# Effective Tax Rate Comparisons – Severance Taxes

An effective tax rate is useful when comparing state severance taxes because it incorporates not only the statutory tax rate, but also the impact of any special provisions on tax liability. This document provides a description of two possible effective tax rates and some related definitions.

**Statutory Tax Rate** – The rate of tax specified in the statute that authorizes or levies the tax. For severance taxes imposed on natural gas, the statutory tax rate is applied to one (or both) of the following tax bases:

- Value. The rate is expressed as a percentage of the market value of gas extracted.
- Volume. The rate is expressed in cents per thousand cubic feet (Mcf) of gas extracted.

**Special Provisions** – State severance taxes often contain special provisions that reduce the tax paid in various circumstances. Examples of special provisions include:

- Reduced tax rates. Some states levy a lower tax rate for the first two to four years that a well is in operation. Other states may levy a lower tax rate until the value of the gas extracted from the well exceeds the drilling cost.
- Exemptions. Certain wells may be exempt from tax based on the level of production. The most common type of exemption is for "stripper" wells (production falls below a specified level).

**Effective Tax Rate** – The rate of tax after all statutory rates and special provisions are taken into account. For severance taxes, the effective tax rate is equal to: taxes paid ÷ market value of gas. There are two ways to measure the effective tax rate. The appropriate measure will depend upon the specific policy question to be addressed.

- Annual tax rate. The average rate for a *single year* across *all wells* that produce gas. This measure is best used to quantify *historical* tax burdens for existing wells.
- Lifetime tax rate. The average rate over *all future years* for a *single, new well*. (Wells are generally assumed to produce for 30 years.) This measure is best used to quantify the tax burden on *new* wells.

The annual tax rate for a state may change from year to year based on the share of total production that happens to qualify for special provisions during the year. Although the annual rate can be tracked over time for a state, the measure is less meaningful for interstate comparisons because it does not hold the volume or composition of production constant across states.

The lifetime tax rate compares the same well across states, so price and production profiles are the same. The measure is useful for interstate tax comparisons because the age of the well and volume of production are the same across all states. Therefore, the relative impact of more favorable special provisions can be quantified. The measure is also prospective: it reflects current technology and current prices.