

Idaho Irrigation news

Keeping Our Agricultural and Irrigation Customers Informed

September 2019

Do Your Homework on Customer Generation

Idaho Power customers enjoy some of the lowest prices and best reliability in the nation. We know that keeping our system reliable and affordable is important for irrigators, and it's important for us, too. That's why we've asked the Idaho Public Utilities Commission (IPUC) to review the current compensation rates for customer generation.

Some customers are curious about investing in their own generation systems. Customer generation allows Idaho Power customers to offset part, or all, of their energy needs using electricity produced by solar panels or other energy sources. Customer generation is currently billed using a system called "net metering," where at the end of each month, customers are compensated for any excess energy with a bill credit.

The number of customers choosing to generate some of their own energy has increased in recent years, but change could be on the horizon. While Idaho Power supports clean energy and customer choice, here are some things irrigators should consider before installing a system:

COSTS VS. BENEFITS

Generating energy with solar panels may help you offset some, or even most, of your monthly energy use. However, the up-front installation costs are significant. Irrigators may be able to take advantage of certain tax benefits to help lower the cost, but each customer's situation may be different. Future maintenance costs should also be factored in when considering the total investment. Also on average, system generation declines about 0.7% per year.

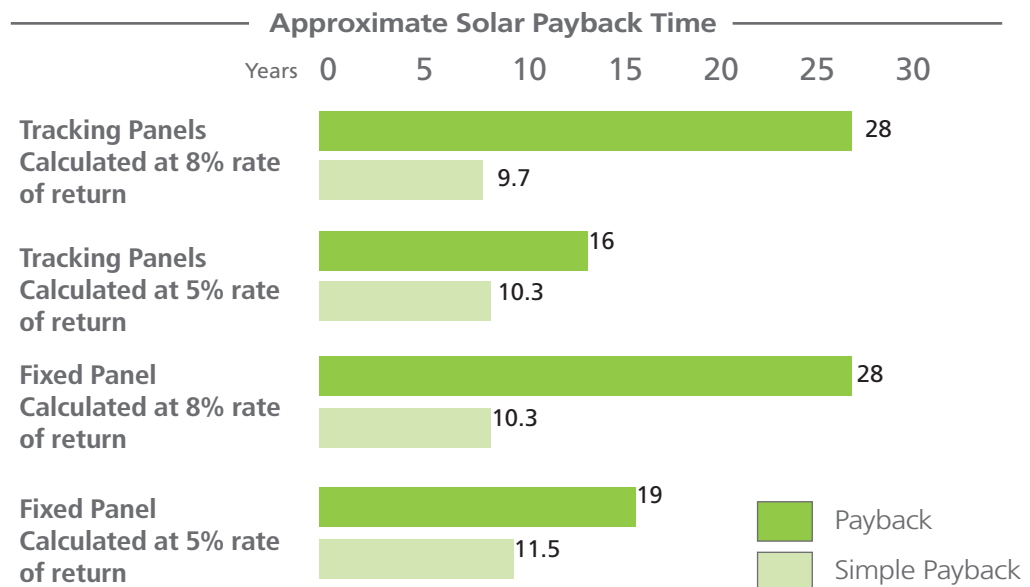
RETURN ON INVESTMENT

A key consideration for irrigators is the time it will take to recoup an up-front investment in solar panels. Because Idaho Power customers enjoy some of the lowest prices in the nation, it may take longer for your system to achieve a payback than it would in other parts of the country. Idaho Power has seen bids provided to customers with inaccurate or misleading information, including underestimates of the payback period. We want you to have the facts — contact your agricultural representative to make sure you have complete information before you commit.

A CHANGING LANDSCAPE

Irrigators with customer generation generally take service under Schedule 84. This tariff is not a contract — it is subject to change and is currently under review with the Idaho Public Utilities Commission (IPUC). That means compensation rates for net metering customers are likely to change in the future, which would impact the payback rate and economic feasibility of installing a system.

Curious to see what an investment in solar might look like on your property? The examples below show some common scenarios for a typical irrigator in Idaho.



Estimates based on 100-kilowatt system with current federal tax credits.

Choosing Motors on Single-Phase Lines

Planning, choosing and installing a new irrigation system can be quite challenging. Another big decision to make is the power delivery system, specifically choosing between single-phase and three-phase power. There are several factors to consider:

- Initial Cost
- Life Cycle Cost
- Operating Cost - Energy Efficiency
- Reliability
- Convenience and Control

Remote and smaller systems are often supplied with single-phase power. Pump motors up to 10 horsepower can be supplied with single-phase service and have become more efficient in the last several years. Single-phase motors have the lowest initial cost to install on a single-phase service.

Single-phase can be converted to three-phase with a rotary phase converter, a digital phase converter or a phase converting variable frequency drive. Certain irrigation methods (center pivots and linears) nearly always require three-phase power. The motors on center pivots

and linears need to reverse direction (which is simpler with three phase), require smaller wire and last longer when operating on three-phase power. Reversing direction is also simpler with three-phase.

Three-phase motors are more efficient than single-phase motors and operate and last longer. However, if you do not need three-phase power for other purposes, keep in mind converting supplied single phase to three-phase requires additional expense and complexity. Consider your bottom line before the switch.

The standard methods of supplying single-phase or three-phase electricity to a modern 5-10 horsepower motor are close in energy efficiency. Sizing the pump and motor to operate in a range that the motor can support at 80-90% of its nameplate horsepower will have a significant positive effect on the performance of the system. Long term reliability, minimized replacement costs and energy efficient operation will optimize overall lifecycle cost.

Prices Go Down Again!

Price Decrease!

-5.13%

For Idaho Irrigation Customers

Good news! For the second year in a row, Idaho irrigation customers will benefit from a price decrease of at least 4%. The Idaho Public Utilities Commission recently approved our four spring cost adjustments, resulting in an overall savings for Idaho irrigators, as well as residential and most business customers.

Idaho irrigation prices decreased 5.13% this year after going down 4.25% in 2018. The new prices took effect June 1. The prices Idaho Power customers pay support:

- Reliable electricity at the flip of a switch
- 17 hydroelectric dams and three natural gas plants
- Maintenance and upgrades of power lines across our 24,000-square-mile service area
- Keeping the electrical grid secure from cyber and physical threats
- Investments in technology to improve reliability and enhance our customers' experience
- Improvements that help keep employees and customers safe

Want to know more about the four cost adjustments? Details are available on idahopower.com/rates.

