

## Solar PV facts:

### Did you know?

Solar power remains, after hydro and wind, the 3rd most important renewable energy source in terms of global installed capacity.

2. 1 hour of energy from the sun = 1 year of power for the global population

3. During cloudy days, solar modules still produce electricity. Usually around 10%-20% of the amount produced on sunny days.

4. FSM receives on average around 5.5 hours of sunlight per day each year.

If you choose to install solar systems, then you will give your hand towards the benefit of the environment.

# ENVIRONMENTAL IMPACTS OF NET METERING WITH GRID CONNECTED SOLAR PV SYSTEMS

### Contact Us:

*Pohnpei Utilities Corporation*  
Post Office Box M  
Pohnpei, FM 96941  
Phone: 320 2840

Email: [info@mypuc.fm](mailto:info@mypuc.fm)  
Website: <https://pohnpeipuc.fm/>

## EU-GIZ ACSE ADAPTING TO CLIMATE CHANGE AND SUSTAINABLE ENERGY



# Some noted environmental impacts of generating energy from solar photo voltaic energy

## 1. It uses less water

Water is one of our most precious natural resources in FSM. Water is used for cooling generators and transporting fuel through pipes. Generating power through solar panels, however, uses no water whatsoever. The operation of solar photovoltaic cells doesn't require water at all to generate electricity, reducing the strain on this precious resource. The only water needed is rainwater to naturally clean the panels when they get a bit dusty.

## 2. It reduces air pollution

The air we breathe can help or hinder our health and wellbeing. Electricity generation from fossil fuels can generate harmful carbon dioxide and methane gases that lower the quality of the air we breathe. Using the sun to generate more and more of our power means less and less harmful emissions from burning fossil fuels. Generating electricity from solar panels produce no harmful emissions, and the more homes and businesses that rely on solar power means less toxic emissions from fossil fuels into our air.

## 3. Will help to slow climate change

The release of toxic gases into the atmosphere, such as carbon dioxide, methane and nitrous oxide, doesn't just contribute to air pollution, but also contributes to the enhanced greenhouse effect. While the greenhouse effect is a natural process that warms the Earth's surface to a liveable temperature, human activities, such as the burning of fossil fuels, have increased the amount of greenhouse gases in our atmosphere. This has led to the enhanced greenhouse effect, which is warming our earth faster than ever before. In recent years, this has been linked to a number of catastrophic weather events, such as flooding, cyclones, storms, and drought. Generating electricity from solar panels produce no greenhouse gases whatsoever, and so can help to reduce the effect of climate change if used widely. Solar energy powering a home or business, there is no burning of fuel and no emissions from energy production.

## 4. Reducing your household's carbon footprint

Solar energy is one of the cleanest sources of energy, and it's an extremely effective way of your household more efficient and sustainable. Solar panels don't use any water to generate electricity, they don't release harmful gases into the environment, and the source of their energy is abundant and, best of all, free. Using solar energy instead of the grid also means you reduce the need for carbon dioxide emitting energy to be produced for the grid on your behalf – for energy users on mainland Australia.

## 5. Reducing our reliance on fossil fuels

Solar energy supplies are massive; if we could harness all of the sunlight shining on the earth for just one hour, we could use that energy to power the entire world for a whole year. The sunshine used in solar energy production is free, and there's lots of it. On the other hand, fossil fuels are running out, and fast. Reducing our reliance on these finite resources and taking advantage of an abundant, free source of energy, such as sunlight, could mean lower energy prices, reduced greenhouse gas emissions and a stronger, more stable energy future.

## 6. Noise reduction

Compared to thermal generators, Solar PV do not make noise during operation as they do not use any moving parts. There are a number of 'inverters' used with grid connected solar PV. These equipment does a low volume humming sound, but they are usually housed in enclosures, making them unlikely to be heard.

## 7. Visual burdens

solar cells can be used as a cladding material that could be integrated into the building during the construction phase. Solar cell applications after the construction phase of the buildings might cause negative visual impacts. Solar cell utilization should be planned at the architectural phase and fitted to the building to minimize visual pollution. For the other application areas, proper siting and design are important factors, especially for large solar cell applications

## 8. Impacts on Natural Resources

Despite being a benign energy system during operation, solar cells have some negative impacts on the environment during their production phase like many other systems. The energy needed for the production of solar energy systems is still produced in conventional methods today.

