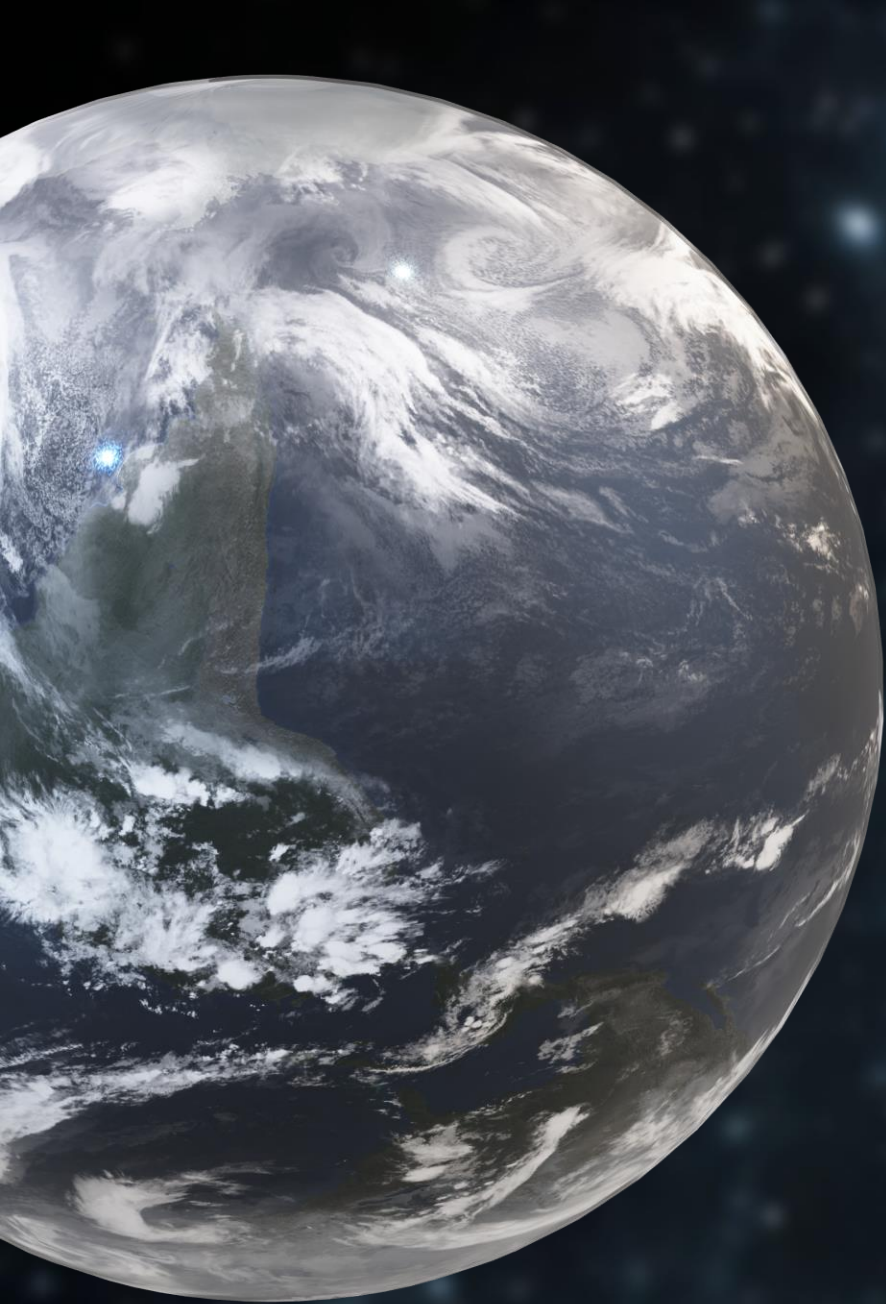


A large, fluffy white cloud is centered in the frame, set against a dark blue night sky filled with numerous small, bright white stars. The cloud has a soft, textured appearance with various folds and peaks.

RENEWABLE SOURCES OF ENERGY



WHAT IS RENEWABLE ENERGY?

Renewable energy is energy derived from natural sources that are replenished at a higher rate than they are consumed. Sunlight and wind, for example, are such sources that are constantly being replenished. Renewable energy sources are plentiful and all around us.



**We will talk about
6 types of renewable
energy**



1

**SOLAR
ENERGY**

2

**WIND
ENERGY**

3

**GEO THERMAL
ENERGY**

4

HYDROPOWER

5

**OCEAN
ENERGY**

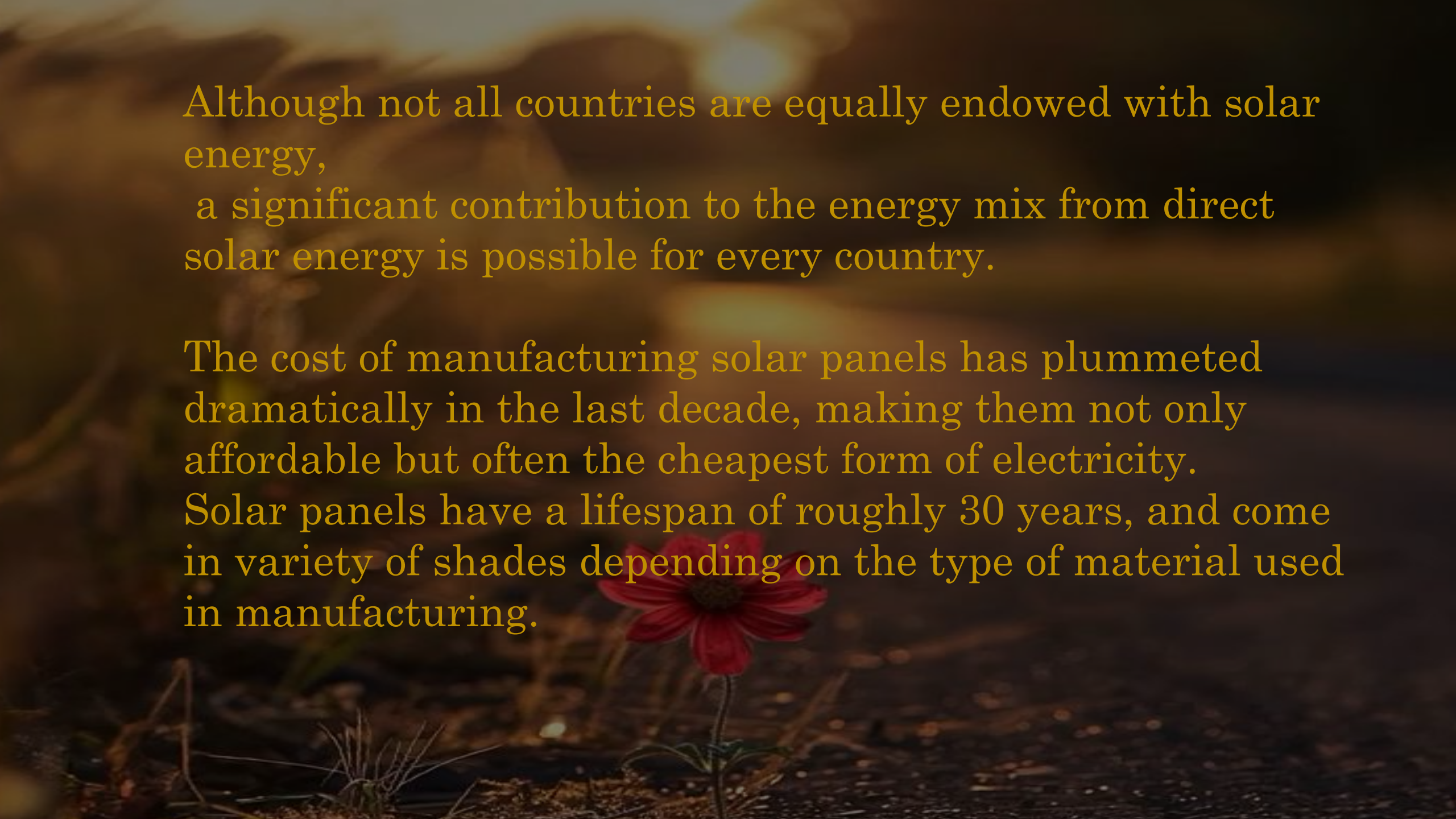
6

BIOENERGY

SOLAR ENERGY

Solar energy is the most abundant of all energy resources and can even be harnessed in cloudy weather. The rate at which solar energy is intercepted by the Earth is about 10,000 times greater than the rate at which humankind consumes energy.

Solar technologies can deliver heat, cooling, natural lighting, electricity, and fuels for a host of applications. Solar technologies convert sunlight into electrical energy either through photovoltaic panels or through mirrors that concentrate solar radiation.



Although not all countries are equally endowed with solar energy,

a significant contribution to the energy mix from direct solar energy is possible for every country.

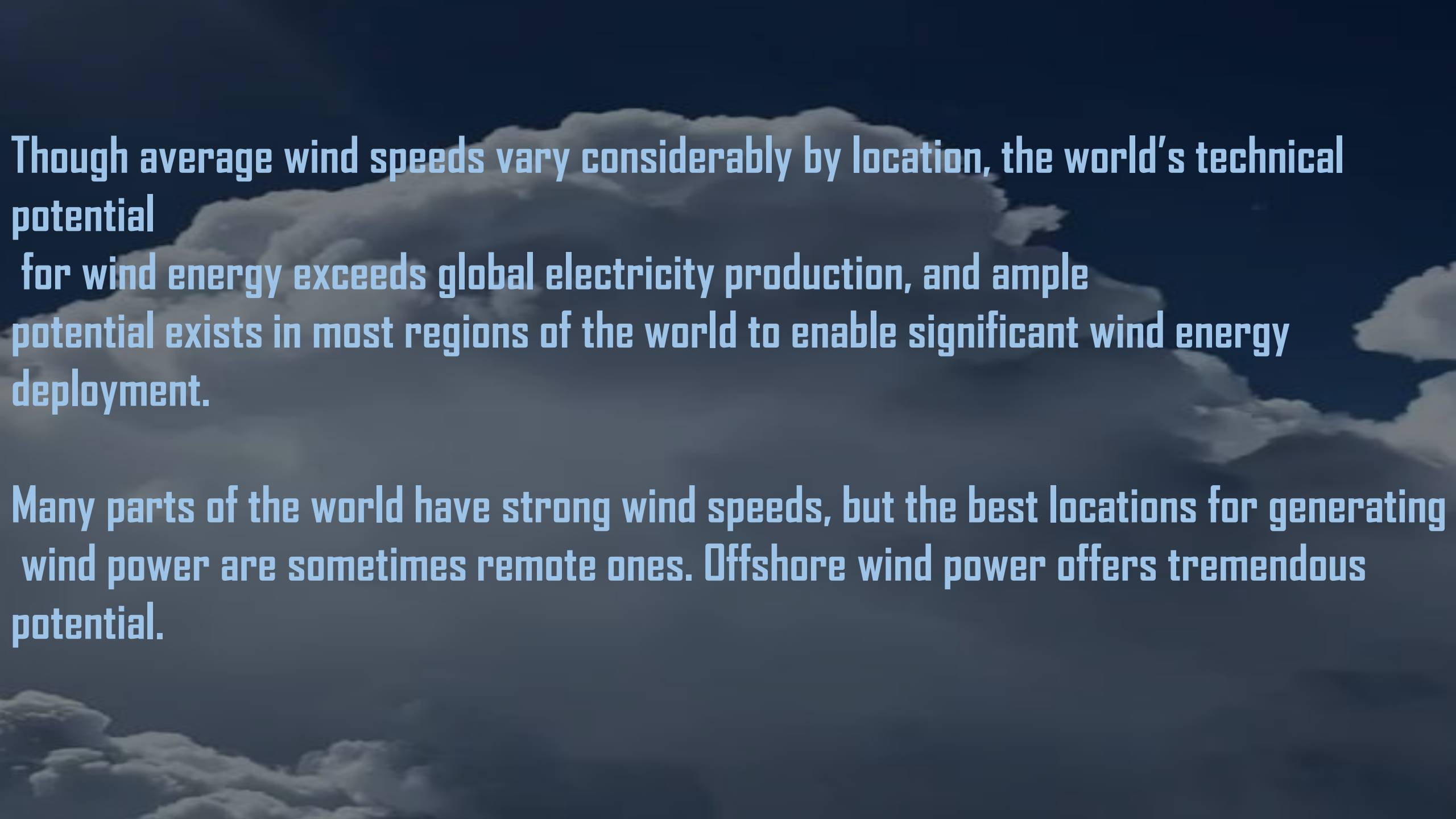
The cost of manufacturing solar panels has plummeted dramatically in the last decade, making them not only affordable but often the cheapest form of electricity.

Solar panels have a lifespan of roughly 30 years, and come in variety of shades depending on the type of material used in manufacturing.

WIND ENERGY

The background of the slide features a close-up, low-angle shot of a wind turbine. The turbine's tower, nacelle, and parts of its three blades are visible against a clear blue sky. Another turbine is partially visible in the lower-left background, creating a sense of a wind farm.

Wind energy harnesses the kinetic energy of moving air by using large wind turbines located on land (onshore) or in sea- or freshwater (offshore). Wind energy has been used for millennia, but onshore and offshore wind energy technologies have evolved over the last few years to maximize the electricity produced - with taller turbines and larger rotor diameters.

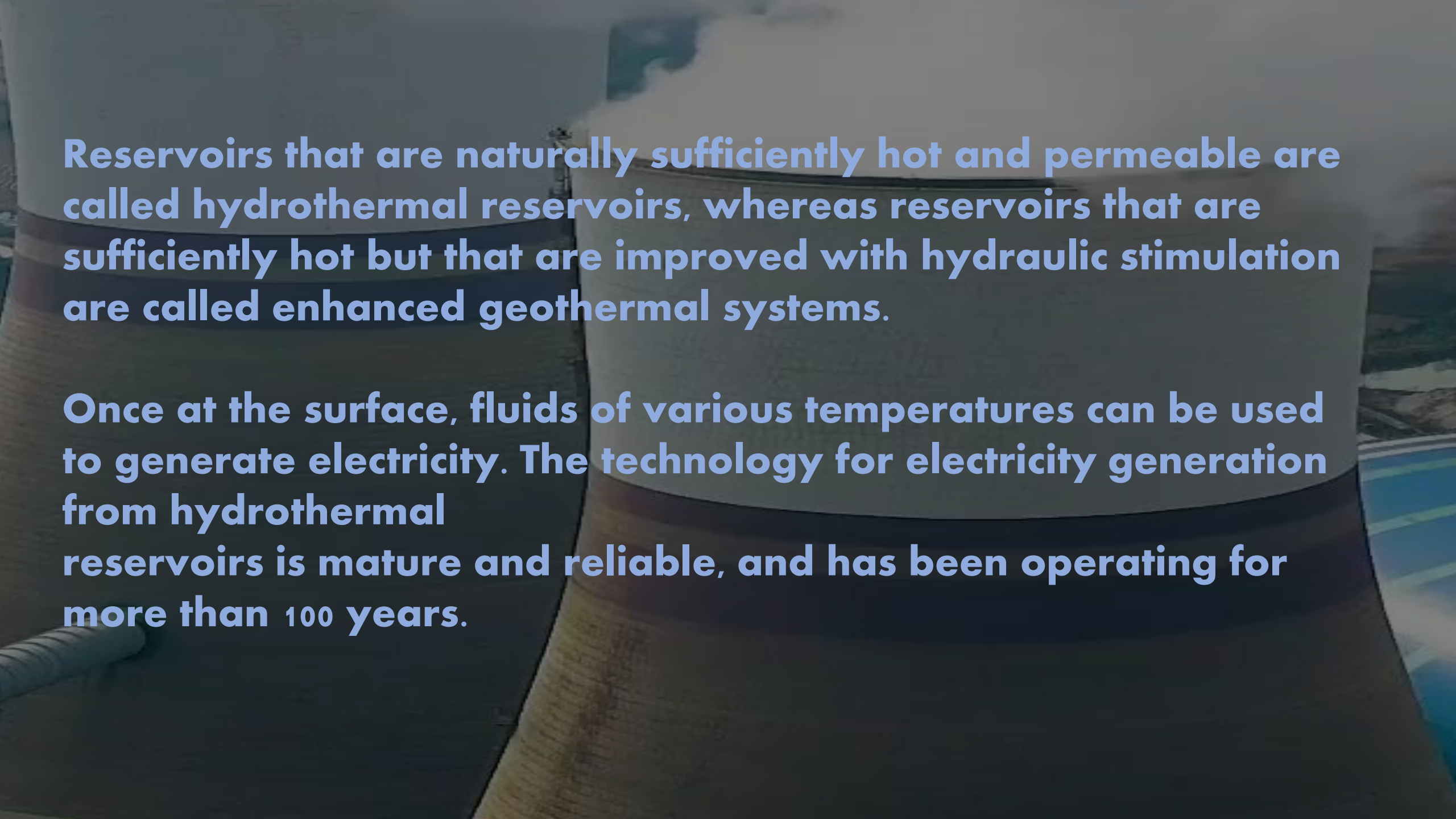


Though average wind speeds vary considerably by location, the world's technical potential for wind energy exceeds global electricity production, and ample potential exists in most regions of the world to enable significant wind energy deployment.

Many parts of the world have strong wind speeds, but the best locations for generating wind power are sometimes remote ones. Offshore wind power offers tremendous potential.

GEO THERMAL ENERGY

Geothermal energy utilizes the accessible thermal energy from the Earth's interior. Heat is extracted from geothermal reservoirs using wells or other means.



Reservoirs that are naturally sufficiently hot and permeable are called hydrothermal reservoirs, whereas reservoirs that are sufficiently hot but that are improved with hydraulic stimulation are called enhanced geothermal systems.

Once at the surface, fluids of various temperatures can be used to generate electricity. The technology for electricity generation from hydrothermal reservoirs is mature and reliable, and has been operating for more than 100 years.