

Workshop

The role of micro-grids in the energy system of the future

Thursday, November 21, 2019

Barrows 310 Reading Room at UC Berkeley

The current wildfires and related power outages in California show that system resiliency is crucial for reliable power supply. Decentralization and the introduction of micro-grids can reduce the vulnerability of central supply systems. This can be applied for both, existing central systems and / or for new electrification projects.

This workshop aims on understanding the role of micro-grids in the energy system of the future for both new electrification and central systems.

- How can we overcome the on-/off-grid distinction?
- How can we improve energy systems towards decentral, but connected micro-grids for improved resilience, increased renewable energy shares and reduced system costs?

Ultimately, we want to develop joint research ideas for addressing those questions. Ideally, projects are trans-disciplinary and international, funding for exchange activities can be made available via the C-BEAR+ project.

Please send an **RSVP** to philipp.blechinger@rl-institut.de before **November 19**.

Agenda

Time	Topic	Presenter
1:00 – 1:15 PM	Opening remarks	Daniel M. Kammen (UCB)
1:15 – 1:35 PM	Presentation of role of micro-grids for rural electrification – showcase Nigeria	<i>Philipp Blechinger (Reiner Lemoine Institut, Germany)</i>
1:35 – 2:00 PM	Presentation of GAP model on rural electrification and micro-grids - showcase Kenya	<i>Juan Pablo Carvallo (LBNL) / Isa Ferrall (UCB)</i>
2:00 – 2:30 PM	Discussion on micro-grids for electrification	All participants
Coffee break		
3:00 – 3:20 PM	Presentation of micro-grid projects in California	<i>Nikky Avila (PG&E)</i>
3:20 – 3:40 PM	Presentation of micro-grid project in Uganda	<i>Cody van Cleve (ASU)</i>
3:40 – 4:00 PM	Presentation of demand-side economies of scale in microgrid and distribution network design	<i>Jonathan Lee (UCB)</i>
4:00 – 4:30 PM	Discussion round on micro-grids and resilience	All participants
4:30 – 5:00 PM	Discussion of next steps and wrap-up	All participants

Philipp will be available for meetings on Friday, 22nd of November, as well as on Monday, 25th of November, to discuss possible joint research projects / publications / exchange / fellowships.

This workshop is conducted in the framework of the California-Berlin Exchange and Research+ program (C-BEAR+) - *an exchange program for researchers working on energy access and renewable energy topics, supported by the Federal Ministry for Economic Affairs and Energy, Germany.*