

# South America Offshore Wind

## H2U Offshore Round

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ANCAP



Organized by



Quest Offshore



Sheraton Grand, Rio de Janeiro, September 17-19, 2024

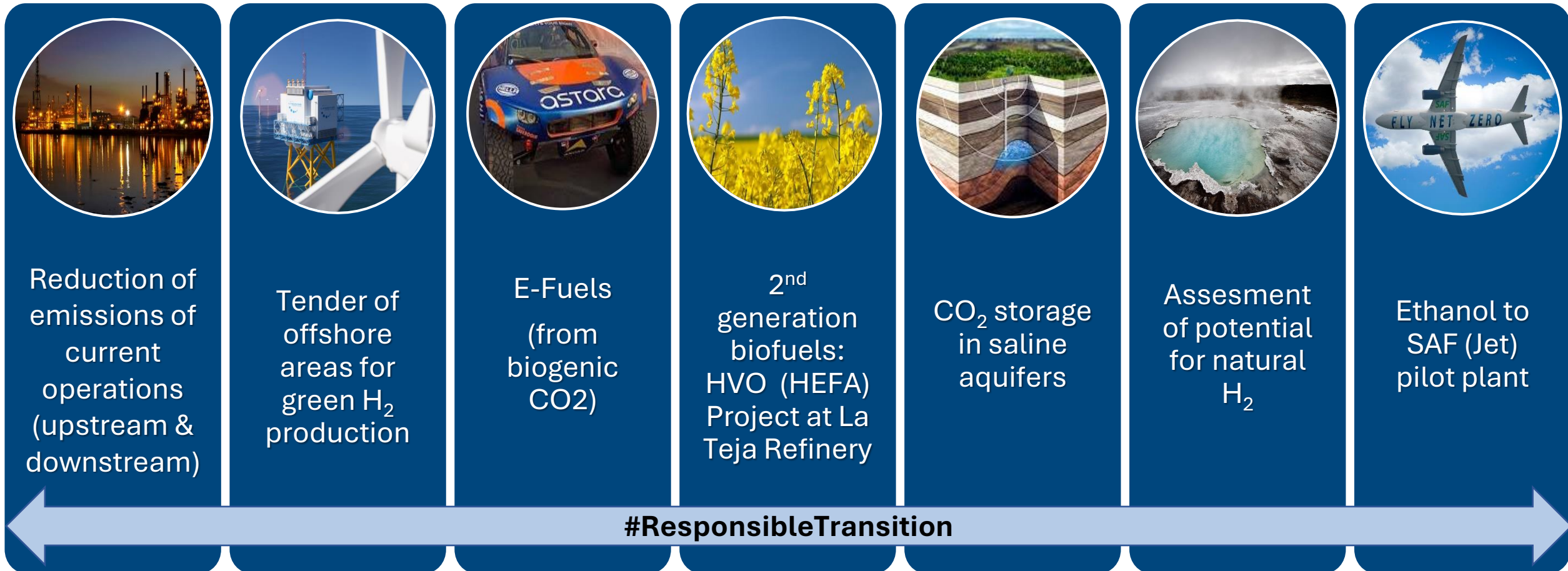


The information included in this presentation and all other communication material regarding bidding terms, contract model, schedule, regions and areas is tentative and should be considered as a draft.

Official and final version of this information will be released once the bidding terms are approved and published.

September 2024

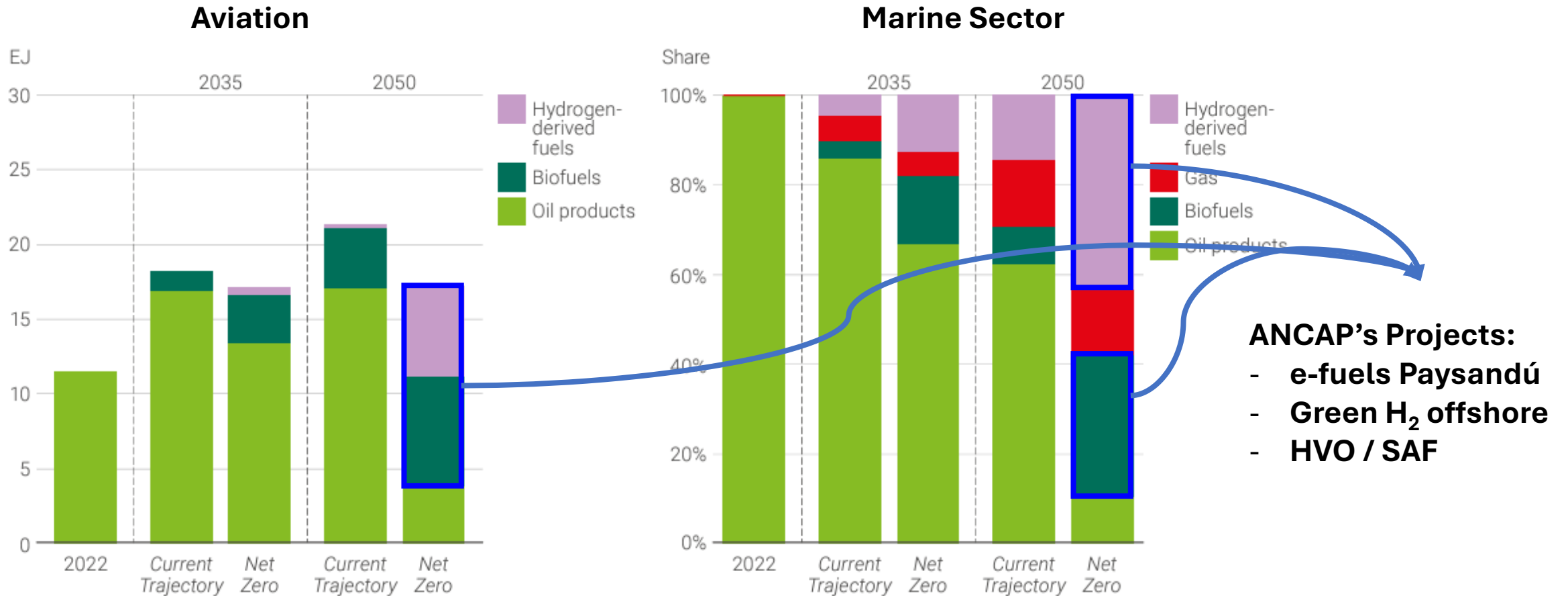
# ANCAP: shifting towards an Integrated Sustainable Energy Company



***Low carbon operations + Biofuels + Key role of Green H<sub>2</sub> and derivatives***

# Sustainable molecules: biofuels and e-fuels

Aviation and marine transportation are increasingly decarbonized through a combination of hydrogen-derived fuels and biofuels



<https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/energy-outlook/bp-energy-outlook-2024.pdf>



# Introduction

## Uruguay:

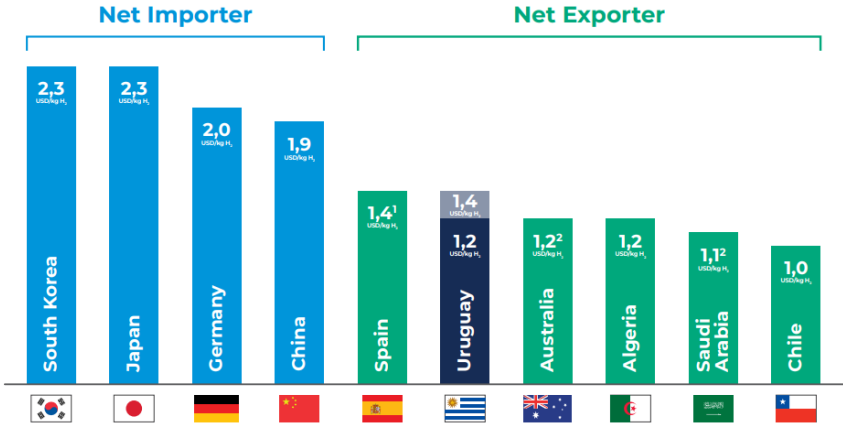
- Successful first Energy transition (power sector)
- Government support for green hydrogen
- Country stability and reputation
- Good interinstitutional coordination

## H2U offshore bidding round:

- Timely and innovative, first mover



Hidrógeno verde: una oportunidad para Uruguay <https://bit.ly/3uYEyDP>



MIEM 2023; Uruguay’s Roadmap for Green Hydrogen and Derivatives

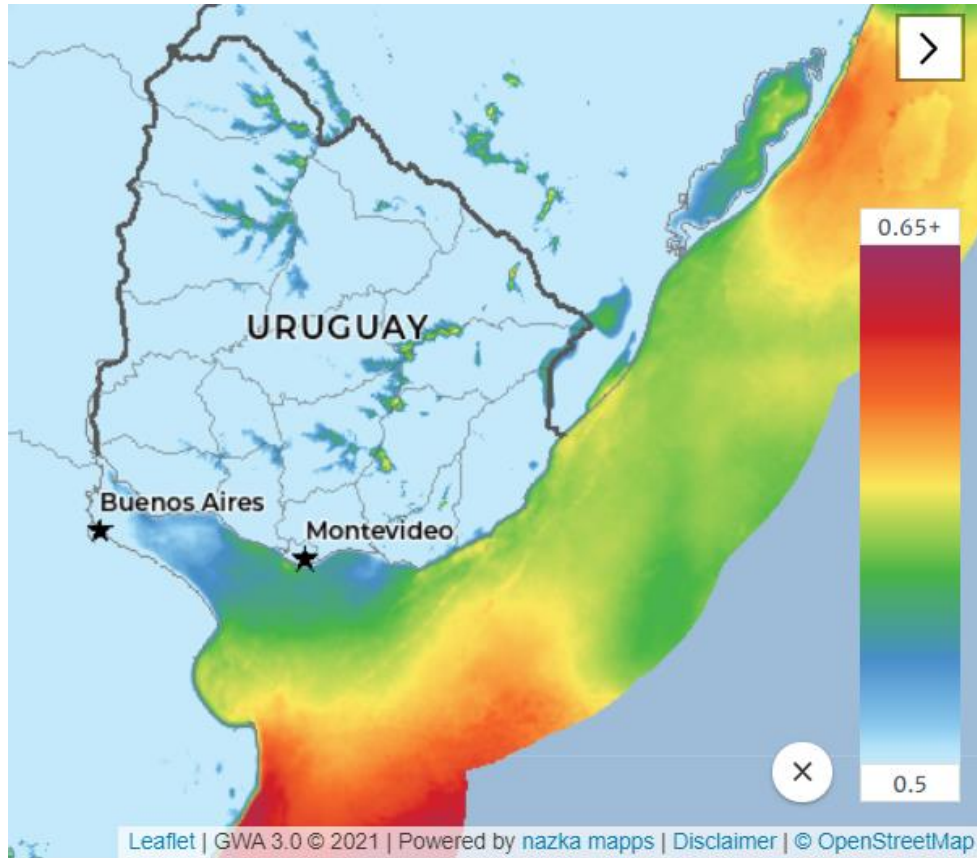


# H2U Offshore: ANCAP's vision for a sustainable future

ANCAP is launching a tender for offshore areas for energy companies to carry out feasibility studies and potential installation of infrastructure for the production of H<sub>2</sub> and/or derivatives from offshore renewable energy, at their own cost and risk entirely.

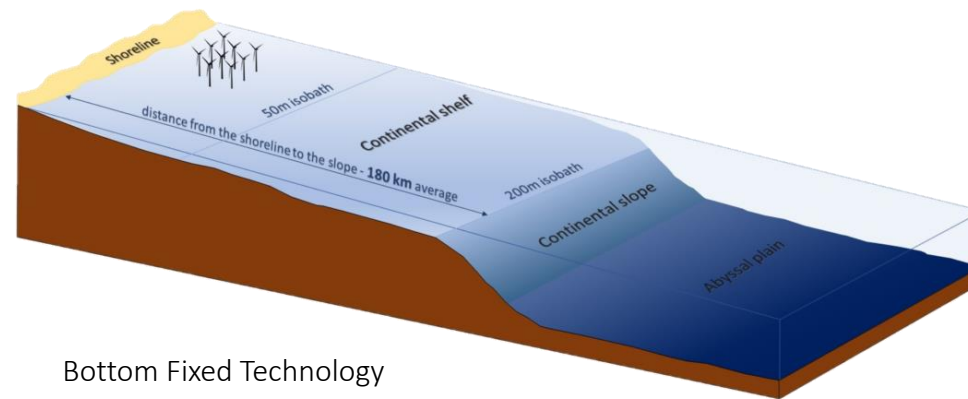


# Offshore Uruguay Wind Resource Potential

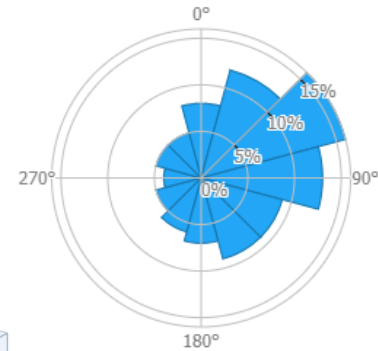


[Data/information/map obtained from the] "Global Wind Atlas 3.0, a free, web-based application developed, owned and operated by the Technical University of Denmark (DTU). The Global Wind Atlas 3.0 is released in partnership with the World Bank Group, utilizing data provided by Vortex, using funding provided by the Energy Sector Management Assistance Program (ESMAP). For additional information: <https://globalwindatlas.info>"

- Mean wind speed (exceeding 8.7 m/s at 100 m hub height) <sup>(1)</sup>
- Capacity factors (higher than 51% for IEC Class I) <sup>(1)</sup>
- ESMAP assessed a technical potential in Uruguay of 275GW including 190GW for fixed and 85GW for floating technologies <sup>(2)</sup>
- Main direction: NE -> SW <sup>(1)</sup>



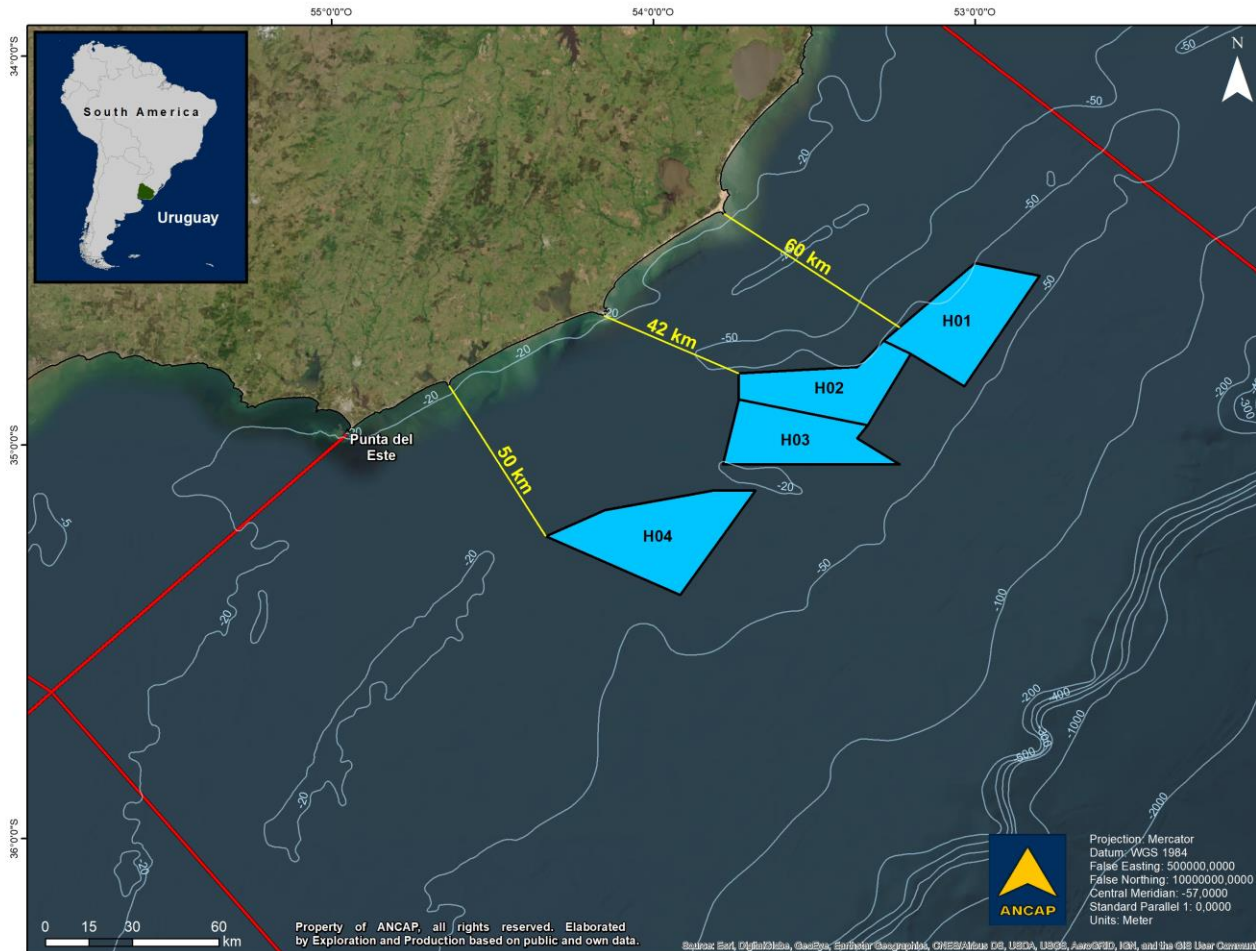
Bottom Fixed Technology



(1) Global Wind Atlas 2022

(2) ESMAP 2020

# Offered Areas



Areas defined considering relevant ecological settings, minimized interference with human activities (maritime transit and operations, fisheries, submarine cables) and the **input from the industry and experts.**

Average Surface Area: 700km<sup>2</sup>

Estimated Potential:

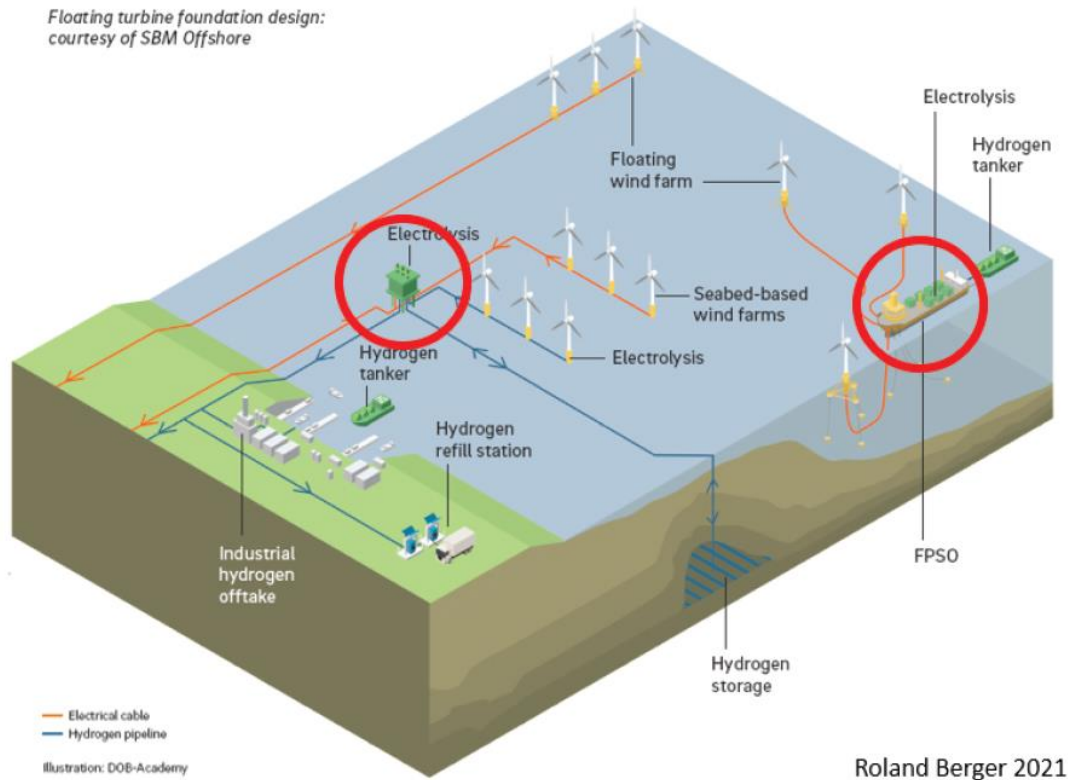
3 GW → 200 kTonH<sub>2</sub>/year\*

\*A: 500km<sup>2</sup>; D: 6 MW/km<sup>2</sup>; F: 46%; E:60 kWh/kg

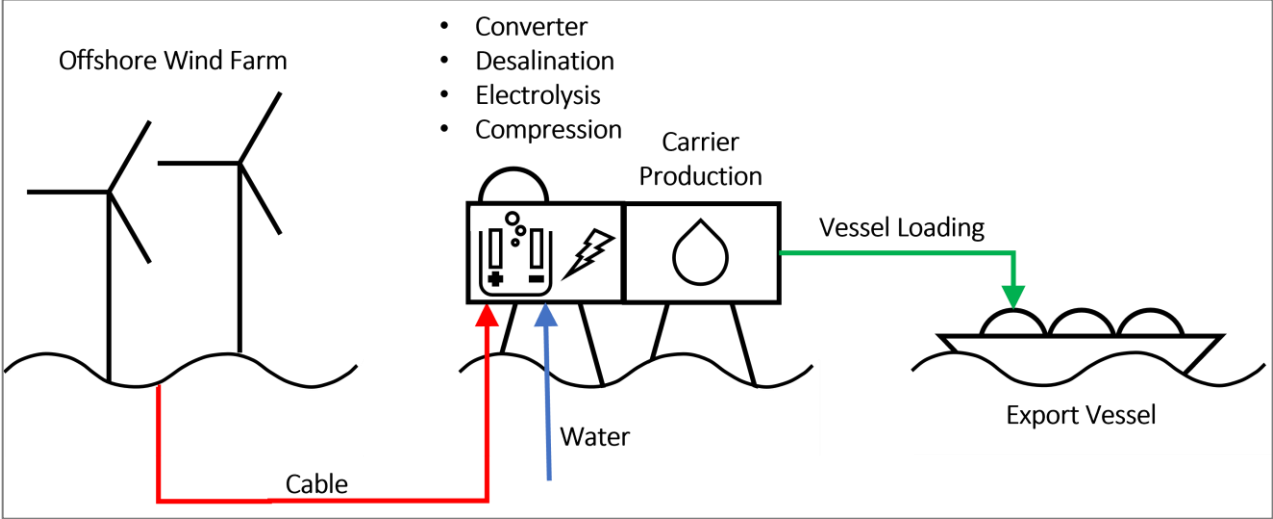
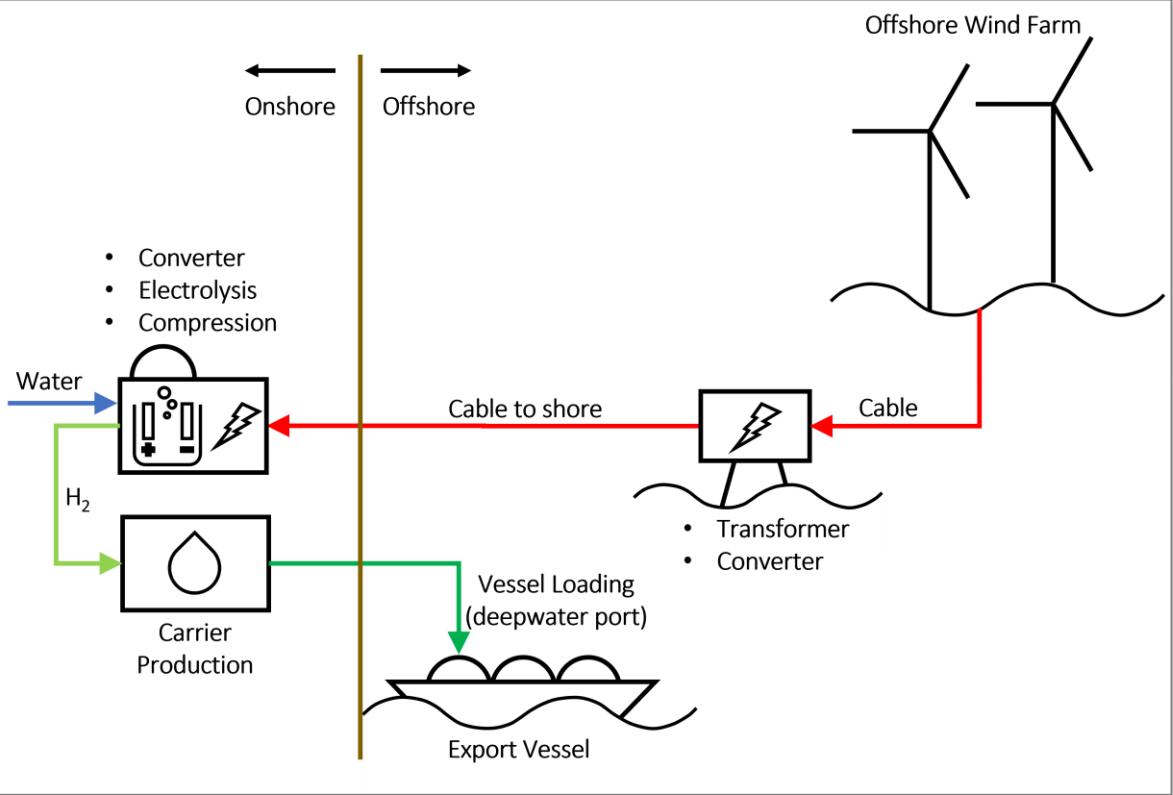
# Development Concept

**Flexibility** for the contractor to propose development concept including:

- Offshore / Onshore Electrolysis
- Project scale (phases)
- Type or H2 Carrier (NH3, LH2, etc)
- Market/Off-taker
- Development committed only after 10 years of evaluation period



# Development Concept



Tomasini, Juan, Gristo, Pablo, Ferro, Santiago, and Rodrigo Novo. "Assessment of the Potential for Hydrogen Production from Bottom Fixed Offshore Wind in Uruguay." Paper presented at the Offshore Technology Conference, Houston, Texas, USA, May 2022. doi: <https://doi.org/10.4043/31879-MS>

Ferro, Santiago, Tomasini, Juan, Gristo, Pablo, and Rodrigo Novo. "Analogies from the E&P Business Model Applied for Green Hydrogen Developments Offshore Uruguay." Paper presented at the Offshore Technology Conference, Houston, Texas, USA, May 2023. doi: <https://doi.org/10.4043/32560-MS>

# Bidding Round Terms

ANCAP invites energy companies interested in carrying out feasibility studies and potential installation of infrastructure for the production of hydrogen and/or derivatives from offshore renewable energy, at their own cost and risk entirely.

Legal, financial and technical qualification of companies to have the right to submit offers

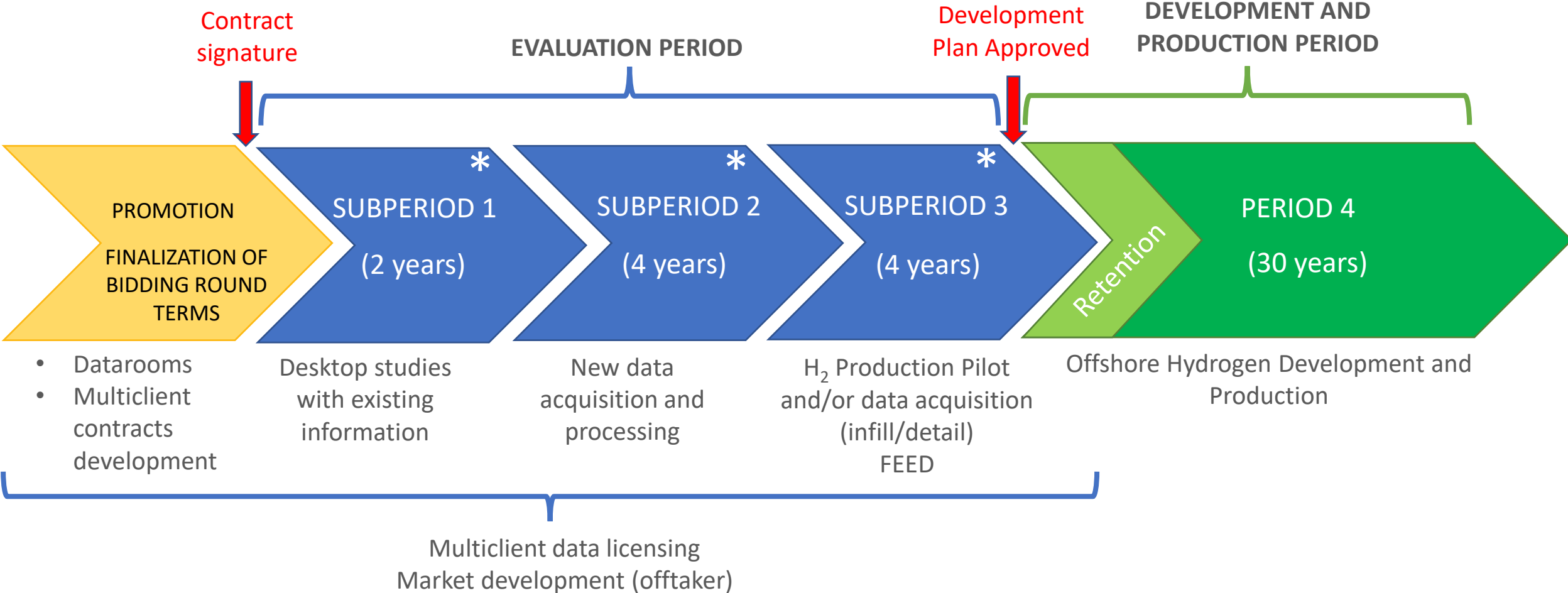
Award criteria based on objective and simple parameters to be offered by energy companies:

- Work program (WU)
- Share of profit for ANCAP (P)
- ANCAP's participation (A)

Comparison of offers based on equation:

$$\text{Score} = 20\% * (\text{WU}/\text{WUmax}) + 40\% * (\text{A}/\text{Amax}) + 40\% * (\text{P}/\text{Pmax})$$

# Contract Terms



\*Advancing from one Period to the next is the company's right (after fulfilling commitments)



# Evaluation Plan

## Period 1

Four (4) mandatory desktop studies w/ available data: Physical Media, Biological Media, Anthropic Media and Technical/Economical.

Optional studies: up to four (4) additional specific studies.

## Period 2

Five (5) mandatory studies (reconnaissance or site investigation) comprising the acquisition, processing/ analysis and interpretation of field data:

- Geological, Geophysical & Hydrographic
- Geotechnical
- Metocean & Resources
- Environmental
- Human & Socio-Economic



<https://www.windssystemsmag.com/us-wind-deploys-floating-lidar-buoy-in-maryland-lease-area/>

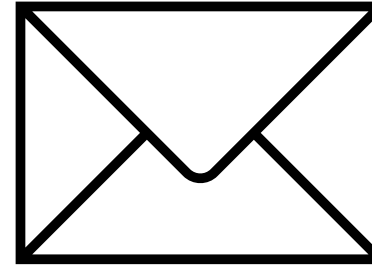
# Key Takeaways:

- Uruguay is a reliable and stable country (above ground risks minimized)
- Successful first energy transition, strong drive for H2
- Excellent wind resource offshore Uruguay
- Minimum risk and capital commitment for energy companies
- Energy companies could hold a contract area for 10 years before submitting a development plan (or relinquish)
- Data rooms available

# Further Information:



<https://www.ancap.com.uy/hidrogeno>



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Thanks for your attention

