

# EXPANDING RENEWABLE ELECTRICITY INVESTMENTS IN PNG



A PRODUCT OF

**IFC**

**International  
Finance Corporation**  
WORLD BANK GROUP



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**December 10, 2023**

## PNG'S 2030 NDC ENHANCED TARGETS

### PNG has an ambitious plan to respond to Climate Change by 2030...

- **Energy:** **78%** of electricity supply from renewable energy sources by 2030
- **Health:** Ensure **100%** of the population benefits from improved health measures to respond to malaria and climate-sensitive diseases
- **Transport:** Ensure **US\$1.2b** value for transport (air, sea, land) infrastructure and assets built/rehabilitated according to climate-resilient codes and standards

# IFC: A MEMBER OF THE WORLD BANK GROUP



## IBRD

International Bank for Reconstruction and Development

Loans to middle-income and creditworthy low-income country governments



## IDA

International Development Association

Interest-free loans and grants to governments of the poorest countries



**IFC**  
International Finance Corporation

SOLUTIONS IN PRIVATE SECTOR DEVELOPMENT



## MIGA

Multilateral Investment Guarantee Agency

Guarantees of foreign investment's commercial risks



## ICSID

International Centre for Settlement of Investment Disputes

Conciliation and arbitration of investment disputes



# IFC: WHAT WE DO

Integrated solutions, with wide variety of financial products to support private sector projects in developing countries.

## INVESTMENT

Financial products tailored to client needs

- Loans
- Equity
- Trade and Commodity Finance
- Derivatives and Structured Finance
- Blended Finance

**\$31.7 billion committed in FY23**  
**\$69.5 billion committed portfolio**

## UPSTREAM

Create proprietary projects and investment opportunities by developing a sustainable pipeline of bankable transactions

- Early-stage, project level intervention in return for proprietary rights for equity and debt arranger role.
- Promoting and anchoring the design and implementation of platforms and programmatic approaches.
- Working closely across the World Bank Group to help develop policies, regulations and frameworks for private sector investments.

## ADVICE

Innovative solutions combining IFC's expertise and tools

- Help Create New Markets
- Unlock Investment Opportunities
- Strengthen Clients' Performance and Impact
- Improve Environmental, Social, and Corporate Governance Standards
- Support shaping corporate sustainability strategies

## MOBILIZATION

Mobilizing and managing capital for investment

- Syndications
- IFC Asset Management Company

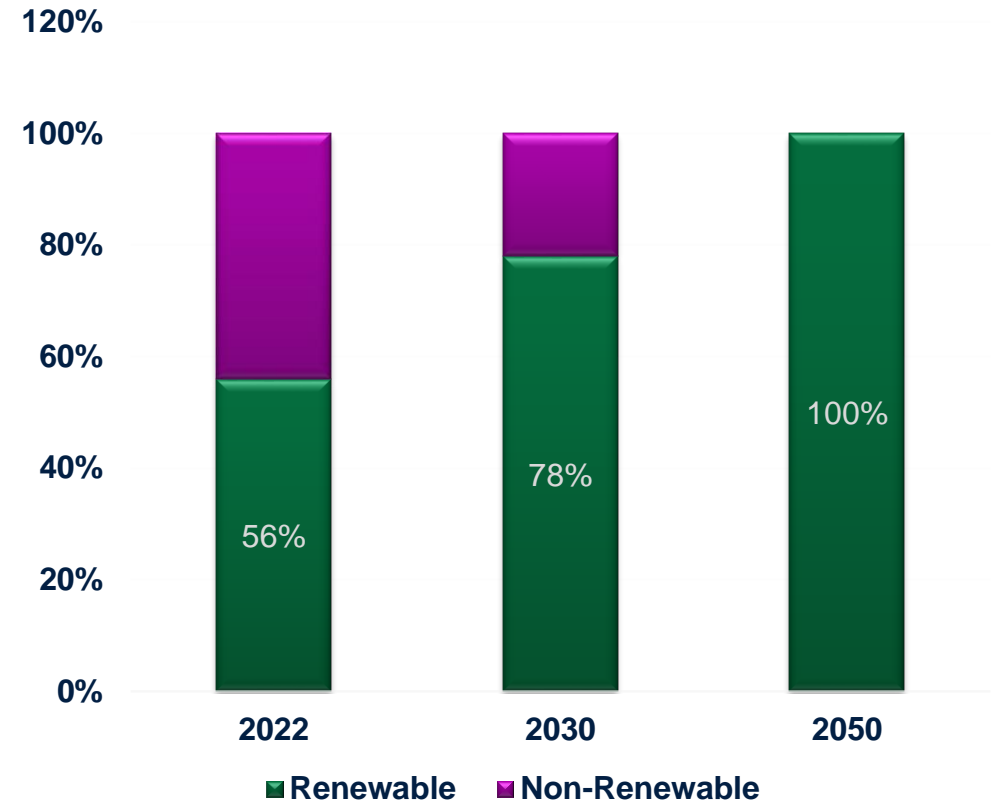
**\$15.0 billion mobilized from other investors**

*Note: \$31.7 billion includes both IFC's own account and mobilization, excluding MIGA.*

# PNG TARGETS EXPANDING ACCESS TO GREEN ELECTRICITY

*PNG's goal is to achieve 78% RE by 2030 and 100% RE by 2050. This requires multiple modes of renewable energy (RE) generation*

- Less than 20% of the population has access to on-grid electricity. The target is to reach **70% electrification** by 2030.
- Strengthening PPL through modernization of existing T&D networks, and expansion of on-grid networks for households and businesses connections
- Strengthening PPL as a solid “offtaker” to further attract private sector investments in IPPs



Source: WBG and PNG NDC's Enhanced Goals



# PRIVATE INVESTMENTS WILL BE NEEDED TO ACHIEVE A JUST ENERGY TRANSITION

**Investment required is large**

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**Government and Utility budgets are stretched**

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**Private capital and know-how is available**

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**Donor support for energy transition is available for private sector solutions: *From strategies to projects***

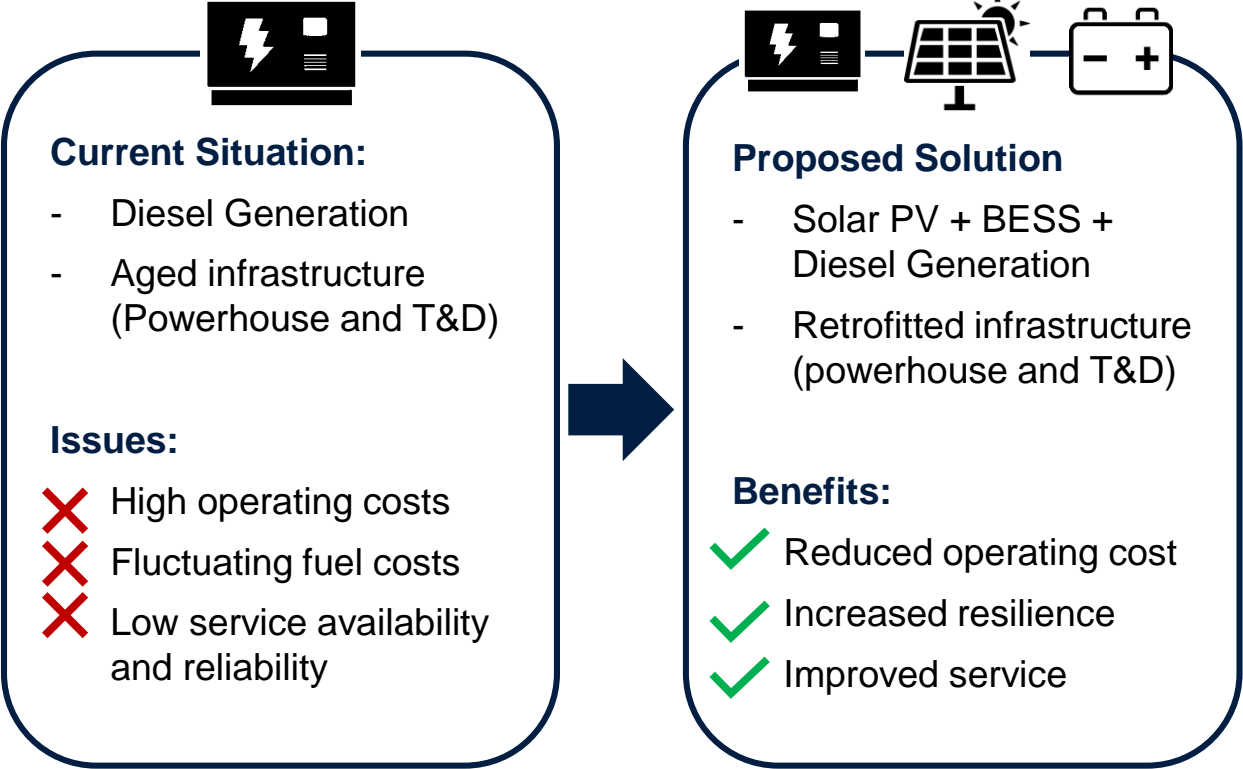
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# PPP ADVISORY SERVICES SUPPORTING ELECTRIFICATION AND RENEWABLE ENERGY IN PROVINCIAL GRIDS

Upgrade existing infrastructure, Introduce new solar generation

A concessional model proposed



Five Mini-Grid Project Sites



# PNG CAN EXPAND ACCESS TO ELECTRICITY WHEN MINES USE CLEAN ENERGY

Only a small number of PNG mines currently use green technology













Greening mines could improve access to electricity in PNG





# IFC CAN HELP WITH CLEAN POWER-TO-MINE

- IFC can help **mining clients in their energy transition to optimize their energy mix and integrate renewable solutions** (solar PV, wind, hydro, hydrogen, battery storage, etc. ) including:
  - Technical design of systems (determining optimal size and integration parameters)
  - Procurement of EPC contacts based on extensive global experience
- IFC can also help **finance either on an EPC or an IPP basis**, the deployment of renewables + storage solutions, mobilizing other DFIs, MIGA and **potentially concessional financing**.

|  |   |   |   |   |   |
|--|---|---|---|---|---|
| <p><b>Chile</b></p>  <p><b>Engie Chile</b><br/>Sustainability Linked Loan<br/>\$400M Loan<br/>Lender / Arranger<br/>FY 2023</p> | <p><b>Uzbekistan</b></p>  <p><b>Syrdarya CCGT</b><br/>1,580 MW CCGT<br/>\$300M Loan<br/>Lender<br/>FY 2023</p>                             | <p><b>Egypt</b></p>  <p><b>Amunet Wind / Abydos Solar</b><br/>505 MW Wind<br/>590 MW Solar<br/>\$143M Loan<br/>Lender<br/>FY 2023</p>  | <p><b>Brazil</b></p>  <p><b>Electro</b><br/>Distribution Green / Sust-linked Loan<br/>\$115M Loan<br/>Lender<br/>FY 2023</p>   | <p><b>DRC</b></p>  <p><b>Nuru</b><br/>Distributed Solar PV<br/>\$115M Loan<br/>Lender<br/>FY 2023</p>  | <p><b>Türkiye</b></p>  <p><b>Zorlu Disco II</b><br/>Electricity Distribution<br/>\$75M Loan<br/>Lender<br/>FY 2022</p>   |
| <p><b>Uzbekistan</b></p>  <p><b>Zarafshon</b><br/>500 MW Wind<br/>\$42M Loan<br/>\$52M Syndication<br/>Lender<br/>FY 2022</p> | <p><b>Mozambique</b></p>  <p><b>Temane</b><br/>450 MW CCT<br/>\$100M Loan<br/>\$570M Syndication<br/>Lender and Arranger<br/>FY 2022</p> | <p><b>Nigeria</b></p>  <p><b>Daystar Power</b><br/>Distributed Solar PV &amp; Battery Storage<br/>Up to \$10M LCY Loan<br/>Up to \$10M Blended Finance<br/>Lender and Arranger<br/>FY 2021</p> | <p><b>West Bank</b></p>  <p><b>Massader Solar</b><br/>Distributed Solar PV<br/>\$9M Loan<br/>\$2M Blended Finance<br/>\$9M Syndication<br/>Investor and Arranger<br/>FY 2020</p> | <p><b>Uzbekistan</b></p>  <p><b>Navoi Scaling Solar</b><br/>100 MW Solar PV<br/>Up to \$20M Loan<br/>Up to \$20M Blended Finance<br/>Up to \$20M Syndication<br/>Lender and Arranger<br/>FY 2021</p> | <p><b>Cameroon</b></p>  <p><b>Nachtigal</b><br/>420 MW Hydro<br/>€60M Equity<br/>€110M Loan<br/>€800M Syndication<br/>Lender, Investor, Arranger<br/>FY 2019</p> |

# PARTNERS IN THE MINING SECTOR

## OVERVIEW

### Promoting FDI and Innovation

- Building long-term partnerships with key strategic players.
- Supporting mobilization of capital for multi-use infrastructure projects underpinned by large-scale mining projects.
- Innovation in areas such as renewable power-to-mine solutions, water-to-mine solutions, wastewater use, supply chain development for SMEs, etc.
- Offering Sustainability-linked financings to selected partners, including support and advisory services to maximize development impact.

### Development in Frontier Markets

- Focusing on IDA and frontier regions with underexplored reserves.
- Shared value and sustainability, seeking to deliver tangible benefits to local communities and mitigate environmental and social risks.

### Climate-Smart Mining

- This WBG initiative aims to promote exchange on investment and sustainability issues for developing critical mineral mining in emerging markets, by working with public institutions and leading private sector companies. A Net-Zero Roadmap for Copper and Nickel value chains is a recent example of CSM work.

## SELECTED PARTNERS



**IFC works with mining companies to sustainably develop operations in line with international best practices, catalyzing multi-user infrastructure and producing minerals supportive of a low-carbon future.**

## SANGAREDI - GAC, GUINEA

- The Sangaredi bauxite mine and infrastructure development is **Guinea's largest foreign investment to date**, with a total debt package of **US\$761 million**, including **US\$150 million** from IFC's own account. IFC committed the debt package in FY19.
- Applied a blend of IFC B-Loans and MIGA-covered parallel loans to maximize mobilization from the commercial bank market, crowding in the **largest foreign direct investment** in Guinea's history.



## PROJECT HIGHLIGHTS

- The project incorporated an **innovative shared-use rail infrastructure agreement** between the government and private sector players, helping to unlock other bauxite projects in the region constrained by a lack of transport.
- Shared-use infrastructure promotes greater integration between the country's mining sector and global markets, supporting Guinea in its establishment as a **world-class producer of bauxite**.
- IFC's leadership around sustainability led to collaboration on a joint "aggregate offset" to **protect endangered chimpanzees** in West Africa.





## LOCAL BENEFIT SHARING & MINING, GUINEA

Guinea holds nearly 1/3 of the world's bauxite reserves and one of the largest untapped high-grade iron ore deposits. Guinea Alumina Corporation (GAC) operates a bauxite mine, a multi-user rail infrastructure along the Sangarédi-Kamsar transport corridor, and an export port terminal at Kamsar.

IFC's support to GAC includes **stakeholder engagement, community investment, and local content development to:**

- Manage operational and social risks and improve relations with communities.
- Increase **benefit sharing** and local economic development opportunities for host communities and private sectors.
- Contribute and promote **inclusive and responsible mining**, sector coordination, and sustainable economic development.



## PROJECT HIGHLIGHTS:

### Upskilling & Developing Systems:

- Improved stakeholder engagement plan & community investment strategies
- Integrated stakeholder engagement & community investment monitoring and reporting
- Developed a range of strategic plans, including:
  - GAC staff competency development
  - Community rail and road safety for GAC operations in the Boke region
  - Gender development baseline and action plan
  - Local content development system and plan (policy, procedures, tools

### Local Economic Development Support for GAC communities:

- Operationalized 6 community dialogue platforms operational
- 10 projects (500+ beneficiaries incl. 300+ women with \$16k+ revenues)
- Support to women sewing, PPP and mask production cooperatives during Covid-19 (25k masks, 25k soaps, 3 PPE orders generating \$12k revenues)
- Created and supported 180+ Income generating activities
- 8 Saving groups operational with \$18k+ mobilized by Saving Groups members
- Developed 10+ market & feasibility studies
- Facilitated strategic partnerships and mobilized \$1M+ additional funding

### Strategic Local content support & SME capacity building:

- 2000+ SMEs trained by Business Edge and LPI certified training Platform
- Established and operationalized the Buyers and Suppliers Marketplace for local content promotion, resulting in: 1,860+ registered members; 3K+ trained enterprises (incl. 500 from women-owned enterprise); \$29+ million in contracts for local suppliers; \$10+ million in loans facilitated.



# SAMPLE IFC INVESTMENTS IN MINING as Lender, Arranger, and Investor



## ANGLO AMERICAN SLL (SOUTH AFRICA)

- In June 2022, IFC signed a **10-year US\$100 million sustainability-linked loan** with Anglo American.
- The corporate loan is the **first sustainability-linked loan in the mining sector** to be focused exclusively on social indicators.
- As an innovative feature of the loan, Anglo committed to **contribute additional funds to social causes** if it fails to meet the agreed targets.



## PROJECT HIGHLIGHTS

IFC played key roles in the transaction:

- **Transaction Support:** (i) helped select the SPTs(1) and validate their ambitiousness; and (ii) assisted Anglo in putting together a Sustainability-Linked Financing Framework.
- **Implementation Support:** As part of this engagement, IFC also agreed to deliver an advisory program focused on community development and gender related to Anglo's Quellaveco copper project in Peru.

**Targets:** The project aims to (i) create or support **three offsite jobs** for every onsite job at Anglo American's operations; and (ii) improve the quality of education for more than **73,000 students**.



# Thank you!



## CONTACTS:

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