

# Offshore Wind Development in Spain and Portugal

June 22, 2023

STRICTLY PRIVATE AND CONFIDENTIAL



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# Agenda

➤ 10:00-10:15 | Introduction and Context



María Pilar  
García Guijarro

➤ 10:15-11:00 | Regulatory Framework in Spain



David  
Diez



Ignacio  
Soria

➤ 11:00-11:45 | Regulatory Framework in Portugal



João Macedo  
Vitorino

➤ 11:45-12:00 | Coffee Break

➤ 12:00-13:00 | Panel Discussion: Lessons Learnt and Best Practices from Northern Europe



Ralph  
Ibendahl



Emmanuel  
Ninos



Nicolás  
Mazzoli

➤ 13:00-13:30 | Networking and Cocktail

# Presenters and Team

WATSON FARLEY  
&  
WILLIAMS



**María Pilar García Guijarro**  
Partner  
Head of Corporate and M&A  
[mpgarcia@wfw.com](mailto:mpgarcia@wfw.com)

- 25+ years experience in the energy and infrastructure sectors
- Specializes in the energy sector; her practice focuses on investment structures and restructuring
- Has been awarded Best Energy Lawyer of the Year by Iberian Lawyer



**Emmanuel Ninos**  
Partner  
[eninos@wfw.com](mailto:eninos@wfw.com)

- Focus on the development, acquisition and financing of energy and infrastructure assets
- He regularly acts for contractors, sponsors and lenders with special expertise in the renewable energy sector
- Emmanuel has been recognized in Legal 500 UK



**David Diez**  
Partner  
Regulated Sectors and Public Law  
[ddiez@wfw.com](mailto:ddiez@wfw.com)

- Wide experience advising in energy, waste, public infrastructure and public procurement.
- Secretary to the Board of the Spanish Photovoltaic Association –UNEF and also founding partner of AEDEN, the Spanish Association of Energy Lawyers.

MACEDO ▪ ▪  
VITORINO



**João Macedo Vitorino**  
Founding Partner  
Head of M&A, Telecoms and Energy  
[jvitorino@macedovitorino.com](mailto:jvitorino@macedovitorino.com)

- 25+ years of experience
- João advises in national and cross-border transactions
- He has also represented clients in arbitration and litigation cases in the areas he specializes



**Federico Vidigal**  
Senior Partner  
Energy & Corporate  
[fvdigal@macedovitorino.com](mailto:fvdigal@macedovitorino.com)

- Federico provides legal assistance to national and foreign companies in commercial and corporate matters, including but not limited to company acquisitions and commercial contracts



**Ignacio Soria**  
Senior Associate  
Regulatory department & Public Law  
[isorias@wfw.com](mailto:isorias@wfw.com)

- Focused on the electricity sector, the implementation and promotion of renewable energy projects and legal opinions in the renewable energy sector
- Recommended lawyer for energy projects in Spain by the directory Legal 500 EMEA.



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**Ralph Ibendahl**  
Managing Director,  
Head EMEA Energy Transition  
[ralph.ibendahl@rbccm.com](mailto:ralph.ibendahl@rbccm.com)

- 15+ years of experience, in the utilities, renewables and energy transition space.
- Latest related transaction: Advisor to a consortium of ACP, AIP and NBIM on the 49.9% acquisition of He Dreht Offshore Wind Farm (2023)



**Nicolás Mazzoli**  
Managing Director  
[nicolas.mazzoli@rbccm.com](mailto:nicolas.mazzoli@rbccm.com)

- 18+ years experience, of experience across M&A, financing and ECM transactions
- Strong relationships across industries and unique access to key decision makers in the Energy and Renewables sector



**Nelson Hernández**  
Vice President  
[nelson.hernandez@rbccm.com](mailto:nelson.hernandez@rbccm.com)

- 10+ years experience of experience in M&A infrastructure and energy transactions
- Relevant transaction track record, assisting as a financial advisor in energy and renewables deals

# Regulatory Framework in Spain

## SECTION I



WATSON FARLEY  
&  
WILLIAMS

# IBERIAN OFFSHORE DEEP DIVE

MADRID  
22 JUNE 2023



## SUMMARY:

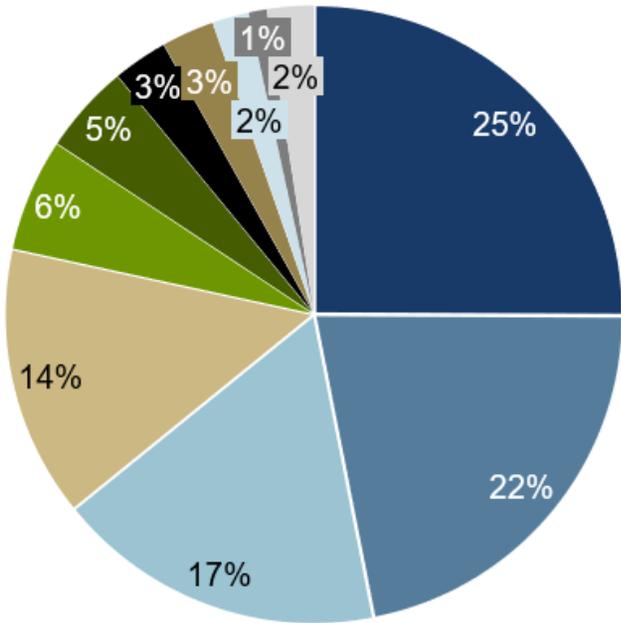
- I. Overview of the Spanish Offshore Wind Strategy.
- II. Maritime Spatial Planning Instruments (“POEMs”).
- III. Access and Connection to the grid.
- IV. Regulatory Framework for tenders and OSW authorization procedures.

|  
Overview of the Spanish Offshore Wind Strategy

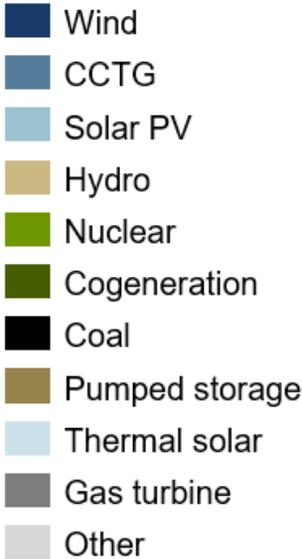
# SPANISH OFFSHORE WIND STRATEGY

## Where do we come from?

- PNIEC (the National Integrated Energy and Climate Plan) adopted by agreement of the Council of Ministers on 16 March 2021. Three (3) main targets:
  - Reduction of dependence on fossil fuels
  - Diversification of energy sources and supply: The PNIEC foresees for 2030 a renewable electricity generation of 74% of the total, made up of 161 GW.
  - Preparedness for possible supply limitations and interruptions, and increased flexibility of the national energy system.



In Percentage



In MW

# SPANISH OFFSHORE WIND STRATEGY

## Objetives

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- **1-3 GW OF OFFSHORE WIND ENERGY / 40-60 MW OF OFFSHORE ENERGY (SUCH AS WAVE OR TIDAL ENERGY) BY 2030.**
- **EUROPEAN YARDSTICK POLE FOR TECHNOLOGICAL DEVELOPMENT.**
- **BECOMING AN INTERNATIONAL AND EUROPEAN BENCHMARK IN INDUSTRIAL CAPACITIES.**
- **ESTABLISHING SUSTAINABILITY AS A CENTRAL PILLAR.**
- **FINANCIAL RESOURCES:** 200 million of public funds and EUR 800 billion of estimated private and public investment by 2050 at European level.



# SPANISH OFFSHORE WIND STRATEGY

## Four lines of action

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- RESEARCH AND DEVELOPMENT

- Strengthening technology centers.
- Testing platforms for new prototypes.
- Flexible and agile framework for “*plug & play*” solutions (shortening authorization periods for testing prototypes).
- Increasing public investment in R&D&I in the area of wind energy.



- INDUSTRIAL VALUE CHAINS

- Strengthen port infrastructure.
- Strengthen the national industrial capacity to develop offshore wind and marine energy.
- Create of cooperation hubs involving public and private actors.



# SPANISH OFFSHORE WIND STRATEGY

## Four lines of action

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- ENVIRONMENT

- Identify the areas of lowest impact for marine energy.
- Improvement of environmental monitoring plans and authorization procedures.



- REGULATORY FRAMEWORK

- Definition and approval of zoning for the development of OW in the Maritime Spatial Planning Instruments.
- Coordination of the framework for access and connection to the grid
- Improving the administrative process framework.
- Framework for boosting investment in OW.
- Early development of OW in the Canary Islands.



II  
Maritime Spatial Planning Instruments (“POEMs”)

# POEMs

## Key aspects

### Five (5) Marine Demarcations in Spain

- North Atlantic
- South Atlantic
- Estrecho y Alborán
- Eastern Mediterranean (Levantino Balear)
- Canarian

### Two zones

- Priority use zones (“**ZUPS**”)
- High Potential Zones (“**ZAPs**”): included in 4 of the 5 Marine Demarcations Atlantic; Estrecho y Alborán; Eastern Mediterranean (Levantino Balear) and Canarian.

### Priority use zones (“**ZUPS**”)

- For activities of general interest.
- Research, Development and Innovation (“**R+D+I**”).
- National defense and safety in navigation.



# POEMs

## High Potential Zones (“Zonas de Alto Potencial” or “ZAPs”)

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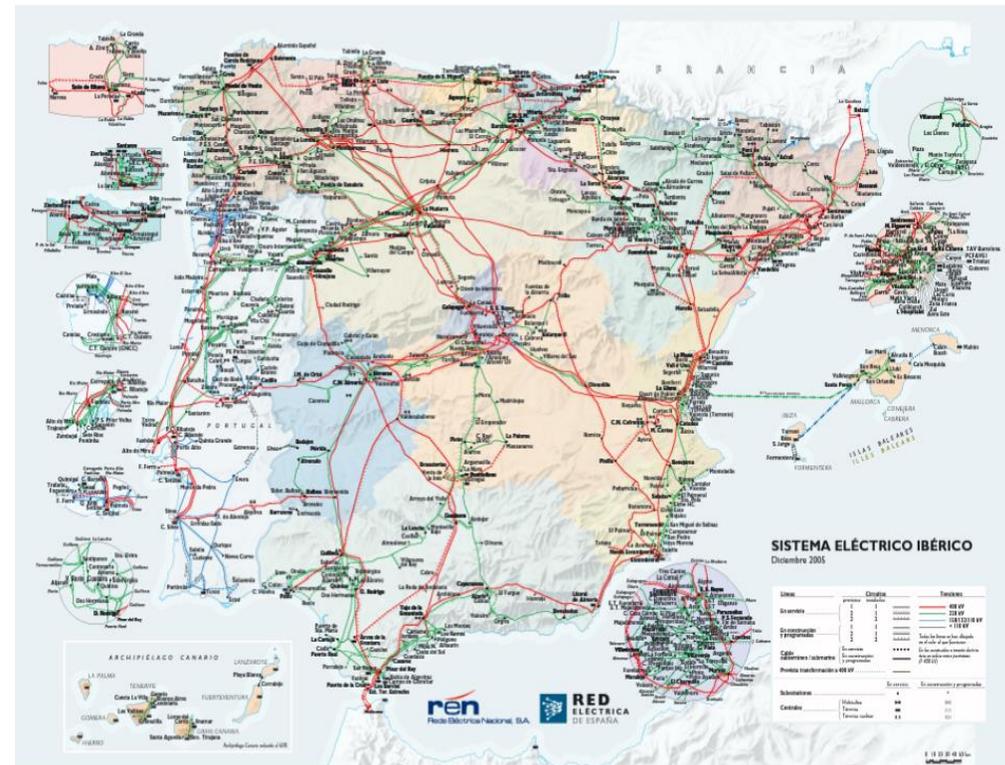
- Designated for sectorial activities and activities of general interest: **development of offshore wind energy** and marine aquaculture.
- Criteria for the implementation of OSW Projects in ZAPs:
  - Environmental impact study.
  - Lowest occupation of maritime space.
  - Lowest impact on biodiversity and wildlife.
  - Environmentally and technically feasible alternatives for eventual overlapping with Natura 2000 network areas.
  - Minimization of visual impact from the coastline.
  - Coexistence with other activities and uses (fishing and shipping).
  - Hybridization with other marine energies.
  - Existing and share evacuation infrastructures.

III  
Access and Connection to the grid

# ACCESS AND CONNECTION

## Key aspects

- Update of the access and connection framework is necessary.
- Integration of marine renewable developments into the electricity system (Horizon 2026).
- Coordination of the framework for connection to the electricity system with the frameworks for occupation of the sea-land public domain, and with the frameworks that promote investment.
- Models for the management of marine networks should be developed.
- Interconnections with other Member States.

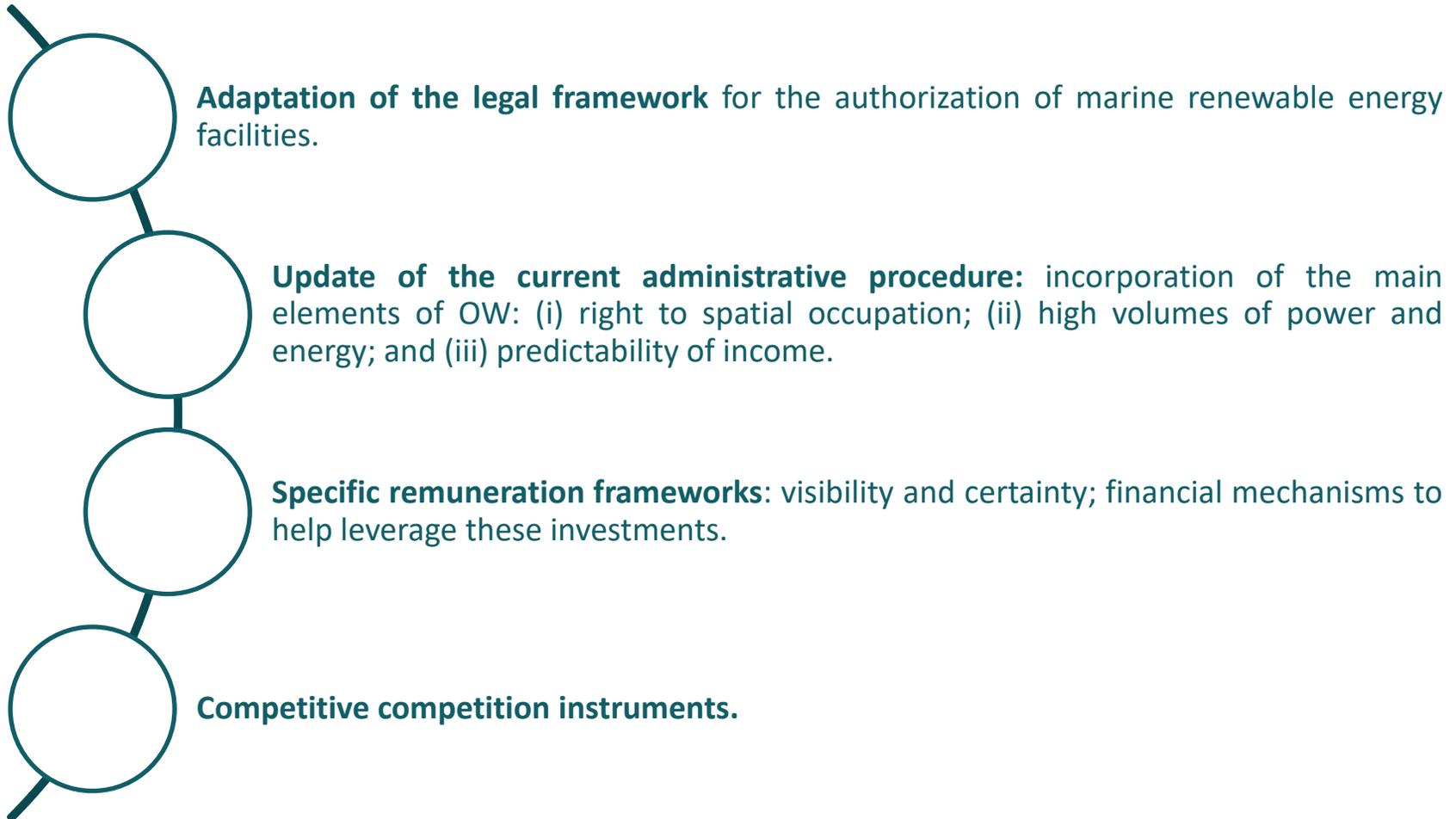


IV  
Regulatory Framework for tenders and OSW authorization  
procedures

# REGULATORY FRAMEWORK

## Expected regulatory developments

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# REGULATORY FRAMEWORK

## Call for tender design

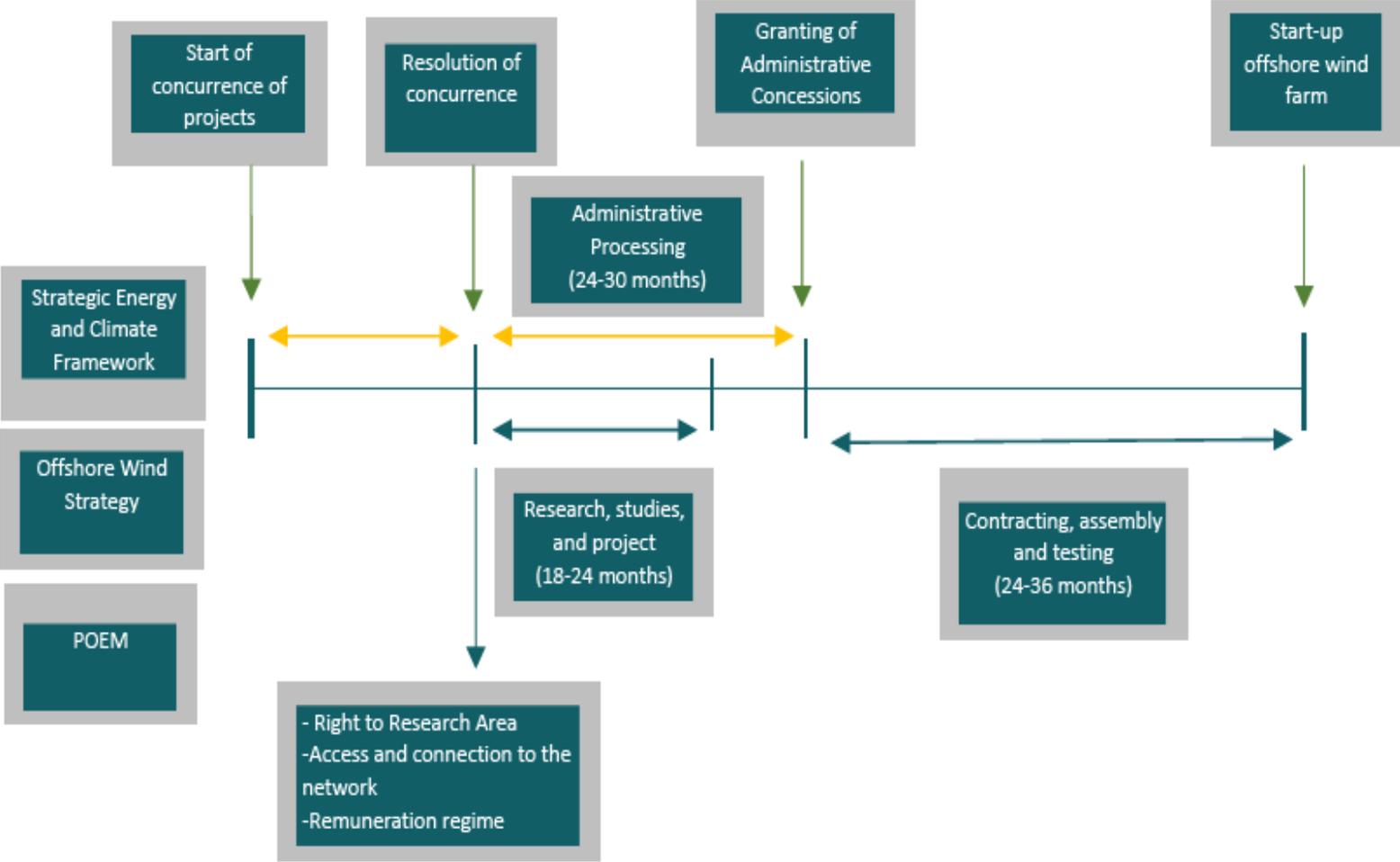
- **Tender design:** Coordination between the occupation of the maritime-terrestrial public domain and with the rights of access and connection to the electricity system.
- **Key aspects:**
  - Total capacity and spatial scope subject to the competition.
  - Technical and economic capacity, and previous experience.
  - Technical characteristics of the project: adequacy to the spatial scope of the competition; surface area occupied, power, technology; conditions of safety and compatibility with other uses of the sea.
  - Commitments with the territory and the estimated socio-economic impact and benefits.
  - Initial investment or the price of energy as a variable for the allocation of the remuneration framework.



# SPANISH OFFSHORE WIND STRATEGY

## Indicative timeline

➤ Standard offshore wind farm process :





# Regulatory Framework in Portugal

## SECTION II



MACE  
DO ■ ■  
VITO  
RINO

MADRID 22.06.2023

## IBERIAN OFFSHORE WIND OPPORTUNITIES

## AGENDA

03 PORTUGUESE PLANT AND GRID  
LICENSING

07 PORTUGUESE SEABED RIGHTS

12 THE 2023 OFFSHORE WIND  
AUCTION DESIGN

30 THE 2023 OFFSHORE WIND  
AUCTION: WEHRE WE STAND

MACE  
DO ■ ■  
VITO  
RINO

# PORTUGUESE PLANT AND GRID LICENCING REQUIREMENTS

- A SUMMARY OF THE LICENSING PROCEDURES
- THE PORTUGUESE DISTINCTIVE TRC REQUIREMENTS

# National Electricity Grid Regulation Decree-Law 15/2022



# THE DISTINCTIVE TRC

The issue of a Production License depends on the attribution of a capacity reserve title ("TRC"). How can the TRC can be obtained?

- **General Access:** applies when there is free reception capacity in the grid
- **Agreement with the grid operator** for the reinforcement of the grid: when there is no available injection capacity at the grid
- **Competitive Procedure:** the Government launches a competitive procedures to award a TRC

# SEABED LEASE RIGHTS

- NATIONAL MARITIME SPACE PLANNING
- THE STANDARD PROCEDURE TO OBTAIN A TUPEM+TRC

# National Maritime Space Planning and Management Policy Regulation Law 7/2014

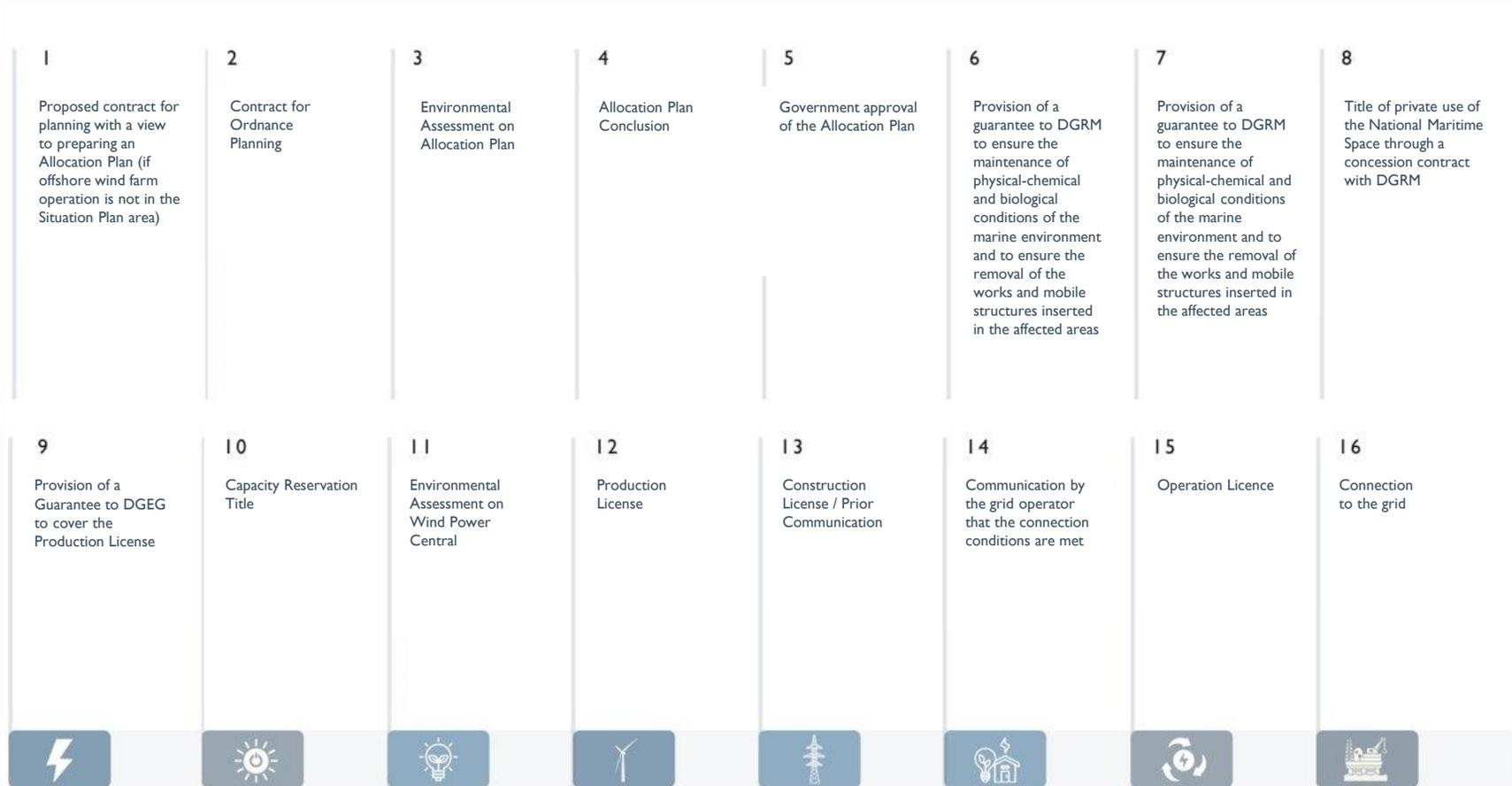
## NATIONAL MARITIME SPACE PLANNING

- Implementation Decree Law: DL 38/21015
- National Maritime Spatial Planning Situation Plan (PSOEM): RCM 203-A/2019
- An Allocation Plan for each project outside PSOEM

# THE TUPEM STANDARD PROCEDURE

To obtain a maritime space title of use (“TUPEM”) with a new specific Allocation Plan from DGRM

- Sanitation and preliminary examination phase
- In 20 days, validation by the Portuguese Environment Agency (APA), DGEG, the Nature and Biodiversity Conservation Institute, Regional Coordination and Development Commission (CCDR)
- DGRM decides in 30 days and launches a 15 days public consultation for other interested entities to request a similar TUPEM or to present objections



# THE 2023 OFFSHORE WIND AUCTION DESIGN

- THE AUCTION REGULATIONS
- THE AUCTION CONTENTS AND PROCEDURE
  - PARTICIPATION AND AWARD CRITERIA
  - AUCTION RELATED PENDING CHOICES

# THE AUCTION REGULATIONS

DL 15/2022

Article 22

“8. The **competitive procedure is exclusively governed:**

a) By this Decree-Law;

(b) the **tender documents** in particular the programme of the procedure and the specifications, or the rules governing the [electronic] auction.”

# THE AUCTION REGULATIONS

DL 15/2022

Article 22

“4. The tender documents shall define, in particular, the **object of the procedure** and **the modality adopted**, which may include the electronic auction modality, **the conditions and criteria** for the allocation of the injection reserve in RESP, **the requirements for the qualification** of the interested parties, the remuneration models admitted (...).”

# THE AUCTION REGULATIONS

DL 15/2022

Article 23

**“1. The competitive procedure for the attribution of the title of injection capacity reserve [TRC] in RESP [national grid] referring to the production technology of an ocean source or location that lacks a private title to the use of the national maritime space replaces the procedures established for the formation of the respective [TUPEM] concession contracts(...).”**

# THE AUCTION REGULATIONS

## Unification of Procedures

- This may be construed as an obligation to have a unified competitive procedure including seabed lease rights (TUPM) and grid connection rights (TRC)
- Which would be mandatory
- Still a two-stage procedure is possible: (TUPEM+TRC) + CfD

# THE AUCTION REGULATIONS

There are available alternatives to an auction for the TUPEM+TRC award

- TRC may also be granted separately through a grid reinforcement agreement with the TSO
- While seabed lease rights could be negotiated through a TUPEM concession
- All this for areas within the PSOEM not scheduled for competitive procedures in the calendar in preparation by the Governmental Workgroup

# THE AUCTION CONTENTS

Projects will be developed through a competitive auction that is expected to allocate:

- The leasing of the maritime area where the projects will be located (TUPEM)
- Connection permits to the grid (TRC)
- A long-term off taking contract for the energy produced (CfD)

# THE AUCTION PROCEDURE

According to DGEG, a negotiation procedure through an electronic auction would allow:

- Selecting the location and injector points for the installation of new capacity
- Planning and reducing the cost of grid infrastructures and better conditions for the National Electrical System
- Making the choice of more flexible remuneration scheme
- Shorter deadlines in the production licensing procedures

## PARTICIPATION AND AWARD CRITERIA

- Bidders' **technical capacity** to assess experience
- Project's technical requirements
- **Financial capacity**, to assess the investment and financing conditions of the bidders
- **Not price criteria** where bidders will be evaluated for innovation, employment generated, storage, stimulation of biodiversity, direct investment, etc.

## LESSONS FROM THE 2005-2007 ONSHORE TENDER

Conditions to participate:

- **Economical and financial capacity:** (i) equity requirements; (ii) financial equilibrium ratios
- **Technical capacity:** (i) experience in the promotion of wind farms; (ii) effectiveness in the operationalization of wind parks in Portugal and (iii) experience in industrial development

## LESSONS FROM THE 2005- 2007 ONSHORE TENDER

Negotiation procedure. The classification of the bids was made taking into account the following main evaluation criteria:

- **Economic impact:** reduction of costs to inject electricity into to the national grid and **Socio-economic impact:** (i) total amount of investment in the industrial sector in the wind sector; (ii) employment generated and (iii) national added value
- **Technical capacity and Impact on the electrical system,** including the safety of the system and interruptibility
- **Contractual links** for the industrial project and the execution schedule

# LESSONS FROM THE 2005-2007 ONSHORE TENDER

Ponderation of the evaluation criteria:

Critério	Ponderação	Sub-critério	Ponderação do Sub-critério
A. Impacte económico	20%	A1. Desconto à remuneração da energia entregue à rede por Parques Eólicos	20%
B. Criação de um cluster industrial de apoio ao sector	45%	B1. Volume de Investimento Directo do Projecto Industrial	11%
		B2. Volume de Investimento Indirecto gerado pelo Projecto Industrial	8%
		B3. Emprego Directo gerado pelo Projecto Industrial	11%
		B4. Emprego Indirecto gerado no Cluster Industrial	8%
		B5. Valor Acrescentado Bruto do Cluster Industrial	7%
C. Gestão técnica do sistema	25%	C1. Capacidade de gestão técnica de agrupamentos de Parques Eólicos	10%
		C2. Gestão de produção	2,5%
		C3. Soluções de armazenamento	7,5%
		C4. Controlo adicional de reactiva	2,5%
		C5. Participação na regulação primária de frequência	2,5%
D. Apoio à inovação	10%	D1. Apoio à inovação	10%

# AUCTION RELATED PENDING CHOICES

## Business models

- **BaseLoad model**, conveying all energy to the mainland. increase in power production must follow investment in the network
- **Bidding Zone model** where offshore energy is injected into its own bidding zone and, in times of congestion, ensures economic rationale to other activities (v.gr. offshore hydrogen)
- **Power 2 X model** or "remote" self-consumption, for specific projects (hydrogen, industrial hubs, etc.)

## AUCTION RELATED PENDING CHOICES

Remuneration mechanisms: DGEG has said that they must:

- Ensure the bankability of the projects
- Stimulate competition
- Achieve the lowest LCoE of each technology

- Decree Law No. 15/2022 states that electricity production is remunerated at market price or through bilateral contracts.
- It follows that **competitive procedures may set the remuneration models**
- UE Directive on the promotion of the use of renewable energy allows Member States to apply support schemes to integrate renewable electricity into the electricity market

# AUCTION RELATED PENDING CHOICES

## Remuneration mechanisms

- The support scheme for offshore wind energy should be set through a competitive procedure and allocate revenue stabilization mechanisms, such as bilateral contracts for difference (CfD's).
- Bilateral CfD's, are the most common option in the EU since they maximize gains for the electricity consumers, they minimize the LCoE and can be awarded by a competitive auction process for network capacity

## AUCTION RELATED PENDING CHOICES

Subsea power grid architecture

"in the case of electricity production from renewable energy sources of ocean origin or location, **the establishment of the connection** from the power plant (....) to the point of interconnection is **a responsibility of the RNT operator**, with the respective costs borne by the holder of the production license, except in the case of links to technological free zones." (DL 15/2022, Article 53)

# AUCTION RELATED PENDING CHOICES

Subsea power grid architecture

- Onshore interconnection "Offshore Transmission Owner" (OFTO) ensures greater speed of development, as all development is the offshore project developer's responsibility
- It has contributed to significant cost reductions in offshore wind energy however it has also led to the uncoordinated construction of numerous individual radial connections to the coast
- It is more suitable for the Power2X model

# AUCTION RELATED PENDING CHOICES

Subsea power grid architecture: HVAC  
v. HVDC

HVDC backbone (multiport VSC) with  
submarine cable or with hybrid  
overhead lines HVDC/HVAC using  
existing HVAC corridors



## THE 2023 OFFSHORE WIND AUCTION: WHERE WE STAND

- THE PORTUGUESE GOVERNMENTAL WORK GROUP
  - THE NATIONAL MARITIME SPACE PLANNING
- THE PORTUGUESE FIRST OFFSHORE AUCTION LOCATIONS  
PORTUGUESE FIRST OFFSHORE AUCTION CALENDAR

Order no. 11404/2022 of 23 September  
Governmental Work Group for the planning and  
operation of offshore renewable power plants

1



Diário da República, 2.ª série

PARTE C

N.º 185

23 de setembro de 2022

Pág. 62

**ECONOMIA E MAR, AMBIENTE E AÇÃO CLIMÁTICA E INFRAESTRUTURAS E HABITAÇÃO**

Gabinetes dos Secretários de Estado do Mar, do Ambiente  
e da Energia e das Infraestruturas

Despacho n.º 11404/2022

Sumário: Cria o grupo de trabalho para o planeamento e operacionalização de centros eletroprodutores baseados em fontes de energias renováveis de origem ou localização oceânica.

2



Diário da República, 2.ª série

PARTE C

N.º 20

27 de janeiro de 2023

Pág. 498-(4)

**ECONOMIA E MAR, AMBIENTE E AÇÃO CLIMÁTICA E INFRAESTRUTURAS**

Gabinetes dos Ministros da Economia e do Mar e das Infraestruturas  
e da Secretária de Estado da Energia e do Clima

Despacho n.º 1396-C/2023

Sumário: Abertura de audição pública, por um prazo de 30 dias, da proposta preliminar das áreas especializadas para o planeamento e operacionalização de centros eletroprodutores baseados em fontes de energias renováveis de origem ou localização oceânica.

3



Diário da República, 2.ª série

PARTE C

N.º 78

20 de abril de 2023

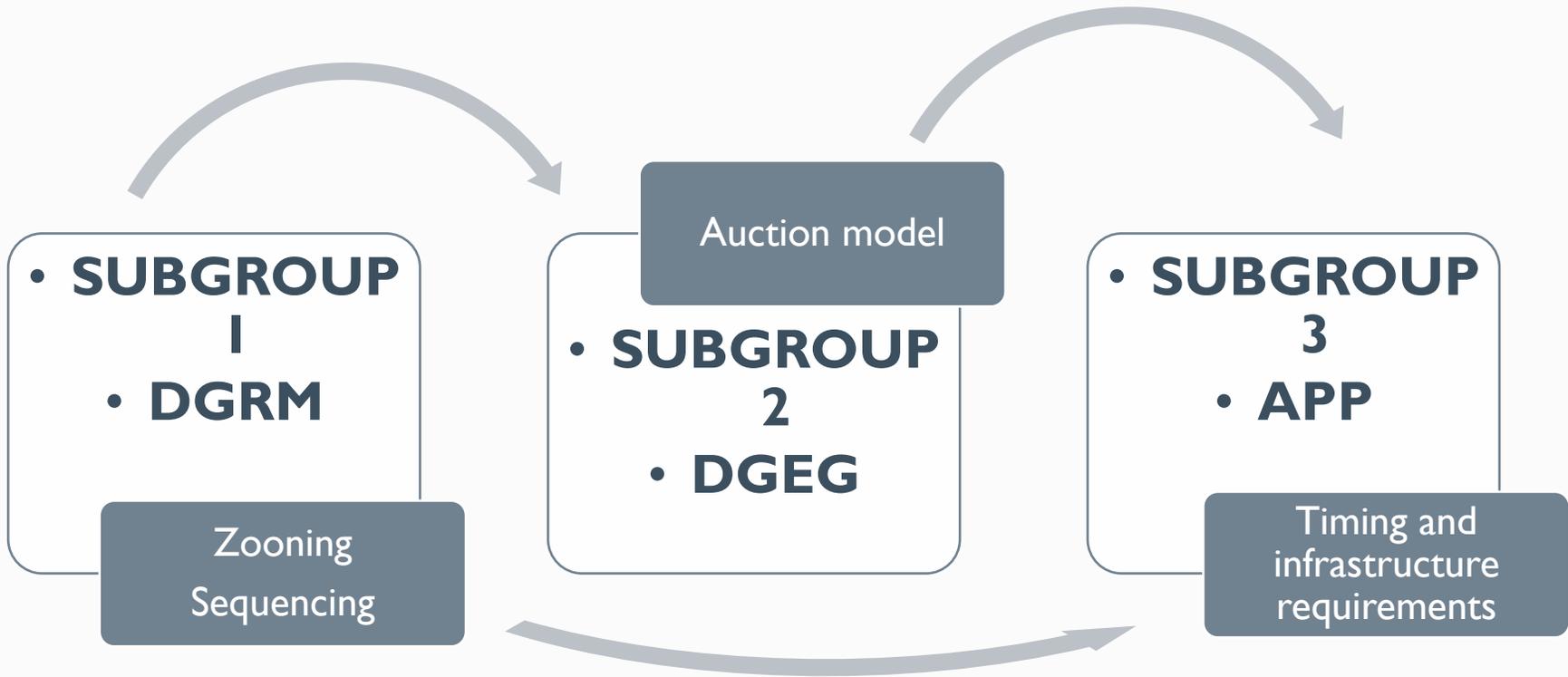
Pág. 105

**ECONOMIA E MAR**

Gabinete do Ministro

Despacho n.º 4760/2023

Sumário: Comete à Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos a elaboração do plano de afetação de áreas marítimas para exploração de energias renováveis.



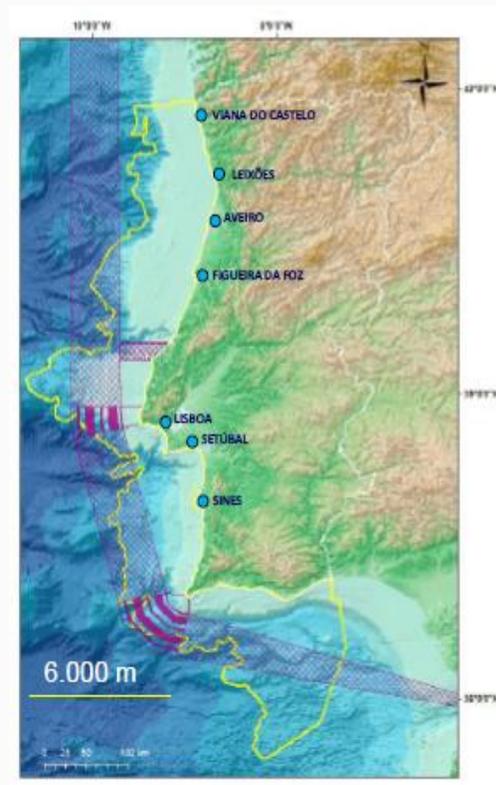
## THE PORTUGUESE GOVERNMENTAL WORK SUBGROUP I

Coordinated by DGRM, it will define **where and when** the auctions should take place by submitting a proposal for the first auction areas and the sequencing the areas of the succeeding auctions until 2030

- Environmental Strategic Evaluation (AAE), completed in January 2023
- Allocation Plan (PAER), already submitted to a Consultation Committee
- The PAER will be submitted to public hearing in September 2023
- The final version of the PAER will be approved and inserted in the PSOEM in October 2023

# THE NATIONAL MARITIME SPACE PLANNING

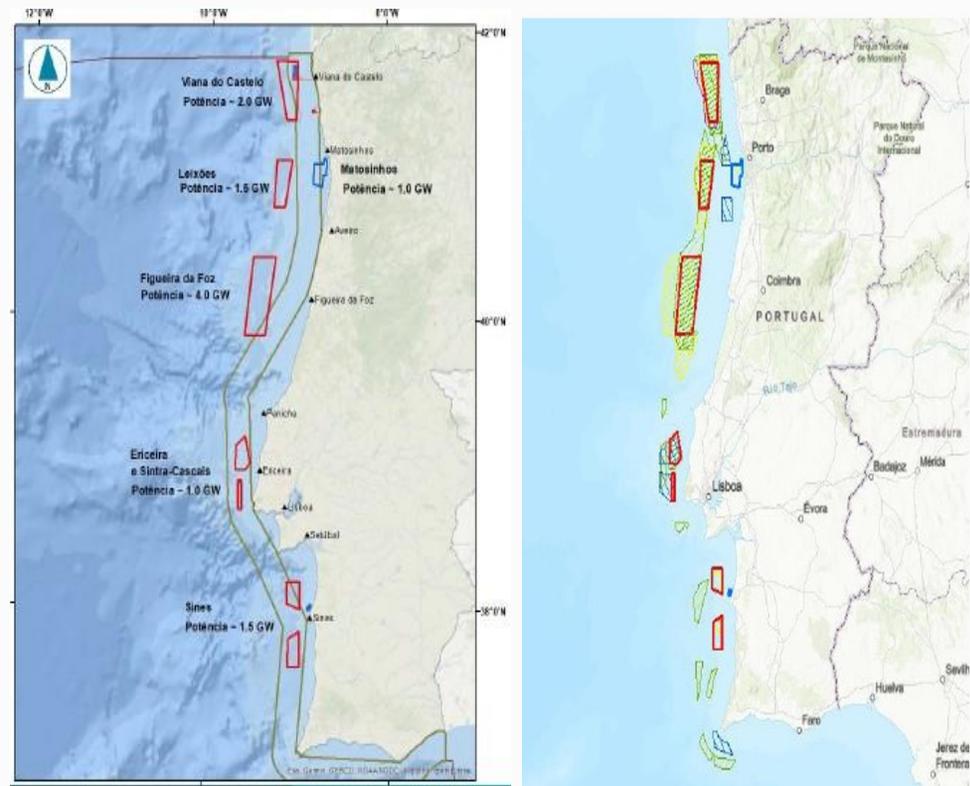
Preliminary zoning proposal(AAE)



# THE NATIONAL MARITIME SPACE PLANNING

Preliminary proposal for new areas (PAER):

- Total of 3,393.44 km<sup>2</sup> and 5.9% of the Continental Territorial Sea (0.71% of the EEZ)
- In the right side map, the public hearing inputs



# THE NATIONAL MARITIME SPACE PLANNING

Next steps to approve a new updated  
PSOEM

- June 2023: the Governmental Workgroup will present its PAER proposal
- September 2023: the PAER will be subject to public hearing
- October 2023: the Governmental Workgroup present its final PAER proposal
- October 2023: new PSOEM approval

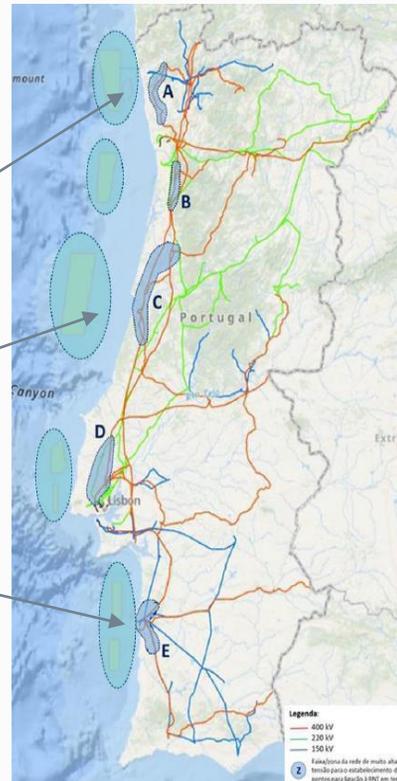
## THE PORTUGUESE GOVERNMENTAL WORK SUBGROUP 2

Coordinated by the DGEG, its role is to establish **the competitive procedure model**:

- Proposing a model for the allocation of the TRC and associated private use of maritime space titles (TUPEM)
- Proposing a technical and investment model for the development of the offshore and onshore electrical infrastructure required by the new offshore power plants and the increase in the demand for green electricity expected, namely for the production of hydrogen and derivatives

# THE 2023 OFFSHORE AUCTION LOCATIONS

- 1 block in the North Region
  - 2 blocks in the Centre Region
  - 1 block in the South Region
- (block size: 500MW)



# THE PORTUGUESE FIRST OFFSHORE AUCTION CALENDAR

- Public consultation by end Q3 2023
- Launching of a competitive procedure during Q4 2023

## THE PORTUGUESE GOVERNMENTAL WORK SUBGROUP 3

Coordinated by APP (the Portuguese Ports Authority) will define **how** the Portuguese offshore wind auctions program should progress

- Establishing the investment requirements and respective timings
- Throughout a offshore wind auction program where auctions for a total of 10GW should be launched

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## THANK YOU

**JOÃO VITORINO**

JVITORINO@MACEDOVITORINO.COM

DIR. 351 213 241 911 - TM 935 241 910

RUA DO ALECRIM 26E - 1200-018 LISBOA - PORTUGAL



## Panel Discussion

### Lessons Learnt and Best Practices from Northern Europe

SECTION III





# Panel Discussion

## Lessons Learnt and Best Practices from Northern Europe

### Moderator



**Nicolás Mazzoli**  
Managing Director

- 18+ years experience, of experience across M&A, financing and ECM transactions
- Strong relationships across industries and unique access to key decision makers in the Energy and Renewables sector

### Panelists



**Emmanuel Ninos**  
Partner

- Focus on the development, acquisition and financing of energy and infrastructure assets
- He regularly acts for contractors, sponsors and lenders with special expertise in the renewable energy sector
- Has been recognized in Legal 500 UK



**Ralph Ibendahl**  
Managing Director,  
Head EMEA Energy Transition

- 15+ years of experience, in the utilities, renewables and energy transition space
- Latest related transaction: Advisor to a consortium of ACP, AIP and NBIM on the 49.9% acquisition of He Dreih Offshore Wind Farm (2023)



THANK YOU VERY MUCH



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