

The Role of Shale in the US Energy Future

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Abstract

Recent work at the Bureau of Economic Geology by an integrated team of geoscientists, engineers, and economists examining long term shale gas reserves and production explains why drilling continues, how some operators are still able to make money, and what the range of economic reserves and production look like beyond 2030 in the Barnett, Fayetteville and Haynesville plays. The development of unconventional gas was led by independent producers. In the mid 2000's, the major oil companies realized that they could grow longterm reserve positions. Ironically, in the United States, onshore positions that had been broken into ever smaller tracts for nearly a century were again being aggregated into larger, contiguous tracts. Low natural gas prices followed the increase in shale gas production. Some independents adapted quickly and led the charge into shales with natural gas liquids and oil: the Bakken in North Dakota followed by the Eagle Ford in South Texas. Again, the major oil companies followed with acquisition of acreage and smaller companies. Where does shale stand today? There are international opportunities, but those carry higher costs and political risk. There are offshore shale gas and oil opportunities that will someday be developed, but those require expensive infrastructure and new regulatory policies. There also remain opportunities in existing shale plays.