Alternative Financing Building Blocks for Electric Utilities

BRIDGING THE PRIVATE SECTOR GAP AND UNLOCKING CAPITAL IN DEVELOPING COUNTRIES

USAID Strengthening Utilities and Promoting Energy Reform (SUPER) Program
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USAID Strengthening Utilities and Promoting Energy Reform (SUPER)
Utility Finance Building Blocks Project

• The Strengthening Utilities and Promoting Energy Reform (SUPER) Task Order is a U.S. based program funded by the United States Agency for International Development (USAID) and implemented by Deloitte Consulting LLP, which aims to promote utility commercialization and equitable, effective reforms that will enhance the financial viability and long-term sustainability of developing countries’ electricity systems.

• The Building Blocks are part of a larger SUPER Utility Finance project designed to strengthen electric utilities’ financial standing in USAID’s partner countries and to help them be better positioned to access sources of alternative finance.
HOW TO ENGAGE WITH THIS BRIEF
The alternative finance building blocks for utilities issue brief is part of a packages of resources designed to help electric utilities in emerging markets and developing economies access new sources of finance for critical investment needs. This brief can be adapted to various utility conditions:

- They can be applied to all electric utilities, regardless of overall maturity, current performance, legal status, and extent of disfunction of the political economy
- Even the most challenging political economy environment provides some space for change

Although the resources in this brief are valuable for all utilities, those operating in countries with stable political economies and stronger enabling environments may have a comparative advantage in accessing alternative financing more easily and successfully.

HOW TO ENGAGE WITH THIS BRIEF
For the purposes of this issue brief the following definitions are used:

- **Sustainability**: refers to consideration of economic, environmental, and social factors in the planning, development, and operation of energy sector investments. This involves ensuring the long-term resilience of the energy sector by minimizing environmental impact, optimizing resource use, fostering community engagement, and strengthening economic growth.

- **Sustainable finance**: refers to financial products or services which take environmental or social sustainability considerations into account when making investment decisions, or which lead to increased financial flows into more sustainable economic activities and projects.

- **Climate finance** is a subset of sustainable finance which is specifically used for climate adaptation or climate mitigation outcomes such as reducing greenhouse gas emissions by shifting to clean energy sources like solar or undergrounding power lines to reduce the impacts to the grid from extreme weather.
WHO SHOULD USE THIS BRIEF

This brief is designed for both electric utility staff and USAID staff that are interested in increasing access to new sources of finance for electric utilities in emerging markets and developing economies (EMDE).

**EMDE Electric Utility Staff**

- Electric utility staff should use this brief to:
  - Improve understanding of new (alternative) sources of finance and how to access them
  - Understand what investors look for prior to investment and strengthen those areas to better position utilities to access alternative finance – namely from capital markets and sustainable finance
  - These building blocks can be used with the [USAID Questions Guide for Alternative Finance](LINK to guide once published) to help identify key entry points to support utilities
The electric utilities are modernizing their investment approaches to launch critical infrastructure investments and the global financial landscape is shifting to prioritize sustainability. There’s a consequent need for USAID practitioners and electric utilities to better understand utility investment opportunities, so they can help utilities shift their investment approaches to prioritize sustainability and attract alternative finance.

Alternative finance (sustainable finance, climate finance, and capital markets) could help utilities fill the gaps left by traditional finance, unlocking the funding necessary for to meet energy transition needs and sustainability targets. Yet, utilities face several barriers to accessing alternative finance. Utilities will need to achieve a baseline level of maturity to attract alternative investment. The Alternative Financing for Utilities Building Blocks are designed to help utilities in USAID partner countries and USAID staff improve their financial management, reporting and governance, and market engagement so that accessing alternative finance can become possible.
## DEFINING TRADITIONAL FINANCE

**Traditional Finance** is how utilities have traditionally received funding to support their operations and maintenance (O&M) including their day-to-day operations as well as capital expenditures (Capex).

### Traditional Utility Finance Approaches

- Traditional approaches for electric utility finance in developing countries have often been characterized by a **reliance on public funding and government subsidies**

- The **government assumes a central role in financing and managing electric utility projects**, often leading to inefficiencies, lack of transparency, and financial strain on national budgets

- **State-owned utilities dominate the sector**, with limited participation from the private sector, which can impede competition, innovation, and overall sector development

### Types of Traditional Finance

- **Customer Tariffs** are a method of charging a customer for their electricity consumption. They are submitted to a regulatory entity for approval.

- **Government Allocations** are public sector funds that support the electric utility's operations.

- **Concessional Capital** refers to a range of below market-rate financial products provided by multilateral development banks and multilateral funds to accelerate development objectives.

- **Grants** financial assistance provided by a donor organization typically without the expectation of repayment, to support specific projects, programs, or initiatives.

- **Export Credit Agency** financial institution or government agency that provides financing, insurance, and guarantees to domestic companies exporting goods and services.

### How do utilities use Traditional Finance?

Electric utilities have typically relied on traditional finance to fund their **Opex** (operating expenses) and their **Capex** (capital expenditure).

For utilities, **Opex** refers to those costs required to **keep the utility operational** – those day-to-day expenses that are necessary to run and maintain the utility. Examples include salaries, office expenses, insurance, testing and analysis, and system repair and maintenance.

**Capex**, on the other hand, refers to major physical purchases **and large fixed assets which the utility will use long term**. Examples of Capex include power plants, equipment and machinery, computers, and vehicles.

*Sources: World Bank*
SHIFT IN GLOBAL FINANCE LANDSCAPE

The global finance landscape for electric utilities is undergoing a transformative shift, with a pronounced emphasis on integrating sustainability considerations. This is driven by the recognition that aligning financial strategies with environmental and social goals not only mitigates risks associated with climate change but also enhances long-term resilience in the face of changing market dynamics.

Changing financial market dynamics are driven by:

1. **GLOBAL PROGRESS** to achieve the Paris Agreement targets and regulations affecting the utilities sector emission reduction targets, incentives to increase renewable energy generation, demand side energy savings and carbon pricing have shifted financial flows towards sustainable activities.

2. **FINANCIERS AND INVESTORS** are moving to decarbonize their portfolios and have demonstrated a sharp rise in sustainable-based investing – e.g., climate finance, green bonds, and impact investors.

As a result, the market is:

- **Increasing flow of capital** and prioritizing environmentally and socially responsible investments is a priority for the most climate vulnerable countries. For example, the Green Climate Fund made a commitment to invest $501 million in resources for new climate projects in SIDS, LDCs, and African States. These adaptation funds will support energy resilience and accelerate RE uptake through fuel switching, reducing deforestation, and advancing electrification. This influx of funds accelerates flow of capital to developing countries for renewable energy, grid modernization, and energy efficiency initiatives, bolstering the transition to cleaner and more resilient energy systems.

- **Enhancing assessment and management of environmental and social risks**, enhancing their overall financial stability and long-term viability. By aligning financial decisions with sustainable goals, utilities can reduce exposure to regulatory uncertainties, reputational risks, and potential disruptions, thereby fostering a more secure operating environment.

- **Adopting innovative technologies and operational practices** leading to improved operational efficiencies, cost savings, and improved service delivery, thereby positioning utilities at a competitive advantage in a rapidly evolving energy landscape. Such innovation-driven sustainability not only benefits the utilities themselves but also contributes to the broader global transition to a low-carbon economy.
WHY ALTERNATIVE FINANCE

As electric utilities across the world work to modernize their operations, integrate and expand renewable energy generation, and launch critical new investments in infrastructure, their financial needs have grown significantly. Developing country power sectors need more than $1 trillion in additional annual capital spending to reach net-zero emissions by 2050.

### Definition

**Alternative Finance** refers to sources of finance such as commercial finance, bond issuance, and capital markets, which utilities can use to complement traditional sources (customer tariffs, government allocations, concessional capital).

### How Utilities Can Leverage Alternative Finance

- **Capacity building** that supports transformational planning, budgeting, and programming at the systems level that advances the delivery of cleaner energy sources and net-zero planning and implementation
- **Innovative business models and technologies** delivering high impact solutions that improve capacity and efficiency
- **Mobilize funds at scale** to de-risk and unlock additional local and international capital
- **Replication of best practices** and facilitation of learning across grid capacity, storage and flexibility for higher penetration of renewables on the grid, increasing national and sub-national energy service

### Barriers

There are a number of barriers that are discussed in further detail in this material (next slide) why there has historically been limited access to capital markets and alternative finance for electric utilities in EMDEs. Most notably:

- Political and regulatory risk/Macroeconomic conditions and in country financial market maturity
- Weak utility governance, including lack of transparency and technical gaps

Source: IEA Net Zero by 2050
The primary types of alternative finance available to electric utilities are through accessing the capital markets, as well as forms of sustainable finance such as climate finance or green bonds.

1. **Capital Markets**
   - Platforms and mechanisms through which electric utilities raise funds by issuing various financial instruments to investors
   - Facilitate the exchange of capital between investors seeking financial returns and utilities requiring funds

2. **Sustainable Finance**
   - Financial products or services which take environmental or social sustainability considerations into account when making investment decisions, or which lead to increased financial flows into more sustainable economic activities and projects

3. **Climate Finance**
   - Financial flows exclusively relating to climate specific financing, and historically often attached to development outcomes
   - Outcomes can be attributed to mitigation (reducing greenhouse gases) reducing greenhouse gas or adaptation (improving resiliency efforts)

**Common Instruments Deployed**

- **Stocks**: Ownership shares in a company where investors have the potential to receive dividends as the company's value increases
- **Traditional/Corporate Bonds**: Debt securities issued by governments, municipalities, or corporations to raise funds
- **Municipal Bonds**: Issued by local governments to fund public projects such as infrastructure development. Interest earned from municipal bonds is often tax-exempt

- **Green, Social, Sustainable (GSS) Bonds**: Separately labeled bonds whose proceeds are ring-fenced and planned use of proceeds are reported to prospective investors for ESG projects
- **Green Loans**: Are loans specifically for environmental projects and provide a discounted interest rate or attractive tenure
- **Sustainability-Linked Instruments**: Financial instruments that link financing to a set of predetermined sustainability performance targets

- **Guarantees**: Commitments whereby a guarantor promises to fulfill the obligations undertaken by a borrower to a lender
- **Concessional loans**: Concessional rates for climate activities
- **Grants and Donations**: Do not need to be repaid
- **Debt swaps**: Sale of foreign currency debt by creditor country to an investor, allowing the debt to be swapped for climate projects
The focus of these building blocks is on specific financial areas of improvement, but it is important to note the tenets of a strong enabling environment up front. Progress in these focus areas typically occurs over a longer timeframe to phase transition involving multiple stakeholders and slow legal/regulatory processes. Below are seven well-known areas to consider prior to diving into the proposed building blocks for acquiring alternative finance. Improvements in these categories gives utilities a comparative advantage in accessing alternative financing more easily and successfully.

### Internal Factors

<table>
<thead>
<tr>
<th>1.</th>
<th>Financial Performance</th>
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<tbody>
<tr>
<td>• Strong financial performance indicates financial management structures and processes to maintain budgets, set and collect cost-reflective tariffs for operations, and manage cash flow for long-term capital investments</td>
<td></td>
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<table>
<thead>
<tr>
<th>2.</th>
<th>Technical and Commercial Operations</th>
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<tbody>
<tr>
<td>• Asset management processes, approaches to reduce non-revenue losses, and maintenance costs that work to prevent system losses</td>
<td></td>
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<tr>
<td>• Procedures to quantify and collect revenues, including meter reading and tariff collection</td>
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<thead>
<tr>
<th>3.</th>
<th>Sector Planning</th>
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<tbody>
<tr>
<td>• Planning plays a crucial role in creating a comprehensive and well-defined strategic investment roadmap</td>
<td></td>
</tr>
<tr>
<td>• Identifying future demand, growth areas, and technology integration, enables utilities to articulate a clear vision and attracting capital for long-term projects</td>
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### External Factors

<table>
<thead>
<tr>
<th>1.</th>
<th>Macroeconomic Conditions</th>
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<tbody>
<tr>
<td>• Broad economic factors that can shape the utility’s operations, finances, and overall viability including interest rate, currency fluctuations, inflation, and energy market prices</td>
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<thead>
<tr>
<th>2.</th>
<th>Financial Market Maturity</th>
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<tbody>
<tr>
<td>• Reflects the experience and capabilities of domestic banks to design successful tenders and bankable contracts</td>
<td></td>
</tr>
<tr>
<td>• Capital markets in developing countries can be poorly developed, creating the perception that the financial landscape is not favorable for investment</td>
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<tr>
<th>3.</th>
<th>Legal Framework and Governance</th>
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<tr>
<td>• Maturity of the investment landscape for emerging market power sectors is tied to the strength and predictability of policy and regulatory frameworks, laws governing deal structuring, and the market structures</td>
<td></td>
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<th>4.</th>
<th>Utility Governance</th>
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<tbody>
<tr>
<td>• Policy framework with formalized rules and governance structures is an essential component to optimizing utility profitability</td>
<td></td>
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<tr>
<td>• Ensures transparent and accountable practices and establishes confidence among potential investors</td>
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**ELECTRIC UTILITY MATURITY MATRIX***

Electric utilities’ readiness to attract alternative investment assumes a minimum level of maturity across four business areas. These factors inform overall utility performance which is critical for increasing investment by the private sector and other interested third parties. Maturity levels vary greatly among utilities (public and private) and are largely dependent on the broader enabling environment. Some countries like Senegal, Cote d’Ivoire have found that private utilities are better equipped to deliver reliable service resulting in higher maturity; however, this can come with higher rates. Maturity is a spectrum and even those on the lower end have made significant progress over time.

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<tbody>
<tr>
<td><strong>CHILE</strong></td>
<td><strong>VIETNAM</strong></td>
<td><strong>LIBERIA</strong></td>
</tr>
<tr>
<td><strong>Level 1 Maturity</strong></td>
<td><strong>Level 2 Maturity</strong></td>
<td><strong>Level 3 Maturity</strong></td>
</tr>
<tr>
<td><strong>Utility</strong></td>
<td><strong>Credit Rating</strong></td>
<td><strong>Score Rationale</strong></td>
</tr>
<tr>
<td>Enel Chile S.A., Chile’s main electric utility, is privately owned by a multinational energy company and is listed on the stock market</td>
<td>Electricity Vietnam (ENV) is a state-owned utility</td>
<td>Liberia Electric Corporation is a state-owned, vertically integrated utility</td>
</tr>
<tr>
<td>BBB+</td>
<td>BB (as of April 2019)</td>
<td>No credit rating</td>
</tr>
<tr>
<td>Due to consolidation, which lowered its financial profile</td>
<td>Dependent on Vietnam’s sovereign rating</td>
<td></td>
</tr>
<tr>
<td>Enel has made efforts to lower commercial and technical losses and has managed to attract private capital due to sector planning and strong performance</td>
<td>EVN is able to access private capital without sovereign guarantees, despite some governance and financial shortcomings</td>
<td>LEC has invested more than $50 million since 2010 to strengthen infrastructure and expand capacity, but still faces challenges including limited financial reporting and unclear regulatory frameworks</td>
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*Note: These assumptions are based on observational data, industry norms and were developed specifically for SUPER.*
# Alternative Financing Building Blocks for Utilities

## Need
Provides electric utilities in developing countries with additional resources, diversification of funding, increased financial capacity, and opportunities for sustainable development.

## Objective
Outlines alternative finance building blocks underpinning key criteria which utilities must meet to satisfy creditworthiness and risk expectations of financial institutions, financing partners, or investor.

## Audience
USAID Staff and emerging market and developing economy electric utility companies.
UTILITY FINANCE BUILDING BLOCKS

By focusing on three key building blocks, electric utilities in developing countries can create a more favorable investment environment for alternative finance and attract crucial investment for sustainable growth and development.

CREATE A FAVORABLE INVESTMENT ENVIRONMENT

1. **Financial Management**
   - **Key Actions**
     - Strengthen financial position through utility financial statements
     - Improve debt profile
     - Develop long-term growth strategies
     - Obtain or enhance credit rating

2. **Transparent Reporting & Governance**
   - **Key Actions**
     - Implement integrated financial systems
     - Enhance internal financial reporting, controls, and annual reports
     - Align with international standards
     - Improve utility governance
     - Obtain third-party audit or assurance

3. **Financial Market Engagement**
   - **Key Actions**
     - Build capacity to engage financial markets
     - Explore sustainable finance mechanisms
     - Explore domestic pension funds
     - Cultivate investor relationships
     - Leverage support from DFIs

**Integrate Sustainability**

- **Key Actions**
  - Set evidence-based targets to align to Paris Agreement/NDCs
  - Incorporate resilience planning to reduce future costs
  - Incorporate transition planning into financial management
  - Optimize utility asset portfolio to align with sustainability goals

- **Key Actions**
  - Integrate ESG factors into financial reporting
  - Align reporting with international sustainability standards
  - Obtain third-party verification or assurance of ESG financial disclosures

- **Key Actions**
  - Emphasize sustainability objectives in investment approaches
  - Explore instruments and mechanisms to raise capital to finance transition to cleaner/more sustainable practices (RECs, internal carbon price, shadow price, offsets)
  - Increase direct outreach to ESG minded investment community
ALTERNATIVE FINANCE: OVERVIEW AND LANDSCAPE
The electric utilities are modernizing their investment approaches to launch critical infrastructure investments and the global financial landscape is shifting to prioritize sustainability.

There’s a consequent need for USAID practitioners and electric utilities to better understand utility investment opportunities, so they can help utilities shift their investment approaches to prioritize sustainability and attract alternative finance.

Alternative finance (sustainable finance, climate finance, and capital markets) could help utilities fill the gaps left by traditional finance, unlocking the funding necessary for to meet energy transition needs and sustainability targets.

Yet, utilities face several barriers to accessing alternative finance. Utilities will need to achieve a baseline level of maturity to attract alternative investment.

The Alternative Financing for Utilities Building Blocks are designed to help utilities in USAID partner countries and USAID staff improve their financial management, reporting and governance, and market engagement so that accessing alternative finance can become possible.
Traditional Finance is how utilities have traditionally received funding to support their operations and maintenance (O&M) including their day-to-day operations as well as capital expenditures (Capex).

### Traditional Utility Finance Approaches
- Traditional approaches for electric utility finance in developing countries have often been characterized by a reliance on public funding and government subsidies.
- The government assumes a central role in financing and managing electric utility projects, often leading to inefficiencies, lack of transparency, and financial strain on national budgets.
- State-owned utilities dominate the sector, with limited participation from the private sector, which can impede competition, innovation, and overall sector development.

### Types of Traditional Finance
- **Customer Tariffs** are a method of charging a customer for their electricity consumption. They are submitted to a regulatory entity for approval.
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*Sources: World Bank*
FINANCING BASICS

The below key concepts and definitions of finance that are essential for framing conversations around the building blocks and accessing new sources of finance.

**How do utilities use finance?**

*Utilities* use finance to fund strategic operations and capital expenses and the creditworthiness of a utility demonstrates how well the utility monitors and controls all financial resources to achieve business goals.

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**Key Financial Components**

**Balance Sheet:**
A balance sheet shows the system’s net worth – how much a utility is worth at a specific point in time. It gets its name because the numbers on the sheet must be in balance: *the total assets must equal the total liabilities and equity.*

**Income Statement:**
The income statement shows how much revenue the utility has earned versus the expenses incurred by the utility over a set period (i.e., a year). This allows utilities to monitor their profitability.

**Cash Flow Statement:**
This statement demonstrates how much cash is available after the utility’s financial transactions throughout the year are accounted for. Transactions are categorized as financing, investing, or operating.

*Sources: Microsoft Dynamics 365, Rural Community Assistance Partnership (RCAP)*
SHIFT IN GLOBAL FINANCE LANDSCAPE

The global finance landscape for electric utilities is undergoing a transformative shift, with a pronounced emphasis on integrating sustainability considerations. This is driven by the recognition that aligning financial strategies with environmental and social goals not only mitigates risks associated with climate change but also enhances long-term resilience in the face of changing market dynamics.

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- **Adopting innovative technologies and operational practices** leading to improved operational efficiencies, cost savings, and improved service delivery, thereby positioning utilities at a competitive advantage in a rapidly evolving energy landscape. Such innovation-driven sustainability not only benefits the utilities themselves but also contributes to the broader global transition to a low-carbon economy.
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**How Utilities Can Leverage Alternative Finance**

- **Capacity building** that supports transformational planning, budgeting, and programming at the systems level that advances the delivery of cleaner energy sources and net-zero planning and implementation
- **Innovative business models and technologies** delivering high impact solutions that improve capacity and efficiency
- **Mobilize funds at scale** to de-risk and unlock additional local and international capital
- **Replication of best practices** and facilitation of learning across grid capacity, storage and flexibility for higher penetration of renewables on the grid, increasing national and sub-national energy service

**Barriers**

There are a number of barriers that are discussed in further detail in this material (next slide) why there has historically been limited access to capital markets and alternative finance for electric utilities in EMDEs. Most notably:

- Political and regulatory risk/Macroeconomic conditions and in country financial market maturity
- Weak utility governance, including lack of transparency and technical gaps

Source: IEA Net Zero by 2050
The primary types of alternative finance available to electric utilities are through accessing the capital markets, as well as forms of sustainable finance such as climate finance or green bonds.

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**What are Capital Markets?**

Capital markets are regulated platforms that facilitate the trading of long-term instruments (usually one year or more) such as stocks and bonds between entities with funds and seeking investment opportunities and those seeking funds for investment. It enables fair and open transactions.

Capital markets are operated by stock exchanges and is composed of two segments; the primary and secondary markets. **Primary markets** are where new stocks and bonds are issued for the first time through initial public offerings and **secondary markets** are the part that offers liquidity by facilitating the exchanges of stocks and bonds to other investors beside.

Some entities that provide funds in the capital market include, individuals, institutional investors (mutual funds, hedge funds, pension funds, insurance companies), commercial banks, governments,

**Case Study: NamPower**

Namibia power Corporation Limited (NamPower) is the wholly-owned government utility in Namibia that specializes in generation and transmission of electricity. In 2013, NamPower raised approximately $59 million through medium term **Notes** with Rand Merchant Bank as the lead arranger. The Notes were approved and traded on the Johannesburg and Namibia Stock Exchanges. The proceeds were to be used for upgrade the issuer’s capabilities and services in electricity production and delivery. **Fitch ratings** for NamPower at the time was 'BBB-'; but with a Stable Outlook.

**Common Instruments Deployed**

- **Stocks**: Represents shares/equity, referring to ownership of a firm
- **Bonds**: fixed income or debt securities, referring to the indebtedness or creditorship of a firm or a government entity
- **Notes**: These are typically short-term debt securities with a maturity of one to ten years investor, allowing the debt to be swapped for
**What is Sustainable Finance?**

**Sustainable finance** refers to processes and financial products or services which take environmental or social sustainability considerations into account when making investment decisions, or which lead to increased financial flows into more sustainable economic activities and projects. Climate finance is a subset of sustainable finance.

This is different from environmental, social, and governance (ESG), which is a framework that supports investors in assessing company performance and risk; or sustainability, which focuses on how a company’s operations impact the world around it. Sustainable finance is an emerging topic, and definitions are still evolving, along with regulations, standards, and the policy environment that govern it.

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**Case Study: REGIO**

IFC and HSBC Real Economy Green Investment Opportunity Fund (REGIO) is a green bond fund focused on providing access to climate finance and supporting well diversified climate-smart investments in developing countries, including for renewable energy projects. This will largely be done through green bonds issued by non-financial, or real sector, companies. REGIO aims to address the demand for climate smart investment by providing an innovative, diversified vehicle to investors who may lack the capability to invest in individual green bond transactions, or who want to complement an existing emerging market debt allocation with a green impact bond solution. The IFC provided USD 100 million anchor investment, and HSBC has invested USD 75m, which is expected to catalyze USD 5-700m. Proparco has also invested EUR 50m. REGIO’s investment activities will be complemented by a Technical Assistance Facility (TAF).

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**Common Instruments Deployed**

- **Blended:** The use of public or philanthropic sources to add capital to private sector investment in sustainable development. This is used as a risk sharing mechanism or to build a market for a new technology or value chain. This is usually employed in the context of economic development.

- **Green, Social, Sustainable (GSS) Bonds:** Separately labeled bonds whose proceeds are ring-fenced and planned use of proceeds are reported to prospective investors ex ante and ex post for environmental, social, or sustainability projects. They differ from traditional corporate or government bonds where proceeds are used for general purposes.

- **Green Loans:** Are loans specifically for environmental projects and provide a discounted interest rate or attractive tenure.

- **Sustainability-Linked Instruments (Bonds - SLBs and Loans - SLLs):** Financial instruments that link financing to a set of predetermined sustainability performance targets (SPTs) or KPIs. For SLBs, the coupon paid by the issuer is linked to the issuer’s achievement of SPTs/KPIs. For SLLs, the interest rate on the loan is linked to the achievement of certain benchmarks. SLLs are rapidly being deployed across various sectors, as they offer more flexibility than GSS Bonds, but are vulnerable to greenwashing and reputational risk due to the lack of standardization and comparability for this relatively new instrument.

- **Carbon Markets:** Carbon credits and carbon offsets are often used interchangeably, but they refer to two distinct products that service two different purposes. A **carbon credit** only exists in regulated carbon markets in which emissions are capped under a “cap and trade” system (California, EU). A **carbon offset** is defined as an instrument representing the reduction, avoidance or sequestration of one metric ton of carbon or GHG equivalent and which are transacted in the voluntary market. Voluntary offset buyers are driven by a variety of considerations related to corporate social responsibility, ethics, and reputational or supply chain risk. **Nature and biodiversity positive carbon credits** are emerging instruments that include additional and specific management actions linked to conservation or restoration outcomes.

*Source: Climate Policy Initiative*
While sustainable finance refers to any financial product or service that takes sustainability into account. **Green finance** refers to financial products that deliver improved environmental outcomes, and **climate finance** refers to financial flows exclusively relating to climate specific financing, and historically typically attached to development outcomes.

Historically, **climate finance** has been dominated by public pools of finance that support countries in financing mitigation and adaptation actions that address their obligations under the Convention (UNFCCC), which established a financial mechanism to provide financial resources to developing countries. The operating entities of the financial mechanism include the Global Environment Facility (GEF), the Green Climate Fund (GCF), as well as three funds for adaptation – the Special Climate Change Fund (SCCF), the Least Developed Countries Fund (LDCF), and the Adaptation Fund (AF).

The largest group of actors providing capital classified as climate finance are development finance institutions, including national, bilateral, and multilateral entities; with financing evenly split between debt and equity. The vast majority is allocated toward climate change mitigation, with large portions flowing into renewable energy generation. Private sector investment is increasing, but not at the scale necessary to support the transition.

*Source: Climate Policy Initiative*
The climate finance ecosystem is complex and redefines traditional ODA definitions and boundaries.

**Bilaterals**

- USA & CANADA:
  - USAID
  - DFC
  - FinDev
  - CIDA

- UK & EU:
  - Enabel
  - DFID
  - AFD
  - FFEM
  - SIDA
  - GIZ
  - KfW
  - NorFund
  - Climate-Kic
  - Proparco

- APAC:
  - JBIC
  - JICA
  - AusAid
  - KOICA
  - Aotearoa NZ

**Multilateral Donor Funded**

- UNFCC Designated Financial Entities:
  - Global Environment Facility
  - LDCF
  - SCCF
  - Adaptation Fund
  - Green Climate Fund
  - Climate Investment Funds
    - Clean Technology Fund
    - Scaling Up Renewable Energy in Low-Income Countries Program (SREP)
  - Energy Sector Management Assistance Program (ESMAP)
  - Sustainable Energy for All Fund (SEFA)
  - Partnership for Just Transition
  - Nordic Development Fund
  - Multilateral Development Banks
    - CAF
    - AfDB
    - World Bank
    - IFC
    - ADB
    - IADB
    - EBRD
    - IDB Invest
    - Asian Infrastructure Investment Bank
    - New Development Bank (BRICS)
    - BOAD
    - EIB

**Private & Philanthropic**

- Other Funds
  - Mirova
  - Bezo’s Earth Fund
  - Bloomberg Philanthropies
  - Rockefeller Foundation
  - Sequoia Climate Fund
  - IKEA Foundation
  - MicroVest

- National Sources (as of 2022, 39 countries have national climate funds*):
  - Bangladesh Climate Change Fund
  - South Africa Green Fund
  - Fundo Clima (Brazil)
  - FONERWA (Rwanda)
  - India National Clean Energy Fund
  - Bangladesh Climate Change Fund
  - South Africa Green Fund

**Legend:**

- Implementor/Channel
- Fund

ENABLING ENVIRONMENT FOR ALTERNATIVE FINANCE

The focus of these building blocks is on specific financial areas of improvement, but it is important to note the tenants of a strong enabling environment up front. Progress in these focus areas typically occurs over a longer timeframe to phase transition involving multiple stakeholders and slow legal/regulatory processes. Below are 7 well-known areas to consider prior to diving into the proposed building blocks for acquiring alternative finance. Improvements in these categories gives utilities a comparative advantage in accessing alternative financing more easily and successfully.

<table>
<thead>
<tr>
<th><strong>Internal Factors</strong></th>
<th><strong>External Factors</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Financial Performance</td>
<td>1. Macroeconomic Conditions</td>
</tr>
<tr>
<td>• Strong financial performance indicates financial management structures and processes to maintain budgets, set and collect cost-reflective tariffs for operations, and manage cash flow for long-term capital investments</td>
<td>• Broad economic factors that can shape the utility's operations, finances, and overall viability including interest rate, currency fluctuations, inflation, and energy market prices</td>
</tr>
<tr>
<td>• Asset management processes, approaches to reduce non-revenue losses, and maintenance costs that work to prevent system losses</td>
<td>• Reflects the experience and capabilities of domestic banks to design successful tenders and bankable contracts</td>
</tr>
<tr>
<td>• Procedures to quantify and collect revenues, including meter reading and tariff collection</td>
<td>• Capital markets in developing countries can be poorly developed, creating the perception that the financial landscape is not favorable for investment</td>
</tr>
<tr>
<td>3. Sector Planning</td>
<td>3. Legal Framework and Governance</td>
</tr>
<tr>
<td>• Planning plays a crucial role in creating a comprehensive and well-defined strategic investment roadmap</td>
<td>• Maturity of the investment landscape for emerging market power sectors is tied to the strength and predictability of policy and regulatory frameworks, laws governing deal structuring, and the market structures</td>
</tr>
<tr>
<td>• Identifying future demand, growth areas, and technology integration, enables utilities to articulate a clear vision and attracting capital for long-term projects</td>
<td>• Policy framework with formalized rules and governance structures is an essential component to optimizing utility profitability</td>
</tr>
<tr>
<td>• Ensures transparent and accountable practices and establishes confidence among potential investors</td>
<td>• Planning plays a crucial role in creating a comprehensive and well-defined strategic investment roadmap</td>
</tr>
<tr>
<td>4. Utility Governance</td>
<td>• Identifying future demand, growth areas, and technology integration, enables utilities to articulate a clear vision and attracting capital for long-term projects</td>
</tr>
<tr>
<td>• Policy framework with formalized rules and governance structures is an essential component to optimizing utility profitability</td>
<td></td>
</tr>
<tr>
<td>• Ensures transparent and accountable practices and establishes confidence among potential investors</td>
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</tr>
</tbody>
</table>
ELECTRIC UTILITY MATURITY ASSUMPTIONS

Electric utilities’ readiness to attract alternative investment assumes a baseline level of maturity across four business areas. These factors inform overall utility performance which is critical for increasing investment by the private sector and other interested third parties.

| Financial Performance | • Accounting system, including accounts receivable and fixed asset summaries
| • Budget process with capital improvement planning
| • Debt and cash flow management processes |

| Technical Operations | • Efforts to reduce commercial and/or physical losses
| • Policies and system for recording all maintenance for assets
| • Multi-year strategy for managing system losses |

| Commercial Operations | • Existing customer database that may be updated
| • Most customers are metered and billed |

| Utility Governance | • Plan to attain and/or improve the utility’s corporate governance rules
| • Procedures and systems for annual reporting on the utility’s management and performance |

Note: These assumptions are based on observational data, industry norms and were developed specifically for SUPER. The ratings that follow are based on an interpretation of this framework.
Electric utilities’ readiness to attract alternative investment assumes a minimum level of maturity across four business areas. These factors inform overall utility performance which is critical for increasing investment by the private sector and other interested third parties. Maturity levels vary greatly among utilities (public and private) and are largely dependent on the broader enabling environment. Some countries like Senegal, Cote d’Ivoire have found that private utilities are better equipped to deliver reliable service resulting in higher maturity; however, this can come with higher rates. Maturity is a spectrum and even those on the lower end have made significant progress over time.

**ELECTRIC UTILITY MATURITY MATRIX**

<table>
<thead>
<tr>
<th>Utility</th>
<th>Credit Rating</th>
<th>Score Rationale</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHILE</strong></td>
<td>BBB+</td>
<td>Enel has made efforts to lower commercial and technical losses and has managed to attract private capital due to sector planning and strong performance</td>
<td>Due to consolidation, which lowered its financial profile</td>
</tr>
<tr>
<td><strong>VIETNAM</strong></td>
<td>BB (as of April 2019)</td>
<td>EVN is able to access private capital without sovereign guarantees, despite some governance and financial shortcomings</td>
<td>Dependent on Vietnam’s sovereign rating</td>
</tr>
<tr>
<td><strong>LIBERIA</strong></td>
<td>No credit rating</td>
<td>LEC has invested more than $50 million since 2010 to strengthen infrastructure and expand capacity, but still faces challenges including limited financial reporting and unclear regulatory frameworks</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** These assumptions are based on observational data, industry norms and were developed specifically for SUPER.
The electric utility matrix criteria was applied to 5 countries to demonstrate the differing maturities across geographic regions and utility types.

### USAID Partner Country Utility Maturity Spectrum

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Vietnam</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Botswana</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Liberia</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Jamaica</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Key**
- **Level 1**
- **Level 2**
- **Level 3**

Of the utilities evaluated, Chile is best position for leveraging the building blocks to access alternative financing. Countries that fall into level 2 and 3 maturity categories like Vietnam, Botswana, and Jamaica, and Liberia could begin to take initial actions for accessing sources of alternative finance, but utilities should first focus on improving performance across these areas.
ALTERNATIVE FINANCING BUILDING BLOCKS FOR UTILITIES

NEED
Provides electric utilities in developing countries with additional resources, diversification of funding, increased financial capacity, and opportunities for sustainable development

OBJECTIVE
Outlines alternative finance building blocks underpinning key criteria which utilities must meet to satisfy creditworthiness and risk expectations of financial institutions, financing partners, or investor

AUDIENCE
USAID Staff and emerging market and developing economy electric utility companies
INTERPRETING THE BUILDING BLOCKS

Each of the Alternative Financing Building Blocks follow the below structure, containing a description of a specific key action, the minimum maturity criteria for said action, and a relevant example of this building block in practice. These sections provide recommendations and essential context for utilities seeking to attract alternative financing. For ease of use and interpretation, this graphic breaks down the purpose and content of each building block section.

**Key Action**

**Description:** Each building block is broken into several “Key Actions” – necessary steps utilities must take in order to create a more favorable investment environment. Each slide of the building block starts with a short description of this key action.

**Minimum Maturity Criteria:** The minimum maturity criteria refers to the baseline indicators that a utility must meet in order to properly and consistently execute the key action. For these building blocks, minimum maturity criteria are aligned to four business areas: financial performance, technical operations, commercial operations, and utility governance.

**Ideal State:** This section outlines the characteristics of an electric utility best positioned to complete this key action and attract alternative finance. The items in this section go beyond the minimum maturity criteria and convey the best environment a utility could create to procure alternative finance.

**Advanced Sustainability:** Some activities have advanced options for utilities to consider to further integrate sustainability across financial activities and investment approaches.

<table>
<thead>
<tr>
<th>Maturity Level</th>
<th>USAID Partner</th>
<th>Country Utility</th>
<th>Maturity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 3</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This section provides contextual evidence for the building blocks and demonstrates how the key actions work in practice. The following items highlight the successful implementation of the spotlighted utility:

**Utility Structure:** What kind of utility is this?

**Challenge:** What roadblocks prevented this utility from accessing alternative finance?

**Solution:** How did the utility apply the lessons from this building block to improve their investment environment?

**Results:** How has the investment environment improved, and how has the utility attracted alternative finance?
UTILITY FINANCE BUILDING BLOCKS

By focusing on three key building blocks, electric utilities in developing countries can create a more favorable investment environment for alternative finance and attract crucial investment for sustainable growth and development.

CREATE A FAVORABLE INVESTMENT ENVIRONMENT

1. Financial Management
   - **Key Actions**
     - Strengthen financial position through utility financial statements
     - Improve debt profile
     - Develop long-term growth strategies
     - Obtain or enhance credit rating

2. Transparent Reporting & Governance
   - **Key Actions**
     - Implement integrated financial systems
     - Enhance internal financial reporting, controls, and annual reports
     - Align with international standards
     - Improve utility governance
     - Obtain third-party audit or assurance

3. Financial Market Engagement
   - **Key Actions**
     - Build capacity to engage with financial markets
     - Explore sustainable finance mechanisms
     - Explore domestic pension funds
     - Cultivate investor relationships
     - Leverage support from DFIs

Integrate Sustainability

- **Key Actions**
  - Set evidence-based targets to align to Paris Agreement/NDCs
  - Incorporate resilience planning to reduce future costs
  - Incorporate transition planning into financial management
  - Optimize utility asset portfolio to align with sustainability goals

- **Key Actions**
  - Integrate ESG factors into financial reporting
  - Align reporting with international sustainability standards
  - Obtain third-party verification or assurance of ESG financial disclosures

- **Key Actions**
  - Emphasize sustainability objectives in investment approaches
  - Explore instruments and mechanisms to raise capital to finance transition to cleaner/more sustainable practices (RECs, internal carbon price, shadow price, offsets)
  - Increase direct outreach to ESG minded investment community
BUILDING BLOCK 1 – STRENGTHEN FINANCIAL POSITION THROUGH UTILITY FINANCIAL STATEMENTS

Financial management is critical for electric utilities in developing countries and enables utilities to improve financial stability and attract investment. Strong financial management is the suite of tools and processes including accounting practices that are the most direct and high impact an electric utility can implement to reduce risk and improve creditworthiness.

Strengthen Financial Position through Utility Financial Statements

**Description:** Assess a utility’s financial statements to get a quantifiable measure of its financial health and determine strategies for mitigating financial risks, including risk of default and operational risks.

**Minimum Maturity Criteria:**
- Determine financial baseline using these indicators: EBITDA, debt service coverage ratio, economic profit, and CAPEX financed with debt
  - *Example benchmarks for a well-performing utility: DSCR exceeds 1.2, EBITDA margin greater than 5%*
  - *If a utility is below these benchmarks, understand root causes and create a financial strategy with concrete actions to improve these indicators*
- Evaluate utility performance across the following: liquidity ratios, consistent revenue growth, and efficient cost management

**Ideal State** (actions to be best positioned to attract alternative finance):
- Evaluate existing default risk through reviewing financial statements, debt profile, cash flow projections, and DSCR. Mitigate default risk through contingency planning, hedging against forex fluctuations and interest rate risk
- Utility owns assets it operates (or asset ownership is privatized) to increase DSCR and strengthen balance sheet
- Manage financial risks through:
  - Supplying narrative information to provide context around financial position and risks
  - Ensuring fiscal burden of utility operations is reflected in budget decision making
  - Reducing currency mismatch between revenues and debt obligations
  - Reducing contingent liabilities
  - Conducting an operational risk assessment (delays and cost overruns in capital project implementation, acquisition and sale of assets)

Building Block in Practice

**Office National de l'Electricite et de l'Eau Potable (ONEE) Morocco**

**Utility Structure:** State-owned utility, privatized dist. 1977

**Challenge:** In the mid-1990s, Morocco’s power sector needed significant fiscal support to cover the revenue deficit. ONE could not meet household electricity demand due to aging infrastructure and solicited World Bank assistance for T&D investments. Regulatory risks prevented ONE from receiving private sector financing.

**Solution:** The utility has been focused on improving financial performance, accomplishing the following:
- Energy reform program reduced government subsidies for electricity and allowed real estate to be transferred to the Moroccan Energy for Sustainable Energy (MASEN)

**Results:** ONEE has maintained a positive DSCR (greater than 1.2) since 2013 (post merger with ONEP), and has issued bonds and secured loans from domestic and international financial institutions
- EBRD is considering providing a corporate loan of up to EUR 200 million to ONEE that will be structured as a sustainability-linked loan, the first in the country

*Benchmarks are referenced from the World Bank’s Water Utility Turnaround Framework

1 The electric utility was called ONE before its merger with the state water utility, ONEE*
**BUILDING BLOCK 1 – IMPROVE DEBT PROFILE**

**Improve Debt Profile**

**Description:** Build internal debt financing expertise and develop a fully staffed financial management function while considering sources of capital and refinancing strategies to address debt burden.

**Minimum Maturity Criteria:**
- At minimum, the utility should work to incorporate a full financial management function and progress towards securing debt financing expertise (can rely on donor organizations at first).
- Include cost of capital in a financial performance indicator, using a weighted average cost of capital calculation.

**Ideal State** (best positioned to attract alternative finance)
- Establish a structured debt issuance program to access capital markets. This involves issuing bonds or other debt instruments to raise funds for capital expenditures or refinancing existing debt.
- Consider engaging financial advisors or consultants to assist in assessing and structuring financing arrangements.
- Employ strategies such as:
  - Refinancing high-cost debt by issuing new bonds to repay existing debt, seek syndicated loans, reduce interest rate volatility through fixed-rate financing, or negotiate a repayment holiday.
  - Extending debt maturities to match the utility’s long-term cash flow generation.
  - Diversifying funding sources.
  - Conducting “stress tests,” assessing utility profitability in relation to debt levels.

**Advanced Sustainability Activities:**
- Issue green bonds or access other sustainable finance instruments to diversify existing sources of finance.
- Optimize the utility’s asset portfolio to align with sustainability goals. Retire older, less efficient, and high carbon emission-producing assets in favor of cleaner options (e.g., wind, solar). RE investments reduce exposure to fossil fuel price volatility, allowing for better cost forecasting.

---

**Building Block in Practice**

**Interconexion Electrica S.A. - Colombia**

**Utility Structure:** State-owned transmission company

**Challenge:** Prior to 2001, Interconexion Electrica had challenges accessing new sources of capital aside from revenue and government subsidies.

**Solution:** A minority stake in the company was sold through the Colombian government’s “shareholdings for all” initiative, and the company has been listed on the Colombian Stock Exchange since 2001. Additionally, the government decided to list the American depository receipts on the US stock markets.

**Results:** Since these reforms, Interconexion Electrica SA has gained access to new financial markets, primarily the Colombian and US stock markets. Now, ISA has a BBB investment grade rating from Fitch (April 2023).
Develop Long-Term Sustainability Strategies

**Description:** Align capital investment plans with the Paris Agreement to satisfy investor sustainability requirements; ensure capital investments are in line with network reliability and upgrades.

**Baseline Maturity Criteria:**
- Basic form of capital planning that identifies assets that need maintenance or need to be replaced/upgraded.
- Capital planning should be supported by maintenance plans, an asset inventory, and a data management system.
- Incorporate financial planning that reduces reliance on sovereign guarantees. In the event a guarantee is required, the amount should have clearly specified monetary limits.

**Ideal State** (best positioned to attract alternative finance):
- Incorporate long-term capital planning, using an integrated resource planning framework. Consider all segments of the power delivery value chain, from generation to transmission and distribution planning. Include investment planning for O&M upgrades and system expansion.
- Establish resource planning to account for distributed energy resources and connecting renewables while moving away from fossil fuels.

**Advanced Sustainability Activities:**
- Enhance the integrated resource planning framework by incorporating resilience planning, demonstrating how the utility monitors climate-related risks and utilizes climate-related scenario analyses in its decision-making and long-term capital planning.
- Establish RE-heavy procurement plan with potential investments in mind.
- Conduct scenario analyses, leveraging reference scenarios (Transition Pathways Initiative, Science-Based Target Initiative).
- Align operations with the Paris Agreement targets to satisfy investor sustainability requirements; an example measure could be committing to no new coal generation investments.
- Disclose 5-year capex budget for renewable deployment.

---

**Building Block in Practice**

**Kenya Electricity Generating Company**

**Utility Structure:** State-owned

**Challenge:** KenGen’s capital planning did not reflect a sustainable energy transition pathway, exposing it to increased risk.

**Solution:** The utility developed and registered six Clean Development Mechanism projects that contribute to offsetting 1.5 million tCO2e annually. Of these, 550,981 tons were issued by the UNFCCC and made available for sale. The CDM projects one example of approaches that were the starting point from which KenGen developed their long-term sustainable growth strategy. Other approaches included PPPs and strengthening financial risk management.

**Results:**
- KenGen built sustainability into their long-term growth strategy and recorded $3.6 million in carbon revenue (through carbon market participation) since 2010.
- Now, more than 86% of the company’s production is from clean sources (wind, hydro, and geothermal).
- The country would further benefit from steps to address delays in regulatory approvals, and (longer term) potentially exporting power.
**Obtain or Enhance Credit Rating**

**Description:** Identify and engage rating agencies and prepare the utility to develop a strong pitch deck that demonstrates investment-grade capabilities based on revenue defensibility, operating risk, and its financial profile.

**Baseline Maturity Criteria:** To obtain an investment-grade credit rating, a utility must have a cost-reflective rate-setting framework (and autonomy to determine rate of service) and meet the baseline requirements set under the “Strengthen Financial Position” component.

**Ideal State** (best positioned to attract alternative finance):
- Consider drivers for utility/power sector ratings: revenue defensibility, operating risk, financial profile, other risk factors (debt structure, management and governance, and legal and regulatory risks)
- Evaluate operating cost burden (ratio of total electric operating costs to total energy kWh sales) and understand approaches to lower
- If no credit rating, consider obtaining a private, shadow credit rating as a baseline to inform future credit rating enhancement efforts. This rating will not be publicized and will let the utility know how they would be rated if they desired to access capital markets.
- Issue bonds on capital markets to expose utility to market risk perceptions and market information
  - *The bond issuance process is outlined in Annex 1*

---

**Building Block in Practice**

**Namibia Power Corporation (NamPower)**

**Utility Structure:** State-owned, vertically integrated utility

**Challenge:** NamPower sought a credit rating to attract private finance and demonstrate low investment risk

**Solution:** In December 2020, NamPower was able to be assigned a long-term foreign currency issuer default rating (IDR) of "BBB-" by Fitch Ratings. Although this is the lowest investment grade rating, the rating agency also assigned a stable outlook to NamPower, reflecting its expectation of a stable financial performance and credit profile.

Fitch Ratings cited several factors contributing to NamPower’s investment grade rating, including the utility’s monopoly position in the Namibian electricity market, its solid operational track record, and the government’s support as the majority shareholder. Fitch also noted NamPower’s reasonable leverage levels and adequate liquidity.

Nevertheless, NamPower’s rating is constrained by the Namibian sovereign (BB) under Fitch Ratings’ Government-Related Entities rating criteria.

**Results:** With an investment-grade credit rating, NamPower will have greater flexibility in accessing capital markets. Additionally, Fitch noted that NamPower’s rating upgrades or downgrades are dependent on Namibia’s fiscal reforms and macroeconomic trends.

*It is important to mention that, if a utility is state-owned, its credit rating will very likely mirror that of the sovereign*
**BUILDING BLOCK 2 – IMPLEMENT INTEGRATED FINANCIAL SYSTEMS**

Unlocks financial transparency and streamlines data management for enhanced reporting and creates accountability and predictability for commercial practices ensuring alignment to government requirements and global best practices

<table>
<thead>
<tr>
<th>Implement Integrated Financial Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> Integrated financial systems include accounting, asset management, and billing processes. Centralized and optimized financial systems streamline financial management and ensures reporting accuracy.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minimum Maturity Criteria:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Financial data is regularly and accurately collected</td>
</tr>
<tr>
<td>• Cash-basis or modified cash-basis accounting</td>
</tr>
<tr>
<td>• Basic internal controls and auditing practice</td>
</tr>
<tr>
<td>• Accounting procedures, internal controls, and financial report comply with government requirements</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ideal State (best positioned to attract alternative finance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Well-established and accurate financial data with consistent categorization</td>
</tr>
<tr>
<td>• Standardized and comprehensive list of accounts aligned with industry best practices and regulatory requirements</td>
</tr>
<tr>
<td>• Full accounting function with a lead skilled financial manager assigned</td>
</tr>
<tr>
<td>• Accrual-based accounting policies and procedures that align with international standards</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Building Block in Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National Electric Power Company (NEPCO) – Jordan</strong></td>
</tr>
<tr>
<td><strong>Utility Structure:</strong> Incorporated state-owned utility</td>
</tr>
<tr>
<td><strong>Challenge:</strong> NEPCO faced financial challenges due to rising energy costs and subsidies, which strained its financial resources</td>
</tr>
<tr>
<td><strong>Solution:</strong> Optimized and improved financial processes by evaluating existing workflows and identifying inefficiencies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jamaica Public Service (JPS) – Jamaica</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Utility Structure:</strong> Incorporated state-owned utility</td>
</tr>
<tr>
<td><strong>Challenge:</strong> JPS faced financial challenges due to accounting inefficiencies, delayed financial reporting, and outdated systems</td>
</tr>
<tr>
<td><strong>Solution:</strong> Upgraded accounting system integrating accounting functions, including accounts payable, accounts receivable, general ledger, and financial reporting.</td>
</tr>
</tbody>
</table>
Enhance Internal Financial Reporting & Controls

Description: Accurately and timely report financial statements and provide comprehensive disclosures communication of financial performance to demonstrate transparency and accountability to investors.

Baseline Maturity Criteria:
- Accurate and up-to-date financial data
- Regularly prepare financial report including income statement, balance sheet, cash flow statement, and liquidity ratios
- Basic internal controls and auditing practice

Ideal State (best positioned to attract alternative finance)
- Financial report prepared annually and align with International Financial Reporting Standards (IFRS)
- Reports and financial statements published on website
- Prepare quarterly financial statements with key information used in decision making generation and T&D, revenue, customer base, energy efficiency, and financial ratios
- Robust internal controls to safeguard financial data and ensure compliance with relevant regulations
- Participate in external financial audit and conduct regular internal audits with annual audit plans
- Publish financial audit results in public-facing annual reports

Building Block in Practice

PNG Power Limited – Papua New Guinea¹

Utility Structure: Incorporated state-owned utility

Challenge: Between 2007-2013, PNG Power experienced irregular accounting on the Profit and Loss Statement (P&L) and balance sheet due to inaccurate financial reporting. This weakened the validity of PNG’s financial statements and undermined PNG Power’s ability to attract investment until 2018, when action was taken to address this.

Solution: Auditor General recommended PNG review credit control and debt management processes.

Results:
- 2018 PNG Power hired a new finance management team and external audit consultants to address financial and accounting challenges
- 2019 PNG Power reported no cash losses, and the investments show a return to financial sustainability and integrity in reporting
- Third party audit provided considerable clarity on reporting issues
- Well-funded state audit office offers a relatively inexpensive mechanism by which to monitor and help improve the reporting performance of an electricity utility at the local level

Align with International Sustainability Standards

**Description:** Integrate environmental and climate considerations into the utility’s reporting framework, metrics, and data collection processes ensures the utility’s reporting accurately reflects its sustainability performance. By aligning with recognized sustainability standards, the utility can effectively communicate its sustainability efforts, engage stakeholders, and contribute to the global sustainability agenda.

**Minimum Maturity Criteria:**
- Data collection protocols and controls that outline the data, metrics, and reporting requirements for each factor identified
- Identification and assessment sustainability factors that are most material for the utility and investors
- Basic understanding of the internationally recognized sustainability reporting standards such as GRI, SASB, or TCFD

**Ideal State** (best positioned to attract alternative finance)
- Robust sustainability strategy and environmental performance indicators that are essential to utility operations – indicators should enable monitoring and reporting of the utility’s progress to address environmental/climate considerations and sustainability goals
- Conduct assessment to prioritize reporting efforts and ensure that the utility focuses on the ESG issues that have the greatest impact and relevance to potential investors
- Revise and/or expand the utility’s financial and sustainability reports to align the reporting format, structure, and terminology with international standards
- Integrate sustainability considerations into the utility’s decision-making processes such as investment decisions, project evaluation, and risk management

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**Building Block in Practice**

**Eletrobras – Brazil**

**Utility Structure:** Corporation

**Challenge:** Eletrobras has been listed on the NYSE since 2014, and the privatization model was approved in 2021. In parallel, Eletrobras has been working to further demonstrate transparent reporting for sustainability impact in capital investments. This will enable them to unlock and align with shifts in global finance streams.

**Solution:** Incorporate reporting with existing sustainability and climate reporting standards, like the Integrated Reporting Framework and Global Reporting Initiative, and align with SASB and TCFD to demonstrate commitment and transparency to ESG investments.

**Results:**
- Published their annual report and adapted reporting processes to align with and include reporting metrics required by global reporting frameworks since 2021.
- Significant dispersion of the company’s investments to include a wider range and the entry of new investors focused on sustainable investments.
BUILDING BLOCK 2 – IMPROVE UTILITY GOVERNANCE

Improve Utility Governance

Description: Set of policies, procedures, and controls put in place to ensure responsible and transparent management of financial resources. Budget oversight, financial reporting, risk management, and adherence to regulatory standards to maintain the utility's financial stability and safeguard the interests of stakeholders.

Minimum Maturity Criteria:
• Operate within a sound legal framework
• Governance practices are aligned with the national requirements and with international standards, such as the OECD Principles of Corporate Governance

Ideal State (best positioned to attract alternative finance)
• Clearly defined board and management governance responsibilities to ensure adequate oversight of financial management
• Implement financial and non-financial KPIs, increasing in complexity as utility matures
• Maintain a file repository comprised of annual reports, financial statements, founding laws/charters/constitutions, reports from audit authority, dividends paid to government and payment from government to utility budget, outstanding credits to the utility

Building Block in Practice

Uganda Electricity Board

Utility Structure: State-owned utility
Challenge: Uganda faced challenges with good governance among its public enterprises, including its state-owned utility, the Uganda Electricity Board.
Partial Solution: The Government of Uganda enacted legislation to enable restructuring of public enterprises. This required the utility to report financial and operational performance, including audited accounts with a defined period. Compliance was monitored by the government and disclosed to the public.
Results: The combination of disclosure of information on financial performance along with clearly defined authority to appoint directors of public enterprises and implement their restructuring led to the unbundling of UEB and improved governance.

Non-Utility Example

Indonesia: Indonesia’s Ministry of Finance measures SOE financial performance through returns on equity, profitability through returns on assets, expense/income ratio, and net interest income, and solvency through nonperforming loans, capital adequacy ratio, assets/liabilities, and loans/deposit ratio.

Indonesia’s Ministry of State-Owned Enterprises oversees SOE performance by evaluating corporate governance and other KPI through its monitoring system, which is based on voluntary assessments and company reviews. The Ministry conducts performance management with the support of government auditors.
**Obtain third-party verification or assurance**

**Description:** Third party verification of financial reporting and ESG disclosures provides independent validation of the utility's financial performance, ensuring accuracy, transparency, and compliance with accounting standards, instilling confidence in investors.

**Minimum Maturity Criteria:**
- Internal controls, financial reporting, and audit processes to verify and validate financial statements and performance that complies with government requirements
- Financial report that is regularly audited by a government or independent auditor

**Ideal State** (best positioned to attract alternative finance)
- Integrate framework to disclose climate-related information in financial statements: Climate Disclosure Standards Board (CDSB)
- Utilize rating agencies that focus on sustainability, such as Sustainalytics, MSCI ESG Research, and CDP (formerly the Carbon Disclosure Project), assess and rate sustainability performance, including climate-related disclosures
- Obtain verification using accredited verification bodies recognized by national or international standards organizations, provide independent assessments of companies' climate-related disclosures

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**Building Block in Practice**

### EGAT – Thailand

**Utility Structure:** Incorporated state-owned utility

**Challenge:** EGAT was under increasing scrutiny from stakeholders, including investors and regulatory authorities, to disclose its climate-related risks and opportunities. EGAT needed to validate the accuracy and credibility of its climate-related disclosures.

**Solution:** Utilized reputable assurance provider to assess and verify the accuracy and reliability of its climate-related financial information.

**Results:**
- Enhanced credibility and transparency of climate-related disclosures, providing stakeholders including investors with greater confidence in the accuracy of the reported information
- Increased investor confidence.
  - Investors rely on independently verified data to make informed decisions. The assurance process helped attract sustainable financing and strengthens the utility's position in the market.
- Ensured compliance with global reporting standards and best practices for climate-related disclosures
Build Capacity to Engage with Financial Markets

**Description:** Internal training to strengthen understanding of financial markets, investment practices and investment such as accessing expert advice and developing a project portfolio tailor to attract investors

**Minimum Maturity Criteria:**
- Strive to establish and maintain an understanding of alternative finance sources and capital market functions
- Basic strategic plan that articulates its long-term vision, investment priorities, and growth strategies

**Ideal State** (best positioned to attract alternative finance)
- Invest in development of utility staff in project capital markets, investment trends, and financial instruments
- Form strategic partnerships with larger utilities, international organizations, or private investors that have experience in capital markets
- List utility on stock markets to create capital market discipline
- Monitor capital market trends and conduct market research to identify potential investors and understand their preferences

**Advanced Sustainability Activities:**
- Prioritize environment, climate, and other sustainability related projects and practices. This could include directing investment towards renewable energy, energy efficiency.
- Tailor engagement strategies, financial reporting practices, and sustainability initiatives to align with investor expectations and market dynamics

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### Building Block in Practice

**ESKOM – South Africa**

**Utility Structure:** State-owned electricity company

**Challenge:** ESKOM did not have adequate internal expertise and knowledge of capital markets and external investors. This lowered their ability to accessing financing and attract investment critical for the utility’s sustainability objectives and clean energy projects.

**Solution:** Held capital market workshops and trainings for its financial team to develop a deeper understanding of capital markets, investment trends, and financial instruments. Actively engaged with various stakeholders, including government authorities, international financial institutions, and private investors

**Results:**
- Allowed Eskom’s financial experts to navigate complex financial transactions more effectively
- Communication facilitated a better understanding of investor expectations and helped address concerns related to the utility’s financial performance and governance
Explore Sustainable Finance Mechanisms

**Description:** Determine new or tailor current utility investment opportunities to appeal to impact investors based on available sustainability-linked instruments such as positioning for green and sustainable loans, standard risk mitigation instruments, and carbon markets.

**Minimum Maturity Criteria:**
- Identified different sustainable financing options available in capital markets (equity financing, debt financing, and public-private partnerships).
- Assess the feasibility and suitability of each option based on the utility’s financial needs, risk tolerance, and market conditions.

**Ideal State** (actions to be best positioned to attract alternative finance):
- Issue sustainability-linked, green and/or infrastructure bonds on either the domestic or international markets to attract sustainability-focused investors. These types of bonds typically require large ticket sizes (due to transaction costs and investor demand), meaning that these bonds can group several large-scale projects.
- Explore sources of climate finance, particularly those involving blended finance, to access available financing that has gone under-utilized. Leverage USAID’s Climate Finance Toolkit for electric utilities to navigate the climate finance landscape.
- Consider voluntary carbon markets as a potential source of financing by selling carbon credits.

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**Building Block in Practice**

**KenGen – Kenya**

**Utility Structure:** Primary state-owned

**Challenge:** KenGen was having trouble financing planned RE projects.

**Solution:**
- 2013, KenGen issued Kenya’s first infrastructure bond worth KES 25 billion (approx. $290 million). Kenya also enacted domestic debt market reforms, lowering the cash ratio for commercial banks to release liquidity and reducing short-term interest rates. Kenya streamlined the domestic borrowing cash plan in favor of bonds and eased the pension market availability.

**Results:**
- The bond was oversubscribed and played a crucial role in funding the company’s energy projects, including the Okaria geothermal power plants.

**Ethiopian Electric Power (EEP) – Ethiopia**

**Results:**
- EEP made efforts to integrate ESG principles into its financial strategies.
- 2020 they issued a green bond, the first-ever by an Ethiopian entity, to raise funds for renewable energy projects.
- Bond proceeds are dedicated to financing the country’s ambitious renewable energy goals, supporting Ethiopia’s transition to a greener energy mix.
CASE STUDY – GHANA

Explore Domestic Pension Funds

Description: Determine new utility investment opportunities to appeal to domestic investors particularly pension funds by offering enticing returns and security of long-term investments at the same time solving acute power supply shortfalls.

Building Block in Practice

CENIT Energy – Ghana

Challenge: Coming out of a major power crisis in 2007, the state-owned generation company, Volta River Authority (VRA) was in the process of adding a 110 MW thermal plant to its generating fleet. Experience had shown that building two 110 MW plants (2 x 110 MW) in the same location would make it possible to switch to combined-cycle mode and produced an additional 110 MW at minimal cost, giving a total of 330 MW. VRA did not have the funds to do that. The pension fund administrator Social Security and National Insurance Trust (SSNIT) saw this as an opportunity to invest long term and therefore engaged with the government and the project developers.

Solution:

• SSNIT, a workers’ pension fund created an SPV (CENIT Investment Limited), to negotiate and purchase the additional 110 MW simple cycle thermal plant. SSNIT initially sought to provide bridge finance for the project. Presently, SSNIT owns 100% equity in the CENIT Energy power plant and is in negotiations with VRA to advance the combined cycle project. This investment required engagement with stakeholders including financiers, government, regulators, off takers, to assess all risks financial, constructional, operational, legal, and economic. The plant has a 25-year PPA with the state-owned electricity distribution company, Electricity Company of Ghana (ECG) and has a transmission service agreement with the system operator GRIDCo.

Results:

• The 110 MW CENIT thermal plant has been an important component of the power generation fleet in Ghana since 2012. The availability of the plant during the power crisis in Ghana helped to minimize the impact of the rolling blackouts. To date, this investment has been one of the most profitable investments of the pension fund and the investor is seeking to transform the plant to combined cycle mode which will increase efficiency and lower the average cost per kWh generated.
Cultivate Investor Relationships

Description: Build relationships with local and international investors such as financial institutions and private entities to strengthen their familiarity with the utility’s efforts to improve performance and investment needs.

Minimum Maturity Criteria:
- Basic understanding of existing public and private investors
- Align strategic plan with the country’s energy sector goals including climate targets like NDCs and highlight the utility’s potential for expansion and revenue generation

Ideal State (best positioned to attract alternative finance)
- Conduct market research to identify potential private sector investors who align with its strategic goals and have the necessary expertise, resources, and interest in the energy sector
- Establish a dedicated internal investor relations function to effectively communicate with capital market participants. This involves regular engagement with analysts, investors, and rating agencies to provide accurate and timely information about the utility’s operations, financial performance, and growth plans.
- Actively participate in conferences, roadshows, and industry events to showcase investment potential and establish relationships with key market participants

Advanced Sustainability Activities:
- Increase direct outreach to ESG-minded investment community
- Target and prioritize specific investors for engagement, maximizing the chances of building fruitful relationships

Building Block in Practice

PLN – Indonesia

Utility Structure: State-owned electricity company

Challenge: PLN desired to improve investor relations and enhance transparency to attract investment for sustainable development including financing for infrastructure projects.

Solution: PLN and Ministry of Environment organizes an Energy Investment Day to attract investors to the country’s power sector. The event features presentations on PLN’s investment projects, renewable energy targets, and regulatory updates. PLN held conversations with investors to help finance projects to accelerate early retirement of coal fired power plants to meet net carbon emissions target.

Results:
- Provided a platform for investors to network with key stakeholders, explore investment opportunities, and gain a deeper understanding of the Indonesian energy landscape
- Partnership with ABD and a private power firm, deal would reduce lifetime of power plants by 9 years and secure affordable financing
Leverage support from DFIs

Description: Develop approaches to strategically utilize existing public funds or access to concessional capital from DFIs and IFIs to mitigate private sector risks and meet investment criteria

Minimum Maturity Criteria:
- Clear and comprehensive business plan with short- and long-term investments
- Transparent financial performance and reporting
- Align investment pipeline with national sustainability goals (NDCs)

Ideal State (best positioned to attract alternative finance)
- Conduct targeted outreach and form strategic partnerships with public financial institutions, such as development banks or government agencies
  - Partnerships can help secure concessional loans or grants that complement private investment, reducing perceived risks for private investors
- Seek government guarantees or support for specific projects, assuring private investors of reduced financial risks and providing a level of certainty in their investments
- Present transparent and well-structured investment opportunities that align with the country’s development goals and energy need

Building Block in Practice

Ethiopian Electric Power – Ethiopia

Utility Structure: State-owned electricity company

Challenge: EEP desired to expand its energy infrastructure to meet the growing demand for electricity and promote sustainable development and lacked sufficient finance. One project was the Corbetti Geothermal Power Project which will deliver up to 520MW.

Solution: Blended finance approach leveraged 25% equity financing and 75% debt financing. The Ethiopian government and international development organizations, like the World Bank and the African Development Bank (AfDB), provided grants, concessional loans, or guarantees to support the early stages of the project, including exploration and feasibility studies. Public finance was crucial in de-risking the initial phases of geothermal development.

Results:
- 2015 InfraCo Africa provided an equity investment of $15 million, $5 million was used for early-stage site development and the remaining $10 million towards drilling exploration
- 2018 an additional $15 million was provided by the company which will contribute towards exploratory drilling and development of the powerplant
Thank you!
GSS and Thematic Bonds Universe

**GREEN BONDS**
Green Bonds finance projects that have clear environmental benefits – e.g., energy efficiency, building efficiency, sustainable agriculture

**SOCIAL BONDS**
Social Bonds finance projects that create a positive social benefit – e.g., gender, housing, women, health, education

**SUSTAINABILITY BONDS**
Sustainability bonds finance projects that combine social and environmental benefits – e.g., Sustainable Development Goals, socially responsible investment. Bonds referred to as SDG bonds that are linked to the delivery of SDGs are generally issued by sovereign entities.

**SUSTAINABILITY-LINKED BONDS**
SLBs are forward-looking, performance-based instruments with coupon step-up/step-downs linked to achieving SPTs based on measurement of pre-defined KPIs. Expected to be a significant growth area, given the more flexible format.

GSS Bonds vs. Sustainability-linked bonds (SLBs)
Sustainability-linked bonds (SLBs), for which the coupon paid to investors depends on the issuer’s performance against measurable targets, are a newer type of debt instrument. In the case of use-of-proceeds bonds (green, social, and sustainability bonds), the issuer commits to using the funds exclusively to finance environmentally sustainable projects or activities. The use of proceeds is easy to track, and the annual reporting of expected environmental impact is relatively simple.

SLB proceeds, on the other hand, can be used for general purposes. This flexibility allows issuers that may not have enough green or social capital expenditure to access sustainability focused investors. Many issuers who can’t meet the criteria of green or social bonds have been able to successfully issue SLBs. SLBs are inherently more flexible because they are not tied to specific projects. However, labeling a bond as an SLB can be more complex than labeling it as a use-of-proceeds bond. The issuer must select key performance indicators (KPIs) and one or more sustainability performance targets (SPTs) according to key performance indicators. The KPIs should be material to the issuer’s core sustainability strategy, measurable or quantifiable, and externally verifiable.

Investors view Sustainability-linked instruments with greater scrutiny
According to a World Bank survey of debt management offices in emerging markets, investors pay even closer attention to: key performance indicators (KPIs), level of disclosure, the ambition of sustainability performance targets, and impact reporting when evaluating the investment potential of an SLB than use-of-proceeds bonds. Key factors:
• An independent, external review of baseline data for sustainability performance targets (SPTs) and performance
• A dedicated assessment framework for the SLB
• Standardized KPIs

Thematic bonds include green, blue, social, gender, sustainability, and sustainability-linked bonds. These bonds are also collectively known as GSS; GSS+; environmental, social, and governance (ESG); or sustainable bonds.
PREPARING TO ISSUE A SOVEREIGN THEMATIC BOND

• Issuance of thematic bonds involves steps that are not required for conventional bonds:
  – Adopt a framework that sets the basis for identification, selection, verification, and reporting of the expenditures or projects eligible to be financed by the bond and management of such proceeds
  – Ensure that the framework is aligned with accepted standards such as the International Capital Markets Association Green Bond Principles, Social Bond Principles, and Sustainability Bond Guidelines.

• Following these steps is important to ensure that the bond can be identified as a labeled thematic bond. Although the time required from start to finish varies, a first-time issuer can expect the entire process to take 6 months.

• It is recommended that an issuer establish some kind of entity (such as a task force or steering committee) comprised of members across an organization’s different functions. This multi-disciplinary approach can support a thorough understanding of the requirements, support a robust value proposition, conduct a detailed analysis of eligible expenditures, and design a work plan.
**Use of Proceeds**
The foundation of a green bond is the utilization of the proceeds of the bond for environmental projects, which should be appropriately described in the legal documentation and covenants. All designated projects should indicate clear environmental benefits that will be assessed and quantified by the issuer. Eligible green categories include:
- Renewable energy
- Energy efficiency
- Green buildings

**Process for project evaluation and selection:** The issuer must clearly communicate to investors:
- The environmental sustainability objectives;
- The process in determining how projects fit within the eligible green projects categories;
- The related eligibility criteria, including, if applicable, exclusion criteria or any other process applied to identify and manage potentially material environmental and social risks.

**Management of Proceeds:** The net proceeds of the green bond should be credited to a sub-account, moved to a sub-portfolio, or otherwise tracked by the issuer in an appropriate manner, and attested to by the issuer in a formal internal process linked to lending and investment operations for green projects.

**Reporting**
Issuers should make and keep readily available, up-to-date information on the use of proceeds to be renewed annually until full allocation, and on a timely basis in case of material developments. The annual report should include a list of the projects to which Green Bond proceeds have been allocated, as well as a brief description of the projects and the amounts allocated, and their expected impact.

**External Review**
It is recommended that issuers obtain external review and assurance to ensure alignment to the GBP. According to the Green Bond Principles Voluntary Process Guidelines for issuing green bonds, independent external reviews are grouped into the following:
- Second Party Opinion
- Verification
- Certification
- Green bond scoring/rating
WHAT DO INVESTORS CONSIDER WHEN INVESTING IN EMERGING MARKET THEMATIC BONDS?

Investors are still primarily concerned with typical credit fundamentals and risks when investing in fixed-income securities, including thematic bonds, because the associated risks and returns are similar to those of conventional bonds.

In addition to this criteria, ESG-minded investors are also concerned with greenwashing, which can result in significant backlash and reputational risk. Investors who choose to invest in GSSS and thematic bonds look to these instruments as ways to diversify their portfolios, and complement conventional bond holdings, while addressing growing client interest in sustainability and supporting integration of ESG as part of institutional investment strategy.

<table>
<thead>
<tr>
<th>FINANCIAL</th>
<th>ESG</th>
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<tbody>
<tr>
<td>Credit profile &amp; macroeconomic outlook</td>
<td>Issuers sustainability strategy and commitments</td>
</tr>
<tr>
<td>Political Risk</td>
<td>Type of bond</td>
</tr>
<tr>
<td>Currency</td>
<td>Bond Framework</td>
</tr>
<tr>
<td>Volume Liquidity</td>
<td>Transparency in allocation of proceeds &amp; impact report</td>
</tr>
<tr>
<td>Risk &amp; return of investment</td>
<td>Controversies/Reputation of issuer</td>
</tr>
<tr>
<td>Pricing characteristics &amp; comparison with existing bonds of issuer and peers</td>
<td></td>
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</tbody>
</table>

- Overall quality, alignment with international principles, quality of second-party opinion
- Criteria and definition of eligible expenditures categories
- Level of ambition, credibility, and relevance of selected key performance indicators and sustainability performance targets, their alignment with international goals, and their effective measurements
- Strength in the use-of-proceeds governance process, eligible project selection and evaluation*

Source: World Bank GSS Bonds Survey 2022
EMERGING MARKET SUBNATIONAL THEMATIC BONDS

• Although most subnational borrowers in emerging markets lack the authority and autonomy to borrow from global capital markets, some regularly issue bonds in the domestic market, and some even do so in the international capital markets, for example the City of Cape Town issued a green bond in 2017, and eventually sold at 133 basis points above the ZAR186 government bond.

• State-owned enterprises and national companies play an important role in supporting the achievement of government policy objectives. Energy and water utilities and other infrastructure entities are leading emitters of GHGs and as such are critical in supporting Paris Alignment and transitions at the national level. They are key actors in achieving SDG 7 (affordable and clean energy) and SDG 11 (sustainable cities and communities).

• The critical role of subnational entities in the energy transition is one draw for investors, although there are challenges associated with project scale and transparency.

Case Study: PT Indonesia

• PT Indonesia Infrastructure Finance (IIF), a private national company and non-bank financing institution, is supporting the flow of private capital into infrastructure development and reallocating resources from carbon-intensive to low-carbon and climate-resilient infrastructure by issuing a Sustainability Bond for longer-term financing of infrastructure projects.

• IIF developed a Sustainable Financing Framework, defining 11 green and social categories of eligible projects and a transparent governance process compliant with the ICMA Sustainability Bond standards. IIF listed the USD 150 million bond on the Singapore Stock Exchange in 2021.

• According to IIF’s 2021 Sustainability Bond Impact report, 100% of the proceeds of the bond were allocated toward drinking water supply infrastructure, renewable energy, healthcare, and telecom projects, including the 70MW Wind Power Plant Project in South Sulawesi, which contributed 200.7 GWh of renewable energy to the South Sulawesi national grid, while also supporting delivery Indonesia’s NDCs by mitigation 190,724 tCO2eq in GHG emissions.

Source: IIF 2021 Sustainability Bond Impact Report
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<th>Definition</th>
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
<td>EIB</td>
<td>European Investment Bank</td>
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<tr>
<td>AF</td>
<td>Adaptation Fund</td>
<td>EMDE</td>
<td>Emerging Markets and Developing Economies</td>
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<tr>
<td>AFD</td>
<td>French Development Agency</td>
<td>ESG</td>
<td>Environmental, Social, and Governance</td>
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<td>AfDB</td>
<td>African Development Bank</td>
<td>ESMAP</td>
<td>Energy Sector Management Assistance Program</td>
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<tr>
<td>AUSAID</td>
<td>Australian Agency for International Development</td>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>BOAD</td>
<td>West African Development Bank</td>
<td>EVN</td>
<td>Vietnam Electricity</td>
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<tr>
<td>BRICS</td>
<td>New Development Bank</td>
<td>FFEM</td>
<td>French Facility for Global Environment</td>
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<td>CIDA</td>
<td>Canadian International Development Agency</td>
<td>FONERWA</td>
<td>Rwanda Green Fund</td>
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<tr>
<td>DANIDA</td>
<td>Danish International Development Agency</td>
<td>GCF</td>
<td>Green Climate Fund</td>
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<tr>
<td>DFC</td>
<td>US International Development Finance Corporation</td>
<td>GEF</td>
<td>Global Environment Facility</td>
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<tr>
<td>DFIs</td>
<td>Development Finance Institutions</td>
<td>GHG</td>
<td>Greenhouse Gas</td>
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<tr>
<td>DFID</td>
<td>UK Department for International Development</td>
<td>GIZ</td>
<td>German Development Agency</td>
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<tr>
<td>EBRD</td>
<td>European Bank for Reconstruction and Development</td>
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<td>Acronym</td>
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<tr>
<td>GSS</td>
<td>Green, Social, Sustainable</td>
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<tr>
<td>IADB/IDB</td>
<td>Inter-American Development Bank</td>
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<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
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<td>JBIC</td>
<td>Japan Bank for International Cooperation</td>
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<td>JICA</td>
<td>Japan International Cooperation Agency</td>
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<td>KfW</td>
<td>German Investment Bank</td>
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<td>KOICA</td>
<td>Korean International Cooperation Agency</td>
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<tr>
<td>KPI</td>
<td>Key Performance Indicator</td>
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<tr>
<td>LEC</td>
<td>Liberia Electric Corporation</td>
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<tr>
<td>LDCF</td>
<td>Least Developed Countries Fund</td>
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<tr>
<td>NDC</td>
<td>Nationally Determined Contribution</td>
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<tr>
<td>ODA</td>
<td>Official Development Assistance</td>
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<tr>
<td>TAF</td>
<td>Technical Assistance Facility</td>
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<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>RECs</td>
<td>Renewable Energy Certificates</td>
</tr>
<tr>
<td>REGIO</td>
<td>Real Economy Green Investment Opportunity Fund</td>
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<tr>
<td>SCCF</td>
<td>Special Climate Change Fund</td>
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<tr>
<td>SLB</td>
<td>Sustainability Linked Bonds</td>
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<td>SLL</td>
<td>Sustainability Linked Loans</td>
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<tr>
<td>SPT</td>
<td>Sustainability Performance Target</td>
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<tr>
<td>SUPER</td>
<td>Strengthening Utilities and Promoting Energy Reform</td>
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<tr>
<td>TO</td>
<td>Task Order</td>
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<tr>
<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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</table>
## Acronyms – Building Block 1

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>CAPEX</td>
<td>Capital Expenditure</td>
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<tr>
<td>DSCR</td>
<td>Debt Service Coverage Ratio</td>
</tr>
<tr>
<td>EBITDA</td>
<td>Earnings before Interest, Taxes, Depreciation, and Amortization</td>
</tr>
<tr>
<td>IDR</td>
<td>Issuer Default Rating</td>
</tr>
<tr>
<td>ISA</td>
<td>Interconexion Electrica SA</td>
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<tr>
<td>MASEN</td>
<td>Moroccan Energy for Sustainable Energy</td>
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<tr>
<td>ONEE</td>
<td>Office National de l'Electricité et de l'Eau Potable</td>
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<td>ONEP</td>
<td>Office National de l'Eau Potable</td>
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<tr>
<td>O&amp;M</td>
<td>Operations and Maintenance</td>
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<tr>
<td>RE</td>
<td>Renewable Energy</td>
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## ACROYNYMS – BUILDING BLOCK 2

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>CDP</td>
<td>Carbon Disclosure Project</td>
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<tr>
<td>CDSB</td>
<td>Climate Disclosure Standards Board</td>
</tr>
<tr>
<td>EGAT</td>
<td>Electricity Generating Authority of Thailand</td>
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<tr>
<td>GRI</td>
<td>Global Reporting Initiative</td>
</tr>
<tr>
<td>IFRS</td>
<td>International Financial Reporting Standards</td>
</tr>
<tr>
<td>JPS</td>
<td>Jamaica Public Service</td>
</tr>
<tr>
<td>NEPCO</td>
<td>National Electric Power Company</td>
</tr>
<tr>
<td>P&amp;L</td>
<td>Profit and Loss Statement</td>
</tr>
<tr>
<td>PNG</td>
<td>Papua New Guinea</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<tr>
<td>SASB</td>
<td>Sustainability Accounting Standards Board</td>
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<tr>
<td>SOE</td>
<td>State Owned Enterprises</td>
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<tr>
<td>TCFD</td>
<td>Task Force on Climate-related Financial Disclosures</td>
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<tr>
<td>T&amp;D</td>
<td>Transparency and Disclosure</td>
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<tr>
<td>UEB</td>
<td>Uganda Electricity Board</td>
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# Acronyms – Building Block 3

<table>
<thead>
<tr>
<th>Acronym</th>
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<tbody>
<tr>
<td>ECG</td>
<td>Electric Company of Ghana</td>
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<tr>
<td>EEP</td>
<td>Ethiopian Electric Power</td>
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<tr>
<td>IFI</td>
<td>International Financial Institutions</td>
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<tr>
<td>PLN</td>
<td>Perusahaan Listrik Negara</td>
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<tr>
<td>PPA</td>
<td>Power Purchase Agreement</td>
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<td>RE</td>
<td>Renewable Energy</td>
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<tr>
<td>SPV</td>
<td>Special Purpose Vehicle</td>
</tr>
<tr>
<td>SSNIT</td>
<td>Social Security and National Insurance Trust</td>
</tr>
<tr>
<td>VRA</td>
<td>Volta River Authority</td>
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