Fuel Surcharge using Rate Factors

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What is Fuel Surcharge

- Fuel Surcharge (FSC) is the cost carriers are allowed to add to the normal freight charges. This helps the carrier offset the constantly fluctuating cost of fuel.

- The US Energy Information Administration (US EIA) publishes the weekly fuel prices on Monday, calculated as an average of the fuel prices during the previous week.

- The most common Index used for FSC calculations is the DOE (Department of Energy) Index. Some of the other indices are HDF (Highway Diesel Fuel), WTI (West Texas Index).

- The Index and Frequency (Weekly or Monthly) used is determined by the carrier contract.
Types of Fuel Surcharge

Most Common Types of Fuel Surcharge Contracts

Unit Based
- Charged based on cost per mile driven ($/mi)
- e.g. For every $0.10 increase in Rate Factor, Fuel Surcharge increases by $0.045/mi
- Most common in the Trucking world

Percent Based
- Cost determined as a Percentage of Total Shipment Cost
- e.g. For every $0.10 increase in Rate Factor, Fuel Surcharge increases by 0.5%
- Most common in the Rail industry, however...

Note: FSC calculation is a ‘step’ function and not a linear formula
Unit Based

Unit based Fuel Surcharge

FSC = $0.135/mi

DOE = $3.21
DOE = $3.29

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Percentage Based

**Percentage based Fuel Surcharge**

![Graph showing the Percentage Based Fuel Surcharge with FSC (%), DOE Index, and DOE values of $3.21 and $3.29.]

- FSC = 1.5%
- DOE Index values range from 3.00 to 4.00
- DOE = $3.21
- DOE = $3.29
Most Common Fuel Setup

- All fuel costs are calculated in an Excel spreadsheet.
- Fuel Accessorial costs are loaded manually (via CSV) each week/month.
- New Accessorial Cost is associated to each Rate Offering every week/month.
- Very time consuming and prone to simple calculation errors.
- Very difficult to troubleshoot and correct errors.
Why Use Rate Factors?

- ‘Almost’ completely automated
- Weekly/Monthly excel calculations and loading large CSVs becomes a thing of the past, save time, effort (read frustration!!!) and money
- Minimize chances of errors
- Compels Users and Carriers to move to a few ‘Standard’ Fuel Surcharges
- Helps with system and UI performance by minimizing Accessorial Costs associated with Rate Offerings
- Easier to maintain historical FSC data within the application
OTM Configuration
Data Inputs needed before Configuration

- From the Carrier contracts, determine:
  - Type of Fuel Surcharge (Unit or Percentage)
  - Fuel Index used by each Carrier (DOE, HDF, WTI etc)
  - Index trailing usage
  - Periodicity per Carrier (Weekly, Monthly)
  - Increase/Decrease of FSC based on Index change (size of the ‘step’)
  - Any complexities or variations from the standard setup
Fuel Surcharge Configuration

Rate Factor Source * (DOE Index)

Accessorial Code

Accessorial Cost Template

Accessorial Cost Default

Rate Offering

Rate Factor Rule

* Can be used with multiple Fuel Surcharges
The ‘Brains’ of FSC Setup – Accessorial Cost Template

• The Accessorial Cost Template is the ‘formula’ used by OTM to setup the Accessorial Cost
• Unit Based: $1/Mile of Distance Traveled
• Percentage Based: 1 % of Shipment Cost
And The ‘Heart’ of FSC Setup – Rate Factor Rule

- Unit Based Rate Factor Rule
- For every $0.10 (Factor Increase) the Fuel Surcharge increases by $0.045 (Cost Increase)
Similarly...

- Percentage Based Rate Factor Rule
- For every $0.10 (Factor Increase) the Fuel Surcharge increases by 0.5% (Cost Increase)
FSC Maintenance

(“What should I do each week??”)
Add Weekly Index

- Contract and Rate Management > Power Data > General > Rate Factor
- Click “New Rate Factor”
- Enter Effective and Expiration Dates and the Factor Value and click Save

Notes:
- It is important to not overlap dates among multiple Rate Factors
- Do not check the “Processed” button
Process Rate Factor Source

- Search for Rate Factor Source
- Run the “Process Rate Factor” action
Rate Inquiry – Unit Based

- RIQ from Chicago to Ann Arbor

Cost: 272.50 USD
Distance: 250.00 MI
Chargeable Weight: 0.00 LB
Rate Inquiry – Percentage Based

- RIQ from Chicago to Ann Arbor
Watch Outs/Lessons Learned

• Hard to explain
• ...very easy to setup
• Do not leave the Expiration Dates blank
• Do not overlap dates
• Do not check the ‘Processed’ button when entering the Rate Factor Source
Advanced Use Cases

- Different FSC Indexes per Carrier
- Variations per Location
- Variations in the Accessorial Cost Template
  - Different Units
  - Different Cost Basis
  - Complex Conditional Basis
Questions?

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