



RES4Africa Academy

Mini-grid Training for Energy Professionals in the G5 Sahel countries

Decentralized Renewable Energy Systems, Site Selection and Engineering					
Planned dates 26-27-28-29-30/09/2022					
Day 1		26/9/2022	Decentralized Renewable energy systems - basic components	Entities to be involved	Trainers
Time Slot (mins)	Timeslot (CET)	Lesson	Title		
20	10:30-10:50	INTRO 1	Introduction to MGA, MGA Vision and Partners, Training methodology and Agenda	Res4Africa	Marta Caradonna and Prof. Micangeli, Gowthami Eti
25	10:50-11:15	INTRO 2	Introductory session for participants	Res4Africa	Laura Lombardo
15	11:15-11:30	CS-1	Grid Rural Electrification Solutions to ensure access to electricity for all (Sustainable Infrastructure)	Enel Grids	Ing. Manuel De Tellechea - Global Sustainability
60	11:30-12:30	1.2.5	Micro-grid Architecture, Basic technological architecture of a micro-grid	ABB	Enrico Ragaini
15	12:30-12:45		Break		
50	12:45-01:35	2.1.2	Micro-grid pre-feasibility and feasibility studies	ARE	Alexis Rehbinder
20	01:35-01:55	1.2.8	Load profile exercises	Engreen	Paolo Cherubini
25	01:55-02:20	WG	Working Groups - Load Profiles Practical Exercise	Sapienza University/ Engreen	Paolo Cherubini
10	02:20-02:30		Final Briefing	Res4Africa	Marta Caradonna, Andrea Micangeli
240	4				
Day 2		27/9/2022	Decentralized Renewable energy systems - engineering, system design, and EPC	Entities to be involved	Trainers
Time Slot (mins)	Timeslot (CET)	Lesson	Title		
40	10:30-11:10	2.2.6	Batteries – Technology	Enel Green Power	Luisa Livia Pia Lambertino
40	11:10-11:50	2.2.11	Inverters overview	Enel Green Power	
15	11:50-12:05		Break		
45	12:05-12:50	3.1.1	EPC – Engineering, load analysis and system design computer aided (Design of off-grid hybrid systems; Homer tool)	Enel Green Power	Simone Bigini
40	12:50-01:30	WG	Working Groups - Design and Develop a Off-Grid PV System	Sapienza University - Technical Solidarity	Ganga Raju and Prof. Andrea Micangeli
50	01:30-2:20	4.1.1	EPC - Procurement for mini-grid energy systems	Enel Green Power	
10	02:20-02:30		Final Briefing	RES4Africa	Marta Caradonna and Prof. Andrea Micangeli
240	4				
Day 3		28/9/2022	System construction and installation	Entities to be involved	Trainers
Time Slot (mins)	Timeslot (CET)	Lesson	Title		
60	10:30-11:30	4.1.2	Grid-tied systems installation (BOS)	Open Africa Power/ Enel Foundation	Safiatou Nana
60	11:30-12:30	4.1.5	Solar power system construction and installation procedures	BFP	Marco Storelli - Technical Director of BFP Service
20	12:30-12:50		Break		
60	12:50-01:50	4.1.7	Testing and commissioning (off-grid, hybrid)	Open Africa Power/ Enel Foundation	Segbedji Geraldo FAVI
40	01:50-02:30	WG	Working Groups - Design and Develop a Off-Grid PV System	Sapienza University - Technical Solidarity	Ganga Raju and Prof. Andrea Micangeli
5	02:30-02:35		Final Briefing	RES4Africa	Marta Caradonna, Andrea Micangeli
245	4,08				
Day 4		29/9/2022	Business models, economics, and micro project financing	Entities to be involved	Trainers
Time Slot (mins)	Timeslot (CET)	Lesson	Title		
90	10:30-12:00	4.2.1	Business models for mini-grids and case study	Clean Energy Business Council	Ahmed Samir Elbermbali
60	12:00-01:00	4.2.2	Minigrad Economics - markets, cost structures, and tariffs	RES4Africa	Jean-Baptiste Decoppet
20	01:00-01:20		Break		
60	01:20-02:20	4.2.4	Project Financing - economics, investment analysis and financial modelling for community-based plants	RES4Africa	Jean-Baptiste Decoppet
10	02:20-02:30		Final Briefing	RES4Africa	Marta Caradonna, Andrea Micangeli
240	4				
Day 5		30/9/2022	Practical overview in PV Technologies	Entities to be involved	Trainers
Time Slot (mins)	Timeslot (CET)	Lesson	Title		
40	10:30-11:10	Video 1	Micro Grid in Practical Explanation	ABB	Enrico Ragaini
40	11:10-11:50	Video 2	Design and assembly of micro grid components	Enel Green Power	
50	11:50-12:40	CS-2	Enel Grids Paratebueno (COL) and Goias (BRA) Cases	Enel Grids	Juliana Andrea Moreno Daza Alejandra Ariza Alvarez Wilma Antonio de Lisboa
20	12:40-01:00		Break		
40	01:00-01:40		Wrap up Questionnaire and Discussion	Sapienza University - Technical Solidarity	Ganga Raju and Prof. Micangeli
40	01:40-02:20		Closing Remarks	RES4Africa, Ambassador of Italy to Niger African Development Bank, ENEL Foundation, Masen European Investment Bank	Roberto Vigotti, Secretary General Emilia Gatto (TBC) Daniel Schroth, Acting Director for Renewable Energy and Energy Efficiency (TBC) Christian Zulberti, Deputy Director TBC TBC
10	02:20-02:30		Final Briefing	Res4Africa	Marta Caradonna, Andrea Micangeli
240	4				