



# GREEN CLIMATE FUND

# GCF IN ENERGY GENERATION AND ACCESS



GREEN  
CLIMATE  
FUND

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# IMPACT AREAS

GCF makes investments within **8 strategic result areas**, in line with country priorities.

## Reduced Emissions From:



Energy generation and access



Transport



Buildings, cities, industries and appliances



Forests and land use

## Increased Resilience of:



Livelihoods of people and communities



Health, food and water security



Infrastructure and the built environment



Ecosystems and ecosystem services

# GCF-1 PORTFOLIO TARGETS



50:50 balance between adaptation and mitigation

Portfolio-level mitigation/adaptation outcomes exceed IRM

Min. 50% adaptation funding to SIDS, LDCs & Africa, aim to build on IRM (69%)

Significantly increase funding through DAEs

Maximize private sector engagement, with PSF allocation exceeding 20%

Significantly increase mobilized private finance

# PARADIGM SHIFTING PATHWAYS – ENERGY ACCESS AND POWER GENERATION GCF<sub>1</sub>



***Low Emission Energy Generation*** focuses on the generation of energy from modern renewable sources such as wind, solar, geothermal, hydro, and wave energy.



***Efficient and Reliable Transmission, Distribution, and Storage*** focuses on investing in grids and storage to make power systems more capable to efficiently and effectively operate with higher shares of renewables and more sectors using electricity.



***Promoting Access to Clean Energy*** focuses on off-grid and mini-grid energy generation from renewable sources in a way that promotes sustainable development and climate resilience for the beneficiaries, in addition to emission reductions.

# PATHWAY - ENERGY GENERATION



Continue **enabling** investments in VRE\* and RRE\*\*; more proactively address the shift including to minimize dispatch of fossil base load power plants - approach utilities, independent power producers and off-grid supply.

Public money for enabling leverage of private capital – challenge PPA's (power purchase agreements).

Energy as a service solutions for other sectors; structured dialogues, demand based pre-industrial procurement and purchaser groups.

Climate resilient infrastructure (CRI) to be quantified and financed through adaptation funding as well as potentially loss and damage funding.

Voluntary carbon markets a possibility to structure investments in supply and auxiliary technologies.

\* VRE, **Variable Renewable Energy** such as wind, solar and run-off the river hydro

\*\* RRE, **Reliable Renewable Energy** such as biomass, stored hydro, pumped storage, tidal

# PATHWAY - RELIABLE TRANSMISSION, DISTRIBUTION, STORAGE AND FLEXIBILITY



Public private risk sharing for investments in grid capacity and flexibility, also including power plants' more flexible operation.

Enable investments in pump storage, battery storage and hydrogen storage. Identify financial gaps and "market failures".

Proactivity in creating power trade and minimised curtailment.

Proactively invite cross sector planning for demand flexibility and net-zero emission design in real estate, industry and EV-charging as a more cost-effective pathway than over-investing in supply and storage. In particular in Small Island States with loads for e.g. desalination / food security and with a high general import reliance.

Consider low voltage, DC circuits for IT, installations and appliances.

Address the challenge to ringfence and do ex-ante estimates and monitoring of impact in grid investments. Our projects so far has mostly enabled connection of specific utility scale power plants.

Increase our investments in connecting people "living under the grid". BAU scenarios includes "lock in" as well as resilience/adaptation.

Regard off-grid as also eventually becoming island mode distribution nodes within utility scale power grid.

# PROJECT EXAMPLE - SUSTAINABLE RENEWABLES RISK MITIGATION INITIATIVE (SRMI) FACILITY



Countries	GCF Financing	Accredited Entity	Financial Instrument	Year Approved
Botswana, Central African Republic, Democratic Republic of the Congo, Kenya, Mali, Namibia, Uzbekistan	280 million USD	IBRD and IDA (World Bank)	Loans, Grants, Guarantees	2021

- Total co-financing of USD 1.28 billion
- Leveraging 3.3 billion dollars from private sector
- 2.6 GW Renewable Energy
- 4.2 million new connections
- Emissions reduction of 89 M tCO<sub>2</sub>eq
- Creation of new jobs, investing in critical infrastructure and developing procurement standards.



## PATHWAY - ACCESS



Access through distribution network extension.

Access through off grid and “energy as a service”.

Access to energy for heating and cooking. We should probe for innovative design and forward-looking service offering.

Viability issues in off-grid supply shall be addressed through innovative financial support, covering risks.

We should report adaptation results from providing access.

# ADAPTATION IMPACTS AND CO-BENEFITS ACCESS TO CLEAN ENERGY



It is encouraged to include adaptation impacts for energy access



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