

International Online Seminar

“Mobilizing Electricity from PV for Africa”

18 March 2026

Background:

Globally ca 600 million people in Africa, mostly small farmers away from urban infrastructures have no access to electricity. In 2024 about 600 GW production capacity of PV cells globally were idle, corresponding to 1 kWp per people without electricity in Africa.

The extra-ordinary cost decrease for PV cells and to a lesser extent other electric appliances (batteries, but also pumps) suggests costs of power supply and application coming down to a level affordable for these people even allowing for a commercial profit. Further cost savings will be crucial for a quick roll out bringing electricity to all by 2050. Part will be a large enough market – as given by the Global South – to allow for further learning curve savings, but also a cost saving concept for small isolated power grids, including using DC instead of AC.

PV cells directly linked to irrigation pumps can substantially increase the yield and quality of food production, within the limits of prudent water management. PV with small local grids allows for better information, communication, food preservation and basic medical supply, having a high value for people resulting in a high willingness to pay. Both cases result in extra earnings to pay for all costs of PV with small grids inclusive of a commercial profit.

India has installed ca 500 000 solar pumps since 2010. In other regions this promising development is still at the start, although commercial viability allows for various business cases.

The online seminar will explore these questions in two sessions and a panel discussion. The first session will highlight main technical, economic aspects, potential and restrictions for a roll out of PV based irrigation and micro grids. The second session will look at existing examples and experience in BRICS+ countries and beyond. The concluding panel discussion will then address necessary technical and economic rules and possible business models.

The language of the seminar is English and Russian (simultaneous translation provided). Participation is free, to register, please, contact the Organising Committee via e-mail - energetika@unecon.ru.

Program

**10:00 – 12:15
(MSK)**

Session 1

Chair: Dmitry Vasilenko, UNECON

- *Getting PV micro grids in Africa commercial*, **Ralf Dickel**, Independent Expert
- *Micro grids: AC vs DC*, **Jens Haubrock**, Independent Expert
- *Photovoltaics for productive uses of energy in Africa: potential and barriers to rollout*, **Giacomo Falchetta**, International Institute for Applied Systems Analysis (IIASA)
- *Outlook of Chinese PV industry*, **Sun Pin**, Renmin University of China

**14:00 – 15:30
(MSK)**

Session 2

Chair: Jens Völler, Team Consult G.P.E. GmbH

- *Energy Pragmatism Vs. "Green Colonialism": Lessons for Africa and the Global South*, **Valery Zhikharev**, Distributed Power Generation Association (Russia)
- *Solar Pumps, Farmer Incentives, and Groundwater Sustainability: Lessons from India*, **Disha Gupta**, Indira Gandhi Institute of Development Research
- *Universalisation, Off-Grid Solutions and Productive Use: A Comparative Analysis of Rural Solar Initiatives in Brazil*, **Rodrigo Flora Calili**, Energy Institute, Pontifical Catholic University of Rio de Janeiro
- *Solar-powered Cooling Solutions for the Agricultural Value Chain*, **Mary Njuguna**, Savanna Circuit Technologies (Kenya)

**15:30 – 16:30
(MSK)**

Panel Discussion: Structuring the Value Chain for PV-Based Irrigation in Africa

Chair: Irina Mironova, Independent Expert/**Artem Denisov**, Volts Energy

- **Victor Mwamba**, Royal Haven Rays(Zambia)
- **Damien Wingel**, D&A Consulting SARL (Senegal)
- **Mary Njuguna**, Savanna Circuit Technologies (Kenya)
- **Tanguy Jacopin**, Global Born Ltd.
- **Esnil Guevara Mendoza**, University of Arts, Sciences and Communications (UNIACC)