

## 1 SOLAR PANELS WILL DAMAGE MY ROOF.

**Fact:** The solar PV cells attached to rooftops use modern materials perfected in labs. Holes need to be drilled into a roof to attach solar panels, but your roof can still be protected. Reputable solar panel installation companies follow industry best practices, like using quality flashed mounts to waterproof roof penetrations



## 2 SOLAR PANELS DON'T WORK IN COLD CLIMATES

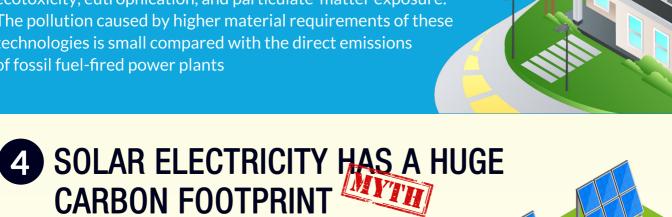
**Fact:** If there are any daylight hours in your area, solar panels can still be effective. This is why Germany—which receives about the same amount of sunshine as Alaska—is currently a solar superpower. In fact, even though Utah is known for a long winter season, the state has enough solar power potential to provide all the electricity the U.S. needs. Solar panels are built to withstand varying temperatures, and they can produce electricity from indirect light.



## 3 SOLAR PANELS ARE TOXIC.

Fact: Detailed analysis indicates that the large-scale implementation of solar has the potential to reduce pollution-related environmental impacts of electricity production, such as GHG emissions, freshwater ecotoxicity, eutrophication, and particulate-matter exposure.

The pollution caused by higher material requirements of these technologies is small compared with the direct emissions of fossil fuel-fired power plants



**Fact:** The operation of solar pv modules generating electricity do not produce greenhouse gas emissions. The manufacturing, installation, and on-going maintenance of solar PV does produce a carbon footprint – what is known as "Lifecycle emissions".

The lifecycle emissions of electricity generated by coal has a carbon footprint of 35.3 ounces per KWh generated, while electricity generated by natural gas has a carbon footprint of 17.65 ounces per KWh generated. Meanwhile, the lifecycle emissions for Solar PV equates to an average of 1.4 ounces of greenhouse gas for every kWh the panel will produce over its lifetime – a 92% reduction of emissions over natural gas and a 98% reduction of emissions over coal.

## 5 SOLAR ELECTRICITY DOES NOT REALLY HAVE ENVIRONMENTAL AND HEALTH BENEFITS

**Fact:** In the United States, the actual environmental and health benefits for every solar module (individual panel) installed is:

- ullet 10,600 lbs of greenhouse gases eliminated
- Equivalent to 94,000 Cubic Feet of Manmade Atmosphere avoided
- 69,650 gallons of freshwater saved
- Equivalent to the annual water use of 232 households saved
- Equivalent to the annual water use of 232 households saved
  Creates more jobs: nationally, solar employs 350,000 people
  twice that of the coal industry.
- Elimination of over 5 pounds of particulate air pollution for every solar panel installed.
- Reduces risk of heart and cardio vascular disease
- $\bullet$  Reduces risk of asthma attacks
- Studies indicate 1%-3% reduction in premature deaths due to elimination of combustion fuel emissions
- Reduces community health costs by \$100

