



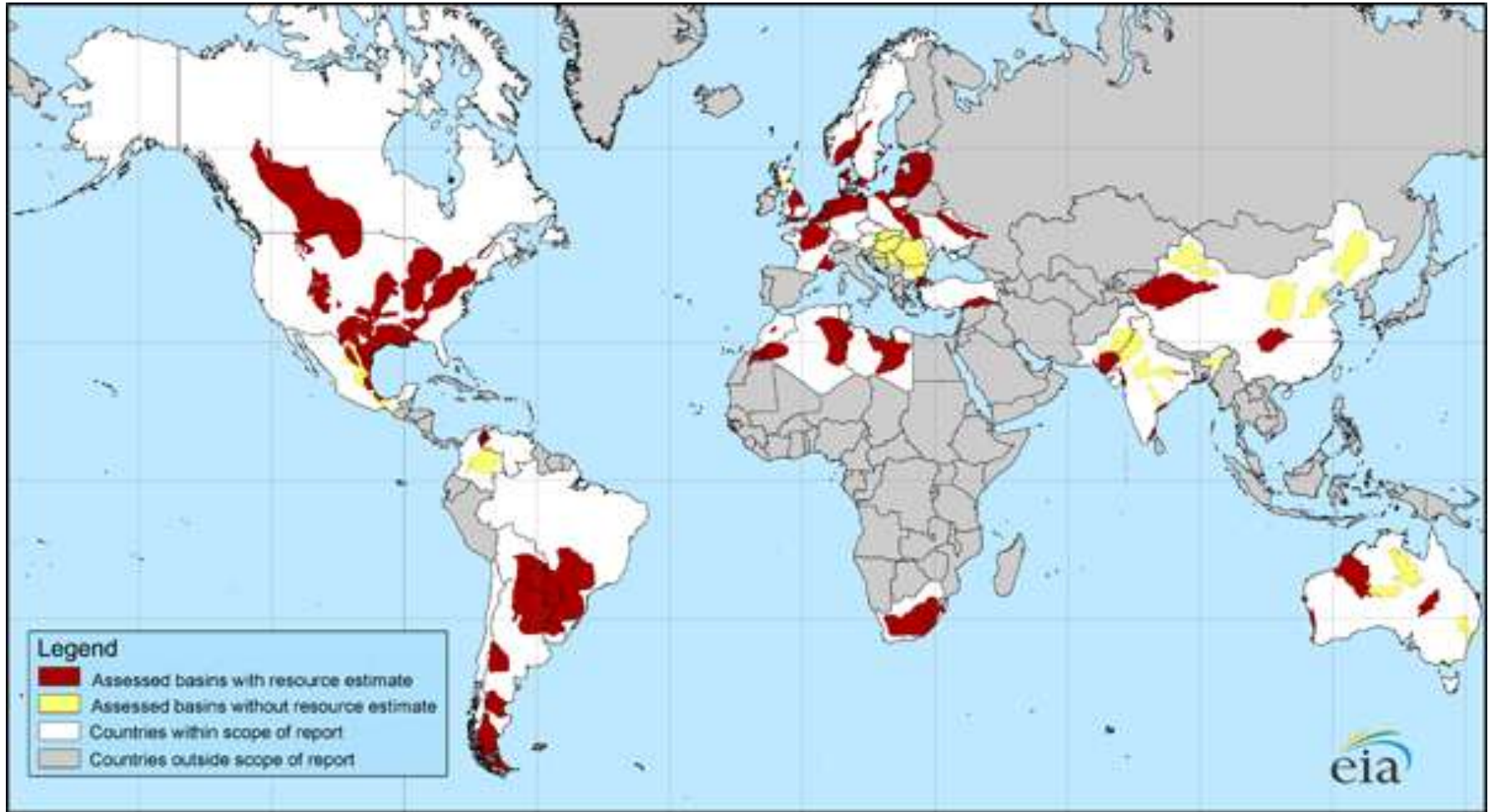
The Marcellus Multiplier: Expanding Pennsylvania's Supply Chain

**Kathryn Klaber, President
Marcellus Shale Coalition**

August 23, 2011

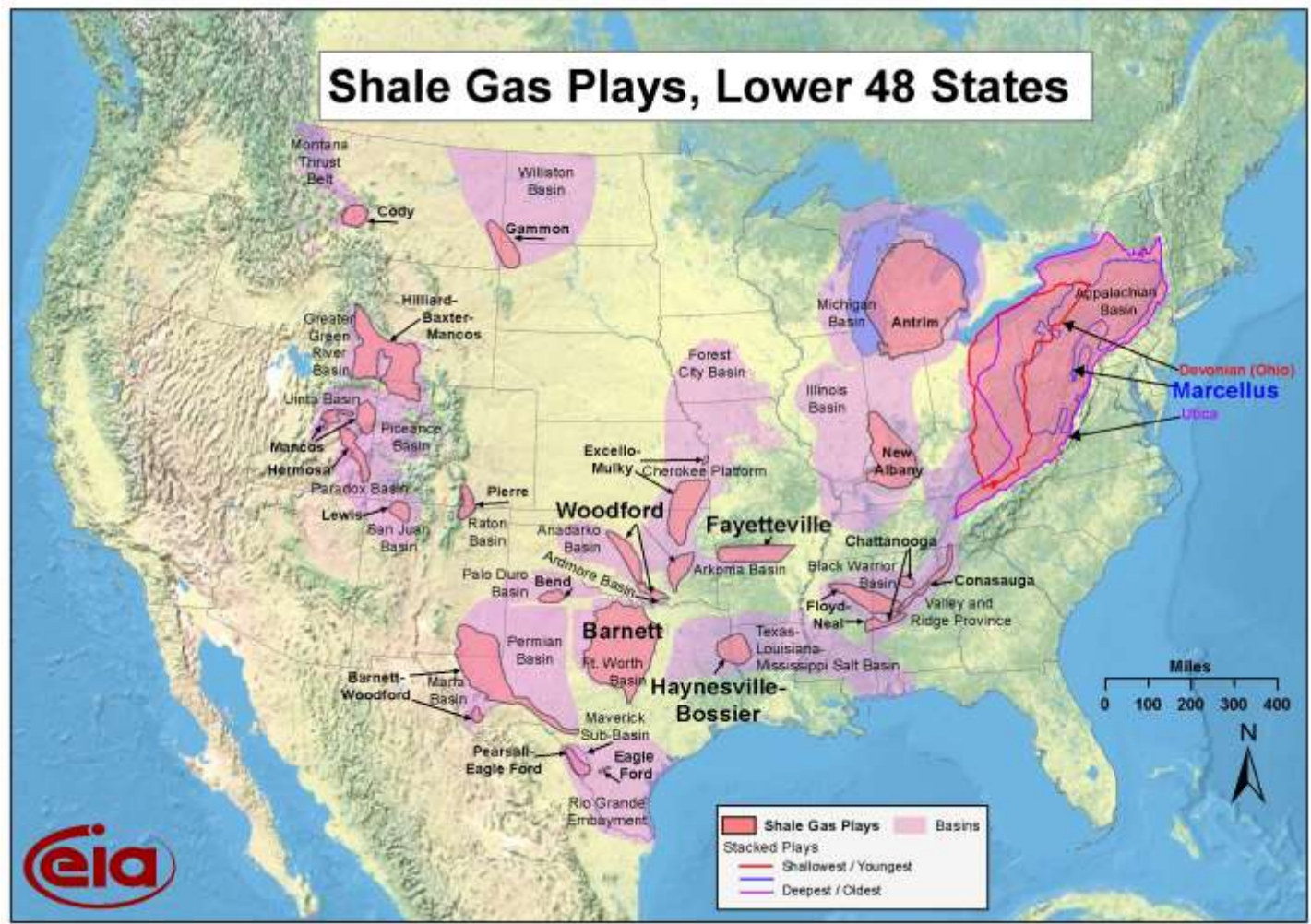


Shale Gas: A Global Phenomenon

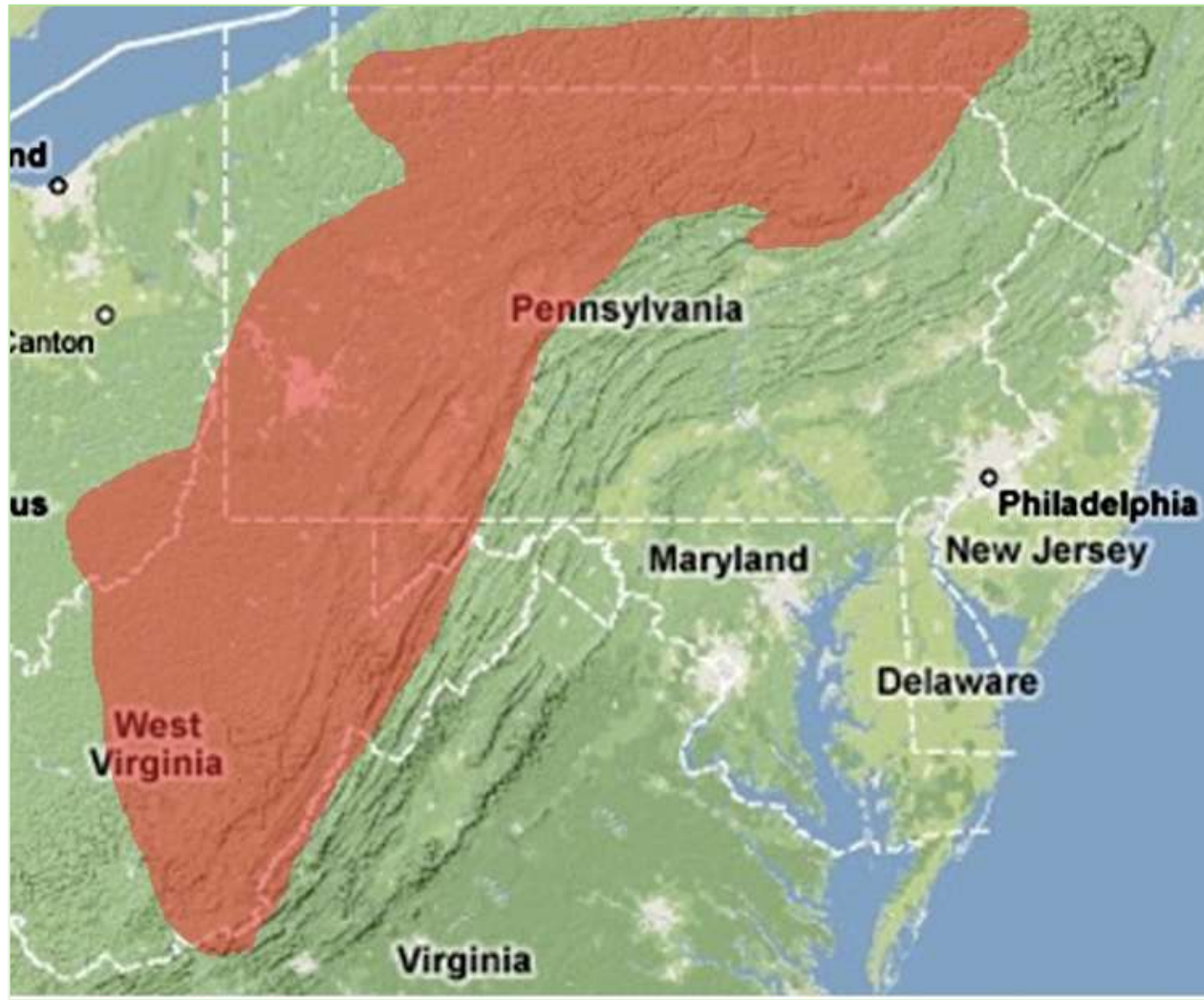


Source: Energy Information Administration

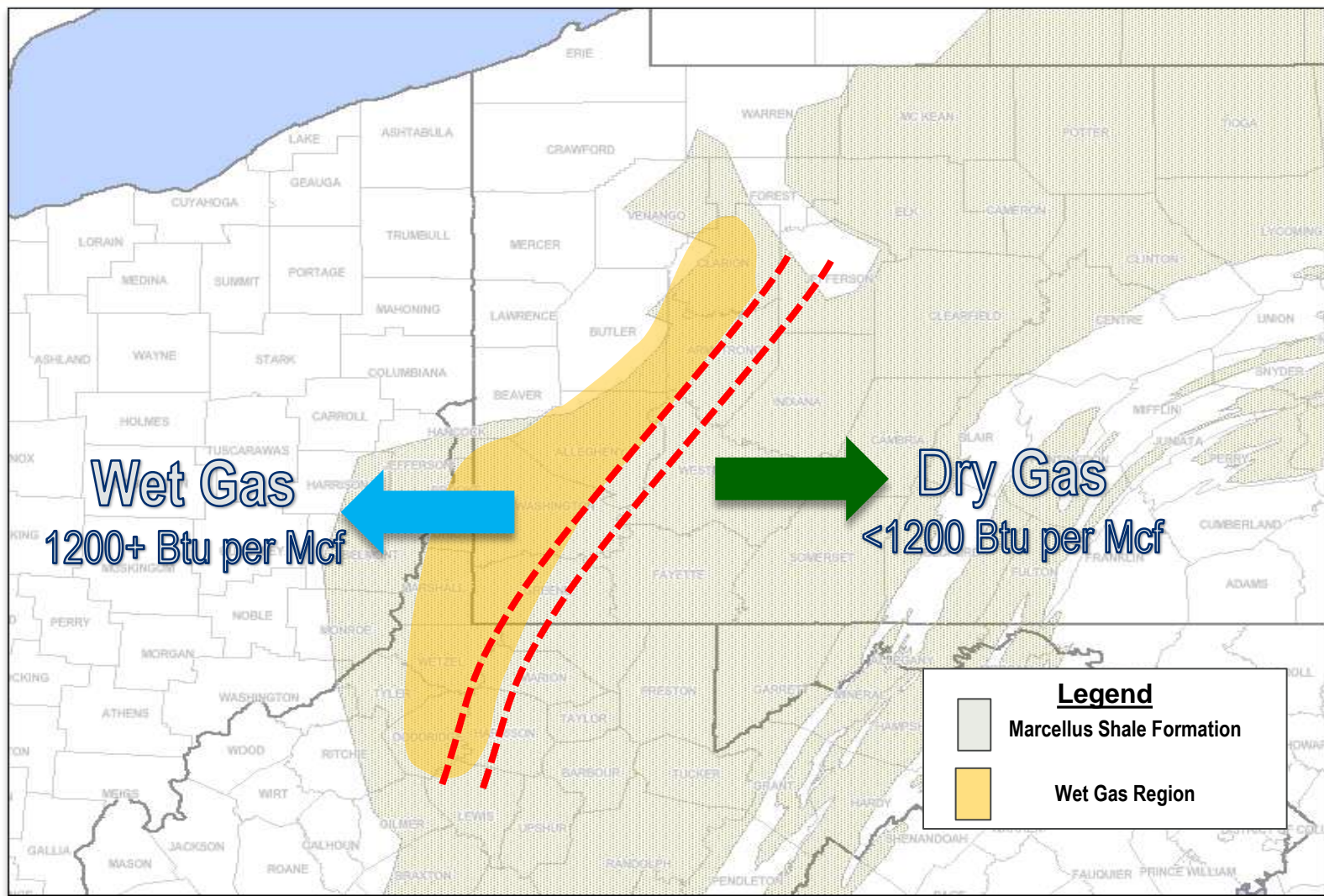
Shale Gas Revolution Across the U.S.



Marcellus Shale: Geographic Footprint



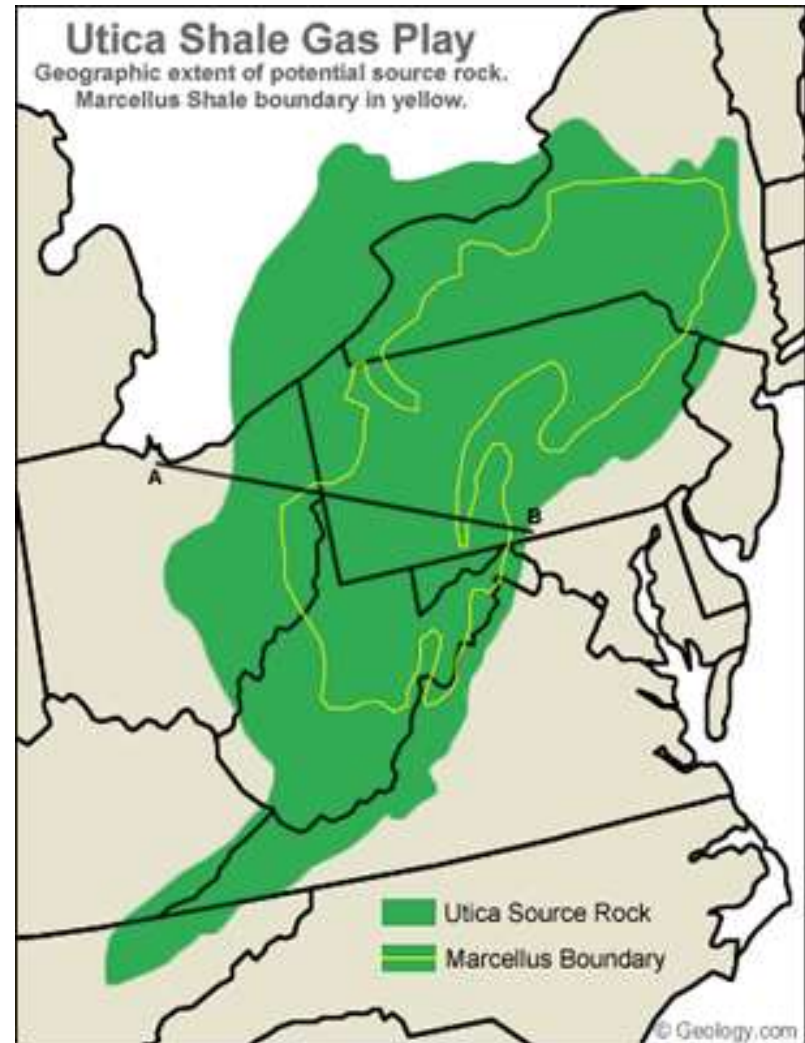
“Wet Gas” Region of Marcellus Shale



Sources: Pace Global; Equitable Resources, MarkWest, Atlas Energy, Range Resources, and Caiman Energy.

Utica Shale: Next Frontier?

- Below the Marcellus
- Bigger, deeper, denser
- One of the last U.S. unconventional energy fields
- Particularly attractive in OH
- Success in the Marcellus will lead to success in the Utica





About Us

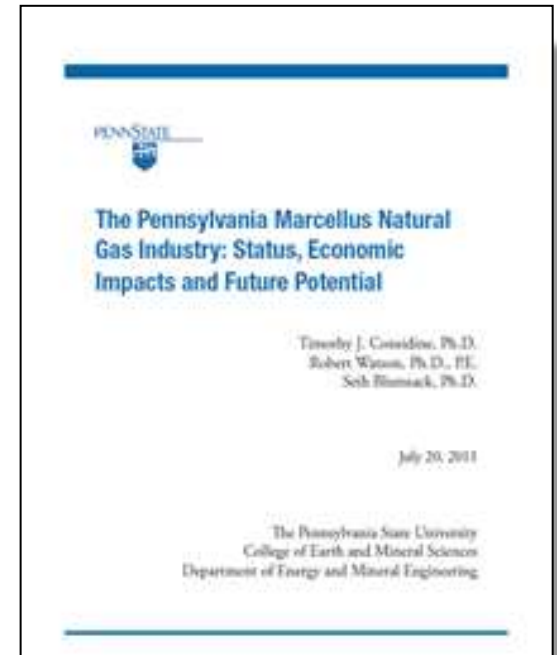
- Founded in 2008
- Nearly 250 members strong
- From producers to suppliers

Our Focus

- Long-term development of resource
- Protecting the environment and responsible use of water resources
- Addressing landowner, government and public issues
- Benefits to our region's future

Marcellus Matters: To Our Region

	2011	2020
Economic Value Added:	\$12.8 billion	\$20.2 billion
State/Local Taxes:	\$1.23 billion	\$2 billion
Cumulative Employment:	156,695	256,420
Wells Spudded:	2,300	2,497
Output (bcfe/day):	3.5	17.5



Marcellus Matters: To Our Region

Key Report Findings

- Pennsylvania is self-sufficient in natural gas (net exporter)
- 2020 output levels (17 billion cubic feet per day) could make the Marcellus the single largest producing gas field in the U.S.
- Marcellus could produce a quarter of U.S. natural gas by 2020.
- \$1.6 billion in lease and bonus payments in 2010.
- Given a 12.6 percent reduction in natural gas prices due to higher Marcellus output, total energy expenditures declined by \$633 million during 2010.



Fast Facts

- ✓ \$5 million is invested in producing each well
- ✓ At 2,500 new wells annually, \$12.5 billion investment in well site operations alone
- ✓ Each mile of pipeline represents > \$1 million investment





DESCRIPTION: Prepare site for the drilling process

BUSINESSES INVOLVED: Excavation equipment manufacturers, contractors and dealers; pump manufacturers and dealers; painters and haulers; mulch and fertilizer suppliers; safety equipment manufacturers and suppliers; electrical equipment suppliers and contractors; surveying and engineering companies; aerial mapping services

FACT: 5,000 tons of aggregate per location, using full-time operation of dozer, excavator and roller



DESCRIPTION: Casing and drilling of the well

BUSINESSES INVOLVED: Crane manufacturers and dealers; drill bit manufacturers; steel and associated manufacturers; cement producers; chemical manufacturers; safety equipment manufacturers and suppliers

FACT: 125 tons of locally produced cement per well



DESCRIPTION: Moving materials to and from the well site

BUSINESSES INVOLVED: Rail, barge and trucking; asphalt producers; road grading and paving companies; sand and water suppliers

FACT: 180 rail cars of sand used for a single well



DESCRIPTION: Water and materials management

BUSINESSES INVOLVED: Steel coil manufacturers; welding equipment manufacturers; pump manufacturers; crane manufacturers and assemblers; chemical manufacturers and suppliers; welding companies; sand suppliers; tank constructors

FACT: \$50,000 per well paid for water to local governments to reinvest



DESCRIPTION: Construction of flow lines at the site before natural gas enters gathering lines

BUSINESSES INVOLVED: Steel pipe manufacturers; compressor engine manufacturers

FACT: A single MSC company has invested \$75 million in PA for midstream Marcellus development (25% to local companies, 11% to landowners, 8% to national suppliers with outlets in PA, and the remainder to contractors with personnel working in the Commonwealth)



DESCRIPTION: Restoration of the site and maintenance of the producing well

BUSINESSES INVOLVED: Solar panel manufacturers; metering device manufacturers; landscaping companies; top soil suppliers; road aggregate suppliers; fencing suppliers

FACT: One Marcellus Shale well can produce enough clean-burning natural gas for 24,000 homes a year

Our Legacy

We recognize that to succeed in business, we not only embrace these principles, we live by them each and every day. This will be our legacy.

- ✓ *We provide the safest possible workplace for our employees, with our contractors, and in the communities in which we operate;*
- ✓ *We implement state-of-the-art environmental protection across our operations;*
- ✓ *We continuously improve our practices and seek transparency in our operations;*
- ✓ *We strive to attract and retain a talented and engaged local workforce;*
- ✓ *We are committed to being responsible members of the communities in which we work;*
- ✓ *We encourage spirited public dialogue and fact-based education about responsible shale gas development; and*
- ✓ *We conduct our business in a manner that will provide sustainable and broad-based economic and energy-security benefits for all.*

Thank you!

Marcellus Shale Coalition

www.MarcellusCoalition.org

