

Electrical Energy Tax (15-51-101)

1. Model Characteristics

- The forecast for taxable kilowatt hours is produced using the mean and standard deviation of a historical quarterly data series of taxable kilowatt hours produced in Montana.
 - The series includes data from the second quarter of FY 2009 through the first quarter of FY 2015.
- The forecast for each quarter is adjusted to account for deviations from the mean that occurred in corresponding historical quarters.
 - This allows the forecast to capture the seasonality of electricity generation.
- An effective tax rate on electrical energy production is determined by using a moving average of historical effective tax rates.
- Taxable kilowatt hours are multiplied by the effective tax rate to determine total tax revenue.

2. Model Data

- The primary data for the electrical energy tax model comes from the Department of Revenue's GENTAX system.

3. Key Variables (listed for FY 2015 – FY 2017)

- Taxable kilowatt hours produced in Montana (millions of kilowatt hours).
 - 23,738, 22,800, 23,336.
- Tax rate on electrical energy produced in Montana (\$/kilowatt hour).
 - \$0.0002 for all years.

4. Other Important Points

- Montana's electrical generation is powered primarily by coal (~60%) and hydropower (~35%). The remainder is provided by petroleum, natural gas, and wind.
- Electrical energy tax revenue is not expected to be affected by any significant additions to Montana's electricity grid over the forecast period.