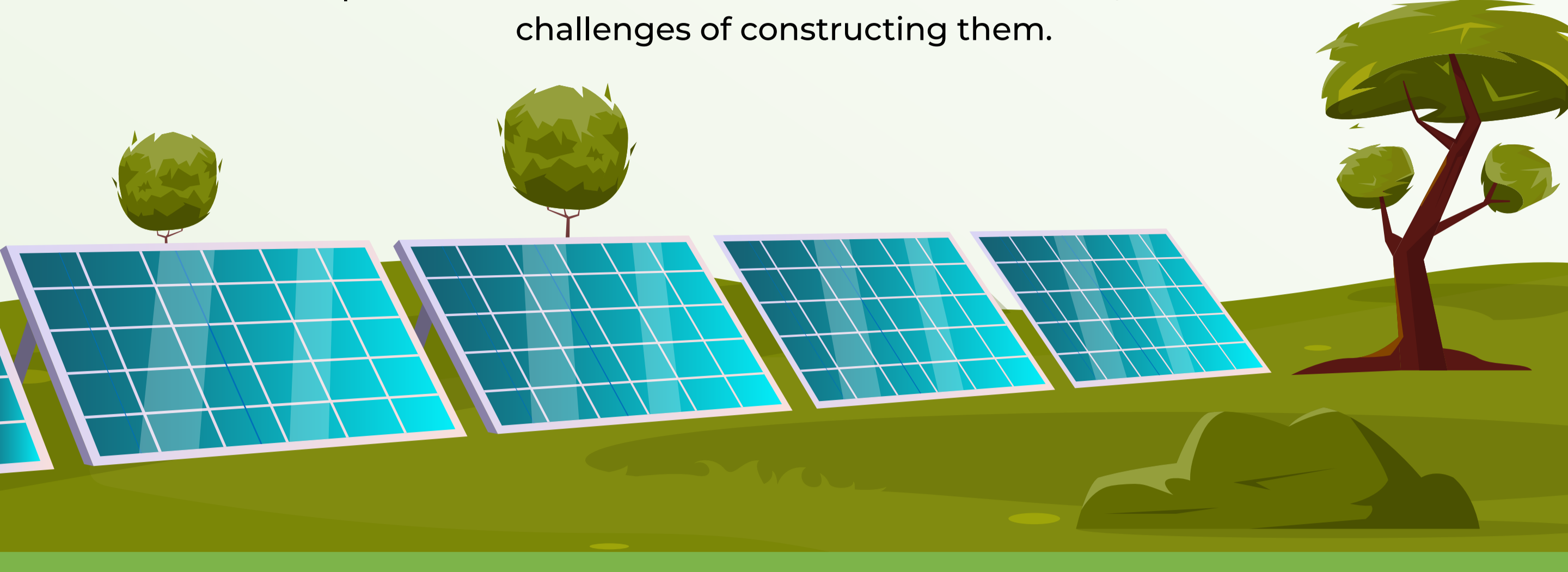


THE BENEFITS AND DRAWBACKS OF SOLAR FARMS IN IRELAND

Solar energy is the biggest driver of growth in the renewable energy sector, yet Ireland only has one solar farm supplying energy to the national grid. More power from the sun hits the earth in a single hour than people use in an entire year, so why are we not making better use of a resource such as solar farms?

Unfortunately, while solar farms are a great example of how technology can help us in the race against climate change, they do have some downsides.

Let's explore the benefits and drawbacks of solar farms, as well as the challenges of constructing them.



WHAT EXACTLY ARE SOLAR FARMS?

A solar farm is a large-scale, ground-mounted solar installation that absorbs energy from the sun's rays via photovoltaic (PV) solar panels.

Solar farms convert this energy into electricity and send it to the national grid for distribution and consumption by households and businesses across the country.

HOW MUCH ENERGY DO SOLAR FARMS PRODUCE?

Ireland has tremendous potential to deliver a significant amount of solar energy. In a typical solar farm, each megawatt of a solar PV array would comprise approximately 4,000 panels spread over four to five acres and should generate 850-950,000kWh of electricity per annum, depending on the geographical location.



THE BENEFITS OF SOLAR FARMS

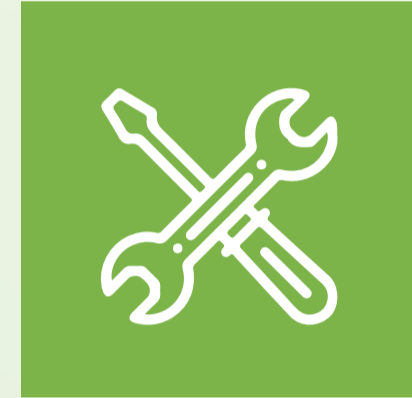
ECO-FRIENDLY

Solar farms do not produce any greenhouse gases or water pollution making them very environmentally friendly.



LOW MAINTENANCE

Once installed, the PV panels are very easy to maintain and should last between 25 and 30 years. They simply need to be cleaned from time to time to maintain high levels of productivity.



QUIET

There is little to no sound produced by a solar farm, meaning they will not disturb people or animals in the surrounding area.



SUSTAINABLE

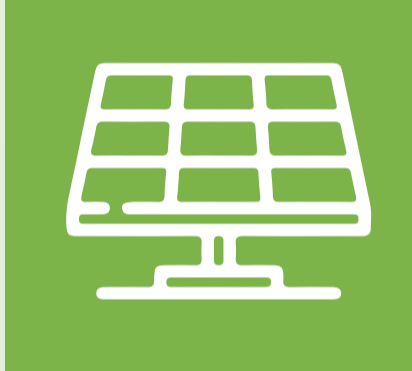
Because we don't need to worry about running out of solar energy any time soon, solar farms can greatly reduce our dependence on fossil fuels.



THE DRAWBACKS OF SOLAR FARMS

SOLAR FARMS REQUIRE LOTS OF SPACE

Solar farms require a huge surface area to generate sufficient levels of power. However, this form of energy production is getting more efficient as technology advances, so in a few years, this may not be such an issue.



IRREGULAR AVAILABILITY

Solar energy production is less predictable than most other energy sources. Output levels fluctuate according to the seasons and even on a daily basis as the weather changes.



STORAGE CAN BE COSTLY

In order to supply energy to homes around the clock, the solar farm must have some form of storage capacity such as a battery. This allows excess energy to be stored and released overnight, but it can be expensive.



EXPENSIVE UPFRONT INVESTMENT

Solar farms are extremely expensive to build and they generally only start to show a return on investment after a few years.



THE CHALLENGES OF CONSTRUCTING SOLAR FARMS

Now that we've explored the pros and cons of solar farms, it's time to look at the challenges they pose for construction companies.

COST

The cost to build a solar farm can be anywhere from \$800,000 to \$1,300,000 (approximately €817,000 to €1,320,000).



LONG, COMPLEX SCHEDULES

It can take up to 5 years or more for the construction of a solar farm to be completed, and the process requires extremely careful planning and lots of research.



PUBLIC BACKLASH

In addition to taking up large amounts of land, solar farms traditionally have a very industrial look. This means that not everyone will be happy about their installation, and construction companies are likely to face some backlash and protests from local people.



GROUND PROTECTION SOLUTIONS FOR SOLAR FARM CONSTRUCTION

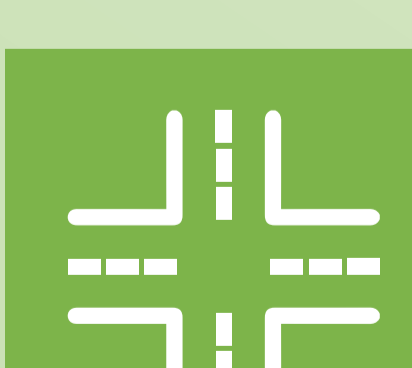
ALUMINIUM TRACKWAY PANELS

Temporary roadways that enable the heaviest industrial vehicles to safely access the most challenging environments - perfect for accessing fields and protecting the ground while installing solar panels.



TUFFTRAK

Our heavy-duty TuffTrak mats are ideal for creating temporary roadways which are capable of supporting up to 150 tonnes, even in soft, wet and boggy ground conditions.



Ground Protection Ireland can offer businesses and developers the tools they need to build renewable sources of energy and help to get our planet right again.

Get in touch with our dedicated staff today at **+353 1 862 3692** or **info@groundprotection.ie** to find out how our ground protection solutions can help solar farms become a reality in Ireland.