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BRAZIL ENERGY JOURNAL

Brazilian Congress Passes the
Hydrogen Legal Framework Bill



OVERVIEW

Brazil is making strides towards energy transition as its Congress passed the Bill of Law No. 2,308/2023, the Hydrogen Legal Framework, on July 11, 2024. President Luiz Inácio Lula da Silva is expected to sanction the bill to become law in the coming days.

In addition to the nation’s commitment to its own decarbonization targets, Brazil is also positioned as a potential global exporter of low-carbon hydrogen and its derivatives, due to its predominant and competitive renewable energy-generation matrix.

THE KEY PROVISIONS OF THE BILL ARE:

- 1 Definitions of “Low-Carbon Hydrogen”, “Renewable Hydrogen” and “Green Hydrogen”;

- 2 Designation of the Brazilian Agency of Petroleum, Natural Gas and Biofuels (ANP) as the regulatory body, with authority to regulate hydrogen chain activities and issue authorizations for hydrogen production;

- 3 Establishment of the National Low-Carbon Hydrogen Policy;

- 4 Creation of subsidies for the development of the Low-Carbon Hydrogen industry, through the Low-Carbon Hydrogen Development Program (PHBC);

- 5 Creation of the Special Regime of Incentives to the Low-Carbon Hydrogen Production (REHIDRO); and

- 6 Creation of the Brazilian Hydrogen Certification System (SBH2).



INSIDE THE PROVISIONS

NATIONAL POLICY OF LOW CARBON HYDROGEN

The Hydrogen Legal Framework establishes the National Policy of Low Carbon Hydrogen as a nationally applicable instrument to boost development of public policies on low-carbon hydrogen. Federal, state, and local authorities are responsible for implementing the National Policy of Low Carbon Hydrogen in accordance with their respective jurisdictions.

The National Low-Carbon Hydrogen Policy identifies 23 objectives. In general, these objectives aim to promote the energy transition through the production of Low-Carbon Hydrogen for both domestic and international markets, encouraging the further development of the supply chain of Low-Carbon Hydrogen in Brazil.

The bill also establishes the following principles of the National Low Carbon Hydrogen Policy:

- I. Respect for technological neutrality in the definition of incentives for the production and use of low-carbon hydrogen;
- II. Competitive inclusion of low-carbon hydrogen in the Brazilian energy matrix for its decarbonization;
- III. Predictability in the formulation of regulations and incentives for market expansion;
- IV. Rational use of the existing infrastructure dedicated to energy supply; and
- V. Promotion of research and development for low-carbon hydrogen.

HYDROGEN DEFINITIONS

The Hydrogen Legal Framework provides for the following hydrogen definitions:

<p>H₂ ↓ Low-Carbon Hydrogen</p>	<p>→</p>	<p>Hydrogen fuel or industrial input with greenhouse gas (GHG) emissions, less than or equal to 7 kgCO₂eq/kgH₂, according to a life cycle analysis.</p>
<p>H₂ ♻️ Renewable Hydrogen</p>	<p>→</p>	<p>Low-Carbon Hydrogen fuel or industrial input produced naturally (natural hydrogen) or from renewable sources, including hydrogen produced from biomass, ethanol and other biofuels, as well as electrolytic hydrogen, produced by electrolysis of water, using renewable energies such as solar, wind, hydraulic, biomass, ethanol, biogas, biomethane, landfill gas, geothermal, and others to be defined by the public authorities.</p>
<p>H₂ 🔌 Green Hydrogen</p>	<p>→</p>	<p>Green Hydrogen: Hydrogen produced through the electrolysis of water routes and powered by renewable energy sources.</p>

Regarding the GHG emissions established in the Low-Carbon Hydrogen definition, the Hydrogen Legal Framework establishes that the limit of 7 kgCO₂eq/kgH₂ shall remain until December 31, 2030, when it shall be progressively reduced by the applicable regulations.



REGULATORY AUTHORITY – ANP

According to the Hydrogen Legal Framework, hydrogen, its derivatives, and its carriers may be produced by any company—or consortium of companies—incorporated under Brazilian law and authorized by the ANP. ANP's regulations will establish circumstances when such authorization may be waived, especially taking into account the volumes produced and the use of hydrogen as productive input, provided that the activity is registered with the competent regulatory body.

ANP is also in charge of regulating, authorizing, and controlling the production of natural hydrogen (also known as white hydrogen) in Brazil.

The bill establishes that a regulatory sandbox may be implemented, and allows ANP to pursue individual solutions in order to enable the fulfillment of the objectives presented.

Activities related to the transportation, processing, treatment, importation, exportation, storage, warehousing,

packaging, transportation, transfer, resale, and commercialization of hydrogen, its derivatives, and carriers are also subject to ANP authorization, with the clear understanding that developers authorized to produce hydrogen will have priority over other authorization requests.

Hydrogen Legal Framework also modifies Law No. 9,427/1996 to establish the National Agency of Electric Energy (ANEEL) as being able to offer contributions to ANP related to Low-Carbon Hydrogen produced by electrolysis. ANEEL may also grant Public Utility Declarations (DUP) for off-grid transmission and distribution facilities of restricted interest exclusively intended for the supply of Low-Carbon Hydrogen Projects.

Regarding the possible authorizations granted for the production of Low-Carbon Hydrogen, the Hydrogen Legal Framework provides that they shall be validated by ANP's conformity analysis.



BRAZILIAN HYDROGEN CERTIFICATION SYSTEM (SBH2)

The Hydrogen Legal Framework establishes the Brazilian System of Hydrogen Certification (SBH2) in order to promote the sustainable use of hydrogen through information provided in a certificate.

A hydrogen certificate shall be issued by an accredited certification body as a result of the hydrogen certification process. The certificate shall include the contractual characteristics of the inputs used, the production sites, life cycle information, and the amount of carbon dioxide equivalent emitted.

Further regulations will establish the procedures for recognition of certification standards applied to imported hydrogen. The SBH2 will have the following structure:

I. Competent Authority: Authority responsible for the definition of

public policies related to hydrogen certification in Brazil.

II. Regulatory Authority: Authority in charge of regulating SBH2, which has not yet been defined.

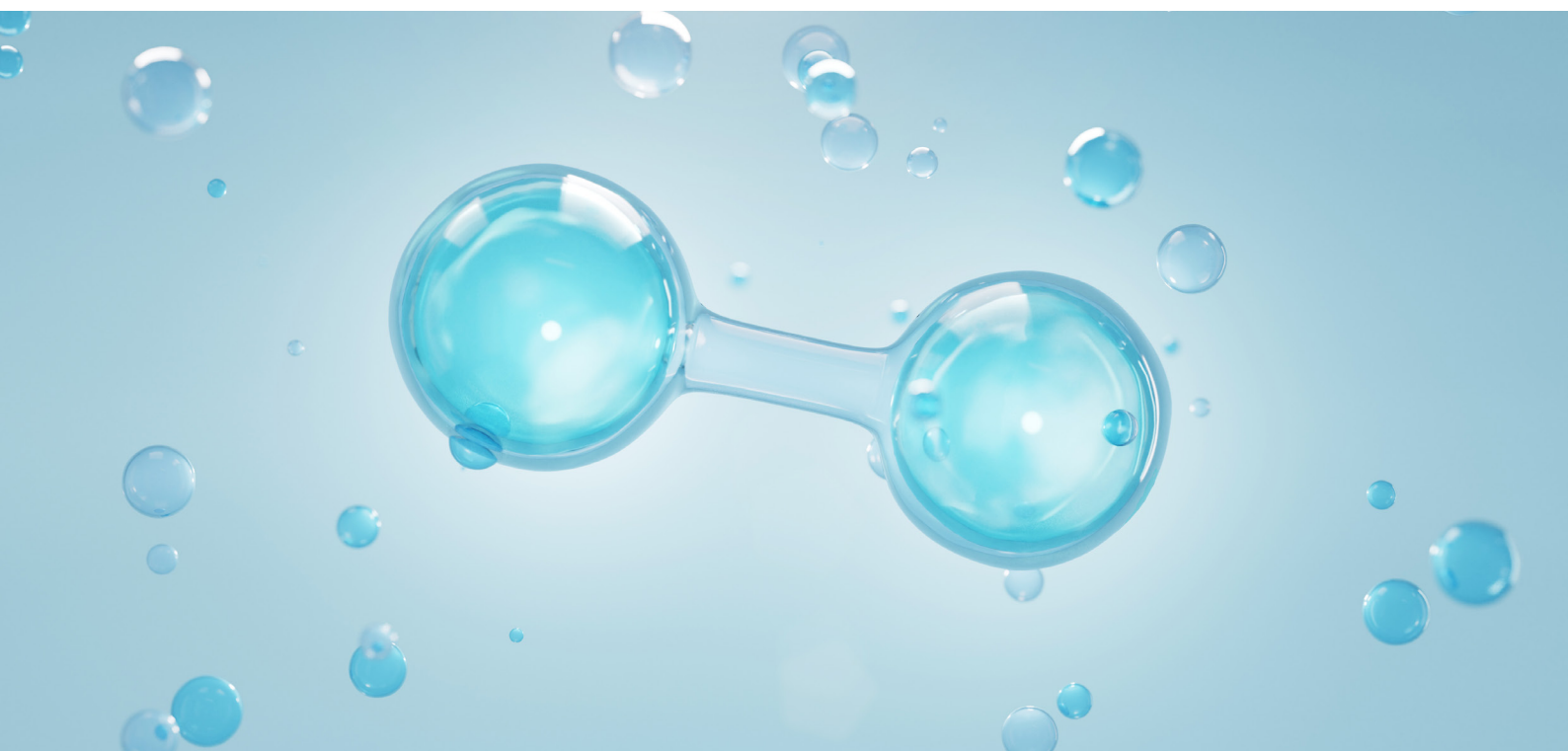
III. Certification Company: Private entity that can issue hydrogen certificates after being accredited by the Accrediting Institution.

IV. Accreditation body: The body responsible for accrediting certifying companies in the certification process.

V. Records Manager Company: The entity responsible for managing the national database with all hydrogen certificate registers.

VI. Hydrogen Producer.

VII. Hydrogen Purchaser.





SPECIAL REGIME OF INCENTIVES TO THE LOW-CARBON HYDROGEN PRODUCTION (REHIDRO)

The Hydrogen Legal Framework establishes the Special Incentive Regime for the Production of Low-Carbon Hydrogen (REHIDRO), to promote the competitiveness of technological and industrial development and to add value to national production chains.

REHIDRO is similar to other well-established incentive policies, such as the Special Incentive Regime for Infrastructure Development (REIDI).

The mechanisms for qualification in REHIDRO have not yet been defined by the Executive Branch, but the Hydrogen Legal Framework establishes two requirements:

- I. A minimum percentage of Brazilian goods and services in the

production process, unless that good or service has no national equivalent, or the national equivalent is insufficient to satisfy domestic demand; and

- II. Minimum investment in RD&I.

The tax incentives for REHIDRO beneficiaries are valid for five years, starting from January 1, 2025. The beneficiaries are the companies that—within a period of up to five years from January 1, 2025—are qualified to produce low-carbon hydrogen according to the applicable regulations. Companies already engaged in the production of low-carbon hydrogen at the time of the publication of the Law may also be included as REHIDRO beneficiaries.

May also be beneficiaries of the REHIDRO, actors that act on:

- I. the packaging, storage, transportation, distribution or trading of Low Carbon Hydrogen;
- II. the generation of renewable electricity for the production of low carbon hydrogen; and
- III. the production of biofuels (ethanol, biogas or biomethane) for the production of low carbon hydrogen.

Adherence to and participation in the REHIDRO regime are conditional on the legal entity's tax compliance regarding federal taxes.

Although REHIDRO and REIDI are similar, there are two major differences.

Firstly, REHIDRO requires minimum national content in the production process and investment in RD&I, requirements that do not exist in REIDI. Secondly, REIDI usually is restricted to the owner of the new infrastructure project, but REHIDRO—depending on the treatment provided by future regulations—can include other actors linked to Production of Low-Carbon Hydrogen as beneficiaries, such as logistics, distribution, commercialization, renewable energy generation or biofuel production activities.es.

REHIDRO benefits can be cumulative with other relevant incentive regimes, such as REIDI, Processing and Export Zones (ZPE) and incentivized debentures.



LOW-CARBON HYDROGEN DEVELOPMENT PROGRAM (PHBC)

In parallel with REHIDRO, Hydrogen Legal Framework establishes the Low-Carbon Hydrogen Development Program (PHBC), a program with the accounting and financial purpose of funding Low-Carbon Hydrogen projects, similar to international programs such as the US Inflation Reduction Act and the REPowerEU.

PHBC funds may have different sources, including federal budget, agreements with federal, state, and local public authorities and entities, donations from national and international public and private institutions, loans from national and international financial institutions, among others.

PHBC may grant 10-year economic subsidies for the trade of Low-Carbon Hydrogen and its derivatives produced in Brazil counted from the publication of the law. The subsidies will be granted after a competitive process among the beneficiaries of REHIDRO, proposed by the Management Committee of PNH2 to the CNPE, which will establish its guidelines.

The Hydrogen Legal Framework sets the following limits per year for the concession of tax credits: he Executive



The Executive Branch will determine the value of the tax credits in accordance with the fiscal goals and PHBC's objectives, which will be included in the federal annual budget proposal.

Tax credits shall be granted to producers or purchasers of Low-Carbon Hydrogen through a competitive process. Producers must be beneficiaries of REHIDRO, while purchasers must purchase Low-Carbon Hydrogen from REHIDRO producers.

The procedure for the concession of tax credits will consider the concession of credits in decreasing amounts, giving

priority to projects that: a) provide for the lowest GHG emission intensity of the hydrogen produced or consumed; and b) have the greatest potential for condensing of the national value chain.

Stakeholders interested in receiving this tax credit shall provide a performance guarantee to ensure the implementation of the project for the production or consumption of Low-Carbon Hydrogen and its derivatives.

Penalties, including fines, resulting from the non-implementation of the project shall also apply to the beneficiaries of such tax credit.



NEXT STEPS

The Hydrogen Legal Framework is an essential step to accelerate Brazil's insertion in the global hydrogen economy. The Ministry of Mines and Energy and ANP are expected to expedite relevant regulations to ensure effectiveness of the incentives and proper development of the activities of the hydrogen chain.

Tauil & Chequer in association with Mayer Brown will continue to monitor any updates related to hydrogen and energy transition in Brazil and keep you posted.



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