



GREEN ENERGY TRANSITION IN AFRICA IVOIRY COAST

- Background & Justification
- National projects and programs
- Public-Private Partnership power plant projects



Background and justification

"Make Côte d'Ivoire the leading energy market in West Africa by 2030"

Côte d'Ivoire is committed to working towards a low-carbon future by increasing the share of renewable energies (RE) to 42% of the electricity mix by 2030. In 2018, the country's electricity mix was 21% RE compared to 79% thermal. In 2015, the share of RE was 15.7% against 84.3% thermal.

The government is counting on its renewable energy potential to increase the share of RE in the Ivorian electricity mix, by promoting the participation of the private sector, taking advantage of the lower cost of renewable energy technologies.



Background and justification

Energy situation in Côte d'Ivoire

- National consumption: 8,718 GWh (2017).
- Export: 1,225 GWh (2017).
- Kilowatt-hour consumption per capita: 276 (2016).
- Coverage rate: 54%.
- Coverage rate: 38%.

Côte d'Ivoire's energy production is, as it's the case in the other African sub-Saharan countries, heavily dominated by biomass. In 2017, with a production of 6,673 ktoe, biomass energy represented 64% of Côte d'Ivoire's energy production.

With a 60% share of consumption, non-industrial (household) biomass is the main energy source consumed by 60% of households in Côte d'Ivoire. It is followed by petroleum products (31%), electricity (8%) and gas (1%).



Background and justification

Energy situation in Côte d'Ivoire

In addition to biomass, national energy production is provided by crude oil, natural gas and hydroelectricity, with 1,648 ktoe (16%), 1,882 ktoe (18%) and 176 ktoe (2%) respectively.

Renewable energies such as solar and industrial biomass production for electricity as well as wind energy are not yet included in the energy balance. In 2018, solar energy and biomass for electricity are produced at a very low level, while wind energy production is non-existent.

However, Côte d'Ivoire's RE potential is rather high. Among these energy sources, hydroelectricity represented a significant share of installed capacity in 2018 and new hydroelectric projects are in process of development.



PUBLIC-PRIVATE PARTNERSHIP POWER PLANT PROJECTS

- Project for the electrification of rural communities with self-managed solar photovoltaic energy generation micro-grids in the Zanzan district. Co-financed by the European Union, the Global Environment Facility, UNIDO and the State of Côte d'Ivoire, in operation since June 2016.
- Demonstration project for solar lightening, financed by a grant from the Popular Republic of China.
- Project for electrification by solar kits of the locality of Afouvasso, in the sub-prefecture of Prikro. Financed by "Conseil de l'Entente" (ECOWAS).
- Regional Program for the Development of Renewable Energy and Energy Efficiency (PRODERE).
WAEMU program for development of renewable energies in its eight (08) member states, financed through grants.
- Pre-electrification project using solar photovoltaic kits in the locality of Gloleu, sub-prefecture of Zouan-Hounien, financed by "Conseil de l'Entente" (ECOWAS) and operating since August 2019.



PUBLIC-PRIVATE PARTNERSHIP POWER PLANT PROJECTS

1. Photovoltaic Solar Power Plants

- 25 MWp solar PV plant in Binguebougou (KORHOGO SOLAR). Initiated by the Ministry of Energy.
- 25 MWp SOLAR PV PLANT IN Ferkessedougou also initiated by the Ministry of Energy.
- 66 MWp SOLAR PV PLANT IN Korhogo (PORO POWER 1)
- i.4. KFW project for the construction of a 37.5 MWp solar power plant in Boundiali with financing from KFW under IDA conditions and co-financing from the European Union in the form of a grant.
- i.5. Scaling solar, IFC program implemented in Côte d'Ivoire consisting of the deployment of 2 solar power plants with a total capacity of 60 MWp at competitive rates.



PUBLIC-PRIVATE PARTNERSHIP POWER PLANT PROJECTS

2. Biomass Power stations

- BIOVEA project (2x23MW palm biomass plant) initiated by the SIFCA Group, with EDF partnership.
- 20 MW CACAO BIOMASS POWER PLANT in Gagnoa (in progress).
- 25MW COTTON BIOMASS PLANT IN Boundiali (in progress)



SWOT ANALYSIS OF THE ENERGY SECTOR

1. STRENGTHS

- Constant market growth
- Development of local resources
- Human resources
- Stable regulatory framework

2. WEAKNESSES

- Low coverage rate
- Share of renewable energy in the energy mix
- Obsolescence of some equipment

3. OPPORTUNITIES

- Growth in regional flows.
- Meshing of the HTA/HTA network.
- Abundant resources for renewable energies
- Growth in GDP

4. THREATS

- Control of the financial balance
- Evolution of the price of gas (on the next deposits)
- Currency risk on fuel purchases



MAJOR ACTORS

PUBLIC ACTORS

- Ministry of Petroleum, Energy and Renewable Energy
- Ministry of Economy and Finance
- ANARE-CI (The Regulator)
- CI-Énergies (State-owned company, project manager).

PRIVATE SECTOR ACTORS

- BOUYGUES ENERGIES AND SERVICES
- ENGIE
- EDF
- GROUPE SIFCA (Biokala)
- NOA TRADING
- SMART ENERGY (Groupe Eranove)
- BIOVEA





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