

Energy transition

Facilitating the transition to
low-carbon economies
and climate-resilient cities



23 projects
financed
in 14 years

EUR 1,4 billion
invested
since 2003

30 SMEs
accessing finance
to implement
green energy projects

Southern Africa has access to a wealth of primary renewable energy sources, with enough geothermal, hydro, wind and solar resources to provide gigawatts of power. However, the adoption of low-carbon technologies is uneven and hampered by technical, financial and regulatory barriers that slow down the region's energy transition.

In this context, AFD's supports both private and public entities on the path to reliable, low-carbon and affordable energy. For AFD, sustainable development and poverty alleviation cannot be dissociated from fighting climate change and protecting the environment. More than 50% of AFD's projects have climate co-benefits such as reduction of pollution, creation of green jobs or improved energy security through diversification.

#WorldInCommon

Our action in Southern Africa

1 COMMITMENTS THAT TRANSLATE INTO ACTION

In 2017, AFD adopted a new climate strategy and committed to being the first “100% Paris Climate Agreement” financial institution. This means that going forward, AFD undertakes to ensure that all the projects it finances are helping developing countries in their efforts to mitigate the effects of climate change and effectively move towards a carbon-neutral economy. In the same year, AFD also became accredited to the Green Climate Fund, which intended to act as a catalyst for large-scale, multi-stakeholder initiatives to mitigate and adapt to the effects of climate change.

AFD's action is structured around three objectives:

1. Mitigation, or limiting greenhouse gas emissions;
2. Adaptation, which involves reducing the vulnerability of individuals and territories to relatively to actual or expected climatic change;
3. Support to states, communities and territories in developing approaches that have a low carbon footprint and build resilience to the impact of climate change.

2 ACCOMPANYING CITIES' ADAPTATION AND RESILIENCE PLANNING

South Africa's largest cities have been tapping into AFD's expertise in their effort to promote more carbon-efficient urban development and greater resilience to climate change. In Cape Town, AFD has funded a study on risks assessment and adaptation solutions through the Cities and Climate

Change in Africa (CICLIA) programme. The solutions include: sustainable urban planning, improving transportation and reducing pollution, increasing availability and accessibility of green spaces.

3 FINANCING THE ENERGY TRANSITION IN THE PRIVATE AND PUBLIC SECTORS

AFD accompanies all countries in Southern Africa in their low-carbon transition by financing energy-generation projects that increase the share of renewable energies in a region where coal constitutes over 90% of the energy mix. For instance, in Mozambique, AFD has financed the rehabilitation of the Mavuzi and Chicamba hydropower plants and the construction of a 40MW solar power plant. In Zambia, AFD is financing the construction of a hydropower plant and a power transmission line to fill the electricity generation gap and improve the country's energy security.

Through its green finance label SUNREF, AFD has helped small and medium enterprises (SMEs) in Namibia and South Africa access finance through major banks to kick-start or scale up their efficiency and renewable energy projects. By making it easier for companies to access green finance, a number of truly innovative projects were launched or scaled up their operations: converting cow manure into biogas; burning wood waste to make heat; harnessing energy from effluent waters to decrease dependence on grid energy; switching from coal-based to solar-based heat to power greenhouses.

ZAMBIA

A RENEWABLE ENERGY TO MEET GROWING ELECTRICITY DEMAND



Zambia is developing its power grid in order to meet the growing energy needs of its economy and population and reduce its energy dependence.

BACKGROUND

Zambia's primary energy resources – biomass, coal and hydro power – account for over 99% of the electricity produced nation-wide. However, the country has recently began importing electricity to meet the steady growth in demand (4% a year since 2005) resulting from a combination of population growth and increased production in the mining sector, and aging hydropower and transmission infrastructure.

Lack of investments combined with the increase in demand has led to regular power cuts, which hampers growth in leading economic sectors such as mining. It is estimated that by 2020, electricity demand will skyrocket to 20,000 GWh, meaning that consumption will double compared to 2012.

DESCRIPTION

The project is part of a program comprising the construction of a hydropower plant and a power transmission line. AFD's financing concerns the 276 km-long transmission line and the reinforcement of the associated substations, from the Itezhi Tezhi Dam to Lusaka, the capital. Specifically, AFD will finance:

- ▶ The construction of the transmission line for the Itezhi Tezhi Dam in Mumbwa, with a voltage of 220 kV over a distance of 142 km;
- ▶ The construction of the Mumbwa substation, comprising 330/220/33 kV transformers, with 33 kV lines to supply Mumbwa and the surrounding area;
- ▶ The construction of a 134 km-long 330 kV transmission line from Mumbwa to Lusaka;
- ▶ The extension and renovation of the Lusaka West substation to accommodate the new lines, e. 330/132/33 kV transformers.

IMPACTS

Zambian economic growth, driven mainly by the mining industry, depends on the reliability of energy supply. This project will help fill the electricity generation gap and improve the country's energy security. In addition, the project will help increase the share of renewable energies in a region where coal constitutes over 90% of the energy mix.

From a social perspective, the project will strengthen and expand the distribution grid on the outskirts of Mumbwa and Itezhi Tezhi, which will provide some 50,000 people with access to electricity.

ZAMBIA

Country



15/09/2012

Project start date

15/09/2020

Project end date



Energy

Sectors



ITEZHI TEZHI

Location



SOVEREIGN LOAN

Financing tool



USD 34 400 000

Financing amount

REPUBLIC OF ZAMBIA

Beneficiaries

African Development Bank (AFDB)

Infrastructure Trust Fund

European Investment Bank (EU)

Co-financing organizations

MOZAMBIQUE

REHABILITATION OF TWO HYDROELECTRIC PLANTS



By rehabilitating the Mavuzi and Chicamba hydropower plants, the project is helping to secure Mozambique's electricity supply at a lower cost and with a lower carbon footprint.

BACKGROUND

The Mozambican electricity context is characterized by high growth consumption, dependent on a few production sites. Peak electricity consumption in Mozambique is around 750 MW in 2013 (not counting the Mozal smelter). Consumption is growing rapidly (+ 11% / year) as a result of the proactive electrification policy but also of sustained economic growth driven by a few mega-projects to exploit the country's mining resources (coal, gas in particular).

The national electricity company EDM draws its supplies mainly from the company, Hidroelectrica Cahora Bassa (HBC), that operates the Cahora Bassa dam (500 MW). EDM itself produces a portion of the electricity (in the order of 100 MW), and the balance buys electricity from independent producers (Aggreko) and ESKOM at a high price. The latter share is increasing and weakens the financial health of EDM, which can not adjust its sales prices without ministerial agreement. The rehabilitation of the Mavuzi and Chicamba power plants will reduce this dependence on imports and obtain an electricity supply at the lowest cost.

DESCRIPTION

The work consists of:

- ▶ The rehabilitation of the two Chicamba turbines (capacity after rehabilitation of 44 MW in total);
- ▶ The rehabilitation of the three main turbines of Mavuzi (42 MW in total after rehabilitation) as well as the two 5.5 MW turbines that will serve as a backup solution in the event of failure of one of the main turbines of the mechanical, electrical and wholesale works work for Mavuzi and Chicamba;
- ▶ The upgrade of control systems the renovation of penstocks.

IMPACTS

Five impacts have been identified:

- ▶ Job creation in sorting and recycling infrastructure;
- ▶ Involvement of disadvantaged communities in biodiversity management;
- ▶ Less 54,000 tons CO₂ emissions per year;
- ▶ Landfills converted into green areas;
- ▶ Healthier environment.

MOZAMBIQUE

Country



22/10/2012

Project start date

31/12/2018

Project end date

50 MONTHS

Duration of funding



ENERGY, CLIMATE

Sectors



CHICAMBA AND MAVUZI

Location



Sovereign loan

Financing tools



EUR 50 000 000

Financing amount

ELECTRIDADE DE MOCAMBIQUE

Beneficiaries

KFW

SIDA

Co-financing organizations

SOUTH AFRICA

CONSOLIDATE CAPE TOWN'S RESILIENCE TO CLIMATE CHANGE



AFD, through the CiCliA European facility, is financing two studies on behalf of the City of Cape Town to support a resilient and sustainable urban future.

BACKGROUND

It is estimated that by 2050, the number of people living in cities will double, as will the size of urban areas, generating massive infrastructure needs and pressure on natural resources.

Cities in Africa are already experiencing the impacts of climate change-induced disasters such as flooding, water stresses, and landslides caused by intense rainfall. Enhancing resource efficiency and implementing adaptation and mitigation strategy is key to reduce cities' vulnerability to climate change.

These issues were raised in the Yamoussoukro Declaration of 25 June 2015, which affirms the commitment of cities and regions in Africa to integrate climate change concerns into the management of urbanization and urban services, while calling for the development of financial instruments to accompany cities in the implementation of new projects and strategies.

To make their urban public policies "climate-compatible", local authorities are involved in the development of territorial climate strategies, supported by numerous development partners (networks of cities, foundations, and especially donors).

DESCRIPTION

AFD, in partnership with the Swiss Cooperation Agency – SECO – and the European Union, has launched CiCliA, a regional support program for local authorities, to:

- ▶ Implement territorial strategies integrating climate issues;
- ▶ Finance adequate technical support for the realization of studies of pre-investment of projects with climate co-benefits (studies and/or technical assistance);
- ▶ Accompany the implementation of these projects via technical assistance.

By 2020, CiCliA aims to support 20 to 25 African cities with projects that have mitigation and adaptation co-benefits.

Two studies were launched in 2017 in partnership with the city of Cape Town, as well as French and South African experts, and aim to:

- ▶ Develop a sustainable energy service for low-income households;
- ▶ Map vulnerabilities to and risks of climate change.

IMPACTS

Accompany Cape Town to:

- ▶ Define low-carbon, climate-resilient urban strategies;
- ▶ Translate these strategies into concrete investments;
- ▶ Help identify climate change needs for each project and a corresponding financial solution;
- ▶ Strengthen the capacity of the Municipality of Cape Town *vis à vis* climate change mitigation and adaptation, and improve the quality of life of the city's residents.

SOUTH AFRICA

Country



01/04/ 2018

Project start date

30/03/2019

Project end date



**Sustainable Cities,
Climate**

Sectors



CAPE TOWN

Location

1 YEAR

Duration of funding



Grant

Financing tool



EUR 344 205

Financing amount

Municipality of Cape Town

Beneficiaries

**European Union (EU)
Swiss State Secretariat for
Economic Affairs (SECO)**

Co-financing organizations

AFD is an inclusive public financial institution and the main actor in France's development policy. It makes commitments to projects that genuinely improve the everyday lives of people, in developing and emerging countries and in the French overseas territories.

AFD works in many sectors – energy, health, biodiversity, water, digital technologies, training – and supports the transition to a safer, more equitable and more sustainable world: a world in common. Its action is fully in line with the Sustainable Development Goals (SDGs).

Through its network of 85 agencies, AFD operates in 109 countries and is currently supporting over 3,500 development projects. In 2017, it earmarked EUR 10.4bn to finance these projects.

**AGENCE FRANÇAISE
DE DÉVELOPPEMENT**

**FRENCH DEVELOPMENT
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