

HOW CHEMISTRY USES ENERGY



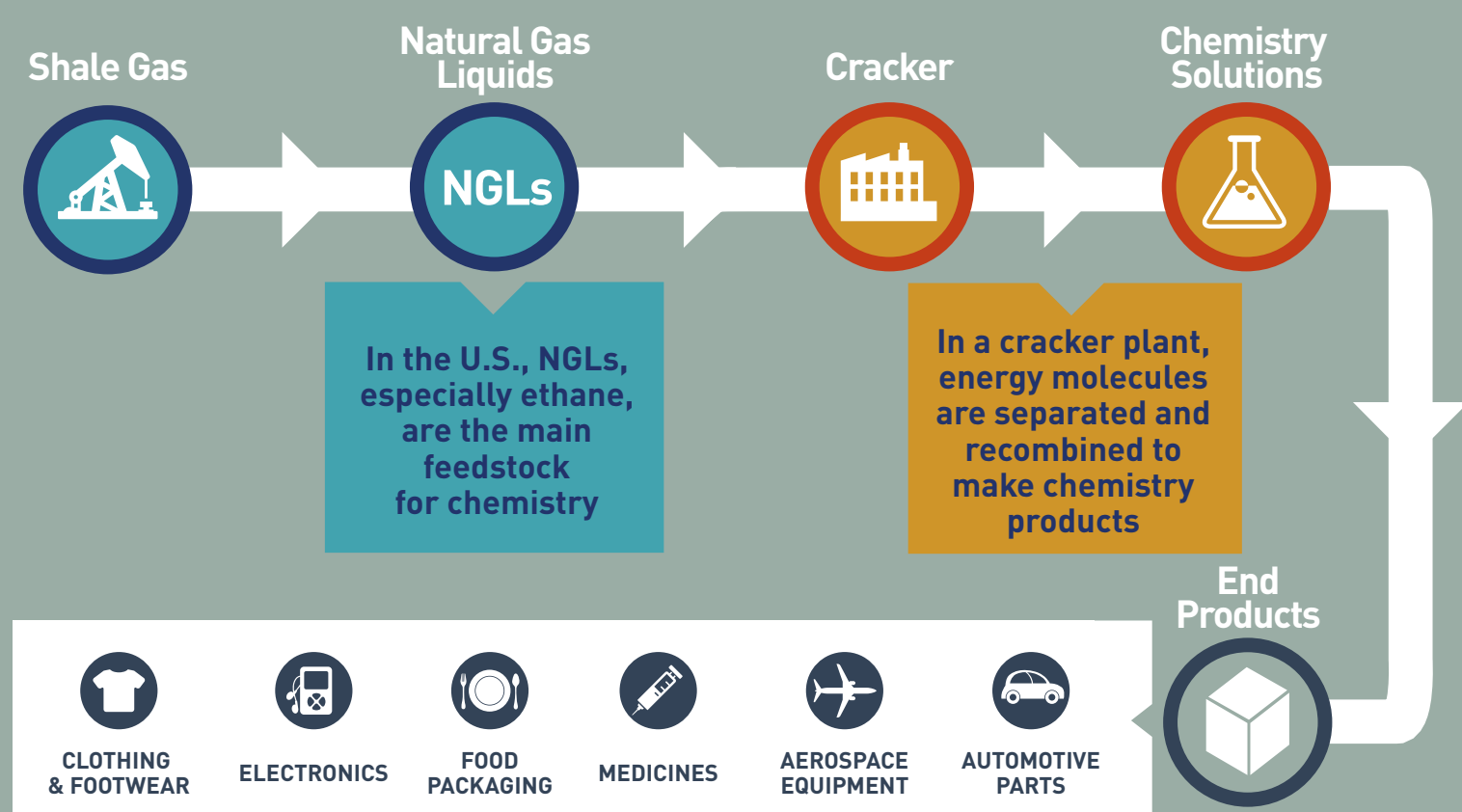
FUEL & POWER:

To generate heat, steam, pressure, and electricity at our facilities



FEEDSTOCK:

As a raw material to make our products



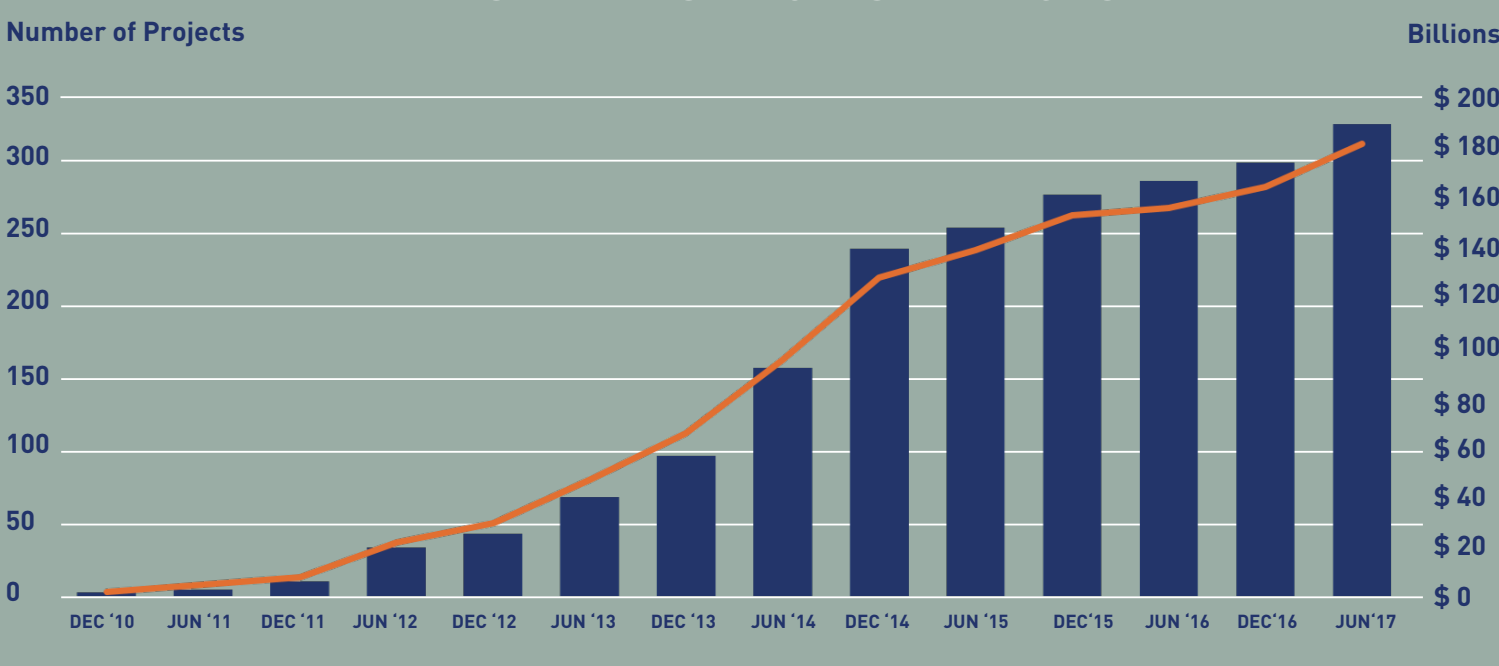
SHALE GAS IS A GAME CHANGER

ADVANTAGE: UNITED STATES



Plentiful & affordable natural gas/NGLs in the U.S. are attracting increased global chemical company investment.

CUMULATIVE ANNOUNCED CHEMICAL INDUSTRY INVESTMENTS FROM SHALE GAS



CHEMISTRY FUELS OUR ECONOMY

JOBS

811,000
Number of skilled American jobs in the chemistry industry

6 Million
Number of jobs generated elsewhere in the U.S. economy

INNOVATION

\$91 billion
R&D investment by business of chemistry in 2016

\$768 Billion
One of America's largest manufacturing industries

TRADE

14%
Percentage of U.S. goods exports produced by the chemistry industry

\$174 billion in 2016

INDUSTRIES SUPPORTED

- Automotive
- Building & Construction
- Agriculture
- Food & Beverage
- Computers & Electronics
- Medical Equipment/Supplies
- Health Care Services
- Household Appliances

and many others

More than 96%
of all manufactured goods are directly touched by the business of chemistry*

CHEMISTRY & SUSTAINABILITY

Creating Energy Saving-Solutions

Many renewable and energy-efficient materials and technologies are made possible by the products of chemistry.



High-performance building insulation and windows



Solar panels and wind turbines



Energy-efficient lighting and appliances



Lightweight packaging and vehicle parts

Improving Industry Performance

Since 1974, the U.S. chemical industry has improved its energy efficiency by 46%.

Driving Innovation

The chemistry industry is a leader in the use of combined heat and power, also known as cogeneration—the simultaneous production of electricity and heat from the same source. CHP facilities are often twice as efficient as older coal-burning electric utilities.

Energy Recovery

Plastics have a high energy content that can be converted to electricity, synthetic gas, fuels, and feedstocks. Recovering this abundant energy reduces waste sent to landfills and complements plastics recycling.

POLICY PRIORITIES

- Allow access to energy resources on government and private lands and ensure reliable infrastructure, including pipelines, to transport supplies.
- Implement responsible, state-based regulations that enable robust production.
- Enact legislation to improve energy efficiency in the residential, commercial, and industrial sectors.
- Adopt updated energy efficiency building codes.
- Support new and alternative sources such as energy recovery from non-recycled plastics.

*2013 U.S. Census Data, Annual Survey of Manufacturers, <http://www.census.gov/manufacturing/asm/index.html>