

Solar Lamp Post

The challenge: Community members and their livestock may be at risk of wildlife attack during the hours of darkness, especially in human-wildlife conflict (HWC) 'hot spots'. In many areas prone to HWC there is either grid electricity but no street lighting, or the community is off-grid and local paths and roads remain unlit.

The solution: Lighting improves safety for humans and livestock, and actively deters some wild animals. Solar-powered lamp posts can be installed even in off-grid locations to provide a cheap and reliable lighting solution.

The technology: The system includes solar panels (@200 watt-peak), a battery charge controller, a battery, a sensor and a 40-watt LED light. The solar panels generate electricity to charge the battery during the daytime. The battery charge controller regulates the voltage and current from a power source to a battery, preventing overcharging, over-discharging, and damage. The operation of the LED light is controlled by the sensor; when daylight is fading, the lamp automatically turns on. All these components are fixed on a pole, with the solar panels mounted at the very top to minimize the possibility of anything shading out the sunlight.

Illustrative output: A 40-watt LED light typically produces 300 to 500 lumens, depending on its efficiency. This is sufficient to provide bright illumination across a wide area, suitable for streets and public spaces.

Lifespan? @5-8 years.

Why choose a solar lamp post?

- ✓ Efficient, effective and environmentally friendly safety lighting option.
- ✓ Can operate in remote and off-grid locations.
- ✓ Zero-cost to run and low-cost to maintain.
- ✓ Can be placed in human-wildlife conflict 'hot spots' to improve the safety of community members.

