Mobile Industry Set to Deploy 640,000 Off-Grid Base Stations by 2012

The GSMA Development Fund today announced that is has partnered with Lighting Africa, a joint IFC and World Bank program, to formally launch the Community Power from Mobile (CPM) initiative. CPM will support and encourage mobile network operators (MNOs) and tower-sharing companies in developing countries to provide excess power generated by their base stations to local, off-grid communities.

Mobile operators have become proficient at generating their own off-grid power, typically by diesel generators, but increasingly using alternative energy such as solar and wind. Typically with more than 5 kilowatts (kW) of excess power each, the off-grid base stations will initially be used to charge a range of devices such as mobile handsets, lanterns and household batteries, and ultimately, to power, businesses, clinics, vaccination refrigerators, schools and homes. The off-grid base stations are often physically close to villages which means that communities will no longer have to waste time travelling long distances to charge devices.

“The mobile industry is experiencing unprecedented infrastructure growth in off-grid regions in the developing world, where nearly 1.6 billion people live without access to the electricity grid, and we estimate that 485 million of those have access to mobile phone services,” said Chris Locke, Managing Director, GSMA Development Fund.

“As base stations are typically the only powered infrastructure within walking distance of the community, the Community Power from Mobile initiative can simultaneously improve the business case for off-grid telecoms and have significant societal impact.” CPM plans for pilot projects in East Africa and India to be launched in Q1 2011. The GSMA is working with a number of its members and other industry stakeholders including partners in India and East Africa who are now investigating or trialing new business models in providing power beyond the base station.

GSMA members are planning to install 640,000 off-grid base stations by 2012 across the developing world in close proximity to off-grid populations. By mid-2012, CPM will have developed commercially viable business model(s) and assisted 10 MNOs to expand their rollouts across the developing world.

Globally, base of the pyramid (BoP) households spend US$433 billion per year on household energy, primarily for lighting, cooking and powering electronic devices. Handset charging alone costs an average of US$3 per month for an off-grid subscriber, equivalent to a third of their monthly mobile spend, and kerosene purchases for lighting typically add another $5 to $10 per month. The GSMA has identified a number of major benefits that CPM will deliver:

* Economic and social uplift in off-grid communities driven by improved energy access

* Off-grid base stations typically have 5kW of excess power, enough to charge thousands of handsets, provide electricity to 30 homes, power 15 vaccination fridges or clinics

* As base stations are often in the middle of a village, this results in a major reduction in travel time and costs to charge handsets, lanterns and other electronic devices

* Additional revenue streams for operators by selling surplus power to energy companies and communities

* Availability of off-grid handset charging has been demonstrated to raise average Revenue Per User (ARPU) by 10 to 14 percent, equivalent to an additional revenue opportunity of US$2.3billion if the 485 million off-grid subscribers had access to handset charging

* Increased site security leading to reduction in diesel theft.

As Community Power from Mobile is an embryonic concept within the mobile industry, the program will play a key role in helping to build awareness of this opportunity, developing and testing the appropriate business models and identifying the required partners, all of which will help to bring the concept to scale. The CPM initiative will incorporate three workstreams designed to reduce the barriers identified: Knowledge Sharing & Convening, CPM Pilots and Technical Assistance and Training.

Source URL (retrieved on *09/02/2014 - 11:36pm*):
http://www.wirelessdesignmag.com/product-releases/2010/11/mobile-industry-set-deploy-640000-grid-base-stations-2012