Overview & Opportunities

THE MIDSTREAM INDUSTRY
The Midstream Industry – An Overview

- Separate natural gas into its useful components:
  - Methane
  - Ethane
  - Propane
  - Butane
  - Others

Natural gas primarily consists of:

- Methane: 70-90%
- Ethane: 0-20%
- Butane: 0-20%
- Propane
The Midstream Industry – An Overview

• The end result:
The Midstream Industry – An Overview

World Natural Gas Demand (through 2050)

Source: U.S. Energy Information Administration
The Midstream Industry – An Overview

Impact to the Rocky Mountain region

<table>
<thead>
<tr>
<th>Economic Output (Billion $$)</th>
<th>New Mexico, 6.45</th>
<th>Colorado, 10.97</th>
<th>Montana, 0.94</th>
<th>Utah, 1.88</th>
<th>Wyoming, 4.32</th>
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<tr>
<th>Tax Revenue (Billion $$)</th>
<th>New Mexico, 2.29</th>
<th>Colorado, 1.76</th>
<th>Montana, 0.21</th>
<th>Utah, 0.32</th>
<th>Wyoming, 1.70</th>
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<table>
<thead>
<tr>
<th>State</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>14,162</td>
<td>43,562</td>
<td>57,724</td>
</tr>
<tr>
<td>Wyoming</td>
<td>8,055</td>
<td>11,513</td>
<td>19,568</td>
</tr>
<tr>
<td>Utah</td>
<td>3,355</td>
<td>6,684</td>
<td>10,039</td>
</tr>
<tr>
<td>Montana</td>
<td>2,324</td>
<td>3,270</td>
<td>5,594</td>
</tr>
<tr>
<td>New Mexico</td>
<td>10,547</td>
<td>15,158</td>
<td>25,705</td>
</tr>
</tbody>
</table>

TOTAL 38,443 80,187 118,630
Career opportunities

• **Industry size:** In the U.S., there are:
  - Over 500 gas processing plants
  - Over 305,000 miles of interstate transmission pipelines
  - 110 LNG facilities
  - 400 underground storage facilities
  - 30 major gas market hubs

• **U.S. jobs are predominantly located in:**
  - Texas
  - Oklahoma
  - Louisiana
  - Wyoming
  - Colorado
  - Utah
  - North Dakota
  - Kansas
  - New Mexico
Where do YOU fit in?

- **Engineering opportunities**
  - **Chemical/Petroleum**: Process design, equipment sizing, process optimization, operations support
  - **Mechanical**: pipeline & equipment specification & design, mechanical integrity
  - **Electrical**: instrumentation design, specification and maintenance, facility electrification, motor design
  - **Civil**: pipeline & facility site preparation, foundation design
  - **Structural**: skid design, pipe rack design, platform design
In order to meet the scholarship criteria, the student must:

- Demonstrate an interest in the midstream industry
- Maintain a 2.8 GPA or greater (4.0 scale)
- Have reached the 3rd year in their undergraduate program
- Be a U.S. or Canadian citizen
- Be pursuing an engineering degree
- Complete an online application
- Submit a 1000 (maximum) word essay
How do you apply?

• Go to our website: www.gparmc.org

• Submit an online application and essay
  • Applications are due by October 7th
  • Award notifications will be made by October 23rd
  • Award presentations will be made at the GPA Midstream Rocky Mountain Chapter Regional Conference on November 7th
Let’s talk!

- For questions about scholarships or the industry, please contact us:

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*Photos and information from this presentation were sourced from the following:*

  - American Petroleum Institute – www.api.org
  - Western Energy Alliance – www.westernenergyalliance.org
  - Anadarko Petroleum Corporation – www.anadarko.com
  - ConocoPhillips – www.conocophillips.com