



NORTH LOUISIANA ECONOMIC PARTNERSHIP

The Changing Energy Landscape and Its impact on Economic Development in America Oil and Natural Gas

Scott Martinez, CEcD

Oil and Natural Gas

- Overview of Sector
 - Emergence of Shale Plays
 - Natural Gas
 - LNG et al.
- Impact on Economic Development

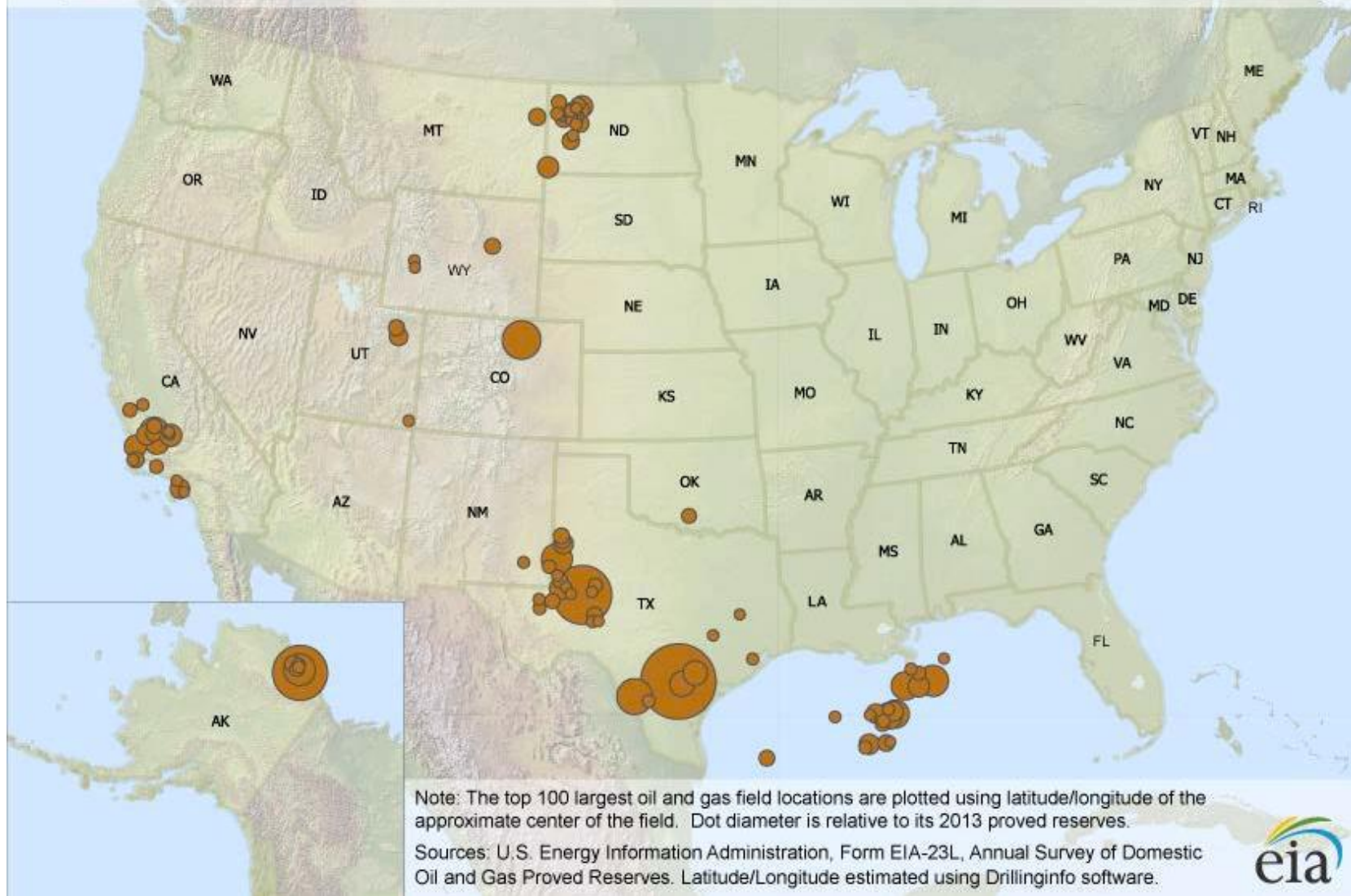


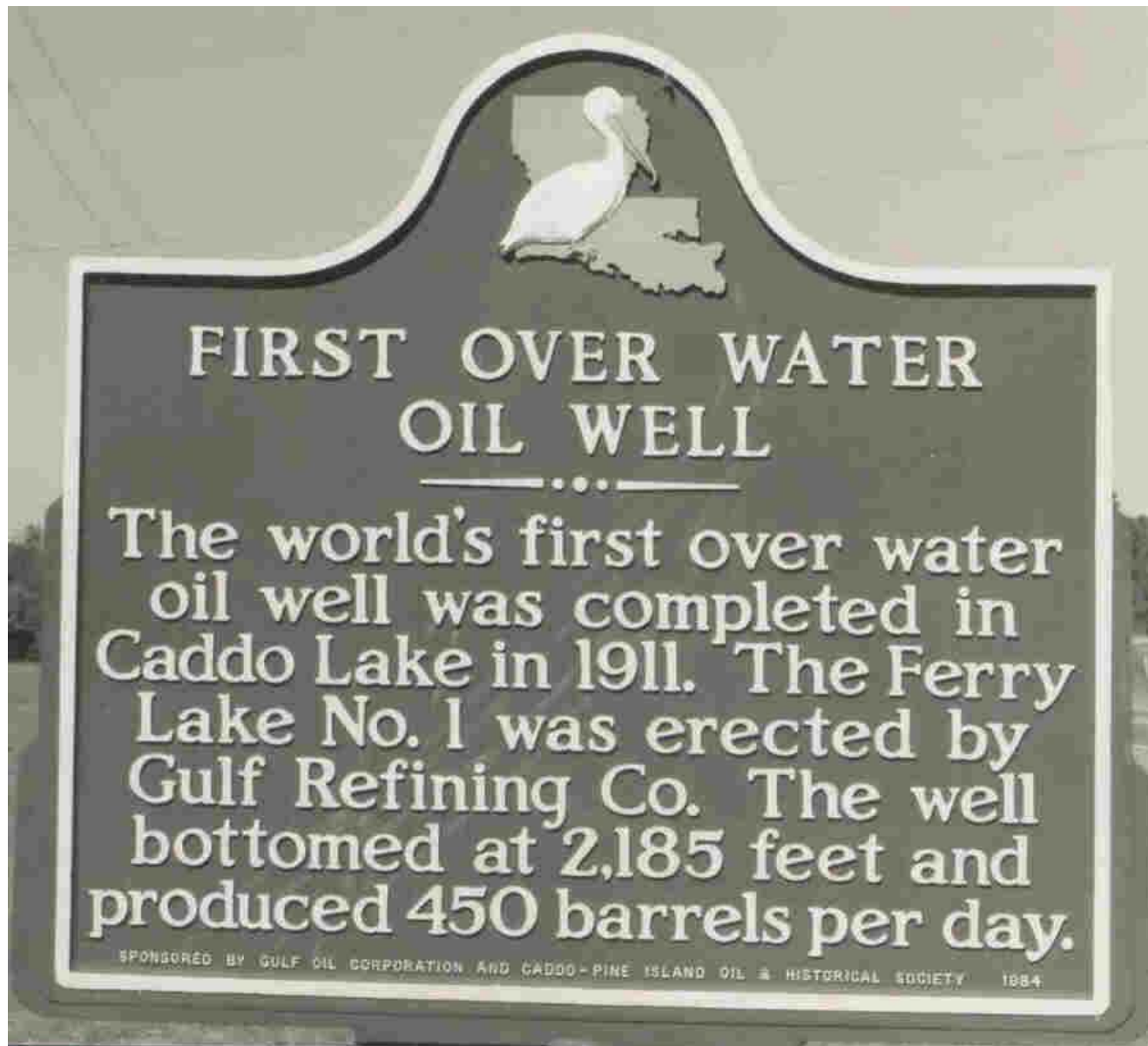
Oil

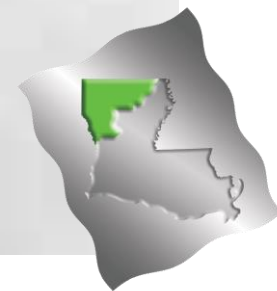
- **After World War II, the oil industry became especially important to geopolitics, as global stability depended on political and economic balance between major oil producers**
- **United States is both a major oil producer and consumer**
- **United States is still a net importer of oil but is now exporting up to 10 million barrels per day**
- **The United States has reached its lowest oil import levels in 20 years**



Top 100 U.S. oil fields by reserves







Natural Gas and Shale



Natural Gas and Shale

- From 2010 to 2016, natural gas increased its share of U.S. energy generation from 23 percent to 33 percent.
- Fracking provides over 67 percent of the total natural gas output,
- Output from the wells increasing by 1,472 percent since 2000
- A driver of growth has been investment into fracking wells and the discovery of shale in the Appalachian Basin, the Bakken formation in Montana and North Dakota, and formations in Texas, Louisiana and New Mexico.

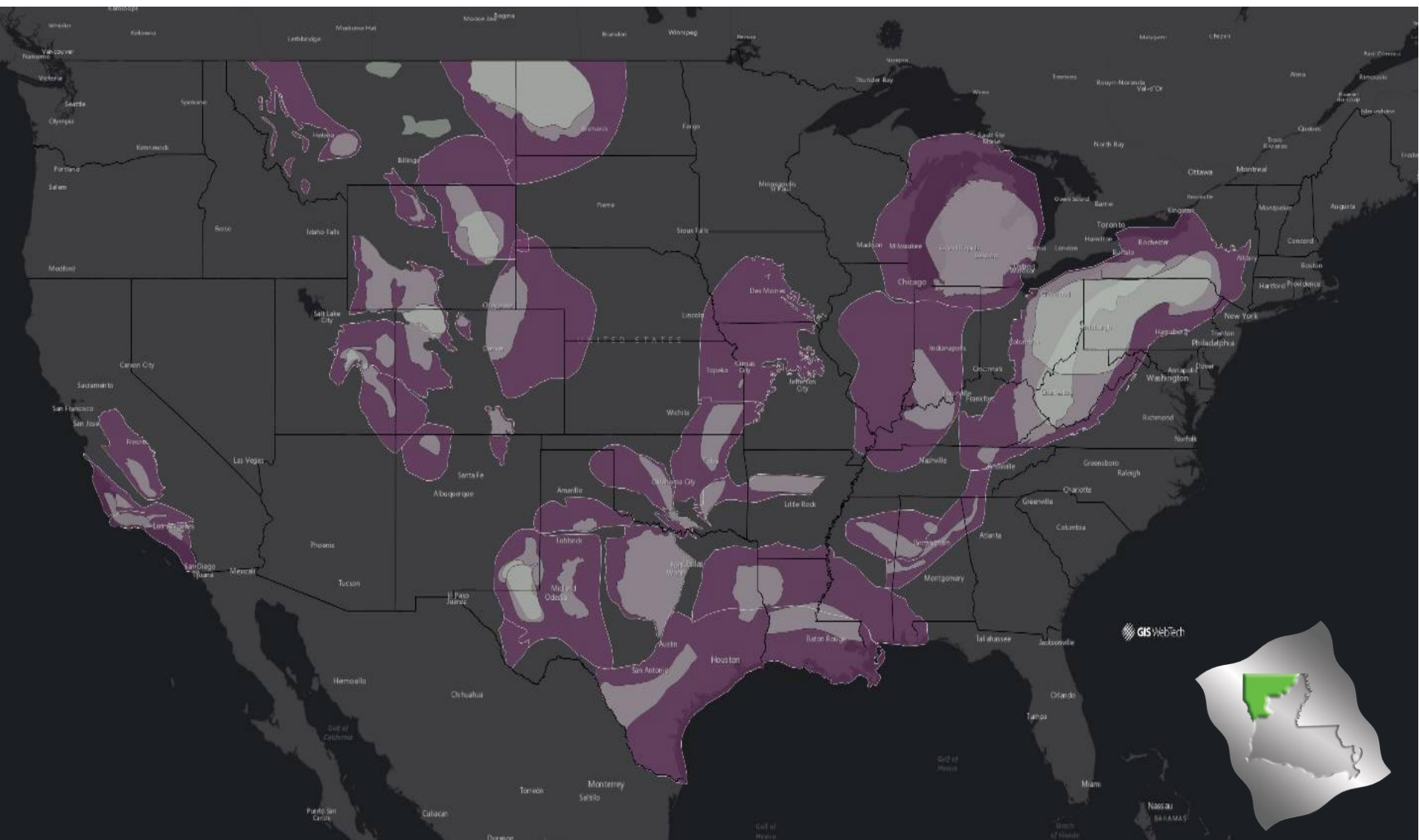


The most significant factor in the nation's oil boom is innovation in extraction technologies. Hydraulic fracturing and horizontal drilling have enhanced access to "tight" oil and natural gas reserves, while also increasing productivity. The "shale revolution" has greatly reduced American dependence on foreign energy producers, while increasing employment and revenues for domestic producers.

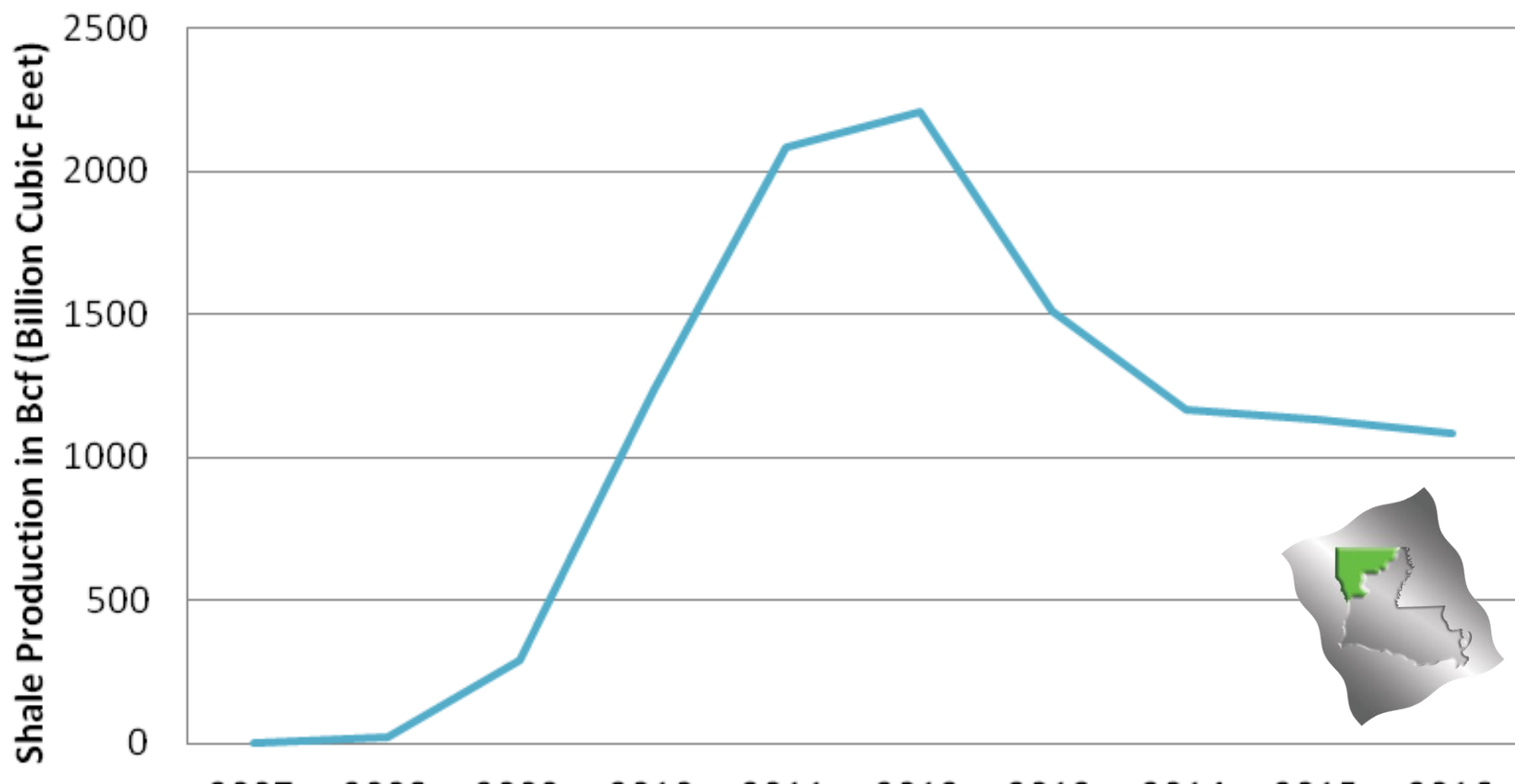
Shale



Shale Plays



North Louisiana Shale Production (2007 - 2016)

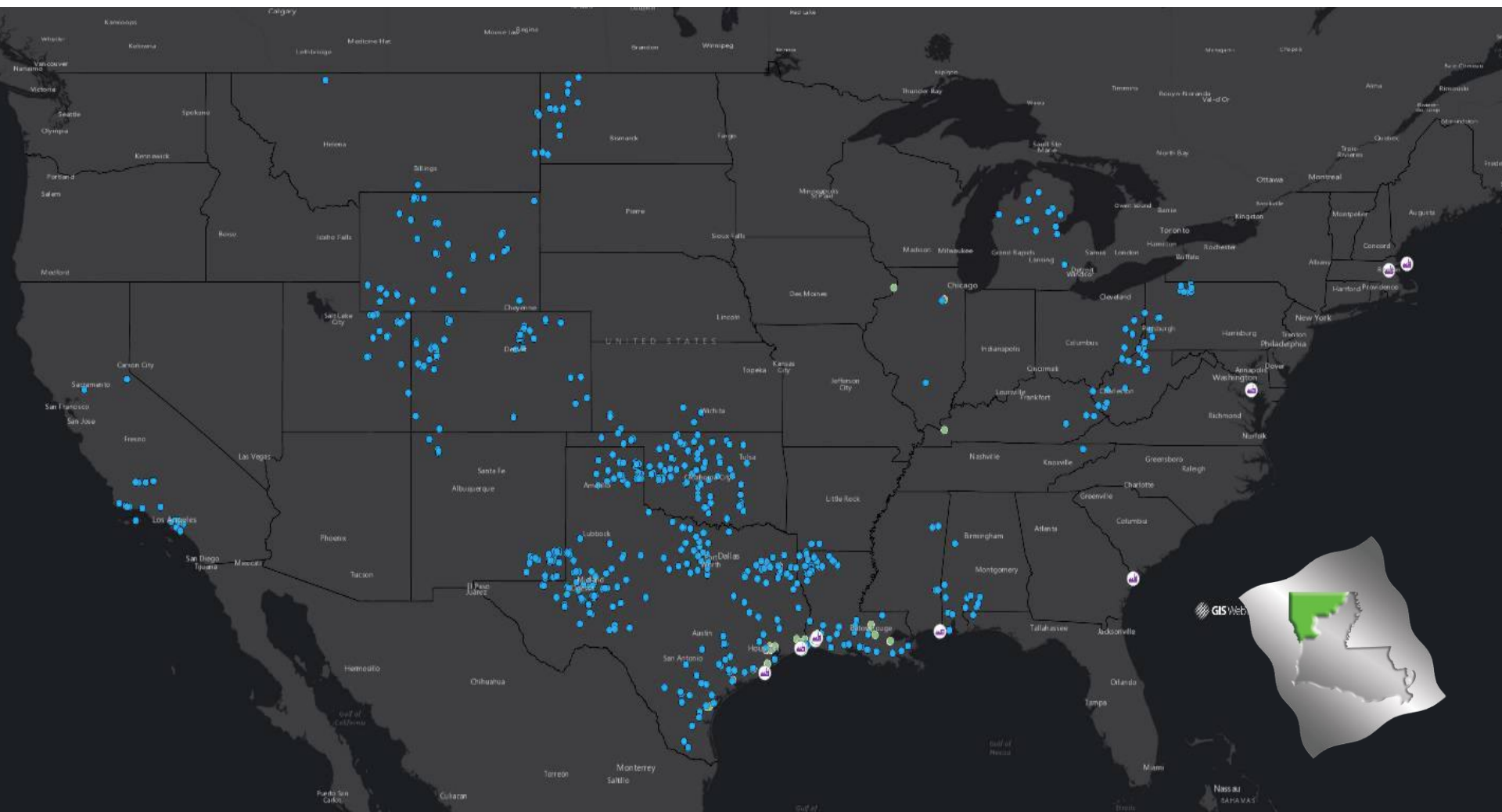


Shale production added 169,000 jobs between 2010 and 2012, and employment in extraction industries grew 10 times faster than overall U.S. employment.



- In 2016, 92 percent of U.S. natural gas exports were done through pipelines to Mexico and Canada,
- Pipeline exports to Mexico tripled between 2010 and 2016. Mexican gas consumption is up 22 percent, while production is down 11 percent.
- Drivers of Mexican natural gas demand includes overall economic growth, the displacement of oil with gas, and an expanding manufacturing sector.

Natural Gas Processing Plants, Ethylene Crackers, and LNG Export Terminals



Economic Development Implications



SASOL- Lake Charles, LA



By the numbers

- More than 500 full-time positions
- More than 5,000 construction jobs
- More than \$1.7 billion in contracts to Louisiana companies
- Total investment of \$8.9 billion dollars



BENTELER



- Shreveport, Louisiana
- \$1 Billion Investment
- 675 Jobs



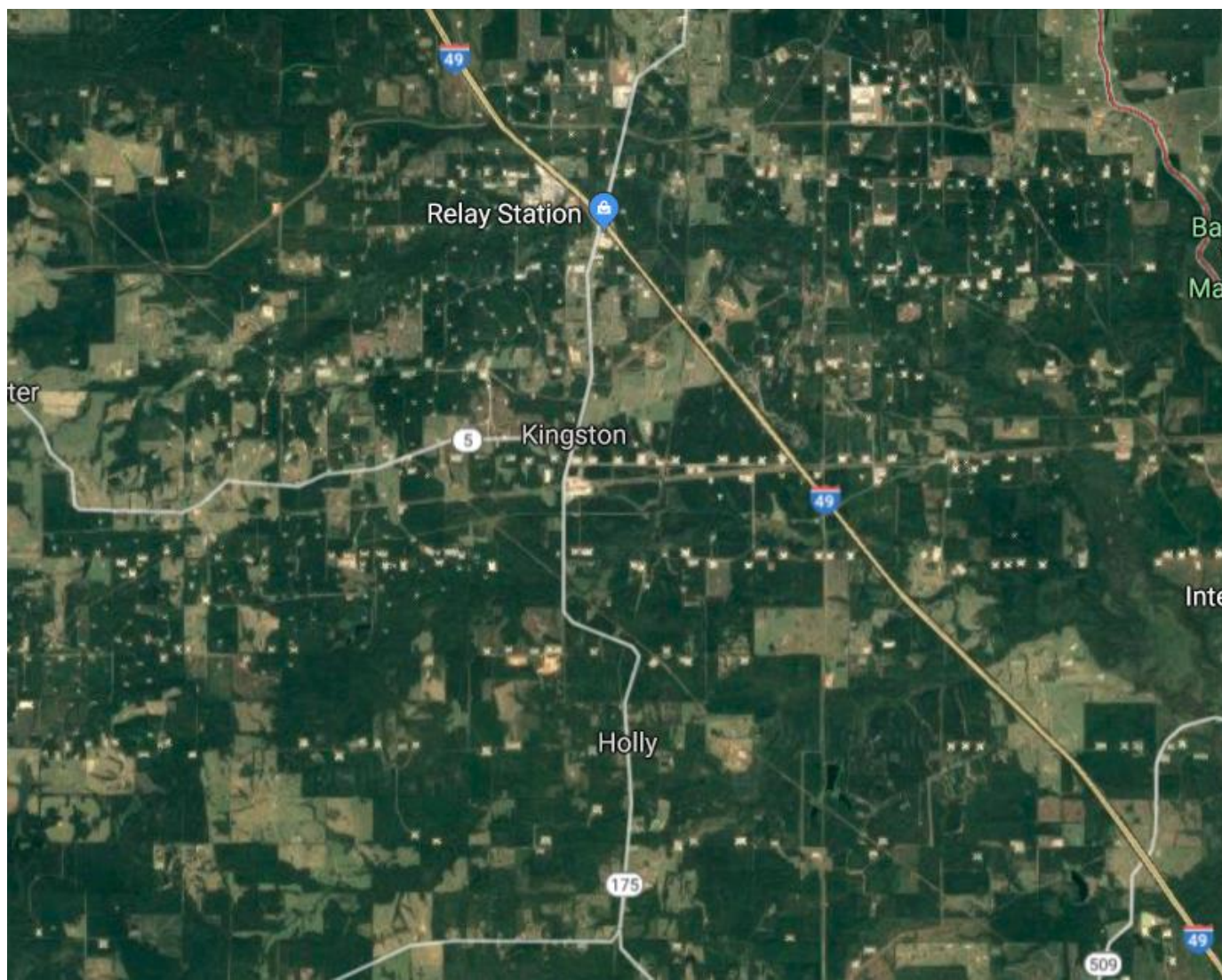
Bossier Parish Community College Center for Advanced Manufacturing and Engineering



- **\$22 million**
- **65,000-square-feet**



Site Development



Labor/Workforce

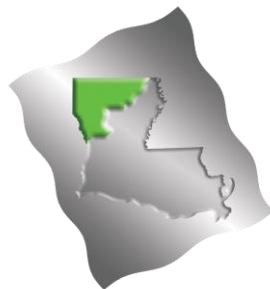


- **Use revenues from royalty payments, impact fees, tax receipts to finance long-run investments that strengthen the community post-drilling.**
- **Long-run financial commitments should be avoided, such as those for infrastructure. Pay as you go models are preferable.**
- **Attempt to maintain a diversified economy.**
- **Ensure that hidden costs of resource extraction are adequately compensated.**

- **Harness additional wealth creation and economic activity from energy development into permanent advantages.**
- **Short-term financial boosts should be put towards economic diversification to improve resilience in times of commodity downswings.**
- **Severance taxes should be set such that revenues are invested in public infrastructure, human capital development, and environmental enhancement**



- **Invest strategically in workforce development.**
- **Strengthen the capacity of local governments to understand and manage this activity.**
- **Increase the transparency of local government and governance institutions.**



**Scott Martinez, CEcD
President**

**North Louisiana Economic Partnership
333 Texas Street, Suite 411
Shreveport, LA 71101
Office: 318-677-2512**

**1900 North 18th Street, Suite 501
Monroe, LA 71201
Office: 318-387-0787**

**Cell: 318-294-5978
Email: smartinez@nlep.org
Website: www.nlep.org**

