

Whitepaper



Sustainable revolution

with Kooi Camera Surveillance

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How are sustainability and innovation revolutionizing camera surveillance?

Sustainability and innovation play a crucial role in the evolution of camera surveillance. In the past, conventional surveillance cameras relied on diesel generators for power, resulting in significant environmental impact.



This outdated system consumed large amounts of diesel, led to substantial CO2 emissions, and caused noise pollution. Technological advancements have driven a shift toward sustainable and innovative solutions in camera security. Explore the solutions and benefits for your business in this whitepaper.

Changes in camera security

From diesel-powered to solar-powered

One of the most noticeable changes is the transition from diesel-powered to solar-powered surveillance cameras. Traditional surveillance cameras were often connected to diesel generators to ensure a reliable power supply. However, this approach had significant drawbacks, including adverse environmental effects due to CO2 emissions and noise pollution. With the rise of solar energy as a sustainable power source, cameras can now operate without the harmful effects of diesel generators.

Reliability of solar-powered systems

Solar energy not only provides an environmentally friendly solution but is also cost-effective in the long run. While the initial investment in solar-powered surveillance systems may be higher, operational costs are significantly lower. Solar panels require minimal maintenance and deliver reliable energy for many years, making them a sustainable choice for long-term camera monitoring, especially in remote locations where traditional power sources are challenging to reach.

The reliability of solar-powered systems has significantly increased thanks to technological improvements. Modern solar panels are more efficient and durable,

even under various weather conditions. Battery storage systems ensure that cameras can operate at night or on cloudy days. This technological progress has reduced dependence on fossil fuels, leading to more resilient and sustainable camera surveillance.

HVO100: A more sustainable alternative to traditional diesel

In line with the shift towards sustainability, there has been a growing interest in HVO100 Diesel as an alternative fuel source for power generators used in camera security. HVO100, or Hydrogenated Vegetable Oil, presents a greener solution compared to traditional fossil fuels. This renewable diesel is made from vegetable oils or animal fats and can significantly reduce CO2 emissions by up to 90%. It's compatible with existing diesel engines, making the transition seamless without the need for modifications.

The use of HVO100 not only leads to cleaner combustion and improved air quality but also aligns with the sustainable practices in modern camera surveillance systems. Adopting HVO100 in Powerboxes for camera security is a step forward in reducing environmental impact and enhancing the sustainability of surveillance operations.

Integration of Artificial Intelligence

Another significant innovation in the world of camera surveillance is the integration of artificial intelligence (AI). While traditional surveillance cameras often capture simple recordings, AI powered cameras can benefit from advanced algorithms. These systems can detect and distinguish suspicious activities from normal behavior, enhancing the effectiveness of camera surveillance while reducing false alarms.

The enhanced detection capabilities of AI are particularly relevant in minimizing human errors and optimizing response times. These systems can automatically respond to suspicious activities, improving the efficiency of security personnel. Moreover, AI-powered cameras can learn patterns and adapt to changing conditions, becoming increasingly effective at identifying potential threats.



Benefits of sustainability and innovations in camera surveillance

The innovations and sustainable solutions in camera surveillance, such as the shift to solar-powered systems and the integration of artificial intelligence (AI), offer a range of benefits.

Environmental friendliness and sustainability

- The transition from diesel to solar-powered systems significantly reduces the ecological impact of camera surveillance.
- Solar energy, as a renewable source, reduces CO2 emissions and decreases dependence on fossil fuels, contributing to a sustainable and environmentally friendly approach to security.

Long-term cost saving

- While the initial investment in solar-powered systems may be higher, they result in substantial cost savings in the long term.
- Solar panels require minimal maintenance and generate free energy for many years, translating to lower operational costs and improved cost efficiency for businesses and organizations.

Improved reliability

- Technological advancements in solar panels and battery storage systems substantially increase the reliability of camera surveillance systems.
- Independent of traditional energy sources, solar-powered systems can continue to operate continuously, even during power outages or in remote areas, enhancing the overall reliability of security infrastructure.

Reduction of noise pollution

- Unlike diesel generators that cause noise pollution, solar-powered systems operate quietly and do not contribute to auditory environmental pollution.
- This is particularly important in environments where noise reduction is essential, such as urban areas or quiet locations.

More efficient detection with AI

- The integration of artificial intelligence significantly improves the detection capabilities of surveillance cameras.
- AI algorithms can distinguish between normal behavior and suspicious activities, reducing false alarms and leading to more efficient deployment of security personnel with improved response times to potential threats.

Flexibility and scalability

- Sustainable solutions, such as solar energy, offer flexibility and scalability in the implementation of camera surveillance systems.
- Particularly suitable for remote locations where traditional energy sources are difficult to access, these systems can easily expand or relocate, adapting to changing security needs.

In summary, these innovations and sustainable solutions not only contribute to a greener and responsible approach to security but also provide operational benefits and improvements in overall security performance.



HVO100 Diesel vs. Fossil Fuel

At Kooi, sustainability and innovation take precedence. Our Powerboxes (generators) can be easily filled with HVO100 Diesel. Adding Hydrogenated Vegetable Oil to our Powerboxes can result in a 90% reduction in CO2 emissions.

HVO100 can be blended with regular fossil diesel, eliminating fuel loss during mixing. As a customer, you can obtain HVO100 from your own fuel supplier and fill the Powerbox on-site. HVO100 diesel has several advantages over fossil fuel, including:

- **Lower greenhouse gas emissions**
Impressive CO2 reduction of over 90%, leading to significant environmental benefits.
- **Easy to use**
HVO100 Diesel is compatible with existing diesel engines, allowing for a seamless transition without modifications.
- **Improved air quality**
The use of HVO100 results in cleaner combustion, leading to improved air quality and fewer harmful emissions.
- **Renewable and sustainable**
HVO100 is produced from renewable sources, making it a sustainable alternative to fossil fuel.



Kooi's solutions for your safety

At Kooi, we firmly believe that everyone has the right to a peaceful and undisturbed night's rest, including you.

Our dedicated team of over 200 employees ensures the best temporary camera security and fire detection in Europe, with locations in the Netherlands, Germany, France, Denmark, Austria, and Spain. We contribute daily to building the future by applying innovative camera surveillance technologies, and preventing theft and damage at construction sites and locations.

Kooi is your partner to save costs and ensure the progress of your project.

Get in contact

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Why choose Kooi camera surveillance:

Revenue & Efficiency

- Increase revenue with minimal effort
- Save time: fully operational within 24h
- Hassle-free setup, easy deployment

Speed & Reliability

- 15 sec average response time after alert
- Siren system stops escalations 99% of cases
- Today ordered = tomorrow secured

Flexibility & Control

- Manage working hours via the Kooi App
- Adjust on-site needs in real time
- Simple, intuitive controls for all teams

Trust & Sustainability

- Self-sufficient, eco-friendly systems
- In-house, certified 24/7 Kooi Alarm Center
- No nonsense culture: we deliver what we promise



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