A more integrated business model



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AN EXPANDING TREND in the electricity sector is the creation of production and distribution business models that cross national borders, integrating regions. Jorge Vasconcelos, president of New Energy Solutions, points out that in Europe this process began 20 years ago: First, national wholesale electricity markets were liberalized. Then technical rules for grid codes were harmonized. Today, companies supply electric power to a number of countries and their supply capacity is checked and guaranteed thanks to an algorithm that centralizes operations. Vasconcelos explains that "Electricity supply in the Portuguese market will be integrated from Portugal to Finland, with the allocation of interconnection power capacity between the various systems made automatically. No bilateral intervention, but global optimization."

One of the most enthusiastic and active companies in this integrated electricity system is the China State Grid. Cai Hongxian, CEO and president of State Grid Brazil Holding, says that by 2050 the company sees a global interconnection process consisting of three phases. The first, from 2012 to 2020, will be expansion of clean energy sources and interconnection within China. So far China has achieved hydroelectricity capacity of 320 GW, a connected grid of wind power of 130 GW, photovoltaic power of 42 GW, and a project that is adding 22,000 kilometers

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of high-voltage lines. In the second phase, by 2030 the plan is to promote continental interconnection, concluding in 2050 with establishment of wind power bases in the Arctic and solar energy in the equatorial region. "Brazil and South America have rich resources and great potential, and should play an important role in the development of the global energy interconnection," Hongxian says.

In Brazil, development of this energy market is still only tentative. Tiago de Barros Correia, director of the National Electric Energy Agency, points out that the commercial potential of the country's energy interconnections with Argentina and Uruguay has not yet been properly explored. "Seldom has this interconnection been used as a business; for that to happen we need a review of the pricing model that harmonizes the markets," he says. Luis Eduardo Barata, director general of the National Electricity System Operator, says that the current context of electric power oversupply in Brazil and shortages in Argentina has stimulated negotiations between the two countries to contract for the supply of electric power. He added that "For some time we have been trying to develop marketing schemes with Argentina, but now we are able to discuss this on a commercial basis."

Luiz Augusto Barroso, president of the Energy Research Company, underscores the importance of this type of agreement in regions like Central America. "A thermal power plant in El Salvador has 500 MW capacity, but the country's peak demand is only 160 MW. This type of marketing is essential to take advantage of spare power capacity and ensure better use of these resources," he explains.