



II Congreso Eólica Marina

Las Palmas, 8th November 2023

RenewableUK is the UK's largest zero-carbon trade body representing 500 member companies...



2022 Key Figures

8,000+

Event Attendees

30+

Networking Receptions



350+

Expert Presenters

48

Countries Represented



100,000+

Meetings & Introductions

16

Conferences & Exhibitions



30+

Policy Wins

190+

Meetings with MPs & Senior Officials



3,000+

Media Hits

60,000+

LinkedIn Followers



RenewableUK is the UK's largest zero-carbon trade body representing 500 member companies...



Prime Ministerial Roundtable on Wind

Annual CfD Auctions Secured

Increased Green Hydrogen, Offshore & Floating Targets

Leading the Offshore Wind Acceleration Taskforce

Record New CfD Capacity – Support for Floating & Tidal

£60m R&D Funding for Floating Wind

Progress on Onshore Wind Planning Reform

Anticipatory Investment for Grid Development

Launch of FLOWMISS Scheme for Supply Chain

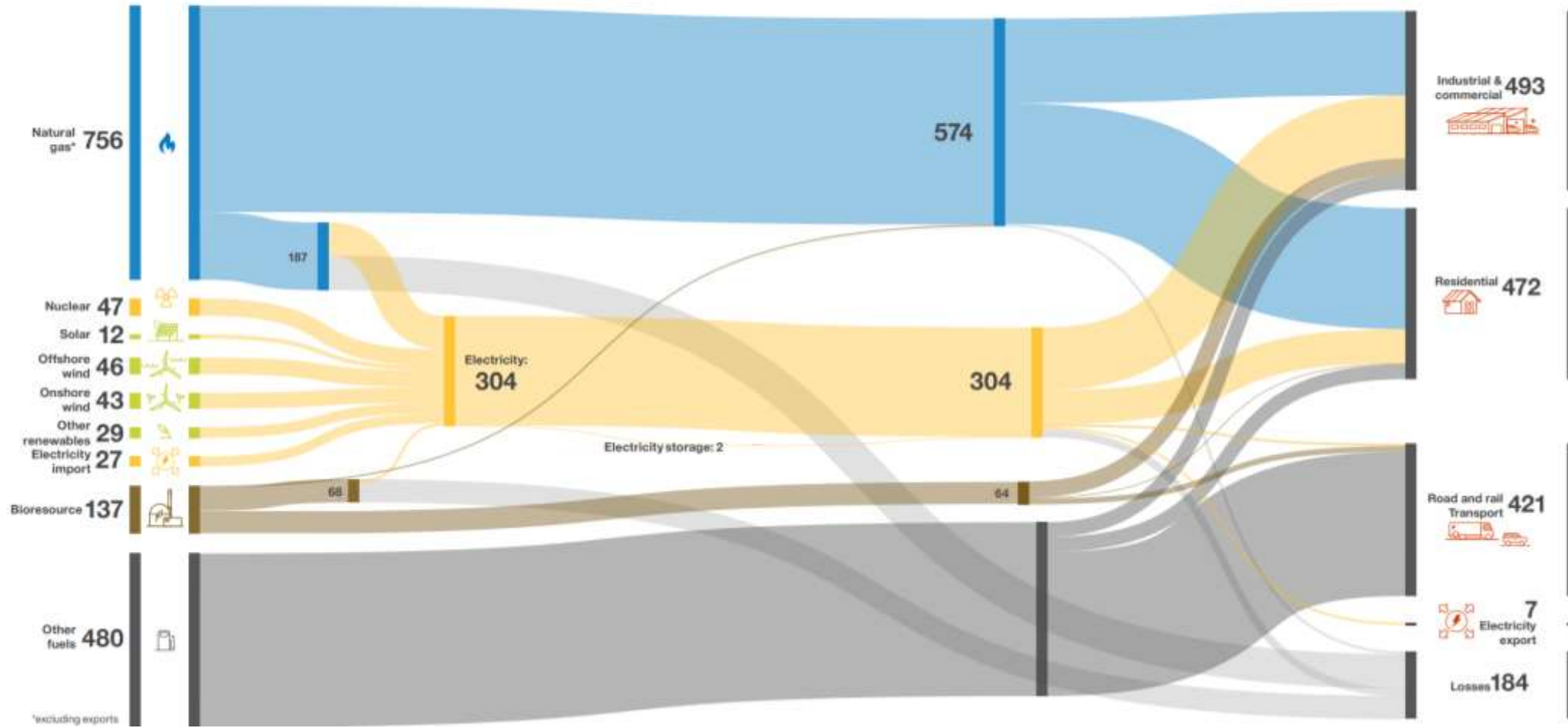
Fish, birds and err... sandwiches!



The UK energy system is in the middle of a transformation...

2020 energy flows (i)

FES 2021 / Executive Summary 11

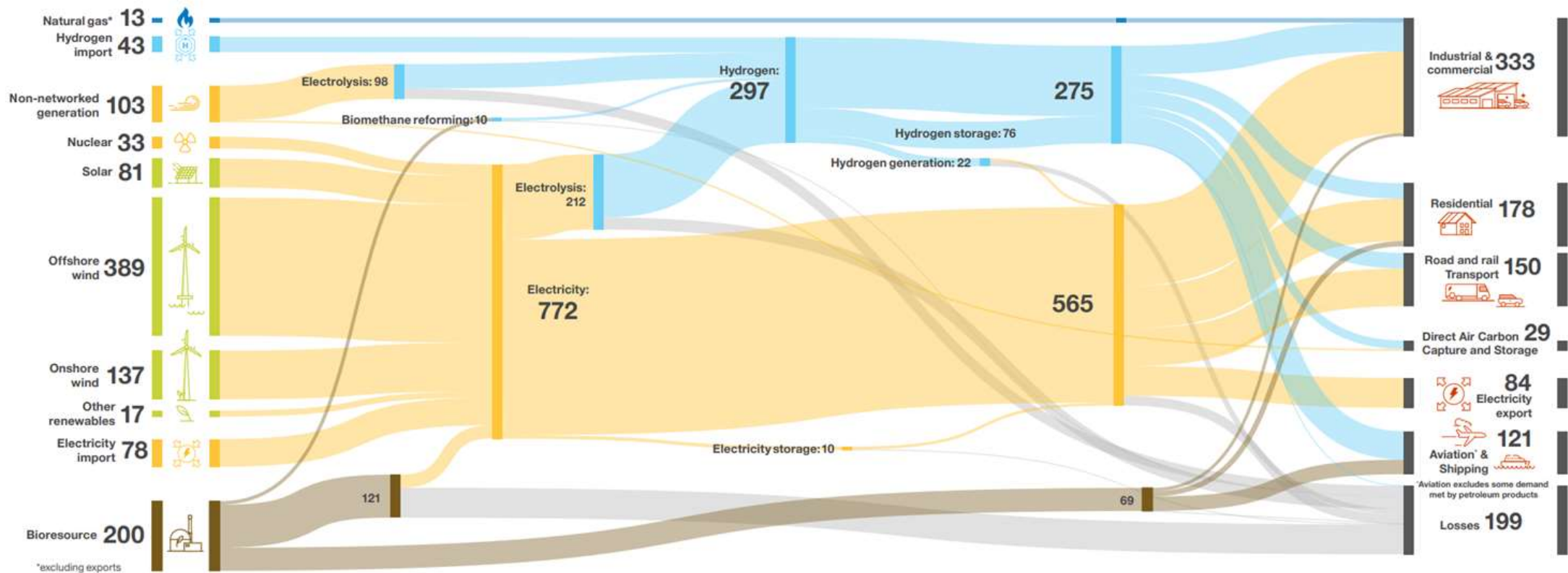


And wind is expected to be the backbone of our net-zero energy system...

2050 energy flows

Leading the Way: energy demand and supply (TWh)

- Combination of hydrogen and electricity used in industry and to heat homes using hybrid heat pumps or hydrogen boilers
- No natural gas used to produce hydrogen
- Some use of direct air carbon capture and storage (DACCS) for negative emissions
- The only scenario to include non-networked electricity generation and hydrogen imports

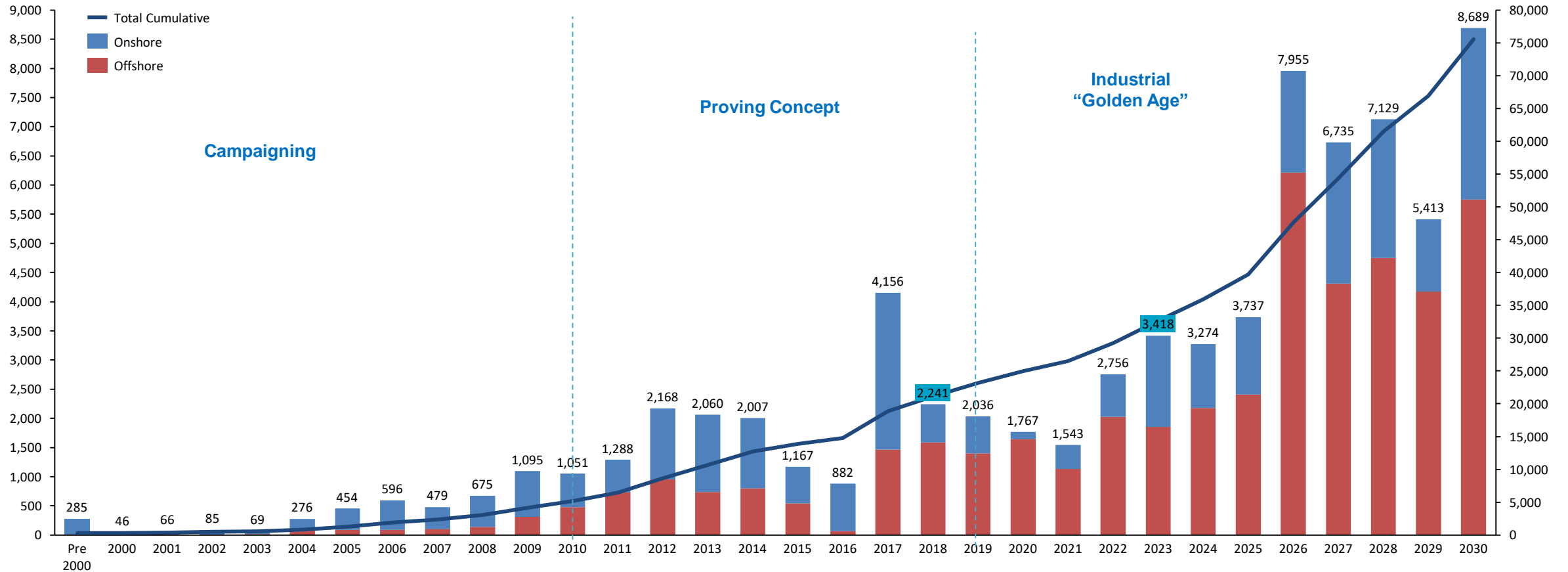


*Aviation excludes some demand met by petroleum products

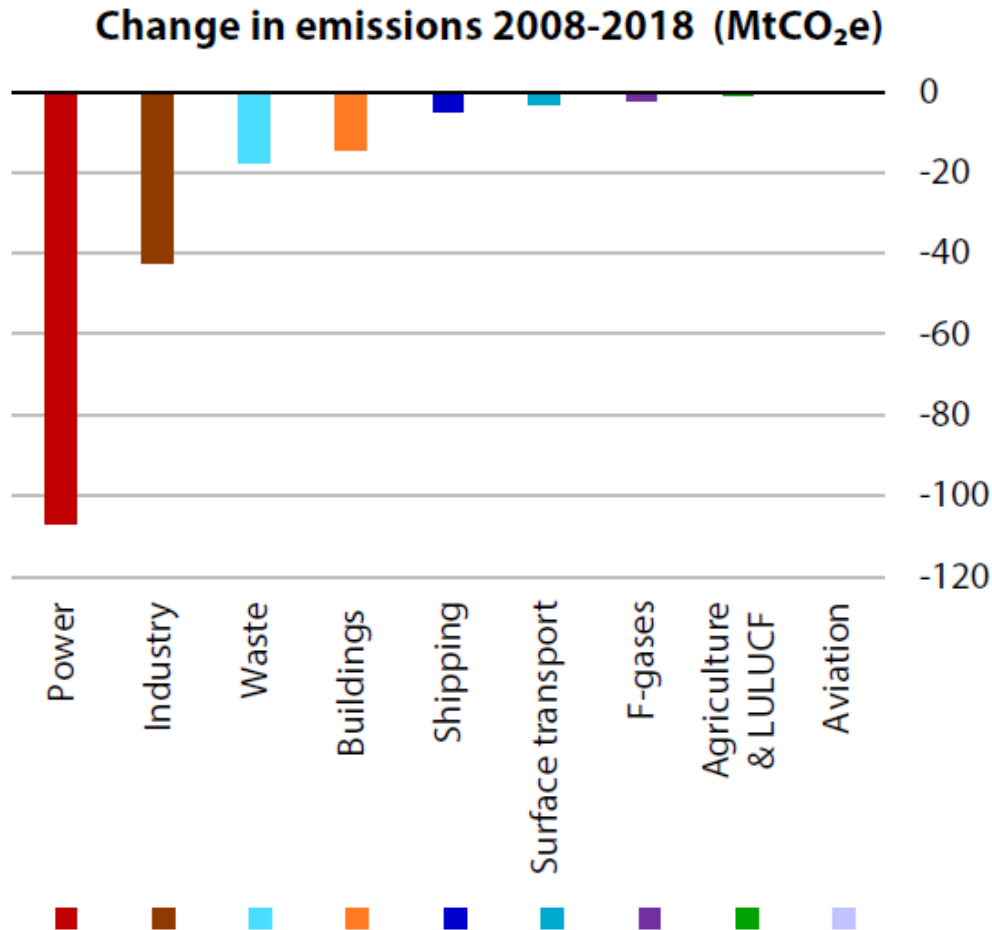
The market environment implies a golden age for renewables ahead but significant obstacles remain...



Historical and projected Wind installations (MW)



And wind is expected to be the backbone of our net-zero energy system...



Resource

- Shallow seabed in North Sea and among the best wind resource in Europe

Laws

- 2008 Climate Change Act legal target of 80% CO₂ reduction by 2050 – updated to net zero in 2019

Targets

- Offshore wind target of 30GW by 2030 – increased to 50GW in 2022

Investment Framework

- Financial support for offshore wind from mid-2000s – world-leading Contract for Difference introduced in 2013

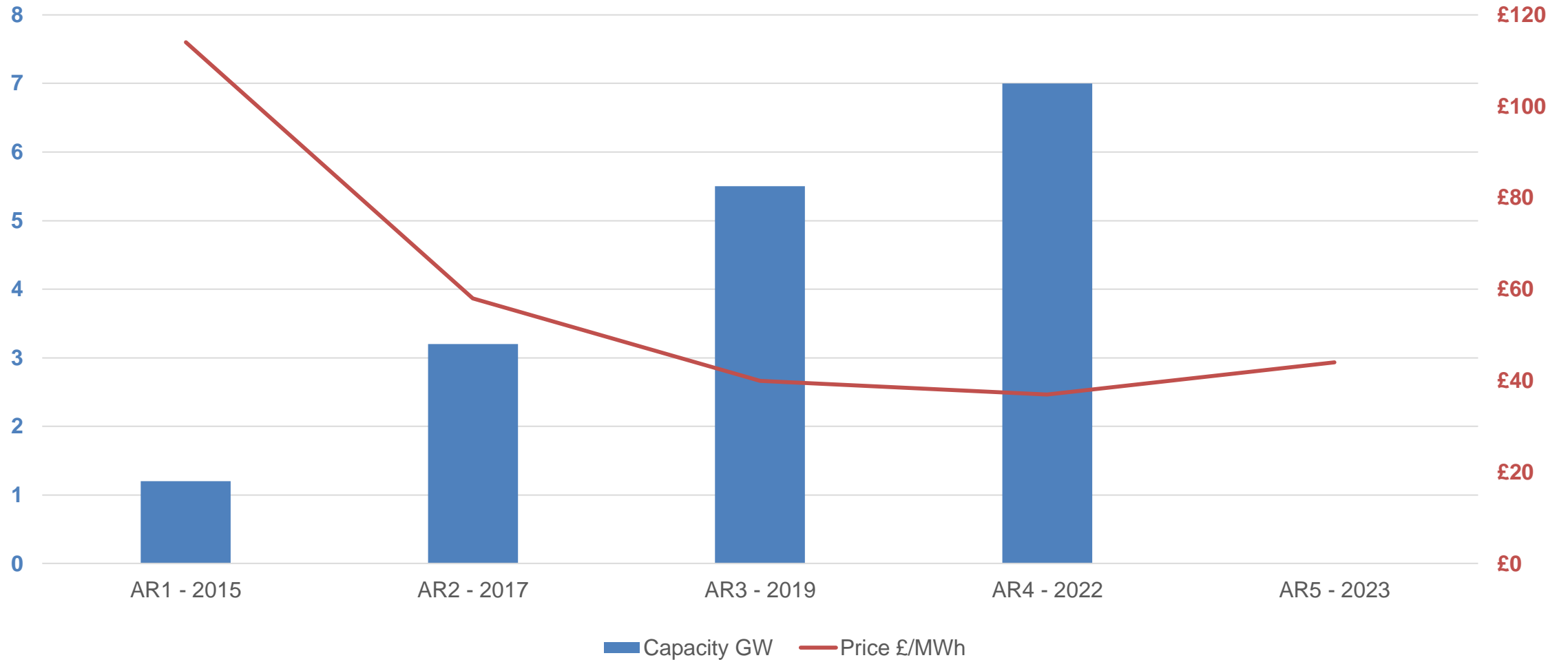
Innovation

- Turbine size has grown from 3.6MW 10 years ago to 15MW+ today

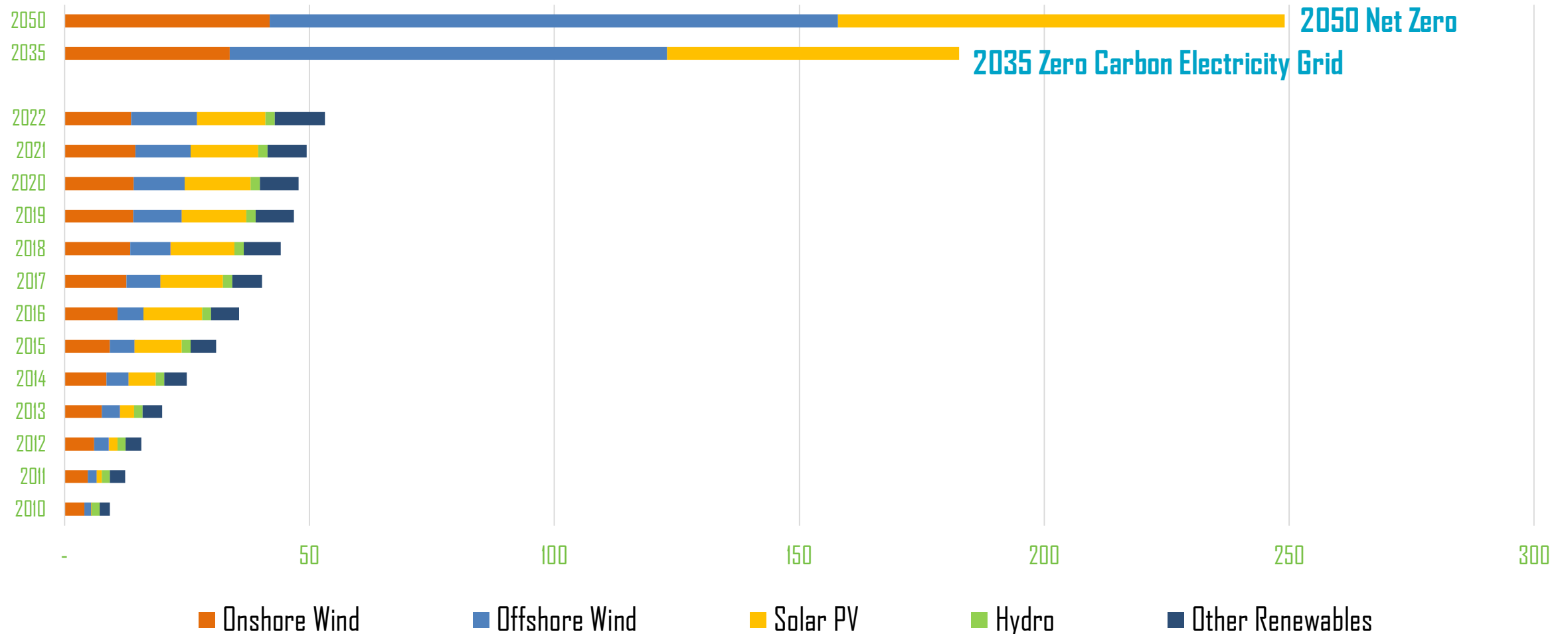
Collaboration

- Stable, long-term partnership between industry and Government

Scale and market design have enabled big cost reduction but it has gone too far...



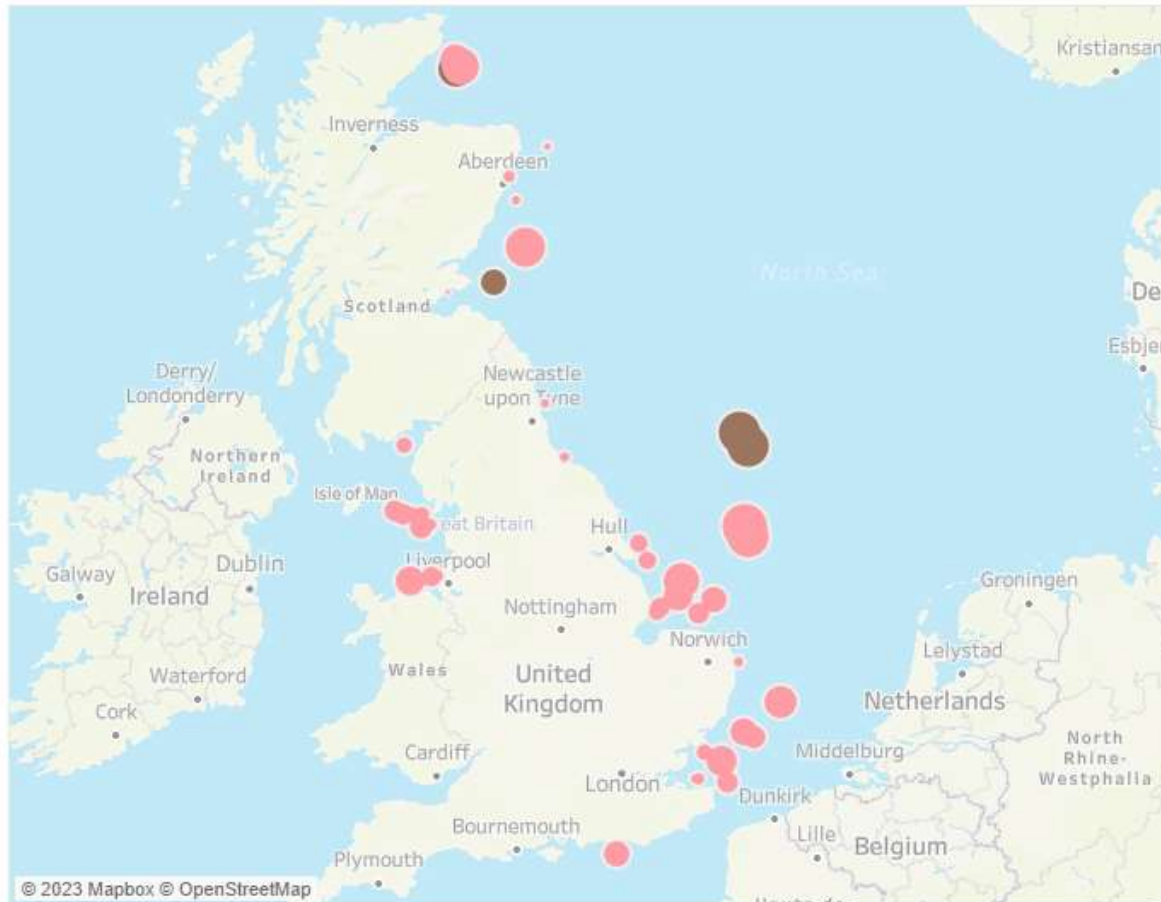
But the journey has really only just begun, Unprecedented build of offshore wind is being lined-up...



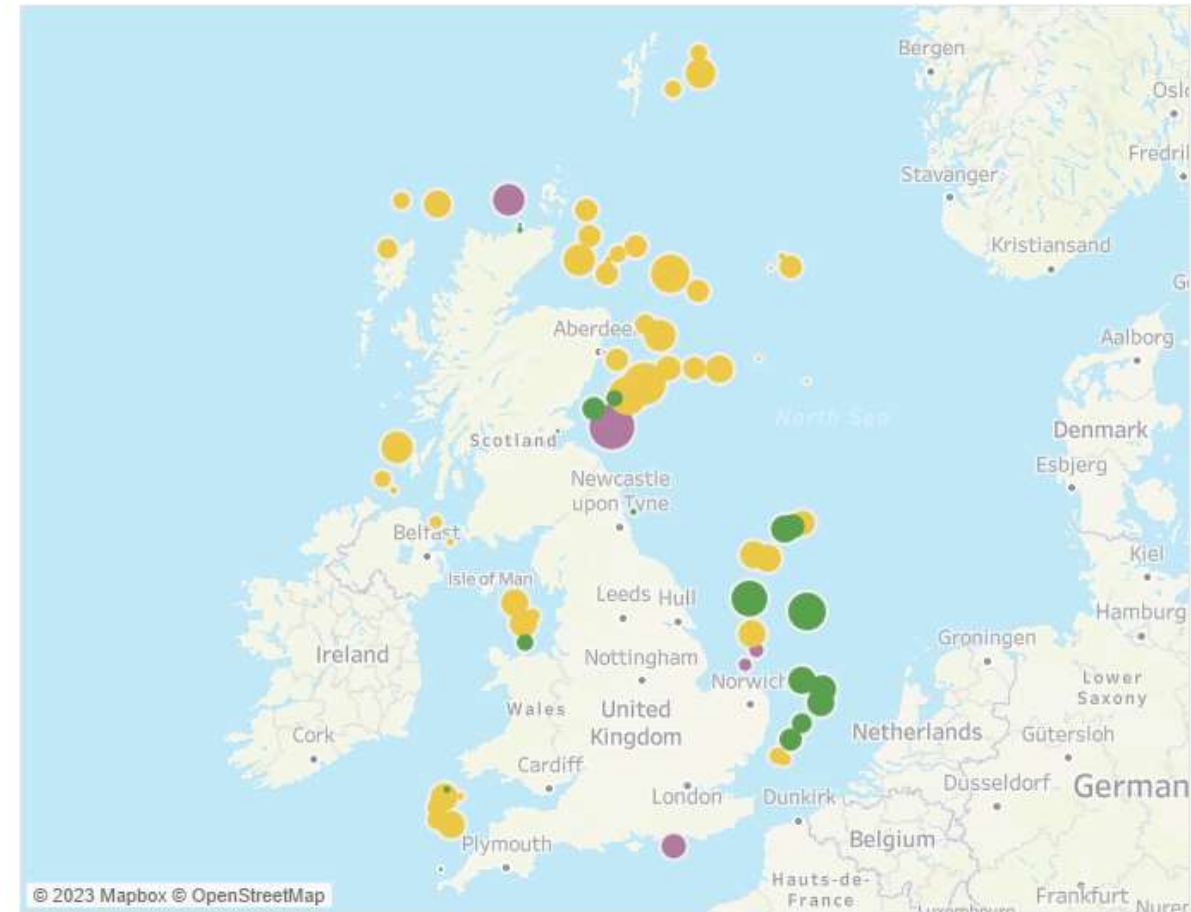
The dimensions of British offshore ambition is leading to new unforeseen challenges...



Operational & Under Construction



Planned Offshore Wind Farms to 2035





The UK is now trying to cure it's growing pains which should set up for future success...



UK NEWS Your Area Cost of Living Advice Ukraine Politics Royal World Climate

Major blow for renewable energy industry as Vattenfall halts plans for Norfolk Boreas wind farm

- **Inflationary pressures** impacting project economics
 - Turbines costs have increased by 20-40%
 - CfD AR4 (2022) projects been cancelled. 2023 auction failure
 - 2023 auction was capped at £60/€68 in current prices
- Reforms needed for **sustainable CfD pricing**



- Building renewables in areas of **best resource** does not fit legacy fossil fuel grid
- By 2030, the UK needs **5x the new transmission capacity** built since 1990
- Shift from project-by-project connections to strategic planning, shared connections and **Holistic Network Design**



- **Derogations & compensation** under Habitats Directive is challenging & complex.
- Complexity of assessing **cumulative impacts** of wind and other seabed users
- Regulators & conservation bodies **under-resourced**
- Comprehensive **marine spatial plan** and **policy**

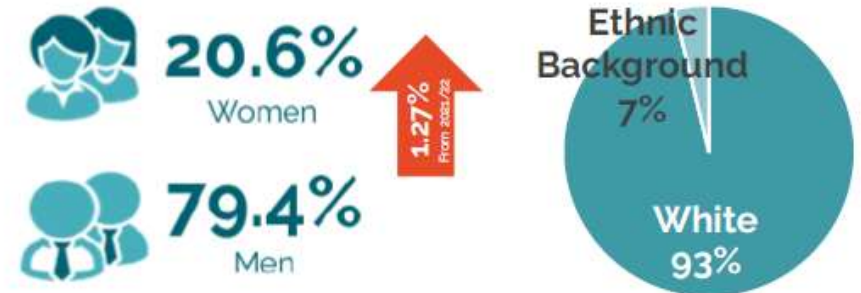
This radical transformation requires people:
a lot of people...



TODAY'S
WORKFORCE



DIVERSITY &
INCLUSION



INVESTMENT
IN SKILLS










TOMORROW'S
WORKFORCE



What are we focused on now and what can emerging markets learn: you cannot deliver a sector project by project...



	 UK Action	 Possible Takeaways
 Markets	<ul style="list-style-type: none">▪ Increased Auction Prices▪ Non-Price Factors	<ul style="list-style-type: none">▪ NPFs from the beginning▪ Central allocation?
 Permitting	<ul style="list-style-type: none">▪ Critical National Infrastructure▪ Strategic Compensation & MSP	<ul style="list-style-type: none">▪ Early Marine Spatial Prioritisation▪ National Compensation Strategy
 Supply Chain	<ul style="list-style-type: none">▪ Industrial Growth Plan▪ Social Value Model	<ul style="list-style-type: none">▪ Sector delivery, not project▪ Early collaborative models
 Grid	<ul style="list-style-type: none">▪ Connections Reform▪ Transmission Acceleration (AI)	<ul style="list-style-type: none">▪ TSO driven offshore grid▪ Early spatial plan
 Skills	<ul style="list-style-type: none">▪ National Skills Programme▪ O&G Passport	<ul style="list-style-type: none">▪ Predict and address scarcity of critical skills e.g. HV / permitting

Any questions?