

Offshore Wind Power perspectives in Greece Eolica Mediterranean, Rome, 12 October 2022

Panagiotis Ladakakos, President of HWEA

Evolution of Wind Energy in Greece

Total capacity to the grid (MW) per year









■ ACCIONA ■ ENERCON ■ NEG Micon ■ NORDEX ■ VESTAS ■ OTHERS ■ SGRE ■ EWT ■ LEITWIND ■ GE Renewable Energy ■ GOLDWIND

3

Greece: Spatial distribution of wind capacity & the transmission network









Greece: Spatial distribution of installed capacity





The opportunity of the Greek seas – becoming a Med Hub



Source: Marine Renewable Energy in the Mediterranean Sea: Status and Perspectives, Soukissian et. al., energies, 2017



- Rapid developments in technology, costs, projects
- Exploitation of domestic experience & local industrial base (shipyards, cables etc.)
- Significant **domestic value** (WTGs less than 40% of CAPEX)
- **Opportunity** & need for Greece





LCOE decrease depending on capacity



Floating wind reaching parity with bottom fixed

Source: Wind Europe and BVG Associates



Greece has announced a target for 2GW Offshore Windfarms until 2030

- 1. Allocation of sea areas: How does an investor secure the (exclusive?) right to develop and implement the project in a marine area?
- 2. Development & Licensing of a sea area: Who is responsible during the various stages of the design, engineering and licensing of a wind offshore project? Which permits?
- **3. Remuneration scheme:** How and when is compensation and/or the operational aid determined?
- **4. Grid connection right**: How and at what stage is it secured?
- 5. Grid connection works: Who designs, licenses, builds, pays, owns and operates?





- 1. National Program for Offshore Wind Development after a Strategic Environmental Impact Assessment (SEIA) identifies potential Planned Offshore Wind Development Areas (POWDA).
- 2. Presidential Decree (PD) will define the terms of OWF development in each approved POWDA after a Strategic Environmental Impact Assessment (SEIA).
- Granting of Non-exclusive Research Permits in each POWDA to interested parties (on/off technical and financial criteria, submission of letter of guarantee 10k€/MW).
- 4. Research Period to the permitted parties (for max 3years right to elaborate measurements and studies within each POWDA).
- **5. Definition of specific Installation Areas in each POWDA** (Ministerial Decision that will include *inter alia* an assessment of the maximum installed capacity in each Installation Area)
- 6. Auction for Operational Aid (CfD type PPAs) by Regulatory Authority of Energy (RAE) among entities that have a Research Permit (right of permitted entities to submit a bid for each Installation Area within the POWDA).
- 7. Granting of Exclusive Right to license and develop each Installation Area to the lowest bidder





- ✓ Framework needs a clear & detailed roadmap
- ✓ Specific quantitative targets (KPIs) for the next decade and beyond, until 2050
- ✓ Completion of MSP & revision of the Spatial plan for RES including Greek seas
- ✓ Action plan for the development of required infrastructure (ports, shipyards, supply chain)
- ✓ System Operator should book grid capacity and initiate the design of sea Transmission hubs
- Exclusive Economic Zone or other alternatives for Greek seas, allowing going beyond t.w.



Greece has announced a target for 2GW Offshore Windfarms until 2030



www.eletaen.gr | www.ask4wind.gr follow us at Linkedin; Twitter; Instagram; Facebook