



# SMART VILLAGES

New thinking for off-grid communities worldwide

## The Smart Villages Energy Innovation Challenge

We challenge you to find **innovative** ways  
of distributing or implementing  
new or existing **energy technologies** for  
**off-grid** villages

**Guidance for  
applicants**

October 2012

*Key words:*

## Smart Villages

We aim to provide policy makers, donors and development agencies concerned with rural energy access with new insights on the real barriers to energy access in villages in developing countries - technological, financial and political - and how they can be overcome. We have chosen to focus on remote off-grid villages, where local solutions (home- or institution-based systems, and mini-grids) are both more realistic and cheaper than national grid extension.

[www.e4sv.org](http://www.e4sv.org) | [info@e4sv.org](mailto:info@e4sv.org) | [@e4SmartVillages](https://twitter.com/e4SmartVillages)

CMEDT – Smart Villages Initiative, c/o Trinity College,  
Cambridge, CB2 1TQ

## Publishing

© Smart Villages 2014

Funding is being provided by CMEDT and the Templeton World Charity Foundation.

This publication may be reproduced in part or in full for educational or other non-commercial purposes.



## THE BASICS

The Questions	The Answers
<b>Who?</b>	Teams with at least current student or recent graduate from an East African University or higher learning institution
<b>What?</b>	An innovation business idea competition for academic credit, mentorship and prize money
<b>When?</b>	Applications accepted March – April 2015 Training and pitching competition July – August 2015
<b>Where?</b>	Entrants from throughout East Africa, training and finals to be held in Dar es Salaam, Tanzania
<b>Why?</b>	To give students and recent graduates an opportunity to develop business skills, build their network, meet peers for collaboration and win capital for energy access ideas to benefit East African villages beyond the reach of the electricity grid

## THE CHALLENGE

Technological innovations for providing electricity services, lighting and cooking have recently started to change the landscape of off-grid energy. Despite decreasing cost and demonstrated growth of the consumer market for these technologies, distribution and implementation remain challenging. Finding the right business model for an off-grid energy solution can be tricky and sometimes comes after a lot of trial and error.

**We challenge you to find innovative ways of distributing or implementing new or existing energy technologies for off-grid villages**

This competition seeks to find and support new entrants into the entrepreneurial space who have ideas for businesses to improve energy access in off-grid communities. Applicants may submit ideas for distributing or implementing existing technologies or for developing promising new technologies for energy generation or storage.

**Examples of possible areas to consider include (but are not limited to):**

- Ideas to implement and/or scale promising new technologies, for example, for cooking, cooling, mini-grids, direct mechanical power, etc.
- Distribution models for energy products and systems
- Innovative payment and financing systems

## Entrance Criteria

Individuals and teams of up to three people may apply for this competition. The individual or at least one member of the team must be:

### **A current student\* or recent graduate (within two years) at an East African university**

Students studying science, engineering, business, economics, finance, marketing or others areas are invited to apply.

*\*Current students may be eligible to receive practical training credit. Students from outside Ardhi, DIT and UDSM will need to contact their universities directly to confirm.*

## Competition Outcomes

Up to five teams will be chosen to progress through a eight-week business training programme based in Dar es Salaam, Tanzania to develop and test their idea, build it into a full business plan and receive academic credit for practical training. In the final week of the training, finalists will pitch their business plan to a panel of judges for a chance to win 3000 USD in prize capital to help implement their idea.

Business training will be led by The Cambridge Development Initiative (or CDI). The CDI is a student-led NGO from the University of Cambridge in the UK with a proven training methodology for early-stage business development, which will guide finalists through market research and prototyping in off-grid communities based on the Human-Centred Design (HCD) framework. This will allow teams to refine both their product or service, as well as the business model, in direct interaction with end customers. CDI wants each participant to acquire a deep familiarity with the framework, to the extent that they can replicate it themselves in future entrepreneurial ventures. This personalised coaching will be channeled into the business plan which is the main output of the competition.

Furthermore, in closely facilitated workshops, the CDI will help finalists build core business

## Competition Outcomes for Finalists

<b>Training</b>	Learn how to conduct market research, interrogate your idea, validate prototypes, build revenue models, and develop core business skills including public speaking, leadership and teamwork
<b>Funding</b>	Understand how to access funding from local sources. Pitch to win 3000 USD in prize capital to help implement your idea.
<b>Certification</b>	Earn practical training academic credit
<b>Network</b>	Build a professional network of peers and potential mentors, partners and funders

skills and prepare their pitches as well as equip them with a versatile entrepreneurial skillset. Input from collaborating organisations including GVEP, Practical Action, COSTECH, E.ON Off-grid solutions and The Smart Villages Initiative will help ensure the course is at the cutting edge of the off-grid energy space.

---

## HOW TO ENTER

This section provides practical guidance on how to complete an application form to enter the competition. If you are selected as a finalist, your name and a high level description of your idea may be made public through the Smart Villages and/or Cambridge Development Initiative websites, social media channels or other publicity materials. More detailed elements of your idea will not be made public without your consent and part of the entrepreneurial training during the competition will clarify which information you should publicise and which information should be kept confidential. Any questions can be directed to [competition@e4sv.org](mailto:competition@e4sv.org).

### Your information

Please read this guidance document before submitting an application. In order to keep you informed about Smart Villages, we would like to add your contact details to our database to tell you what we're working on in Africa and other parts of the world.

Tell us a little bit about yourself and the other team members if you are entering as a team.

### Business Title

Please give your business a title, for example 'Village Energy Customer Services'. Smart Villages will use this title when referring to your application, so do give it some thought! An individual or a team may submit different applications for different ideas, but only one application per team or individual will be able to progress to the development phase.

### Full Name

Please enter the name of the primary contact for your application. We can only discuss the application with the person named on the application form.

### Email

Please enter the email address you would like us to use for communications related to this proposal and Smart Villages information. Please indicate if you do not want us to share your email address with contest partners or other interested parties directly related to the Smart Villages initiative.

### Phone number

Please enter a contact telephone number. We will not share your phone number with other parties.

### University Affiliations

Please indicate your university, course of study and year of graduation for each team member.

### Current Country/Location

This competition aims to support new entrants into the East African entrepreneurial space. Applicants should be based in East Africa.

Should you be selected for the development phase of the competition, you will be required to attend the CDI's summer training programme in Dar es Salaam, Tanzania for eight weeks (6<sup>th</sup> July – 28<sup>th</sup> August 2015). Applicants from outside Dar es Salaam may request travel and accommodation expenses.

### Applicant background

Tell us a little bit about yourself and why you want to enter this competition. (maximum

300 words)

## Your idea

In this section please describe your idea for increasing energy access in East African villages beyond the reach of the electricity grid.

### Public description (maximum 100 words)

Please provide a very brief description of your idea for an off-grid energy business. If your application is chosen as one of the finalists, Smart Villages will publish this description as part of the competition publicity.

### Idea explanation (maximum 800 words)

Provide a more detailed summary of your idea. This explanation will remain confidential to the competition and should include:

- the specific problem your idea is trying to solve
- the solution you are proposing, how it is new and why it will work
- how your solution would impact one specific community that you know well, and how it might apply to other communities across East Africa

### Commercialisation (maximum 300 words)

Describe your target market, potential size of user community and your target demographic. Please include some preliminary thoughts on how you might plan to commercialise your final application or service. This section will not have a major impact on your application at this early stage, but we are interested in your thoughts.

## Qualities of a good idea

### “Pathway from idea to business plan”

A good idea always starts with a specific

problem you are trying to solve or an unmet need you are trying to address, in this case a problem of energy access in off-grid communities. It should also address at least some preliminary thoughts on the technical, financial and social aspects of your solution. The CDI will work with finalists to help develop promising early stage ideas into real-world social business with some of the following qualities.

Principles of good solutions include:

- affordability both across the lifetime and at the point of purchase
- simplicity of maintenance and use
- flexibility to the conditions of the user, both in use of the product and in payment

leveraging existing technologies or business approaches in a new way

At the application phase, the hurdle is about the big idea and the essence of the solution. Finalist chosen for the training and development phase will work with the CDI to develop a full scale business plan, asking the more complicated questions:

- how will your idea be affordable for the end user?
- how will end users operate and maintain any technology involved?
- how will you scale the idea to thousands of off-grid communities?

By the final pitching session, you will be able to answer these questions and explain your idea and full business plan to a panel of experienced judges who will choose the overall winners.

---

## APPLICATION PROCESS AND RULES

### Application process

The contest is divided into two phases.

#### Phase one - Ideation and application

The entry phase of the competition opens on 16 March 2015.

- Full information is available at <http://e4sv.org/competition>
- Complete the application form with your details and your proposed idea
- Submit the final application form via <http://e4sv.org/competitions/enter/apply/> before 12pm on 17 April 2015
- Shortlisted candidates will be notified by email and will have a Skype or telephone interview to determine finalists who will attend the training
- Finalists will be notified by 15 May 2015

Assessment criteria for phase one will include:

- Concept and Product Feasibility (is it a valid or promising technology?)
- Market and Commercial Feasibility (is it a realistic proposition?)
- Innovation (is there something about the idea that hasn't been tried before?)
- Sustainability (in terms of the business and the environment?)
- Team (can the applicant(s) deliver on the idea proposed and benefit from the training?)

### Phase two – Training and development

Finalists win the opportunity to develop their idea with the support of the CDI. During an intensive eight-week programme based in Dar es Salaam, the CDI will work with finalists to trial and refine their ideas using the Design Thinking Framework. The focus will be on developing the product or service in direct interaction with communities in peri-urban, semi-rural areas around Dar es Salaam.

The programme will include two series of CDI workshops, one focused on developing entrepreneurial core skills, such as pitching creativity and confidence, the other providing business skills, including marketing and revenue models. Local mentors stand ready to contribute their technical expertise throughout the process. At the end of the training period, finalists will pitch to a panel of judges at a conference that will also function as a networking event creating opportunities to meet new potential partners, investors and peers.

### SELECTING THE WINNING TEAM AND RUNNERS UP

All finalist teams who have gone through the training and development phase of the competition will attend the final pitching session the week of 24 August 2015 in Dar es Salaam.

### The Judging Panel

Member of the judging panel will evaluate business plans selected for the final stage, provide feedback on pitches and provide guidance on pursuing additional funding. The judging panel will be made up of representatives from organisations active in the off-grid energy space. These organisations include:

**Tanzania Commission for Science and Technology (COSTECH)**

COSTECH is a prime driver of science, technology and innovation for sustainable development. Their mission is to foster a knowledge

based economy through promotion, coordination of research, technology development and innovation for sustainable development in Tanzania.

### Global Village Energy Partnership (GVEP)

GVEP works with entrepreneurs, management teams, and project developers through a variety of donor-funded and commercial investment activities to increase access to energy in Sub-Saharan Africa. To date, GVEP has provided four million people with access to clean energy; over 3000 local energy jobs have been created; 2.7 million tonnes of CO2 have been saved and \$20 million has been leveraged to support the development of energy products and services across the developing world.

### Practical Action

Practical Action is an international NGO that uses technology to challenge poverty in developing countries. Practical Action is a global

leader in energy access issues and published the annual Poor People's Energy Outlook drawing links between energy access and earning a living in developing countries around the world.

### The Rural Energy Agency (REA)

Rural Energy Agency (REA) is an autonomous body under the Ministry of Energy and Minerals of the United Republic of Tanzania. Its main role is to promote and facilitate improved access to modern energy services in rural areas of Mainland Tanzania.

### E.ON Off-Grid Solutions

E.ON Off-grid Solutions is a subsidiary of E.ON, one of the world's largest utility companies. The main purpose of this part is to deploy off grid energy solutions to meet customers increasing demands for energy in a profitable way for the wider group.

## KEY DATES

Date	Event
<b>Mar - April 2015</b>	Submissions open for energy access business ideas to benefit off-grid rural communities
<b>May 2015</b>	Teams selected as finalists
<b>Jul - Aug 2015</b>	Eight-week business development training with CDI in Dar es Salaam
<b>Aug 2015</b>	Finalists pitch to final judging panel, including members from E.ON, GVEP, Practical Action, COSTECH and the Tanzania REA. Winners chosen and announced the week of 24 Aug 2015.
<b>Sep 2015</b>	Winners receive 90% of seed capital to progress their project
<b>Aug 2016</b>	Winners receive remaining 10% of prize money pending submission of a report on how their efforts progressed over the year since winning the award and presenting to the 2016 CDI entrepreneurship participants



---

## COMPETITION RULES

### Rules – General

This is a competitive process for identifying ‘innovation solutions,’ primarily aimed at entrepreneurial skills development for the participants

The contest is open to teams including at least one current or recent from an East African University

The competition is divided into two phases and a final judging event to choose winners

The judges’ decision is final

Feedback on all finalists’ pitches will be provided by the judges

### Rules – Phase one

A common review process applies to all entries

Applications are forwarded to the assessors after the closing date of the competition

Each application is reviewed against the same set of assessment criteria

Following scoring, short-listed candidates will be notified to schedule a phone or Skype interview with CDI representatives. Following interviews, a review panel will make a final assessment of the top scoring applications to choose the finalists to invite to the training and development phase.

All other applicants will be informed by email they have not been successful with their application

All panel documents and ranking sheets are confidential and will not be shared following the assessment process

### Rules – Phase two

Phase two of the competition involves working closely with the Cambridge Development Initiative to refine your idea into a full business plan

All members of the finalist teams must attend the training in Dar es Salaam. If all team members cannot attend the full training phase, an alternative team may be awarded their place in the competition.

### Rules – Competition Finals

A final pitching session will be held the week of 24 August 2015 in Dar es Salaam to choose the competition winners.

All team members must be present in Dar es Salaam to pitch to the panel of judges at the final session.

In case a member of the judging panel should for whatever reason not be able to attend the finals, Smart Villages will appoint another judge in their place to select the winners

Winners will receive 90% of prize capital within six weeks of the final pitching event. The remaining 10% will be due on the one year anniversary of the final pitching event, pending submission of a report on how their efforts over the past year developed.

---

## FEEDBACK

Please let us know how you heard about us and how you think we could reach more potential competition entrants in the future. All competition related communications can be directed to [competition@e4sv.org](mailto:competition@e4sv.org).

Best wishes and good luck!