Proposed Hedging Decision Process

- A Fuel Steering Committee would be established to set parameters for management of the hedging program.
  - WSDOT Ferries Division Assistant Secretary
  - Designated appointees from OFM, WSDOT Finance, the Department of General Administration
  - 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.

Conservation Strategies:

Reducing Fuel Consumption

- A key to minimizing the overall impacts of fuel costs is to ensure that WSDOT is managing its ferry fuel consumption 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

What's new:

- 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.

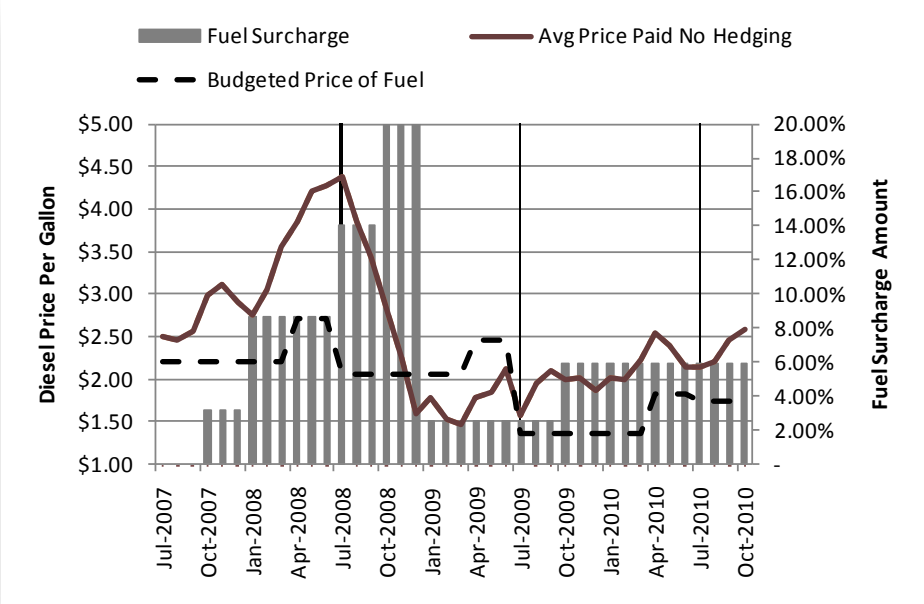
Revenue Strategies:

Fuel Surcharge

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

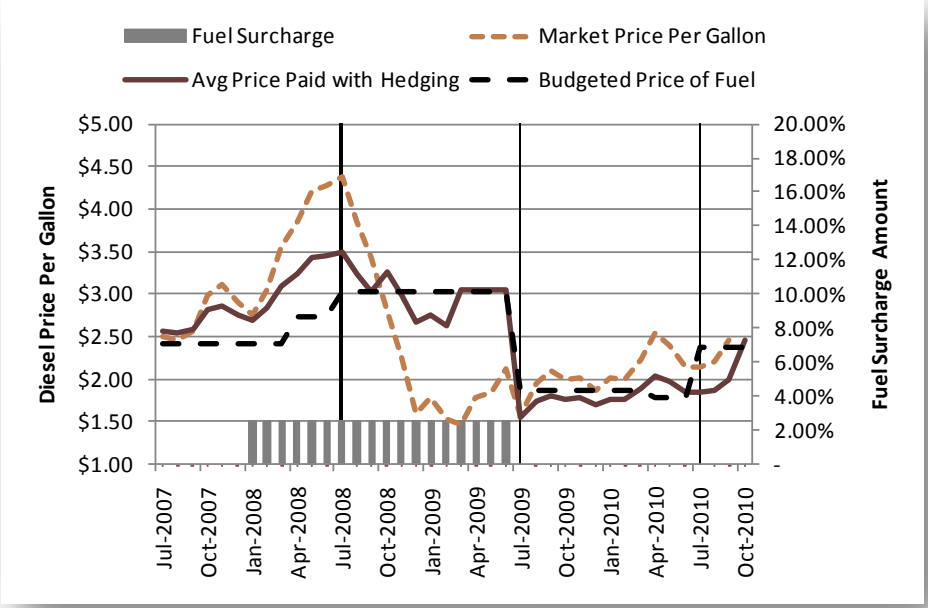
Looking Back:
A Fuel Surcharge, If No Hedging

- 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).



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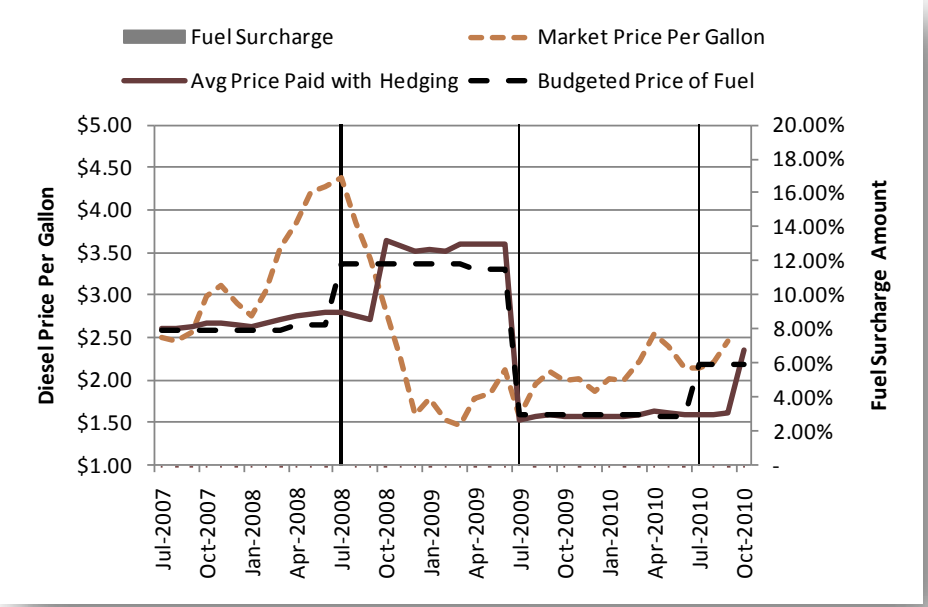
Looking Back: A Fuel Surcharge With A 90% Hedge Ratio

- 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.



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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**
  - Initiative 1053 requires legislative action to approve fares or delegate fare setting.
  - FAC-T will be consulted on the fuel surcharge during tariff process.
  - The WAC would need to be revised through the regular rulemaking process. Targeted implementation, if fare-setting is re-delegated to the Commission, would be October 2011.

Questions?

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