A ROBUST **HYBRID SOLAR & WIND TURBINE SOLUTION**

Renewable energy has been a constant promise to protect the environment, as well as providing a rapid, cost effective and scalable solution for businesses. We tailor our solutions to meet the needs of our clients by working in collaboration with business partners to give them a turn-key solution. Our Renewable Energy Solution combines the benefits of wind and solar energy, addressing the power consumption of a CCTV Security System whilst also providing sustainable way to provide a strong and aesthetically pleasing visual statement while providing greater energy security.

Our **Wind Turbines**

We work closely with businesses and organisations to provide a complete turnkey solution – from initial planning to delivery of your bespoke vertical axis wind turbine.

Maglev Wind Turbine Technology utilises Darrieus and Savonius blades, which spin on their own axis on ring magnets producing magnetic fields with wind speeds as low as 10 –12 Km/hr. The rotation created by the wind then generates electricity. This technology allows us to offer clients on and off grid systems, with optional battery storage as required, through which they can connect their homes, business's, the commercial offices and warehouses, external street and security lighting and benefit from alternative supplies to balance need and generation costs.

Further we have increased wind power generation efficiency from an industry standard of 60% to 92%, a productivity gain of over 50%, and in so doing made wind energy a commercially viable power solution, particularly in tandem with solar systems.

This is a unique technology, no other competitive products exist which have the capacity to generate the level of electricity of this technology with consistent reliability, environmental benefits for society, long warranties and financial benefits for our clients.

The Turbine poles have specifically been designed to deal with the weight, torque and wind conditions required to mount the turbine and solar panels effectively. These poles meet all Australian standards for pedestrian and security lighting areas.

The **Benefits**

- Makes a strong visual statement to the community about our clients commitment to the environment and sustainability.

- Can be reconfigured to provide sufficient extra power for Smart Cities applications such as CCTV, WiFi, etc. on our existing infrastructure.

- Provides a financially attractive renewable energy system which can grow with our client's needs.

- Reduced maintenance on the wind turbine due to low friction and risk of blades breaking.

- Overcomes the limitation of solar power where lighting positions may be compromised by trees and other infrastructure.

- Single dual energy generation which can power up to 5 light poles, also supporting CCTV.

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Smart **Technology**

Working with Machine Learning & AI Specialists to build a customised solution. The integration incorporated both object, vehicle and license plate recognition into a single Nx Witness VMS Platform where we used a single stream from a camera using a Machine Learning platform to identify vehicle, make, model, colour, licence plate and occupancy vehicle location.

The solutions objective of the deployment was to increase public safety by targeting anti-social behaviour. The system is designed to provide real time alerts to Council and the Local Area Command allowing council to gather data points and analyse trends around when and where incidents were occurring.

Dashboard **Monitoring**

Dashboard Health Monitoring Platform that monitors every aspect of the deployment to ensure the system is never down. The platform provides real-time data, log analysis and server health alerts, detailed analytics and more, allowing users to monitor and maintain the deployment proactively – ultimately ensuring the system is never down and allowing users to track the performance over time.