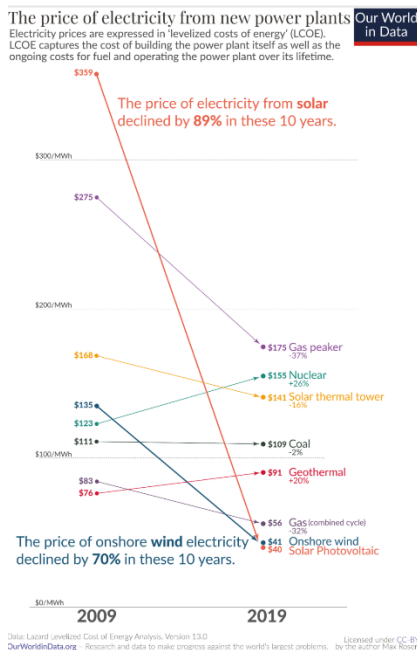


Affordable and Reliable Decarbonization Pathways for Montana Fact Sheet

1. **NorthWestern Energy relies on untrustworthy data.** Montana Public Service Commission doesn't trust the modeling used to justify the company's decision to build natural gas electrical plants. The PSC hired [Synapse Energy Economics](#), and Synapse found NWE's "input assumptions and constraints" created "an overreliance on new thermal [fossil fuel] capacity." The company undervalued wind and solar and its model "practically guarantees" the company "will not select these resources as part of a least-cost resource portfolio." The company says its model is "proprietary," meaning hidden.
2. **The company's conflict of interest is hiding in plain sight.** NorthWestern says the most inexpensive way to fill its 645 MW deficit consists exclusively of new natural-gas-fired generators. Of course, [the company also owns 43.1 billion cubic feet](#) of natural gas reserves and wants to use them to power the plants rather than save them for home heating or industrial uses.
3. **350 Montana wanted an objective view of Montana's future energy choices.** We wanted a model that gave clean renewable energy a fair shake. We raised \$60,000, mostly from concerned NorthWestern ratepayers, to hire [Vibrant Clean Energy](#) after reading about its work in [Colorado](#) and [Minnesota](#). Our model is transparent.
4. **We have just entered the golden age of renewable energy, when [the cheapest energy is also the cleanest](#).** In the past 10 years the price of utility-scale solar has dropped 89 percent and the price of on-shore wind has dropped 70 percent. If Montana replaces its existing coal plants with low-cost renewable energy while electrifying the rest of its economy, ratepayers will see the price of electricity decline by approximately 40 percent by 2050, and Montana will see \$32.7 billion savings across its entire economy.



5. **Montana will soon lose its market for its coal-fired electricity** as the Pacific Northwest moves to cheaper, carbon-free renewable energy. In Washington and Oregon, legislation has forced Colstrip's majority owners to transition to clean energy. Bottom line: Montana can remain an energy powerhouse only by building clean energy resources.

6. **The renewable energy train is leaving the station, and Montana needs to get on board.** Renewable energy and agriculture are made for each other, particularly in states like Montana where world-class wind and solar resources are right out the back door. The United States will build 750 gigawatts of new wind and solar energy by 2035, with [40 gigawatts coming on-line this year](#). Annual revenues to rural counties could exceed \$60 billion. The economic

opportunities for Montana include direct payments to local governments, businesses, and individuals through land-leasing, employee wages, manufacturing, and the ripple effects of economic development.

7. **Good news: Wind and solar bring [rural revitalization](#).** The average salary in the wind industry is \$64,000 a year, \$50,000 for solar workers. One 100-megawatt solar project hires 178 FTEs, and a 100 MW wind project hires 70 full-time workers. In addition, manufacturers don't like long distanced transportation costs and often [site manufacturing plants close to clean energy farms](#).
8. **When it says Montana will lose 7,000 jobs at Colstrip, NorthWestern is gaslighting.** By 2035 Montana will lose 2,522 jobs in coal and 388 in natural gas generation, a tragedy in every sense of the word, but many Colstrip jobs will continue for decades as workers clean up the ash ponds, close and remediate the mines, and demolish the plant. Clean energy creates far more Montana jobs than it displaces. We will keep 2689 jobs in hydro. By 2050 we will go from 788 jobs in the wind industry to 4856 (+4068), and from 48 jobs in the solar industry to 3502 (+3454). We will also create 1201 jobs in electrical storage technologies. That's 8723 new jobs and a net increase of 5813 jobs.
9. **Montana's best scientists have sketched the hazards of burning coal and natural gas.** Montana's average temperatures have already risen 2 degrees Fahrenheit and will soar 6 degrees by 2050 if we refuse to make the transition to clean energy. [The warming comes with very specific economic costs](#) to our two largest industries, [agriculture](#) and [tourism](#), and [severe costs to human health](#).
10. **We can eliminate 180 million metric tons of greenhouse gas pollution** when Montana transitions from fossil fuels. That's like removing 5.6 million cars from the road. If we use [the established social cost of carbon](#), \$51/ton, we are saving \$9.2 billion.
11. **Our model (figure 2.8) shows there are big savings for consumers** on their electricity, heating, and transportation if we transition from coal to clean energy. Everybody wins!

