

PHILIPS

Solar lighting

Philips solar lighting

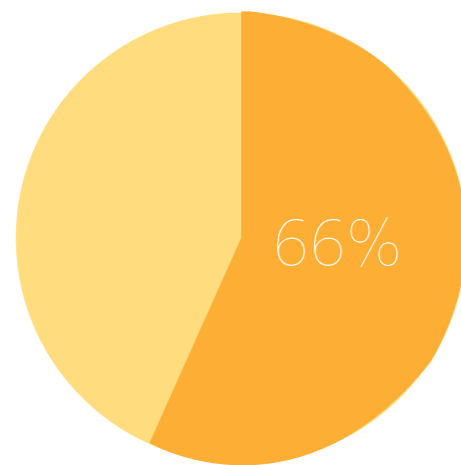
Here comes the sun



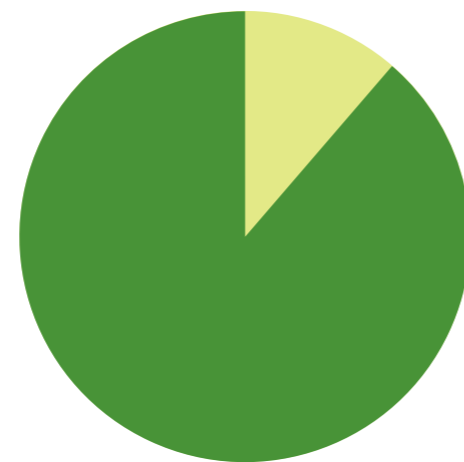
Rapid urbanization is fast depleting our resources

Rapid urbanization and population growth are putting more pressure on resources. This is reflected in the environmental impact of cities as they consume over two-thirds of the world's energy and account for more than 70% of global CO₂ emissions. Cities must now reduce their environmental impact.

On the other hand, more than 800 million people do not have access to an electricity grid. Darkness affects the quality of life at night and reduces public safety on roads and streets.



Energy consumption by urban population



Total world population

8 billion
800 million without access to electricity grid

Solar lighting is sustainable, green, and clean

Off-grid solar street lighting delivers several benefits. While it alleviates people with no access to the grid, hybrid solar also covers large populations and gives them an opportunity to reduce their carbon footprint – thereby resulting in a greener and healthier world.



Enhanced city sustainability potential



Significant energy savings



Increased sense of safety and security



Less dependent on the power grid



More efficient city planning and operations



Preserves landscape. No cabling or trenching in off-grid solar



No or minimal electricity costs



Safer. Reduced hazard risk with off-grid solar



Low maintenance



Improved city services



Upgrade existing light points to hybrid solar with minimal costs



Enable the community to engage with data from the Internet of Things (IoT)

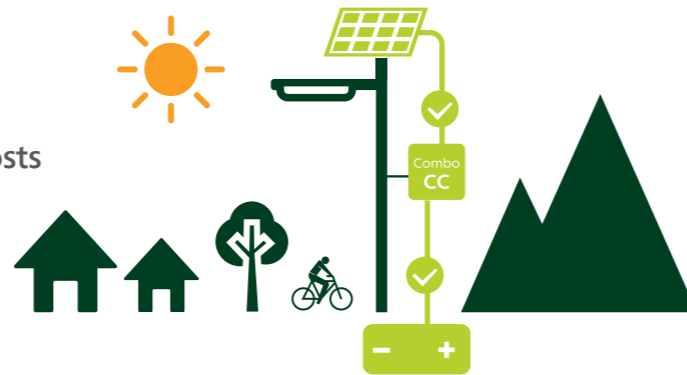
Our solar lighting propositions



Off-grid solar

- Saving cabling and distribution switchgear costs

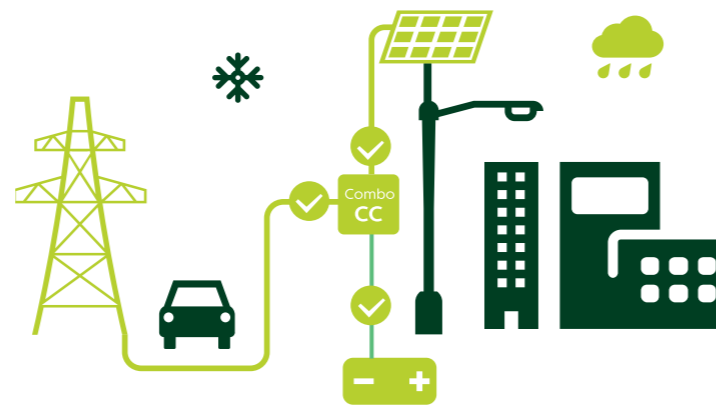
This system consists of luminaires, solar panels and batteries designed to operate autonomously without any connection with an electrical grid. The solar panels charge the batteries during the day and the stored energy powers the LEDs at night.



Hybrid solar

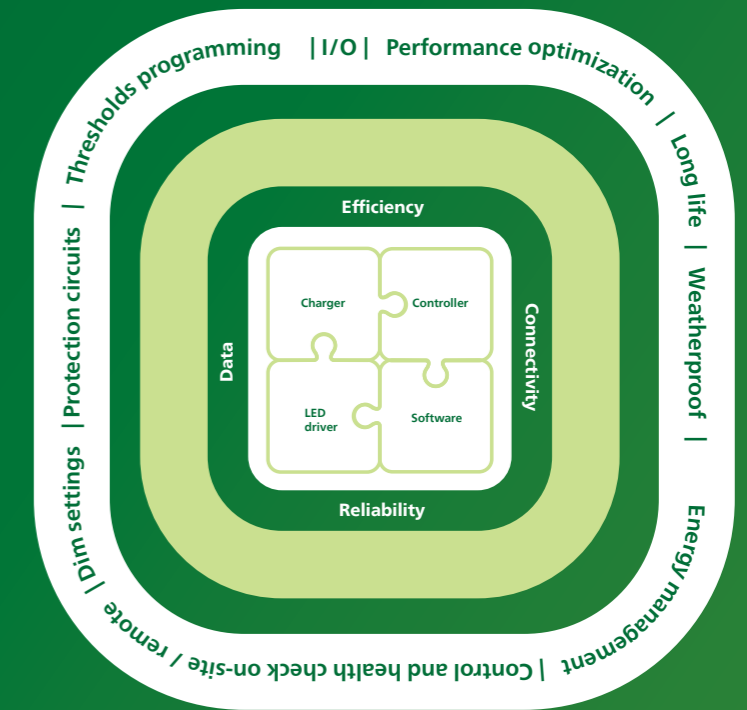
- For existing grid-connected light points

This system is like the off-grid solar system but is connected to a power grid. The solar panels charge the batteries during the day and the stored energy powers the LEDs at night. If the batteries run out of power, the LEDs are powered with energy drawn from the power grid.



Philips solar systems combine chargers, controllers, LED drivers and connectivity options on the same board.

Available in off-grid and hybrid architectures, the range comprises solar street lights and floodlights with a wide range of lumen outputs delivering best-in-class efficacy.



Reliable operations under diverse conditions



The quickest path to a greener, smarter, more prosperous EU

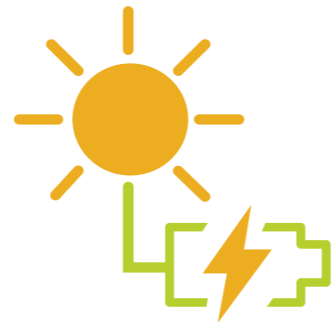


The European Green Deal, the world's most comprehensive climate action initiative, has been called "Europe's man on the moon moment."

The program's goals could not be more ambitious: to achieve a carbon-neutral continent by 2050, reconciling the economy and the way we consume resources with the planet, and making sure that nobody is left behind.

Our Green Switch program has been set up to show business owners and municipalities throughout the EU that our lighting solutions are a quick win, enabling fast action to be taken to help meet these ambitious goals.

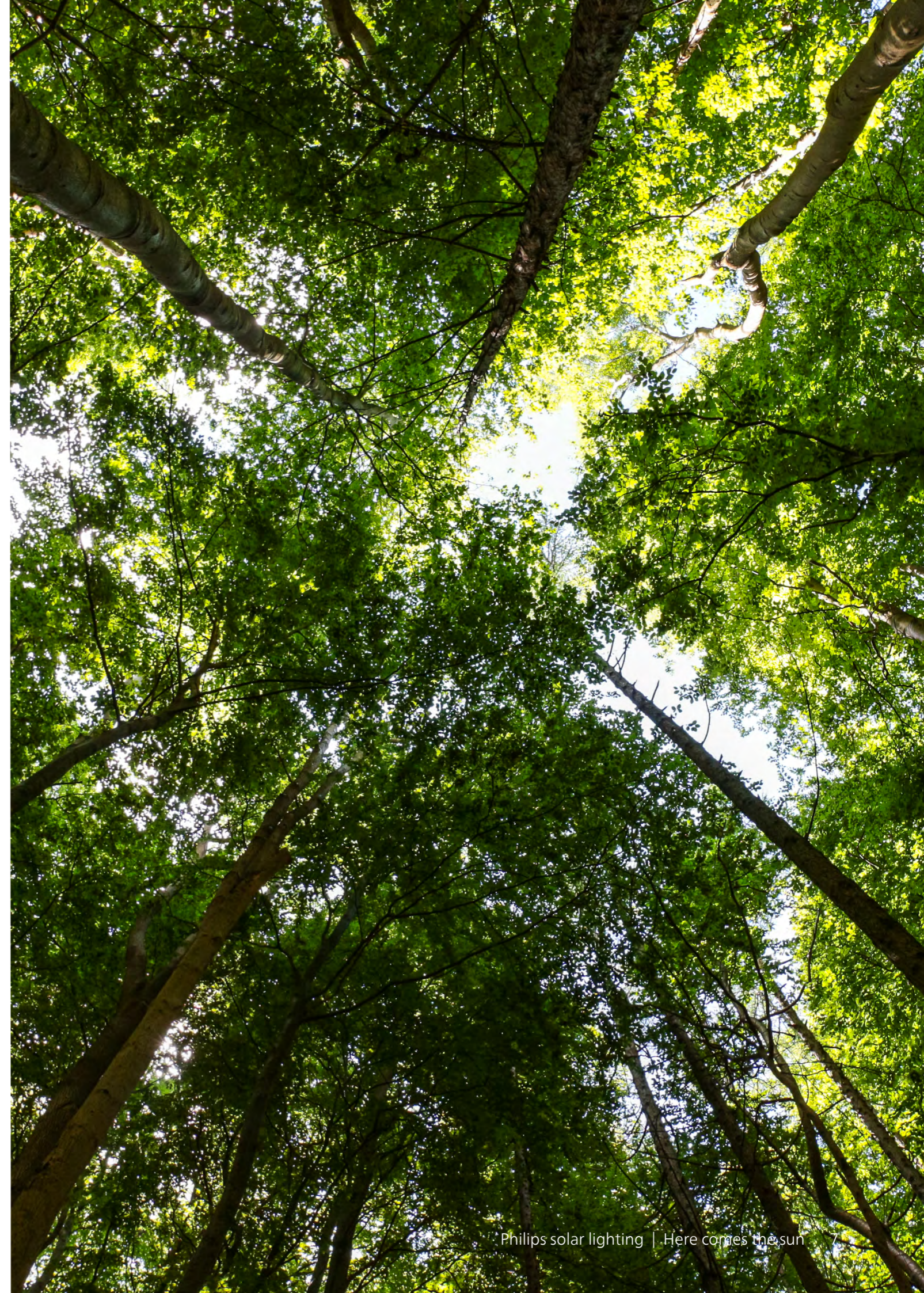
Clean energy with hybrid and solar street lighting



More than 75% of the EU's greenhouse gas emissions come from energy production and use. This means the EU must decarbonize its energy system to reach its climate objectives.

- Solar and hybrid street lighting minimize emissions and scale up the use of renewables
- Hybrid-solar technology uses clean solar-powered electricity when there is sunlight, and the mains grid when there is not
- 15 solar street lights save enough electricity to power an electric car or a household for one year

Infrastructure projects such as connected street lighting retrofits create on average 19 local jobs for every €1 million spent, benefitting the environment and the economy and building the digital platforms needed to ensure a green future.



Philips range of solar lighting solutions



<5K lumens

- Pathways
- Rural areas
- Parks



5K-8K lumens

- Parks
- Plazas
- Cycle tracks



8K-15K lumens

- Office campuses
- Suburban roads
- Inner city roads

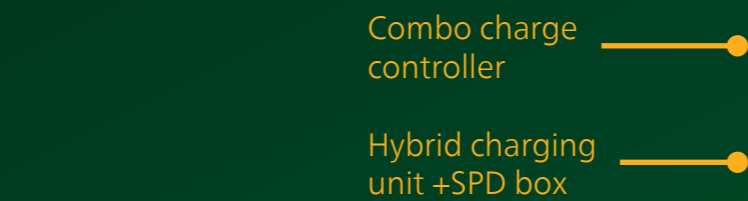


When the sun shines during the day, the solar panel converts solar energy to the electrical energy and stores it in the battery.

During the night, the battery is discharged, releasing electrical energy to power the LED luminaire.

If the battery is not adequately charged or it drains out during the night, solar hybrid input will kick in automatically.

Electrical energy from panel



Philips outdoor luminaires

Solar subsystems



Cables and connectors

- Waterproof IP67 connectors
- Plug and play, easy installation
- Error-proof to avoid the mistake of onsite installation
- Different length of cables are available for various applications



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