

## International Online Seminar

# Mini-Grids in the Global South: Planning, Implementation and Future Perspectives

University of Oldenburg, 20 November to 06 December 2020 (online)

## Programme

### Day 1: Friday, 20 November 2020, 14:00 CET

#### Welcome and opening (15min),

Presentation of the Programme, with a focus on organisational (Herena Torío, Postgraduate Programme Renewable Energy (PPRE), University of Oldenburg, Germany)

#### Session 1: Setting the Scene (Chair: Herena Torío)

14:15 – 16:00

#### Keynotes (15min presentation + 10min Q&A):

- *The multi-dimensional aspects of community-operated RE-powered mini grids*, Catoer Wibowo, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Energising Development (EnDev) Knowledge Hub, Indonesia
- *Introduction of Case Studies from Bangladesh (3min), India (3min), Sierra Leone (3min), Indonesia (3min), and Brazil (3min), and their contexts* (Lecturers)

#### Flashlight (20min):

- Me and the seminar – participant's own thematic interests and wishes,

#### Short break

#### Setting the Scene (20min)

- Summary Flashlight Herena Torío, PPRE / Andreas Günther, PPRE
- Case Studies, Diversity, Key-Stakeholders, Success analysis Hans Holtorf, PPRE

#### Session 2: The technology of Mini-grids (Chair: Hans Holtorf)

16:30 – 17:45

#### Lectures (15min presentation + 10min Q&A):

- *Typical Configurations of solar PV mini-grid systems*, Dwipen Boruah, Global Sustainable Energy Solutions (GSES), India
- *Micro Hydropower (MHP) based Mini-Grids*, Chayun Budiono, PT Gerbang Multindo Nusantara (GMN), Indonesia
- *Hybrid Mini-Grid Systems*, Shahriar Ahmed Chowdhury, Centre for Energy Research – United International University (UIU), Bangladesh

#### Session 3: Introduction to Workshop Sessions (Chair: Andreas Günther)

18:15 – 19:00

**Workshop (45 min):** *Introduction to the Online Platform Tools, Briefing Saturday Workshop (Andreas Günther, PPRE),*

## Day 2: Saturday 21 November 2020, 09:00 CET

### Session 1: Innovative approaches (Chair: Jane Kariuki)

9:00 – 10:15

#### Lectures (15min presentation + 10min Q&A):

- *Challenges in the Optimization of Hybrid PV-Diesel Operation*, Lisa Müller, Belectric GmbH, Germany
- *Off-grid and decentralized hybrid renewable electricity systems (OHRES), comprehensive techno-economic approach. Based on contrastive case studies in Canada and Sub-Saharan Africa.*, Mohamed Mamdouh Elkadragy, Karlsruhe Institute for Technology (KIT), Germany
- *Monitoring and Controlling Off-Grid Systems*, Roy Emmerich, Ferntech GmbH, Germany

### Session 2: Open space (Chair: Andreas Günther)

10:45 – 12:15

**Workshop (90 min):** *Topics and concrete projects for cooperation and exchange*

## Day 3: Friday 27 November 2020

### Session 1: Socio-ecological aspects (Chair: Aliqyaan Sakarwala)

14:00 – 15:45

#### Lectures (15min presentation + 10min Q&A):

- *Social issues of MHP Mini-Grids in Indonesia*, Chayun Budiono, GMN, Indonesia
- *Social Dilemmas of the universalization of electricity in traditional communities in the semiarid region of Bahia*, José Renato Teixeira Da Silva, Consultoria Socioambiental Ltda (CSA), Brazil
- *Ecological impacts of MHP in Indonesia*, Chayun Budiono, GMN, Indonesia
- *Ecological issues of the Lactec case study*, Cristiane Wessling, Lactec, Brazil

### Session 2: Economics of Mini-grids (Chair: Jane Kariuki)

16:15 – 18:00

#### Lectures (15min presentation + 10min Q&A):

- *Key Maker Model in Mini-Grids*, Dipta Majumder, INENSUS GmbH, Germany
- *Financial Assessment of Mini-Grids in Brazil, Bahia State*, Kristie Kaminski Küster, Lactec, Brazil
- *Cost Reflective Tariffs in Mini-Grids: Experience from Sierra Leone*, Dipta Majumder, INENSUS GmbH, Germany
- *Off-Grid in Europe – Electrification of Alpine Mountain Huts*, Hans Holtorf, PPRE

**Day 4: Saturday 28 November 2020 9:00 CET**

**Session 1: Politics of Mini-Grids (Chair: Jane Kariuki) 9:00 – 10:15**

**Lectures (15min presentation + 10min Q&A):**

- *Implementation of Mini-Grids in to the political framework – lessons learned from Bangladesh*, Shahriar Ahmed Chowdhury, UIU, Bangladesh
- *Analysis of the ever-changing policy environment and its impacts on MHP business*, Chayun Budiono, GMN, Indonesia
- *Political context of the Project “Mini-Grids” in Brazil*, Carolina Corrêa Durce, Lactec, Brazil

**Session 2: Project Implementation I (Chair: Aliqyaan Sakarwala) 10:45 – 12:00**

**Lectures (15min presentation + 10min Q&A):**

- *Mini-Grid Project Development Overview*, Dwipen Boruah, (GSES) India
- *Clustering of households for mini-grids formation*, Felipe José Lachovicz, Lactec, Brazil
- *Construction of load profiles according to users’ needs and desires*, Kristie Kaminski Küster, Lactec, Brazil

**Session 3: Open Space (Chair: Andreas Günther) 12:30 – 14:00**

**Workshop (90 min):** *Topics and concrete projects for cooperation and exchange*

**Day 5: Friday 04 Dezember 2020 14:00 CET**

**Session 1: Project Implementation II (Chair: Aliqyaan Sakarwala) 14:00 – 15:30**

**Lectures (15min presentation + 10min Q&A):**

- *Designing solar PV mini-grid systems*, Dwipen Boruah, GSES, India
- *From Paratoli Island (2014) to Monpura (2020)- Lessons learned from Bangladesh*, Shahriar Ahmed Chowdhury, UIU, Bangladesh

**Keynote (30min presentation + 10min Q&A):**

- *Sustainability of Off Grid Minigrids*, Zivayi Chiguvare, University of Namibia

**Session 2: Special Event (Chair: Hans Holtorf) 16:00 – 18:00**

**Live Broadcast (120 min):** *Conversation with Off-Grid Experts: Live from OFF-GRID Expo + Conference 2020 in Augsburg*

**Day 6: Saturday 05 Dezember 2020 9:00 CET**

**Session 1: Quality Assurance (Chair: Jane Kariuki) 9:00 – 10:15**

**Lectures (15min presentation + 10min Q&A):**

- *Test Laboratories*, Shahriar Ahmed Chowdhury, UIU, Bangladesh
- *Hydro Competence Centre (HYCOM)*, Chayun Budiono, GMN, Indonesia
- *Standards and Regulations applicable to solar PV mini-grid systems*, Dwipen Boruah, GSES, India

**Session 2: The way forward (Chair: Herena Torío) 10:45 – 12:15**

**Workshop (90 min):** *Future projects, cooperation and exchange of ideas, Final statements and feedback*

**Closing (Chair: Herena Torío) 12:15 – 12:30**