SolaFence Q&As

1. What is a SolaFence?

A solar panel fence is a type of fence made from integrated solar panels that capture sunlight and convert it into electricity. It serves a dual purpose: providing security and boundary demarcation, while generating renewable energy.

2. How does a solar panel fence work?

A solar panel fence works similarly to regular solar panels. The photovoltaic cells in the fence capture sunlight and convert it into direct current (DC) electricity. This DC electricity is then passed through an inverter to convert it into alternating current (AC), which can be used to power homes, businesses, or be stored in batteries.

A vertical panel will typically be 30% less efficient than if its set at 30 degrees, however SolaFence uses Bi-facial panels which can generate between 5% and 30% more than their stated output as they generate on both sides of the panel. The added benefit is that they have a black back.

3. What are the benefits of a solar panel fence?

The primary benefits include:

- **Renewable Energy Generation:** Solar fences provide a source of clean, renewable energy.
- **Space Efficiency:** They combine the functionality of fencing and energy generation, making them ideal for properties with limited space.
- **Cost Savings:** Over time, solar fences can reduce electricity bills.
- **Aesthetic Appeal:** Many solar fences are designed to look modern and can enhance property aesthetics.

4. Can I use a solar panel fence as a main source of power?

The ability of a solar panel fence to fully power a home or property depends on the total energy requirements, fence size, and sunlight availability. While it can supplement energy needs, in many cases, additional solar panels may be necessary to cover full power requirements.

5. Are solar panel fences durable?

Yes, solar panel fences are designed to withstand various weather conditions. They are typically built with robust materials, including tempered glass and metal frames, to ensure longevity. However, regular maintenance may be necessary to keep the panels clean and operating efficiently.

6. How much does a solar panel fence cost?

Costs vary based on the size of the fence, the type of solar panels used, and installation expenses. Typically, solar panel fences are more expensive than traditional fences due to the technology involved, but incentives, rebates, and energy savings can offset the initial investment.

7. Can I store energy from a solar panel fence?

Yes, energy from a solar panel fence can be stored in battery systems. This stored energy can then be used when the sun is not shining, like during nighttime or cloudy days, or as backup power during outages.

8. How much sunlight does a solar panel fence need to be effective?

For optimal performance, solar panel fences require direct sunlight. Properties in areas with high solar exposure will see the most benefit. In regions with lower sunlight, the energy output may be reduced, but it can still provide a supplementary source of energy.

9. Can I use optimisers or microinverters

SolaFence works really well with SolarEdge or Tigo optimisers or Enphase microinverters which minimise any shading from trees, plants or buildings. SolarEdge in particular can be oversized up to 200% and so it's a great way to add on a few extra panels.

10. Are solar panel fences safe?

Solar panel fences are safe when installed properly by certified professionals. They are equipped with grounding systems and protective wiring to prevent electric shock. Most systems also have automatic shut-off features for safety in case of a fault or extreme weather.

11. Will a solar fence panel get hot?

Yes, solar panel fence panels can become warm to the touch when exposed to direct sunlight, but they typically won't get dangerously hot. Solar panels absorb sunlight to generate electricity, and while they do release some heat as a byproduct, their design and materials help dissipate this heat. The temperature of solar panels is usually higher than the ambient temperature, typically ranging from 10–20°C above the surrounding air temperature. Most solar panels will be warm, not scalding, so they're generally safe to touch. However, on particularly sunny and hot days, they might be uncomfortable to touch for extended periods.

12. How long does a solar panel fence last?

The lifespan of a solar panel fence is generally 25–30 years, similar to traditional solar panels. Some degradation in efficiency may occur over time, but most solar panels come with warranties that guarantee a certain level of performance.

13. Do solar panel fences require maintenance?

Maintenance for solar panel fences is minimal. Regularly cleaning the panels to remove dust, dirt, or debris can ensure they capture as much sunlight as possible. Periodic inspections by professionals can also help to identify and fix any potential issues.

14. Can a solar panel fence be installed on any type of property?

Yes, solar panel fences can be installed on most types of properties, including residential, commercial, and agricultural lands. However, they are most effective in open areas with minimal shade to maximize sunlight exposure.

15. Will a solar panel fence work in the winter?

Yes, solar panel fences can still generate electricity in the winter, though their output may be reduced due to shorter daylight hours and potential snow cover. Many solar panel fences are designed to be snow-shedding, but manual snow removal may be necessary in heavy snowfall regions.

16. Is Planning Permission required?

Installing a fence made from solar panels may require planning permission, depending on specific circumstances:

- **Height Restrictions:** Erecting a fence over 1 metre high adjacent to a road used by vehicles, or over 2 metres high elsewhere, typically necessitates planning permission.
- **Designated Areas:** If your property is within a conservation area, is a listed building, or falls under other protected designations, additional planning controls may apply.
- **Ground-Mounted Solar Installations:** While rooftop solar panels often fall under permitted development rights, ground-mounted installations, such as solar panel fences, may have different regulations.

Given these variables, it's advisable to consult your local planning authority to determine if your specific solar panel fence project requires planning permission.

This document can help homeowners, business owners, or farmers interested in installing a solar panel fence understand the key benefits, considerations, and requirements.