

Clean Energy Transition

Integrating grid and off-grid low-carbon energy solutions

Around the world, **climate change poses a systemic risk** to economies and societies. In the wake of COVID-19, these risks and impacts have been exacerbated, and many countries are responding to the pandemic with economic stimulus packages.

These impacts can stretch the energy sector's capacity and impede a country's ability to cope with the crisis and economic downturn. The pandemic does not dampen the need for clean and reliable energy access which remains a major challenge in Africa. Supporting grid and off-grid solutions is therefore a major opportunity in the context of national stimulus and recovery programmes.

Location

Sub-Saharan Africa (Ethiopia, Kenya, Nigeria)

South Africa is eligible to apply as part of a regional or multi-country project but should not be the primary beneficiary of any project proposal.*

*Countries that are part of the UK PACT Country Programmes should see <https://www.ukpact.co.uk/country-programmes> for further details.

Action

The recovery from COVID-19 needs to support the move towards **clean and affordable energy** for all that ensures **resilience, reliability and poverty reduction**.

The clean energy transition across Sub-Saharan Africa has significant potential to accelerate the low-carbon transition, stimulate a Green Recovery and spur sustainable and inclusive growth. Where access to electricity is low or supply is intermittent, a mixture of grid and off-grid solutions is key to ensure

development happens when and where it is needed, in a coordinated, efficient and resilient way.

This requires **policy for optimal and coordinated technology deployment, improvement of data quality to inform policy decisions and capacity building** through the provision of training at national, federal, and sub-national levels and knowledge sharing activities.

Scope

The UK PACT Green Recovery Challenge Fund is looking to support projects in the following areas:

- Strengthening institutional capacity on policy and technology areas at the national, federal, and sub-national levels to **accelerate the integration of low-carbon grid, mini grid and off-grid** solutions (including productive use of electricity) and remove roadblocks.
- Improving **data quality and data sharing** to provide a more robust evidence base to inform decision-making.

- Developing timely and cost-effective **clean energy transition pathways** and energy scenarios.
- **Preparing and delivering action plans**, including policy and regulation, to **integrate and interconnect** clean off-grid and grid technologies and enhance electricity access, resilience and reliability.
- Developing **grid and off-grid energy management awareness, including energy efficiency**.

Not in scope

- Financing renewable infrastructure projects.
- Investing to commercialise new technologies.
- Reconciling existing databases.
- Clean cooking projects.

Example projects – (N.B. These are just to illustrate and are not an exhaustive list)

- Developing and validating **data** on projected energy demands and load factors for renewable energy technologies to **inform national strategies and models**.
- Developing a methodology to **timely predict demand and generation needs** and the mix of suitable technologies to set targets accordingly.
- Training officials at the national and sub-national level to develop and implement policies that **harmonise low-carbon grid and off-grid solutions**.
- Designing a **methodology to identify locations where grid can economically expand** as well as identify areas where off-grid solutions are more appropriate.
- Exploring the impact of **targeted regulatory and policy interventions** to enable cost reflective price signals and tariff structures.
- Designing of campaigns to **raise awareness and promote energy management & efficiency**.