

# Policy and regulatory framework for Clean Energy Mini-grids

## National Experiences in the ECOWAS region



**Moderator: Dr. Peggy Mischke, RECP Policy Advisory**

High-level workshop on energy access in West-Africa

March 27-28, 2017 Abidjan, Côte d'Ivoire

# Content

## Session 1:

### **Energy and Electricity Policy for Clean Energy Mini-Grids (CEMGs)**

1. An example from Liberia
2. An example from Ivory Coast
3. An example from Cape Verde
4. An example from Sierra Leone

## Session 2:

### **Economic, Customer and Environmental Policy and Regulation for CEMGs**

1. An example from Ghana
2. An example of a quality assurance framework
3. An example from Senegal

# Content - continued

Session 3:

## Licenses, Contract Regulation and Financial Support Schemes for CEMGs

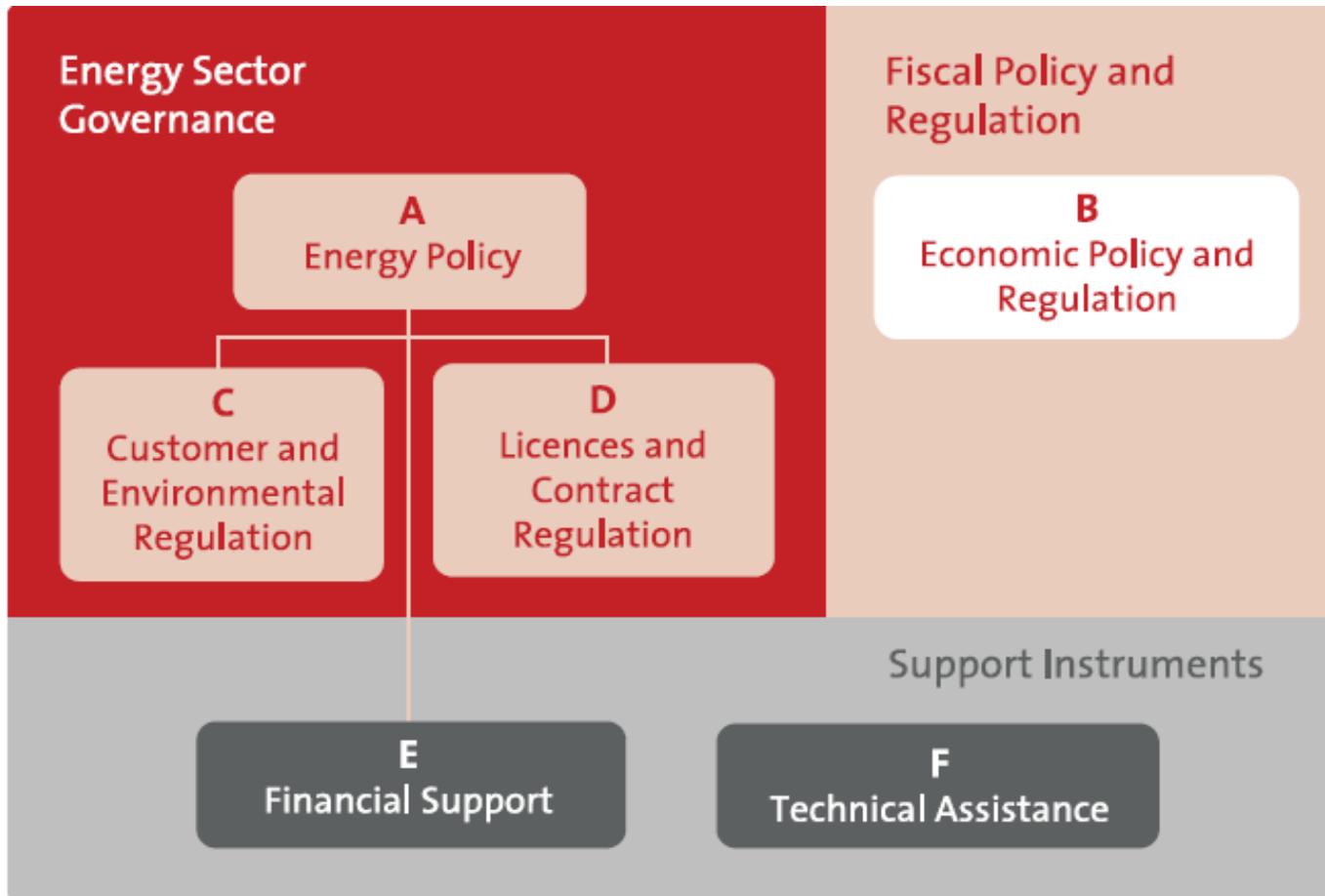
1. An example from Mali
2. An example from Nigeria
3. An example from the Gambia
4. An example from Niger

## Technical Assistance and Capacity Building for CEMGs

# A conducive policy and regulatory framework for Clean Energy Mini-grids (CEMGs)

Session 1

Session 3



Session 2

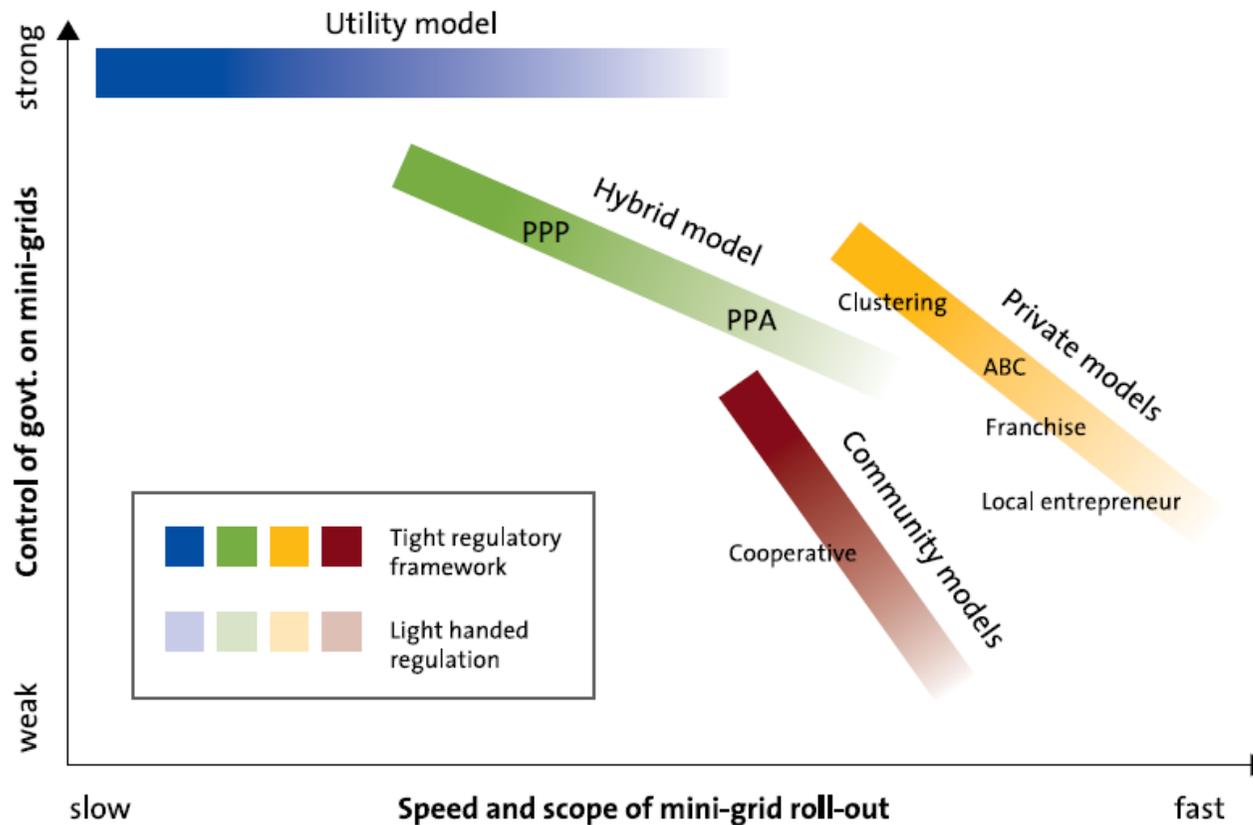
Ref: EUEI PDF Mini-Grid Policy Toolkit, 2014

# Session 3: Licenses and Contract Regulation, Financial Support Schemes for CEMGs

Thematic focus:

- Generation and Distribution Permits and Licenses
- Concession Contracts and Schemes
- Power Purchase Agreements
- Grants and Subsidies
- Loan Support and Risk Mitigation Instruments

# Government control, speed and scope of mini-grid roll-out programmes are interlinked.



Ref: EUEI PDF Mini-Grid Policy Toolkit, 2014

# Session 3: Licenses and Contract Regulation, Financial Support Schemes for CEMGs

## Generation and Distribution Permits and Licenses:

- can give the **non-exclusive right** to generate, distribute and sell electricity in a certain area for a certain period of time;
- are usually **granted** by an energy sector regulator, a dedicated rural energy agency or a ministry in charge of energy;
- can include detailed **preconditions** (like land **leases/permits** or **environmental impact assessments**) and specify **mini-grid operating conditions**;
- impact the **transaction costs**, the **financial viability**, **access to finance** and **scalability** of a **mini-grid business model**.

# Session 3: Licenses and Contract Regulation, Financial Support Schemes for CEMGs

## Concession Contracts and Schemes:

- are formalised **between a public and private entity** granting the **exclusive right to invest, operate and maintain the distribution assets and sell electricity** to end-users for a given number of years in **specified geographic service area**;
- **bind a private operator** to deliver a specified quality of service and electricity access targets and in turn often entails favourable terms;
- need to ensure **terms and conditions suitable for a local context**;
- can be awarded after a **competitive bidding scheme**, in particular for large-scale concessions that aggregate several **mini-grid projects**.

# Session 3: Licenses and Contract Regulation, Financial Support Schemes for CEMGs

Country experiences:

Ms. THIENTA Sabbah Fatoumata THIERO

Malian Agency for the Development of Household  
Energy and Rural Electrification (AMADER)

Mali

# Session 3: Licenses and Contract Regulation, Financial Support Schemes for CEMGs

## Power Purchase Agreement (PPA):

- is a **multi-year contract** detailing the rights and obligations of two parties – a **generator and a buyer of electricity**;
- is needed for a **mini-grid** when **independently produced electricity is sold in bulk under a feed-in tariff** to a distribution grid operator, the national grid utility or an anchor customer;
- should be fair, binding, ban unilateral changes, and protect parties to the contract equally;
- could be **standardised** for **mini-grids** to facilitate approvals of grants and loans of financial institutions and development partners.

# Session 3: Licenses and Contract Regulation, Financial Support Schemes for CEMGs

Country experiences:

Mr. Abayomi Adebisi

Federal Ministry of Power, Works and Housing

Nigeria

# Session 3: Licenses and Contract Regulation, Financial Support Schemes for CEMGs

## Grants and Subsidies:

- are financial support instruments that **incentivise actors to provide electricity** in regions and to population groups that lack the financial means to afford the full costs of electricity by themselves;
- can be provided **during different project phases** (pre-investment, construction, or operation);
- are frequently made available to a **mini-grid operator** upon reaching certain milestones (results-based);
- may result in **lower tariffs** for certain **mini-grid customers**;
- should be balanced: **as low as possible, and as high as necessary.**

# Session 3: Licenses and Contract Regulation, Financial Support Schemes for CEMGs

## Loan Support and Risk Mitigation Instruments:

- are **mechanisms to facilitate lending**, each of which may be supported by a specific policy and regulation, to **enhance access to debt finance** for **mini-grid developers**;
- may provide or facilitate **long-tenor, low-interest loans** that commercial lenders would currently not offer to **mini-grid projects**;
- may be **administered** by a national rural energy agency or another public entity in charge of energy access;
- include for example a donor-backed **line of credit** to a local financial institution that increases the duration of loans offered to **mini-grid developers**.

# Session 3: Licenses and Contract Regulation, Financial Support Schemes for CEMGs

Country experiences:

Mr. Burama Jammeh

Public Utilities Regulatory Authority (PURA)

The Gambia

# Session 3: Licenses and Contract Regulation, Financial Support Schemes for CEMGs

Country experiences:

Mr. Nouhou Zakaouanou / Mr. Amadou Halilou Kané

Ministry of Energy and Petroleum

Niger

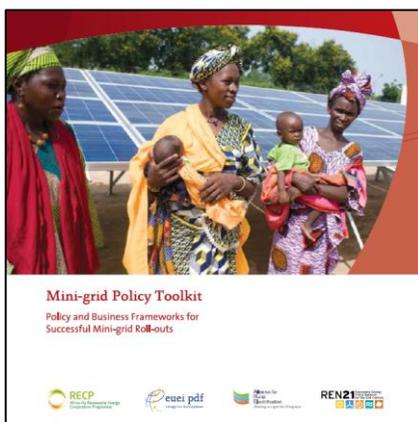
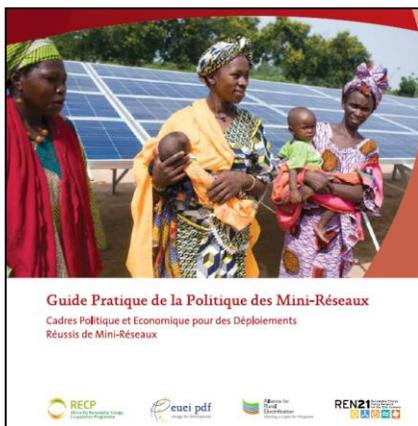
# Session 3: Technical Assistance and Capacity Building

## Technical Assistance (TA):

- can be provided for the **general public** (awareness raising), for the **workforce** (vocational training), for the **mini-grid project developers** (providing information, guidelines, and recommendations), to **financing institutions**, as well as to the **public energy sector institutions in charge of policies and regulations** at different levels;
- can be **financed by a national public entity and by different national and international actors** on specific activities.

TA may address a wide range of areas for mini-grid programmes, including financing of project-specific studies, awareness raising, promotion of thematic public networks, and inter-agency coordination assistance.

# Session 3: Technical Assistance and Capacity Building



## Mini-Grid Policy Toolkit

- Aims to provide guidance on how to design policy and regulatory instruments to promote investments in mini-grids
- Product of the Africa-EU Renewable Energy Cooperation Programme (RECP), funded by the European Union
- English and French versions are available online at: [minigridpolicytoolkit.euei-pdf.org](http://minigridpolicytoolkit.euei-pdf.org)

# Session 3: Licenses and Contract Regulation, Financial Support Schemes and Technical Assistance for CEMGs

## Questions and Answers

# Thank you for your attention!

**intec**  
**GOPA - International**  
**Energy Consultants GmbH**

Bad Homburg, Germany

[www.gopa-intec.de](http://www.gopa-intec.de)

**EU Energy Initiative**  
**Partnership Dialogue Facility**  
**(EUEI-PDF)**

c/o Deutsche Gesellschaft für  
Internationale Zusammenarbeit  
(GIZ) GmbH

Eschborn, Germany

[www.euei-pdf.org](http://www.euei-pdf.org)

**ECOWAS Centre for**  
**Renewable Energy &**  
**Energy Efficiency**  
**(ECREEE)**

Praia, Cape Verde

[www.ecreee.org](http://www.ecreee.org)

[www.africa-eu-renewables.org](http://www.africa-eu-renewables.org)



Dr. Peggy Mischke  
EconergyPM – Clean Energy Expertise  
[www.peggymischke.com](http://www.peggymischke.com)