*Virtual Tour*

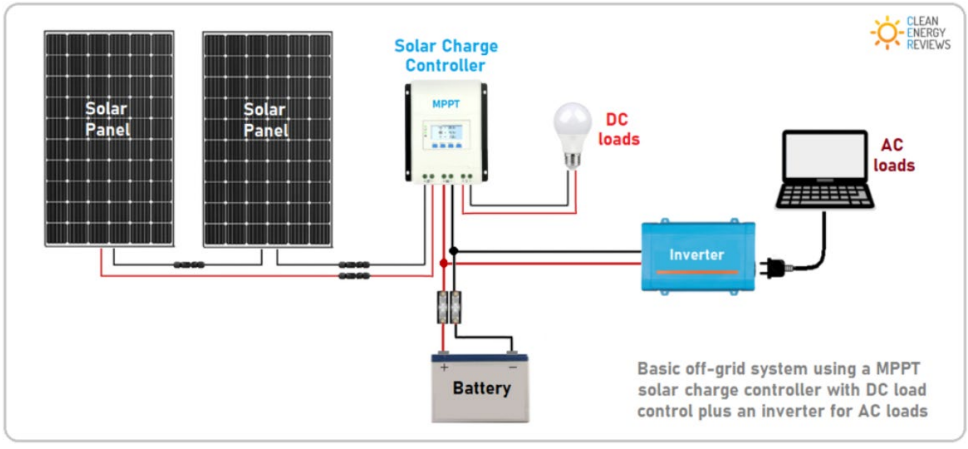
Solar

Grand Junction experiences 245 day of sun per year on average giving more than just light and warmth; our weather is perfect for harnessing solar energy!

Solar energy is a form of sustainable energy because it is infinitely renewable, the sun comes up every day, feeding the solar panels. Impressively, even if the sun is not fully out the solar panels will often generate about 25% of the electricity that would be produced on a clear day. Solar energy, also called solar power, can be converted into electricity that can power any number of electric devices. Here in the Discovery Garden, solar power is used to power the automated irrigation system. The solar array (which charges the batteries for the solar powered irrigation system) is positioned on the roof of the shed, facing south so that it can capture the most sun rays.

The solar-powered automated irrigation system has several benefits for the Garden. One great advantage to having a remotely automated system is that it does not require a person to manually turn on and off zones for irrigation. The system in the Garden can be activated and managed remotely if necessary. If a neighbor calls saying there is a water line break and flooding is taking place, the system can be shut down remotely and left off until someone can come to the Garden to repair the break. Another consideration for the Discovery Garden is that there is no ready access to electricity in the garden so solar power is a great asset when working "off the grid"! With only 80 watts of power a solar panel system could power garden lights, pond pumps, fountains, and garden shed lighting. Perhaps the best part, once the cost of installation was paid, no running costs are incurred, the electricity to run the irrigation system is free.

We at the Discovery Garden encourage you to explore using solar energy in your yard and garden at home, whether using solar lights to light the pathway, automating the watering of your garden and containers, powering a fountain pump, or any other imaginative way to beautifying your living space while keeping it simple to maintain.

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**Website Resources**

http://solarcellcentral.com/basics_page.html#utility_systems

https://www.alternative-energy-tutorials.com/energy-articles/solar-gardens.html

**Video Resources**

https://www.youtube.com/watch?v=Bo2GFneYrfM

https://www.youtube.com/watch?v=XlkpSsVh3To

https://www.youtube.com/watch?v=tfVaDG-ZVdY

**Resources from the MCPLD collection:**

Green wizardry: conservation, solar power, organic gardening, and other hands-on skills from the appropriate tech toolkit

Do it yourself 12 volt solar power

**Children's resources from MCPLD collection:**

Experiment with solar energy

Super cool science experiments: solar energy

Harness it: invent new ways to harness energy and nature