Economic and Employment Impacts of U.S. Methanol Industry

Methanol Institute
June 2017
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Key messages

1. Methanol has a wide variety of applications ranging from traditional uses as a solvent and a chemical feedstock to growing uses as a transportation fuel.

2. Shale gas supplies have led to several new methanol plant announcements likely enabling the U.S. to shift from a net importer to an exporter in the near future.

3. A typical 1.5 million tons per annum methanol plant in the U.S. drives capital spending of $1.1 billion and an economic ripple effect worth $1.5 billion.

4. By 2020, U.S. methanol plants will create ~2,700 direct jobs with an average yearly salary of $72,500, ~2,800 indirect jobs, and ~19,000 temporary construction jobs.

5. Texas and Louisiana will benefit the most from the methanol production boom as 20,000 jobs will be created and hundreds of millions of dollars will be poured into local economies through 2020.
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Methanol has many applications – from traditional uses as a chemical feedstock to growing uses as a transportation fuel.
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2. Shale gas supplies have led to several new methanol plant announcements likely enabling the U.S. to shift from a net importer to an exporter in the near future.
Abundant and cheap natural gas from shale plays has led to several announcements of new methanol plants in the U.S.
New capacity has been targeted mainly in the U.S. Gulf Coast although new plants have been announced in other states too.
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A typical U.S. methanol plant offers many economic benefits including direct and indirect jobs and tax revenue.

**Economic Impact of a Typical U.S. Methanol**

- **Typical capacity**: 1.5 million tons / year
- **Construction jobs**: 2,086
- **Direct and indirect jobs**: 592
- **Economic ripple effect**: $1.5 billion
- **State and local taxes**: $35 million
- **Capex**: $1.1 billion
- **Annual natural gas used**: 45 billion cubic feet / day
- **Average annual salary**: $72,579
Capital spending of ~$12 billion is expected on U.S. methanol plants creating a total market worth ~$5.5 billion by 2020.

Capital Spending on U.S. Methanol Plants
(USD Billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$3.4</td>
<td>$0.7</td>
<td>$2.9</td>
<td>$2.0</td>
<td>$2.5</td>
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<td>$11.5</td>
</tr>
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U.S. Methanol Market Size
(USD Billion)

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Based on expected capacity and methanol's 2015 average price.
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New methanol plants in the U.S. are anticipated to create over 5,000 permanent and 19,000 temporary jobs by 2020.

- **Construction jobs** are temporary.
- **Direct jobs** are permanent and often onsite at the plant.
- **Indirect jobs** are from supply of goods and services to the plant across the value chain and community.

### Construction Jobs

- **2015:** 3,300
- **2017:** 5,000
- **2019:** 5,100
- **Total:** 19,000

### Direct Jobs

- **2015:** 430
- **2017:** 700
- **2019:** 670
- **Total:** 2,600

### Indirect Jobs

- **2015:** 50
- **2017:** 200
- **2019:** 800
- **Total:** 1,300
Methanol plants directly impact local economies through tax revenue and create high paying jobs.

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**U.S. Tax Revenue (USD Million)**

- 2015: $200
- 2016: $240
- 2017: $280
- 2018: $320
- 2019: $350
- 2020: $420

**Employee Salary (Annual Average)**

- Low: $56,000
- High: $85,000

Average: $72,579
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Texas, Louisiana, and Washington will be the key beneficiaries as announced new methanol plants move forward in the U.S.

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<th>Washington</th>
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<td>Capacity (Million Tons/Year)</td>
<td>6.9</td>
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<td>1.8</td>
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<td>Total capex (USD Billion)</td>
<td>$5.2</td>
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<td>Total jobs</td>
<td>12,361</td>
<td>6,953</td>
<td>1,688</td>
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<tr>
<td>Annual payroll (USD Million)</td>
<td>$94</td>
<td>$52</td>
<td>$14</td>
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<td>Annual tax revenue (USD Million)</td>
<td>$175</td>
<td>$140</td>
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<td>$5.8</td>
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