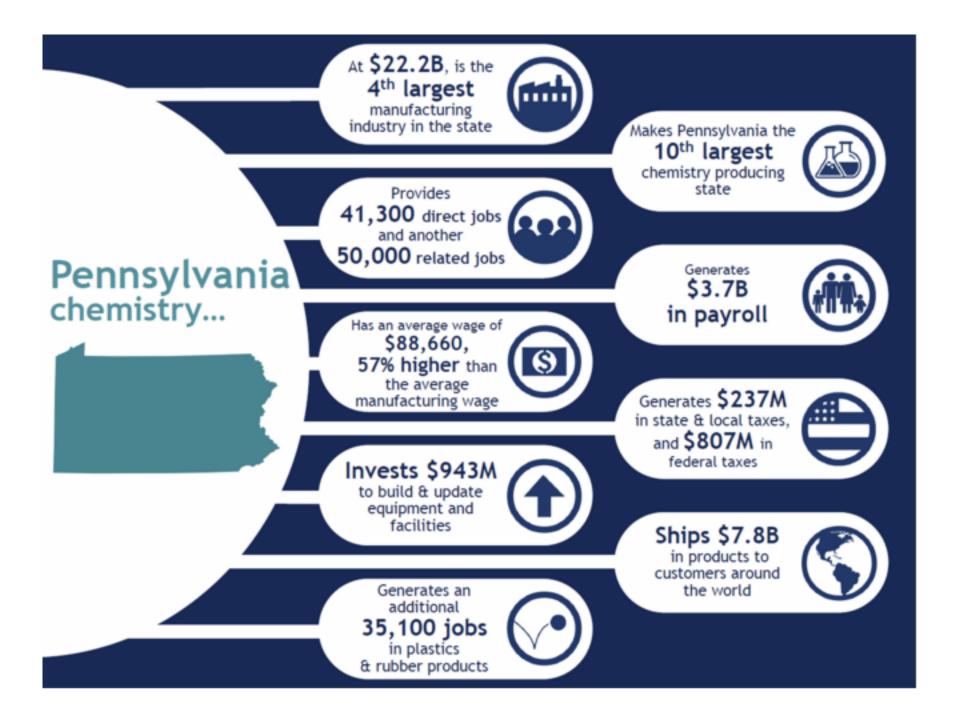


#### Pennsylvania Chemical Industry Council Your Advocate for the Business of Chemistry



### Manufacturing Jobs Pennsylvania

20,000 40,000 60,000 80,000 100,000 0 Fabricated metal product Food Machinery Chemical Primary metal Transportation equipment Plastics and rubber products Computer and electronic product Electrical equipment and appliances Miscellaneous mfg. Printing and related support activities Paper Wood product Nonmetallic mineral product Eurniture and related product Beverage and tobacco product Petroleum and coal products Apparel Textile product mills Textile mills Leather and allied product



#### Pennsylvania Member Companies

#### Petrochemical

Braskem Monroe Philadelphia Energy Solutions Shell Sunoco

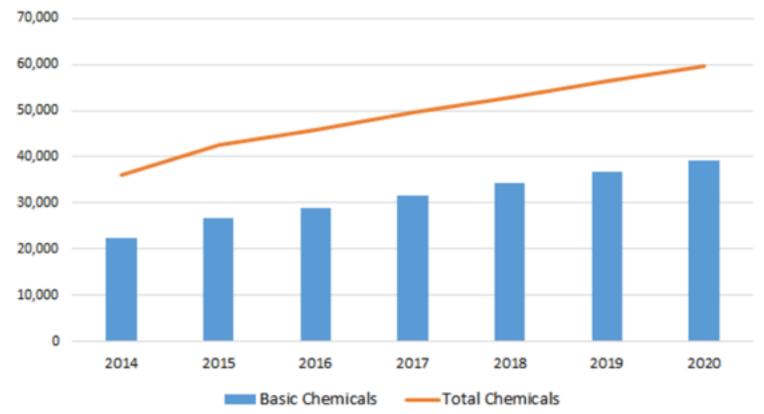
#### Chemical

Ashland BASF Covestro Dow DuPont Eastman Nova Pressure Quaker



# US Chemical Capex to Rise Over 7% per year in 2016-2018

Capital spending (million \$)





### **Planned New Ethane Crackers**

| Company            | Capacity (Tons) | Location                  | Announced Start Up |
|--------------------|-----------------|---------------------------|--------------------|
| Sasol              | 1500000         | Louisiana                 | 2018-2019          |
| ExxonMobil         | 1500000         | Texas                     | 2017               |
| Chevron Phillips   | 1500000         | Texas                     | 2017               |
| Dow Chemical       | 1500000         | Texas                     | 2017               |
| Formosa            | 1200000         | Texas                     | 2017               |
| Oxychem/Mexichem   | 544000          | Texas                     | 2017               |
| Axiall/Lotte       | 1000000         | Louisiana                 | 2018               |
| Formosa            | 1590000         | Louisiana                 | N/A                |
| Total              | 1000000         | Texas                     | 2019               |
| Braskem            | 1100000         | West Virginia             | N/A                |
| Shin-Etsu          | 500000          | Louisiana                 | N/A                |
| Williams           | 1500000         | Louisiana                 | N/A                |
| PTT/Marubeni       | 1000000         | Ohio                      | 2024               |
| Odebrecht/Braskem  | 1000000         |                           | On Hold            |
| Appalachian Resins | 275000          | Monroe County, Ohio       | On Hold            |
| Badlands/Vinmar    | 1500000         | North Dakota              | N/A                |
| Aither Chemicals   | 272000          | Charleston, West Virginia | N/A                |
| Shell              | 1500000         | Pennsylvania              | N/A                |



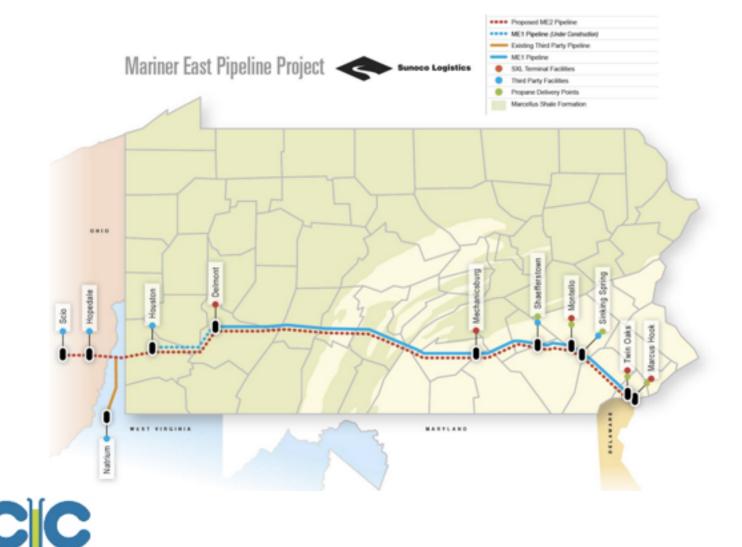
Source: Petrochemical Update

#### Shell Ethane Cracker





### Sunoco Logistics Mariner East 1&2



. .

3

### Philadelphia Energy Solutions



## **PHILADELPHIA** ENERGY SOLUTIONS



## **Regional Utilization**

- Leverage Basic Building Blocks
- Capital Investment Incentives
- Trained Workforce
- Infrastructure
- Long Term Value Added Jobs



#### Questions?

