



U.S. DEPARTMENT OF  
**ENERGY**

# United States Energy and Employment Report

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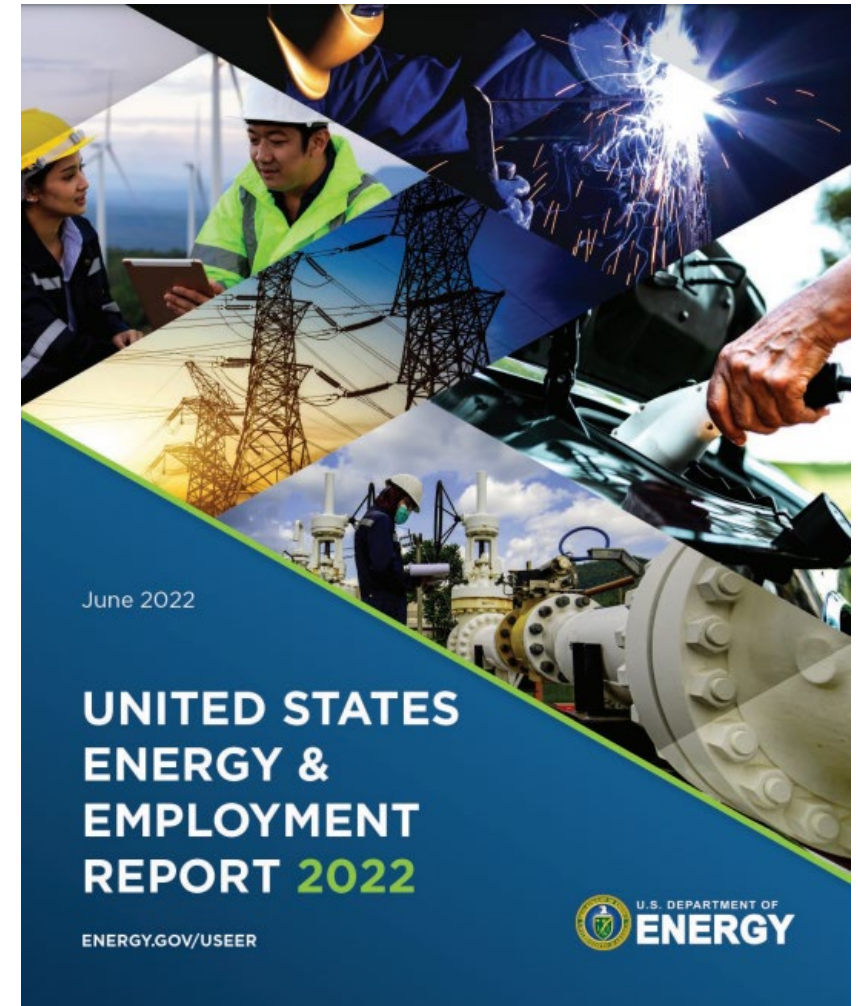
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# The U.S. Energy and Employment Report (USEER)

- USEER captures employment, workforce, industry, occupation, unionization, demographic & hiring information by technology group.
- Results based on combination of survey done of 33K employers by DOE subcontractor & data from the Bureau of Labor Statistics.
- DOE published report in 2016 & 2017; NASEO & EFI published it in 2018, 2019 & 2020. Report returned to DOE in 2021.
- State-level data available for all 50 states (and the District of Columbia)



# Key Findings

**In 2021, the energy sector experienced positive job growth across all sectors, except fuels, and outperformed job growth in the economy overall.**

**Jobs in many clean energy industries grew while overall fossil fuel job numbers declined.**

**Additional investments are needed to turbocharge America's clean energy economy and build a strong, diverse, and well-supported clean energy workforce.**

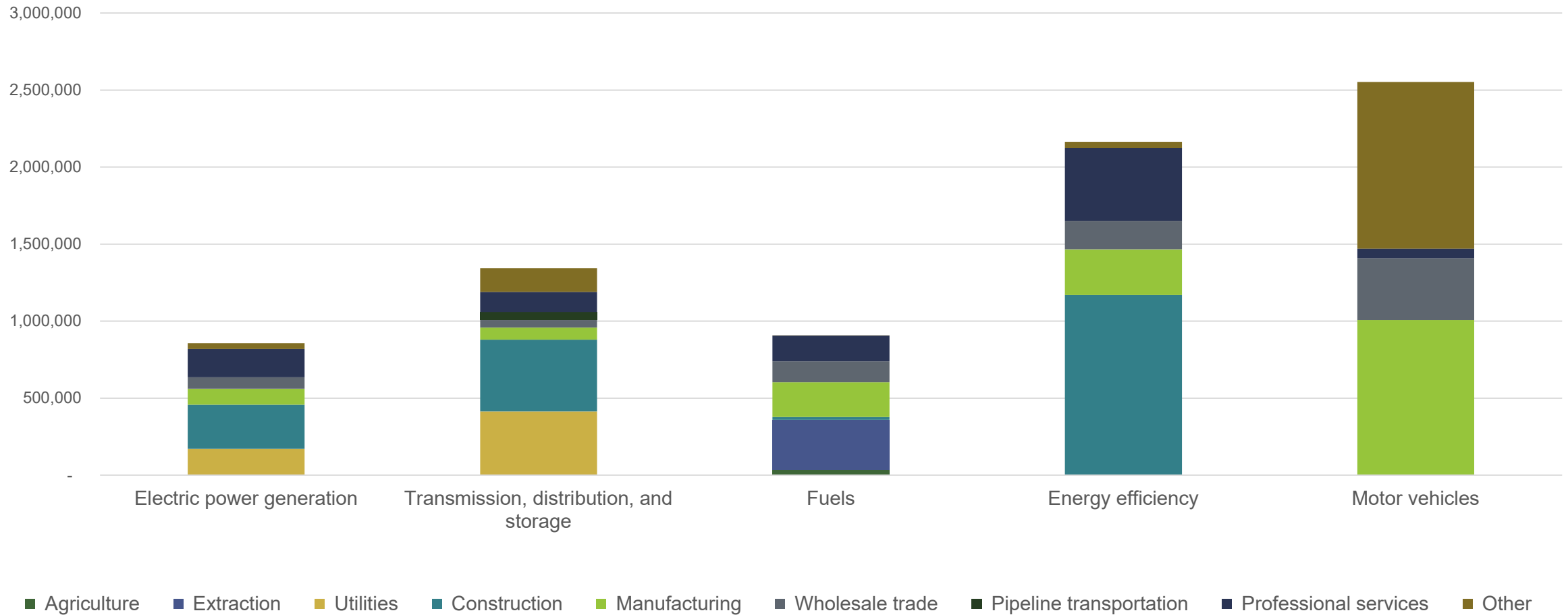
# National Data

**In 2021 there were over 7.8 million energy jobs in the United States, up from 7.5 million in 2020, adding 300,000 jobs.**

**Energy jobs grew faster (4%) in 2021 than the U.S. economy overall (2.8%).**

# Jobs are distributed by industry

2021 jobs by industry



# Topline Findings

- All technology groups, except fuels, grew in 2021.
- 2021 growth was not enough to make up for jobs lost in 2020.
- Union density in the energy sector is higher than the national average for private sector employers.
- Female and Black or African American workers represent lower-than-average percentages while there are more workers of two or more races.
- The concentration of veterans and workers under the age of 55 is higher in energy than the national workforce.

# Topline Findings

- Of the jobs DOE counts, vehicles (including repairs and manufacturing) is the largest sector.
- All transmission, distribution, and storage & energy efficiency sectors grew.
- Electric power generation jobs increased except for nuclear and coal.
- Coal and petroleum drove declines in fuel jobs.
- The majority of employers within all industries across all technology groups reported difficulty hiring workers.



Electric vehicle jobs increased by 26.2%, adding 21,961 new jobs.

Hybrid electric vehicle jobs increased 19.7%, adding 23,577 new jobs.

Solar energy jobs increased by 5.4%, adding 17,212 new jobs.

Wind energy jobs increased by 2.9%, adding 3,347 new jobs.

Energy efficiency jobs increased by 2.7%, adding 57,741 new jobs.

Transmission, distribution, and storage jobs increased by 1.9%, adding 22,779 new jobs.

# Many technologies surpassed 2019 levels

Wind: 5,390  
(4.7%)

Batteries:  
3,794 (5.8%)

Woody  
biomass: 472  
(1.4%)

Hydrogen fuel  
cell vehicles:  
3,429 (32%)

Natural gas  
vehicles: 569  
(4.4%)

Plug in EVs:  
11,013 (21%)

Full EVs:  
28,027 (36%)

Hybrids:  
29,869 (26%)

# State Level Data

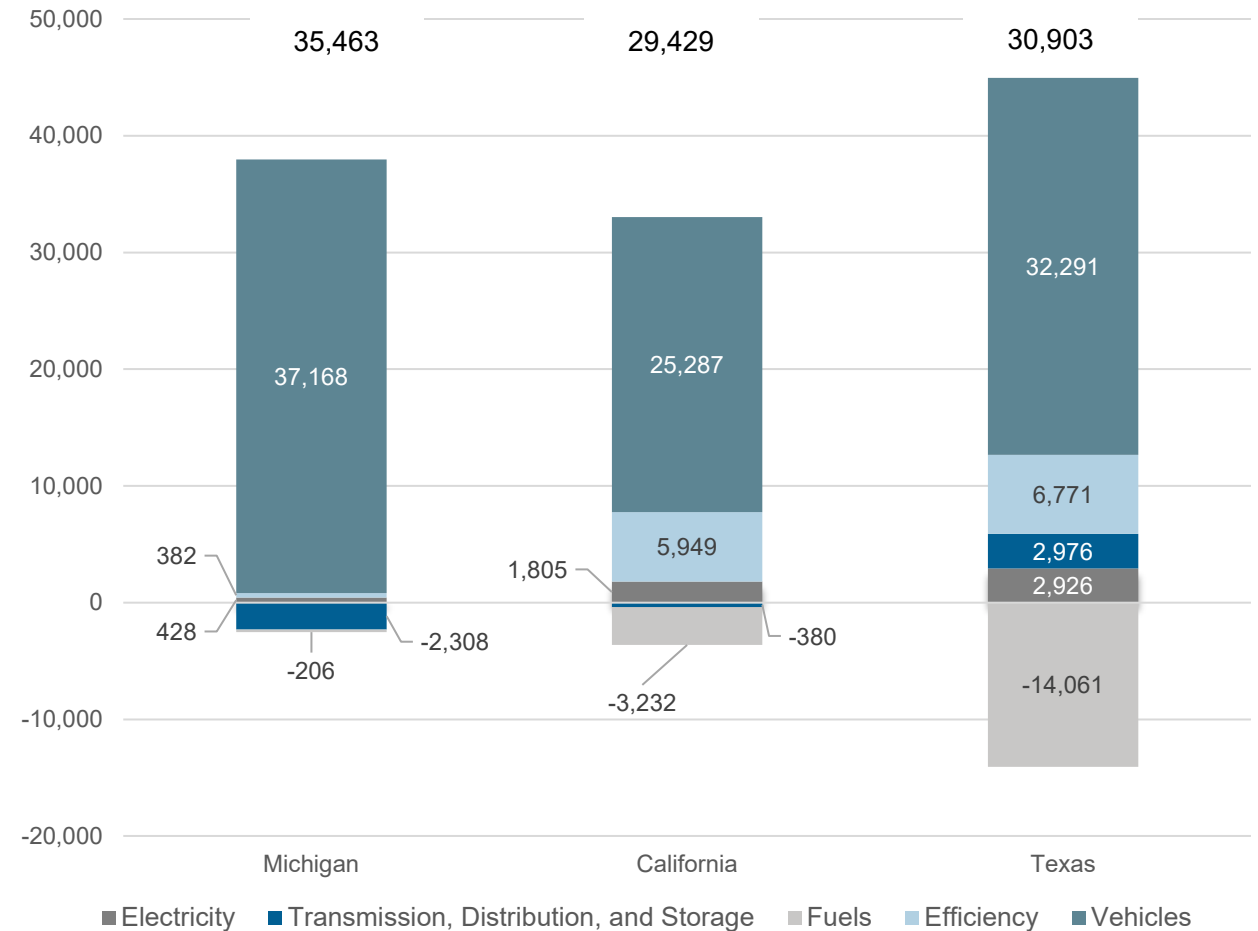
# Southern States Energy Board region quick facts

- Motor vehicles added the most jobs in 2021 (123,000) yet jobs still declined in Louisiana, Maryland, and Missouri.
- Fuels jobs decreased by 22,000, yet still increased in Virginia and West Virginia.
- Virginia was the only SSEB state to gain jobs across all five USEER technology groups.
- Energy efficiency was the only technology group where all SSEB states gained jobs.
- Over half (55%) of U.S. fuels jobs are in the SSEB region, led by natural gas (65%), oil (57%), and coal (53%).
- Nearly half (45%) of U.S. transmission, distribution, and storage jobs are in the SSEB region, including 65% of smart grid jobs.

*U.S. territories were not included in the 2022 USEER*

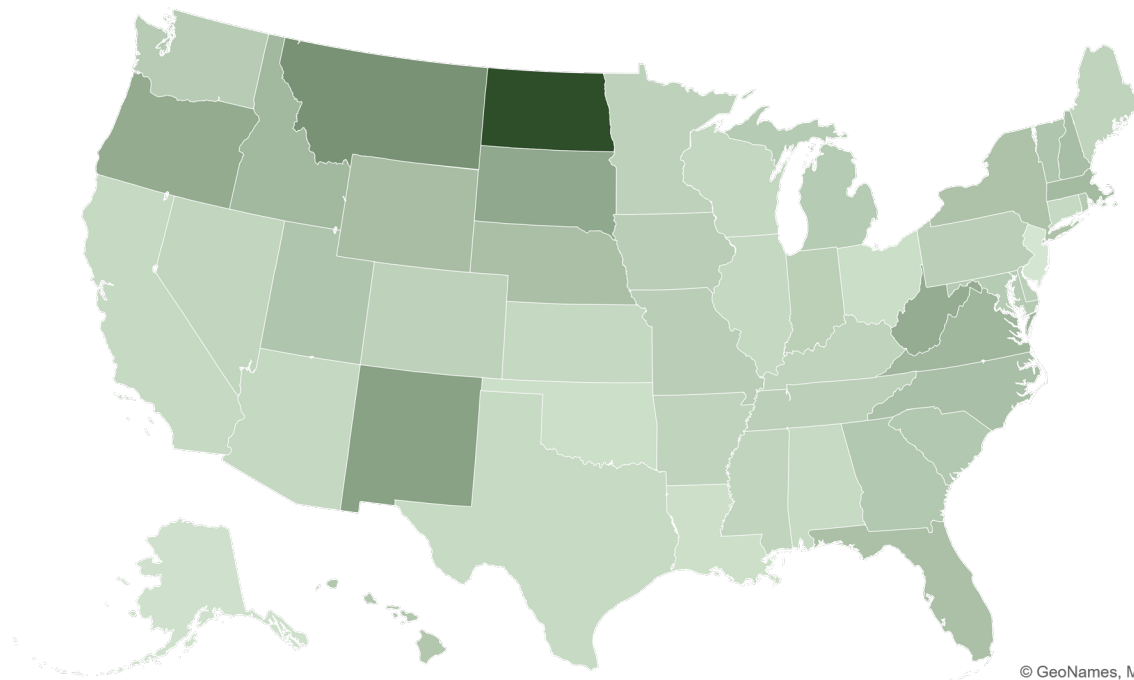
# States with motor vehicle manufacturing added the most energy jobs

- States with motor vehicle manufacturing added most jobs – Michigan led U.S. in creation followed by California & Texas.
- Large growth in motor vehicles offset declines in transmission, distribution, storage and fuels in Michigan.
- Texas added the most jobs but also lost more fuel jobs than any other state: -14,061 – next highest losses were in Louisiana with -3,731 – significant difference.



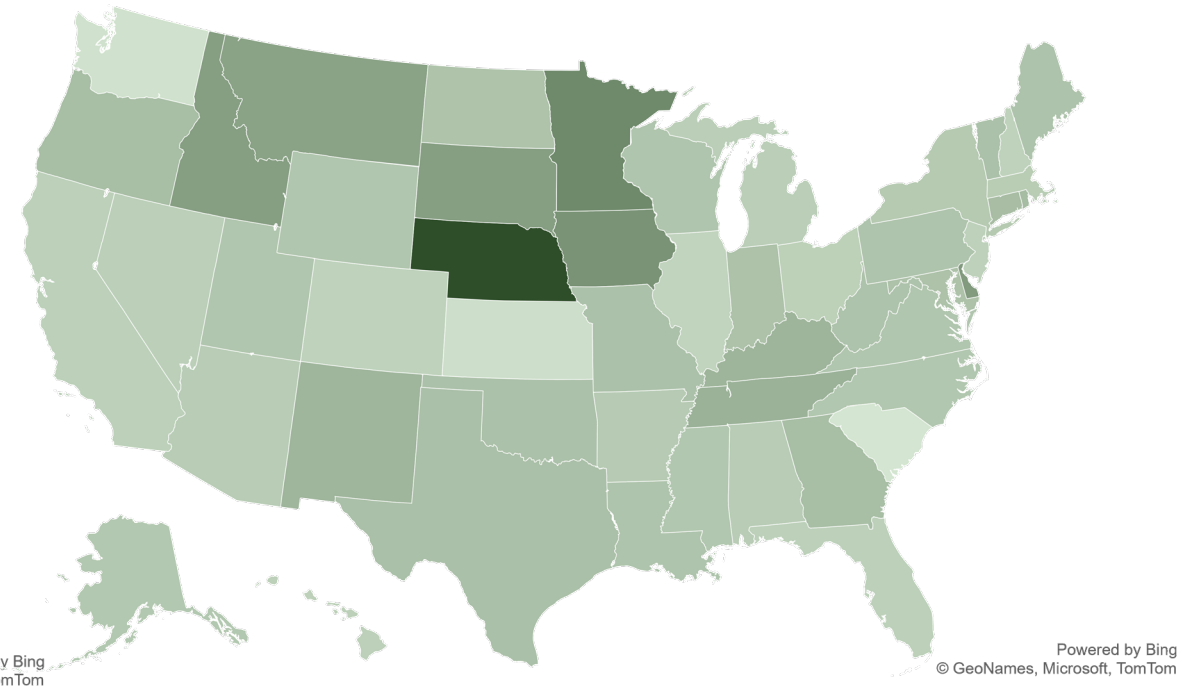
# Fuels and electricity grew the fastest in the Midwest

Fuels Growth from 2020: North Dakota (+21%), Montana (+8%), and New Mexico (+5%)



Fuels  
-0.07153788 0.20619603

Electricity Growth from 2020: Nebraska (+32%), Minnesota (18%), Iowa (+16%)

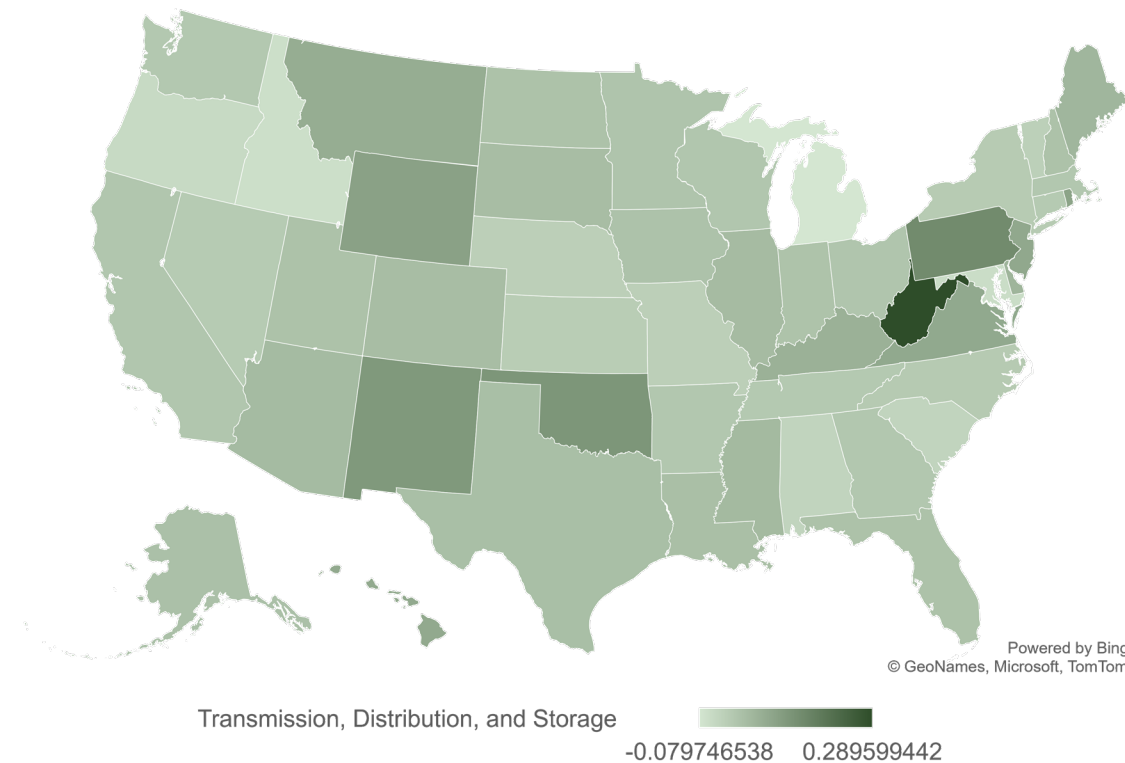
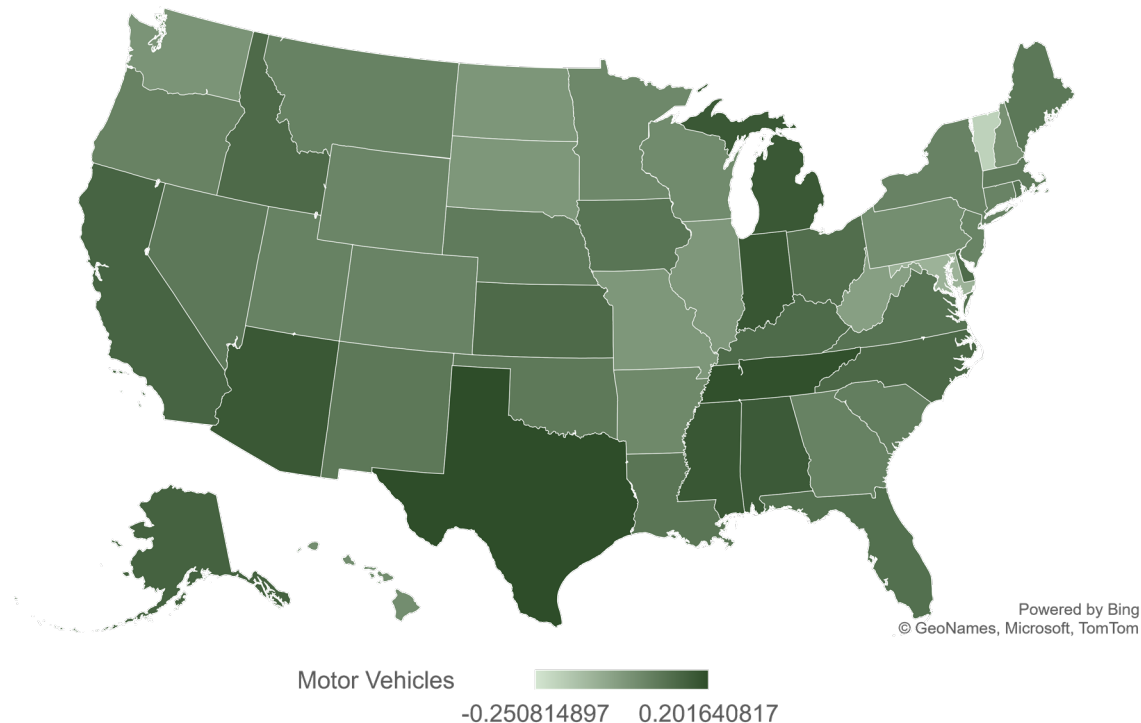


Electric Power Generation  
-0.038390786 0.320700583

# Appalachia had highest growth in transmission, distribution, and storage while the south had strong motor vehicles growth

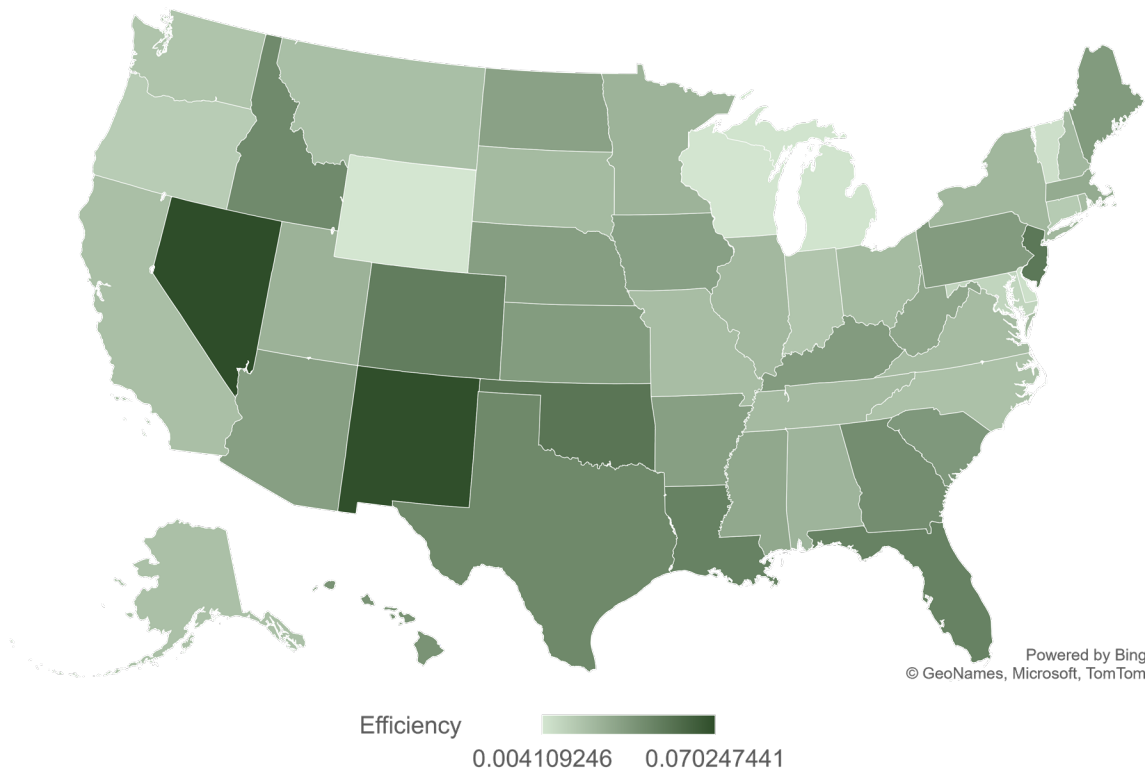
- Vehicles growth dispersed, led by Texas (20%) and Tennessee (19%)

TDS Growth from 2020: West Virginia (+29%), Pennsylvania (+14%), and Oklahoma (+11%)



# Highest efficiency growth was in the southwest

Efficiency Growth from 2020: Nevada (+7%), New Mexico (+7%), and Oklahoma (+5%)



*Oklahoma was one of two states to rank in the top three for growth in more than one technology groups*



# States with the most net-zero aligned jobs

- States with the highest number of jobs in net-zero aligned industries
  - California: 2,711,064 jobs in net-zero aligned industries
  - Texas: 391,670
  - New York: 256,449
  - Florida: 144,701
  - Michigan: 131,477
- States with the highest percentage of jobs in net-zero aligned industries
  - Vermont (58% of energy jobs were in net-zero aligned industries)
  - Nevada (56%)
  - District of Columbia (56%)
  - Hawaii (55%)
  - Rhode Island (52%)



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# Thank you

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