Climate Parliament

RURAL ELECTRIFICATION WITH RENEWABLE ENERGY IN PERU

Ten percent of the Peruvian population–living primarily in rural and remote areas–lack access to electricity. Peru is lagging behind other Latin American countries in this respect, restricting development and creating a serious competitive disadvantage.

The National Plan of Rural Electrification (2015-2024), developed by the National Directorate of Rural Electrification of the Ministry of Energy and Mining (DGER/MEM), has been implemented in coordination with regional and local governments. The Plan states that: "Rural electrification aims to achieve equality among citizens, particularly with regard to access to basic electricity in households, thus addressing the large infrastructure gaps between urban, rural and frontier areas, moving its beneficiaries closer to markets, consumption and development, and promoting social inclusion and the reduction of poverty."

In formulating this plan, the DGER/MEM has "coordinated its efforts with regional and local governments, utilities and other private and public bodies, in order to make its content compatible with regional and local development plans."

Rural electrification is a powerful tool for human development. Viewed in the context of the UN's Sustainable Development Goals it has an impact upon economic activity, communications, access to education, health (e.g. medicine refrigeration), the environment and gender equality. Rural electrification makes a big difference and projects are often very popular among local communities.

The progress on rural electrification in Peru–within the context of the National Plan–has so far entailed extending the grid to isolated communities. This expansion will reach the edge of technical feasibility within three to four years. In order to reach the whole Peruvian population, future efforts on rural electrification must be based on renewables, and particularly solar PV.

There are several challenges or barriers to the progress of renewable energy-based rural electrification in Peru. The Climate Parliament network will work to build political will in order to address these challenges, which include:

- In frontier or remote areas rural electrification projects are not socially profitable according to the terms established by the Public Investment System (SDIP). The benefits of rural electrification–in terms of health, education, environment, gender equality, among others–are not properly §quantified. The need to modernise the SDIP was discussed during the recent presidential campaign and should be compatible with the Government's agenda.

- Due to the low consumption of electricity in rural communities it is necessary to guarantee the economic sustainability of investment, creating a system that replaces the current subsidy set by the Rural Electrification Law, and the Social Electricity Compensation Fund (FOSE). Studies are needed to determine the feasibility of a direct subsidy to the operation and maintenance of PV systems and minigrids.

- Accurate statistical data about rural households, particularly geo-referencing, is badly needed. Its availability could have an impact on those projects that are put out to tender.

The Climate Parliament has long experience in promoting rural electrification, and is currently working on the means of accelerating the establishment of renewable energy-based minigrids in countries such as Bangladesh, Benin, Ivory Coast, Tanzania and Senegal. The need for decentralized mini grids has been

strongly felt in these countries despite their having set ambitious targets for universal electrification through grid extension, power sector reforms initiated through unbundling, strengthening and/or privatising utilities, tariff reforms, and encouraging independent power producer (IPP) frameworks. Such reforms have been slow and incomplete and have not had an impact on electrification rates. Private investors still consider any outlay in this area as risky.

The Climate Parliament is currently developing an innovative initiative in West Africa, the Community Grids Initiative (CGI). Its central objective is to develop generic best-practice contracts and concession agreements governing the relationships between authorities, project developers, investors, grid utilities, communities and other players. It aims to lessen the risk involved in investment in rural electrification projects, and to mobilise rapid investment in mini-grids based on sound business models. Such generic concession agreements could easily be modified to suit local conditions and put to tender after consolidating the demand for mini-grids over large geographical areas in order to achieve both economies of scale and market efficiency. They can relieve the government of a considerable financial burden by creating anchor customers with higher-paying capacity and larger electricity demand than average rural households and small enterprises, and by expanding the demand for electricity-based business services so as to increase the revenue streams of such mini-grid enterprises significantly. As these mini-grids will be based on locally-available renewable energy sources (solar or wind), they do not pose the logistical challenges of fuel supply that plague mini-grids operated by oil, gas or coal, and so they can be operated with relatively undemanding managerial skills, suitable to the human resource capacities frequently encountered in remote rural locations.

The Climate Parliament (www.climateparl.net) is an international network of legislators dedicated to addressing climate change by promoting the transition to renewable energy. Based in the UK, it creates cross-party groups in national parliaments dedicated to advancing clean energy, having established networks in South Asia, China, Sub-Saharan Africa, the Arab world, the European Parliament and Latin America. A recent independent evaluation for the European Commission estimated that in the last three years it has mobilised more than $1 billion in additional public support for renewables.

At the local level, the Climate Parliament identifies opportunities for intervention–with regard to legislation, regulation, budgets and overseeing–specific to each country and region. At the international level, it is promoting an initiative called the Green Grid Alliance, a global group of up to 20 developing countries providing the necessary leadership for the building of new renewable energy supergrids, new national smart grids, and new village and island mini-grids capable of making possible a rapid worldwide transition to clean energy.