Energy Price Risk Management Program Update

Presented to: Organizational, Services & Performance Monitoring Committee
February 4, 2020
History of Price Risk Management Program

Program started in 2009 after **sharp** Diesel Fuel price increases in 2008

<table>
<thead>
<tr>
<th></th>
<th>Jan 2008</th>
<th>July 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pump Price</strong></td>
<td>$2.64</td>
<td>$4.16</td>
</tr>
<tr>
<td><strong>Fuel Cost</strong></td>
<td>$12.1MM</td>
<td>$19.3MM</td>
</tr>
</tbody>
</table>

**Greater Cleveland Regional Transit Authority**
What is the Program?

• Establishing pricing in advance through purchase of futures contracts

• Strategically purchasing contracts at perceived low points in market

• Guidance on market provided by Fuel Consultant – Linwood Capital
Program Rules – Ohio Revised Code

• Intended to mitigate, for the **TERM** of the contract
• A budgetary and financial tool **ONLY** and not a contract for the procurement of the energy source
• Energy price risk management contract is **NOT** an investment
GCRTA Policy

• Maximum hedge ratio 90% of forecasted consumption
• No interim trading – only if forecasted usage decreases
• Maximum hedge maturity 36 months
Energy Price Risk Management Program

The Program
• It is not an investment
• Its objective is not to make or lose money
• Increases Budget Certainty
• Protects against sharp price increases
• Manages Risk
Example – Diesel Price Increases

Current Price – Price at pump $2.00

Buy Nov 2022 Contract @ $2.10
Sell Nov 2022 Contract in Oct 2022 @ $2.95

Nov 2022 – Price at pump $3.00
Nov 2022 – Gain on sale ($2.95-$2.10) (0.85)
Net Nov 2022 Cost ($3.00-$0.85) $2.15
### Example – Diesel Price Decreases

<table>
<thead>
<tr>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Price – Price at pump</td>
<td>$2.00</td>
</tr>
<tr>
<td>Buy Nov 2022 Contract @</td>
<td>$2.10</td>
</tr>
<tr>
<td>Sell Nov 2022 Contract in Oct 2022 @</td>
<td>$1.45</td>
</tr>
<tr>
<td>Nov 2022 – Price at pump</td>
<td>$1.50</td>
</tr>
<tr>
<td>Nov 2022 – Loss on sale</td>
<td>($1.45-$2.10)</td>
</tr>
<tr>
<td>Net Nov 2022 Cost</td>
<td>($1.50-$0.65)</td>
</tr>
</tbody>
</table>
Energy Price Risk Management Program

Program Risk Management

• Narrows gap of both price increases and decreases
  ▪ Authority can handle paying less
  ▪ Cannot quickly react to paying more

• Price Peaks – reduces net increase in cost
• Price Drops – reduces net decrease in cost
## Fuel Hedge Status – 01/31/2020

<table>
<thead>
<tr>
<th>Year</th>
<th>Status</th>
<th>Avg Monthly Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>98% of max hedge</td>
<td>$1.95</td>
</tr>
<tr>
<td>2021</td>
<td>88% of max hedge</td>
<td>$1.97</td>
</tr>
<tr>
<td>2022</td>
<td>83% of max hedge</td>
<td>$1.77</td>
</tr>
</tbody>
</table>
**YTD 2019 Diesel Fuel**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budgeted Cost</td>
<td>$4,550,000</td>
</tr>
<tr>
<td>Net Cost</td>
<td>3,716,000</td>
</tr>
<tr>
<td>(Over)/Under</td>
<td>$ 834,000</td>
</tr>
<tr>
<td>Total % under budget</td>
<td>18.3%</td>
</tr>
<tr>
<td>Gallons</td>
<td>3.3%</td>
</tr>
<tr>
<td>Price</td>
<td>15.0%</td>
</tr>
</tbody>
</table>
# Total Diesel & CNG Fueling (in millions)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel Gallons</td>
<td>4.4</td>
<td>3.4</td>
<td>3.0</td>
<td>2.5</td>
<td>2.1</td>
</tr>
<tr>
<td>CNG Diesel Gal Equiv</td>
<td>0.4</td>
<td>1.2</td>
<td>1.4</td>
<td>1.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Total Cost - Diesel+CNG</td>
<td>$12.5</td>
<td>$9.9</td>
<td>$7.8</td>
<td>$5.6</td>
<td>$5.0</td>
</tr>
<tr>
<td>Cost/Gal</td>
<td>$2.59</td>
<td>$2.16</td>
<td>$1.79</td>
<td>$1.43</td>
<td>$1.31</td>
</tr>
<tr>
<td>Cost/Gal Net of Tax Credit</td>
<td>$2.54</td>
<td>$2.01</td>
<td>$1.61</td>
<td>$1.22</td>
<td>$1.06</td>
</tr>
</tbody>
</table>
Questions?