



Energy transition

ACTIVITY REPORT

2021

AFD Group's energy strategy

Energy: a driver for development

The energy transition is now underway in both developing and developed countries. Supported by technological developments, it represents an economic, social and environmental opportunity for the achievement of the Sustainable Development Goals. It is also necessary for the achievement of the objectives of the Paris Climate Agreement. It targets universal access to efficient, resilient and low-carbon energy services. The widespread deployment of the energy

transition requires profound technological and societal changes: beyond electricity, it concerns industry, construction, mobility, urban planning, agriculture and our lifestyles. It involves making major changes to energy consumption and production systems and, at the same time, providing over a billion people with access to reliable energy services. AFD's energy transition strategy is based on three areas of operation mobilizing three intersecting levers.

After a year marked by the health crisis and a decline in activity in 2020, AFD Group has returned to a level of commitments in the energy sector on par with previous years. In 2021, €2.2 billion of financing was allocated in the sector, including almost €2 billion by AFD and some €200 million by Proparco.

One of the highlights of 2021 was the near doubling of commitments in the field of renewable energies, with nearly €1.10 billion allocated in a wide range of technologies, countries and financial tools.

In the energy efficiency sector, the Program for Energy Efficiency in Buildings (PEEB) continues to be successfully implemented and has maintained a good level of commitments. Some €245 million was invested in high-performance buildings projects last year.

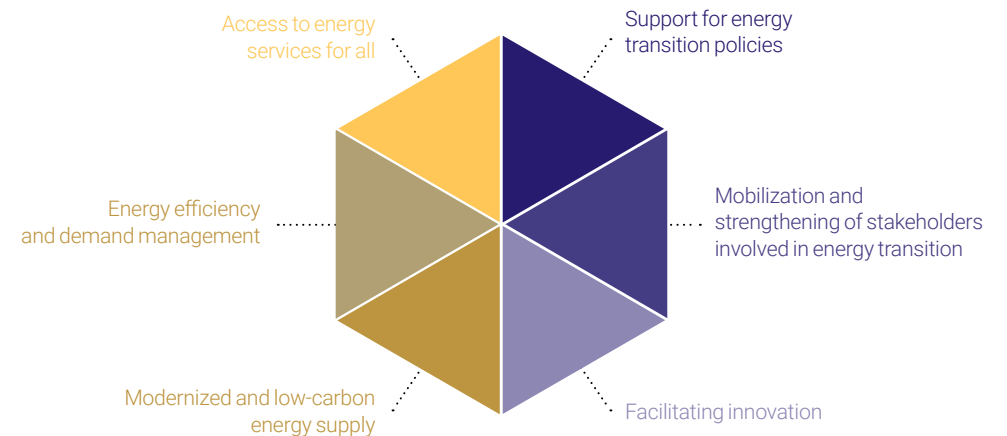
In 2021, efforts were also stepped up with regard to public policy dialogue and support for long-term decarbonization strategies. In this sector, the sharp increase in policy-based loans (€726 million, compared with €278 million in 2020) was coupled with structural technical cooperation components.

The publication of the [mid-term review of the Energy Transition Strategy](#) rounded out the year and confirmed the themes and manifold drivers of the strategy first adopted in 2019. It also prompted us to be more focused on integrating climate concerns in our commitments, with the end to gas financing for power generation announced at COP26 in Glasgow. This commitment makes AFD one of the pioneering institutions for the climate.

Nicolas Guichard,
Director of the Energy Division (EGI)

3 areas of operation

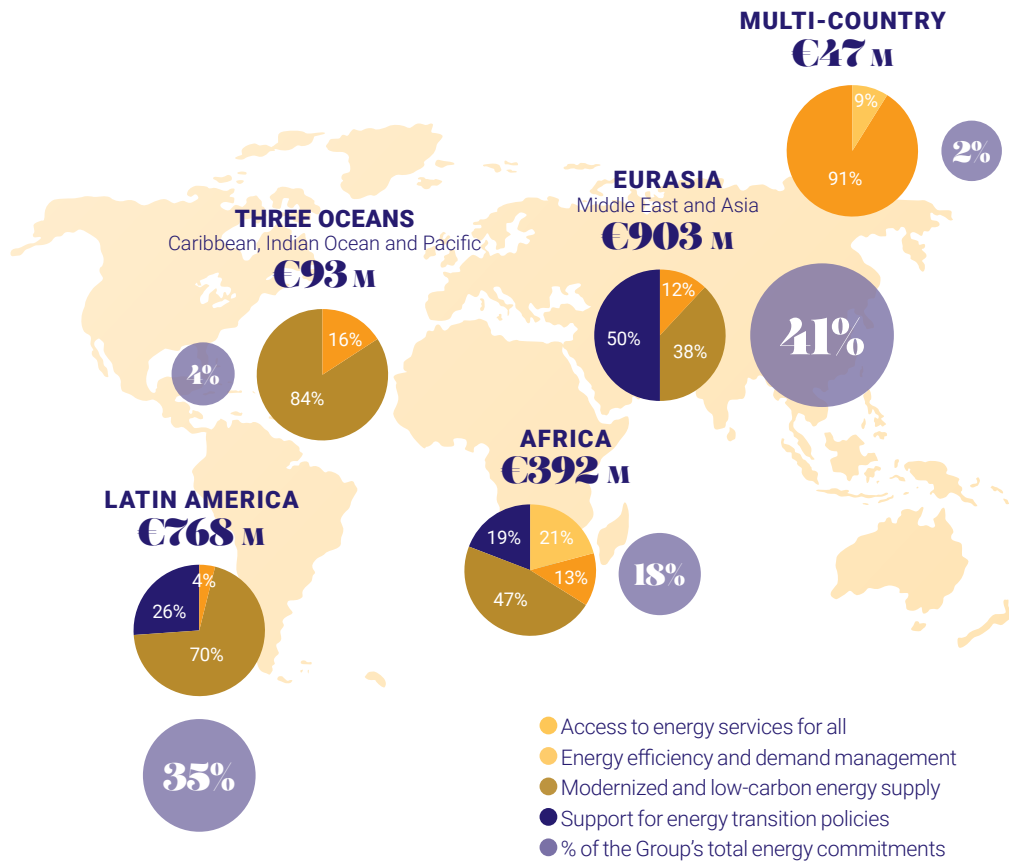
3 acceleration levers



AFD Group is working to implement this strategy, which is consistent with the needs of each country. Convinced that the energy transition can be an opportunity for all, AFD Group calls on all its partners to join in the pursuit of this objective: in our world in common, everyone must have access to efficient and low-carbon energy services.

AFD Group's energy commitments in 2021

Breakdown by region



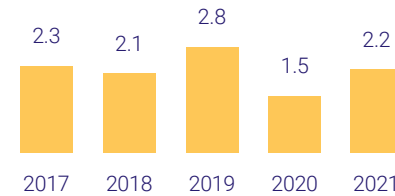
€2.2 BN

Total commitments for 92 projects

In 2021, the energy sector accounted for 18.6% of total AFD Group commitments, which stood at €12.1 billion.

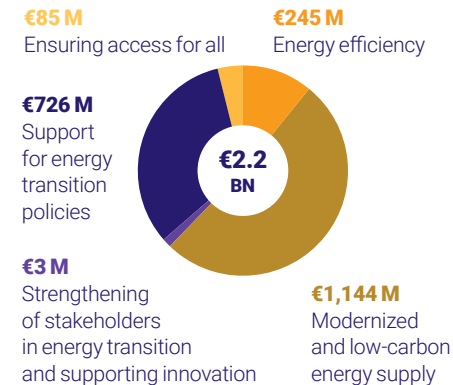
Trend in Group commitments

since 2017 in € BN



€11 BN Total energy commitments since 2017

Breakdown by theme and strategic tool



The Group's energy commitments

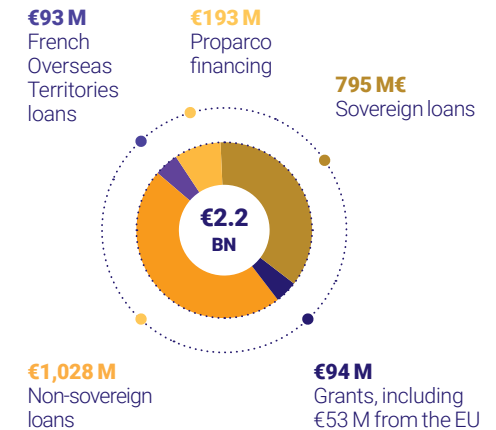


91% AFD
€2.01 BN



9% Proparco
€193 M

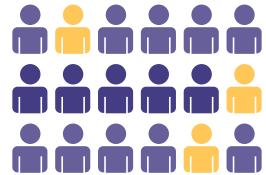
Breakdown by financial tool



At the crossroads of climate issues and the achievement of **SDG 7**, AFD Group's activities aim to accelerate the energy transition in our partner countries towards efficient, resilient and low-carbon energy services accessible to all. To meet these objectives, we conduct an ongoing political dialogue with a large number of countries on their low-carbon energy transition trajectories. Our teams also place a strong emphasis on energy efficiency, which is key to realizing this transition. The deployment of renewable energies and their integration into power grids, along with storage, is also increasingly important. In Sub-Saharan Africa, contributing to the broadening of access to electricity based on technological innovations remains a priority for AFD, as is the low-carbon transition.

Expected impacts

The projects allocated by AFD and Proparco in 2021 will contribute to:



INCREASING ACCESS TO ENERGY SERVICES FOR ALL

4.7 million people will have access to sustainable electricity services.



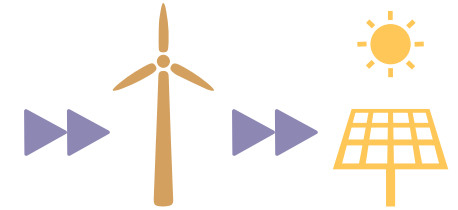
SUPPORTING ENERGY EFFICIENCY AND DEMAND MANAGEMENT

100 GWh of energy consumption saved.



OFFERING MODERNIZED AND LOW-CARBON ENERGY

- **3,508 MW of renewable energy** generation capacity will be installed
- **€1.4 billion committed to solar projects** since 2016 to contribute to the objectives of the International Solar Alliance (ISA), with 3,829 MW of installed solar capacity at the end of 2021
- **445,000 beneficiaries** of a renewable energy project.



ACCELERATING OUR PARTNERS' ENERGY TRANSITION

- **€726 million of commitments** to support public policies for the energy transition
- **€3 million for support** and capacity building for local stakeholders.



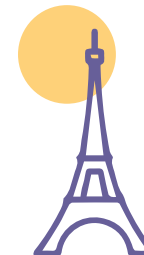
SUPPORTING AFRICAN COUNTRIES IN PARTICULAR

€392 million committed in the energy sector in Africa.



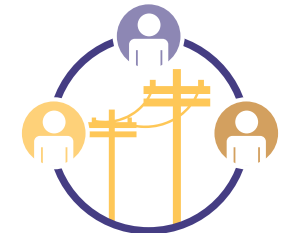
PROMOTING A COMMITMENT TO SOCIAL COHESION

67%, i.e. €1.47 billion of energy commitments have gender as a main or significant objective (OECD markers 1 and 2).



HONORING AN ENERGY COMMITMENT 100% PARIS AGREEMENT

- **5.5 million tons of CO2** avoided to reduce greenhouse gas emissions
- **86% of energy commitments**, i.e. €1.9 billion with a climate benefit.



IMPROVING SERVICE QUALITY

will benefit from an improvement in the quality of the electricity service in our partner countries

- **5.7 million people**
- **10,000 km** of lines installed.

Committed to universal access to energy services

Breakdown by region



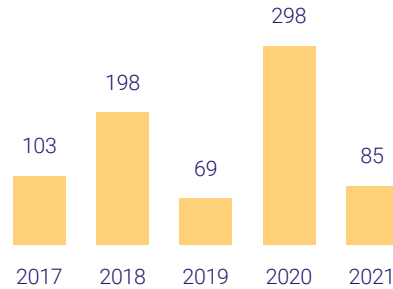
In 2021, almost all Group commitments promoting access to energy services for all focused on Africa.

Mali • Supporting the deployment of Electrified Activity Zones

The Electrified Activity Zones (EAZ) project is giving a long-term boost to rural areas in Mali by combining a sustainable solution for access to 100% renewable energy and support for 150 local entrepreneurs. With a budget of €6.5 million, it is also helping to reduce territorial inequalities and is supporting the creation of direct and indirect jobs. Other potential impacts of this project include an increase in the range of available products and services and access to them, in particular in terms of cost for people.

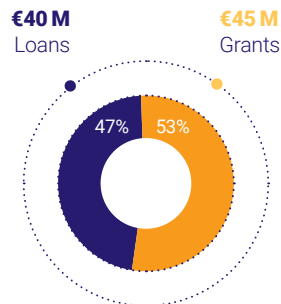
Trend since 2017

Commitments in € M



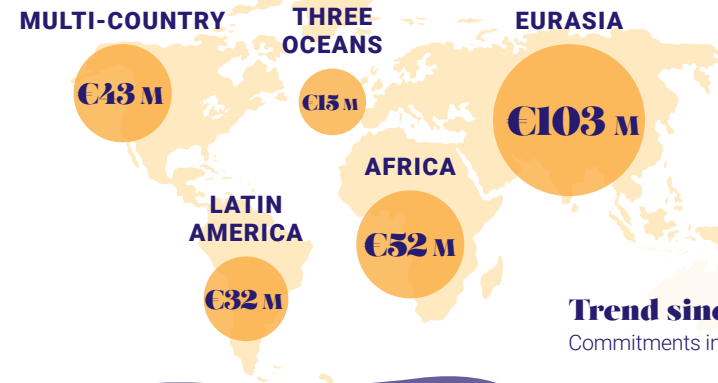
15 projects
dedicated to off-grid electrification programs such as solar kits or mini-grids.

Breakdown by financial tool



Promoting energy efficiency

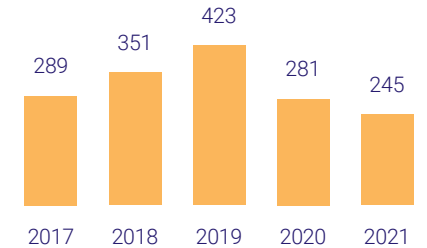
Breakdown by region



€245 M
of commitments for energy efficiency and demand management

Trend since 2017

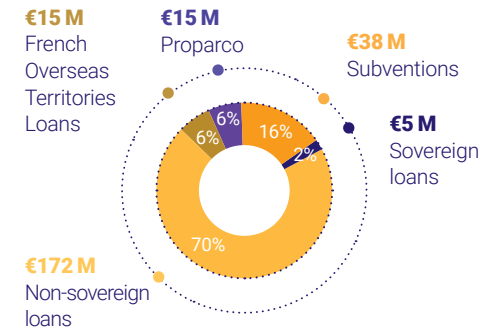
Commitments in € M



PEEB Med • Supporting energy efficiency in the Southern Mediterranean

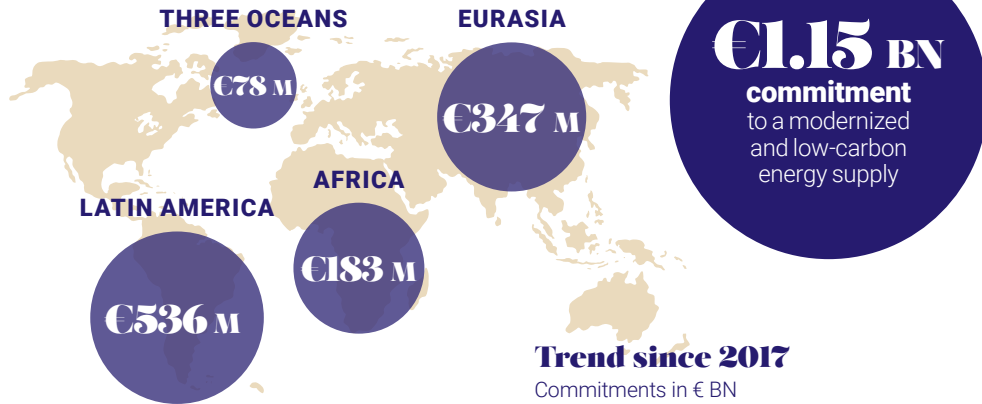
PEEB Med is a multi-year program financed with European Union funds. A budget of €30 million will be delegated to AFD in late 2022 to improve the energy performance and thermal comfort of the building projects it is financing in seven Southern Mediterranean countries: Algeria, Egypt, Jordan, Lebanon, Morocco, the Palestinian Autonomous Territories and Tunisia. This new facility of the Program for Energy Efficiency in Buildings (PEEB) combines technical assistance to contracting authorities and investment subsidies for the integration of efficiency measures. This support is geared to all types of construction and renovation, including housing, hospitals, schools, universities and public and administrative buildings.

Breakdown by financial tool



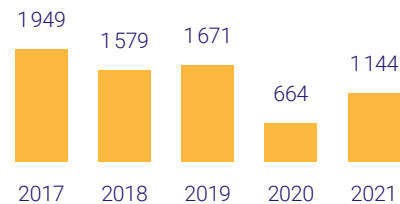
Promoting sustainable energies, reducing dependence on fossil fuels

Breakdown by region

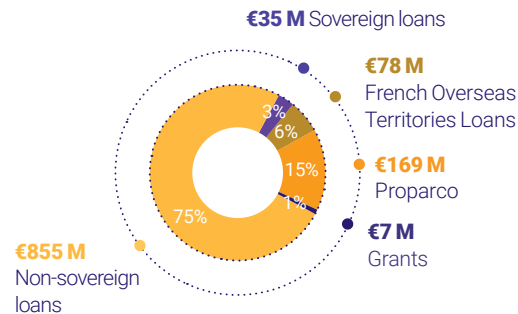


Trend since 2017

Commitments in € BN



Breakdown by financial tool



Chad • Djermaya Solar, the first solar project with storage

Proparco has allocated a loan for the Djermaya Solar project in Chad, co-financed with the African Development Bank and EAIF. The future facility will comprise a photovoltaic solar power plant, interconnection infrastructure and a battery system. It will supply the grid in the capital N'Djaména and will be located 30 km to the north on the Djermaya site. This facility is the first solar power project in Chad. It will also be one of the first solar projects in the region to have a battery system.

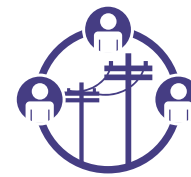
Mexico • Rehabilitation of the Angostura hydropower plant

The hydropower plants located on the Grijalva River, which include Angostura dam, combine 38% of the hydropower capacity of the Federal Electricity Commission (CFE). Their rehabilitation is essential for maintaining CFE's hydropower capacity and achieving its clean energy mix objectives for 2024. A technical partnership with Électricité de France (EDF) is also contributing to upgrading CFE's management system for hydropower plants in the Grijalva basin. This is crucial for flood prevention and greater integration of climate change.



€560 M

renewable energy projects financed by credit lines and guarantees



€373 M for power generation

€108 M for grids

€11 M

for studies and technical assistance

Kenya • A hybrid solar power plant and a pilot battery storage facility

AFD is financing the first solar power plant developed by KenGen, Kenya's public power generation company. This 42.5 MWh plant and its battery storage facility will be located alongside Kamburu Dam on the Seven Forks Falls. Its "hybrid" operation makes it possible to store water in a reservoir upstream from the waterfall during the day. In the evening, to handle peak demand, this water is run through turbines by power plants installed along the waterfall to reduce the country's dependence on backup thermal energy.

Brazil • 100% climate biogas plants

In 2021, Proparco allocated a third loan for €25 million to Tereos Sugar and Energy Brazil, a longstanding partner. This financing will allow this company, one of the largest sugar-ethanol producers in Brazil, to build biogas production plants in three of its sugar factories (26,000 TEQ CO2 avoided per year). They will be coupled with wastewater treatment units, in an effort to reduce the volume of water consumed by 25% by 2024. The project has been classified 100% climate-friendly, with 85% of mitigation co-benefits (about €21 million) and 15% of adaptation co-benefits (about €4 million).

The three energy transition tools



Supporting public policies

In 2021, AFD conducted public policy dialogues on the energy sector in a number of countries. This has led to new policy-based loans (PBL), with related schemes aiming to accelerate the deployment of renewable energies, and raise the ambition for energy efficiency. This dialogue has also led to a number of technical cooperation activities with countries, including the modeling of ambitious transition trajectories that serve as vehicles for macroeconomic impacts.



27 projects
technical assistance
projects for countries



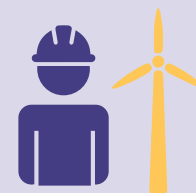
200 M€
for two policy
based loans

Colombia • Supporting public policies for a sustainable and resilient economy

In 2021, AFD, KfW and the Inter-American Development Bank (IDB) assisted the Colombian Government with the preparation and implementation of the 2050 Strategy for public policy reforms and action for the climate, natural capital development and the energy transition. This €200 million policy-based loan is combined with technical assistance (€1.3 million) to develop and operationalize this strategy implemented by Expertise France and promoted at COP26.

Algeria • Modelling the energy trajectory to imagine possible futures

Algeria's economy is heavily dependent on natural gas, its main export resource. Its exploitation contributes to climate change and is dwindling due to the increase in domestic demand. With financing from the [2050 Facility](#), an economic model has been developed for the Prospective General Directorate of the Algerian Ministry of Energy to allow it to analyze various energy transition scenarios.



Mobilizing stakeholders to support the energy transition

Mobilizing technical and financial partners and strengthening stakeholders in the South are a major focus of the energy transition strategy. In 2021, this led to a number of project co-financing operations, a strengthening of collaborations and new partnerships.



Supporting innovative stakeholders

to promote access to off-grid sustainable energy in Africa and help the French Overseas Territories move towards low-carbon energy mixes.



Commitments at COP26

AFD joined a coalition of countries and institutions that have committed to ending international public financing for fossil fuels.



A Team Europe to scale up impact

A Team Europe Initiative for sustainable energies in Africa will allow a number of projects to be co-financed with AFD.

The "Just Energy Transition Partnership" in South Africa

At COP26, Germany, the US, France, the UK and the European Union launched a landmark initiative with South Africa: the International Just Energy Transition Partnership. It aims to accelerate the country's decarbonization by helping it end coal use and accelerate its transition towards a low-carbon and climate-resilient economy. This partnership is mobilizing an initial commitment of \$8.5 billion, including \$1 billion financed by France and implemented by AFD.

Sahel • Forest protection and clean cooking

AFD and the French Facility for Global Environment (FFEM) are financing [Wood Energy Sahel](#). To combat forest degradation and improve human health (particularly women's), this innovative project should lead to the sale of over 30,000 efficient biomass and LPG stoves in Burkina Faso, Mali and Niger by 2026. It is also ensuring the sustainability of 50% of the city of Niamey's biomass supply.

Defining an approach to emerging technologies

To support the emergence of new energy technologies, the Group has launched two studies on decentralized renewable energies in Africa and green hydrogen. This research helps us understand the potential of these innovations in our countries of operation, their limits, and even the danger they may pose when implemented without safeguards. The results of these studies will be published in 2022. They will allow the Group to define its approach so that it can propose potential areas of operation.

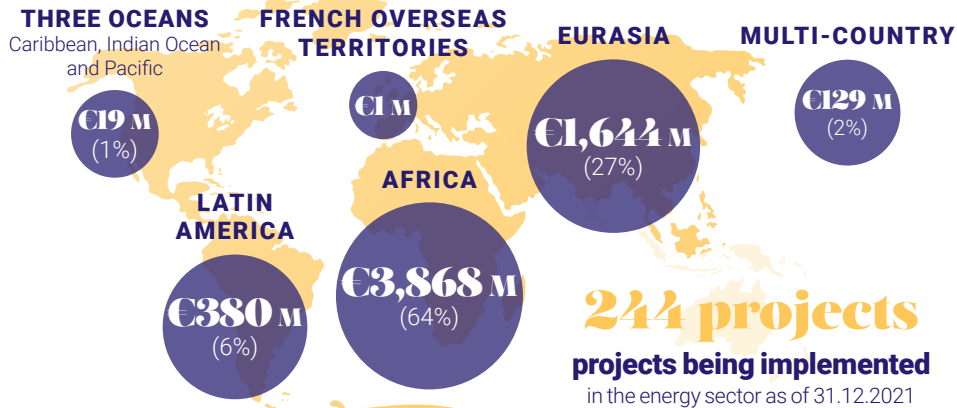
Innovation and knowledge production for the energy transition



To promote innovation, the Group is striving to identify advances likely to emerge, with potential for replication on a larger scale. This leads to innovative projects, such as [Wood Energy Sahel](#) (see opposite), or the publication of studies to support the emergence of new technologies.

Projects under implementation: Focus on AFD's support to the public sector

Breakdown by region



244 projects
projects being implemented
in the energy sector as of 31.12.2021

for a total financing amount of
€6.04 BN
including **€5 BN** undisbursed.

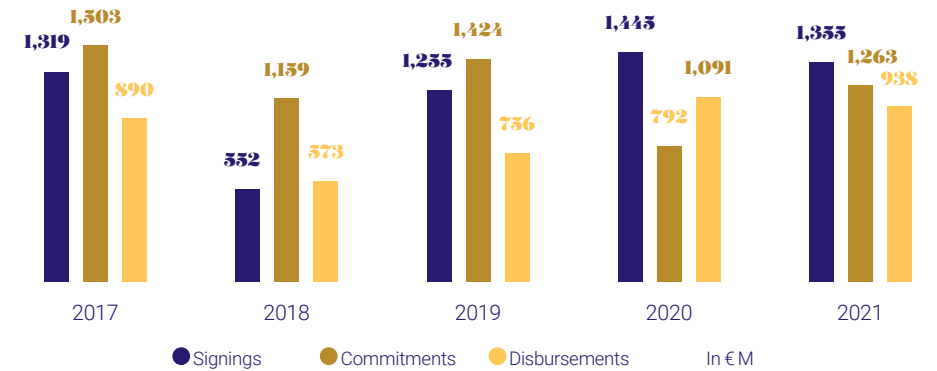
DEF • Promoting digital innovation in the energy sector

The Digital Energy Facility (DEF) finances digital innovation projects in the energy sector. This facility offers a comprehensive range of complementary instruments to support energy operators and start-ups in their digitalization processes. It proposes technical assistance and capacity-building support for public electricity companies, the creation of a community of actors, the organization of annual calls for projects, and seed financing for innovative solutions for access to energy. In 2021, the program, which is co-financed by the European Commission, organized a first call for projects, the Digital Energy Challenge. Out of the 200 projects submitted to the competition, 5 start-ups and 3 electricity operators were awarded a €1.3 million grant.

Niger • Supporting electrification for communities

In 2013, when Nigélec launched its project to reinforce and extend distribution grids, Niger's electrification rate only stood at 15%. Co-financed by AFD and the EU, this program provided 95,000 new connections for 1.3 million direct beneficiaries in 2021. In addition to this direct impact, this project is today a reference for Nigélec in its approach to financing grids with the other donors. AFD is preparing a second phase for this program to improve the current national electrification rate of 20%.

Signed financing agreements, commitments and disbursements*



€938 M
of signatures*

€1.36 M
of disbursements*

Benin • Increasing access to electricity

Through a €58 million program to increase access to electricity, the Société Béninoise de l'Énergie Électrique (SBEE – Beninese Electric Power Company) is improving the quality of the energy service for over 340,000 people in the country's coastal regions. This project is co-financed by the European Union (EU) and the European Investment Bank (EIB). It is contributing to the energy transition and thereby to the low-carbon development of the country. It is also helping to improve the quality of life for its population and develop economic activity.

Impact of projects completed in 2021*



2,417,145 additional people have access to sustainable electricity services
1,781,523 people benefit from improved access to electricity



1,883 MW of renewable energy capacity installed
2,012 GWh/year of energy saved

* These figures only concern the Energy Division.

World In Common

AFD Group implements France's policy in the areas of development and international solidarity. The Group includes Agence Française de Développement (AFD), which finances the public sector and NGOs, as well as research and education in sustainable development; its subsidiary Proparco, which is dedicated to private sector financing; and Expertise France, a technical cooperation agency. The Group finances, supports and accelerates transitions towards a fairer, more resilient world.

With our partners, we are building shared solutions with and for the people of the Global South. Our teams are at work on more than 4,000 projects in the field, in the French Overseas Departments and Territories, in 115 countries and in regions in crisis. We strive to protect global public goods – promoting a stable climate, biodiversity and peace, as well as gender equality, education and healthcare. In this way, we contribute to the commitment of France and the French people to achieve the Sustainable Development Goals (SDGs). Towards a world in common.

In 2021, the Group's financial commitments stood at €12.1 billion.



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