

---

# Offshore Wind – the Global Picture

**Prepared for:** REVision Conference

**Rebecca Williams**  
**Global Head, Offshore Wind, GWEC**



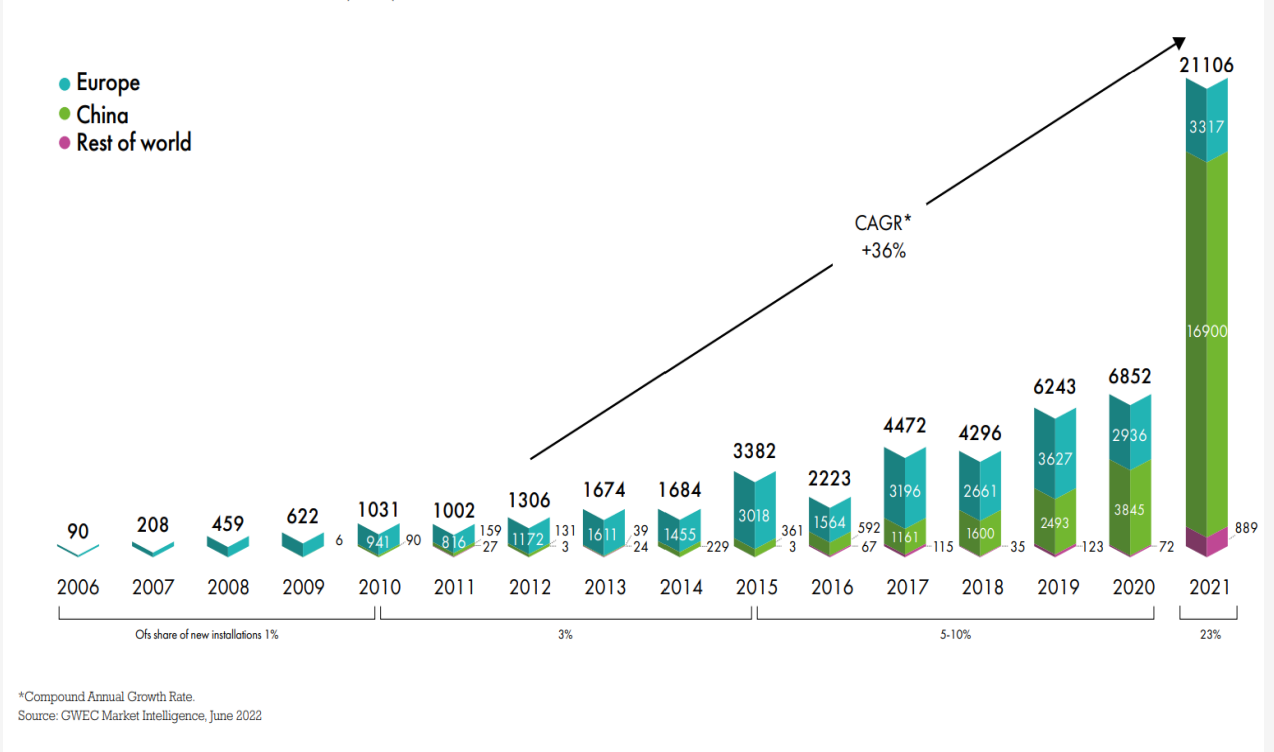
# State of Play for Global Wind Energy in 2022: Positive Trends

2021 was the second-best year for wind energy

Wind energy, especially offshore wind, is going global

**Wind power poised to play a vital role in accelerating the global energy transition**

New offshore installations 2006-2021 (MW)



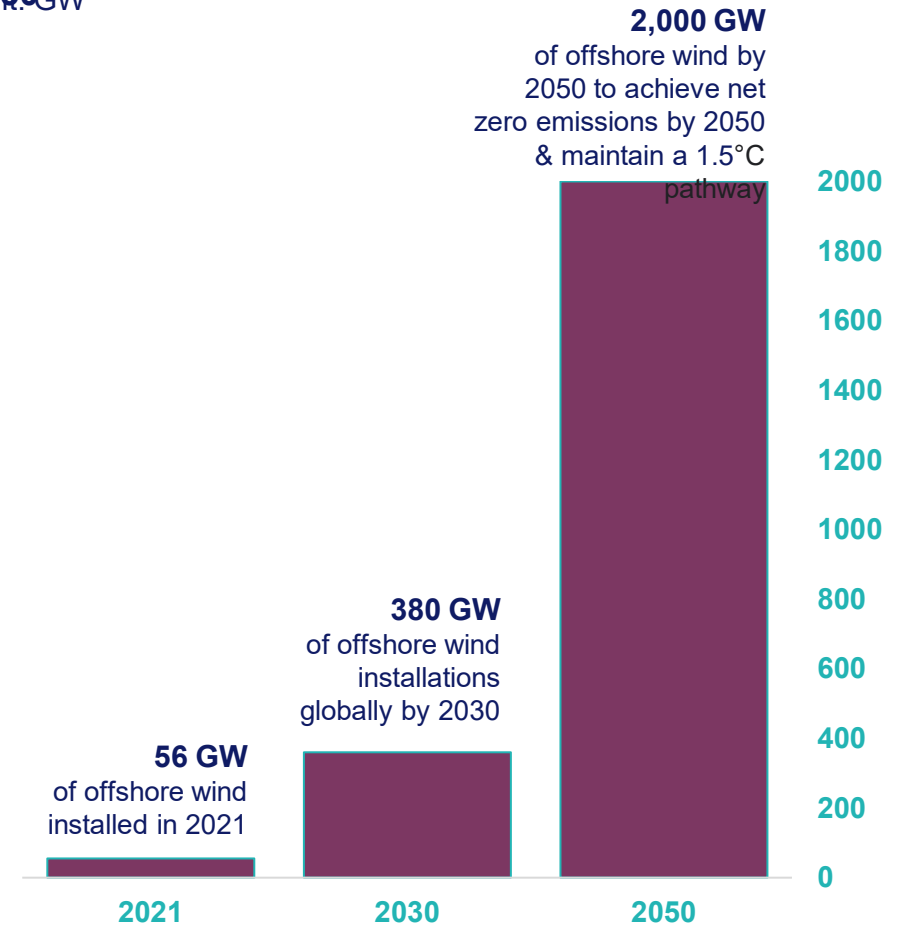
# Closing the Offshore Wind Gap

The energy transition is underway, but we are falling short in the pace of action needed to reach our goals:

- For a Paris-compliant net zero by 2050 scenario, IRENA estimates that fixed and floating offshore wind must scale up from its current **56 GW** of capacity to **380 GW by 2030** – en route to **2 TW** in 2050.
- This massive upsurge will require annual additions of **35 GW** in this decade, compared with 3 GW each year of the previous decade.
- To meet this run-rate, **deployment must be increasingly distributed beyond core markets** in Northern Europe and China, reflecting offshore wind's tremendous and largely untapped resource potential globally.
- Developing these new markets will require new approaches to working with governments and industry.

## Closing the offshore wind gap by 2050

2050



Source: GWEC Market Intelligence; IRENA World Energy Transitions Outlook 2022

# GOWA formally launched at COP27

GOWA officially launched at COP27.  
Japan is one of the first members.

GOWA brings together diplomacy and high level efforts on OFW with three workstreams.

1. Optimising permitting and consenting and improved stakeholder engagement
2. Regulation and Market design - mechanisms for clean power pricing to **rapidly unlock investment**
3. Regional and international supply chain development and **green job creation**



# Untapped Potential

A significant portion of the **new capacity will come from markets with little or no track record in offshore wind.**

Much will also come from non-OECD states and/or those with immature offshore sectors.

**NORTH AMERICA**  
Goal **360 GW** by  
2050

**SOUTH & CENTRAL AMERICA** with a focus on Brazil, Argentina, Chile, & the Caribbean.  
Goal **120 GW** by 2050

**EUROPE** with a focus on Scandinavia, Eastern Baltic, Black Sea, & the Mediterranean.  
Goal **640 GW** by 2050.

**ASIA** with a focus on India, Vietnam, Philippines, Japan and S Korea.  
Goal **760 GW** by 2050.

**AFRICA** with a focus on South Africa, Morocco, Tunisia, & Egypt.  
Goal **40 GW** by 2050.

**THE PACIFIC** with a focus on small island states, Australia & New Zealand.  
Goal **80 GW** by 2050.

# Broad enablers of offshore wind growth

Offshore wind flourishes in an environment with long-term system planning, where policies and regulation are aligned to deliver clear objectives. The building blocks for a successful offshore wind sector include:

Long-term and stable policies, including between different levels of government (federal/state)

Pipeline visibility

Resourced institutions and effective marine spatial planning and environmental/social impact assessments

Transparent and streamlined stakeholder process

Competitive environment

Grid infrastructure planning and ports reinforcement

# Path to Net Zero – UK Deep Dive

- Offshore Wind Sector Deal
- Government Targets for 2030:
  - 50GW Offshore Wind (14GW today)
  - 5GW Floating Wind
  - 5GW Green Hydrogen
  - Visibility over CfD allocation and large uncapped auction volumes
- CfD Allocation round results 12GW:
  - 7GW fixed offshore wind
  - First CfD for floating wind
  - 1.5GW onshore wind
- Cost of offshore wind down 70% since 2015
- Wind energy to support c. 130,000 jobs by 2030
- **Key challenges remain:**
  - Permitting
  - Greater balance between cost and supply chain
  - Grid & connections



# Recommendations for Japan OFW

- Continued joint industry government dialogue
- Roadmap and pipeline to improve investor confidence and upscale supply chain
- Increased auction volume to drive diverse portfolio, value and economies of scale
- Role of targets and roadmap in raising political priority of OFW within government.
- Focus on OFW and EEZ to unlock floating wind
- Transmission and grid planning must start now
- Market design – introduction of offshore wind will revolutionize energy system
- Simplified best practice approach to permitting and leasing





For more information:

Rebecca Williams

GWEC

[Rebecca.williams@gwec.net](mailto:Rebecca.williams@gwec.net)

Rue Belliard 51-53  
1000 Brussels, Belgium  
T. +32 2 213 18 97  
[info@gwec.net](mailto:info@gwec.net)  
[www.gwec.net](http://www.gwec.net)

