

Montanans push for legislation to wrest solar energy from power-company control

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About 350

350Montana works to reduce atmospheric CO2 concentrations to 350 ppm by implementing strategic actions and advocating policies to end fossil fuel burning with the greatest urgency. We envision a rapid conversion to a 100% renewable global energy system using wind, water, and solar. Working with the global grassroots climate movement, our goal is to safeguard Earth's life support systems.

Grassroots demands for effective policies will require a shift in the balance of political power enabling the US to effectively respond to climate change challenges. These challenges present issues of social justice where short term economic gain and retention of political power threaten the long term well being of all Earth's inhabitants.

As we work cooperatively with other organizations committed to finding effective solutions to climate change challenges, a diversity of complementary approaches will be required to institute effective policies.

350 Montana P.O. Box 7006 Missoula, MT 59807 www/350Montana.org

Introduction

Before NorthWestern Energy spent almost a billion dollars¹ buying back Montana's hydroelectric dams, coal was king. Coal powered much of Montana and other parts of the Northwest. But as more Americans have acknowledged that global warming is getting worse and that coal emissions are the worst contributor to greenhouse gases, they are rejecting coal power.

Over the past few years, Colstrip has crumbled as electrical consumers in Washington and Oregon have urged their legislatures to refuse to buy coal power.² Now, according to a Puget Sound Energy agreement filed mid-September in Washington, the Colstrip plant will only be "useful" until 2027.³ Now that Colstrip's largest owner has declared the plant's demise, it's time for the other Colstrip owners to behave responsibly, including Montana's own NorthWestern Energy. NorthWestern Energy has starting exploring the potential of renewable energy but it needs to step it up. Montanans can and must give it a massive push in the right direction by demanding, as the people of Washington have, that NorthWestern Energy go green as quickly as possible. We, not NorthWestern Energy's investors, are the stakeholders.

But NorthWestern Energy faces growing opposition. The number of customers with solar systems has increased rapidly over the past five years, mainly because more people can afford them.

Power companies have long made energy decisions for Montanans: how energy is produced, and to a certain extent, how much it will cost. But the past decade has upset that status quo as solar panels have become more efficient and affordable. Little by little, Montanans have been able to generate more of their own power, giving them a taste for energy independence. But as NorthWestern Energy – and Montana Dakota Utilities to a lesser extent –

recognized its potential loss of control, it has vehemently opposed any policy decisions or laws that would give customers with solar panels more advantages.

But NorthWestern Energy faces growing opposition. The number of customers with solar systems has increased rapidly over the past five years, mainly because more people can afford them. The cost of solar panels dropped by two-thirds between 2008 and 2014. As a result, 1,000 Montana businesses and homeowners had installed solar systems by the end of 2014. By the end of 2016, that number had shot up to 1,700 and continues to climb, according to the Solar Energy Industries Association. And the higher costs of a decade ago meant homeowners tended to invest in smaller solar systems that generated only 2 to 3 kilowatt-hours. But by 2014, 6- and even 8-kilowatt home systems started becoming more popular.

The average Montana home uses about 820 kilowatts a month averaged over the year, according to the Environmental Protection Agency.⁵ That amounts to 27 kilowatts a day, which can be almost completely powered by a 3-kilowatt system, depending on the hours of sunlight.

So obviously, solar systems can power most household needs, and any excess power can be transferred to the electrical grid to be used by others. Through a process called "individual net metering," homeowners get to sell the excess energy to the power company at a retail rate – about 11 cents a kilowatt-hour - and receive that credit on their electrical bills.

According to the U.S. Energy Information Administration,⁶ net-metered solar saw significant national growth in 2015, adding over 2,100 megawatts in generation capacity, enough to power 420,000 homes. This represented the fourth consecutive year of annual growth above 50 percent.

In addition to providing more clean energy, the growth in the popularity of solar systems means more jobs. During 2016, solar energy added 73,615

new jobs to the U.S. economy. About 374,000 people are employed in solar energy, while coal, gas and oil power combined had a workforce of slightly more than 187,000, according to a U.S. Department of Energy report published in January. The gulf in employment is growing, with net generation from coal falling 53 percent over the last decade. During the same period, electricity generation from natural gas increased 33 percent while solar expanded 5,000 percent.

Even with the recent growth, however, solar energy accounts for less than 0.2 percent of Montana's energy production.⁸ That's a shame because rooftop solar alone has the potential to generate about 28 percent of the state's energy. The potential for that kind of growth makes NorthWestern Energy uneasy, if not downright uncomfortable, because it cuts into the bottom line.

So for the past few Legislative sessions, NorthWestern Energy has devoted its energy to opposing any increase in net-metering benefits. In particular, the company has managed to limit individual net-metering credits only to any solar systems producing less than 50 kilowatts. While that doesn't affect homeowners, it severely hampers the energy needs of larger buildings. That cap was set in 1999 and hasn't budged, even though several other states have higher caps. North Dakota and Wyoming have 100-kilowatt caps. 9 Idaho and Oregon cap residential production at 25 kilowatts but Idaho allows up to 100 kilowatts and Oregon allows up to 2 megawatts for non-residential solar arrays. Interestingly, the only Western state without net metering is South Dakota, home of NorthWestern Energy.

"It wasn't a big issue for us until a few years ago when solar became much more affordable and more easy to obtain," said NorthWestern Energy spokeswoman Claudia Rapkoch in 2014.¹⁰

It's not fair for an out-of-state monopoly
—NorthWestern Energy is based in South
Dakota—to benefit from selling solar energy
generated by Montana citizens, yet limit the amount
of energy it will buy. In a state like ours with a
surging population, more energy is always needed,
and added renewable energy saves the utility the
cost of building new infrastructure.

And yet, legislators continue to neglect Montana's solar-energy potential, costing the state jobs and additional revenue, and causing Montana to fall further behind other states that are reaping the economic benefits of renewable energy. Clearly, our political leaders aren't in step with the majority of Montanans, as demonstrated in a 2016 poll titled "Voter Attitudes on Energy and Conservation." When asked about their energy preferences, 90 percent said they supported increasing more solar energy. Since 2011, support for solar energy has held steady at between 85 and 90 percent of Montanans.

So for the past few Legislative sessions, NorthWestern Energy has devoted its energy to opposing any increase in netmetering benefits.

Power companies have damaged the state economy before, as in 1997 when Montana Power crashed in the aftermath of the Legislature's hasty approval of energy deregulation. Can we allow them to do it again by continuing to limit Montana's future?

NorthWestern Energy's Economic Machine

NorthWestern Energy is a growing monopoly that controls much of Montana's energy, in addition to that of South Dakota. The problem with monopolies—and the reason governments pass antitrust laws—is that very little can keep them in check. With few or no competitors on a free market, the monopoly can manipulate policy and politicians to chip away at regulations intended to protect the consumer. Any challenger that dares to rise up is inevitably suppressed.

So far, Montana regulators—specifically a fivemember elected body called the Montana Public Service Commission—seem unable or unwilling to support the solar industry.

NorthWestern Energy is allowed to make customers pay for many of its business costs, including its property taxes.

A growing group of Montanans has tried to gain energy freedom by producing their own renewable energy. The problem is a small group of citizens is no match for a monopoly with a lot of political connections. NorthWestern Energy doesn't want this group to get any more powerful.

So NorthWestern Energy representatives repeatedly tell legislators that solar energy costs the company money. Solar energy can't always be generated, such as at night or on cloudy days, so NorthWestern Energy claims it has to buy fossil-fuel energy anyway as a backup. But the numbers don't bear that out.

NorthWestern Energy has watched its customer base steadily increase from 668,000 in 2011 to 709,000 in 2016—about 360,000 of those are Montanans—and its net income has jumped from \$92 million to \$164 million, according to NorthWestern Energy financial reports. The company also touts the fact that its shareholder return has almost doubled during that same period.

These increases have occurred in spite of the fact that the company has been delivering less power to its customers. The peak delivery of about 10,000 electrical megawatt-hours occurred in 2012 and has since slid to 9,474 megawatt-hours.

Ironically, NorthWestern Energy credits the effects of climate change with its lower energy sales. "Our operations have historically generated less revenue and income when weather conditions are milder in the winter and cooler in the summer. When we experience unusually mild winters or summers in the future, these weather patterns could adversely affect our results of operations, financial condition and liquidity."¹¹

In addition, NorthWestern Energy is allowed to make customers pay for many of its business costs, including its property taxes. Aware that the company had an unfair advantage, a legislator sponsored a 2017 bill that would have required the Public Service Commission to evaluate whether NorthWestern Energy could force ratepayers to pay its property taxes. But the power company's lobby was able to defeat even such a common-sense bill.

With plenty of money in its coffers, NorthWestern Energy finances an army of legislative lobbyists and lobbying activities, and it's adds to its political influence by making campaign contributions.

During the 2015 Montana Legislature, when solarenergy and net-metering bills started to gain traction, NorthWestern Energy paid four lobbyists to represent the power company's interests fulltime during the session. NorthWestern Energy also allocated about \$6,500 for those lobbyists to wine and dine groups of legislators at the Montana Club, according to Montana Commissioner of Political Practices reports. 12 One event even focused solely on the members of the Senate and House Energy and Natural Resource committees.

That's the infamous lobby that Rep. Art Wittick, R-Bozeman, took on when he and Sen. Mike Phillips, D-Bozeman, sponsored a 2015 bill to raise

Montana's net-metering cap to 1,000 kilowatts (1 megawatt). That amount of energy would allow schools and businesses to power large buildings, saving them more money. Several states already had a similar cap before 2015, including North Dakota, Washington and Kansas.

Phillips unsuccessfully carried the same bill in 2013. Heading into 2015, he thought the bill would go further with the libertarian Wittick taking the lead. Wittick knew he would face NorthWestern Energy's staunch opposition but was unfazed.

"Their interests aren't as important to me as ratepayers' interests, and what this bill would do would provide ratepayers with some equal footing vis-a-vis the company," Wittick said in early 2015. "These rooftop solar projects are making more sense technologically and economically, and the idea of having some arbitrary cutoff has been overtaken by these technological and economic changes. So it makes sense to update the law."

But not even Wittick could push the bill out of the House Energy committee. He blamed the electrical utilities and co-ops for killing the bill.¹³

While backing Wittick's bill, members of the Northern Plains Resource Council went up against John Fitzpatrick, the NorthWestern Energy lobbyist who by all accounts was bombastic as he testified that solar energy was "a cancer on the system." After getting an avalanche of complaints, especially from people in Bozeman area who were installing larger solar systems, NorthWestern Energy replaced Fitzpatrick with Montana-Dakota Utilities lobbyist John Alke. Alke is less confrontational but has long worked as a professional lobbyist for power companies so he knows how to pull strings.

Prior to the 2017 session, a Legislative interim committee researched and sponsored several renewable-energy bills, including a few involving net-metering. In response, NorthWestern Energy added two more lobbyists. It also spent \$2,500 paying for dinners for the House and Senate energy committees, and buying dinners for individual legislators including key members of the energy committees.

It's hard for regular Montanans to counter that kind of clout. Andrew Valainis, Montana Renewable

Energy Association executive director, said smaller organizations like his are at a disadvantage.

NorthWestern Energy donated to the campaigns of a number of the members of the House and Senate Energy committees...

"One of the things you see being at the capitol is that larger lobbies just have far more resources. Companies like NorthWestern Energy can hire multiple staff that can be at the capitol every single day from morning to close and even in the evenings. And they're dedicated lobbyists – that's what they do," Valainis said. "Meanwhile I'm the only employee of MREA so my organization has to adjust itself in order to allow me enough time to be at the capitol."

NorthWestern Energy has also tried to bolster its lobbying efforts by donating to the campaigns of Legislative candidates. In the past, the company has donated almost exclusively to Republicans, but that changed with the 2016 election.

In the 2014 election, the company donated a total of almost \$11,000 to the Legislative campaigns of 72 Republicans and \$120 to one Democrat, according to FollowTheMoney.org. ¹⁴ But with more on the line in 2017, NorthWestern Energy donated a total of more than \$9,300 to 62 Republicans and a total of \$2,500 to 19 Democrats in 2016, including two who sat on energy committees.

In particular, NorthWestern Energy donated to the campaigns of a number of the members of the House and Senate Energy committees in 2014 and 2016. While donations don't necessarily lead to votes, they raise questions of neutrality. Of the 13 members of the 2017 Senate Energy committee, only five did not receive some campaign donation from NorthWestern Energy or one of its PAC's. Sen. Keith Regier, R-Kalispell, is a favorite of NorthWestern Energy, which has donated a total of \$660 to Regier's runs for the House and Senate.

Renewable Energy Bills of the 2017 Legislature

Four net-metering bills were introduced in 2017 that would have favored Montanans rather than the power companies. But all four failed to make it out of committee, due to pressure from power company lobbyists and some devious political moves.

Table 1. 2017 bills dealing with net metering and small
solar projects (bills with asterisks favored solar power)

Bill	Purpose	Outcome
HB 34*	Raise net metering cap for state buildings	Tabled in committee
HB 219	Net-metering study	Passed
HB 504*	Solar Jobs and Energy Freedom Act	Tabled in committee
SB 1	Require solar customers to buy untested inverter	Tabled in committee
SB 7	Allow no "subsidy" for solar customers	Vetoed
SB 78	Lower net-metering compensation rate	Tabled in committee
SB 154	Eliminate state tax incentive for solar projects	Vetoed
SB 201*	Allow aggregate net metering	Failed blast motion
HB 277	Don't allow community solar projects to use state alternative energy loan program	Tabled in committee

House Bill 34

Rep. Daniel Zolnikov, R-Billings, sponsored HB34, a bill that would have increased the net-metering cap to 250 kilowatts for government buildings only. The interim energy committee had debated and then backed the bill because it would have allowed schools, prisons and local governments to install enough solar capacity to save taxpayer money. Now that state agencies are slashing their budgets due to dwindling state revenue, they could have saved the portion that pays for power if they had solar systems. But it wasn't to be.

During the Jan. 9 hearing of the House Energy Committee, Zolnikov explained why the netmetering cap needed to be raised.

"Why? Because (NorthWestern Energy) is a monopoly and you cannot compete with a monopoly," Zolnikov said. "We studied this in the interim committee and this is the only way to compete with a monopoly in a semi-fair manner."

Eleven people rose in support of the bill, including representatives of the Northern Plains Resource

Council, the Associated Students of the University of Montana, and the Montana Department of Environmental Quality. Brian Fadie of the Montana Environmental Information Center said, among other things, encouraging more sources of solar energy could help power companies by reducing the need to build expensive power plants to meet increasing demand.

The bill's only two opponents were the lobbyists for NorthWestern Energy and Montana-Dakota Utilities. Both argued against having to use solar energy because of its intermittent nature.

"If the sun isn't shining, we still need to provide power. The claim that it will allow utilities to forgo investment in infrastructure transmission is inaccurate," said Montana-Dakota Utilities lobbyist Mike Green.

However, their bigger argument is a claim they've made repeatedly since 2013: Giving energy credit to customers with solar systems is not fair to regular customers. Lobbyist John Alke said NorthWestern Energy has to provide the same service to both solar

and non-solar customers. If solar customers can not only zero-out their bill but also get additional credit – Alke called it a "subsidy" - then only non-solar customers end up paying for electric infrastructure in what Alke calls a "cost-shift."

"Why a 10-kilowatt limitation? To cap the subsidy. There's a cost to solar and it's paid for by people who can't get solar," Alke testified.

Of course, even residential solar customers still have to pay company "service charges" of about \$20 a month.

Zolnikov defended HB34, saying many public services have what could be called cost-shifts. For example, only Montana taxpayers pay for state roads, but every year, millions of tourists travel those roads toll-free.

The irony is that the Montana Republican Party platform states that they "support the private development of energy ..."

"There are cost-shifts everywhere. The thing that makes this different is the monopoly," Zolnikov said.

And yet, a few weeks later when Energy Committee Vice Chair Derek Skees, R-Kalispell, brought HB34 to a vote, Zolnikov voted against his own bill.

Even so, the bill passed on a 9-7 vote with Republicans Adam Hertz and Adam Rosendale joining with the Democrats in support. That should have sent the bill to the House floor. But then the committee chair called for a recess. When the committee members returned 90 minutes later, Skees, in an unusual move, brought HB34 up for a vote again. This time, Rosendale changed his vote to "No."

That made the vote a tie, and the bill was tabled. It appears that the power company lobbyists and/or the Republican caucus spent that 90-minute recess pressuring Rosendale to change his vote. Just as they probably leaned on Zolnikov during the intervening weeks to change his vote. What else would explain their change of heart?

The irony is that the Montana Republican Party platform¹⁵ states that they "support the private development of energy and mineral resources..." It also claims that "Republicans believe that in the absence of free markets and secure property rights, personal and political freedom cannot long flourish."

"House Bill 34 was frustrating for sure," Valainis said. "We thought that was a great compromise bill. NorthWestern Energy opposed it in the Energy Interim Committee, but it passed. So we were hopeful."

The death of HB34 was just the first in a line of frustrating defeats where renewable energy bills had overwhelming popular support and the votes were close but not close enough.

House Bill 504

Rep. Bryce Bennett, D-Missoula, decided to not only take up Wittick's gauntlet but also to make a larger leap with net metering after hearing from many Montanans prior to the 2017 Legislature.

"I was inspired by the thousands of Montanans who've shown up at gatherings across the state, filled up our inboxes with messages and are here with me today. I'm here because Montanans want more jobs, cheaper electric bills and the freedom to make their own energy choices," Bennett said in February. "Sometimes, when you're reached out to by a lot of people with a good idea, you bring it forward. This is that good idea."

That good idea was HB504, the "Solar Jobs and Energy Freedom Act," an omnibus bill that sought to make four changes to benefit a wide array of Montanans. First, it would raise the net-metering cap for everyone to 1 megawatt, resurrecting the purpose of Wittick's 2015 bill. Second, it would require power companies to allow aggregate net-metering. For instance, farmers could have more than one solar array on their property but get credit for all of them on a single bill. Third, multiple homeowners could buy power from a large solar array nearby in order to get credit on their bills in a system called "neighborhood net metering."

Finally, solar-system owners get a limited energy credit as part of their net-metering agreement. As things stand now, if you generate more energy than you need, NorthWestern Energy keeps the surplus.

HB504 would have created a new fund to provide energy assistance for Montanans living in poverty.

A lot of work went into cobbling such a large bill together, and solar advocates had high hopes that it would get a lot of support. To help more Montanans to learn what was at stake, four organizations came up with an engaging public-relations campaign using "Solar Guy" as their spokesman. The organizations included the Montana Renewable Energy Association, Renewable Northwest, NW Energy Coalition and Forward Montana Foundation.

On Jan. 11, Bozeman-based solar installer Brad Van Wert made his debut as Solar Guy in the "Charge Montana" campaign on YouTube and other social media sites. Solar Guy became the face that brought Montanans up to speed on the importance of solar legislation, especially as HB504 headed into its Energy Committee hearing in February. Each of his videos are a couple of entertaining minutes of rapidfire sound bites that describe the advantages of solar power, how it unites Montanans in their desire for clean, cheap energy, and how power companies create the main barriers to such energy. Solar Guy also took his message to the people during a twoweek tour of six Montana cities where he packed the breweries with people wanting more options for solar energy. By the end, around 5,000 Montanans had signed on in support of HB504.

So it wasn't surprising that more than half of the 19 people who testified in favor of HB504 on Feb. 22 spoke on their own behalf. For example, Helena resident Denny Haywood said he already had his own 8.4-kilowatt system that allowed him to reduce his household carbon footprint, but he wanted to increase the net-metering cap so larger buildings could do the same. Meanwhile, Milltown resident Gary Matson's house has too much shade for him to install his own solar panels, so he supported the community-solar part of the bill, so he could work with his neighbors to get solar energy.

However, Republicans had killed HB34 just a few weeks before, and it was clear that Energy committee chair Zolnikov had had a change of heart and now supported the NorthWestern Energy monopoly. So he wasn't interested in giving solar proponents a fair hearing on a different bill. With three times as many proponents as opponents, the fair thing would have been to allow all speakers two minutes to testify. That would have taken about an

hour total. Instead, Zolnikov employed a tactic that Republicans used increasingly during the session with bills they didn't like: Give each side 30 minutes to testify regardless of the number of speakers.

As a result, two power-company lobbyists, three union representatives and one citizen opponent each had at least five minutes to testify against HB504. But when NorthWestern Energy lobbyist John Alke stepped up to the mic, he took 12 minutes to say basically the same things he said in the HB34 hearing. Once again, Alke brought up the supposed cost-shift, saying the proposed 1-megawatt facilities and neighborhood systems would come at the expense of non-solar customers. Alke said he'd support increasing the net-metering cap to 1 megawatt if the "subsidy" went away.

"The solar industry is shameless in the demands it makes for subsidies," Alke said.

Solar advocates point out that neighborhood systems could negate any supposed cost shift. NorthWestern Energy claims that poorer people can't afford solar panels so they're the ones who bear the brunt of a cost shift. But community solar arrays allow any customer, even those renting apartments, to buy in and benefit from a solar system without having to install his/her own. The lower cost of shared systems opens solar power up to more customers.

During the ensuing discussion, Energy Committee Vice Chair Skees' questions made it clear that he opposed the bill and wanted to throw up more roadblocks.

"If solar is ready for prime time and they want to be a customer generator, can we change this bill to have solar guys pay a tax on transmission, remove the tax credit, add the cost of (transmission), and then put you guys under the PSC for regulation? Shouldn't we make you guys a generating utility?" Skees said.

Even before the committee hearing, solar advocates knew HB504 would face a tough fight. So with the help of Solar Guy, advocates scheduled a rally in Helena on Feb. 23, the day after the committee hearing, to challenge the NorthWestern Energy lobby. ¹⁶

About 400 supporters gathered in the rotunda at noon chanting "Solar jobs, energy freedom" as Rep. Bryce Bennett told the crowd the bill was intended to "change the status quo."

"Because right now, we've heard from governments and we have heard from the utility company that everything just has to stay the way it is," Bennett said.

Apparently, the Northwestern lobby hadn't gotten to all the Republicans in the Legislature, because Rep. Mike Hopkins, R-Missoula, stepped up to say having fewer limits on solar systems was about property rights.

"Whether it's an individual looking to put a solar panel on top of their house or a group of individuals looking to do the same, the government has no compelling interest in prohibiting that," Hopkins told the crowd.

But the Republicans of the Energy Committee were unmoved. When HB 504 was brought to a vote the next day, all the Republican committee members except Adam Hertz voted against the bill. Since a bill can't pass with a tie-vote, HB504 died.

Following the defeat, Brad Van Wert, aka Solar Guy, filmed an interview with former legislator and Public Service Commissioner Ken Toole. ¹⁷ Van Wert asked Toole how one or two lobbyists could continually thwart the will of thousands of Montanans.

"The reality is the Legislature is a cheap date. (Utilities) can send up two to three lobbyists, which is much cheaper than their rate crew. The legislature is there for 90 days, and it's by-and-large people who don't have a clue what's going on," Toole said. "Corporate lobbyists have a big advantage because they have relationships built up. It's like high school – it's who you like, who you trust."

Toole also had insight as to why NorthWestern Energy works so hard to defeat renewable energy bills.

"They're looking to protect their load. The price for the dams was about a billion dollars; the coal plant (cost) was expensive; they built a gas plant that ended up being more expensive than they thought. They've spent all of this money on all of these things, and now along comes a disruptive technology – it disrupts their mechanism for making money. Think about it: You use their product without knowing the price, without having an alternative and then getting a bill a month later. That's the world they're used to," Toole explained.

Northern Plains Resource Council representatives couldn't attend the HB504 hearing but supported it and similar efforts in 2015, especially related to community solar and aggregate net metering for agricultural operations.

They had more hope for Senate Bill 201, a smaller bill focused only on allowing aggregate net metering. Even though a Republican sponsored SB201 - Sen. Jedediah Hinkle of Belgrade – the Senate Energy Committee tabled the bill the same day that HB504 was defeated. Hinkle, however, didn't give up. The next day, he tried to blast the bill out of committee to the Senate floor where he thought it would get broader support. It did, but the 25 "Yes" votes were offset by an equal number of "No" votes and Hinkle's motion failed. Rural solar advocates were disappointed.

It's been really frustrating to see NorthWestern oppose common sense changes

"A lot of rural folks have a house, shop and barn hooked together. They pay (NorthWestern Energy) with one check, but the company won't let you put in one large solar array to power them all and cut out needless infrastructure. You would have to break it up and install a little array for each one. That's just a needless barrier. It's been really frustrating to see NorthWestern oppose common sense changes like that," said one Northern Plains Resource Council representative.

House Bill 219

When opposing net-metering, NorthWestern Energy has, for several years, repeatedly waved the flag of "cost shift" to generate fear in non-solar customers. The company also brandishes the word "subsidy" to generate resentment of solar systems.

According to Solar Guy, using a loaded word like "subsidy" is part of NorthWestern Energy's strategy to divide and conquer, pitting regular customers against those with solar.¹⁹ But situations that look

like "subsidies" exist throughout NorthWestern Energy's system. For example, in a city, one mile of power line may serve hundreds of households while another in the country may service only one farm. Yet that farmer pays the same rate as each homeowner along the city line. In another example, someone with a second home in Montana may visit only a few weeks out of the year so that's all the power they pay for. Yet the power lines still run out to their property.

NorthWestern Energy's favorite legislator, Sen. Keith Regier, even went so far as to sponsor Senate Bill 78, which would have double-charged customers with solar systems for infrastructure and would have slashed the net-metering rate they receive. Fortunately, it died. Another bill, Senate Bill 7, would have gone even further, saying only solar customers cannot benefit from a subsidy. That bill made it through both houses on mostly party-line votes and would have passed had Gov. Steve Bullock not vetoed it.

"That's all a legislator needs is a question that doesn't seem to be answered," said one Northern Plains Resource Council member. "It's been such a big question that we haven't been able to move past it."

During testimony, both sides have described calculations that prove or disprove that a cost shift exists. But until now, the math has been based mostly on hypothetical situations because there are relatively few solar systems on the grid.

"That's all a legislator needs is a question that doesn't seem to be answered," said one Northern Plains Resource Council member. "It's been such a big question that we haven't been able to move past it."

Andrew Valainis of the Montana Renewable Energy Association agrees. "This debate has been going on for years. Then, during the last interim, net metering rose to the top as something to study, and we had input from a good number of stakeholders: the utilities, the coops, the solar advocates, labor. Everybody was able to give input, but it didn't necessarily move the needle. So legislators felt like there needed to be more done to move that conversation forward," Valainis said.

So, Rep. Zach Brown, D-Bozeman, sponsored House Bill 219, which requires NorthWestern Energy to do a cost-benefit analysis of net-metering to determine whether a cost-shift exists. It also grandfathers the current net-metering rate for all existing solar-system owners just in case a cost shift is found.

While the idea sounds good, the study has a few problems, the main one being that NorthWestern Energy has to provide the energy and cost data. The bill required the Public Service Commission to set the criteria they wanted for the data, which they did in early August. They allowed consideration of benefits of solar - such as less of a need for the purchase of fossil-fuel energy and related infrastructure - but also the costs of integrating renewable energy onto the grid.

"The law requires the Commission to focus solely on those factors that have a direct impact on the utility system and the provision of service to customers," said PSC Vice-chairman Travis Kavulla, R-Great Falls.²⁰ "Broader social benefits such as job growth associated with solar installations are outside the purview of the PSC, and will not be included in the study."

But some solar advocates question whether the company will supply and use accurate data. Andrew Valainis praised the PSC for conducting a robust information-gathering process, considering a lot of advice throughout July and putting together a great list of minimum information requirements.

"But when they handed it to NorthWestern Energy to conduct the study, they kind of took off the guardrails. They said, 'These are the minimum information requirements, and you guys can add more cost categories if you want.' While they did recommend that NorthWestern use the ETAC, their advisory committee, it's a closed invite-only group and it's unclear if the right voices are in the room. The transparency that we need becomes less certain. And there's still that potential for bias,' Valainis said.

The goal of this study, Valainis said, is to move the conversation on net-metering beyond the stalemate that is hampering solar-industry growth in Montana. Although a robust, transparent process is the only method for doing so, the study has now disappeared into the inner sanctum of NorthWestern Energy. That shouldn't be the case for a study mandated by the state Legislature, which should answer to the people.

Nothing will see the light of day until April 2018, when NorthWestern is required to submit its data to the PSC. But even then, Montanans might not get to weigh in, because the PSC decided it would evaluate the data as part of a utility-rate case rather than using a public hearing. That raised public suspicions because often only qualified utility attorneys, not the public, are allowed to intervene in rate cases. For that reason, renewable-energy organizations have pooled their resources to hire their own attorney should they need to challenge the data.

"Our hope is that will not be the case and that it will be an open public process with a normal public comment period," said a Northern Plains Resource Council member.

While the Northern Plains Resource Council supported HB 219, other groups, including the Montana Renewable Energy Association and the Montana Environmental Information Center, ended up opposing it because of the timing.

According to the Montana Environmental Information Center, "Utility experts advise that this study should take place when at least 1 percent of a utility's energy needs are met by net metering. This threshold ensures enough net-metering systems are on the grid (i.e. enough data points) to produce accurate, reliable, and valid data collection and analysis when conducting a cost-benefit study. A 1-percent threshold would also be in line with

actions other states have taken when setting review triggers for net metering. This allowed the solar industry to grow in those states while also providing certainty to legislators, utilities, regulators, and other stakeholders."

it (NWE) could set the solar industry back and force most Montanans to be dependent on the power monopoly for years to come.

Currently, net metering systems in Montana meet only 0.2 percent of NorthWestern's needs. With such sparse data available, the company will still have to make several assumptions and it will be hard to reach accurate conclusions. So once again, it appears this study could be tainted by biased or poor data and assumptions.

If it is, it could have long-term ramifications. On the one hand, it could prove that any cost shift is negligible, opening the door for more net metering. On the other, it could set the solar industry back and force most Montanans to be dependent on the power monopoly for years to come.

The Public Service Commission

As Rep. Daniel Zolnikov said, NorthWestern Energy is a monopoly, and regulations are the only way to keep a monopoly in check. The Public Service Commission is the elected body that is supposed to protect the interests of energy customers against corporate interests. It must hold energy rates in check and ensure that corporations don't take advantage of customers by adding unnecessary costs to their bills.

But some solar advocates question the objectivity of the PSC. For one thing, most of the commissioners have previously held public office, usually in the Legislature, and received campaign donations from the power companies. NorthWestern Energy donated to various legislative campaigns of three of the five commissioners. Bob Lake, in particular, received \$680 from NorthWestern Energy and \$200 from Montana Dakota Utilities between 2002 and 2010.

The pitiful price of \$28 per megawatt-hour for solar projects is far less than the \$65 per megawatt-hour that coal producers get and even less than the \$32 that the Judith Gap wind farm receives.

Then recently, the commission made decisions that appear to be deliberate attempts to squelch the solar industry. Most notable was a decision in late June to cut the contract lengths and rates NorthWestern Energy has to pay larger renewable energy installations that generate up to 3 megawatts. The rates were slashed by 50 percent to \$28 per megawatt-hour, and the required 25-year contracts were shortened to five years. The decision was in direct violation of federal law, the Public Utilities Regulatory Policies Act, which requires public service commissions to promote alternative energy.²²

Developers of small projects protested, saying the new contracts were too short because no investors would bank on a five-year contract. PSC Rate Analyst Neil Templeton accidently validated their concerns when a hot microphone²¹ caught him telling PSC Commissioner Bob Lake, "Just dropping the rate that much probably took care of the whole thing."

Lake agreed. "The 10-year (contract) might do it if the price doesn't. And at this low price, I can't imagine anyone getting into it."

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Former Public Service Commissioner Bob Raney of Livingston said the ruling is a "horrible outcome for consumers."²²

"Solar energy has never been cheaper. When solar is fairly valued based on real market economics, it is cost-competitive with other, dirty forms of energy. And because it is independent of volatile natural gas and coal markets, solar's affordability is reliable into the future," Raney wrote in an op-ed. "Because NorthWestern earns greater profit on energy sources it builds and operates itself, it has every incentive to shut out independent producers of power – which is exactly what the PSC's recent decisions do. We depend on our elected PSC to ensure that producers of solar and other forms of renewable energy that benefit consumers have a fair opportunity to compete."

The big surprise was the commission's decision also applied to any new NorthWestern Energy power plants.²³ That means that the company had to drop its plans to invest \$100 million in new power plants. Suddenly, the monopoly found itself on the same side as its solar adversaries arguing against the PSC.

NorthWestern Energy's Solar Projects

NorthWestern Energy attempted to do some damage control after receiving harsh criticism for its stonewalling during the 2015 Legislature. That included proposing company-sponsored solar projects to be built in Bozeman, Missoula and Helena. But some solar advocates are wary of the projects, saying they could be merely greenwashing.

Partnering with the city of Bozeman in early 2016, NorthWestern Energy agreed to build a 300-kilowatt solar array, which should be large enough to power up to 60 homes.²⁴ NorthWestern Energy allocated one-third of the \$3 million it pledged in June 2015 to donate to community-based renewable energy projects. In October, the 2.5-acre project will have been in operation for a year.²⁵

"This is going to be the first project of its kind in the state," said Heather Bellamy, Northwestern's Bozeman-area community relations manager in early 2016. "It gives us a chance to see, real time, how it actually works."

Next, NorthWestern Energy is partnering with the city of Missoula and Missoula County Public Schools to build a set of solar arrays on or near four high schools and possibly invest in some energy storage technology. This project will also receive \$1 million from NorthWestern Energy with the final \$1 million set aside for the 2018 project in Helena.

Through the pilot projects, NorthWestern Energy says it is working to gather information that will "help it learn more about the impact of solar on company operations and the related costs. The information will also be used to analyze possible sustainable business models for adding renewable technology to its energy grid, if and as needed." ²⁶

In addition to the three solar projects, in March, NorthWestern Energy helped the city of Missoula install two electric-car charging stations in a downtown parking garage, which has its own rooftop solar array capable of providing up to 80 percent of the parking structure's power.

"We do think renewables make financial sense to our customers and meet local needs," said company spokesman Butch Larcombe.²⁷

So will NorthWestern Energy have a change a heart regarding solar power? Some solar advocates doubt it. Some worry that the company will use the projects to manufacture more reasons to oppose net metering. The company could end up using solar projects to make money for itself but still oppose Montanans' rights to do the same.

But some are giving the company the benefit of the doubt. They say that maybe it's just a matter of getting NorthWestern Energy to be more acquainted and comfortable with solar energy. Company technicians are supposed to understand new technologies and know how to integrate them, but they're still new to large-scale solar projects like the one in Bozeman. The company was resistant to wind power until it starting developing its own wind farms in 2005 and now it's coming around.

Some like Valainis are taking a wait-and-see attitude.

"The NorthWestern Energy projects are great things. Seeing the utility install solar like that is a great thing. It just remains to be seen what they're going to do with it," Valainis said. "If it moves everyone in the right direction with the utility adopting solar and being more welcoming to solar, then that's absolutely a great thing. If it's used in other ways, then it starts to become questionable."

Renewable Energy and Climate Change

The summer weather of 2017 was like no other in Montana's history, but it may represent many in Montana's future as global warming worsens. As such, it's a huge argument for switching to renewable energy.

May's snowpack was expected to supply Montana's streams all summer long. But in June, the rains stopped falling in eastern Montana, and drought rapidly overtook the region. By mid-July, northeastern Montana was experiencing the worst drought in the country, 28 followed closely by the Dakotas. Under what National Weather Service forecasters called a "flash drought", 29 farmers could only watch as crops shriveled and died. Montana and the Dakotas are expected to have a 64-millionbushel loss in wheat production, according to the U.S. Department of Agriculture. In addition, meager hay supplies forced some ranchers to sell their cattle at a loss. Western Montana fared a little better in June, but then the spigot turned off statewide, and daytime temperatures consistently soared into the upper-90s.

It didn't take long for rivers to drop and soils to dry. Wildlife managers had to restrict fishing opportunities on more rivers, and fishing outfitters lost business as water temperatures rose, endangering native trout. Vegetation that had flourished during the spring became yellowed and parched, primed for ignition.

In many places, the ignition came in the form of dry lightning. Five of Montana's largest fires started within a four-day period³⁰ starting July 13. Two more started during the following week, including the 423-square-mile Lodgepole Complex of fires near Jordan. By the end of August, 40 more wildfires had flared and one of Glacier National Park's historic inns, the Sperry Chalet, succumbed to the flames. Many Montanans suffered from the pervasive heat and smoke as summer dragged on. In mid-August, scientists with the National Oceanic

and Atmospheric Administration announced that July had pretty much tied July 2016 for being the hottest on record.³¹

Unfortunately, this kind of summer may become normal in the future. Scientists have known for decades that climate change would increase the frequency and severity of weather events such as drought, hurricanes and monsoons. As humans have continued to pump greenhouse gases into the atmosphere, those threats are worsening sooner than expected.

"The trees are going to die, there's going to be increased mortality and there is really no benefit there. A lot of that is that hot temperatures kill trees."

In June, University of Montana spatial ecologist Alisa Wade predicted the conditions that would enable the wildfires that were to come.

"With hotter temperatures, you're going to see increased drought, or increased aridity in certain situations. When it does occur, it will very, very likely be more severe," Wade said. "The trees are going to die, there's going to be increased mortality and there is really no benefit there. A lot of that is that hot temperatures kill trees."

Obviously, extreme weather threatens not only forests but also the livelihoods of Montana's farmers and ranchers. Even before this summer's drought, a 2016 Montana Farmers Union report³² made some dire predictions for agriculture's future that already appear to be coming true. The report concluded that Montana's grain production would be affected by changing weather patterns, shifting growing seasons, reduced winter snowpack and summer rainfall, hotter spring and summer temperatures and the spread of weeds and pests. Combined, these changes

could reduce crop yields by as much as 25 percent by 2055 and cost farmers almost 12,500 jobs and \$372 million in earnings.

Meanwhile, water shortages, extreme heat and more carbon dioxide in the air will make grass and hay less digestible and nutritious to livestock. This, along with increased competition from weeds, is predicted to reduce productivity of the rangeland cattle industry by 20 percent, costing ranchers just over 12,000 jobs and \$364 million in earnings.

Most agricultural producers know conditions are changing and not for the better, according to a 2017 survey conducted by Tim Siepel of the Montana State University College of Agriculture.

"Between 89 and 95 percent of Montana agricultural stakeholders acknowledge climate change, and 83 percent think it's a serious problem," Siepel said in June.³³

Erik Somerfeld, who farms wheat, malt barley and hay near Power said, "It's no secret to farmers that things are changing. We see it in every season. We're planting at least two weeks earlier than we did 10 years ago, and we're not getting the early and mid-summer moisture that crops like malt barley need."

Many of those same farmers and ranchers want to be able to power their operations with more renewable energy. Most want to reap the economic benefit, but installing solar panels also helps to combat climate change, creating a win-win situation. Fewer fossil fuels are used to keep the lights on, so fewer greenhouse gases are released.

This summer's wildfires and crop losses have cost Montanans dearly, draining state coffers and plundering farmers' and ranchers' bank accounts. Obviously, ignoring climate change and failing to limit greenhouse gases will eventually impoverish the Treasure State far more than any regulations intended to control pollution. In the meantime, other corporations are demanding that they be allowed to plunder Montana's remaining resources — coal, gold, copper, gas and oil - in order to line their own pockets while offering the lure of temporary jobs. If the bottom line is the only thing that counts, whose bottom line is more important?

A majority of Americans believe their personal bottom line should count more than those of corporations, and more should be done to address climate change, according to a Aug. 2 Yale University report.³⁴ Three-quarters of registered voters say corporations and industry should do more to address global warming. More than half think global warming should be a high or very high priority for the president and Congress.

We haven't just burned through the money here in Montana as we've fought fires, we have also burned through the question of whether something is happening to our environment.

A Sept. 6 *Billings Gazette* editorial³⁵ called on the Republican members of Montana's delegation to stop denying that climate change exists:

"We believe the question of climate change needs addressing. If politicians, especially those on the right like Rep. Greg Gianforte or Sen. Steve Daines — need any political cover so that they can begin addressing the effects of climate change, it would seem that (Hurricanes) Harvey and Irma and the West's wildland fires have given them plenty.

"We haven't just burned through the money here in Montana as we've fought fires, we have also burned through the question of whether something is happening to our environment. Clearly, the best science — and the best scientists — agree that humankind's impact is contributing to these changes.

"We need honest talk and quick action to help curb this problem. We'd bet the economic impact of decreasing coal production in Colstrip will pale in comparison to the cost of firefighting, loss and rebuilding what the fires have taken. It's not just about coal or Colstrip. Quite frankly, it's about all of us here in Montana. It's not just energy, it's also tourism. It's about being able to live in the Last Best Place."

Meanwhile, Daines and Gianforte blame "extreme environmentalists" for the wildfires and continue to dismiss the influence of climate change. But they may find themselves in a rapidly dwindling minority in Congress.

On Sept. 10, Arizona Republican Sen. John McCain told CNN the climate is being altered in "unprecedented" ways as a result of fossil-fuel emissions. ³⁶

"Solar and other technologies make it cheaper for energy for many of the American people, including a state like mine where we have lots of sunshine," McCain said.

After the devastation of hurricanes Harvey in Texas and Irma in Florida, Republicans of coastal states realized they couldn't afford to keep their heads in the sand. According to a Sept. 14 New York Times article:³⁷

"In Florida, where Irma left more than a dozen dead and millions without electricity, a handful of Republicans have been more outspoken. The Republican mayor of Miami, Tomás Regalado, urged Mr. Trump last week to reconsider his climate policies. Several Florida lawmakers founded a bipartisan Climate Solutions Caucus in the House of Representatives, and the group's Republican membership grew this year to two dozen.

The safe ground for Republicans, party strategists say, may be embracing proposals to mitigate certain effects of environmental change, while skirting debate about more drastic actions that experts see as essential."

hundreds of local governments across the nation declared they would uphold the Paris Climate Accord

The tide appears to slowly be turning in the halls of Congress. Meanwhile, hundreds of local governments across the nation declared they would uphold the Paris Climate Accord in defiance of Pres. Donald Trump's decision to pull the U.S. out of the accord in June.³⁸

But promises and talk are cheap, and years may pass before political leaders do enough to stem the flow of greenhouse gases. By then, it could be too late. Scientists estimate that humans have only three years to stop the rise in greenhouse gases. ³⁹ If the gases keep building in the atmosphere past 2020, the average annual temperature will increase by more than 2 degrees by the end of the century, endangering life on the planet.

Prioritizing renewable power and conserving energy is key. If recent weather catastrophes are any indication, it's time for the tenets of the climate movement to become the climate paradigm. We are running out of time to make enough change to preserve any hope for our planet and future generations. If not now, when?

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