

## The potentials of PLC revealed for African players (utilities, ministries, operators, investors...)

**A powerful technology platform for broadband and innovative applications  
& Smart Grid  
Coupled with an enticing business plan**

**Africa still enjoys a limited availability of broadband networks and services, paired with a relatively poor quality of service and high tariffs.**

According to worldstats.com, 5,6% of the population on average had an internet access at the end of 2008 and less than 1% had broadband. These services are mostly limited to metropolitan areas whereas the population is in majority rural. Over 60 percent of Africa's population lives in unconnected rural areas<sup>1</sup>, where as difficulties are two layered in the lack of local loop and backhaul infrastructures.

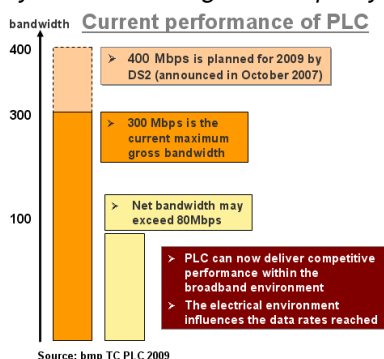
**Powerline Communications (PLC) delivers a most appropriate and efficient solution in this context.**

- The main advantage of PLC is the use of **existing infrastructures**, which deserve a significant portion of the population and **exceed by far the current deployed fixed (and often mobile) infrastructures**.

The energy distribution network can therefore represent a meaningful alternative, which is upgradable for a broadband network covering 6 to 50% or more of the population in most countries or nearly 100% in some North African countries<sup>2</sup>.

- PLC enables to benefit from **true broadband connectivity** for businesses and the mass.

PLC enables speeds up to 200 Mbps<sup>3</sup> with some players announcing 400 Mbps by end of 2009.



<sup>1</sup> ITU, June 2008

<sup>2</sup> United Nations human development report 2007-2008

<sup>3</sup> Theoretical throughput

- PLC improves competition among broadband operators and enables a **complementary and flexible deployment**.

PLC is a flexible technology, which can be adapted to any existing or future infrastructures and emerging technologies..

- The **business case is enticing** and can be designed **incrementally** and in a targeted way.

PLC allows a deployment on demand, enhanced by end user plug and play abilities.

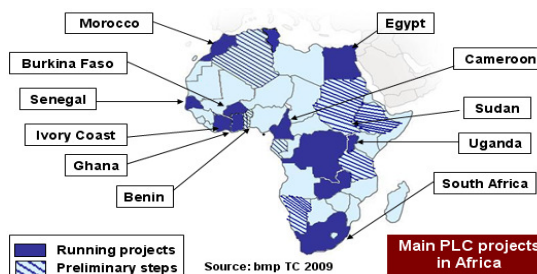
Further, the introduction of **Powerline Communications** could have an impact on the **energy networks management**.

- PLC could solve, or at least significantly reduce, **fraud problems** by locating non-technical losses.

Electricity fraud remains a key problem for many utilities, some having recorded losses up to 40% of the turnover<sup>4</sup>.

- PLC utilization for **advanced metering and smart grid** services could as well permit large improvements in energy distribution.

Some projects show a reduction of 3 to 10% to the household's energy bill, of 30% to the cost of public lighting, and of 10% in operating costs.



**Numerous African players have seized the PLC opportunities in manifold ways, realising Smart Grid only applications or impulsing broadband markets & fighting the digital divide in Africa, thanks to the PLC maturity & cost effectiveness.**

<sup>4</sup> UPDEA 15th congress, 2005