

RENEWyoming:

Solar Stories from the Cowboy State



A publication of Powder River Basin Resource Council



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Who We Are

Founded in 1973, Powder River Basin Resource Council is a citizen-based organization of individuals and affiliate groups dedicated to the stewardship of Wyoming's natural resources. Through member empowerment, strategic alliances, and a dedicated staff, we work to preserve Wyoming's unique quality of life and our precious air, land, and water quality.

Our mission is to preserve and enrich our agricultural heritage and rural lifestyle; conserve Wyoming's unique land, minerals, water, and clean air consistent with the responsible use of these resources to sustain the livelihoods of present and future generations; and educate and empower Wyoming's citizens to raise a coherent voice to affect the decisions that will impact our environment and lifestyle.

We are a non-profit, 501(c)(3) tax-exempt organization.

About This Publication:

RENEWyoming was born in response to a growing trend of solar installation in Wyoming. Across the state, more people are installing solar panels than ever before. Wyoming is not alone. Nationally and globally solar cell technology has improved and prices have come down accordingly, spurring an increase in installation.

People have a variety of reasons for installing solar arrays on their homes and businesses. A driver for many people is the financial logic of producing their own energy. Solar panels have a long functional lifespan, and the time it takes a system to pay for itself in savings has come down a lot since the technology was invented, increasing the financial appeal.

Solar job growth across the nation has also picked up during the past several years. In 2017, the Bureau of Labor Statistics listed "Solar Installer" as the fastest growing job category in the United States.

In a time when economic diversity is a buzzword around the state, solar growth provides one avenue for diversification. Wyoming gets around 200 sunny days a year on average, making solar energy an obvious fit for the state.

When systems are sized correctly, they can mostly or completely cancel out the energy costs of solar owners. Many pay only a service charge to use the grid. Additionally, net metering allows solar users to save "credits" during times of overproduction, usually summer months, and apply those credits to times of lower production in the winter.

A variety of incentives, tax credits, and grants are available around the state to assist homeowners, business owners, and nonprofits with installation costs. Using these resources can further bring down the cost of installing and reduce the time it takes for a system to pay for itself in savings.

In this publication, solar owners share their solar installation stories. Their reasons for installing are as varied as the people of Wyoming. These stories are unique to each solar owner.

To learn more, go to www.powderriverbasin.org, click on "What we do", and go to "Renewable Energy".



Scott Kane, owner of Creative Energies, stands in his Lander, Wyoming office.

Scott Kane - Lander, Wyoming (November, 2017)

For homeowners, there are financial savings on power bills and the benefit of the immediate increase in property value. Many people don't know it is going to increase their property value. It might take 25 years for full payoff on some systems, but it increases property value immediately.

A lot of people who get into solar are intellectually interested in the technical aspects. There are also environmental benefits. Rarely will people invest in solar for just one of those reasons, usually it is more of a package. There can also be reduction in the amount of energy it takes to cool a space since panels keep heat from the sun from hitting the roof. This is more of a benefit in the south, but does have some benefit in Wyoming.

Business owners get one substantial benefit that residential customers don't. They can claim accelerated depreciation on their solar asset, which brings down their taxes. They can claim full depreciation in about five years, with most of that occurring during the first two years. This can be worth 15-30% of the cost of installation.

The Rural Energy for America Program (REAP) grant can be claimed only by for-profit businesses, while the Rocky Mountain Power (RMP) Blue Sky program can only be utilized by nonprofit businesses. The RMP grant often pays a high percent of a total project, from 50-90%.

All taxpaying individuals and businesses can claim a 30% tax credit.

One of the greatest barriers to solar energy in Wyoming is the low cost of power. In Massachusetts, where people pay more for energy, investments in solar energy pay for themselves much faster than they do in Wyoming. Price per kilowatt has come up in Wyoming, which is making solar more attractive.

Industrial rates are still extremely low in Wyoming, which means solar on businesses doesn't make as much financial sense. Another barrier to business utilization of solar energy is the 25 kW installation limit. If we look at a typical commercial user - a hotel, a restaurant - that 25 kW limit gets reached pretty fast. National Outdoor Leadership School (NOLS) has solar installed on their main building. They are using the full 25 kW allowed, and it is only offsetting 7% of their electricity use.

The lack of any kind of state incentive is another problem for solar. Some of those are even no-cost incentives to the state, like streamlining permits or rules that prohibit covenants from preventing solar. It doesn't cost anything for states to protect solar rights.

Taking away the net-metering size cap and changing when energy production gets true up (excess energy sold back to the utility company) would make solar make sense for a lot more people. There was no reason the true-up had to be prescribed to January. If it could be changed to March, users would have the chance to use most or all of their solar credits instead of having to sell them back to utilities at a low rate. The biggest difference would be for residential customers.

Wyoming's solar industry will grow because demand grows. Colorado has around 5,000 jobs in solar, Utah has 3,000. In Wyoming, we only have around 20 people working in the solar industry. That is way lower as a percent of our population. This is an industry with a lot of room for job growth in Wyoming.

The price of solar keeps coming down. We get so excited about this! We just love charging our customers less each year. I've had people who are ready to install ask if we should go with a bid from two years ago, and I say, 'No, no!', we need a new bid because it will be cheaper!



Kim Briddle stands outside of Fremont Veterinary Clinic near Shoshoni, Wyoming.

Kim Briddle - Shoshoni, Wyoming (November, 2017)

I have always been interested in solar energy. My dad was interested in this stuff back in the 1970s, and built a Passive Solar, earth berm house in Riverton in 1981. My brother built a similar house in Worland in the 80s also. We talked a lot about using solar, and how Wyoming, with its beautiful clear skies, is a good place to utilize it.

I read about solar energy in *Mother Earth News* and followed the development of alternative energy globally. I was very pleased to finally be able to afford the solar array on the clinic. I'm a black belt tightwad, and the idea of free energy from the sun is awesome to me.

We installed our system in February 2014. We worked with Creative Energies out of Lander to install. It's a 4.65 kW grid-tied system with 15 310-watt solar panels, plus the inverter. The panels generate 100% of our electrical use at the clinic. We also produce a small amount that we sell back to the grid.

I like being on the cutting edge of the technology (even though solar isn't cutting edge). I like the idea of being independent and the idea of sustainability. I only wish battery backup was not so expensive. It would be terrific to go off-grid.

The benefit to the business is the money saved over the life of the panels. The benefits to the community is the use of renewable energy.

There's no maintenance to our system. It just works. We haven't experienced any problems and the system has held up to hail. There are no drawbacks at all.

When we installed, We received federal tax credit, and depreciation expense for the business. We also received a Renewable Energy for American Program (REAP) grant for 25% of the cost of the project. With the credits, depreciation, and grant, the total cost of the system to us was \$6,817. That made the project affordable! The state could have a tax credit similar to the federal credit.... maybe tied to property tax? Or a refund of the sales tax? Anything the state could do would be great!

If you're thinking about installing solar today, you should see if you can get a grant, there is no downside, just saving money for years to come! I would encourage every business to apply for the REAP grant to take advantage of this awesome opportunity to install renewables.

I can't say enough about the opportunity to go solar. It was a project that I have been contemplating for years. The REAP grant gave us the means to carry out the project.



Deb Anderson of the Wyoming USDA Rural Development Office in Sheridan, Wyoming administers the REAP Grant to qualifying rural businesses. Also pictured is a 27 kW Pole Mounted Photovoltaic system in Wyoming that received the REAP Grant.

Debra Anderson - Sheridan USDA Office (December, 2017)

The Rural Energy for America Program (REAP) assists rural small businesses and agricultural producers in increasing energy efficiency and utilizing renewable energy through the provision of grants and loans. Debra Anderson, Energy Coordinator for the program in Wyoming, explains how it works:

I am the Energy Coordinator at the Sheridan USDA Rural Development office. I am the person who applications for REAP will be submitted to. In my role, I help my applicants fill out the documents – so there would not be a need for them to hire anyone to do that.

I have been working this program for almost four years now, and it has been growing every year. To date, we have had ample funding in-state to fund all of the applications received. It appears that this year may be the first year where all of our funding is spent. If we do not spend all of our monies allocated, those funds go back to National Office and are pooled to cover projects competing in a national office competition.

All applicants would need to have a Dun & Bradstreet number and then register in the System for Award Management as part of the application process. Depending on the type of project, there may be other requirements. I discuss requirements with applicants when they come in. I recommend that anyone (small business or ag producer) interested in the program, contact me and discuss their specific project. At that time we will discuss the application process going forward. Small businesses and Ag Producers can apply.

Our funding is divided into two separate pools of money; one for those with total project costs of \$80,000 or less and the other for those with total project costs of over \$80,000. Historically in the \$80,000 or less category, we receive approximately \$120,000. In the over \$80,000 category, we historically receive approximately \$320,000. The grant can cover 25% of eligible project costs. The eligible costs include soft costs such as labor, shipping, taxes, fees, etc.

Grantees have two years to complete the project (most are finished long before that time). There is a semi-annual (twice a year) report due until the project is complete. The semi-annual reporting keeps us apprised of the progress of the project to ensure that it is proceeding as planned. Once the project is complete, there are annual reports due (two annual reports for energy efficiency projects and three annual reports for renewable energy projects). The annual reporting is basically a document showing the amount of energy saved or produced in that year.

We take applications at any time but there are funding/competition deadlines. For the projects under \$80,000 there are two (one is the end of October and the other is either the end of March or April; it has varied). The projects over \$80,000 just have one deadline (either the end of March or April).

The only “cap” on how many businesses can apply is the amount of annual funding we receive. If all of our state-allocated funds have been exhausted, then we could submit the application for National competition. In that case it would compete nationally for any funding that may be available there.

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Maria Katherman stands next to a solar freezer in front of her newly installed solar panels on her property in Douglas, Wyoming

Maria Katherman - Douglas, Wyoming (December, 2017)

We have been thinking about solar for 20 years. It's just one of those things that we never got around to. We installed this spring. I think we started in March and then had to wait for the ground to thaw to do some trenching that needed done. It's been fabulous, really fabulous. There's not been one hitch.

We have nine full-sized panels on a ground mount system. Our son looked at our energy use and the output of the solar panels and figured out what we needed. We are hooked to the grid here, so rather than go with batteries we go with net metering, so we use the grid as a battery, essentially. The thing that we would like to do (I get it, it's pie in the sky and it's never going to happen) but my husband works in Casper and has a condo there that he uses in bad weather. We would like to have just one account, where our solar credits from home could be used there.

It looks like we will make a little bit more than we need this year. In the summer we use solar for water pumping, we have a shop and it has an electric heater, and then everything for the house. We don't heat the house with electricity, but lights, computers, electrical gizmos. We have one truck that we put an electrical heater in at night. As the fall comes on, I heat water tanks for stock.

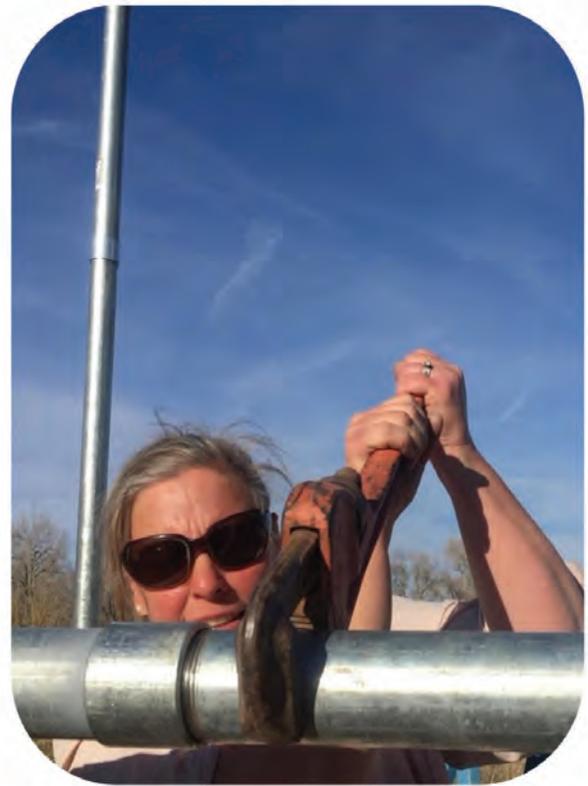
There's a rural incentive, the Rural Energy for America Program (REAP) grant that we were able to use. And there was the federal tax incentive. Those two were very important for us. For me, when you look at the big picture, the Laramie station in Wheatland is one of the oldest and dirtiest power plants in the nation, it's a mess. The cost of replacing that and getting it up to speed, I keep thinking, "Geez, you could almost make the difference if enough people in the area went to solar." If that was incentivized the same as coal, as the power company, it would be doable. I think Wyoming could do a lot, but the tax base for the state is coal and oil and gas, so if that's paying the bills, that's calling the shots.

You have to think, what's the thing that makes you say, "Okay, I'm really doing this" and for us it was visiting a friend up in Sheridan. She had older solar panels and she was putting in some new ones to power a shop. And seeing how easy it was and how well it worked, that was enough for us. Having her have good references for Range Solar and Wind was good too.

It's crazy to say it, but there haven't been any negatives to doing this, not one. For the first three months, Stacey and Mark, the installers, would call us a lot and check in. If there had been any problems, they would have been on top of it, but there haven't been. It's just been problem free. When Range put the panels in they were really good about walking around the place, positioning the panels, the angles and finding the best location. I think a lot of our trouble-free time has been because they were so thoughtful from the inception of the project.

I love driving down the driveway and seeing the panels. We live probably ten crow miles from the Dave Johnson Power plant. We're downwind from them and the sun sets into their haze everyday. You can see this line of brown residue from their smokestacks settling in the Platte River Valley. They get that coal from the Powder River Basin, and it's probably not the best coal. We have a tremendously high asthma rate for the kids here. It's really important to me to try something different that has a big local effect.

My main advice for people is not to wait. There's no reason to. If you're talking about it and thinking about it, call up installers. I cannot recommend Range Solar and Wind any higher. They're dependable; they're all over the state. Once people have solar panels installed they want to make converts because they're just so wonderful to have!



Stacey and Mark Schmid, owners of Range Solar and Wind in Casper, Wyoming.

Stacey and Mark Schmid - Casper, Wyoming (December, 2017)

Since more people are at work during the day, businesses use the most energy during daylight hours, which are sun hours! Adding solar to the grid during these times helps offset power needed from traditional utilities. Most consumers in Wyoming do not see a demand charge - but the ones that do can greatly benefit from solar. It can lessen the amp load that creates those demand charges. This can be done without using batteries. We have a customer in Casper that no longer gets demand charges because of the solar he installed.

There are actually a lot of incentives for solar in Wyoming. We are pleased to have Blue Sky and Rural Energy for America Program (REAP) installs that we have worked on out there. There's a job we did in Powell on an organic ranch that was a REAP grant recipient.

The federal tax credit is also worth 30% of an entire solar install, including labor. This amount comes off of taxes you owe - so there is no refund on this. Unfortunately, this is only in place until 2019. After 2019, people can still get solar tax credits for a while, but the percent will go down over time and then go away in a few years.

REAP Grant recipients can get up to 25% of an install covered. Program applications are taken twice a year in the fall and spring. The process requires paperwork from owner and installer. The USDA has been a delight to work with here in Wyoming!!!!

The Rocky Mountain Power Blue Sky Program takes applications twice a year as well - dates vary. Guidelines can be found online easily as there are a few too many to mention briefly.

Still, there's work to be done. Creative Energies will be in agreement with us that the state limit of 25 kW per meter is limiting. The example of a business in Casper that can't install enough solar to eliminate their bill shows this. They do have two meters - so we work around it as best as possible. In this case, we can install up to a 50 kW system. For many businesses, though, it's a problem. There are also no state incentives, which is another barrier. Also, for now, no local banks we have talked to are willing to finance solar.

Community solar projects would be great to get the ball rolling in Wyoming. Solar doesn't always make sense and is not efficient on all properties. Community solar could help in some of those situations, but we need legislation to make it possible.

The price of installation has gotten smaller over the years - although climbing again currently due to the recently added tariff. Labor is not cheaper - but many of the components of a solar system cost much less than they used to. For example, our panels were 170 watt and cost \$620 retail seven years ago. Now 280 watt panels retail at \$290.

Some installers charge less - but you have to watch out for the cheap companies that come in with products from bankrupt companies, install, and leave. People are left asking, "Where are my solar installers? What do I do?" Thankfully this has only just started in Wyoming. What a great state we live in! This has not yet been too large of concern. But it is trickling in.

Our business is 98% solar energy, with a tiny bit of generator backup work and a tiny bit of wind. Sometimes we also have repair jobs. We have lived solar since 2002. We have practical experience and we know how it works. We know how to help others because of this. We have no political agenda in regards to this. We simply believe in solar.

We enjoy the work!!! We love it!! Solar installs never get old and we meet so many wonderful people. Most we have made lasting friendships with! It's a unique and diverse customer base. It makes the job great!



Gillian Malone stands on her roof beside her solar panels in Big Horn, Wyoming. In addition to solar panels, Gillian also uses a solar hot water system, shown in the bottom photograph.

Gillian Malone - Big Horn, Wyoming (December, 2017)

I went solar because I thought it was the right thing to do, and I was building a house. It seemed the best time to install a solar system as it could be incorporated into the design. A local friend, Larry Barbula, who at the time had a contracting company called Paragon, installed the solar panels, and my electrician, John Clark, from Direct Electric, hooked everything up, and installed the automatic shut-off required by MDU.

I have a grid-tie system with eight 175 watt panels for a total of 1400 watts, so it's quite small. My system produces most of my power. In July and August I produce more than I can use, but the rest of the year I use more than I produce. Still, I never pay more than \$25 for my electricity usage, even in the dead of winter.

Besides the obvious benefits of reducing my utility bill, my grid-tie system is equipped with a battery back-up, so if the power goes out, I still have power in my house for crucial things such as my well pump for domestic water and the pumps that run my in-floor heat. I also have a number of electrical outlets on the battery system, so I can manage quite well even if the power is out for long periods. My favorite part of having solar is knowing that I am helping to pay my own way and helping to defray even a minimal amount of the environmental cost of using electricity—especially electricity I know is derived from coal-fired sources!

There's nothing available now at the state level in the way of incentives to go solar, but when I installed my system, I was able to take advantage of some Abandoned Mine Lands (AML) federal funding that the state was dedicating to solar. I had to apply for it initially and send in annual reports on my energy savings; as I recall the grant was between \$2,000 and \$3,000. I was grateful for the help.

A few barriers make it harder to go solar in Wyoming than in other states. The 25 kW limit on the amount of electricity one can produce makes it difficult for small solar "entrepreneurs" to make a go. Also the "avoided cost" payment—really just credits on annual production—doesn't make it worthwhile for people to produce more electricity than they can use, which hurts everybody in the long run. It seems that utilities haven't recognized the benefits they receive, particularly during times of peak usage, from household production feeding back into the grid. Production should be paid out at the wholesale rate, not at an avoided cost rate.

These problems could be fixed by amending renewable energy laws and regulations to reflect the reality that the more roofs have solar panels the better it will be both for citizens and utilities—in not having to expand their own production from fossil fuels, additional power plants, or even wind—and for the health of the planet.

I haven't encountered a down side to solar, although the "pay-back" time for solar electric systems was still fairly long when I installed. However, the cost of solar panels has come down dramatically, making the pay-back time less now. The one drawback to a battery back-up system is that the batteries have to be replaced. I am not looking forward to paying for new batteries and I am concerned about proper disposal of the old ones.

For people thinking about installing a solar system, my advice would be to really try to gauge the size of the system, based on anticipated consumption, in order to install an adequate production profile. If I were installing now, I would do the math better and make sure my system was adequate to supply all my power needs.

Overall, going solar, was fun and educational. I would also say that incorporating a solar hot water system into my house was a great way to go, and the pay-back is much shorter. I love knowing that as long as the sun is shining I am producing my own domestic hot water. Although my back-up hot water is a very efficient, on-demand system, I still feel better when I don't have to burn propane to heat water!



Devon Brubaker is the Manager at the Rock Springs County Airport in Rock Springs, Wyoming. Photos show the progress of panel installation, which was completed in November, 2017.

Devon Brubaker - Rock Springs, Wyoming (December, 2017)

For years, I have been an avid supporter of renewable energy and sustainability. I have taken a lead role in my different positions in the pursuit of sustainable initiatives. When I learned that there was an opportunity to partner with Rocky Mountain Power's Blue Sky Program to have a system installed, it was a no brainer for me and our Board as our local match allowed for the ROI (Return On Investment) to be within a reasonable timeframe. It paired perfectly with the construction of our new General Aviation Terminal and Hangar Facility.

Rocky Mountain Power's Blue Sky Program provided 85% of the funding for this project.

Creative Energies of Lander did the installation for us and there haven't been any issues since we installed. We get the benefit of lower operating costs, being environmentally responsible, and serving as an example to the local community

We should make about 48,000 kWh of electrical generation which we are estimating to be 40% of demand from our new General Aviation Terminal & Hangar Facility.

I recommend that people thinking about installing do their research and become educated about all of the different options on the market today. Solar power generation is making advancements every day and those advancements allow for smaller panels, better and more reliable energy production. There are many manufacturers and systems to choose from. One of the neatest things with these systems are the public monitoring systems. I would strongly encourage business owners to look into these systems and find the one that will give you the best opportunity to show off your system's performance to your customers.

Having this system installed in tandem with a much larger project created scheduling and logistical issues. I encourage anyone in the same situation to focus on the main project and have it designed for the addition of the solar versus trying to build the solar as part of another project.

Current Wyoming statutes restrict the maximum amount of solar generation on net-metering systems at 25 kW. I am eager to begin a dialogue with all stakeholders within the state including the Wyoming State Legislature to allow for larger systems. Larger systems allow for minimal cost increases but exponential power generation increases. If there was not a cap on our system, we would have worked towards a system that could provide for 100% of our energy demand.

We are excited to be the first Commercial Installation in Sweetwater County and the first Airport Installation in the State of Wyoming. We look forward to growing our power generation capability in the coming years with more wind and solar projects.



Rod Morrison's pigs "help" install solar panels on his farm outside of Powell, Wyoming.

Rod Morrison - Powell, Wyoming (December, 2017)

Everything I do on my farm electrically is solar powered. I'm a certified organic meat purveyor, I sell it all over the United States. So, I have to have large freezers. I'm net metered, so my system is grid-tied. How much energy I can make is all about how much sun I get. I've got over 110, 280 kW panels. I had it installed in June, but it didn't get turned on until the end of August. Right now, my panels are running on two meters.

For me, using solar energy is about climate change. People say it's just a natural cycle, and it is, it's called the carbon cycle. The planet seems to warm up every couple million years. The problem is that this time we caused it. I'm okay with volcanoes and Mother Nature, but not what we're doing.

We've known that CO₂ is a greenhouse gas for a long time, but we're too addicted to the way we live to stop making it. Part of what we need to do is stop. We need a hard stop and we need to realize that we can do fine with a lot less. We don't need as much as we think.

Somehow that story needs to be told. The only way the story is going to be told is amongst us. It's not going to be told on the news or be broadcast on the radio. This idea of continual growth and continual development is over. Everything that we do as humans, we push it down the road, we kick the can. We push it down to the next generation to fix. We can't keep doing that or there won't be time to fix it. We need to change now. This is my attempt to try. I've spent my paper dollars on solar panels and made myself less a part of that system. I'm still a part of it, though. I'm still drawing from the grid at night.

Changes can come in different ways. Wars can create change, for example. I see solar as a peaceful opportunity to change. Wyoming is infamous for saying that the free market will cause change, when they don't really know what that means. Free market is harsh. Free market is really harsh. It doesn't care about people or communities.

Our whole life is about energy. Right now we're robbing the earth to get it. We don't need to be doing that. There's plenty of energy on the planet. When you think about what we do, it's important to understand the kind of energy it takes to get work done. If you pushed your car as far as it could go on a gallon of gas, you would be using the same number of calories in that gallon of gasoline to do the work. Calories are a measure of energy. The idea that time and money are related, they're not. It's energy related. All energy comes down to the calorie. Everything can be converted to calories.

Using calories that are created from nature in the sense that they come from the sun makes sense because all energy on the earth comes from the sun. Mother Nature cannot consume CO₂ as fast as we burn it. The problem with CO₂ is that human beings can't see it, can't taste it, so they don't pay attention to it. If CO₂ was purple, we might be paying more attention and everyone would install solar panels and do what they could to change how much we produce.

I like to think of myself as a Lincoln Republican. The Republican Party was founded on the idea of conservation. I believe that I am part of the natural system and we have to act accordingly. Solar fits into that.

I don't know that solar is a consideration any more. I'd say it's mandatory. You can't even do an economic analysis on it. The economics really doesn't matter. It's bigger than that. We need to start living in a world that's sustainable.



Merrill Noyes stands in front of a solar array on a building at the B & K Mobile Home Park in Riverton, Wyoming.

Merrill Noyes - Riverton, Wyoming (November, 2017)

The benefits of installing solar are reducing recurring electric bills and selling excess power back to the power company.

Installing solar systems can also generate a large tax break for the business or homeowner.

Right now, my panels produce approximately 158% of my current needs.

The system was installed by myself with a little help from a friend for heavy lifting.

The install took about three days. The hardest part was getting the panels on the roof. That took two people.

For me, it was very simple to install. Tools needed were screwdriver, wrench and a level. Anyone with basic skills can do it.

Once the system was activated it worked right away. The system is mostly maintenance free. I hose the panels off once or twice a year, but other than that I don't do anything to them and they work great.

I wanted to use the energy for the shop building, the office and to run the well pump for the trailer park. Right now, I'm only able to use my energy on one building...which doesn't make a lot of sense to me.

Some things that could make solar better in Wyoming are to join all electrical services on to one meter. It would also be good to pass laws ensuring the electric company will cooperate with owners on solar projects.

If you are thinking about installing solar, check with the power companies in your area to see if they are willing to work with you or not on how you want to use your energy.

The installation of solar systems is a good idea whose time has come. The tax breaks and lower prices make it a good investment and recovering the investment cost can be as little as four years or extended out to ten years.

Wyoming is a state with independent people. Solar energy is just another way to make us more independent.

Not having a power bill every month is kind of nice too.

Reed Zars - Laramie, Wyoming (November, 2017)

Creative Energies in Lander installed our system 20 years ago. Since then, it has been operating without a glitch and currently supplies 150% of my electric needs for my business. As a solar business, we have enjoyed lower running costs and an elevated sense of righteousness.

At the time when we installed solar on our business, we were able to take advantage of a small business grant from the Wyoming Business Council. It was a pass-through grant. Unfortunately, that grant is no longer available.

The only issue I have faced with my system was when the roof needed to be redone. I had to uninstall the panels, which takes four to eight hours, and the panels are heavy. I actually put them on a ground-mount rather than reinstall them on the roof to avoid having to take them off again in the future. Other than that though, they have been maintenance free.

Wyoming could take some simple steps to make it easier for businesses to utilize solar. For grid-intertie systems, Wyoming should allow businesses residents with several properties to apply excess power generated at one location against power consumed at another.

If you are thinking about installing, it might be good to consider using a ground-mount system if you have the space so that you don't have to uninstall the panels to re-roof. You should also consider going off the grid entirely. Utilities are increasingly charging more for standby power and availability.

If I installed today, I'd buy a Tesla wall battery and cut my grid connection. I would be able to pay for the battery storage (and thus have enough power to run at night, cloudy conditions, etc.) in several years by avoiding the utility's monthly charges for using the grid.



Reed Zars originally installed rooftop solar on his office in Laramie Wyoming. He later had his panels moved to a ground mount.

Wyoming Solar Installer Directory

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If you know of a Wyoming Solar Installer who is not on our list, have them contact us and we will add them!



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