SensoGuard
Every second counts

Securing Solar Farms

Ensuring Sustainability and Safety

In recent years, the growth of solar energy has been remarkable, with solar farms becoming a reliable electricity source worldwide. However, as the popularity of solar farms rises, so do the concerns about their security.

Understanding the Risks & Challenges in Securing Solar Farms

Solar farms, often located in remote or rural areas, face various security risks:

1. Theft and Vandalism: Valuable equipment such as solar panels and inverters can be targets for theft. Vandalism can also disrupt operations and lead to costly repairs.
2. Trespassing: Unauthorized access to solar farms can compromise safety and operational integrity. Intruders may pose safety hazards and interfere with equipment.

Remote Location

Many solar farms are located in isolated or rural areas, making them less accessible for rapid response and more vulnerable to theft and vandalism.

False Alarms

Responding to false alarm in an isolated site can strain response resources and reduce the effectiveness of the security team.

Environmental Conditions

Harsh weather, such as extreme temperatures or heavy rain, can impact the functionality and reliability of security equipment.

Cost Of Ownership

CCTV cameras require regular maintenance (cleaning lenses) which is essential to ensure the security system remains effective

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The Solution: Seismic Shield Pro

Leveraging the power of seismic technology, the Seismic Shield Pro include 2 defense layers. An invisible buried sensors layer that remains unaffected by visual or environmental interferences and a AI verification layer using mobilized PTZ camera.
This is the future of safeguarding vital assets, ensuring not only detection but also verification, ensuring your defenses are always a step ahead of potential threats.

DETECTION

InvisiFence Plus System

At the heart of the Seismic Shield Pro is the InvisiFence Plus system. These sensors are buried underground, creating a 6m wide by 25m deep invisible fence. This continuous barrier ensures comprehensive detection and makes bypassing virtually impossible without triggering an alert.

VERIFICATION

AI Deep Learning Analytics

Once an intrusion is detected, it activate a mobilized PTZ camera, this camera provides high-resolution real-time video feedback. All intrusion alerts pass through state-of-the-art AI deep learning algorithms. This verification engine confirms whether detected movements are genuine threats or false alarms, drastically reducing response times to real incidents and minimizing unnecessary alerts.

TRACKING & ALERTING

Command & Control Software

When a validated threat is detected, the control software initiates real-time tracking through the PTZ camera, allowing the operator to manage the situation effectively. All video feeds and intrusion alerts are stored securely on the VMS server for further investigation.

What are the advantages of selecting Seismic Shield Pro?

The Seismic Shield Pro, powered by the innovative InvisiFence Plus system, is specifically designed to ensure that every inch of your perimeter is under constant, vigilant surveillance. With Seismic Shield Pro security systems for Solar Farm, the level of security and overall reliability are increased.

- **Low Maintenance Cost**
- **Invisible & Hard To Defeat**
- **Weather-Proof**
- **Almost Zero False Alarms**
- **Unsurpassable Virtual Fence**
- **Seamless Integration**

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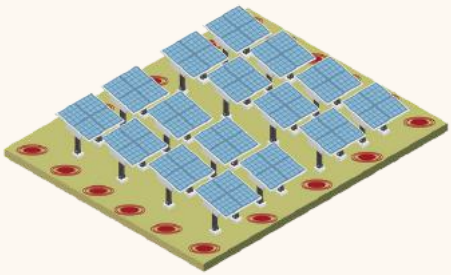
Sensors Layout Options For Solar Farms Security

Our seismic buried intrusion detection system can be used a complete solution (Seismic Shield Pro) or as an additional layer of protection to existing fence mounted or CCTV system.
By integrating several perimeter security technologies for Solar Farm, the level of security and overall reliability are increased.

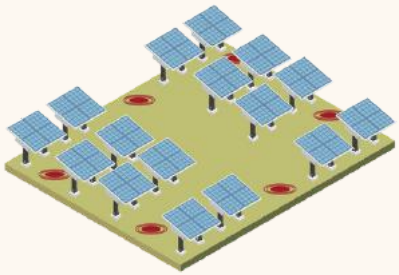
Complete Perimeter Protection

Our buried sensors are placed around the perimeter in order to create continuous virtual fence. Any attempt to dig under the fence or jump above it, will be detected.



Layers Of Protection

Solar panels are usually arranged in rows with constant spacing between rows. The shape of panels arrangement leaves specific corridors between panels which the intruder have to pass through them. Placing our seismic sensors on those corridors we create a cost effective internal ring of protection which will detect activity inside the site.



Access Routes Early Warning System

Installing wireless sensors on access routes provides a very cost effective way to identify approaching vehicles or persons to the solar farm. Our sensors can operate on batteries for years and send alerts wirelessly to point a remote PTZ camera to the relevant location.

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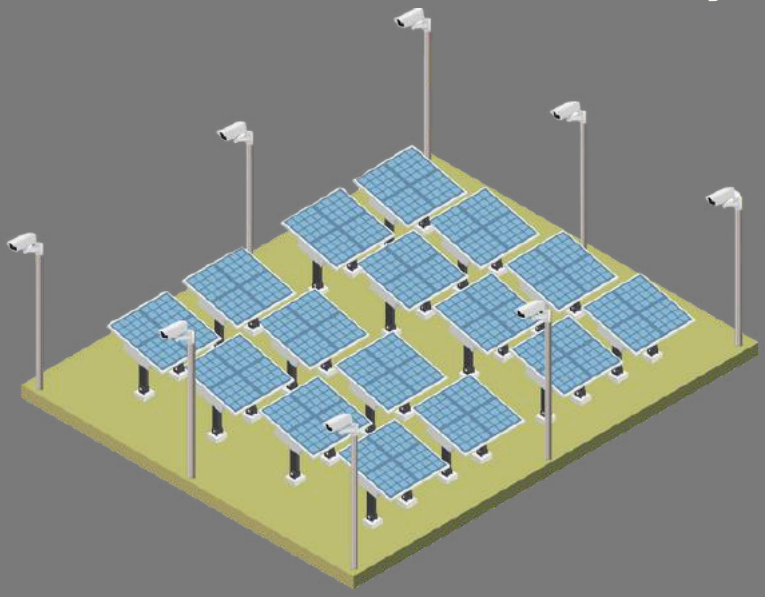
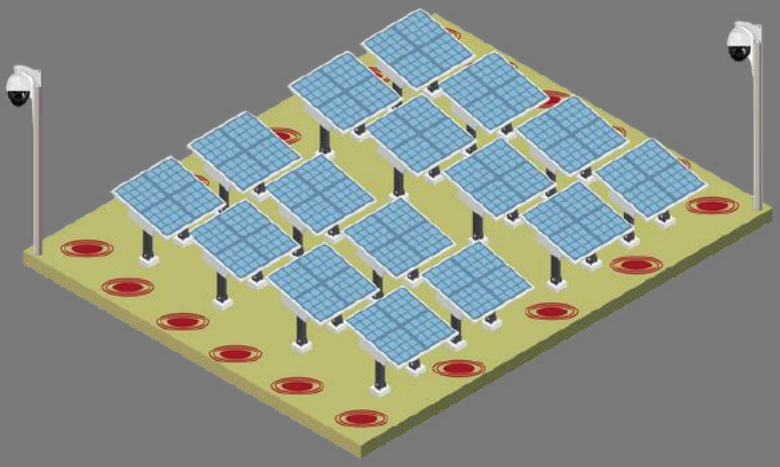
Costs Benchmark: CCTV Based System Vs. Seismic Shield Pro





CCTV Based System

X2
PTZ Cameras

X28
Bullet Cameras

X30
Poles + Power + TCP/IP

X30
VMS Channels

30 TB
VMS Storage

56,000$

3,000$

Seismic Shield Pro

X2
PTZ Cameras

1 KM
InvisiFence Plus

X2
Poles + Power + TCP/IP

X2
VMS Channels

2 TB
VMS Storage

47,000$

1,000$

System Hardware	Installation Infrastructure	VMS Licenses & Storage	Purchase Costs	Annual Maintenance

Prices are for 1km solar farm site

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