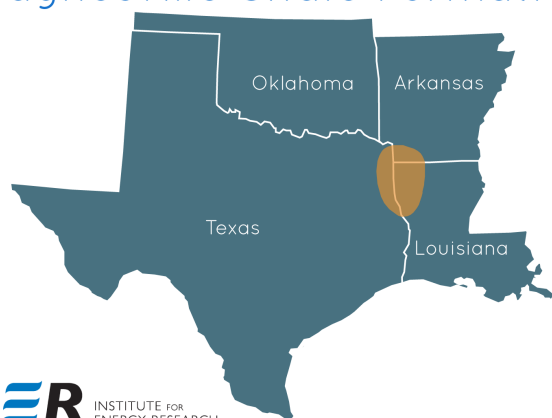


## Haynesville Shale Fact Sheet

### Background

The Haynesville Shale, also known as the Haynesville/Bossier shale play is a rock formation that contains vast quantities of natural gas and underlies 9,000 square miles of east Texas, southwestern Arkansas, and western Louisiana. The formation lies approximately 10,500 to 13,500 feet below ground and an average of 250 feet thick. It is one of the largest natural gas formations in the United States containing an estimated **75 trillion cubic feet (Tcf) of technically recoverable natural gas**.<sup>1</sup> These 75 TCF is 10 percent of the U.S. total technically recoverable natural gas. One company, Petrohawk, believes Haynesville could have 250 Tcf of gas. If accurate, Haynesville would be the eighth largest natural gas field in the world.<sup>1</sup>

### Haynesville Shale Formation



Almost all of the formation is located on privately owned land. Companies such as Chesapeake Energy Corp, Devon Energy, Exco

Resources Inc. have leased the land from its current owners.

Production in the Haynesville Shale began in 2008.<sup>2</sup> While many oil companies were aware of natural gas resources in the Haynesville Shale, it was thought to be less feasible than other formations, like the Marcellus or the Barnett. This was primarily due to Haynesville Shale's low permeability and low gas prices worldwide. However, improvements to horizontal drilling and hydraulic fracturing made exploration in this region viable without imposing high costs.

### Production Growth

- In 2008, Chesapeake Energy Corp. announced that their exploratory wells were successful. Many other companies followed Chesapeake and began production in the region. Twenty-four companies in total held leases in Haynesville, with Chesapeake owning the largest share of them.<sup>2</sup>
- In 2009, the Louisiana Department of Natural Resources reported that estimated that the Haynesville Shale could hold 251 trillion cubic feet.<sup>3</sup>
- In February 2011, the Energy Information Administration reported that Haynesville Shale was the highest producing shale gas play in the United States producing approximately 5.5 billion cubic feet of natural gas per day. This surpasses the Barnett Shale's

<sup>1</sup> The Haynesville Shale, *Petrohawk Analyst Day: Part One*, <http://www.haynesvilleplay.com/2010/05/petrohawk-analyst-day-part-one.html>.

<sup>2</sup> Louisiana Oil and Gas Association, *New York Times Misses the Mark on Shale Gas Story*, Jun. 27, 2011, <http://loga.la/presidentsarticles/?cat=32>

production, around 5.3 Bcf, which had been the nation's leading shale gas play in the decade prior.<sup>4</sup> In comparison Marcellus between July and December 2001, the Marcellus produced 1.66 Bcf.<sup>5</sup>

- In June 2012, it was reported that there are approximately 2,308 active wells or 48 rigs in the Haynesville Shale Region. Chesapeake still maintains the largest presence in the region.<sup>6</sup>

## Economic Impacts

Shale gas production from Haynesville has greatly benefitted the Louisianan economy—by creating job opportunities and increasing the State's GDP.

- From 2008–2009, Haynesville Shale created an estimated 90,379 jobs in Louisiana according to the Louisiana Department of Natural Resource.<sup>7</sup>

- Production from Haynesville injected an estimated \$22 billion dollars in the local and state economy of Louisiana in the fiscal years 2008 and 2009,<sup>8</sup> \$1.066 billion of which came from state and local taxes.<sup>9</sup>
- In 2008, production in Haynesville contributed \$2.4 billion in new business sales in Louisiana alone.<sup>10</sup>
- In 2009, new business sales rose to \$10.6 billion, which is a 341.67% percentage increase.<sup>11</sup>
- In 2009, disposable income increased by \$5.7 billion, a direct result of Haynesville well production and exploration, which is an estimated 3.6% off all disposable income within the state of Louisiana.<sup>12</sup>

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<sup>1</sup> U.S. Energy Information Administration, *Review of Emerging Resources: U.S. Shale Gas and Shale Oil Plays*, July 2011, <ftp://ftp.eia.doe.gov/natgas/usshaleplays.pdf>

<sup>2</sup> U.S. Energy Information Administration, *Review of Emerging Resources: U.S. Shale Gas and Shale Oil Plays*, July 2011, <ftp://ftp.eia.doe.gov/natgas/usshaleplays.pdf>

<sup>3</sup> The Louisiana Department of Natural Resources, *The Economic Impact of Haynesville Shale on the Louisiana Economy in 2009*, April 2010, <http://www.loga.la/pdf/Economic%20Impact%20of%20HS.pdf>

<sup>4</sup> The U.S. Energy Information Administration, *Haynesville surpasses Barnett as the Nation's leading shale play*, March 18 2011, <http://www.eia.gov/todayinenergy/detail.cfm?id=570>

<sup>5</sup> Laura Hartog, *Marcellus Shale Production Up*, WeAreCentralPA.com, Feb. 17, 2012, [http://wearecentralpa.com/fulltext?nxd\\_id=346742](http://wearecentralpa.com/fulltext?nxd_id=346742).

<sup>6</sup> The Louisiana Department of Natural Resources, Haynesville Shale Wells, [http://dnr.louisiana.gov/assets/OC/haynesville\\_shale/haynesville.xls](http://dnr.louisiana.gov/assets/OC/haynesville_shale/haynesville.xls)

<sup>7</sup> The Louisiana Department of Natural Resources, Haynesville Shale, <http://dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=442>

<sup>8</sup> Louisiana Oil and Gas Association, *New York Times Misses the Mark on Shale Gas Story*, June 27, 2011, <http://loga.la/presidentsarticles/?p=294>

<sup>9</sup> The Louisiana Department of Natural Resources, *The Economic Impact of Haynesville Shale on the Louisiana Economy in 2008, and 2009*.

<sup>10</sup> The Louisiana Department of Natural Resources, *The Economic Impact of Haynesville Shale on the Louisiana Economy in 2008*, April 2009, <http://dnr.louisiana.gov/assets/docs/mineral/haynesvilleshale/manfred-dix-impact-analysis.pdf>

<sup>11</sup> The Louisiana Department of Natural Resources, *The Economic Impact of Haynesville Shale on the Louisiana Economy in 2009*, April 2010, <http://www.loga.la/pdf/Economic%20Impact%20of%20HS.pdf>

<sup>12</sup> The Louisiana Department of Natural Resources, *The Economic Impact of Haynesville Shale on the Louisiana Economy in 2009*, April 2010, <http://www.loga.la/pdf/Economic%20Impact%20of%20HS.pdf>