Caution Regarding Forward Looking Statements

Look forward when driving but frequently check rear and side mirrors. Remember that objects may be closer than they appear in mirrors. Your mileage may differ. Do not attempt this at home, this presentation prepared by a professional driver on a closed road. Past performance is no guarantee of future results. It may rain tomorrow but it may not. The wind will probably blow
What is the Wyoming Pipeline Authority?

- Board of Directors appointed by Governor
- Mission (i) to promote the infrastructure necessary to produce oil and gas assets of the state and (ii) to promote access to high value markets
- If it can move in a pipeline, it’s within our charter
- Bond issuing capability to $3 Billion
- Not a regulatory, enforcement, rate making or policy setting body
# How do CO2 Systems and Natural Gas Systems Differ?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Current CO2 Pipeline Environment</th>
<th>Interstate Gas Pipeline Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Terms and Conditions</td>
<td>NO</td>
<td>Generally Yes</td>
</tr>
<tr>
<td>Obligation to Serve</td>
<td>NO</td>
<td>Generally Yes</td>
</tr>
<tr>
<td>Obligation to expand system</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Merchant of Commodity</td>
<td>Generally YES</td>
<td>NO</td>
</tr>
<tr>
<td>Length of Courtship</td>
<td>Long</td>
<td>Long if new pipe, speed dating if existing pipe</td>
</tr>
</tbody>
</table>
How do pipelines get built?

- Pipeline companies don’t build on speculation
- Long term commitments from credit worthy shippers for substantially all of capacity
- Sometimes market pull, sometimes supply push
- Multi-year lead time to design construct
- Up front engineering and environmental expense growing
Potential Terms in a CO2 Transportation Contract

• 10 – 30 year initial contract life
• Fixed Monthly Fee is based on units of contract capacity
• Fixed Monthly Fee is paid whether capacity used or not
• Usage Fees are quite low
• Credit worthiness of shipper is big issue
A (very) rough outline of a CO2 grid to serve Wyoming – roughly 400 miles of new line
Rate assumptions

- 400 Miles of 20” – 16” – 12”
- $90,000 per inch mile
- All compression borne by suppliers
- $570 Million Investment
- Debt/equity ratio 70/30
- Debt @ 7% Equity Return @12%
- Three years to place in service
- Bridge loan debt @ 10%
- 10 – 30 year contract horizons
- 350,000 Mcf per day of capacity
## Rate matrix – 350,000 Mcf/d system

<table>
<thead>
<tr>
<th>Contract Term (Yrs)</th>
<th>Levelized Rate per Mcf of capacity</th>
<th>Annual fixed fees on a 50,000 Mcf/d contract</th>
<th>Life of contract fixed fees on a 50,000 Mcf/d contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>$0.68</td>
<td>$12.3 MM</td>
<td>$123 MM</td>
</tr>
<tr>
<td>15</td>
<td>$0.53</td>
<td>$9.8 MM</td>
<td>$146 MM</td>
</tr>
<tr>
<td>20</td>
<td>$0.47</td>
<td>$8.0 MM</td>
<td>$171 MM</td>
</tr>
<tr>
<td>30</td>
<td>$0.41</td>
<td>$7.6 MM</td>
<td>$226 MM</td>
</tr>
</tbody>
</table>
Alternative paths to a grid

• Government Driven
  – State of Wyoming – Constitutional Issues
  – Feds – Tax Free Treatment on Bonds
• Industry Response
  – EOR Producer Coalitions
  – Utility Buyers of Generation
  – CO2 Producers
• Consolidation
  – Future Rationalization of Disconnected Systems
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