



## Solar energy – pros & challenges

### Description

#### What is solar energy:

- Solar energy is created by converting the energy of sunlight into electrical energy.

#### Pros of solar energy:

- Solar energy generation does not release greenhouse gases, so there will be no negative effect on the environment. It is pollution-free and clean energy.
- Solar energy is sustainable energy. So, there will be no problem with using it up completely without leaving it for future generations.
- Plenty of green jobs will be created by expanding the solar energy industry.
- There is no need to import fossil fuels like coal for electricity, so it will help the economy in the long run.
- There is no need to buy the main ingredient because sunlight is free.
- Solar energy requires investment to set up, but the energy generated is the cheapest electricity. So, many more people can have access to affordable electricity.
- Off-grid solar systems ensure power supply even in disaster-hit areas. Off-grid means buildings designed to be independent without depending on public electricity and water lines.
- Electricity generation from fossil fuels requires large quantities of water. Solar energy production does not require water. So, it saves water. Moreover, this makes solar energy more reliable. Power generation will not suffer even in times of drought.

#### Challenges:

- Large scale solar power generation requires a large area of land.
- At present, solar cells utilize only a small percentage of sunlight. Increasing solar cells efficiency is a big challenge. Moreover, when the efficiency is increased, the amount of land required will be reduced.



- Solar energy production facilities need a huge investment to set up.
- Not every region in the world receives enough sunlight to depend on it fully.
- Ensuring power supply in the night times when there is no sunlight requires storage.
- The clean energy industry is facing a skilled labour shortage. Training a lot of people for the required skill set to match the growing solar industry is another challenge.
- Solar cell manufacturing requires toxic chemicals such as sulfuric acid, hydrochloric acid etc. Developing efficient solar cells using less toxic chemicals is a big challenge.

### **Conclusion:**

Leveraging solar energy will result in energy transformation from fossil fuels to clean and sustainable energy. It also helps in fighting against climate change. Government should provide subsidies and widespread awareness to encourage roof-top solar grids and solar farms so that everyone will have access to cheap and clean energy.

### **Your Turn...**

What are your thoughts on solar energy? Express your views through the comment section below. And subscribe to our blog to read answers to the trending GD topics.

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### **References:**

- [Challenges facing the solar industry right now](#)
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