

Economic and Employment Impacts of U.S. Methanol Industry

Methanol Institute
June 2017



ADI ANALYTICS LLC
+1 (281) 506-8234
info@adi-analytics.com
www.adi-analytics.com

DISCLAIMER AND TERMS OF USE

ADI ANALYTICS LLC HAS USED ITS BEST EFFORTS IN PREPARING THIS DOCUMENT BUT ADI ANALYTICS LLC, THE AUTHORS, THEIR AFFILIATES, AND REPRESENTATIVES DO NOT MAKE ANY WARRANTY, EXPRESSED OR IMPLIED, OR ASSUME ANY LEGAL LIABILITY OR RESPONSIBITLY FOR THE ACCURACY, COMPLETENESS, OR USEFULNESS OF ANY CONTENT OF THIS DOCUMENT.

ADI ANALYTICS LLC AND ITS AFFILIATES AND REPRESENTATIVES ARE NOT RESPONSIBLE FOR ANY DAMAGE, WHETHER PHYSICAL, ELECTRONIC, FINANCIAL, OR OTHERWISE, THAT MAY RESULT FROM THE USE OF THIS DOCUMENT AND ITS CONTENTS.

BY CHOOSING TO USE THE CONTENTS OF THIS DOCUMENT, YOU DO SO AT YOUR OWN RISK.

REFERENCE HEREIN TO ANY SPECIFIC COMMERCIAL PRODUCT, PROCESS, OR SERVICE BY TRADE NAME, TRADEMARK, MANUFACTURER, OR OTHERWISE DOES NOT CONSTITUTE OR IMPLY ITS ENDORSEMENT, RECOMMENDATION, OR FAVORING BY ADI ANALYTICS LLC, THE AUTHORS, OR THEIR AFFILIATES, AND REPRESENTATIVES.

THIS DOCUMENT AND ITS CONTENTS SHOULD NOT BE REPRODUCED, DISCLOSED, OR DISTRIBUTED – IN PART OR ITS ENTIRETY – WITHOUT THE EXPRESS PRIOR WRITTEN CONSENT OF ADI ANALYTICS LLC.

Key messages

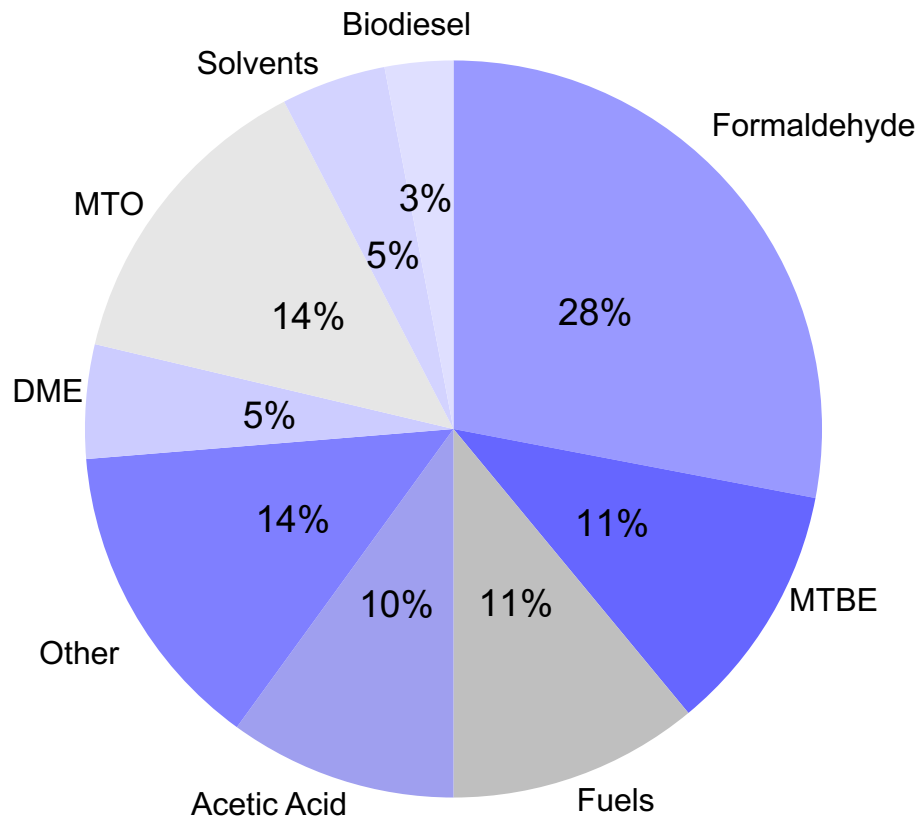
- 1 Methanol has a wide variety of applications ranging from traditional uses as a solvent and a chemical feedstock to growing uses as a transportation fuel.
- 2 Shale gas supplies have led to several new methanol plant announcements likely enabling the U.S. to shift from a net importer to an exporter 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

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.

Methanol has many applications – from traditional uses as a chemical feedstock to growing uses as a transportation fuel

Methanol Demand and Applications
(2016, Percentage)



Chemical feedstock	Raw material for acetic acid, formaldehyde, and olefins
Fuel	Fuel for automobiles, marine vessels, and power plants
Solvent	Commonly used for extraction of bioactive compounds
Wastewater treatment	Reduce environmentally-damaging effluent discharge
Other	Antifreeze and ethanol denaturing

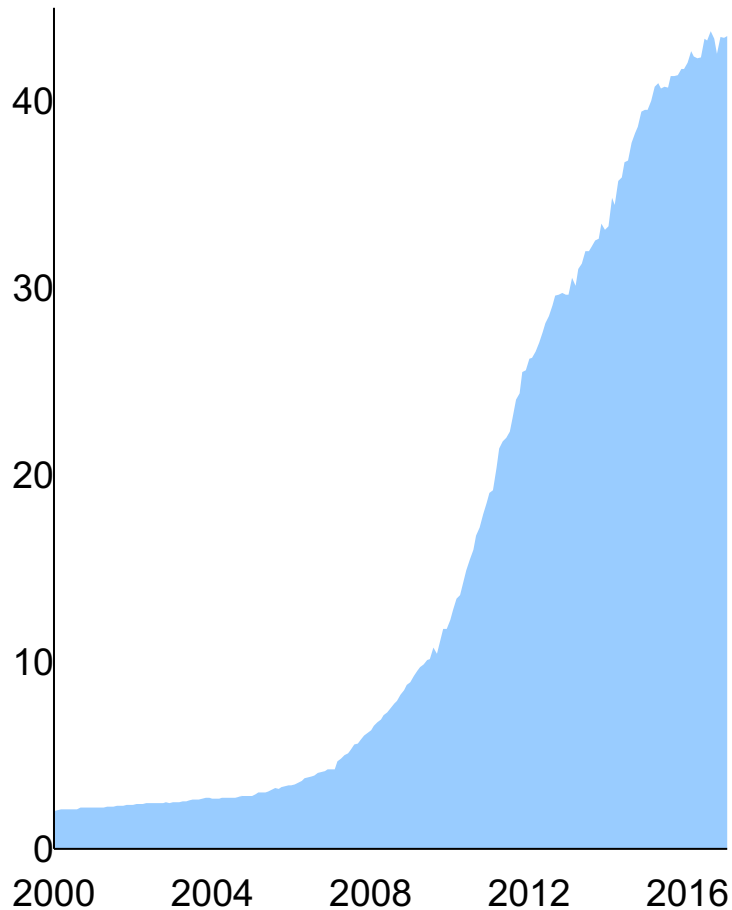
Key messages

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.

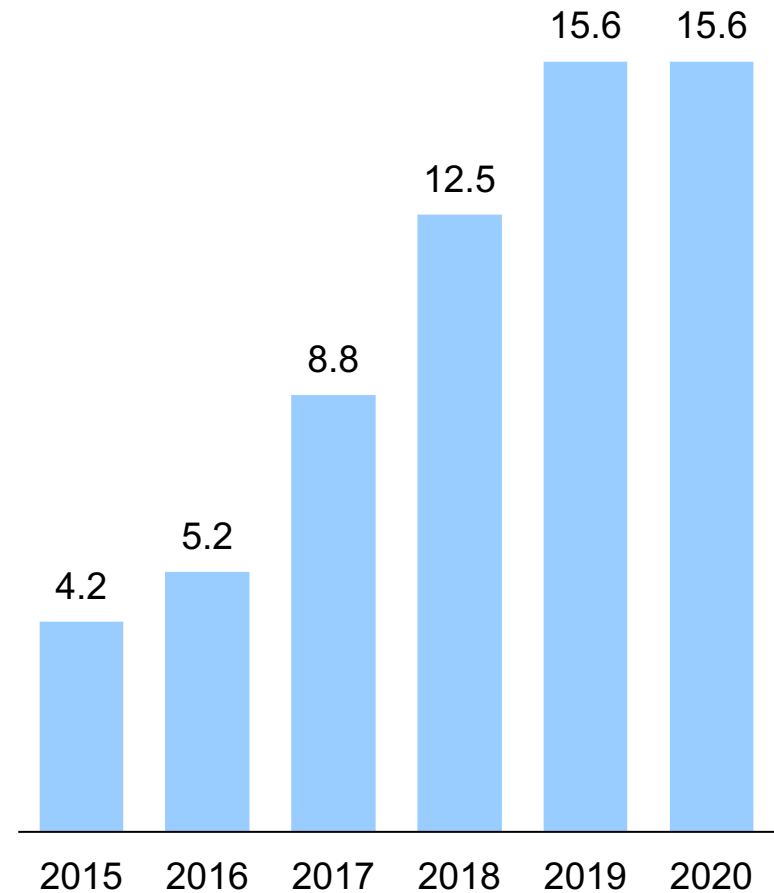
2 Shale gas supplies have led to several new methanol plant announcements likely enabling the U.S. to shift from a net importer to an exporter in the near future.

Abundant and cheap natural gas from shale plays has led to several announcements of new methanol plants in the U.S.

U.S. Shale Gas Production
(Dry Gas, Billion Cubic Feet Per Day)

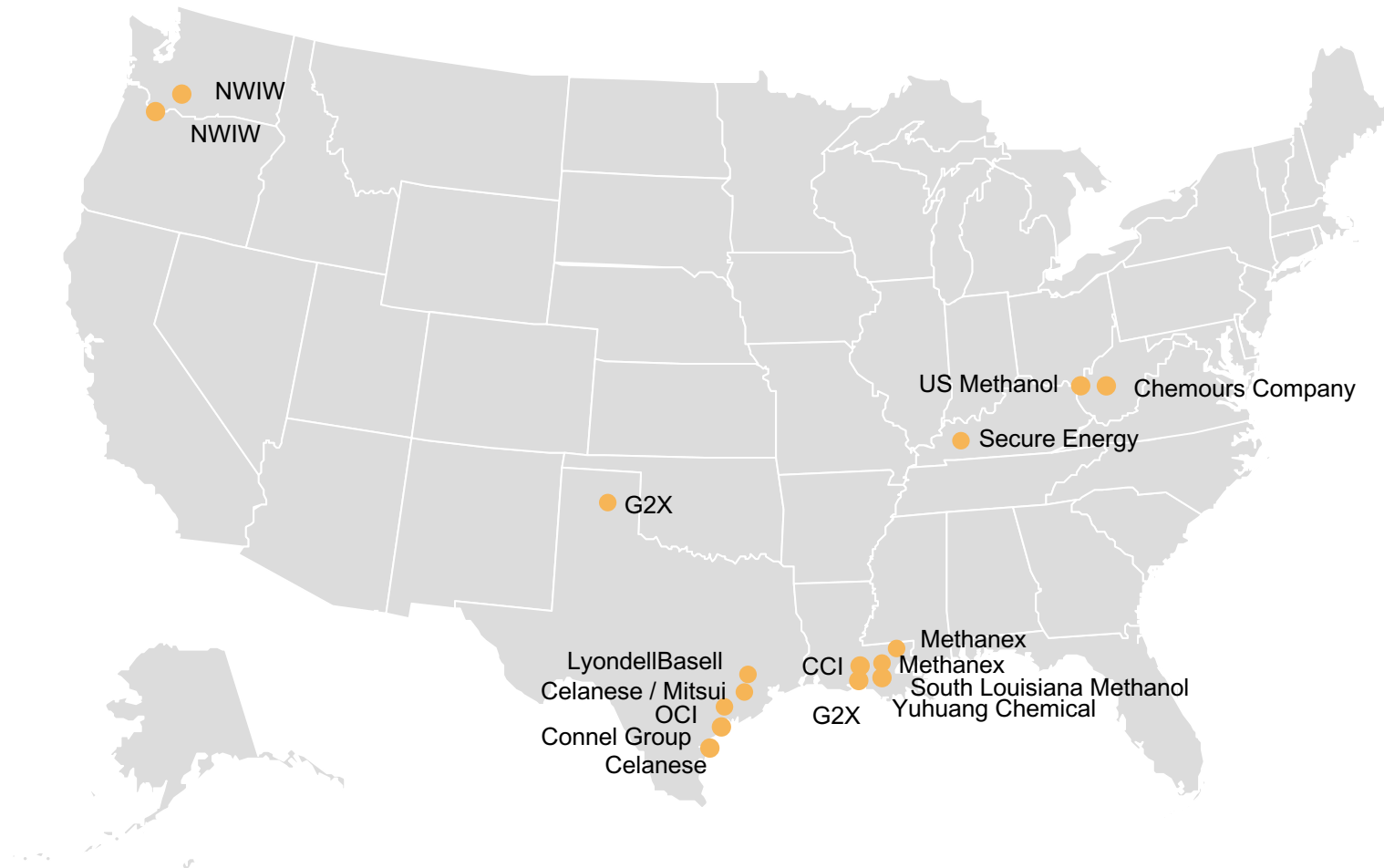


U.S. Methanol Capacity
(Million Tons)



New capacity has been targeted mainly in the U.S. Gulf Coast although new plants have been announced in other states too

U.S. Methanol Plant Additions and Announcements
(Since 2010)

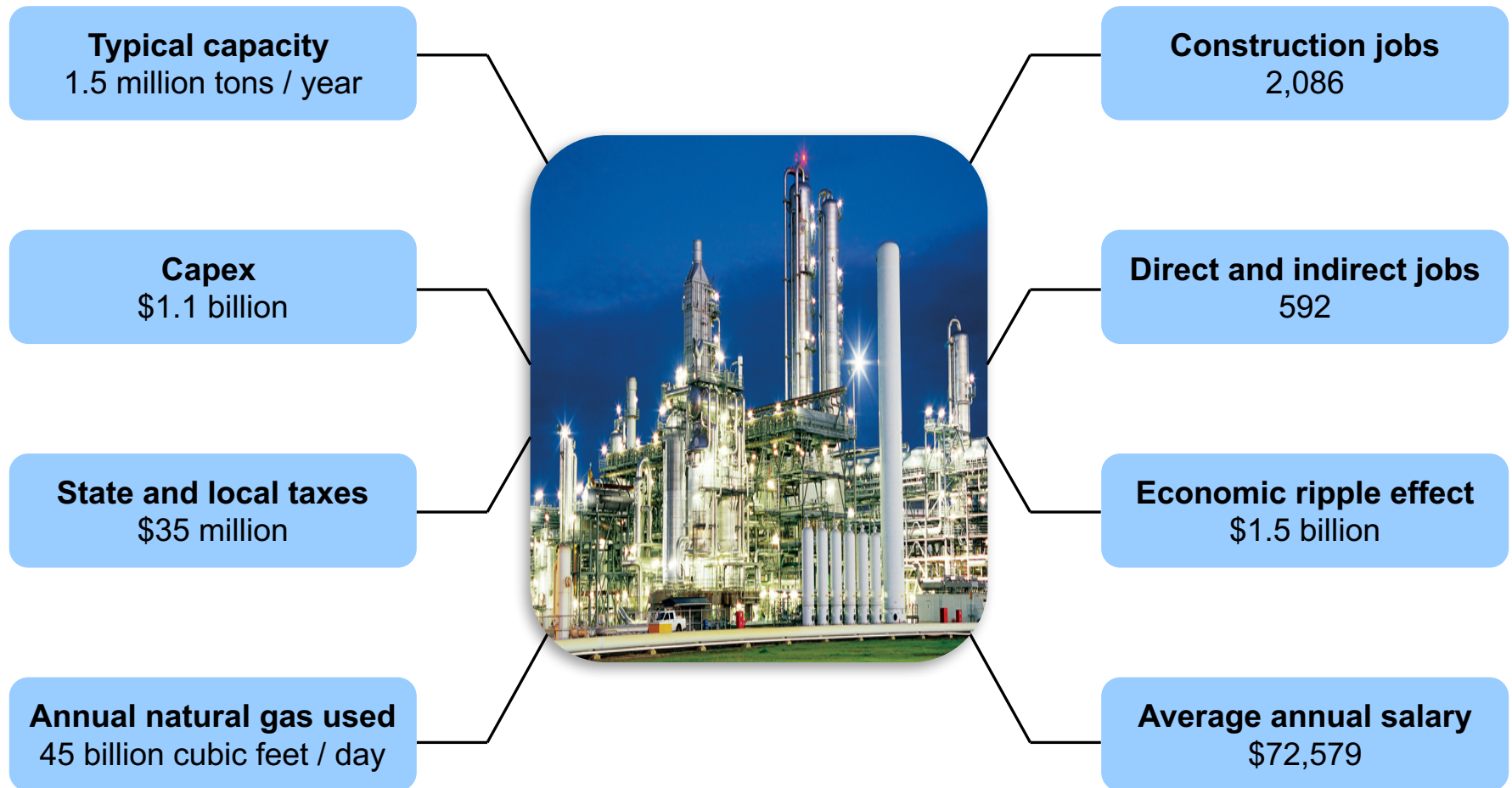


Key messages

- 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.

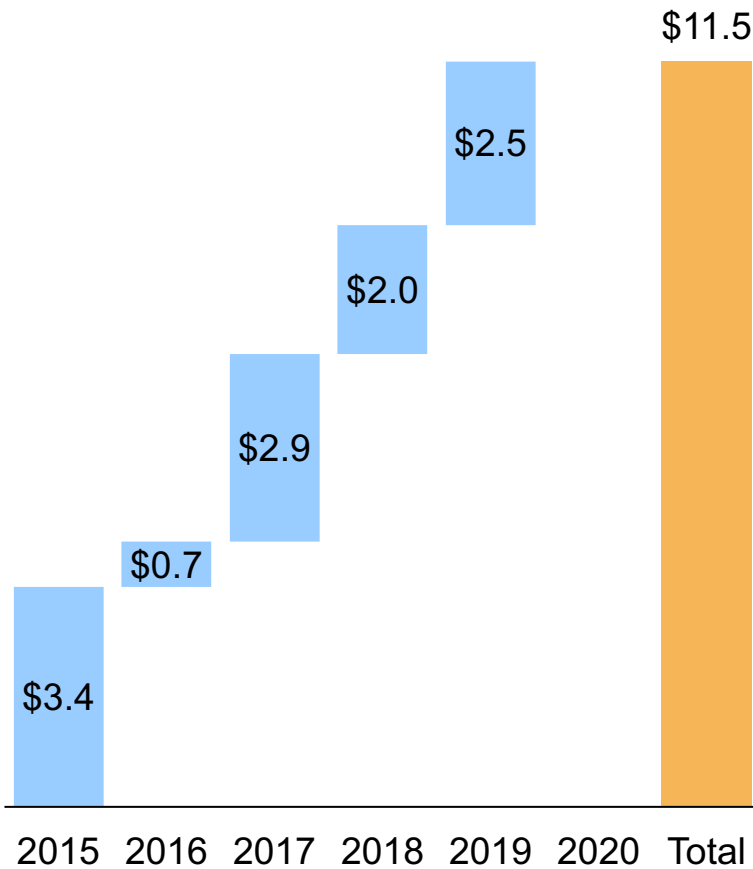
A typical U.S. methanol plant offers many economic benefits including direct and indirect jobs and tax revenue

Economic Impact of a Typical U.S. Methanol

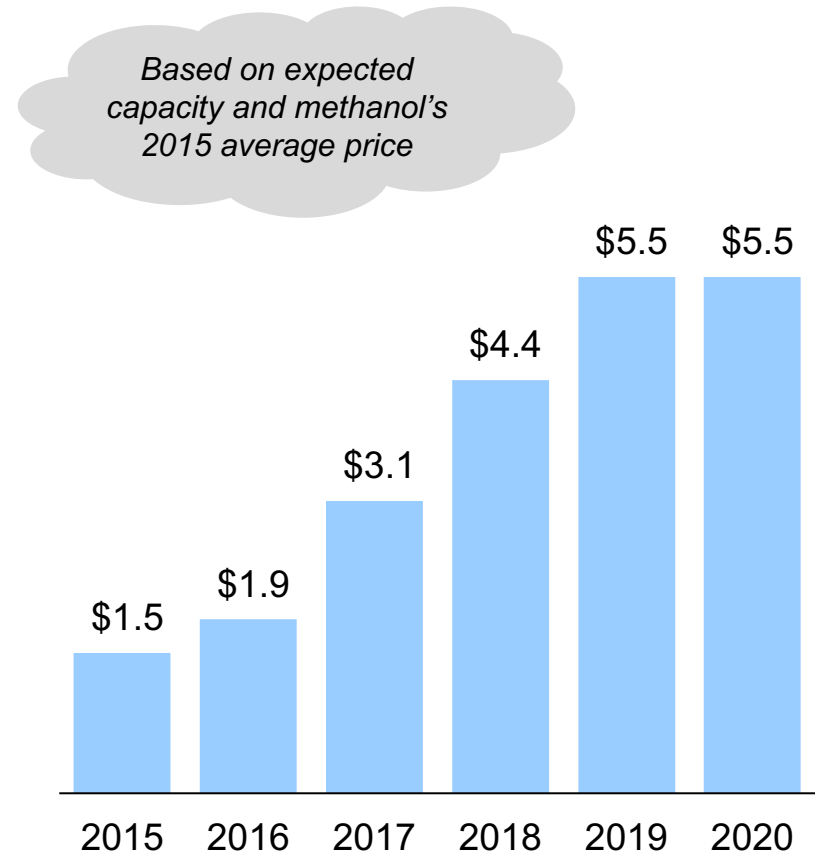


Capital spending of ~\$12 billion is expected on U.S. methanol plants creating a total market worth ~\$5.5 billion by 2020

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



U.S. Methanol Market Size
(USD Billion)

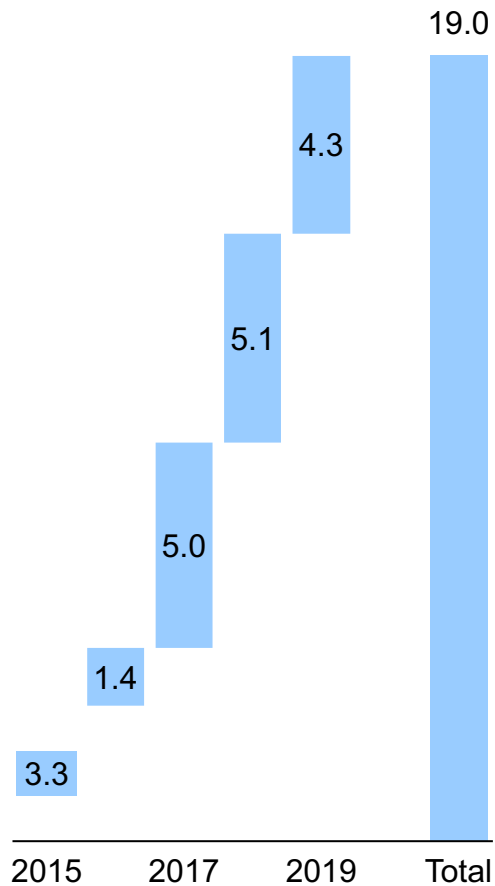


Key messages

- 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.

New methanol plants in the U.S. are anticipated to create over 5,000 permanent and 19,000 temporary jobs by 2020

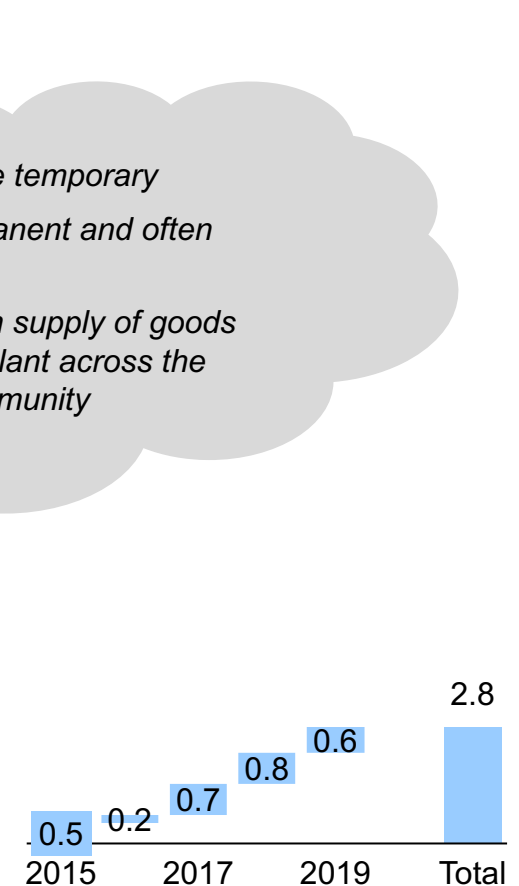
Construction Jobs
(Thousand Jobs)



Direct Jobs
(Thousand Jobs)



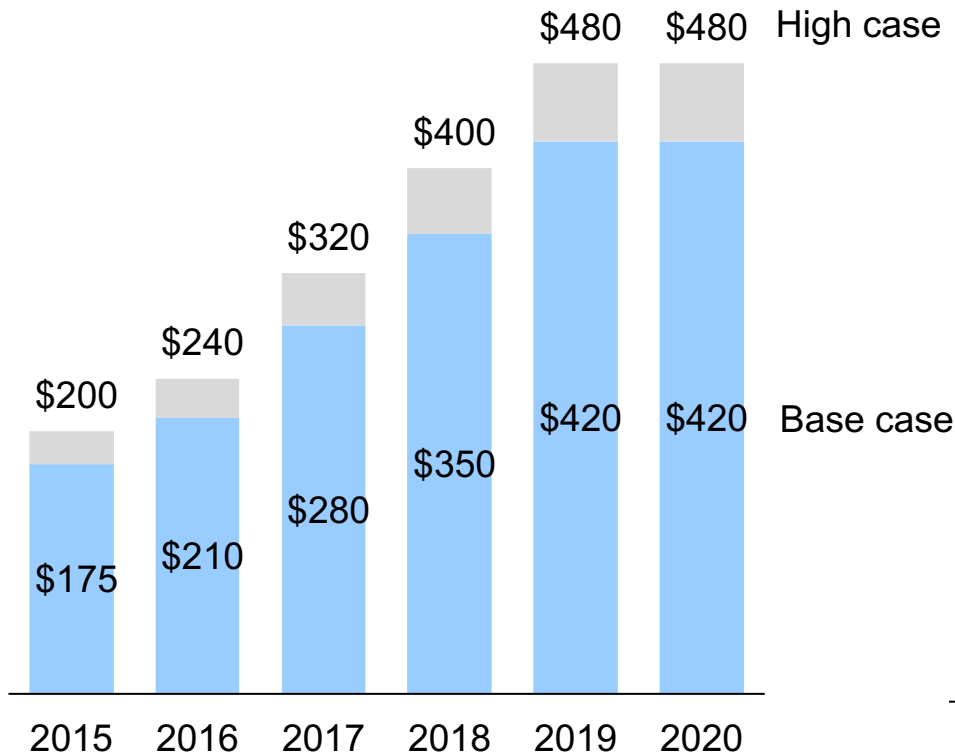
Indirect Jobs
(Thousand Jobs)



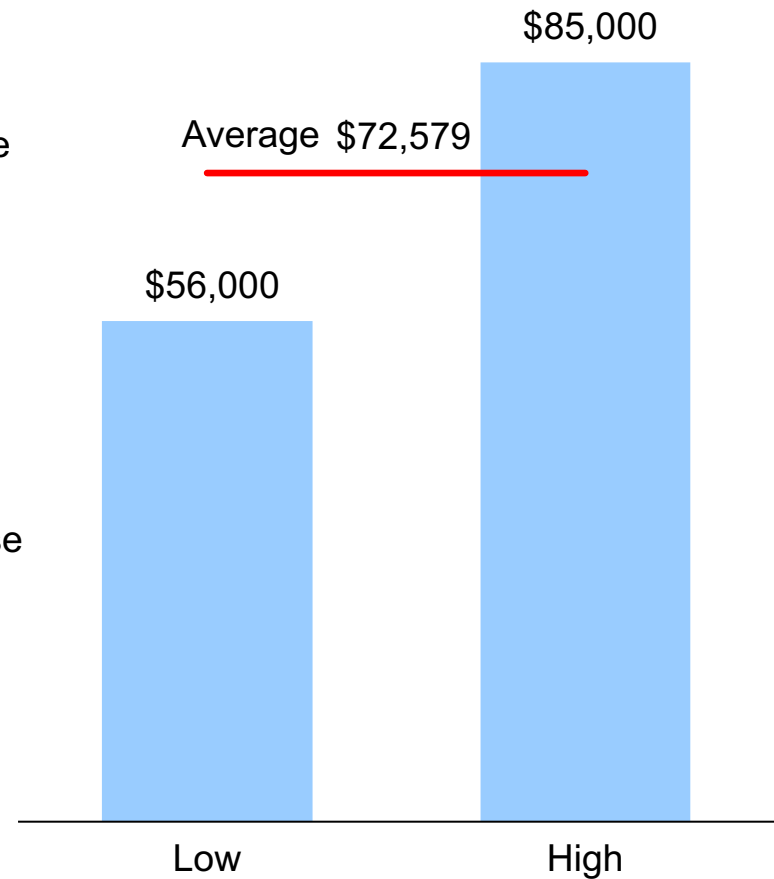
- *Construction jobs are temporary*
- *Direct jobs are permanent and often onsite at the plant*
- *Indirect jobs are from supply of goods and services to the plant across the value chain and community*

Methanol plants directly impact local economies through tax revenue and create high paying jobs

U.S. Tax Revenue
(USD Million)






Employee Salary
(Annual Average)



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

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

	Louisiana 	Texas 	Washington 
Capacity (Million Tons/Year)	6.9	3.9	1.8
Total capex (USD Billion)	\$5.2	\$3.0	\$1.0
Total jobs	12,361	6,953	1,688
Annual payroll (USD Million)	\$94	\$52	\$14
Annual tax revenue (USD Million)	\$175	\$140	\$35
Economic impact (USD Billion)	\$5.8	\$3.3	\$1.5

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



ADI Analytics

ENERGY INSIGHT AND CONSULTING

440 Cobia Drive
Suite 1704
Houston, Texas 77494

+1.832.768.8806
info@adi-analytics.com
www.adi-analytics.com