



Project 2151

# Household Solar Lighting

Zambia

Selected by Carbon Neutral Britain based upon the significant social benefits - this project provides solar lighting to families in Zambia who lack access to electricity in the home. By providing a cost-effective and clean lighting solutions for the first time, families and children are able to study, cook, and socialise in the safety of the home. Carbon emissions are avoided via households previously being dependent on inefficient and high carbon output lighting from kerosene lamps and fireplaces, which are replaced by the solar lighting devices provided.





Carbon Neutral Britain Project 2151 - Household Solar Lighting - plays a pivotal role in reducing poverty, enhancing educational opportunities, and improving family health by providing solar lighting devices to families within Zambia. By providing solar powered devices, the reliance on kerosene is reduced significantly, cutting down on the ongoing costs associated with fuel for the economically disadvantaged, as well as avoiding the associated emissions from fuel combustion that would have otherwise occurred in the home.



Since its inception in 2021, the initiative has successfully distributed over 600,000 solar lights across Zambia, and avoided over 10,000 tCO<sub>2</sub>e of emissions that would have otherwise been created. Via the revenue generated from carbon credits, the distribution of lights have been able to be subsidised, removing the primary obstacle to the widespread adoption of clean technology among those who benefit most - its affordability.

By channelling distribution through schools and community centres, the project ensures that children have access to bright, clean, and safe lighting for night-time reading and studying.

One of the first and most significant projects of its kind, preventing kerosene combustion, reducing household spending on lighting fuel and batteries, and extending children's study hours, this project aims to have a significant impact in breaking the poverty cycle within the region.





Credits Issued from one or more of the International Carbon Offsetting standards:



# AAA

Rated Carbon Credit Project

**This Project is a Verified Carbon Offsetting Project, selected by Carbon Neutral Britain™, which has undertaken Independent Project Validation and Assurance on quality, outcomes, and performance**

As the UK's Leading Carbon Offsetting provider - Carbon Neutral Britain has completed industry leading Independent Project Validation and Assurance for this project, and all projects are supported via the Climate and Woodland Fund™ portfolio.

Following our mission to provide the Best Value, Biggest Impact, Most Transparency, and Upmost Quality and Assurance of projects supported, validation ensures all projects have a real and lasting impact on Climate Change. This is achieved via three layers of assessment.

**First** - this, and all projects utilised must be audited and approved via the United Nations CER, Verra, or Gold Standard Mechanisms. As the three largest, and most regulated carbon offsetting standards in the world - this ensures the measurements, and tonnes of CO2e offset are accurate, and verified by these third parties (with public audits available for each project).

**Second** - Carbon Neutral Britain select projects based on the 'secondary' benefits, such as helping to provide education, employment, clean water, energy, or have a positive impact on the local wildlife and ecology (for nature-based projects). Carbon Neutral Britain ensure all projects align with United Nations Sustainable Development Goals - which are listed within this project pack.

**Third** - all projects are Independently Validated, completing due diligence on the audits completed via the applicable corporate standard.

Above and beyond the requirements of the United Nations CER, Verra, and Gold Standard Mechanisms, Validation Independently Assesses each project, and only AAA Rated Carbon Credit Projects are utilised within the offsetting portfolio's provided by Carbon Neutral Britain. An AAA Project Rating is achieved via the successful completion of the 6 steps below.

1

#### AUDIT REVIEW - ENHANCED ADDITIONALITY ASSESSMENT

In addition to the additionality assessment completed via the applicable mechanism, enhanced additionality assessments are completed for each project supported.

Enhanced assessment provides further assurance that the offsetting project can only occur as a result of climate finance.

2

#### AUDIT REVIEW - UNFCCC CRITERIA FOR PROJECT QUALITY

In addition to the audit completed via the applicable mechanism, each project is assessed alongside the IPCC criteria for offsetting project development.

In addition, each project is reviewed alongside the UNFCCC criteria for carbon offset project quality.

3

#### PROJECT CATEGORY RESTRICTION

Complete assurance over emissions avoidance or capture are required for the highest rating credit.

As a result, projects are selected from a filtered list of project categories, to ensure no REDD or REDD+ (Reducing emissions from deforestation and forest degradation) projects are utilised.

4

#### SATELLITE, AI AND REMOTE SENSING REVIEW

Independent validation of project development and outcomes are reviewed via satellite, AI, and/or remote sensing - where applicable.

Tree planting and reforestation sites can be remotely tracked and reviewed (alongside surrounding areas), to ensure optimal carbon capture has occurred.

5

#### DURABILITY AND PERMANENCE ASSESSMENT

Permanence of each project is evaluated to ensure emissions avoidance or capture last for 100 years or more.

Durability is also assessed for direct air capture and enhanced weathering projects, where permanence can be assured for hundreds of years via technological solutions.

6

#### CONTINUOUS PROJECT MONITORING

The highest credit rating requires continuous monitoring of each project to ensure it will deliver the expected emissions reductions over time.

In addition, continuous monitoring ensures issues and deviations of emissions reporting are addressed throughout the crediting period.