



Fracking Policy Development 2013

Issue:

Abundant reserves of shale gas have been discovered across America. East Tennessee is above a major expanse of gas rich Marcellus shale. Shale gas has the potential to become a major part of Tennessee's economy due to rising demand of natural gas. The abundance of natural gas could transition America into an energy independent nation. Unlike conventional gas extraction, shale gas must be extracted by more energy intensive means. Hydraulic fracturing (fracking) is currently the most economic method to extract shale gas. Fracking has become a controversial method nationally, especially from environmental groups. Valid concerns exist about fracking, but many concerns have become sensationalized.

Questions:

1. What should our position be on fracking in Tennessee?
2. What regulations should Farm Bureau favor?
3. How could fracking affect agriculture?

Background:

Conventional wisdom in the early 2000 concerning America's gas reserves looked bleak. America began constructing large Liquefied Natural Gas (LNG) regassification plants to handle the importation of over 100 billion cubic meters of LNG. Twenty billion cubic meters were imported in 2011, well below economic projections. Plans are in place to convert some of the regassification plants into LNG export centers. The cause of the decrease in imports of LNG stems from the unconventional gas boom the country experienced from 2005 to 2011. Supply of natural gas surged, and prices dropped. Other nations, expecting to export LNG to America, had to find new importers. Many in the natural gas industry hope that America will soon have the infrastructure necessary to export natural gas across the world. At the center of this boom was fracking and deregulation of the natural gas industry. Deregulation of the industry led to widespread exploration for gas and new fracking technologies allowed for more efficient gas extraction.

Fracking is a more intensive method for extracting natural gas. Conventional methods rely on pockets of trapped gas and the internal pressures of the earth to extract them. Fracking involves drilling into a shale formation. Once in the shale, the drill can proceed in a horizontal direction along the shale beds path. Chemically treated water and sand are forced at extreme pressures into the well. The pressure causes the shale around the drill to crack. Sand enters the cracks and holds them open when the pressure is decreased, allowing for gas to flow from the shale to the surface.

Many people have concerns about fracking. A major concern is the amount of water needed to effectively frack a portion of the shale bed. Thousands of gallons of water are needed in some cases, limiting fracking to areas of abundant water supplies. Chemicals are necessary for fracking but many, such as 2-BE ethylene glycol, are toxic. Residents living near fracking operations are concerned that fracking fluids and methane could leak into underwater aquifers. Safety mechanisms have been developed to combat waste water seepage. Fracking water is partially extracted with natural gas, and many are concerned about the treatment and storage of waste water on the earth's surface. Community water treatment plants are not designed for the contaminants found in the waste frack water. Frack waste water is also known to contain unwanted extracted materials, such as radium.

Natural gas can be considered a portion of the nation's green energy push, because combustion of natural gas produces half the carbon dioxide and sulfur contaminants of other common fossil fuels. This has made gas attractive for environmental groups. Increased natural gas production has promoted growth in the petrochemical industry by providing bountiful and cheap raw materials. Portions of the petrochemical industry produce the fertilizers and chemicals on which farmers rely and it is possible that prices could fall as a result. The production of electricity by natural gas has been limited in the past by its price. The price of gas is now comparable to coal, making it a competitive method of producing electricity. The Tennessee Valley Authority projects an increase of 900-9,300 mega watts between 2012 and 2029 from natural gas. The University of Tennessee's Institute for Agriculture is now pursuing research on fracking production.

Policy:

None