Natural Gas STAR Program
Implementation at Kinder Morgan Inc.

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Implementation Plan

- BMP 1: I&M at Compressor Stations and Processing Plants
  - Proposed Frequency – 1/3 annually
  - 170 Total Facilities (~56 per year)
  - 43 facilities have been inspected
BMP 2: I&M at Gate Stations and Surface Facilities

- Transmission & Storage Facilities
  - Meter Facilities $\geq$ 6 inch
  - Proposed Frequency - 20 % annually

- Distribution Facilities
  - All Town Border Stations - 122
  - Proposed Frequency - 33 % annually
  - 33 % sites inspected
Implementation Plan (cont.)

- BMP 3: Use of Turbines or Electric Compression Instead of Reciprocating Engines
  - Consider turbines if they meet compression selection requirements (fuel consumption, elevation derating, system design, operational flexibility, etc.)
  - Replaced 15,000 HP in 2004 with electric motors
Implementation Plan (cont.)

- BMP 4: Identify and Fix Leaky Piping
  - Repair all leaks within calendar year
    - Track all identified leaks
    - Attempt to repair leaks within 60 days
    - 38 of 39 identified leaks repaired
  - Repair approximately 50 miles of pipe annually (first four years in program)
KMI Implementation of PRO’s

- Reduce pressure or bleed down pipelines to minimize gas venting
- Implement non-blow down pipeline repair methods
- Hot taps used for In-service Pipeline Connections when appropriate
Implementation

- Implementation Team
  - Senior Management commitment
  - EHS, Operations & Retail joint implementation teams
    - Corporate Managers
    - Regional Technical Managers
    - Measurement Technicians
    - Operations Technicians
Initial pilot studies conducted in 2004 with thermal imaging camera

Currently using ultrasonic, flame ionization, thermal imaging and remote laser leak detection methods

Pilot studies being conducted in 2005 with FLIR GasFindIR camera

Intend to purchase a FLIR GasFindIR camera in 2006
## 2004 Accomplishments

<table>
<thead>
<tr>
<th>BMP/PRO</th>
<th>Annual Mcf Saved</th>
<th>Gas Value</th>
<th>Implement. Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution Pipe Replace</td>
<td>3,743</td>
<td>$18,715</td>
<td>$0.00</td>
</tr>
<tr>
<td>Comp. Station I&amp;M</td>
<td>70,992</td>
<td>$354,960</td>
<td>$0.00</td>
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<tr>
<td>Portable Compressors</td>
<td>405,670</td>
<td>$2,028,350</td>
<td>$517,861</td>
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<tr>
<td>Electric Motor</td>
<td>31,650</td>
<td>$158,250</td>
<td>Other Business Reasons</td>
</tr>
<tr>
<td>Totals</td>
<td>512,055</td>
<td>$2,560,275</td>
<td>$517,861</td>
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</tbody>
</table>
Concluding Comments

- 512,000 mcf saved in 2004
- 2005 Program implementation progressing (overall > 50% complete)
- Seeking Guidance regarding incorporating Distribution routine leak repairs into Program
- Evaluating measures to expand current program