

# The Case for an Electricity Tax in Wyoming

Senator Cale Case, PhD

September 30, 2021

Joint Interim Revenue Committee

Casper, WY

Wyoming produces 14 times more energy than it consumes, and it is the biggest net energy supplier among the states.

Energy Information Administration (EIA)

<https://www.eia.gov/state/print.php?sid=WY#:~:text=Wyoming%20Quick%20Facts%20Wyoming%20produces%2014%20times%20more,one-third%20of%20U.S.%20coal%20reserves%20at%20producing%20mines.>

- Coal, oil, gas and electricity drive our State's revenues and we all know that this is changing.
- Electricity is one of our top exports.
- 85% of Rocky Mountain Power's (RMP) generation is exported. (60% statewide).
- Most of this is now generated using Wyoming coal.

Utility-Scale Net Electricity Generation (share of total)	Wyoming	U.S. Average	Period
Petroleum-Fired	0.1 %	0.2 %	Jun-21
Natural Gas-Fired	4.4 %	39.7 %	Jun-21
Coal-Fired	78.6 %	23.3 %	Jun-21
Nuclear	0 %	17.7 %	Jun-21
Renewables	16.1 %	18.5 %	Jun-21

- Traditional generation methods have benefited the state with plentiful high paying jobs through a solid workforce, abundant taxes on carbon-based minerals, a relatively small physical footprint and a long-time presence in our communities.
- New generation methods do not have fuels that are taxed, employ fewer people, and require vast amounts of surface resources.

# Wyoming Electricity Profile

## Wyoming Electricity Profile 2019

**Table 1. 2019 Summary statistics (Wyoming)**

Item	Value	Rank
<b>Primary energy source</b>		<b>Coal</b>
<b>Net summer capacity (megawatts)</b>	<b>8,667</b>	<b>39</b>
Electric utilities	7,436	30
IPP & CHP	1,231	43
<b>Net generation (megawatthours)</b>	<b>42,145,656</b>	<b>32</b>
Electric utilities	37,606,739	26
IPP & CHP	4,538,917	42
<b>Emissions</b>		
Sulfur Dioxide (short tons)	29,042	19
Nitrogen Oxide (short tons)	35,477	16
Carbon Dioxide (thousand metric tons)	39,199	17
Sulfur Dioxide (lbs/MWh)	1.4	10
Nitrogen Oxide (lbs/MWh)	1.7	5
Carbon Dioxide (lbs/MWh)	2,046	1
<b>Total retail sales (megawatthours)</b>	<b>16,763,496</b>	<b>41</b>
Full service provider sales	16,763,496	40
Energy-only provider sales	.	.
<b>Direct use (megawatthours)</b>	<b>1,374,786</b>	<b>22</b>
<b>Average retail price (cents/kWh)</b>	<b>8.10</b>	<b>47</b>

Sources: U.S. Energy Information Administration, Form EIA-860, *Annual Electric Generator Report*, U.S. Energy Information Administration, Form EIA-861, *Annual Electric Power Industry Report*, U.S. Energy Information Administration, Form EIA-923, *Power Plant Operations Report* and predecessor forms.

# Coal

**Wyoming coal production has declined and according to every account, will continue to do so.**

- Tied to life and phaseout of powerplants. Wyoming coal has no other use.
- Sequestration unproven at scale and perhaps too late to make a difference.
- Coal exports represent only a small fraction of production now and realistically into the future.





# Oil and Gas

- Oil is coming under increased environmental pressure.
- Very likely that by 2030:
  - Half of all new passenger cars will be electric.
  - Both Houses of Congress will have memberships reflective of increased global warming consciousness.
  - The US will seek a position as a global leader on climate change.
  - New oil production in Wyoming will be restricted, either through leasing restrictions or constraints from the Federal Government, owner of most of the mineral rights.

## [Biden's plan to cut U.S. oil production becomes clearer](https://www.worldoil.com/news/2021/1/22/biden-s...)

<https://www.worldoil.com/news/2021/1/22/biden-s...>



Jan 23, 2021 · Biden's plan to cut U.S. oil production becomes clearer. WASHINGTON (Bloomberg) --Hours after taking office, President Joe Biden made good on a campaign promise to cancel the Keystone XL oil ...

If the world wants to avoid a full-blown climate catastrophe, the overwhelming majority of the planet's fossil fuel reserves must remain in the ground, according to a new study published in the journal [Nature](#) this week.

Scientists at University College London used modeling to reveal that 60 percent of current oil reserves, 60 percent of fossil methane gas, and 90 percent of coal reserves must stay in the ground by 2050 if Earth is going to have at least a 50 percent chance of limiting global warming to 1.5 °C (2.7°F) above pre-industrial levels.

NEWS

## Greta Thunberg to Congress: US must cut fossil fuels before poorer countries

By Steven Nelson

April 22, 2021 | 12:59pm | Updated



By Tom Hale



Youth climate activist Greta Thunberg chides leaders for too much 'blah, blah, blah' on climate

Thunberg and fellow activist Vanessa Nakate chastized leaders for failing to meet funding ...  
[Associated Press on MSN.com · 25m](#)



## Biden to halt new oil and gas leases on federal lands Wednesday

By Kevin Liptak, Kristen Holmes and Kate Sullivan, CNN · 1/26/2021



Generation methods are changing but electricity production will continue to be a big part of the Wyoming economy for decades to come..

- Nuclear

Bill Gates, Warren Buffett building nuclear reactor in Wyoming

<https://nypost.com/2021/06/04/bill-gates-warren...>



Jun 05, 2021 · Billionaire buddies **Bill Gates** and Warren Buffett are teaming up to build a **nuclear reactor** — on the site of a coal plant that's being phased out in **Wyoming**. ...

Author: Will Feuer

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SEPTEMBER 17, 2021

**America's Largest Windfarm: an Environmental Disaster?**

BY [ERIK MOLVAR](#)

Recent news stories focus on how a conservation easement on a large ranch in northwest Colorado is blocking a major new transmission line, and therefore stalling the enormous Chokecherry-Sierra Madre wind farm in southcentral Wyoming. While these articles make some valid points

- Wind

**Solar farm planned for site next to Wyoming coal-fired plant**

January 31, 2019

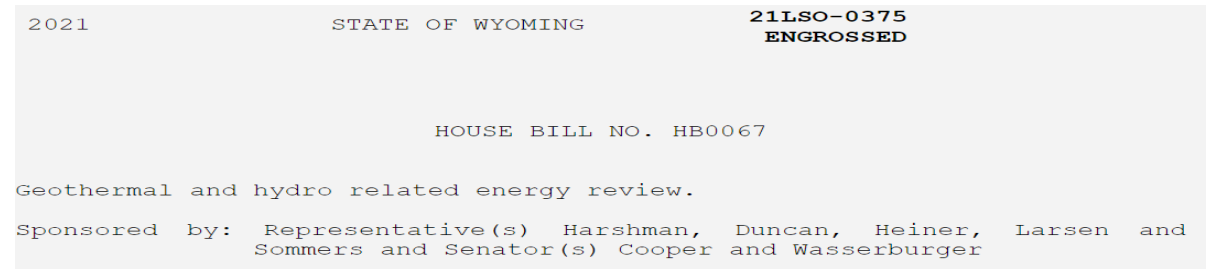


Click to copy

CASPER, Wyo. (AP) — A solar farm has been proposed for a site next to a power plant that has closed one of its three coal-burning units in southwest Wyoming.

- Solar

- Geothermal



- Hydro/Storage

[Wyoming | Argonne National Laboratory](https://www.anl.gov/argonne-impacts/wyoming)

<https://www.anl.gov/argonne-impacts/wyoming>

Scientists from the U.S. Department of Energy's (DOE) Argonne National Laboratory and other institutions are working with Bozeman, Montana-based Absaroka Energy to evaluate a **pumped storage hydropower (PSH)** facility in central **Wyoming**. Located along the proposed route of the Energy Gateway West transmission line, the 400 -megawatt **PSH** facility would be able to serve additional areas in the ...



# The electricity tax would most likely be a gross receipts tax.

- A charge on the revenues received from

"There is levied an excise tax upon the privilege of producing and selling electricity in this state. The tax shall be imposed upon the sale of any electricity produced in Wyoming on or after January 1, 2023, and shall be paid by the person producing the electricity. The tax shall be imposed on the annual gross energy earnings from energy produced in Wyoming."

- Small, home generators would be excluded from the tax.
- Built-in flexible tax as technologies shift from tax heavy fossil fuels to other sources.

Taking a cue from Article 15, Section 18 of the Wyoming Constitution:  
*Full tax credit allowed against any liability arising from a tax on income.*

Article 15, Section 18:

“No tax shall be imposed upon income without allowing full credit against such tax liability for all sales, use, and ad valorem taxes paid in the taxable year by the same taxpayer to any taxing authority in Wyoming.” Wyoming Constitution

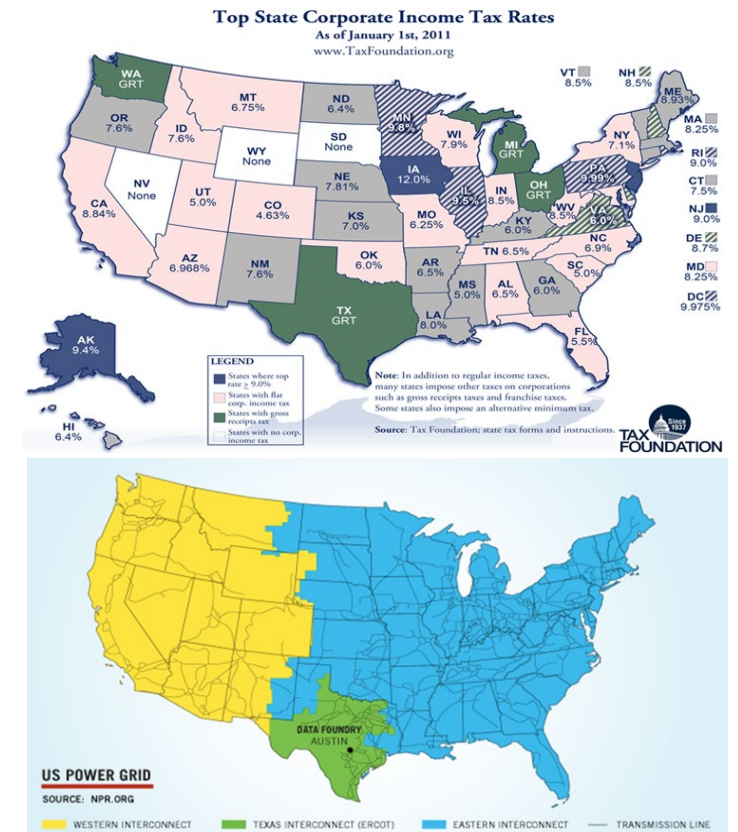
Expand this concept to also allow credit for severance (and ad valorem) taxes paid by the utility and upstream fuel suppliers.



The relative burden of taxes depends on the totality of taxes imposed in the relevant market.

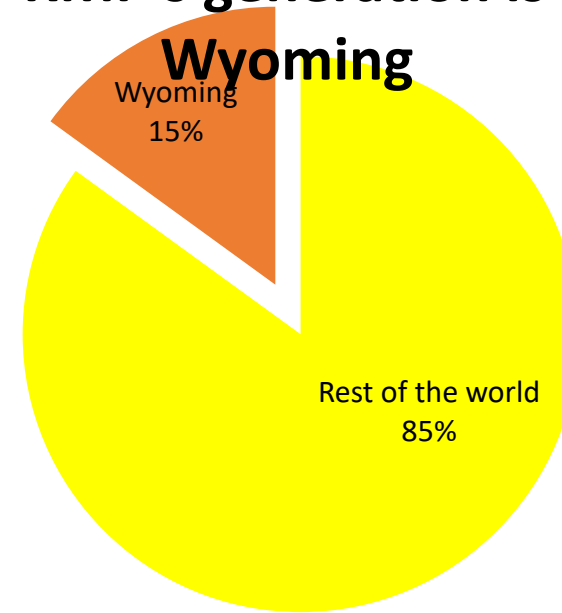
Other states tax electricity in various ways. Some states have a production tax. Most have a corporate income or a gross receipts tax. Most have higher rates for sales and property taxes.

Wyoming and Nevada are the only states in the western grid that do not impose an income tax.

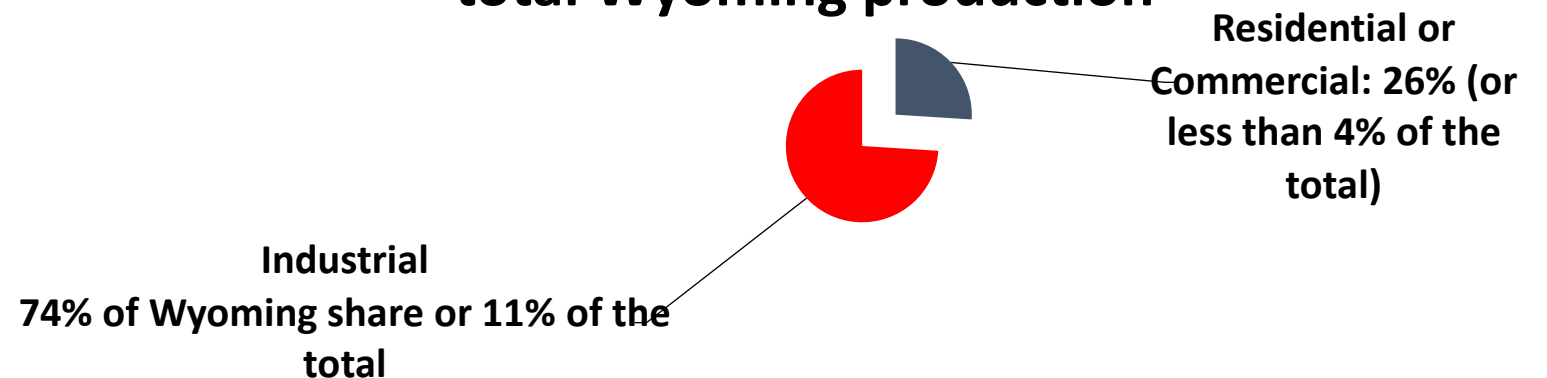


In RMP territory,  
85% of electric  
power generated  
is exported out of  
the state.  
Wyoming  
residential and  
commercial  
customers will pay  
less than 4% of the  
total tax.

**Only 15% of RMP's generation is consumed in**



**Residential and Commercial customers make  
up 26% of Wyoming consumption or only 4% of  
total Wyoming production**



# Industrial Customers need protection from Tax increases

## **Wyoming has more industrial load than any other state.**

- In RMP territory, industrial customers represents 74% of Wyoming consumption (or 11% of total Wyoming generation). Nationwide the average consumption by industrial consumers is closer to 33%.
- Industrial ratepayers include refineries, bitcoin miners, data centers, trona and coal mines, oil fields and more.
- These are extremely important industries to the Wyoming economy.
- A key to making a tax fair is to allow for credits for other taxes paid. These taxes include severance and ad valorem on fuels, property and sales and use taxes. These credits would flow through to the customer, depending on the mix of electricity generation attributed to them.

A key protection:

Allow Industrial  
Customers to  
subscribe to  
generation  
methods for tax  
purposes.

Some will choose  
resources out of  
climate and other  
concerns. Others may  
choose low costs.





Conceptually,  
accounting for the  
taxes based upon  
*a subscription for  
tax purposes only*  
is not as  
complicated as  
real power flows...

- At least for renewable energy, some customers already do this an actual power subscription instead of simply accounting for taxes.

Microsoft data center here to be powered by wind energy ...

<https://www.wyomingnews.com/news/microsoft-data...>

Nov 15, 2016 · CHEYENNE – Microsoft Corp. has signed a deal for the largest purchase of wind energy in its history, enough to power its data center in ...

Estimated Reading Time: 3 mins

- In 2020, the legislature anticipated that some customers would want to purchase thermal power:

ORIGINAL SENATE FILE NO. SF0021, ENROLLED ACT NO. 23, SENATE SIXTY-FIFTH LEGISLATURE OF THE STATE OF WYOMING 2020 BUDGET SESSION

(g) If an electric utility purchases electricity from the owner of an otherwise retiring coal fired electric generation facility for the benefit of an eligible retail customer, the utility serving that eligible retail customer shall purchase the electricity at a cost and under terms and conditions that are acceptable to and negotiated between the customer and the owner of the otherwise retiring coal fired electric generation facility. The electric public utility shall pass that cost through to the customer without markup or modification except:

A generation  
tax could  
benefit  
Wyoming  
citizens for  
generations....

- Like our abundant mineral resources. Wyoming's ample generation capabilities are the providence of geography and climate.
- We tax minerals and we would be remiss not to tax generation in the same way.
- Adaptable as generation methods change.

....while we  
support our  
neighbors  
need for  
electricity.

<https://dailycaller.com/2021/07/02/california-electricity-power-grid-heatwave-green-energy/>

## ENERGY

### California Begg For More Electricity Amid Heatwave And Transition To Green Energy



(Justin Sullivan/Getty Images)

VARUN HUKERIGENERAL ASSIGNMENT & ANALYSIS REPORTER

July 02, 2021 11:22 PM ET

The California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) called on the state's electric grid operator in a statement Thursday to provide additional energy resources through the summer amid soaring electricity demand.

In their **joint statement** to the California Independent System Operator (CAISO), the two energy regulators urged the grid operator to use its tariff-based authority to procure additional resources for the months of July and August, along with the month of September if conditions do not improve.