Advancing Interconnected Mini-Grids: Next steps

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Interconnected mini-grids: A key component of Africa’s energy future?
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Overview

1. Key findings from AMG-CoP member survey on IMGs
2. A policy guide to advancing IMGs
3. IMG investment de-risking assessments: Analysing risks & barriers for IMG investment to design targeted policy & finance instruments to address these
1. Key findings from AMG-CoP member survey on IMGs
AMG-CoP Member Survey on IMGs

- Survey on **government existing support and future plans** for IMG deployment in AMG-CoP member countries
- Preliminary results from four countries show that **all countries are highly interested in IMGs** but not all have set targets or made concrete plans for IMG market development.
- All respondents thought that **IMGs could potentially be helpful/very helpful to:**
  - Improve access to reliable energy,
  - Accelerate economic development and job creation, and
  - Support a green COVID-19 recovery.
The main **technical assistance needs** for IMG development identified by respondents are:

- Access to finance
- Capacity building
- Mobilizing private sector investment
- Communicating and engaging with stakeholders
Preliminary conclusions:

- There is widespread interest in IMGs – but most countries lack a clear strategy for accelerating their deployment
  - Development of IMG markets requires active government involvement to facilitate and regulate relationships between IMG developers and utilities
  - Therefore, technical support to governments to build capacity, develop regulations and strategies, and raise finance for IMG deployment will be key

If you have not yet completed the survey, fill it out today at tiny.cc/leds_img_survey
2. A policy guide to advancing IMGs
Policy Guidebook: Advancing Markets for IMGs

Developing IMG markets requires sustained political will and concerted efforts by the public sector – this new AMG-CoP policy guidebook gives pointers on where to start.

• **Broad strategy and target-setting:**
  • set ambitious, feasible and verifiable targets,
  • integrate them into development plans, and
  • communicate them widely.

• **Policy and regulation:**
  • align policies with IMG plans,
  • lend active helping hand to IMG developers, and
  • ensure they can compete on price with utilities.
• **Administrative processes:**
  • make it quick & easy to get IMG development licenses, and
  • streamline customs procedures for IMG parts.

• **Financial instruments:**
  • design financial support instruments for IMG developers, and
  • reduce investment risks in IMGs.

• **Other supportive measures:**
  • build productive partnerships among all relevant stakeholders,
  • help companies gain sustainability certifications, and
  • help build technical & managerial capacities.
3. IMG investment de-risking assessments
IMG investment de-risking assessments

- **IMG Nigeria study** originally based on UNDP’s ‘De-Risking Renewable Energy Investment’ (DREI) methodology
  - Identified the main barriers to and enablers for investment in IMGs in Nigeria
  - To be launched soon – stay tuned!
- **NEW risk & barriers and finance & policy instrument sheets** as basis for surveys in other countries
  - Currently collecting interests of countries that want to undergo IMG investments risk assessment
Risk categories:

1. Social Acceptance Risk
2. Hardware Risk
3. Digital Risk
4. Labor Risk
5. Energy Market Risk
6. Developer Risk
7. End User Credit Risk
8. Financing Risk
9. Currency Risk
10. Sovereign Risk

Rating of Each Risk Category

- **RED**: cumulative total > 4.0
- **ORANGE**: cumulative total > 3.0
- **YELLOW**: cumulative total > 2.0
- **GREEN**: cumulative total < 1.0

Rating Scale:

**Likelihood of Occurrence**
the probability that the barrier occurs
1 unlikely --- 5 very likely

**Financial Impact**
should it occur
1 low impact --- 5 high impact
**Energy Market Risk**

- **Market outlook**
  - Lack of political will, uncertainty re. targets
  - Likelihood: 3.20
  - Impact: 4.20
- **Competition Subsidies**
  - Diesel competition
  - Likelihood: 3.53
  - Impact: 3.67
- **Access, competition, grid expansion**
  - Lack of access, unclear future extensions
  - Likelihood: 3.33
  - Impact: 3.60
- **Tariffs**
  - Uncertainty, inflexibility
  - Likelihood: 2.67
  - Impact: 3.67
- **Technical Standards**
  - Uncertainty, inconsistency of tech. requirements
  - Likelihood: 2.73
  - Impact: 3.07

**Developer Risk**

- **Developer credit worthiness & cash flow strength**
  - Likelihood: 4.20
  - Impact: 4.47
- **Management capability**
  - Likelihood: 3.53
  - Impact: 3.73

**Financing Risk**

- **Liquidity constraints in domestic banking**
  - Likelihood: 4.47
  - Impact: 4.60
- **Competing incentives and mandates**
  - Likelihood: 3.80
  - Impact: 4.27
- **Limited domestic investor experience with mini grids**
  - Likelihood: 3.37
  - Impact: 4.33
- **Underdeveloped domestic financial sector**
  - Likelihood: 3.73
  - Impact: 3.93

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Example: Currency risk in Nigeria

Key Findings:
- Very prominent risk, requires attention
  - Can occur throughout the project cycle
- Nigerian economy depends on the international oil market which is prone to currency risk
- Effectively addressing this risk has positive effect on other barriers

Suggested Policy Mix:
- Government to provide support for long-term development of liquid domestic FX derivative markets
  - Financial products to transfer some or all currency risk to public sector
- Volatility of the Naira can be addressed through dollarization of the green bond in the capital market
- Pension, social insurance and sovereign wealth funds can be apportioned to bear a share of the risk
- Investors can enter into hedge agreement with banks to protect them from currency fluctuations
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