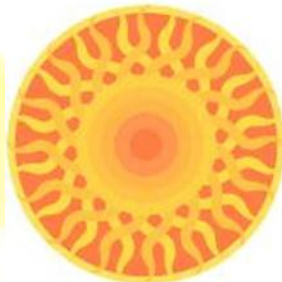


Distributed Solar Electricity in Latin America

by Albert Franklin Rodriguez, MSc
President



ATI

Energia

Historical Facts & Basic Assumptions

TELECOMMUNICATIONS \Leftrightarrow ENERGY

- An Average of 30% of the population in Latin America has NO access to the Electric Grid
- In Nicaragua, Honduras, Bolivia, Paraguay this number reaches 50%
- It is not cost-effective to build the Infrastructure to reach rural areas
- Wireless Telecommunications is Truly a Transformational Technology which Increased Business Opportunities and Employment Levels
- Wireless technology in LATAM surpassed coverage of Wire-line in 5 years from its inception in 1995
- In the year 2000, Wireless Activations Surpassed Wire-line Connections

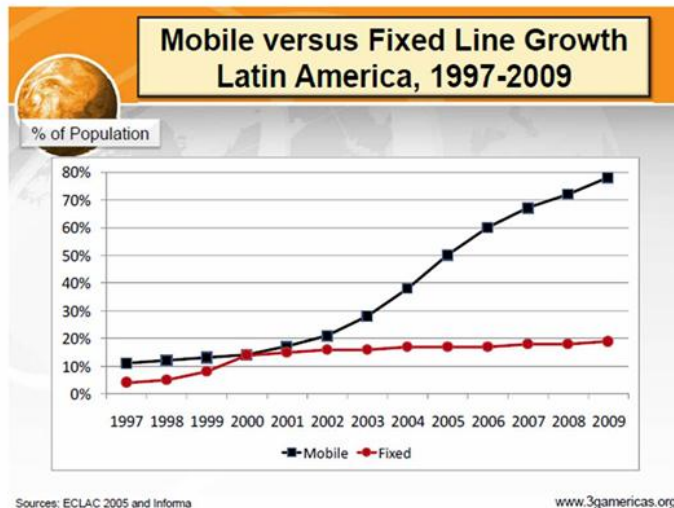


Figure 1. Mobile versus Fixed-line Growth in Latin America, 1997-2009

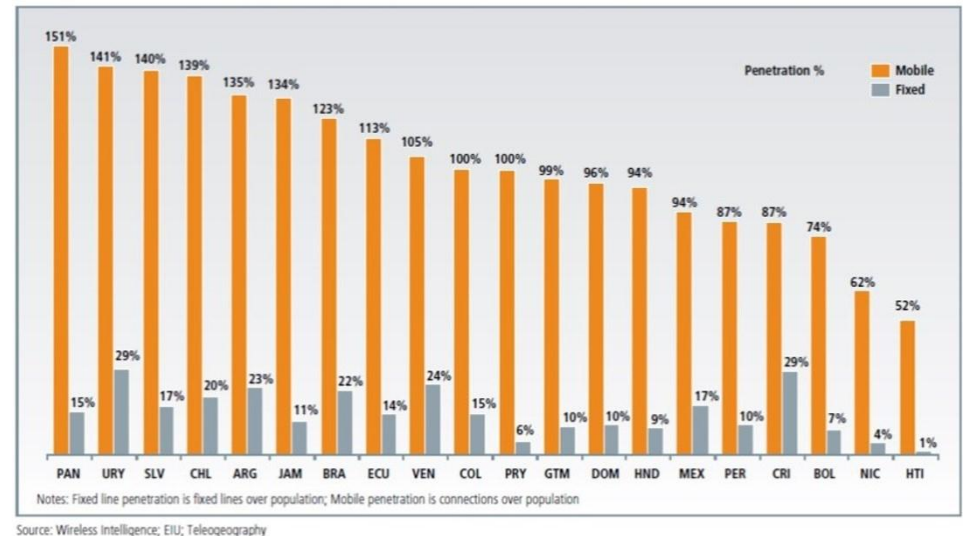
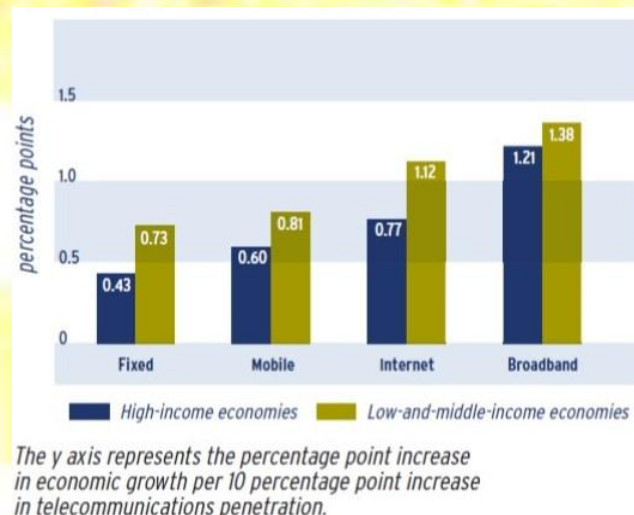


Figure 2. Mobile versus Fixed-line Growth in Latin America - 2011

Lessons Learned from the Wireless Industry in LATAM

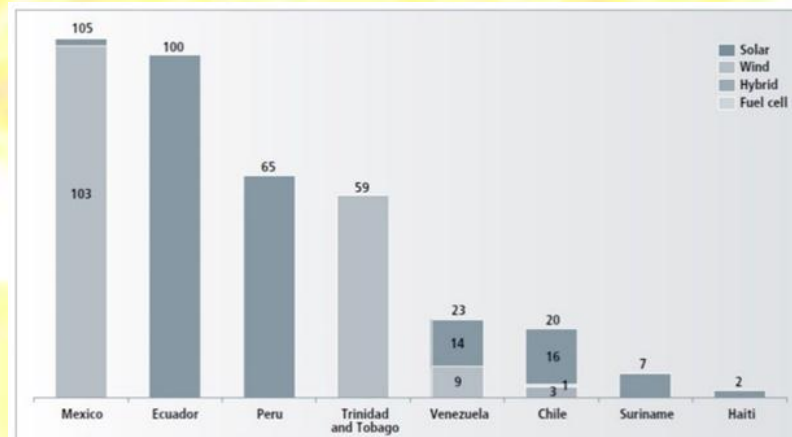
- Technology that is not dependent on the existing infrastructure
- Explosive Growth that has helped Economic development
- The World Bank established a positive relationship between Information and Communication Technology (ICT) development and Per Capita Income
- The study also found that Wireless Communications Technologies promote growth faster in the Developing Countries as they reduce Transaction Costs and Improve Productivity
- Prepaid Wireless Services represent 99% of all phone services
- Prepaid services enable access to those without steady income or bank account



Future Vision

TELECOMMUNICATIONS \Leftrightarrow ENERGY

- Leapfrogging Infrastructure Development from a:
 - Fixed-line Centralized Electric Power to a
 - Distributed Power Generation
- Advanced Energy Storage Devices such as the TESLA Battery will change the Growth Equation for Distributed Energy Generation
- Mobile Operators are currently utilizing Distributed Electricity to Power Rural Towers
- By the Year 20?? Distributed Energy Generation Will Surpass Grid Connected Electric Power
- ATI Energia is developing Prepaid Card Process to extend the reach of the Distributed Community Solar Farm



Source: GSMA Green Power Deployments Tracker

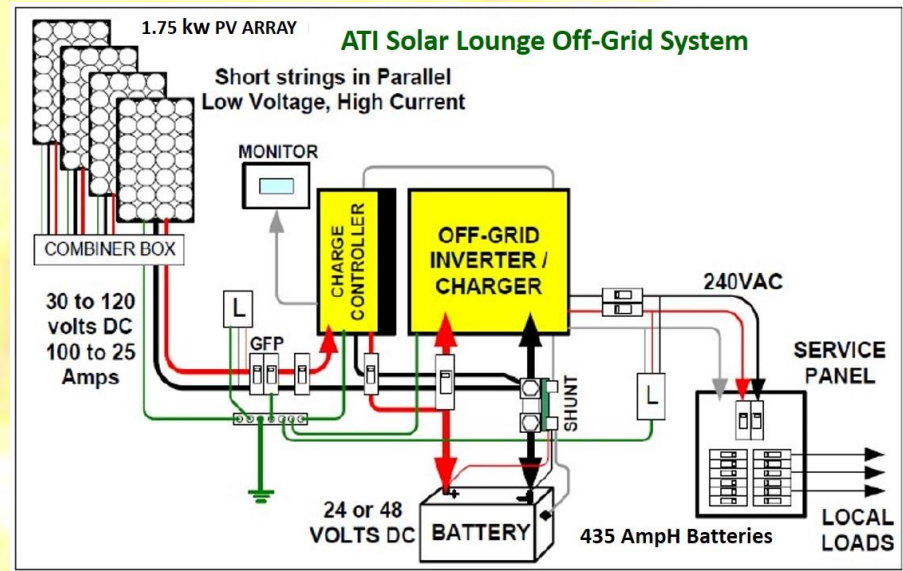
Figure 4. Mobile Operators Using Renewables

ATI Energia OFF Grid System

- Mobile On or Off Grid 1750 Watt Photovoltaic System
- The PV Array Charges the Batteries
- 8 - 435 AmpH Batteries Supply the DC Electricity which is Converted to AC by the Inverter
- Highly Scalable and Adaptable to Modular Housing Models for Construction Project Sites and Community Solar Parks



ATI Solar Lounge - dimensions:
Length = 20 ft.; Height = 10.2 ft.; Width = 8.7 ft.



ATI Energia Solar Lounge Off-Grid System Diagram