Community Power from Mobile

Highlights from Community Power from Mobile's African Working Group

On the 5th November 2012, Community Power from Mobile hosted its inaugural African Working Group, sponsored by Tigo in Accra, Ghana.

'Energy is the backbone of the mobile industry'

Mary Roach, CPM's Business Development Manager, gave an overview of the history of Community Power from Mobile. CPM's original concept, that excess power from mobile towers can be used to provide energy services to surrounding communities, has evolved into a definition of three channels for the delivery of services that leverage the strengths of the mobile operator, such as:

- Outsourcing power services for mobile towers and in combination serve communities
- Extend phone charging services via last mile distribution
- Micropayments for enhanced utility access

Three case studies were shown highlighting each of these channels. The GSMA continues to support market facilitation and is keen to develop a strong network of champions.

Garry Bridgwater, Integrity Manager at **Tigo Millicom**, gave a welcome presentation as host of the Working Group, and talked through the role of the Integrity team, which aims to reduce energy consumption and promote sustainability. Their strategy has a strong ethos to create value, reduce cost, develop legitimacy and reputation, and as a result, gain a competitive advantage.

In the days leading up to CPM's Working Group energy was a hot topic in Ghana. The first International Off-grid Rural Electrification Conference was held in Accra on the 1st and 2nd November 2012, and Michel Mansard, member of the Alliance for Rural Electrification Board, shared lessons learned.

The two day event covered policy, regulation, finance and technical topics through sessions, workshops and exhibitors. Ultimately the conclusion was drawn that there is no single business model to address the 1.4 billion people without access to electricity, and that what is required is a bottom-up decentralised approach with long term partners, as well as policies and regulations with clear targets.

Examples of their work include complete network upgrades in Mauritius and phone charging projects in Tanzania. Stay tuned for CPM's next Working Group in East Africa where results of the phone charging project will be presented.

The Working Group divided into 3 panel discussions:

Panel 1: Mobile Operators Driving Community Power from Mobile

Garry Bridgwater led the first panel speaking on behalf of Millicom about their solar charging project plans. The company is keen to invest in an ESCo and sees the benefits of organisations such as Solar Sisters that aim to eradicate energy poverty. Denis Herlihy, from **Altobridge**, talked about their low CAPEX and low OPEX wireless solution that provides mobile network operators with commercial

viable solutions. Altobridge recently partnered with Tigo to deploy their Lite-Site at 10 base stations in Ghana. Lite-Sites are also deployed with Orange in Senegal and Vodacom in Central African Republic.

Mamle Asare from **Vodafone Ghana** shared the progress of Vodacom's live pilot site in Elmfilhweni, South Africa, where a school, water pump and charging station are powered using the infrastructure of a 13.8kW solar site a mere 100m away. Although currently a pilot, the aim is to turn this into a commercially viable and scalable solution.

Finally Nicolas De Cordes from **Orange** concluded the session speaking about the exciting 'Orange for Development' initiative. This initiative includes Orange Money, 2,100 community phones, exploring mini/micro-grid options, the solar deployment programme and touching on new energy innovation from Japan where social behaviour adapts to manage peak energy usage.

Panel 2: Leveraging Mobile Infrastructure for Community Energy

Having completed a feasibility study on their sites in Uganda, Sam Basson at **Eaton Towers** suggested mini-grids have the largest impact. They are keen to partner with energy access focussed ESCos and believe it is crucial to downscale ambitious plans to find a solution that works.

John Clube from **Sincronicity Power Ltd** followed with a short video from their feasibility study in Tanzania, covering 30 sites across 4000km asking communities about their energy needs. John concluded that there are many anchor customers not being served.

To round of this second panel, Anthony Ighodaro from **Solar Solve** spoke about their role in the industry as solar system integrators, as well as winning an Ashden Awards for their Vaccine Clinics in Nigeria. Solar Solve is about to embark on an energy survey and already has access to telecom data for 50 sites with communities within 2km.

Panel 3: Mobile Enhanced Utility Access and Leveraging Distribution Channels

Roland Sprenger from **Mobisol** kicked off this session with a presentation about their solution: a micropayments scheme via M-PESA in Tanzania whereby the user pays $12/month for access to energy. The average spend on energy in Arusha is otherwise approximately $15. Roland highlighted that there are two bottlenecks: up-front costs and operational & maintenance costs.

Nate Heller from **Impact Energies**, an importer and distributor of clean energy products in Ghana, gave an insight into the lives of rural Ghanaians, who on average travel 2.8 hours a week to charge their phones. Impact Energies buys and tests home solar products, trains technicians and provides customer hotlines to ensure that the benefits of these products are mutually beneficial.

GSMA's Michael Nique closed off the session, talking about the potential of smart solutions for utility services in the developing world not only for access to energy but also water. In particular, Michael highlighted Grundfos Lifelink who won a global award at Rio+20 and has to date implemented clean drinking water supply systems for 100,000 people in Kenya and now expanding into Uganda.

Sanjay Khazanchi from the **Rockefeller Foundation**'s SPEED programme concluded the day with a discussion about their rural electrification programme in India. There are currently 409 million people without electricity in India, down from 490 million in 1991. There is an opportunity to marry community needs with the energy needs of the mobile industry as there are 400,000 mobile towers in India - 150,000 of these in rural areas. Sanjay spoke about the SPEED approach: to enter an underserved or un-served community and stimulate long term economic activity by building an ecosystem to help and support an ESCo to maintain a sustainable environment.

Our next Working Group with be in East Africa in April 2013. If you are interested in attending, please get in touch at **cpm@gsm.org**.

The Energy+Mobile for Development Seminar at Mobile World Congress will be on **Monday 25th February 2013 from 9.30-11.30am** in the **GSMA Seminar Theatre**.

About GSMA Mobile for Development

GSMA Mobile for Development brings together our mobile operator members, the wider mobile industry and the development community to drive commercial mobile services for underserved people in emerging markets. We identify opportunities for social, economic impact and stimulate the development of scalable, life-enhancing mobile services.

For information on the Green Power for Mobile Programme, please email: greenpower@gsm.org

For information on the Community Power from Mobile Programme, please email: cpm@gsm.org

Mobile for Development