

# Are You Thinking About Going Solar?

If you're interested in solar or just have questions, we can help. The city does not offer rebates for installing solar. But we do offer a net metering program. This allows you to sell excess electricity generated by your solar panels back to the grid.

## How it Works

If you have solar panels on your roof, they will generate electricity whenever the sun is shining, whether your home is consuming that electricity or not. If your solar panels are generating more electricity than your home is consuming and you don't have battery storage, the excess electricity will be feed back onto the grid.

A traditional electric meter only measures electricity flow going into your house from the grid. But a "net meter" can measure electricity going from the grid to your house and from your house to the grid, allowing for a "net" measurement of your electricity consumption (or generation).

Every month your electricity consumption as well as the amount you feed back into the grid is measured. The amount you feed back into the grid is subtracted from the amount you consume, drastically reducing your electricity bill.

If you feed more into the grid than your house consumes that month, you generate credit. This credit is "rolled over" to the following month's electric consumption, further reducing your bill that month. This process repeats every month throughout the year.

Once per year, on your April bill, we "true up" your account. If you have a credit, meaning you've feed more electricity back onto the grid than what your house has consumed in the past 12 months, then we pay you for that surplus you've generated.

The rate that we pay you is based on our "avoided cost", which is essentially the rate we pay from our primary electricity provider, Bonneville Power Administration (BPA). The rate varies year to year based on prices set by BPA. In 2023 our avoided cost is \$0.0350 per kilowatt hour.

## Example 1

A 7.5 kW solar system is installed on a typical house

Month	Typical Household Consumption (kWh)	Solar Generation (kWh)	Net Consumption (kWh)	Balance (kWh)	Bill without Solar	Bill with Solar
May	953	1136	-183	-183	\$ 71.67	\$ -
June	993	1182	-189	-372	\$ 74.67	\$ -
July	1180	1323	-143	-515	\$ 88.74	\$ -
August	1084	1194	-110	-625	\$ 81.52	\$ -
September	997	958	39	-586	\$ 74.97	\$ -
October	1320	678	642	56	\$ 99.26	\$ 4.21
November	1536	389	1147	1147	\$ 115.51	\$ 86.25
December	2637	212	2425	2425	\$ 198.30	\$182.36
January	1928	274	1654	1654	\$ 144.99	\$124.38
February	1923	450	1473	1473	\$ 144.61	\$110.77
March	1528	768	760	760	\$ 114.91	\$ 57.15
April	1401	1010	391	391	\$ 105.36	\$ 29.40
<b>Total</b>	<b>17480</b>	<b>9574</b>	<b>7906</b>		<b>\$1,314.50</b>	<b>\$594.53</b>
Residential 2023-24 rate (\$/kWh)	\$	0.0752				
2023-24 Avoided cost (\$/kWh)	\$	0.0350				
Solar generation from:	<a href="https://pvwatts.nrel.gov/">https://pvwatts.nrel.gov/</a>					

In this example the solar generates more than the household consumes May-August resulting in a bill of \$0 each month and net balance the rolls over to the following month.

In September household consumption exceeds solar generation so a small amount of electricity is consumed from the grid. However, the credit accrued from the previous month exceeds the amount consumed so the bill is still \$0.

In October household consumption exceeds solar generation. But the remaining balance from surplus during previous months pays nearly all of the bill, leaving a very small balance of just \$4.21. November through April household consumption exceeds generation so the bill is reduced by the amount generated.

## Example 2

A 15 kW solar system is installed on a typical house

Month	Typical Household Consumption (kWh)	Solar Generation (kWh)	Net Consumption (kWh)	Balance (kWh)	Bill without Solar	Bill with Solar
May	953	2271	-1318	-1318	\$ 71.67	\$ -
June	993	2364	-1371	-2689	\$ 74.67	\$ -
July	1180	2647	-1467	-4156	\$ 88.74	\$ -
August	1084	2389	-1305	-5461	\$ 81.52	\$ -
September	997	1916	-919	-6380	\$ 74.97	\$ -
October	1320	1357	-37	-6417	\$ 99.26	\$ -
November	1536	779	757	-5660	\$ 115.51	\$ -
December	2637	424	2213	-3447	\$ 198.30	\$ -
January	1928	548	1380	-2067	\$ 144.99	\$ -
February	1923	899	1024	-1043	\$ 144.61	\$ -
March	1528	1536	-8	-1051	\$ 114.91	\$ -
April	1401	2021	-620	-1671	\$ 105.36	\$ (58.49)
<b>Total</b>	<b>17480</b>	<b>19151</b>	<b>-1671</b>		<b>\$1,314.50</b>	<b>\$ (58.49)</b>
Residential 2023-24 rate (\$/kWh)	\$	0.0752				
2023-24 Avoided cost (\$/kWh)	\$	0.0350				
Solar generation from:	<a href="https://pvwatts.nrel.gov/">https://pvwatts.nrel.gov/</a>					

In this example, solar generation exceeds household consumption May-October, bringing the bill to \$0 each month and accruing a large credit. November-February household consumption exceeds solar generation, slowly drawing from, but never fully consuming the credit accrued, resulting in a bill of \$0.

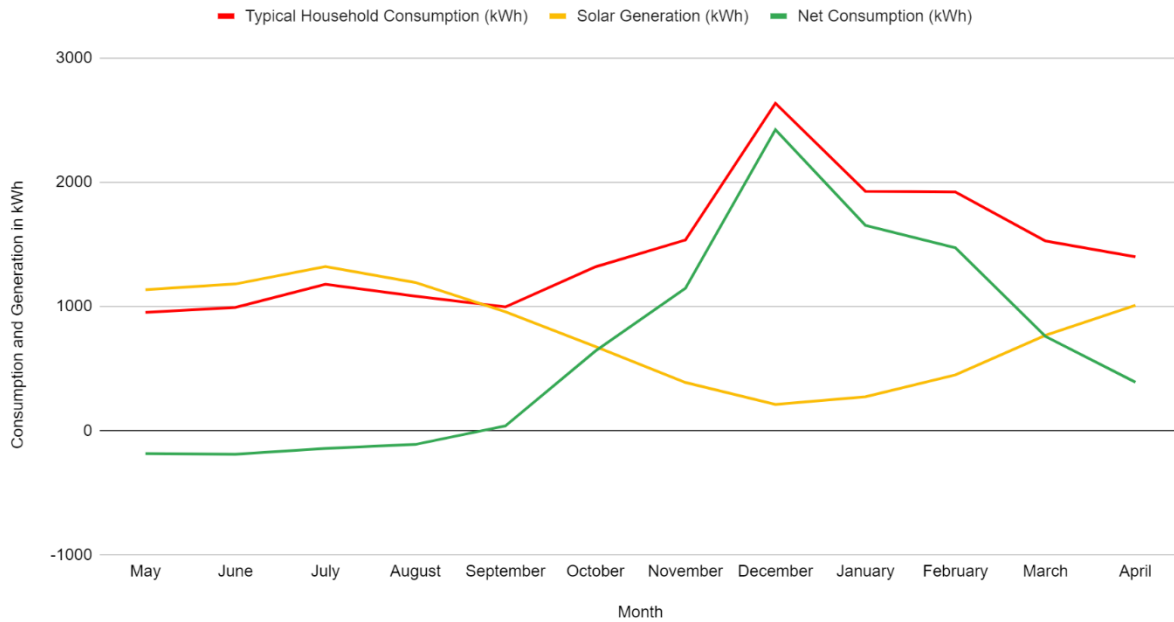
By April, there's still a credit of 1,671 kWh. This amount is multiplied by the 2023 avoided cost of \$0.0350 resulting in a payout of \$58.49. In this example the customer never pays for electricity from the grid and "profits" roughly \$60 from their solar installation.

## When the Sun Shines

One important fact to notice about this information is when the sun shines. You'll notice from the examples above that solar generation drops drastically in the winter months. This is due to the frequency cloud cover during our winter months. This also happens to be the same time of year when your electricity bills tend to be highest. You should expect to see very little difference in your electric bill during these months unless your system is large enough to generate and accrue a lot of credit during sunnier months. The graphs below show typical household consumption and solar generation throughout the year and how that would impact your electric bills.

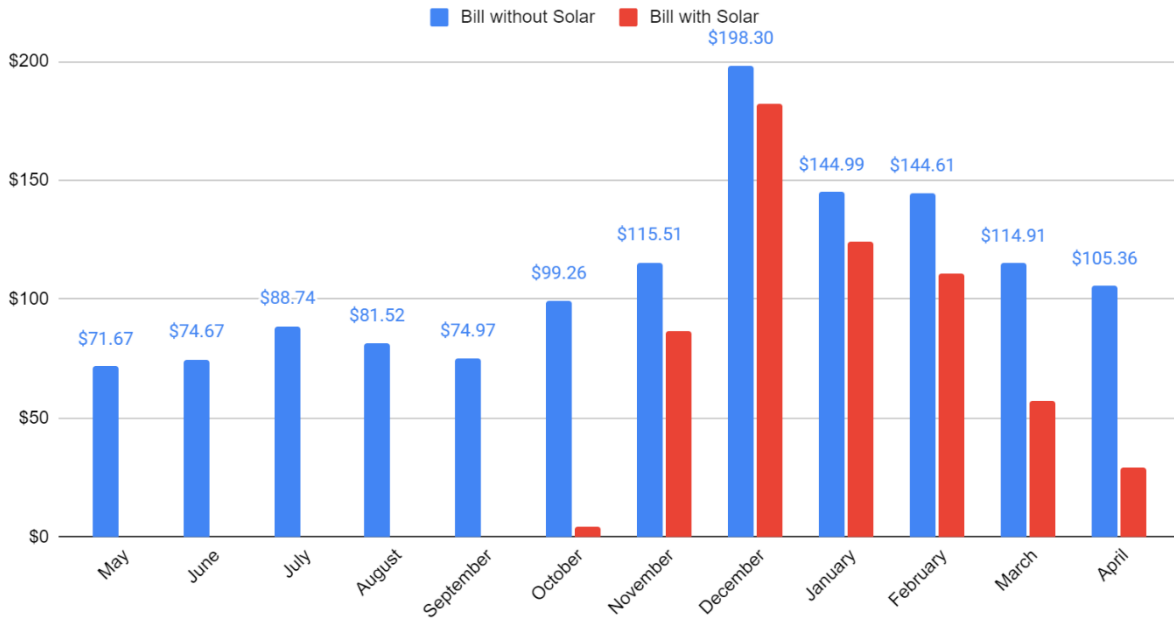
## Typical Household Consumption vs. Solar Generation (kWh)

for a 7.5 kW system



## Typical Bill with and without Solar

for a 7.5 kW system



## How to Get Started

1. It's always best to reach out to us first so we can address any questions or concerns you might have and make sure the electric grid serving your location is well suited for solar.
2. Choose a contractor. Several Serve this area. Shop around to get the best deal.
3. Your contractor will contact us and the State of Oregon to gather all necessary paperwork and permits. There will be several documents that will require your signature.
4. After your contractor has secured all documents and permits and completed installation, they will contact us to conduct a final test of the system and install your net meter.
5. After final testing and net metering installation is complete, you're ready to start generating electricity of solar.

Contact Ryan Westman at 541-938-8230 or [ryan.westman@milton-freewater-or.gov](mailto:ryan.westman@milton-freewater-or.gov) for information