

### Productive Power Use within Rural Africa Workshop

**Organisers:** Africa Power & University of Southampton  
**When:** 3<sup>rd</sup> July 2017, 10:00 – 16:00  
**Where:** University of Southampton, Building 85, Room 2207  
**Registration:** [www.energyfordevelopment.net/conferences-events/productive-power-use-workshop/](http://www.energyfordevelopment.net/conferences-events/productive-power-use-workshop/)  
**Contact:** [alivesey@africapowerltd.com](mailto:alivesey@africapowerltd.com) (Africa Power)  
[c.kanani@soton.ac.uk](mailto:c.kanani@soton.ac.uk) (Chris Kanani)

#### **Details:**

The economics of PAYG solar home systems (SHS's) are relatively well known and these small systems can be used in a business environment to provide lighting for shops; work-places and indeed to charge small hand appliances such as cell phone charging businesses and barbers' electric clippers. However, the economics of renting larger business systems comprising high efficiency end-use equipment and the solar power to operate them is less well understood, limiting the extent to which micro-enterprises can access micro-finance to improve the size and profitability of their businesses.

By re-evaluating the core need for power services, new Africanised business models and equipment can be developed which transform the economics, allowing access to modern equipment, enhancing profits creating jobs, and helping to lift local communities out of poverty. For example, many dairy farmers waste significant quantities of milk when it "goes off", but refrigeration is seen to be too expensive. However, one does not need to chill milk to 3°C to extend its life. Chilling to say 15-20°C may make it last a few days, enough to sell all their produce locally. This significantly reduces the size and power requirements for such a fridge, potentially making previously un-viable projects viable. Phase change materials can be used to store "coolth" (opposite of heat) created during sunlight hours and use it to chill the evening milking, rather than storing power in batteries.

Africa Power has teamed up with Southampton University to undertake a feasibility study on the productive use of power in Africa, funded by Innovate UK. We are holding a workshop at the University of Southampton to study the viability of Productive Power Uses in Africa.

The workshop will consist of two parts:

1. In the morning, case studies will be presented on the productive use of power in Africa (and/or other developing countries) whether in a commercial or "developmentally funded" setting, and concentrating on the economics for the end-user entrepreneur. We are especially interested in projects which, whilst improving local lives, were not thought to be economically self-sustaining without further or on-going financial support as well as learning what "solar powered" businesses are commercially viable in their own right.
2. In the afternoon, we want workshop attendees to work together to select, from the myriad of possible businesses, a few worthy of further in-depth study and analysis. Africa Power and Southampton will research these opportunities further to come up with new technology, business models or ways of operation to turn subsidised use of power into commercially sustainable productive use of power. Attendees will be invited to help support these working groups either with data or field knowledge, and hence representing the end-user community, or actively participating in studies, design, sourcing and testing activities, eventually leading to field trials.

A follow-up conference will be held in the spring of 2018 to report the results and to seek a further round of opportunities to investigate. Feel free to share this with collaborators, colleagues and friends who may be interested in attending in their own right.

### Agenda

Time	Activity	Speaker/Details
10:00 – 10:15	Registration	University of Southampton, Building 85, Room 2207
10:15 – 10:30	Welcoming remarks Brief introduction to energy access	Prof AbuBakr Bahaj University of Southampton
10:30 – 11:00	Consortium approach to energy access through solar power systems	Dr Alastair Livesey Africa Power
11:00 – 11:20	Morning Coffee Break	
11:20 – 11:45	Case Study 1 <i>Practical Action Consulting</i>	<b>Emma Colenbrander</b> Energy Markets Adviser
11:45 – 12:10	Case Study 2 <i>MeshPower</i>	<b>Richard Mori</b> CEO
12:10 – 12:35	Case Study 3 <i>Groupe Energies Renouvelables, Environnement et Solidarités (GERES)</i>	<b>Jean Billant</b> ECODEV Programme Officer - Research Advisor
12:35 – 13:00	Case Study 4 <i>Loughborough University</i>	<b>Jon Cloke</b> Lecturer and National Network Manager for LCEDN
13:00 – 14:00	Lunch	
14:00 – 15:15	Working group session and activities to identify & prioritise productive power uses for further study	Chaired by Alastair Livesey and Chris Kanani
15:15 – 15:30	Collating information	
15:30 – 15:45	Afternoon Coffee Break	
15:45 – 16:00	Summary and wrap up session	Prof AbuBakr Bahaj University of Southampton

**Important information, attendee list and directions****1. Important Information**

The aim of the workshop is to bring together a variety of academic, public and private organisations to present and discuss the work being done in the UK and further afield on productive uses of power in Sub-Saharan Africa. The morning will give opportunities to listen to case study presentations in this area, whilst the afternoon session will be dedicated to group discussions and exercises aimed at developing new models, area of research and ideas relating to productive uses of power.

The workshop will take place on **Monday 3<sup>rd</sup> July 2017** between **10:00 and 16:00**. Lunch and refreshments will be provided on the day. If you have any specific dietary requirements please specify using the link in the attendance confirmation email.

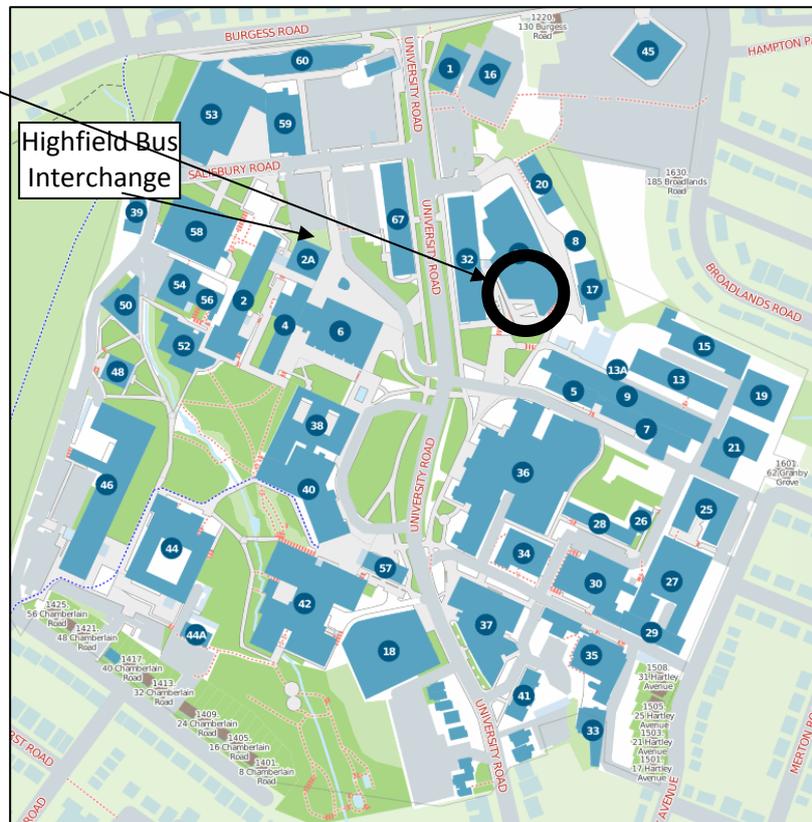
**2. Directions**

The address of the workshop venue is;

Building 85, Room 2207  
(near to the ground floor café)  
University of Southampton  
Highfield Campus,  
University Road,  
SO17 1BJ

***By Train from Southampton Airport Parkway***

This is the easiest method to get to the University. Take the train to Southampton Airport Parkway. From here you can take a taxi (approx. 10 mins) or the U1C bus (approx. 15 mins) from outside the station in direction of Southampton Central. You get off the bus once you reach the University Highfield Campus Interchange.

***By Train from Southampton Central***

From Southampton Central take a taxi (approx. 20 mins) or the U1A bus (approx. 25 mins) outside the station heading in direction towards Airport Parkway. You get off the bus once you reach the University Highfield Campus Interchange.

***By Car***

Take the M3 towards Southampton and University of Southampton Highfield Campus. Unfortunately there is no free full day parking directly available at the University. However, there is pay and display car parks at the University, more details here -

<http://www.southampton.ac.uk/transport/parking/visitor-parking.page?>

**On Campus**

When you arrive on campus, please head towards building 85 (marked on the map) and enter via the front entrance near to the ground floor café. The room number is 2207 which is located near to the café. The room will be marked with a sign for the workshop.

**3. Attendees**

The following organisations are registered to attend the event;

Mesh Power	The Open University
Practical Action Consulting	Solarpak Systems
Loughborough University	Innovate UK
Africa Power	University of Surrey
University of Southampton	Imperial College London
Carbon Trust	Cranfield University
Chilli Children Trust	ECODEV
LCEDN	Watt-R
IIED	

**4. Contact and Queries**

If you have any problems or requests, please contact Chris Kanani at the University of Southampton using [C.Kanani@Soton.ac.uk](mailto:C.Kanani@Soton.ac.uk) or +447595182001.