CITE AS
27 *Energy & Min. L. Inst.* ch. 6 (2007)

Chapter 6

Legal Issues in Underground Gas Storage

Debra J. Villarreal
Thompson & Knight L.L.P.
Dallas, Texas

Synopsis

§6.01. Background and History of Underground Storage.

[1] — Introduction.

Underground storage is the process which effectively balances a variable demand market with a nearly constant supply of energy provided by a pipeline system. Natural gas production in the United States does not vary much on a day to day or season by season basis. Demand for natural gas, however, varies by season. During the warm spring and summer months, supply exceeds demand. During the winter heating months, demand often exceeds supply. If unlimited gas reserves were available near the areas of largest consumption, fulfilling customers' needs would not be a problem. Instead, some of the most populous areas of the United States–the Northeast, the lower Great Lakes area, and the West Coast—consume more gas than they can produce. The natural gas must, therefore, be transported through pipelines from the largest gas producing areas of the United States, such as the Permian Basin and the Gulf Coast, to the areas of the country that have the greatest need.

The cost of building pipelines to all areas that experience seasonal spikes in gas demand would be prohibitive. Even beyond the cost, it would be impractical to build pipelines that would barely be used during certain times of the year, only to receive full capacity during the peak demand winter months. To resolve the demand versus supply issue, gas must be stored in areas where it will be needed.

Storage reservoirs have been developed to permit pipelines to operate near their design capacity regardless of seasonal fluctuations in demand. During the summer months, the transported natural gas exceeding demand is injected into the reservoirs. In winter, gas is withdrawn from the storage fields to supplement the throughput from pipelines.

The gas supply and transportation market has changed over the years and so has the use of storage fields. Traditionally, local distribution centers entered into firm, long-term gas supply or transportation contracts. Now, most of them rely on a combination of long-term and short-term contracts