



Roof-mounted solar with energy storage

Climate cooperation between Sweden and Ghana

Country: Ghana

Project owner: Stella Futura

Crediting period: 2024-2030

Technology: Solar power with battery storage

Mitigation outcomes: 165 000 CO₂e

Sustainable development goals:



Activity description

The mitigation activity will install roof-mounted solar photovoltaics (PV) with battery storage on commercial and industrial facilities across Ghana, displacing the use of diesel-fired backup generation and grid electricity. The project will accelerate the development of solar energy and energy storage in Ghana and is expected to reduce emissions by approximately 165,000 tonnes of carbon dioxide over the period 2024-2030.

Environmental integrity

The market for solar power in Ghana is hampered by high interest rates, expensive imports and regulatory challenges. As a result, solar power currently generates less than one percent of the electricity in Ghana. The addition of battery storage increases the transformational impact of the activity and strengthens its additionality.

Environmental integrity is strengthened by a baseline that assumes a successful energy transition in Ghana and a relatively short crediting period. Sweden will purchase internationally transferred mitigation outcomes (ITMOs) until 2030, after which all mitigation outcomes will belong to Ghana, allowing the country to increase its greenhouse gas mitigation ambition in future nationally determined contributions (NDC) periods.

Expected contributions to sustainable development goals

In addition to reduced greenhouse gas emissions, the installation of solar power with battery storage leads to sustainable development co-benefits, such as reduced noise and air pollution when diesel-fired generators are used less frequently. The activity is expected to generate 6,000 new jobs and Stella Futura has a special focus on gender equality, e.g. by providing education to and ensuring that at least 30 percent of workers are women. A proportion of the installations will be made in hospitals and health centres, thus strengthening energy security in the Ghanaian health sector.

