

## Electric Power Generation in Wyoming

### Analysis of the Taxation of Electric Generation

(Credits allowed for severance taxes, gross products taxes, wind generation taxes, ad valorem taxes and sales & use taxes)

Energy Source	MegaWatt Hours (MWH) Generated 2017	% of electricity generated 2017	Net Interstate Exports 2017	% of Net Interstate Exports 2017	Estimated Severance and Gross Products Taxes per MWH Produced	Estimated Wind Generation Tax per MWH Produced <sup>3</sup>	Estimated Ad Valorem Tax per MWH Produced <sup>4</sup>	Estimated Sales & Use Tax per MWH Produced <sup>5</sup>	Electrical Generation Tax Rate per MWH	Gross Tax Revenue from Electric Generation	Severance and Gross Products Tax credits allowed for minerals used in production	Wind Generation Tax credit allowed for wind electricity producers	Ad Valorem Tax credit allowed for electricity producers	Sales & Use Tax credit allowed for electricity producers	Total tax credit allowed BEFORE multiplier for electric producers	Multiplier	Total tax credit allowed AFTER multiplier for electric producers	Net Revenue after credit for taxes paid	Generation Tax Revenue per MWH produced	Average annual kilowatt hours in residential consumption	Annual Tax Impact per household
<b>Total Electric Industry</b>																					
Thermal power Generation	41,297,567	88.35%			\$0.715	\$0.000	\$0.981	\$0.140	\$1.00	\$41,297,567	\$29,529,000	\$0	\$40,501,396	\$5,786,018	\$75,816,414	50.00%	\$37,908,207	\$3,389,360	\$0.082	10,088	\$0.83
Hydroelectric <sup>2</sup>	1,123,624	2.40%			\$0.000	\$0.000	\$0.981	\$0.140	\$1.00	\$1,123,624	\$0	\$0	\$1,101,962	\$157,426	\$1,259,388	50.00%	\$629,694	\$493,930	\$0.440	10,088	\$4.43
Other Renewables <sup>1</sup>	4,320,655	9.24%			\$0.000	\$0.937	\$0.981	\$0.140	\$1.00	\$4,320,655	\$0	\$4,049,179	\$4,237,358	\$605,348	\$8,891,884	50.00%	\$4,445,942	-\$125,287	(\$0.029)	10,088	(\$0.29)
<b>Total Electric Industry</b>	<b>46,741,846</b>	<b>100.00%</b>	<b>27,469,207</b>	<b>58.77%</b>			<b>\$0.981</b>	<b>\$0.140</b>		<b>\$46,741,846</b>	<b>\$29,529,000</b>	<b>\$4,049,179</b>	<b>\$45,840,716</b>	<b>\$6,548,792</b>	<b>\$85,967,687</b>		<b>\$42,983,843</b>	<b>\$3,758,003</b>	<b>\$0.080</b>	<b>10,088</b>	<b>\$0.81</b>
<b>Total Electric Industry</b>																					
Thermal power Generation	41,297,567	88.35%			\$0.715	\$0.000	\$0.981	\$0.140	\$2.00	\$82,595,134	\$29,529,000	\$0	\$40,501,396	\$5,786,018	\$75,816,414	50.00%	\$37,908,207	\$44,686,927	\$1.082	10,088	\$10.92
Hydroelectric <sup>2</sup>	1,123,624	2.40%			\$0.000	\$0.000	\$0.981	\$0.140	\$2.00	\$2,247,248	\$0	\$0	\$1,101,962	\$157,426	\$1,259,388	50.00%	\$629,694	\$1,617,554	\$1.440	10,088	\$14.52
Other Renewables <sup>1</sup>	4,320,655	9.24%			\$0.000	\$0.937	\$0.981	\$0.140	\$2.00	\$8,641,310	\$0	\$4,049,179	\$4,237,358	\$605,348	\$8,891,884	50.00%	\$4,445,942	\$4,195,368	\$0.971	10,088	\$9.80
<b>Total Electric Industry</b>	<b>46,741,846</b>	<b>100.00%</b>	<b>27,469,207</b>	<b>58.77%</b>			<b>\$0.981</b>	<b>\$0.140</b>		<b>\$93,483,692</b>	<b>\$29,529,000</b>	<b>\$4,049,179</b>	<b>\$45,840,716</b>	<b>\$6,548,792</b>	<b>\$85,967,687</b>		<b>\$42,983,843</b>	<b>\$50,499,849</b>	<b>\$1.080</b>	<b>10,088</b>	<b>\$10.90</b>
<b>Total Electric Industry</b>																					
Thermal power Generation	41,297,567	88.35%			\$0.715	\$0.000	\$0.981	\$0.140	\$3.00	\$123,892,701	\$29,529,000	\$0	\$40,501,396	\$5,786,018	\$75,816,414	50.00%	\$37,908,207	\$85,984,494	\$2.082	10,088	\$21.00
Hydroelectric <sup>2</sup>	1,123,624	2.40%			\$0.000	\$0.000	\$0.981	\$0.140	\$3.00	\$3,370,872	\$0	\$0	\$1,101,962	\$157,426	\$1,259,388	50.00%	\$629,694	\$2,741,178	\$2.440	10,088	\$24.61
Other Renewables <sup>1</sup>	4,320,655	9.24%			\$0.000	\$0.937	\$0.981	\$0.140	\$3.00	\$12,961,965	\$0	\$4,049,179	\$4,237,358	\$605,348	\$8,891,884	50.00%	\$4,445,942	\$8,516,023	\$1.971	10,088	\$19.88
<b>Total Electric Industry</b>	<b>46,741,846</b>	<b>100.00%</b>	<b>27,469,207</b>	<b>58.77%</b>			<b>\$0.981</b>	<b>\$0.140</b>		<b>\$140,225,538</b>	<b>\$29,529,000</b>	<b>\$4,049,179</b>	<b>\$45,840,716</b>	<b>\$6,548,792</b>	<b>\$85,967,687</b>		<b>\$42,983,843</b>	<b>\$97,241,695</b>	<b>\$2.080</b>	<b>10,088</b>	<b>\$20.99</b>
<b>Total Electric Industry</b>																					
Thermal power Generation	41,297,567	88.35%			\$0.715	\$0.000	\$0.981	\$0.140	\$5.00	\$206,487,835	\$29,529,000	\$0	\$40,501,396	\$5,786,018	\$75,816,414	50.00%	\$37,908,207	\$168,579,628	\$4.082	10,088	\$41.18
Hydroelectric <sup>2</sup>	1,123,624	2.40%			\$0.000	\$0.000	\$0.981	\$0.140	\$5.00	\$5,618,120	\$0	\$0	\$1,101,962	\$157,426	\$1,259,388	50.00%	\$629,694	\$4,988,426	\$4.440	10,088	\$44.79
Other Renewables <sup>1</sup>	4,320,655	9.24%			\$0.000	\$0.937	\$0.981	\$0.140	\$5.00	\$21,603,275	\$0	\$4,049,179	\$4,237,358	\$605,348	\$8,891,884	50.00%	\$4,445,942	\$17,157,333	\$3.971	10,088	\$40.06
<b>Total Electric Industry</b>	<b>46,741,846</b>	<b>100.00%</b>	<b>27,469,207</b>	<b>58.77%</b>			<b>\$0.981</b>	<b>\$0.140</b>		<b>\$233,709,230</b>	<b>\$29,529,000</b>	<b>\$4,049,179</b>	<b>\$45,840,716</b>	<b>\$6,548,792</b>	<b>\$85,967,687</b>		<b>\$42,983,843</b>	<b>\$190,725,387</b>	<b>\$4.080</b>	<b>10,088</b>	<b>\$41.16</b>

Sources: Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report" and predecessor forms. EIA Wyoming electricity profile 2017, EIA 2018 Residential average monthly bill by Census Division and State,

<sup>1</sup> Other renewables is limited to wind energy in Wyoming in 2017

<sup>2</sup> Hydroelectric facilities and their transmission providers are both federally owned and may not be taxable.

<sup>3</sup> The estimated wind generation tax per MWH produced is based on the total wind generation tax reported for calendar year 2017 wind generation production. Actual amounts for each facility will be higher or lower, and will depend on the wind generation tax paid by each generating facility.

<sup>4</sup> The estimated ad valorem tax per MWH produced is based on the total assessed valuation of all power generation facilities in the 2019 tax year. Actual amounts for each facility will be higher or lower, and will depend on the property value of the electrical generating facility.

<sup>5</sup> The estimated sales and use tax per MWH produced is based on the total use tax paid by all companies in the NAICS category "Power Generation and Supply" in fiscal year 2019. Actual amounts for each facility will be higher or lower, and will depend on the taxable purchases of the electrical generating facility.

This tax would apply to all producers of electricity. Included in this analysis is the allowance of credits to power generators for their use of Wyoming minerals in the production of electricity. The credits approximate the state severance taxes and county gross products taxes on coal, using a factor of 0.62 tons per MWH, based on EIA data. This tax would also apply to electricity produced from petroleum and natural gas power plants. These minerals are not included in the analysis as their relative production in Wyoming (less than 3%) is not material. Also included is the allowance for credits for wind generation taxes, ad valorem taxes and sales & use taxes.