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Project document

Public-private partnerships in renewable energy in Latin America and the Caribbean

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Economic Commission for Latin America and the Caribbean (ECLAC)

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I. Introduction

The versatility of electricity, which can be transformed into heat, light or mechanical movement, makes it a very valuable form of energy. It can be used to light a home, cook food or move machinery in productive processes. Access to electricity is thus crucial for human and economic development.

In the 1980s and 1990s, Latin America and the Caribbean substantially reformed the electricity sector. During this process, most of the countries in the region privatized all or part of the sector, which historically had been in the hands of the state. Thus, private companies largely took charge of electricity generation, transmission and distribution, while the government became responsible for regulating the sector through institutions created specifically for that purpose. This process and model were generally successful and led to an improvement in service. In the majority of cases, the model remains in place today.

In 2003-2008, the Latin American region recorded an average annual economic growth rate of almost 5 per cent. Moreover, Latin American countries withstood the world economic and financial crisis better than other regions of the world, and they are showing signs of a relatively faster recovery.¹ The OECD projects that the region's growth rate will average 4.1 per cent in 2012.² This economic growth will increase the demand for all forms of energy, including electricity.

While hydroelectric power represents a strong share of the region's energy matrix, fossil fuels are used to generate almost half of the electricity in Latin America and the Caribbean, producing greenhouse gases and, in some cases, resulting in high and unpredictable electricity costs. Hydropower is the dominant renewable energy source, whereas unconventional sources represent only a marginal share of the region's energy matrix.

Renewable energy projects are generally characterized by high investment and maintenance costs, complex construction issues and economic returns that are not always high. These factors create a big challenge in the development of renewable energy projects and the penetration of the technology in the region. It is therefore necessary to explore mechanisms that can help overcome this challenge, particularly in the financing phase. One way to narrow the gap in financing is to incorporate private capital through public-private partnerships (PPP).

During the privatization process of the 1980s and 1990s, many Latin American countries sought out private sector participation in order to increase investment in infrastructure while keeping public debt

¹ Organization for Economic Cooperation and Development (2011), "Perspectivas Económicas de América Latina, 2011".

² Idem.

under control, as well as to break up the vertical integration of the services and increase management efficiency. Privatization was successful in areas where the public sector had a strong regulatory framework and where the specific project designs were solid and transparent. In other cases, however, privatization was less successful, as reflected in frequent renegotiations and conflicts between the parties. Moreover, the privatization process changed the role of the state from a traditional supplier of public goods to a market regulator.

Traditionally, public-private partnerships (PPP) were defined as a legally binding contract between the government and private firms for the provision of goods and services, with the majority of the responsibilities and risks transferred to the private partner.

Currently, however, PPPs are being transformed into a model in which the public and private sectors are both involved in all phases of the project, including construction, financing and operation. This makes the arrangement more attractive to the private sector, since the risks are shared by the government.

A big challenge for the region is to achieve sustainable development combined with economic growth, energy security, the well-being of the population and care for the environment. Energy security is becoming a crucial issue on domestic and international political agendas due to climate change and fluctuations in oil prices, which mainly affect developing countries.³ The use of renewable energy sources can significantly reduce both greenhouse gas emissions from electricity generation and national dependency on imported fuels. Several countries in the region, especially in South America, have launched programmes to promote the use of unconventional renewable energy in the production of electricity.

The majority of these programmes are still in the implementation phase, but it is already possible to identify some areas for improvement, such as access to credit and the transparency and clarity of the processes. These programmes have in common the participation of the state in the role of regulator, promoter and, in some cases, guarantor and financial backer; while the private sector plays the basic role of executing and operating the project.

The PPP model appears to be having positive results in terms of promoting the use of unconventional renewable energy. The use of unconventional sources has increased significantly following the implementation of these programmes at the beginning of the last decade.

This report highlights the importance of private participation for increasing the use of unconventional renewable energy sources in large and medium-sized projects that are generally connected to a national distribution network. To this end, the report provides a brief description of electricity market segmentation in some target countries (namely, Argentina, Brazil, Chile, Colombia, Mexico, Peru and Uruguay) and identifies the main actors in the electricity sector. It also discusses some important environmental and social aspects of electric energy, such as climate change and access to electricity, with a focus on the key role that renewable energy sources can play in these areas.

The paper then discusses PPPs, presenting case studies of programmes being implemented in region to promote unconventional renewable energy, as well as some concrete efforts featuring public-

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