Natural Hydrogen: Energy Potential and Legal Context in Quebec and France

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What is natural hydrogen?

Natural hydrogen, also called native hydrogen, does exist. It refers to hydrogen found naturally in the environment, often as a gas trapped underground.

Unlike industrially produced hydrogen, which results from chemical processes, natural hydrogen is extracted directly from nature. This naturally occurring resource is generating growing interest as a potential source of clean, renewable energy. However, exploration and large-scale production are still in the early stages.

Discovery of natural hydrogen

The first major discovery of natural hydrogen occurred in 1987 in Bourakébougou, Mali, by the company Hydroma Inc. In this village, a well revealed naturally occurring hydrogen in the subsurface.

This discovery sparked global interest in hydrogen's potential as an energy source. The region continues to be studied to better understand and develop this promising resource.

Regulation and exploration in Quebec

n Quebec, natural hydrogen exploration is not currently covered by the *Mining Act*, which governs the exploration and exploitation of mineral substances. Because natural hydrogen represents an emerging resource, it will eventually need to be addressed through new regulations or incorporated into an existing legal framework.

For now, since hydrogen is mainly studied in the context of renewable energy, it may fall under environmental or energy-related regulations.

Legal framework in France

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In France, the legal status of natural hydrogen differs significantly. Natural hydrogen is classified as a mineral resource, meaning that its exploration and extraction are governed by the provisions of the French *Mining Code*.

Initiatives in Quebec

Although natural hydrogen exploration in Quebec is not yet covered by the *Mining Act*, several companies have obtained exclusive exploration rights (formerly known as “claims”) and are actively conducting fieldwork. Through their efforts, they are helping to advance the legal and regulatory framework surrounding this new energy resource. The Government of Quebec is currently examining potential legislative amendments to the *Mining Act* to include natural hydrogen, or the adoption of a new, dedicated law to regulate it

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