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GOVERNMENTS OF COLOMBIA AND THE UNITED STATES MEET TO DISCUSS COOPERATION ON ENERGY EFFICIENCY

The high-level meeting between Colombia's Minister of Mines and Energy, Mauricio Cárdenas, and United States Deputy Secretary of Energy, Daniel Poneman, will foster the exchange of best practices on energy efficiency between the two countries.

At the meeting held in Washington DC on September 23, 2011, Cárdenas and Poneman discussed Colombia's potential as energy exporter. In order to expand said potential and become a large supplier for Central America and the Andean countries, Colombia will need to develop its infrastructure and update its regulations. The United States expressed interest in fostering this process.

Colombia's energy demand may grow as much as 3.5 percent annually over the coming years. According to official estimates, by 2020 Co-

lombia will need a generating capacity of 20,227 MW. The US Department of Energy will

sectoral projection models on energy generation and consumption.



Assistant Secretary Poneman (Left) and Minister Cárdenas (right) greet at the meeting held in Washington DC last month.

support the Government of Colombia in promoting energy efficiency and strengthening

Colombia's mining and hydrocarbon sectors have been the focus of interest from investors worldwide. "It is the sector that many people identify as the most prosperous for the country", said the President of Colombia, Juan Manuel Santos, at Cárdenas' inauguration as Minister of Mines and Energy, held in September in Bogota. Tomás González, Vice-Minister of Mines and Energy of Colombia, also participated in the meeting held in Washington.

ASSESSMENT OF POTENTIAL SHALE GAS AND OIL RESOURCES IN URUGUAY

A report released by the US Geological Survey for the ECPA Global Shale Gas Initiative estimates that shale formations in Uruguay's Norte Basin hold considerable volumes of shale oil and gas.

In the framework of the ECPA Global Shale Gas Initiative: South America, the US Geological Survey (USGS), in cooperation with the U.S. Department of State, is assessing the potential for unconventional oil and gas resources (shale gas, shale oil, tight gas, and coalbed gas) in priority geologic provinces worldwide. In Uruguay, USGS assessed potential technically recoverable shale gas and oil resources in the Norte Basin, resulting in total estimated mean resources of 378 billion cubic meters of gas, 508 million barrels of oil, and 499 million barrels of natural gas liquids.

This report concentrates solely on the Cordobés formation in Uruguay's Norte basin. However, a similar study released earlier this year by the US Energy Information Agency estimated Uruguay's total shale gas potential at 595 billion cubic

meters of gas, the sixth largest in the region.

Although more than 90 percent of the country's electricity is generated by three hydroelectric dams, Uruguay relies exclusively on oil imports to supply nearly 55 percent of its energy needs. The state-owned refinery ANCAP is supplied with more than 50,000 barrels of crude oil per day at world market prices. The government is looking for ways to reduce its dependence on foreign oil by developing wind, biomass and natural gas energy.

A joint effort with neighboring Argentina to build an off-shore re-gasification plant for liquefied natural gas was recently announced. Additionally, the government is studying the feasibility of importing gas from Bolivia via pipeline.

Uruguay's new developments in shale oil and gas could signifi-

cantly improve the government's objective of advancing energy security. As part of a two-year exploration agreement with ANCAP, in 2010 the US firm Schuepbach Energy was granted a 10,000 km² prospection permit to explore the Norte basin area. The Uruguayan firm CENESTE was granted a similar permit to explore an area of 26 KM² in northeastern Uruguay. Other companies from Argentina, the United States and Russia have also expressed interest in exploring Uruguay's continental territory.

ANCAP will intensify its efforts with other companies in exploring for oil in the central and northern parts of Uruguay over the next three years. The government has already licensed offshore exploration blocks which it has awarded to a consortium made up of Brazil's Petrobras, Argentina's YPF and Portugal's Gal.

ROUNDTABLE DISCUSSION ON ECPA HELD AT CREF

On October 12, 2011, the OAS and the US Department of State held a special roundtable discussion aimed at advancing dialogue among Caribbean energy public sector leaders, multilateral development organizations, bilateral donors and other key energy players to continue efforts to improve coordination and development toward a more sustainable energy sector for the Caribbean Region.

The roundtable took place one day before the launching of the 2011 Caribbean Renewable Energy Forum (CREF), which brought together leaders of Caribbean Governments, the private sector, and the international community to look at renewable energy developments. The outcome of this dialogue will serve as a critical building block for the region's engagement in ECPA.

WIND POWER CHEAPER THAN NATURAL GAS-GENERATED ELECTRICITY IN BRAZIL

For the first time in Brazilian history, wind is a cheaper source of electricity than natural gas. French and Spanish wind energy equipment manufacturers are opening new operations in the South American nation.

Brazil is a long-standing pioneer in renewable energy. The country developed an ethanol program unique in the region and the world and boasts considerable hydroelectric generation. Over the last decade, it furthered its actions to augment the share of renewables in its energy mix. In 2002 and 2004, the government implemented PROINFA, a policy based on feed-in tariffs, as a means to foster the deployment of new small hydro, biomass and wind energy. All projects combined yielded a new installed capacity of 3,300 MW, of which 43.1 percent (1,422 MW) were for wind energy. Among other benefits, PROINFA created some 150,000 new jobs either directly or indirectly, contributed to a diversified energy mix and reduced an estimated 2.8 million CO2 emissions per year. Additionally, by stimulating different sources, PROINFA addressed the issue of inter-

mittency in renewable sources.

Brazil's installed capacity for wind power is of slightly more than 1GW and its estimated potential is of 143GW. Generation increased by 50.5 percent from 2009 to 2010 and, while growing, represented just 0.4 percent of the electricity generated domestically as of 2010. Recognizing this considerable potential, in 2009 the government renewed its efforts to increase wind generation by resorting to reverse auctions. This mechanism emulates the Brazilian electricity market, which is also auction-based. These auctions award Power Purchase Agreements to the lowest bidder. The first auction for wind energy took place at the end of December 2009. Some 1,800MW of wind energy were contracted at an average price of approximately US\$92/MWh. A second auction was held in August 2010

for 2,047.8MW at an average price of approximately US\$84/MWh. In a third auction held in August 2011, a total of 1,928 MW of wind energy were contracted at a cost of approximately US\$62/MWh. By way of comparison, the average price for power generated with natural gas in Brazil is currently US\$64/MWh. Following the announcement of the August 2011 results, President and CEO of Brazil's Energy Research Company (EPE), Mauricio Tolmasquim, said that, for the first time ever in Brazil, wind power prices were lower than natural gas power prices.

Brazil's policy in wind energy is renewing the interest of investors, developers and even manufacturers. Spain's Gamesa and France's Alstom have

invested in manufacturing facilities to build wind equipment in Brazil, while General Electric and India's Suzlon Energy are studying similar projects. Job creation, reduced greenhouse gas emissions, new influx of foreign investment, increased energy security and a diversified energy mix are some of the most remarkable outcomes of Brazil's wind energy policy.



The Osorio windfarm (above) is located in Osório, Rio Grande do Sul. It comprises 75 wind turbines with an installed capacity totaling 150MW. Commissioned in 2006, it can supply a city of 700,000 people.

ARGENTINA'S SAN JUAN PROVINCE OPENS TENDER FOR TECHNICAL PROPOSALS ON WIND AND SOLAR STUDIES

Six proposals were received for the tender being conducted in collaboration with San Juan's power utility EPSE.



In April 2011, the Province of San Juan commissioned the solar farm San Juan I. This pilot installation located in Ullum has an installed capacity of 1.2MW.

The Government of San Juan, a province of Argentina known for its high solar radiation and wind indexes, opened a public tender in August 2011 for the

deployment of testing equipment to map wind and solar resources across the province. The information will be freely available with the aim of attracting private companies to invest in projects in the region. The winner of the tender will also have the option to develop a preliminary design for wind farms. The tender ended on September 16.

Earlier this year, San Juan opened its first solar farm in Ullum. Legislation passed in Argentina in 2007 requires that 8 percent of power generated be derived from renewable sources by 2016.

ECPA CLEARINGHOUSE TO HOLD TRAINING COURSE ON GEOTHERMAL ENERGY

Government officials from Peru, Colombia and Ecuador will attend the six-day session.

Five of the top 10 geothermal energy producers are countries located in Latin America. These countries are El Salvador, Nicaragua, Costa Rica, Guatemala and Mexico. However, many other Latin American and Caribbean nations, particularly those of the Andean region, boast abundant geothermal resources, which they could tap to safely generate cheap electricity.

The OAS, in its capacity as ECPA Clearinghouse, is organizing a training course on geothermal energy to foster the expansion of this important resource in the region. From November 7 through 12, 2011, government

officials in charge of national energy programs in Peru, Colombia and Ecuador will attend a course aimed at providing technical and policy tools to facilitate the advancement of geothermal projects. The course will be imparted by professors from the Geothermal Training Program of the United Nations University.

This course is one of three targeted initiatives spearheaded by the Clearinghouse to increase the uptake of renewables in the region. Other efforts include supporting Ecuador's waste-to-energy program and a solid biomass energy project in Colombia.

