

The background of the cover is composed of several overlapping geometric shapes in shades of green, blue, orange, and yellow. A photograph of a high-voltage power line tower is integrated into the design, appearing as if it's a window or a cutout in the geometric pattern.

# EPC

Corporate Propositions for  
Public Policies for a Low-Carbon  
Economy in Brazil

Electric Power



# EXECUTIVE SUMMARY

**T**his study proposes building a low-carbon economy for the energy sector in Brazil considering the business sector perspective. Based on the national context of electric power generation, distribution and transmission in Brazil, and on the joint work developed by the Companies for the Climate (EPC) Platform with its member companies, the corporate propositions for public policies presented here target at greater sustainability of the national energy matrix, from generation to final consumption.

In order to make it possible to transition from the current model to a low-greenhouse gas (GHG) emission model in the Brazilian energy sector, energy supply security shall be taken into account, reducing dependency on fossil-based fuels for generation and diversifying the national energy matrix. Relevant issues, such as the increase in the demand for energy and the competitiveness of products and services provided by Brazilian companies, were also taken into consideration in the building of scenarios and propositions.

Thus, corporate propositions for public policies targeted at the energy sector are looking to a horizon that extends up to 2020, and are presented based on three elements that form the Brazilian system: the National Interconnected System (SIN), energy planning, and incentives for developing specific sources of renewable energy.

## **SIN'S EMISSION FACTOR**

Propositions related to SIN's emission factor (value used to calculate GHG emissions associated with electric power consumed in the network) aim at increasing transparency and creating incentives to purchase renewable energy in the free market. As a consequence, the idea is to encourage consumers to choose cleaner and more renewable energy sources by providing transparent information on GHG emissions related to generation, and acknowledging efforts to reduce emissions related to energy power.

- **Have the Ministry of Science, Technology and Innovation (MCTI) disseminate and communicate in a transparent way how the National Interconnected System calculates the emission factor (FE SIN).**
- **Create a database with specific emission factors per generating facility, available to consumers in the free market.**
- **Recalculate FE SIN considering only the energy traded in the captive market.**

## **STRATEGIC PLANNING**

Another critical aspect of the Brazilian power system is energy planning, currently based on the National Energy Balance (BEN)



and on the Decennial Energy Plan (PDE). Those documents form the main planning tool, used as reference by public administrators to make decisions on energy auctions, energy plants that are going to be built, and other aspects concerning the basic structure of the national energy system. Considering the system structure is critical for sufficient and increasingly renewable energy supply, elaboration of the energy plan is no small task. Therefore, we propose for the Brazilian energy planning:

- **Create a governance instance engaging stakeholders and the civil society to elaborate a Decennial Energy Plan.**
- **Integrate the planning of generation plants and energy transmission and distribution structures and lines, through auctions that are scheduled and directly related with each other.**
- **Review environmental license time frames for processes to build new plants and also for energy transmission structures, so as to promote higher integration of related projects and compatibility of project execution dates.**
- **Conduct researches on Ultra-High-Voltage (UHV) Lines aiming at reducing operational losses and optimizing the networks.**
- **Make more investments on building high-voltage transmission lines, combined with modernization and replacement of obsolete equipment in the energy transmission and distribution network.**
- **Encourage implementation of distributed generation, reducing distances between generation sites**

## **INCENTIVES TO RENEWABLE ENERGY SOURCES**

The Brazilian power system currently consists mostly of renewable energy sources, particularly hydropower. Although this represents a competitive edge for Brazil, it is necessary to extend the share of other alternative renewable energy sources (such as wind power, solar power and biomass), making up a diversified power matrix, more resilient to climate change, and with reduced GHG emissions. Matrix diversification touches the regulatory, technological and economic spheres, and a number of incentives are needed to foster alternative renewable energy sources, such as:

- **Create specific auctions for new energy sources per alternative renewable source: solar power, wind power and biomass.**
- **Include variable criteria in the assessment process of new energy source auctions, which shall incorporate other criteria besides the energy price (BRL/MWh).**
- **Offer incentives and investments to extend the supply of renewable energy sources in the free market, such as:**
- **Discounts in energy tariffs when using renewable sources, which will make those options more competitive.**
- **Make power purchase agreements more flexible in the free market, allowing for agreements with periods shorter than 5 years.**