



# THE OUTLOOK FOR ENERGY

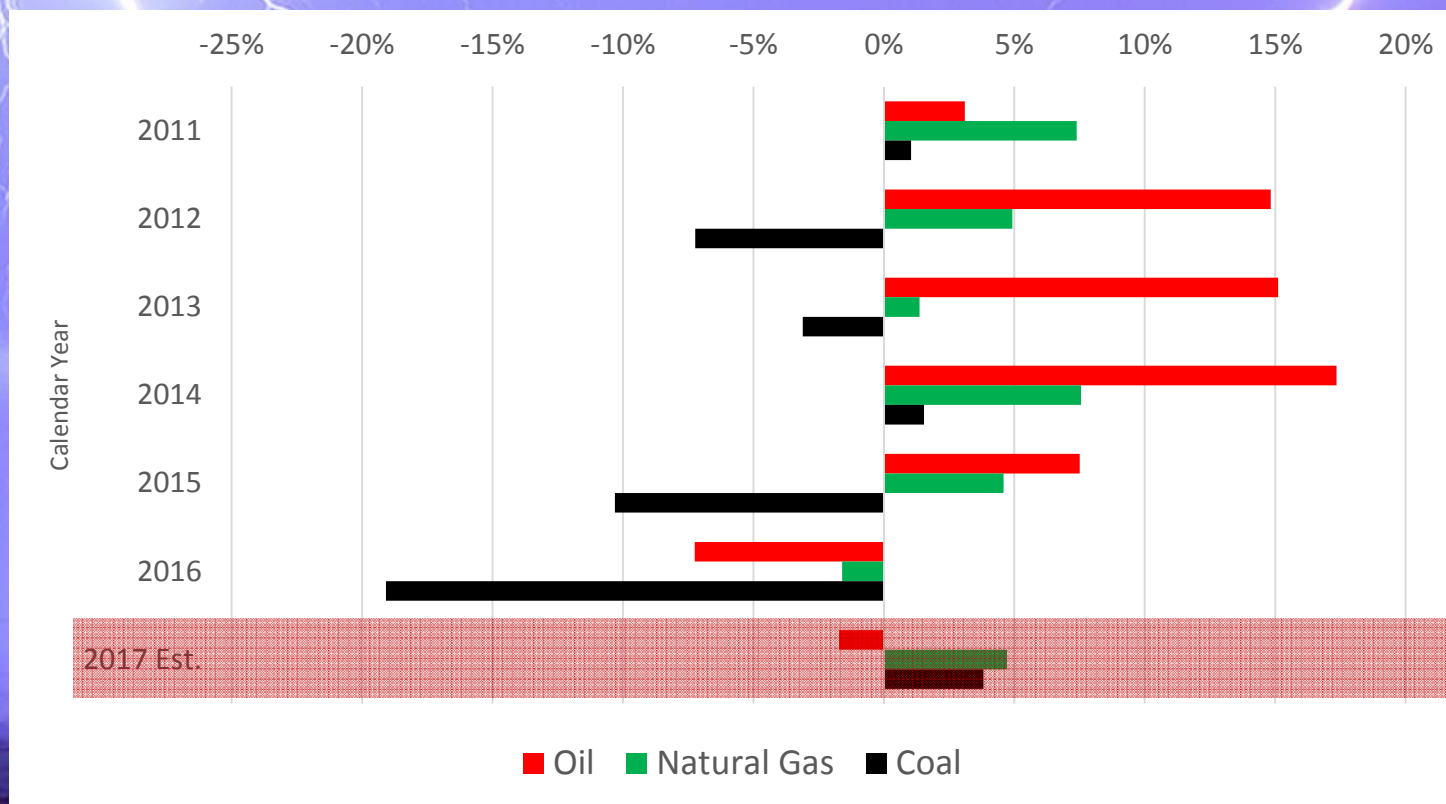
## Montana Energy Sector

By Terry Johnson



# U.S. Fossil Fuels Production Trends

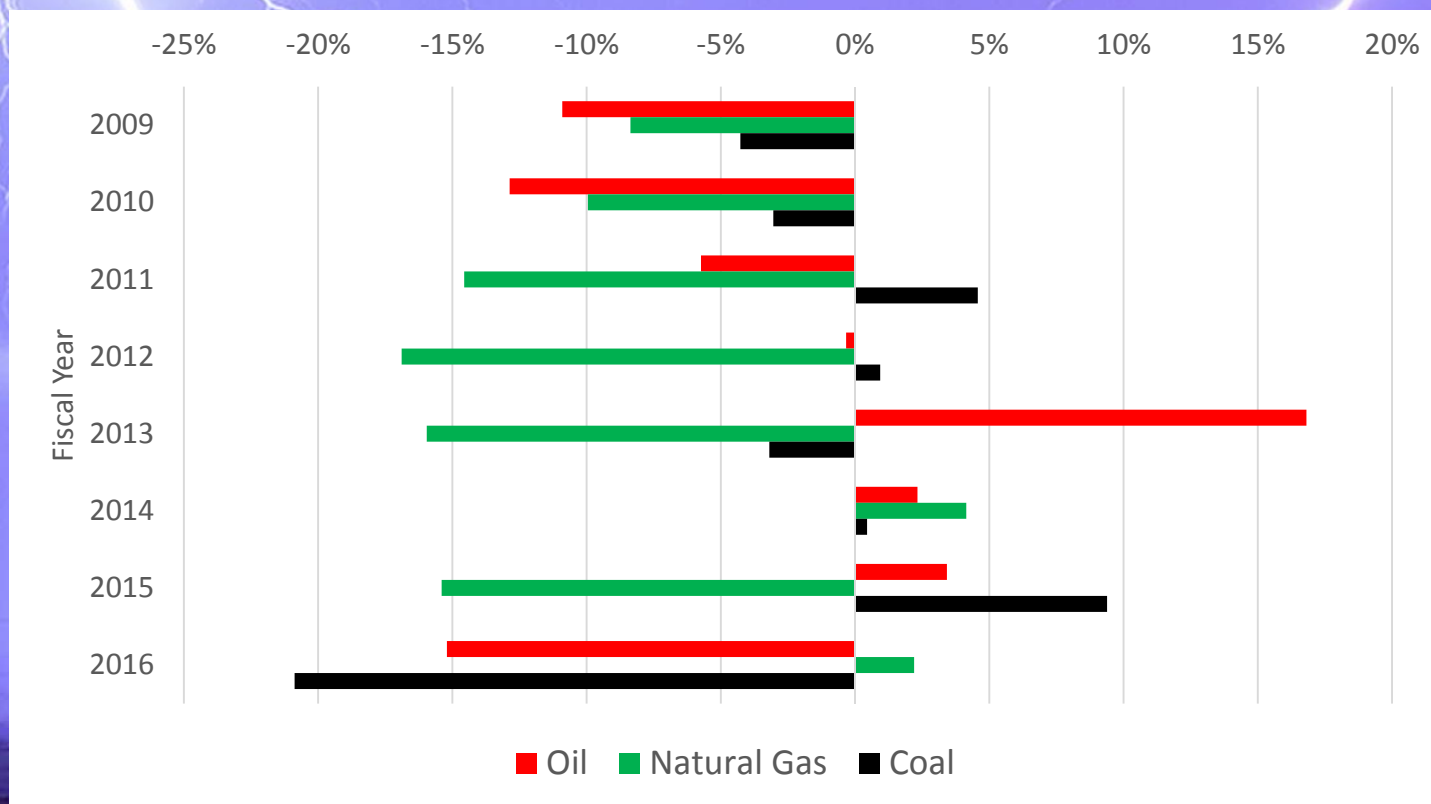
## Year over Year Percent Change



Source: US Energy Information Administration

# MT. Fossil Fuels Production Trends

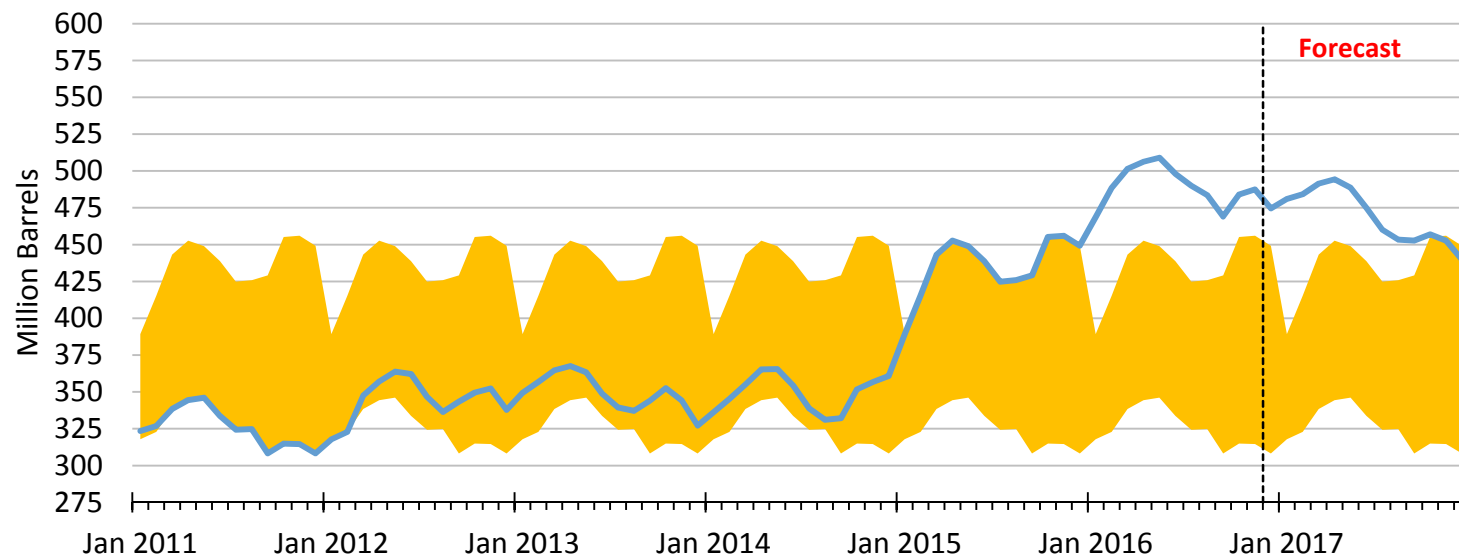
## Year over Year Percent Change



Source: Montana Department of Revenue

# Explaining Oil Production Weakness

## U.S. Crude Oil Inventories

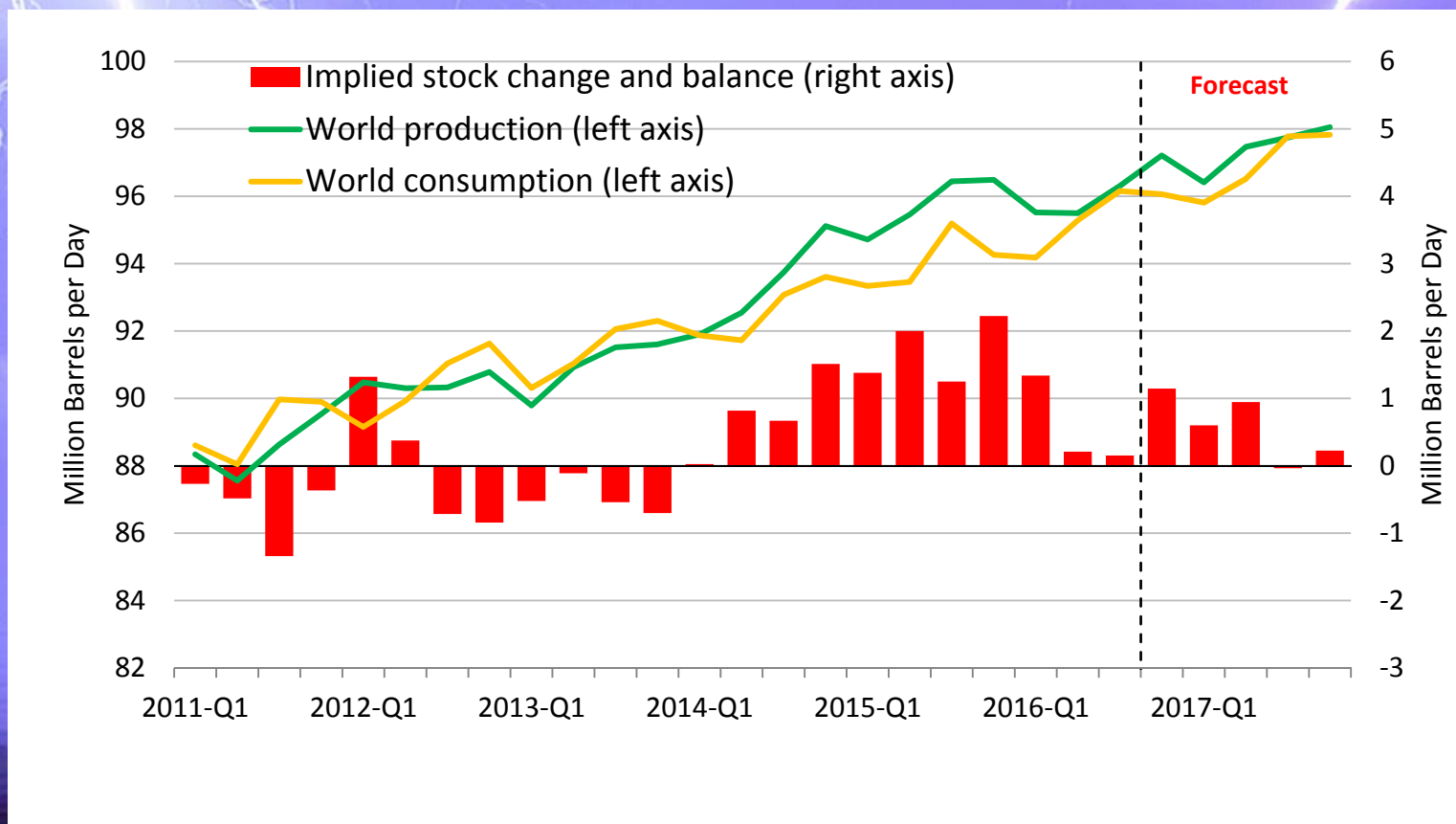


Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2011 - Dec. 2015.

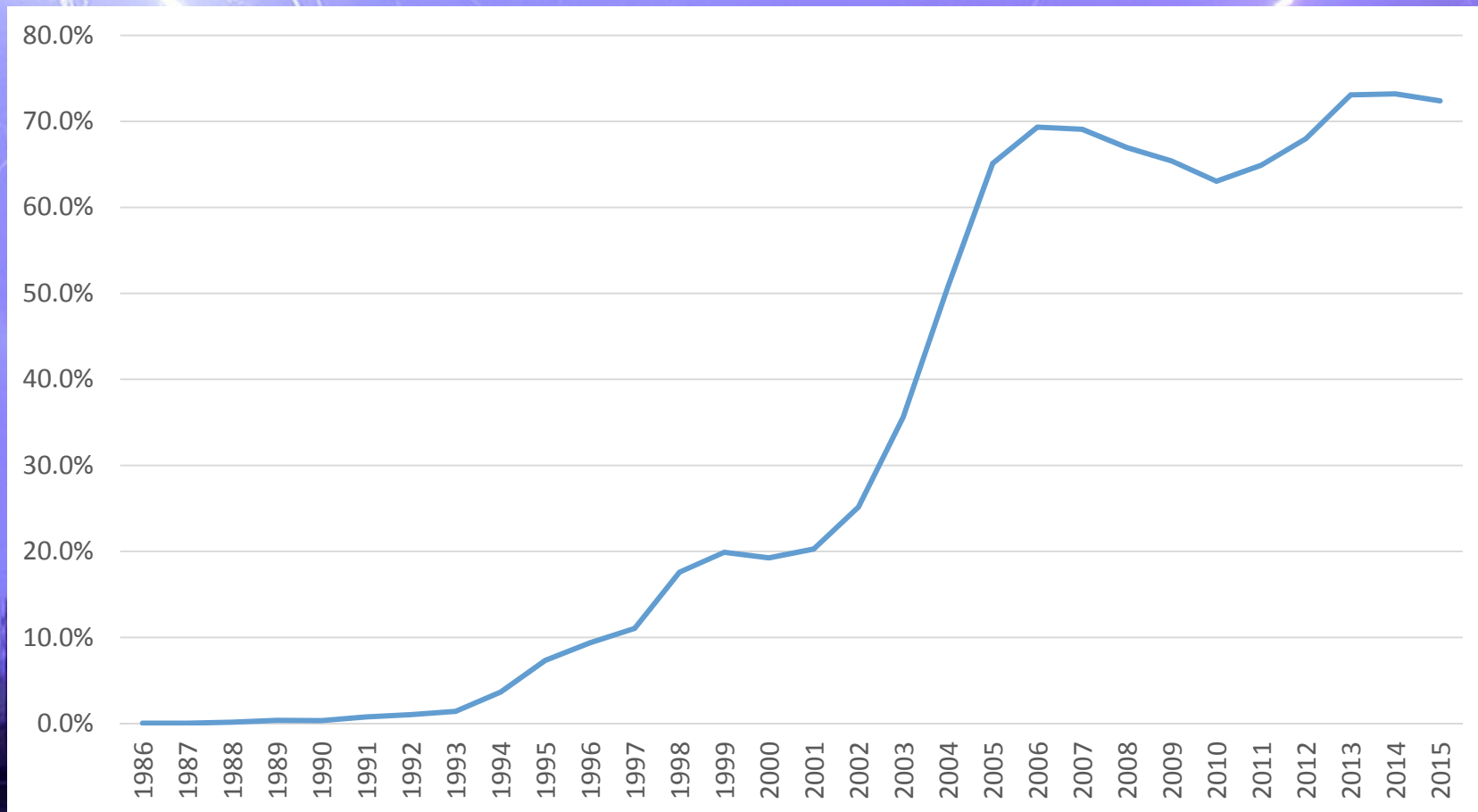


# Explaining Oil Production Weakness

## World Oil Production, Consumption, Balance



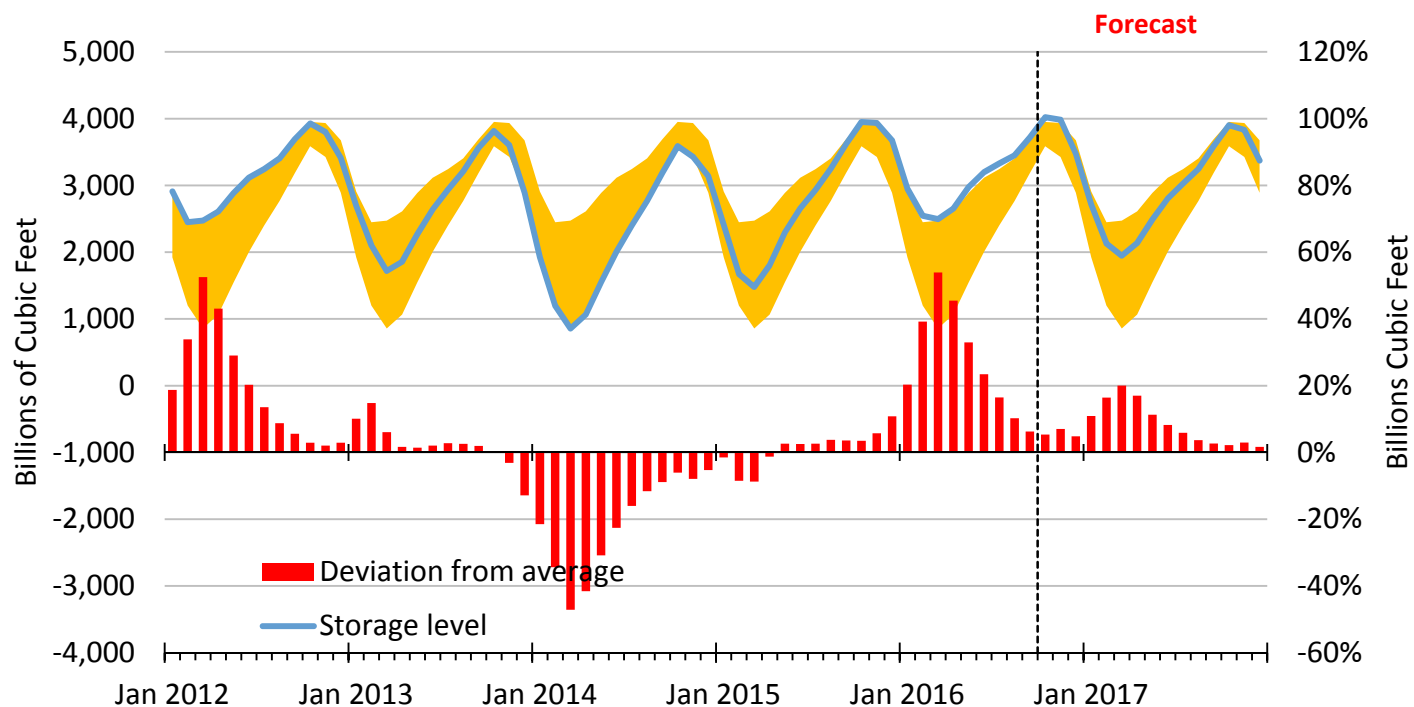
# MT. Oil Production New Technology Shift Percent of Horizontal Drilling



Source: Montana Board of Oil and Gas

# Explaining Natural Gas Weakness

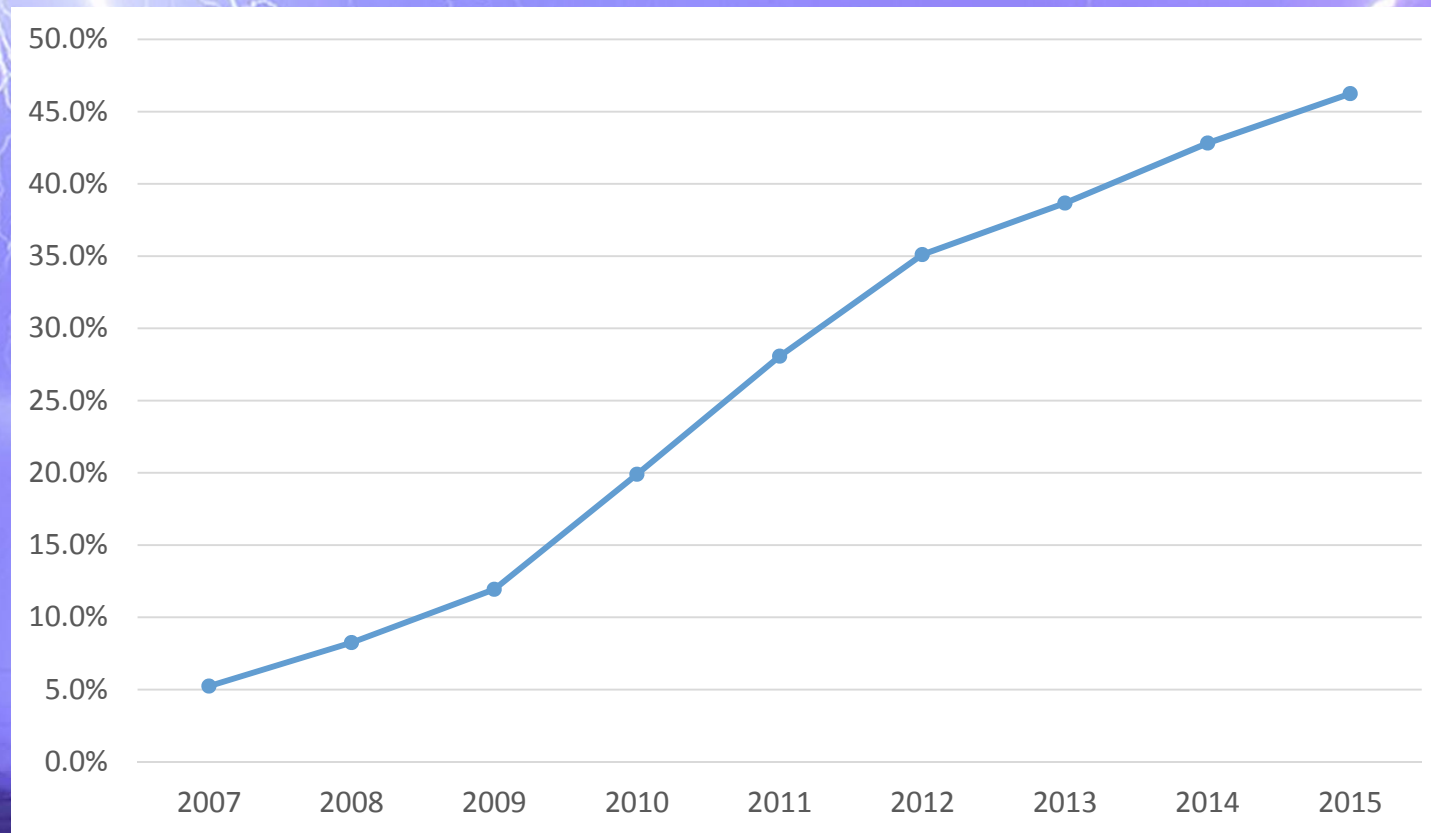
## U.S. Natural Gas Inventories



Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2011 - Dec. 2015.

# Explaining Natural Gas Weakness

## U.S. Natural Gas Production from Shale

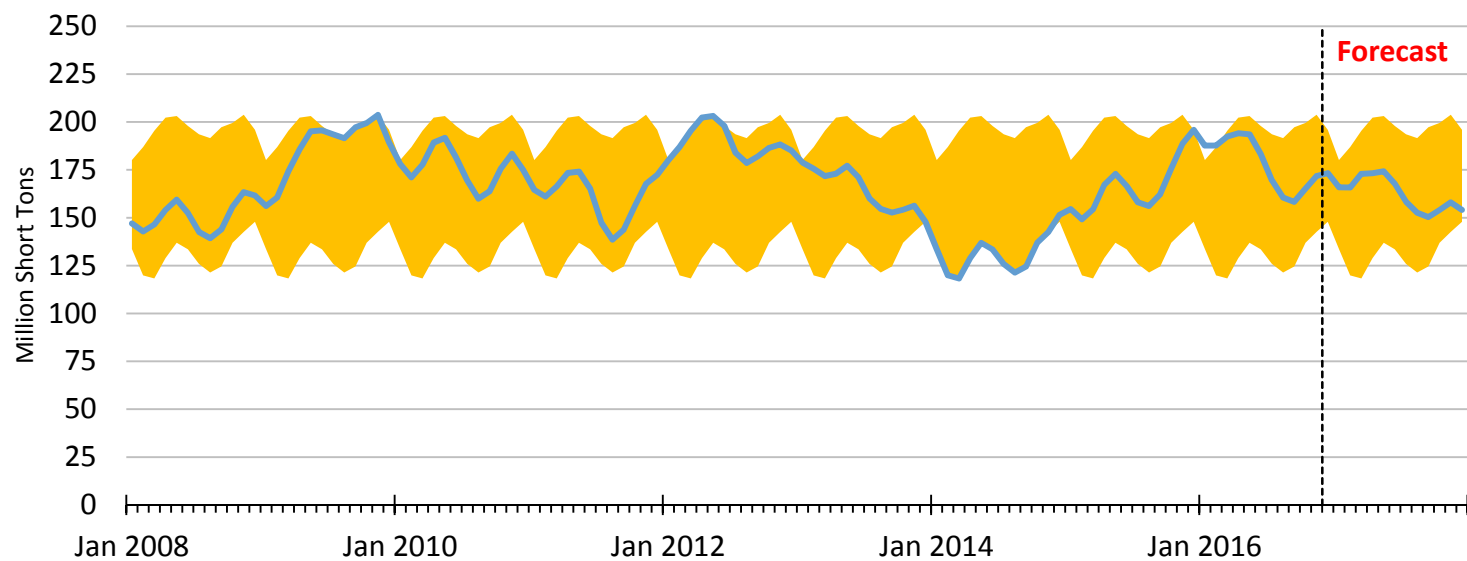


Source: US Energy Information Administration



# Explaining Coal Production Weakness

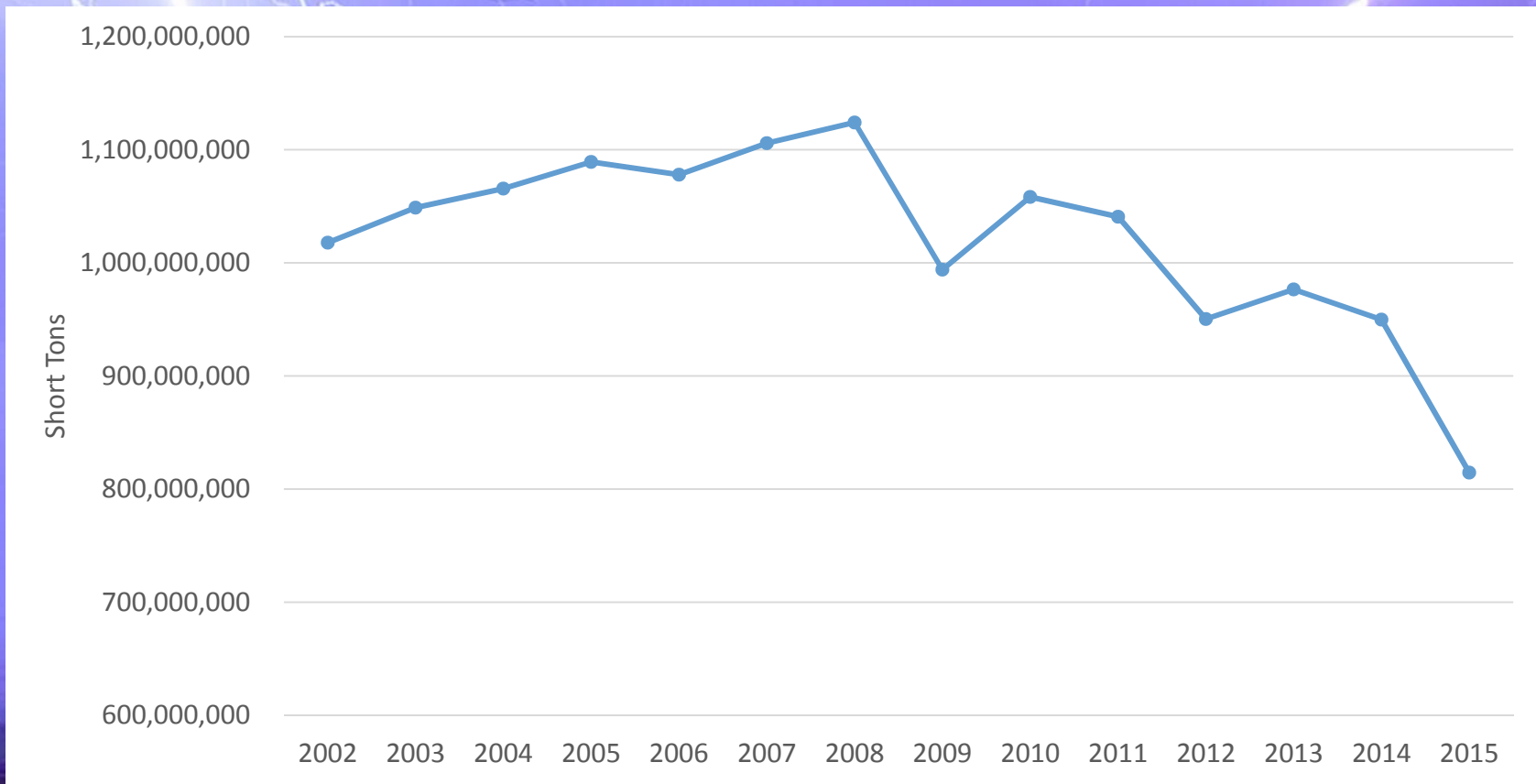
## U.S. Electric Power Coal Inventories



Note: Colored band around stock levels represents the range between the minimum and maximum from Jan. 2008 - Dec. 2015.

# Explaining Coal Production Weakness

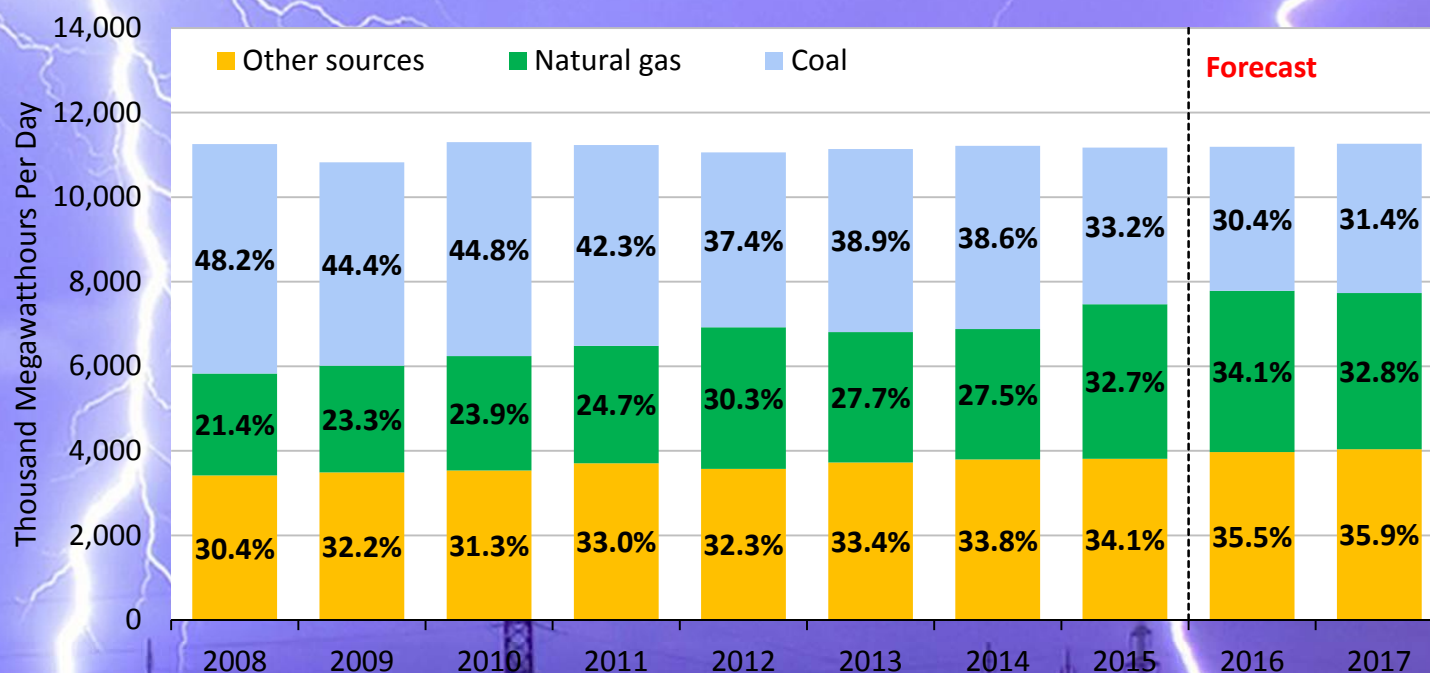
## U.S. Coal Use – Domestic & Exports



Source: US Energy Information Administration

# Explaining Coal Production Weakness

## U.S. Electricity Generation by Fuel Type

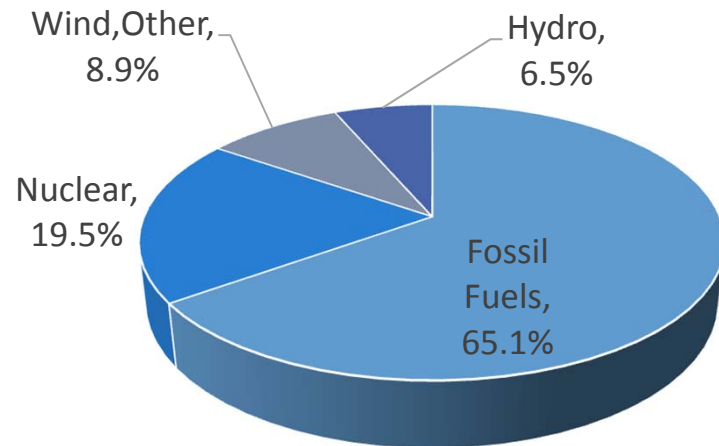


Note: Labels show percentage share of total generation provided by coal and natural gas.

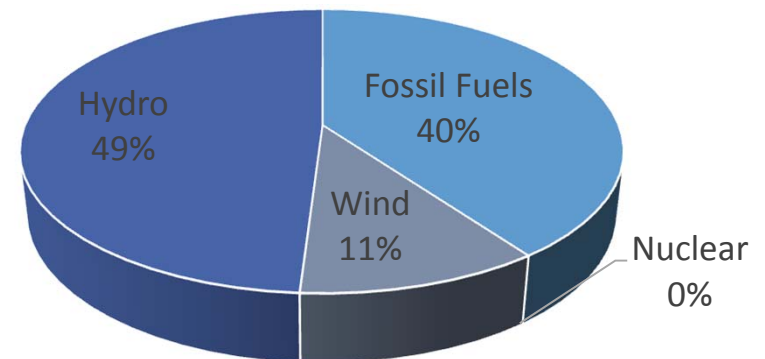
# Electricity Generation by Fuel

## U.S. versus Montana

**U.S.**



**Montana**



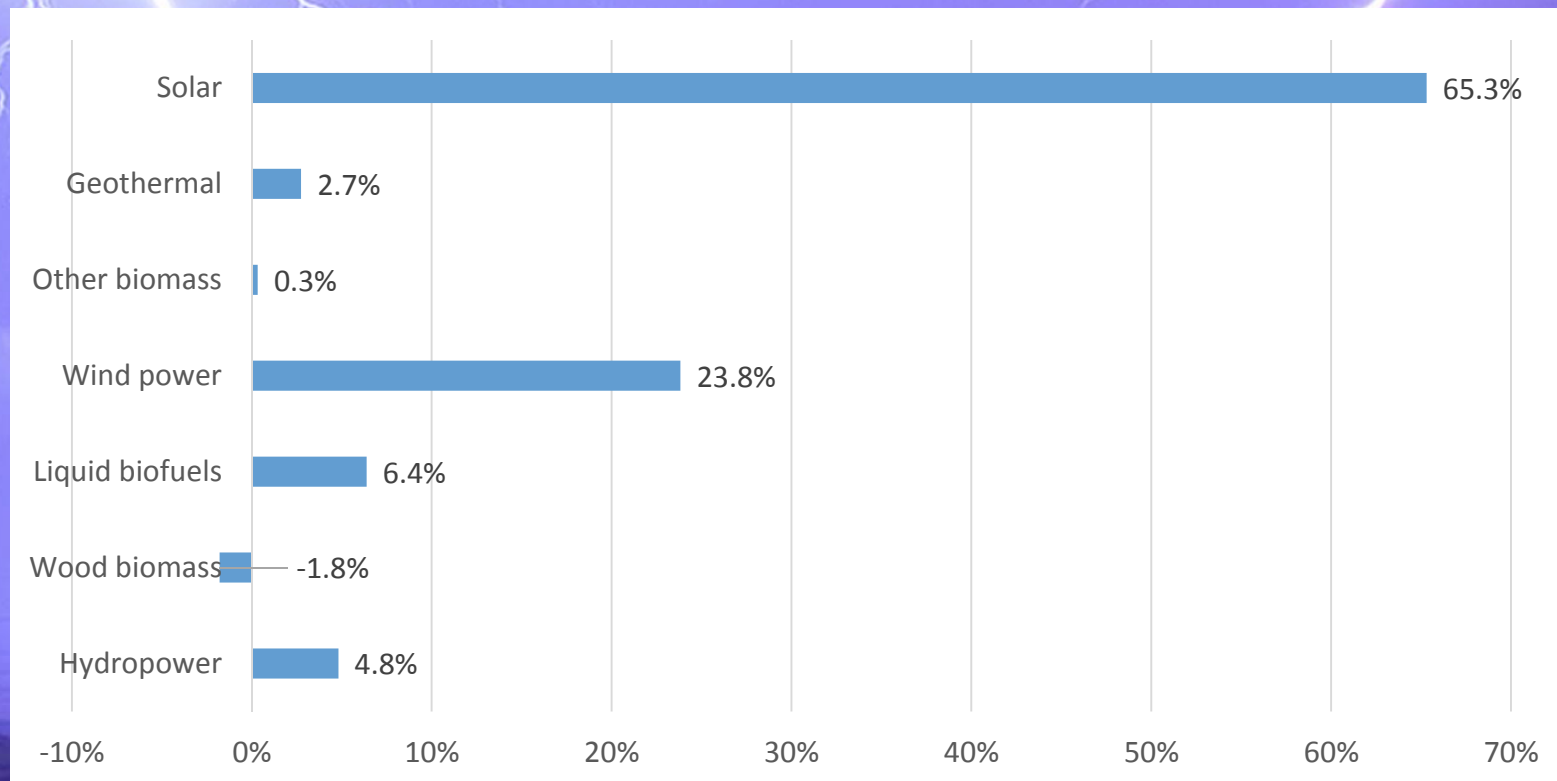


# U.S. Renewable Energy Growth Quadrillion BTU



Source: US Energy Information Administration

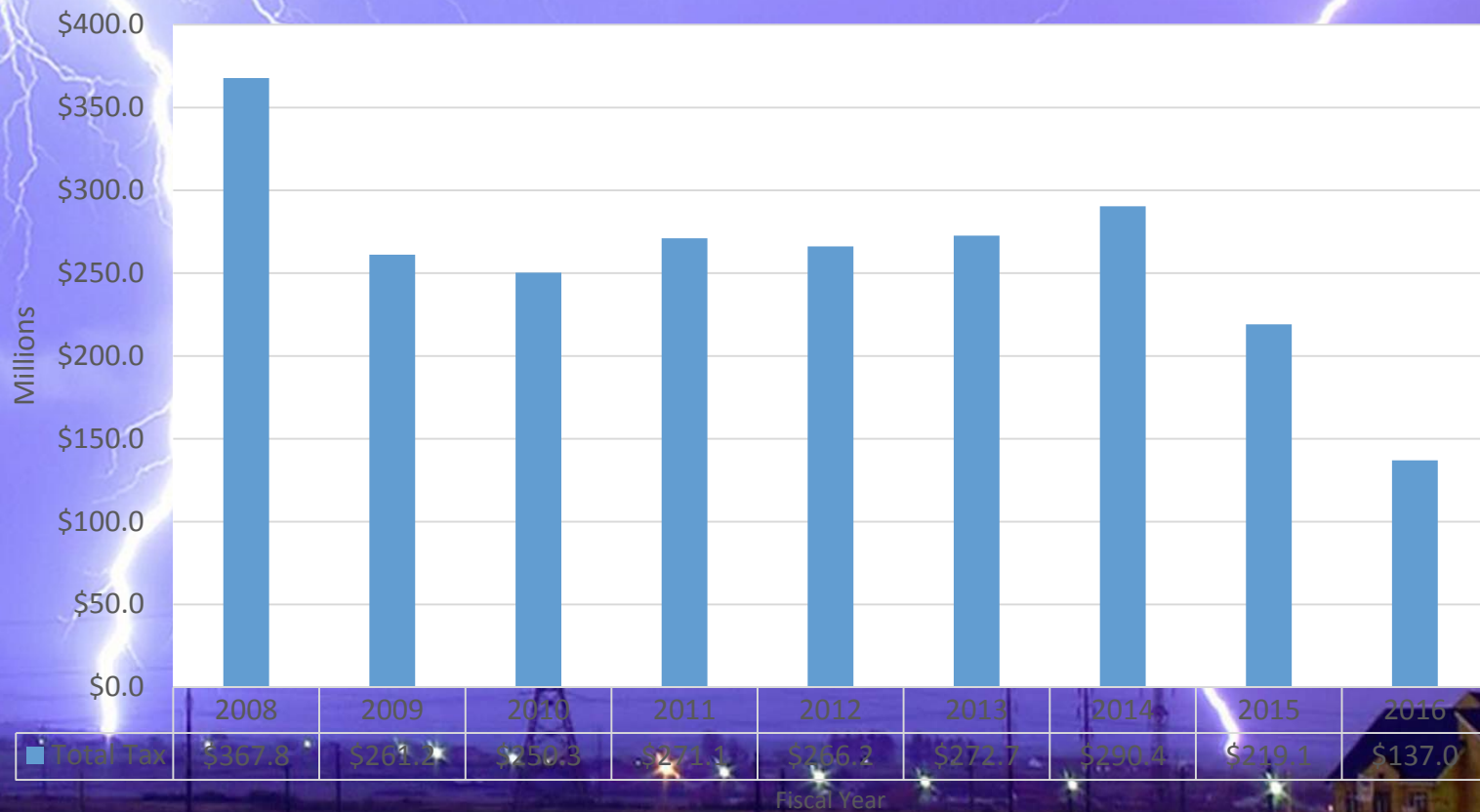
# U.S. Growth in Renewable Energy Percentage Change 2015 to 2017



Source: US Energy Information Administration

# How Does Energy Impact Revenues

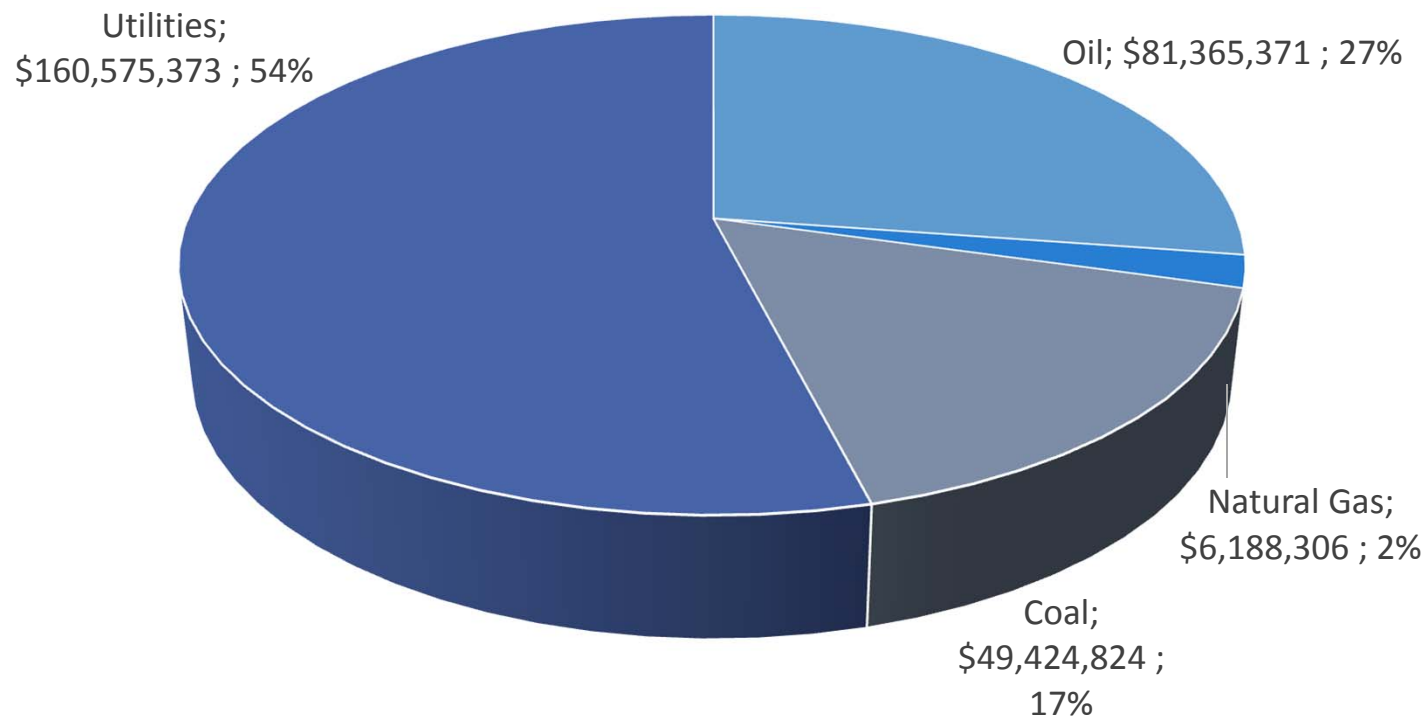
## Total State Tax Revenue - Oil, Gas, Coal



Source: Statewide Accounting, Budgeting, & Human Resource System

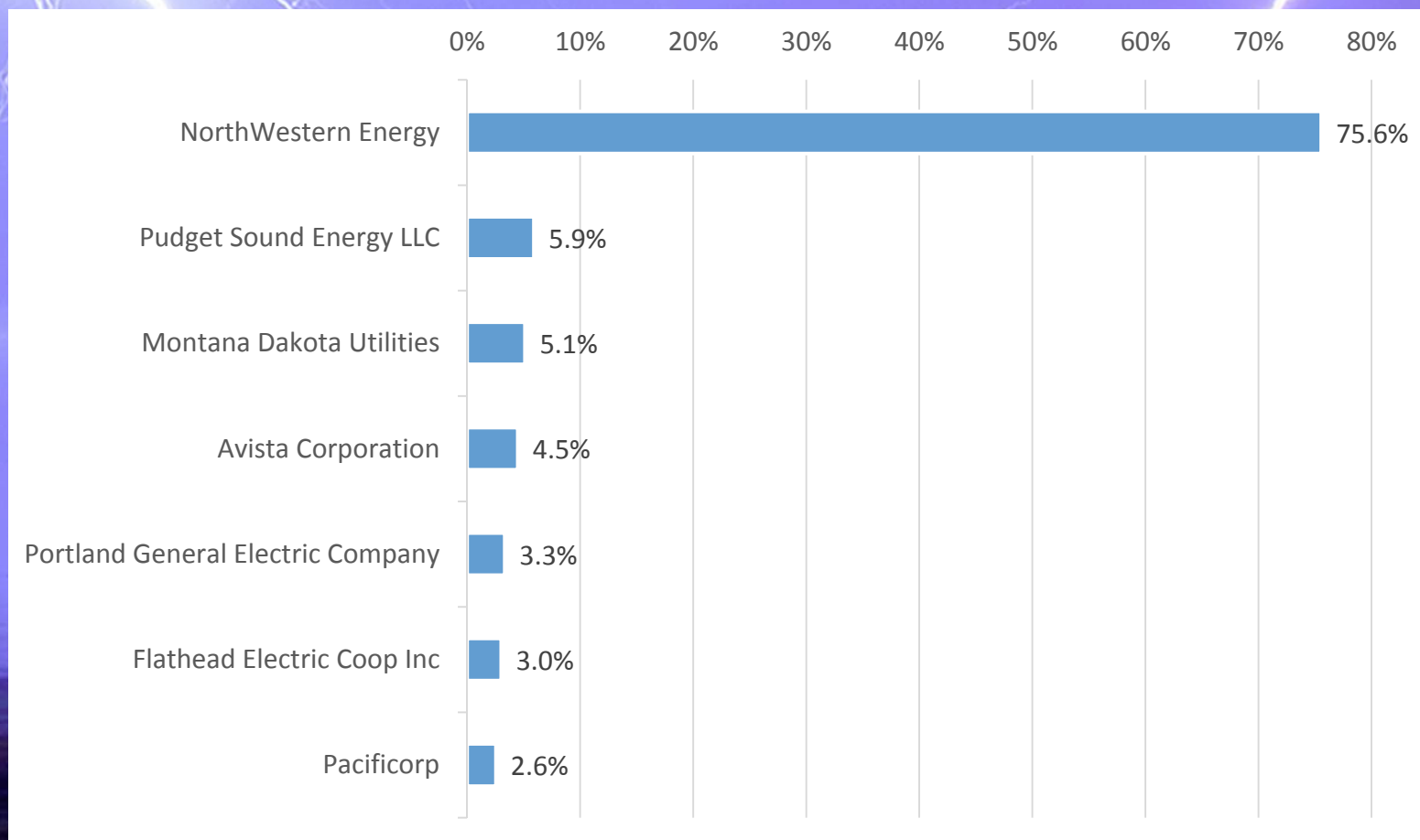
# Montana Energy Taxes 2016

## Fossil Fuel Prd. Tax Plus Utilities Prop. Tax



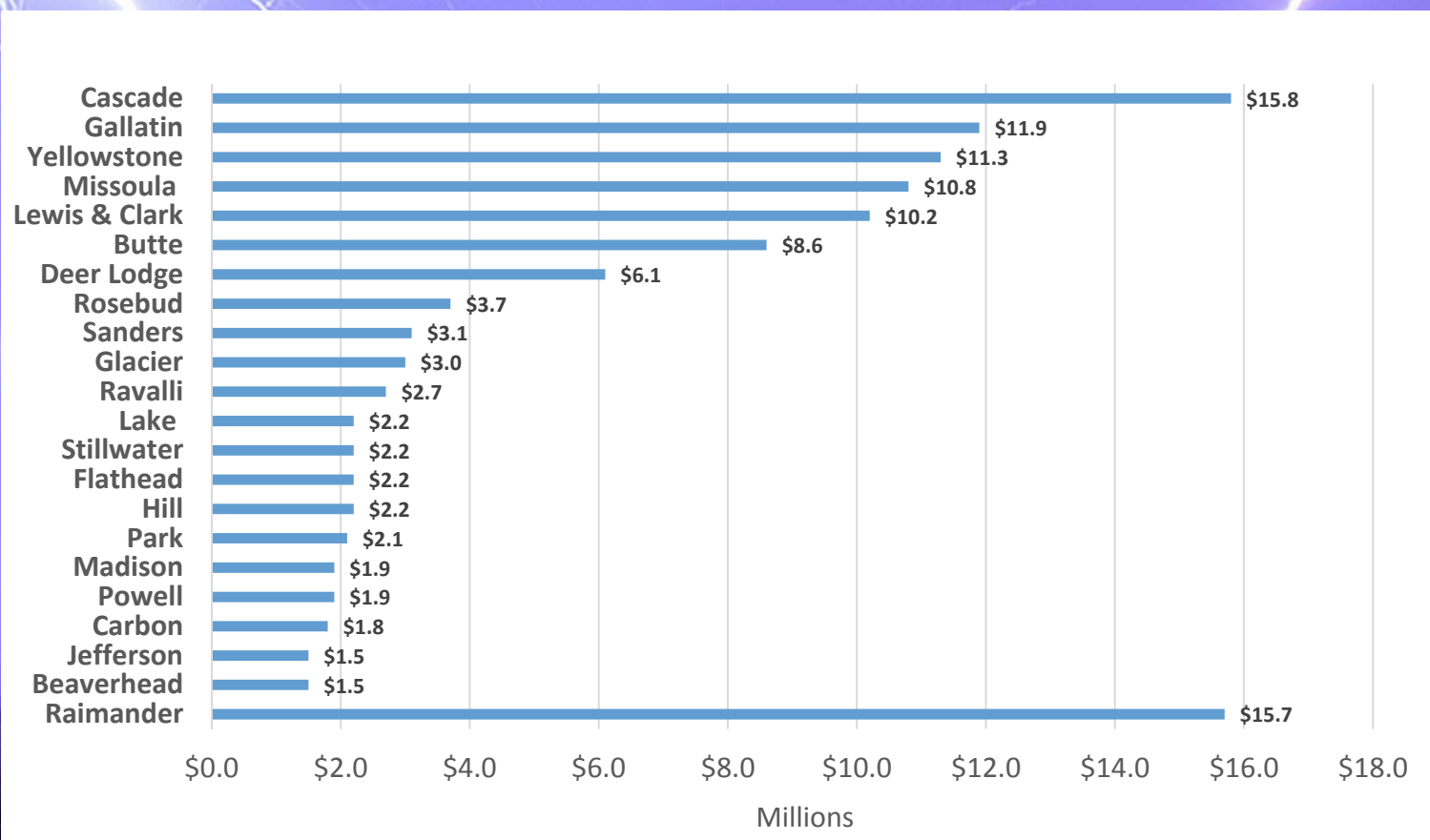


# Montana Centrally Assessed Property Tax Percent by Utility - 2015



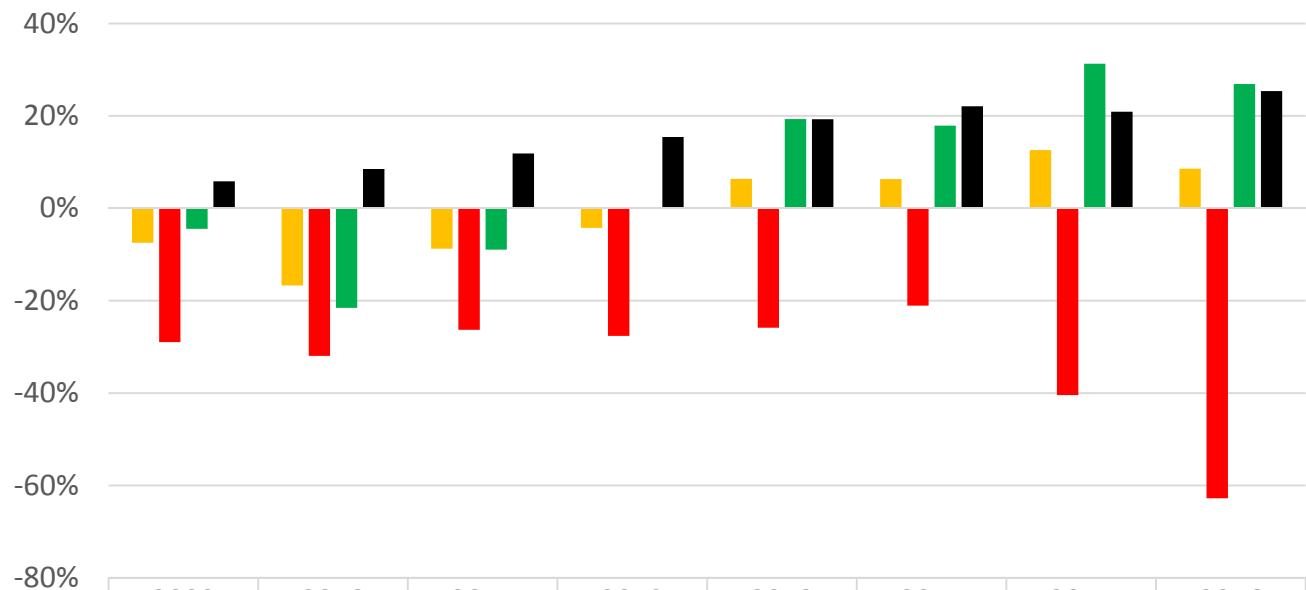
Source: Montana Department of Revenue

# NorthWestern Energy Property Tax 2015 Payments for Selected Counties



Source: Montana Department of Revenue

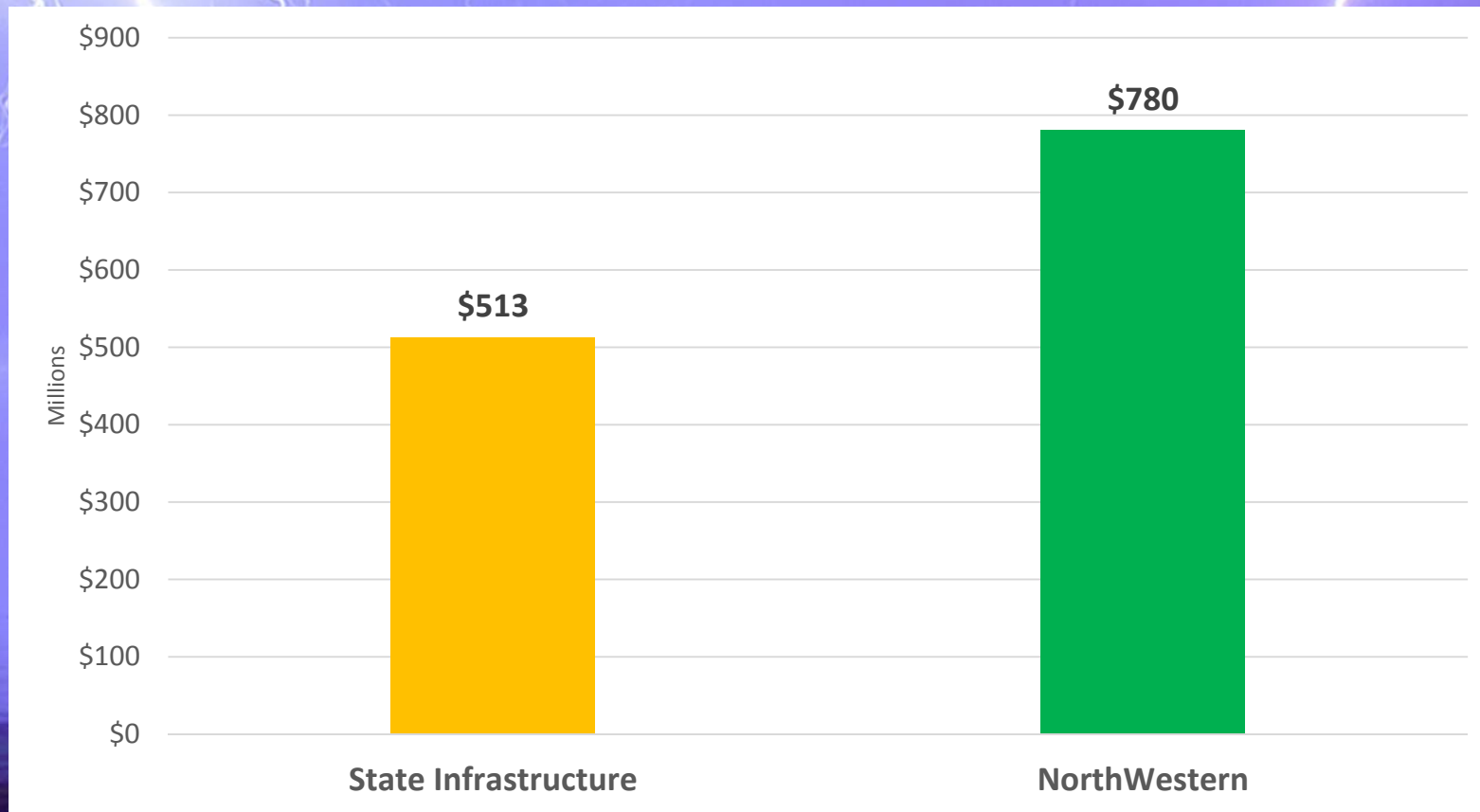
# Change in Montana Revenue Collections Percentage Change Since 2008



	2009	2010	2011	2012	2013	2014	2015	2016
General Fund Revenue	-7.45%	-16.71%	-8.75%	-4.23%	6.35%	6.32%	12.60%	8.59%
Oil, Gas, Coal Tax	-28.98%	-31.95%	-26.30%	-27.63%	-25.85%	-21.06%	-40.44%	-62.76%
Income & Corporate Tax	-4.43%	-21.54%	-8.95%	-0.04%	19.31%	17.90%	31.30%	26.90%
Property Tax	5.85%	8.52%	11.86%	15.42%	19.30%	22.09%	20.89%	25.39%

# Infrastructure Investments – 2013-2016

## State Govt. vs. NorthWestern Energy



Source: Legislative Fiscal Division, NorthWestern Energy



# Questions

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