PERSPECTIVAS

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ENERGY CRISIS 2021 - SCENARIO AND FUTURE

On June 28th, the Brazilian Minister of Mines and Energy, Bento Albuquerque, broadcast a national statement to address the shortage of water and energy in the country. Since the end of May, five states are facing critical water shortage. According to the National Energy Balance of 2021, 65.2% of the Brazilian electricity matrix in 2020 was composed of hydraulic energy, and the current water shortage, caused by the worst drought in 91 years, is also a risk to energy generation in the country.

This is not the first time that Brazil faces the risk of hydroelectric scarcity as a result of climatic events. Not surprisingly, the Nationally Determined Contribution (NDC) targets set by the country in the Paris Agreement consider the implementation of measures to mitigate this recurrent risk.

In this edition, we analyze the connection between these events and climate change, plus investment risks and opportunities, and the growing trend of ESG (Environmental, Social, and Governance) principles in the private and financial sectors.

THE ECONOMIC EFFECTS OF CLIMATE CHANGE

The increasing changes in Brazil's rainfall regime have significantly affected the supply capacity of the country's hydroelectric plants. Therefore, the investment in other renewable sources has become more essential than ever before.

According to the Federal Audit Court (Tribunal de Contas da União), the blackouts of 2001, caused by a severe water shortage, caused R$ 54.2 billion in losses to the national economy. Since July, the National Electric Energy Agency (ANEEL) has approved a change in the energy tariff to the highest - and most expensive - level. The hydro-energy crisis is expected to cause an impact over prices of products and services, thus increasing inflation.

This is due to the increased use of thermoelectric plants, a more expensive and polluting energy source, implemented as a government measure to compensate for the lower generation of hydroelectric plants. According to the Ministry of Mines and Energy, the use of thermoelectric plants should cost around R$ 13.1 billion for consumers this year alone.

OTHER ENERGY CRISIS IN BRAZIL

- **2020 - Amapá's Crisis:**

In 2020, the state of Amapá faced the worst energy crisis in its History, when 90% of the state was left without electricity after a fire hit the state's main power substation. The situation became a central part of the electoral campaign in the region's municipalities.

- **2014 - Drought in São Paulo:**

In 2014, the State of São Paulo faced its most severe water crisis up until then. To ensure water supply for the population, the dead volume (water volume located below the dam gates) of the Cantareira System, which was at 4.4% of its capacity, had to be pumped for the first time. The situation led to the suspension of production at factories and stores had to be closed.

- **2001 - The Blackouts Crisis:**

In his speech on June 28th, Minister Bento Albuquerque mentioned the energy crisis of 2001. In that year, as a consequence of droughts and the lack of investment in the energy sector by the Brazilian government, there were forced power cuts - the "blackouts" - which lasted for months.

FUTURE SOLUTIONS FOR BRAZIL'S HYDROPOWER CRISIS

If compared to 2001, the Brazilian energy system is more robust and diversified today. There has been an increase in other clean energy sources in the Brazilian electricity matrix, making it less dependent on hydroelectric plants. According to the Energy Research Company (EPE), in 2019, renewable sources already accounted for 83% of the total - compared to 25% worldwide. In particular, the participation of wind energy (8.6%), biomass (8.4%) and solar energy (1.0%) in the matrix have increased.

Even so, the dependence on hydroelectric power remains high and it needs to be reduced without resorting to increasing levels of greenhouse gas emissions. Besides recurring to more renewable sources, especially wind and solar, the substitution of polluting sources with more sustainable alternatives will also play a fundamental role, such as natural gas and biofuels. (Check out the Perspectivas Newsletter edition on the biofuels sector in Brazil by clicking here).

Additionally, new technologies will enable a greater variety of sustainable options to supply the energy demand. This is the case of green hydrogen, as pointed out by the Minister of Mines and Energy, Bento Albuquerque, during the Brazil 2021 Investment Forum. During the event, the minister highlighted the National Hydrogen Program, expected to begin next year, which will set a national strategy for the use of what the minister described as "the energy source of the future". He also emphasized the importance of allocating resources to other clean energy technological frontiers, such as offshore wind power.

GOVERNMENT PROPOSALS

MPV 1.055/2021

On June 28th, the federal government published the Provisional Measure (MPV) 1055/2021, which creates the Chamber of Exceptional Rules for Hydropower Management (CREG). The objective is to establish emergency measures and ensure the continuity and security of electricity supply in the country. The Chamber will be composed of members from the Ministries of: Mines and Energy, Economy, Infrastructure, Agriculture, Environment and Regional Development. It is expected to last until December 30th.

The MPV is valid for 60 days, extendable for another 60 days, and must be approved by the National Congress.

MPV 1.031/2021

On July 13th, the Law 14.182, of 2021 - regarding the privatization of the State-owned electricity company, Eletrobras - was sanctioned. The privatization model sanctioned provides the emission of new company shares, to be sold on the market without the participation of the government, which will continue to have a special class of shares with veto power.

Eletrobras must assume social and environmental programs with management committees chaired by ministerial nominations.

The text also stipulates the requirement to contract natural gas thermoelectric plants to supply the North, Northeast, Midwest and Southeast regions.

"PERSPECTIVAS" ABOUT THE ISSUE

Climate change due to environmental and natural factors has always existed. However, there is a consensus among researchers and authorities that anthropogenic factors, which result in the increase of global warming, have contributed to a considerable rise in frequency and intensity of natural disasters, therefore affecting an increasing number of people.

Climate events, such as the current drought and the following risk of hydro-energy shortages in Brazil, or even the floods currently faced in China and Europe, especially in Germany, impact the economy, the population, and can even affect the political scenario of a region or country.

Natural disasters are always a litmus test in elections, as they have the potential to either improve or bring down the popularity of a politician. The floods in Germany, for example, have heated up the campaigns and political debate around climate change in this final stretch of the general elections, to be held next September.

In addition to the political risk and consequential risk of changing the course of a country or region that a natural disaster may pose, companies that are better prepared and ahead of the curve in climate resilience, mitigating the climate impacts of their operations, and investing in sustainable solutions are better positioned in the global transition to a low-carbon economy. These companies will be more capable of attracting investment as ESG principles advance in the financial and corporate world.

Through initiatives endorsed by organizations such as the United Nations, such as the Energy Compact, the private sector has the opportunity to publish its commitments around the implementation of Sustainable Development Goal 7 (Affordable and Clean Energy) and consolidate its leadership on the global stage for the energy transition to a future that is cleaner, more sustainable and resilient to climate change.

We face a shared responsibility between public authorities, private sector, and civil society. Only then, we shall have the significant changes needed to prepare for similar events in the future. Brazil has all the conditions to lead this debate and transform this global challenge into an opportunity for technological development, investment attraction, and job creation in the country.

- Marina Mattar, Founder and CEO of Perspectivas

ABOUT PERSPECTIVAS

Perspectivas is a Communication & Institutional Relations consultancy specialized in advocacy strategy and image building based on the pillars of dialogue, ethics, and transparency, with a strong focus on ESG (Environment, Social & Governance) principles, especially in the Low Carbon Economy.

Access the previous edition of our newsletter in Portuguese and English, at www.perspectivasbr.com/newsletter

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