



ACCIONA MICROENERGIA  
MEXICO



*Charging a cell phone in La Libertad, Municipality of San Pedro Pochutla*

# ACCIONA MICROENERGIA MEXICO

## MODEL LED BY A PRIVATE COMPANY FOUNDATION WITH HIGH LEVEL OF PUBLIC SECTOR PARTICIPATION (PUBLIC-PRIVATE PARTNERSHIP)

ACCIONA Microenergía Mexico (hereafter AMM) is a social enterprise that was created in April 2012 by the ACCIONA Microenergía Foundation (FUNDAME). AMM's aim is to facilitate access to electricity through Third Generation Solar Home Systems for households in villages with less than 100 inhabitants that have no access to the electric grid.

AMM's 'Light at Home' Program is the second initiative led by FUNDAME for access to energy services. It follows in the wake of ACCIONA Microenergía Peru, a social enterprise with identical aims based in the Peruvian region of Cajamarca.

These systems are intended to cover lighting and communication needs in the poorest communities of the State of Oaxaca which has one of the lowest percentages of households with access to electricity (94.7%). According to figures provided by the National Institute for Statistics, Geography and Information Technology (INEGI), in 2010 there were 9,500 homes (approximately 25,000 people) in Oaxaca without electricity. The majority of these people were concentrated in 808 communities with less than 100 inhabitants.

The key pillars of the business model are:

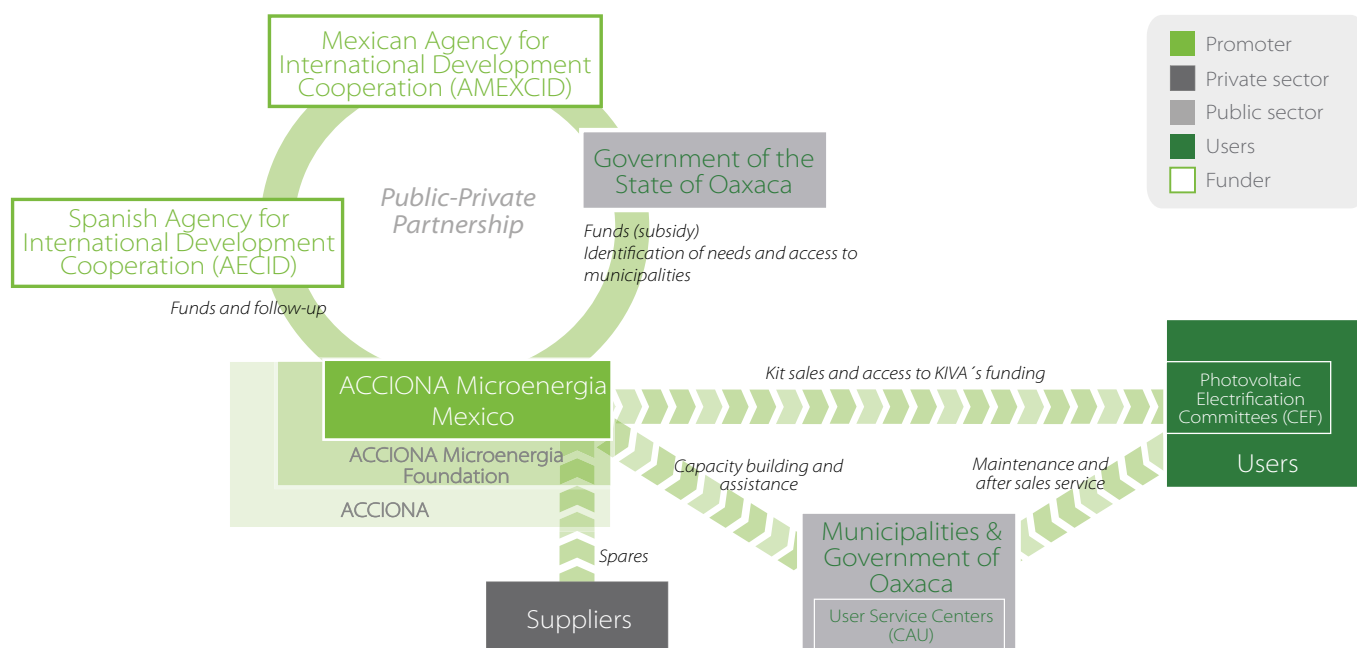
- ▶ A collaboration model based on a Public-Private Partnership for Development<sup>1</sup> (PPPD) where several actors have joined to contribute resources and skills: the Oaxaca Government and different local municipalities, the Spanish Agency for International Development Cooperation (AECID), the Mexican Agency for International Development Cooperation (AMEXCID) and AMM.
- ▶ Provision of a unique and standardized service composed of a 25W system to provide basic home lighting and electricity supply. The system is simple to install, environmentally friendly (it uses lithium-based batteries which do not generate heavy metal waste), easy to handle and light, weighing less than 10k. It has "plug & play" ("jack" type) connectors so that the installing and uninstalling can be carried out by users.
- ▶ The Government of Oaxaca subsidizes 50% of the equipment to ensure that the solar systems are affordable to those families suffering from energy poverty. The rest of the cost of the program (identification, capacity-building, supply, distribution and contracting, etc.) and the remaining 50% of the cost of the equipment is supported by AECID, AMM and contributions from the users themselves.
- ▶ Post-sales and maintenance services are mainly carried out by User Service Centres (CAU). These offices are located in reference towns within the micro-region (for trade, employment, and administrative management). The centers have emerged as a result of agreements between AMM, which supplies equipment, spare parts, sales follow-up, problem-solving and technical training, and the Government of Oaxaca and the municipalities, which provide premises and municipal officials for their coordination and management.
- ▶ Communities participate through the Photovoltaic Electrification Committees (so called CEF). These allow users to involve actively and have a leading role in the project. This representative body liaises with the company. Its members are selected by the community, ensuring that there is a minimum of three members, including at least one woman.
- ▶ To date the initiative has managed to install 7,500 systems, thus providing services to 30,000 people (0.7% of Oaxaca's population).



CAU Manager and field operator from AMM at the Sola de Vega User Service Centre

<sup>1</sup> According to the IDB, a Public-Private Partnership (PPP) is a long term contract between a private party and a governmental entity for the purpose of providing a public utility or service in which the private party assumes a significant risk and management responsibilities and whose remuneration will depend on performance. For more information, see: <http://www.fomin.org/es-es/portada/proyectos/accesoaserviciosb%C3%A1sicos/asociaci%C3%B3npp%C3%BAblicoprivada.aspx>

## MAP OF ACTORS AND RELATIONSHIPS



## FINDINGS AND GOOD PRACTICES

► **Inclusive distribution:** the maintenance service is designed so that the community takes ownership of the program in two ways. Firstly, if there are problems with their systems, users can dismantle them – they are trained to be able to do this– and get them serviced at the CAU. This means that responsibility for maintaining the system lies with the user who thus takes ownership and responsibility for the initiative. Secondly, the CAUs are managed by municipal/state officials (depending on the CAU), who are encouraged by AMM to train as technicians and offer this service in the future.

► **Funding:** it is important to note that the Government of Oaxaca subsidizes 50% of the price of the systems to make them affordable to users. As mentioned earlier, the remaining program costs are covered by AMM and the AECID, and users themselves. The cost of the system is 3,756 pesos in total, of which the user pays 50%, 1,878 pesos (USD 104), from their savings and the Government of Oaxaca covers the remaining 50%. Should a user be unable to pay in cash some support is available through the micro-financing platform KIVA. These financing mechanisms are fundamental to the scaling up the initiative. With some effort, users are able to cover the payment of 50% of the system but not 100% of it.

► **Technology:** Third Generation Solar Home Systems with lithium based batteries offer better features than conventional ones (they can store energy in less space, have a longer life and are more efficient). The system is easy to install and use, and its design is based on “jack” connectors which are easy to uninstall during maintenance.



Solar panel installed in La Tallera community, Municipality of San Pedro y San Pablo Ayutla, Sierra Mixe

► **Public policy:** the Private-Public Partnership for Development is a very solid model for this type of rural area electrification program. It combines elements such as the knowledge and technical experience from a private company with the public agency network and capacity. The solidity of the agreement is reinforced by allocating responsibilities so that risks are mutually shared and there is transparency in cost monitoring and budget allocation. Resources from the different actors are brought together to enable a certain level of subsidization in view of the low purchasing power of the population. The Government of Oaxaca, in its role as partner, facilitates the identification of needs (providing information, identifying vulnerable groups and areas for prioritization) as well as access to municipalities and communities. At the same time, a 50% subsidy in the price helps users to pay for their systems (the subsequent maintenance of equipment is supported by users). In this case, the Government enables coordination between stakeholders and plays a key role in providing transparency, legitimacy and public visibility.



*AMM manager at the Tierra Blanca community school, Sola de Vega*



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### **Photographs**

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