











### INTERNATIONAL ONLINE CONFERENCE

# SUSTAINABLE AND SCALABLE MINIGRID BUSINESS MODELS

JANUARY 23RD, 24TH, AND 25TH; 3:00PM TO 6:00PM CENTRAL AFRICA TIME<sup>1</sup>

<sup>1</sup> Updates on this program can be found at the African School of Regulation website: https://africanschoolregulation.org

The African School of Regulation (ASR), in collaboration with the African Development Bank (AfDB), the African Forum for Utility Regulators (AFUR), Africa Minigrid Developers Association (AMDA), the Global Energy Alliance for the People and the Planet (GEAPP), and the International Renewable Energy Agency (IRENA), invites you to a high-level online conference on the necessary regulatory conditions, business model designs, and financial approaches that are necessary to attain a sustainable and scalable development of the minigrid industry.

A very large number of minigrids must be deployed in Africa to achieve the goal of universal electricity access in the continent by 2030, according to estimates by both the minigrid industry and well-known international organizations. Most of the large volume of capital that is needed must come from private investors, and this will only be possible if business models for minigrids can be defined that are financially viable and can maintain this condition permanently, i.e., if the business models are sustainable. In addition, it is necessary that these business models can be scaled up to the necessary

dimension, both in terms of the required financing and the technical and managerial capability of the minigrid developers to install all the minigrids identified in the electrification plan.

Despite the favourable projections, minigrids have failed resoundingly in Africa and everywhere else over many years to have significant impact on electricity access. Minigrids cannot attain the relevance they should unless the sustainability of their business model is resolved and implemented through necessary regulatory measures. The conference will focus on the specification of the fundamental regulatory conditions, business model designs, and financial approaches that are necessary to attain sustainability — a necessary, but not sufficient condition for scalability — which will be also discussed.

Conference participants will debate to arrive at the definition of actionable regulatory and business models for minigrids that can attract investors, be deployed quickly, build all the minigrids included in a least cost electrification master plan to achieve SDG, and ensure permanence of reliable and affordable electricity supply.

The applicability of lessons learned with minigrids to standalone solar systems will be also examined.

The Conference will bring a limited number of invited experienced participants — from minigrid developers, power pools, ministries, regulatory agencies, development financial institutions, think tanks, private companies, and academia — who will debate under a panel format virtually. The debates will be open free of charge to any interested registered participants, who will be able to send questions and to provide comments that

will be conveniently used by the moderators of the panels and made available to all participants.

Preparatory reading material will be made available to all participants ahead of the dates of the Conference. Following the Conference, the ASR team will make public a brief with the summary of the key findings and takeaways, and will organize follow up events — interviews, podcasts, debates on specific aspects — to further examine the topics that had been discussed.

### **DAY 1 - January 23rd 2023**

The first day will be dedicated to presenting the reality and immediate perspectives of the minigrid situation, with a focus in Africa. Successful and failed experiences will be presented, searching for the underlying causes and extracting the lessons that can be learned.

The day will start with some brief introductory presentations on the topics and questions to be discussed during the Conference, and it will be followed by moderated panel discussions.

#### 3:00 to 3:20 pm: Conference opening

- Opening words by the interim ASR Director.
- Speakers from the partner organising entities. Wale Shonibare (AfDB), James Manda (AFUR), Jessica Stephens (AMDA), Wale Aboyade (GEAPP), and Rabia Ferroukhi.

# MINIGRID BUSINESS MODELS: LEARNING FROM PAST AND CURRENT EXPERIENCES

3:20 to 3:50 pm: *Existing approaches, best worldwide* practices, and present challenges

- Situation of the minigrid sector in Africa (Jessica Stephens, CEO Africa Minigrids Developers Association, AMDA).
- Requirements for sustainability and scalability of minigrids (Ignacio Pérez-Arriaga, interim Director, ASR).

#### 3:50 to 4:00 pm: BREAK

4:00 to 5:55 pm: *Presentation and discussion of experiences* 

The following panels will discuss experiences with

different regulatory, business model, and financial approaches to the deployment of minigrids. The two major topics to be discussed on Day 2 – sustainability and scalability – will be the focus of the review of experiences during Day 1.

4:00 to 4:50 pm: *Panel 1* 

Donor-supported and market-like minigrid business models

**Moderator:** Jonathan Phillips, Director, Energy Access Project at Duke University, Nicholas Institute for Energy, Environmental and Sustainability.

#### Panelists:

- Brad Mattson, Chairman, Husk Power.
- Mukabanji Mutanuka, Head of Business Development Southern Africa, Engie Energy Access.
- Jaideep Mukherji, CEO, Smart Power India.

4:50 to 5:00 pm: BREAK

5:00 to 5:55 pm: *Panel 2* 

Concession-like minigrid business models

**Moderator:** Jonathan Phillips, Director, Energy Access Project at Duke University, Nicholas Institute for Energy, Environmental and Sustainability.

#### Panelists:

- Irene Calvé Savorit, Co-Founder and CEO, Sunkofa Energy.
- Divyam Nagpal, Programme Officer for Energy Access, IRENA.
- José Guerra, Former Team Lead at NESP II, Smart Energy Efficiency

5:55 to 6:00 pm: **CLOSING for the day.** 

### **DAY 2 - January 24th 2023**

# MINIGRID BUSINESS MODELS: CHALLENGES AND SOLUTIONS

In the second day, experts on the different key factors that have been identified during the previous day will discuss the best approaches to define sustainable business models that can scale up to the necessary volume to achieve SDG7, with a focus on Africa.

3:00 to 3:05 pm: Introduction and schedule of the day

• Ignacio Pérez-Arriaga, interim Director, ASR.

3:05 to 4:00: Panel 3

#### Regulation for inclusive and sustainable minigrids

The following panel will discuss remuneration based on the efficient cost of service with minigrids, minigrid tariffs, subsidies, concessions and auctions, as well as the relationship of minigrids with the main grid: "when the grid arrives" and "when the minigrid arrives".

**Moderator:** James Sherwood, Director of Research and Innovation of the Global South Program, RMI.

#### Participants:

- James Manda, Technical Manager, African Forum for Utility Regulators, AFUR.
- Dan Croft, Manager, Infrastructure, International Finance Corporation.
- Carolina Barreto, Energy Access Director, Tetra Tech.

#### 4:00 to 4:10 pm: BREAK

4:10 to 5:00: Panel 4
Achieving scalability

Starting from a sustainable minigrid business model, this panel will discuss how to achieve scalability, by reducing the minigrid supply costs – via technology improvements, demand growth, optimized design, efficient O&M and EPC – improving affordability by electricity enabled economic activities, and an overall viable financial plan.

**Moderator:** Simon Hodson, CEO Gridworks Development Partners.

#### **Participants:**

- William Brent, Chief Marketing Officer, HuskPower Systems.
- Alex Wanume, Country Director Uganda, Winch Energy.
- Riccardo Ridolfi, CEO and co-founder of Equatorial Power.

#### 5:00 to 5:10 pm: BREAK

# 5:10 to 6:00: **Panel 5 How to make it happen**

The following panel will discuss the practical steps that would be necessary to achieve sustainability and scalability of the minigrid business models. Are the major present minigrid development programs supported by a truly sustainable and scalable business plan?

**Moderator:** Benjamin Curnier, Principal Green Mini-Grids Officer, Sustainable Energy Fund for Africa, SEFA, African Development Bank Group.

#### **Participants:**

- Raul Alfaro-Pelico, Senior Director of the Africa Energy Program and the Energy Transition Academy at the RMI.
- Dennis Nderitu, Manager, Energy Systems, The Global Energy Alliance for People and Planet, GEAPP.
- Temitope Udo-Affia, Coordinator of Off-grid Regulation and Markets at GET.transform, GIZ Group.

### **DAY 3 - January 25th 2023**

## SUSTAINABLE BUSINESS MODELS FOR MINIGRIDS: THE WAY FORWARD

The third day will start by recapping the output from days 1 and 2 and will continue with two round table discussions, the first one on the key open issues identified in Day 2 and it will include regulators and government officials, industry representatives, and public and private investors. The second one will consist of a high-level institutional discussion on political actions to move forward with scalable and sustainable business models for minigrids.

3:00 to 3:05 pm: Introduction and schedule of the day

• Ignacio Pérez-Arriaga, interim Director, ASR.

3:05 to 3:15: Key lessons learned

3:15 to 4:45: Panel 6

Outstanding regulatory, business model, and financial problems

**Moderator:** Ghita Benabderrazik, Investment Officer, Africa Upstream Infrastructure, at International Finance Corporation, IFC, World Bank Group.

#### Participants:

- James Albert Knuckles, Consultant at the Global Facility on Mini Grids, ESMAP.
- Nico Peterschmidt. Co-founder and CEO of INENSUS.
- Henry Jumba, Technical advisor, Get.transform, Uganda
- Sanjana Srivastav, Energy Economist for the State Fragility Initiative, at the International Growth Centre, London Hub.
- Idris Tayebi, Director, NEoT Offgrid Africa.

4:45 to 5:00 pm: BREAK

5:00 to 5:45 pm: *Panel 7 An action plan* 

*Moderator:* Samuel Bunnya, Project Coordinator, African Forum for Utility Regulators, AFUR.

#### Participants:

- Clemencia Torres de Mästle, Lead for the Global Facility for Mini Grids, Energy Sector Management Assistance Program, ESMAP, World Bank
- Wale Shonibare, Director, Energy Financial Solutions,
   Policy and Regulation, African Development Bank.
- Jessica Stephens, CEO, Africa Minigrids Developers, Association, AMDA.
- Onyi Iyizoba, Legal Specialist, International Solar Alliance, ISA

#### 5:45 to 6:00 pm: Conference closure

Closing words by the interim ASR Director.