

Mali

Introduction

This note was developed by GONGLA with the support of the World Bank Group technical team and Lighting Global Program, the Energy Sector Management Assistance Program (ESMAP), the Shell Foundation, USAID, Power Africa, The Foreign, Commonwealth & Development Office (FCDO), Sustainable Energy for All (SEforAll), The Fédération Malienne de l'Electricité, Energies, Energies renouvelables et Nouvelles (FENEM) and Africa Entreprise Challenge Fund (AECF). It is part of a series of briefing notes that provide a high-level overview of the status of countries' off-grid solar markets, as well as relevant policies and programs¹.

Key statistics²

Demographics

Total Population	20,250,834
Population Density per km ²	17
GDP per Capita	USD 858,9
GDP Growth	-1.6%

Energy Access Deficit³

National Electrification Rate ⁴	48%
Urban Electrification Rate	91%
Rural Electrification Rate	15%
Number of people without access to electricity ⁵	10,217,999
% of quality-verified ⁶ (QV) vs non-QV products in the market ^{7&8} (H1, 2021)	QV: 85% Non-QV: 15%

Electrification Planning

Electrification Targets ⁹	Electrification rate of 87% by 2030
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¹The information and views expressed in this brief are GONGLA's alone and are based on our current understanding of the policy situation in this country. We welcome any updates, revisions or clarifications at info@gogla.org.

²The data here are for the year of 2020 - <https://data.worldbank.org/>

³The data here are for the year of 2019 - <https://trackingsdg7.esmap.org/>. According to the FENEM, the national electrification rate is at 52%, the urban electrification rate is at 94% and the rural electrification is at 25%.

⁴No recent data on the national electrification rate has been published by the government of Mali) The initial national electrification rate as projected by [The Energy Progress Report](#) in 2019 is 19%

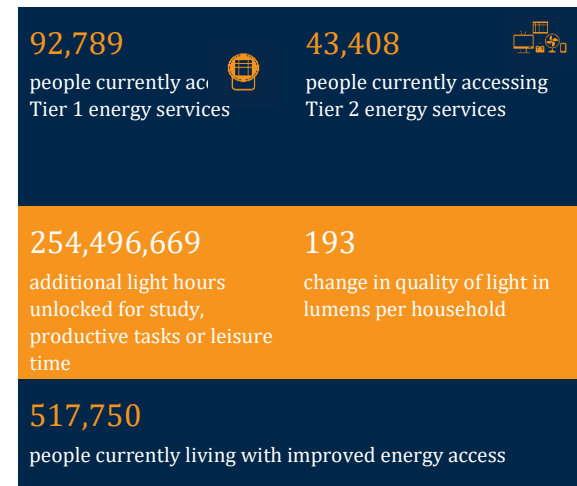
⁵<https://trackingsdg7.esmap.org/>

⁶Quality-verified products are tested according to the IEC TS 62257-9-8. For more information please see [the Verasol quality assurance programme](#).

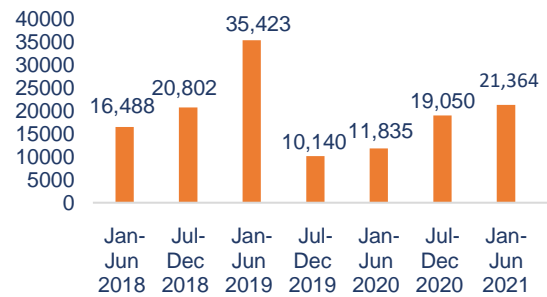
⁷Share of quality-verified (QV) and non-QV products sold by GONGLA and Lighting Global affiliates.

⁸Data on a specific region, country or product category is only included when it has satisfied the three-data point rule, meaning

Impact¹⁰



Sales¹¹



Sales of Portable Lanterns, Multi-light Systems and Solar Home Systems

that at least three separate product manufacturers have reported data for any single data point. When we have fewer than three responses for a region, country or product category, no results are shown to protect the proprietary interests of the companies who have supplied data in support of this industry report.

⁹Mali, Africa Hub, SEforALL

¹⁰Impact numbers have been estimated on the basis of the [Standardized Impact Metrics for the Off-Grid Solar Energy Sector](#). The reported estimates differ from the previous edition of the country briefings due a change in the calculation approach. Note that while the numbers shown represent the aggregate impact of key players in the off-grid solar sector, these estimates do not present the full global impact of off-grid solar lighting products sold.

¹¹All sales data included in this briefing is derived from the "Global Off-Grid Solar Market Report Database", result of a joint primary data collection effort carried out by GONGLA in partnership with IFC Lighting Global and the Efficiency for Access Coalition. The public version of the resulting report of the effort is available [here](#)

Current Status

Despite improvements in recent years, Mali faces a severe lack of energy access. Currently, while 91% of urban households have access to electricity, only 15% of rural communities have access.

The electrification strategy in rural areas is mainly based on a decentralized mini-grid approach financed by international donors who cover 80% of initial costs.¹² The institution responsible for coordinating this national rural strategy is the Agence Malienne pour le Développement de l'Énergie Domestique et l'Électrification Rurale (AMADER).

The total installed off-grid capacity is 10MW, which represents 10% of energy supplied from renewable energies. Local private suppliers set the tariffs for off-grid energy. These rates are based on the Fonds d'Électrification Rurale which includes business plans and surveys of potential customers.¹³

The COVID-19 crisis and the socio-political situation led to a recession in the Malian economy. Since 2020, the country has been experiencing increasingly violent community tensions in the north and center of the country and an unstable political situation punctuated by a first coup d'état (military putsch) on August 18, 2020, and a second on May 24, 2021. These crises have affected the Malian economy and slowed international trade.¹⁴

The off-grid solar sector remained resilient, despite the troubling political and security situation in Mali. According to GOGLA 2021 January-June semi-annual sales and impact data, Mali recorded an increase in off-grid solar product sales, with over 21,364 units sold by affiliates. This increase is primarily due to sales in the cash segment, while PAYGo sales registered decreases.

Policy, Regulation and Sector Planning

The energy sector in Mali is governed by the Politique Énergétique Nationale (PEN) Law¹⁵ adopted in 2006. Its objective is to promote sustainable development through the provision of energy services accessible to all and at a lower cost. The law aims to reduce Mali's dependence on fossil fuel imports and is committed to the development of off-grid electrification systems.

¹² https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Sep/IRENA_RRA_Mali_2019_Fr.pdf

¹³ https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/SREP-Mali_IP_Volume1_FR_15Sept_Pour%20Circulation.pdf

¹⁴ <https://www.banquemonde.org/fr/news/feature/2021/08/11/mali-understand-covid-19-s-impacts-for-better-actions>

Taxation

Since 2020, solar products and other renewable energy products have been exempt from taxes and import duty by the Law n2020-012¹⁶. However, operators report difficulties obtaining duty exemptions at border. In addition, 2.5% of administration fees remain applied on all imports. There is a full duty and Value Added Tax (VAT) exemption for off-grid solar products.

Sector Support Programs

Mali is part of the 19 countries under the Regional Off-Grid Electrification Project (ROGEP) project.¹⁷ ROGEP is a US\$333.7 million project supported by the World Bank. ROGEP aims to enhance electricity access in West Africa and the Sahel region through Stand Alone Solar systems. ROGEP is scheduled to end in 2030.

In 2021, The African Development Bank launched the Desert to Power West Africa Regional Energy Program (WAREP), which will end in 2024. The objective of the project is to accelerate projects for solar energy production, transport and decentralized energy solutions. Mali and 14 other countries will benefit from this project. The ECOWAS Regional Center for Renewable Energy and Energy Efficiency (ECREEE) and the West African Power Pool (WAPP) will implement the project. The first phase of the project will consist of funding pre-feasibility studies aimed at accelerating the regional development of grid and off-grid solar power generation across the region.¹⁸

The Africa Enterprise Challenge Fund (AECF), through the Renewable Energy and Climate Technologies Sub-Saharan Africa (REACT SSA) Program, is supporting private companies that are promoting the use of renewable energy in Mali and other African countries. Funded by the Swedish International Development Authority (SIDA), the REACT SSA initiative seeks to reduce poverty through a transformational increase in the use of renewable energy by off-grid households. In the REACT SSA Program, qualifying companies will receive between US\$100,000 and US\$1.5 million of grants, awarded

¹⁵ <http://www.creemali.ml/documents/Politique%20energetique%20nationale%20mali.pdf>

¹⁶ <http://www.droit-afrique.com/uploads/Mali-Ordonnance-2020-12-exoneration-tva-equipements-energies.pdf>

¹⁷ <https://projects.worldbank.org/en/projects-operations/project-detail/P160708>

¹⁸ <https://www.afdb.org/en/documents/multinational-desert-power-west-africa-regional-energy-program-warep-phase-1-project-appraisal-report>

upon the achievement of mutually agreed milestones¹⁹.

Promoting Quality & E-Waste Management

Despite the desire of the Malian government to expand its off-grid solar market, the current availability of products meeting Lighting Global Quality Standards is inadequate.

There is currently no particular legislation addressing e-waste in the off-grid sector.

Investments

In 2021, the Belgian Development Agency ENABEL, awarded companies VERGNET HYDRO and Sahélienne de l'Énergie, de l'Eau et du Batiment (SEEBA) a project to facilitate the installation and implementation of hydraulic equipment, supplied with solar energy to supply 10,000 inhabitants of the region of Koulikoro in drinking water²⁰. The total budget of this project is €1 million financed by the Kingdom of Belgium and coordinated by ENABEL. This project is part of the Projet d'Accès à l'Eau Potable et à l'Assainissement dans la région du Koulikoro (PEPAK) between 2018 and 2023 which aims to improve sustainable access to drinking water and sanitation for the populations of the city of Koulikoro and the rural and semi-urban centers of the region with a budget of €8 million.

In 2020, the Malian off-grid solar company, Energy + mobilized more than US\$1 million for the extension of its operations. The loan was contracted with Venture Builder, Cordaid Investment Management (Cordaid) and a grant financing from the United States African Development Foundation (USADF)²¹.

Industry Association

The Fédération Malienne de l'Électricité, Énergies, Énergies renouvelables et Nouvelles (FENEM)²² is a federation which brings together four large associations. FENEM aims to define, promote, publicize and implement development activities for all companies and members of the energy sector. FENEM also has the function of bringing together and representing all its members. Association des Opérateurs de l'Électrification Rurale (OSER) is one of the most active association present in FENEM that is the Federation.

The association has approximately 71 members, of which 60 are actively involved in the association. The association works to protect the interests of its members and to provide solutions to the main obstacles encountered such as access to finance and the low capacity of consumers to pay. The OSER works in close collaboration with AMADER, which acts as an interface with the government and the National Directorate of Energy (DNE) in particular.

Opportunities and Barriers

The government's desire to gradually break away from dependence on non-renewable energies over the long term opens up interesting prospects for the renewable energies market. Despite a high potential in solar and hydraulic energy, the country remains predominantly dependent on non-renewable energies.²³

While the rate of access to electricity is improving it remains far below the necessary levels to reach the targets set by the government for 2030.

According to Global System for Mobile Communications (GSMA), the telecommunications market has seen a strong expansion in the country, as well as mobile money. These services could play an important role in terms of accessibility by improving the recovery rate. However, these services are still expanding and concentrated in urban areas.²⁴

In addition, the two coup d'état have affected donor engagement with government authorities, and somewhat tempered the investment appetite.

Further Information

- [Plan d'investissement SREP-Mali pour la Valorisation à Grande Échelle des Énergies Renouvelables](#)
- [Électrification Rurale au Mali - Technologie et Financement](#)
- [Énergies Renouvelables en Afrique - Profil Pays du Mali](#)
- [Énergies Renouvelables Mali - Réalisations, défis et Opportunités](#)
- [Prospectus d'investissement de l'Énergie Durable pour tous SEforALL du Mali](#)
- [Program d'Action National d'Énergie Durable pour Tous du Mali](#)
- [Plan d'Action National d'Efficacité Énergétique du Mali \(PANEE\)](#)
- [Plan d'Action National d'Énergies Renouvelables du Mali \(PANER\)](#)

¹⁹https://www.aecfafrica.org/fr/news/sida_signs_five_year_agreement_with_the_aecf

²⁰<https://www.vergnet-hydro.com/vh/mali-installations-solaires-eau-potable-10000-habitants-koulikoro/>

²¹<https://eplusmali.com/documentation/energy-secures-funding/>

²²<https://fenem.net/presentation/>

²³https://www.se4all-africa.org/fileadmin/uploads/se4all/Documents/Country_AAs/PI_SEforALL_MALI.pdf

²⁴<https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/04/Mobile-for-Development-Utilities-le-potentiel-du-mobile-pour-l'accès-à-l'énergie-rurale-au-Mali.pdf>

- Évaluation de l'État de Préparation aux énergies renouvelables Mali