

Coastal Lifelines :

Exploring the Potential of Offshore Freshened Groundwater (OFG)

Navigating Coastal Challenges - A Glimpse into a Global Water Crisis

Coastal regions, serving as habitats for over 1.2 billion people, find themselves in the grip of an increasingly severe water stress situation. Exacerbated by population growth, pollution, the impacts of climate change, and geopolitical conflicts, this crisis demands urgent attention and innovative solutions.

Unveiling Offshore Freshened Groundwater (OFG) - A Pivotal Resource for Coastal Sustainability

Beneath the ocean's surface, a previously overlooked reservoir comes into focus — Offshore Freshened Groundwater (OFG). While not rivaling the scale of onshore reserves, OFG emerges as **a strategic solution for water-scarce coastal regions**, showcasing its potential as a valuable resource. Yet, its significance extends beyond mere water abundance.

The Compelling Choice - Embracing Offshore Freshened Groundwater (OFG)

Terrestrial groundwater confronts persistent challenges such as contamination, over-extraction,

and land subsidence, posing threats of costly infrastructural damage. In a groundbreaking approach, OFG resources, unlocked through innovative solutions and strategic collaboration with established oil & gas recovery expertise, present a proactive solution to circumvent these issues. This not only holds the promise of being a cost-effective choice but also aligns with environmentally-conscious practices. OFG emerges as a compelling and viable alternative for coastal regions grappling with acute water stress.

Innovative Strides - Pioneering Technologies for Enhancing OFG Viability

Imaging: Integrating cutting-edge geophysical methods, including seismic and electromagnetic imaging, provides invaluable insights into the volumes and distribution of Offshore Freshened Groundwater (OFG).

Modelling: Digital representations of the Earth's subsurface properties and dynamic behaviors serve as a cornerstone for understanding and managing water resources in coastal regions. This modeling not only aids in effective water resource management but also holds the potential for synergies with related technologies, such as carbon capture and sequestration.

Guiding OFG Exploration with Decades of Proven Knowledge: Harnessing the wealth of data and deep understanding cultivated by the oil & gas industry in deciphering water behavior within rocks becomes instrumental in steering Offshore Freshened Groundwater (OFG) exploration and exploitation. By bringing decades of proven knowledge to the table, this collaboration unlocks unparalleled insights for informed decision-making in water resource management.

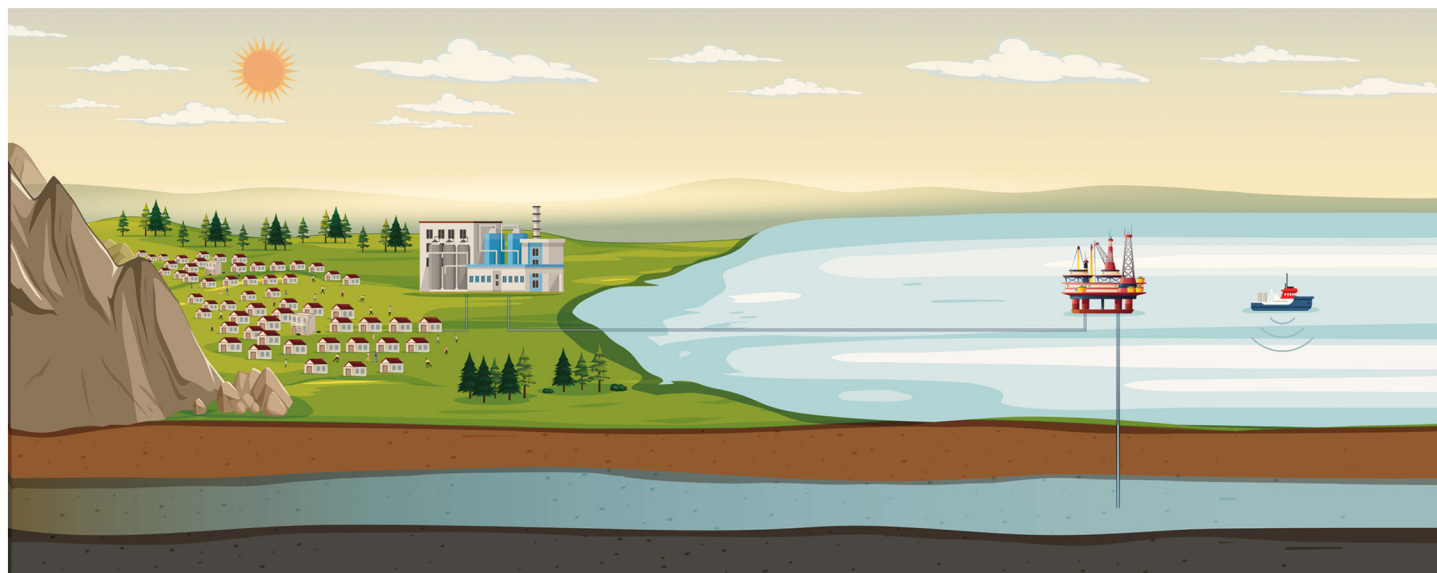
Navigating Challenges - Striking a Balance with OFG's Economic and Environmental Realities

OFG presents a set of challenges that demand thoughtful consideration. The ongoing debate surrounding its economic feasibility and factors

such as proximity to the shore significantly influence its viability. Additionally, careful attention must be paid to prevent environmental repercussions, ranging from saltwater intrusion to potential impacts on ecosystems and land subsidence.

Empowering Coastal Futures - The OFF-SOURCE Initiative:

We dedicate our efforts to forging a future where water security is a certainty. The COST Action OFF-SOURCE aims to catalyze innovative solutions like Offshore Freshened Groundwater (OFG). Through the seamless integration of research, technology, and policy, our mission is to pave the way for a sustainable and thriving future for every coastal community.



Check out our Network and see who have already joined the OFF-SOURCE community >



<https://off-source.eu/>

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