Offshore Wind in Ireland

Noel Cunniffe, CEO, Wind Energy Ireland

EUFORES Workshop - The European Green Deal and the National Energy and Climate Plan in Ireland

June 2021

WIND ENERGY IRELAND

windenergyireland.com

WEI represents over 150 members covering all aspects of Onshore and Offshore Wind

WIND ENERGY IRELAND

Members across existing assets, development & supply chain for onshore & offshore:

- Wind farm developers
- Turbine manufacturers
- Construction companies
- Supply companies
- Accountants
- Insurance
- Consultancy
- Legal firms
- Banks
- Small local businesses

Wind Energy Ireland's Offshore Wind Pipeline Survey – Q1 2021

Note: Results are post-Foreshore License filter. Capacity when overlapping sites are accounted for is displayed in brackets.

27 projects in the Irish offshore wind pipeline

Over 22 (~ 15) GW of capacity in total

An average project capacity of 900 MW

8 commercial scale floating offshore wind projects

10.5 (~8) GW

13 projects planned for the East coast

6.5 (~ 4) GW

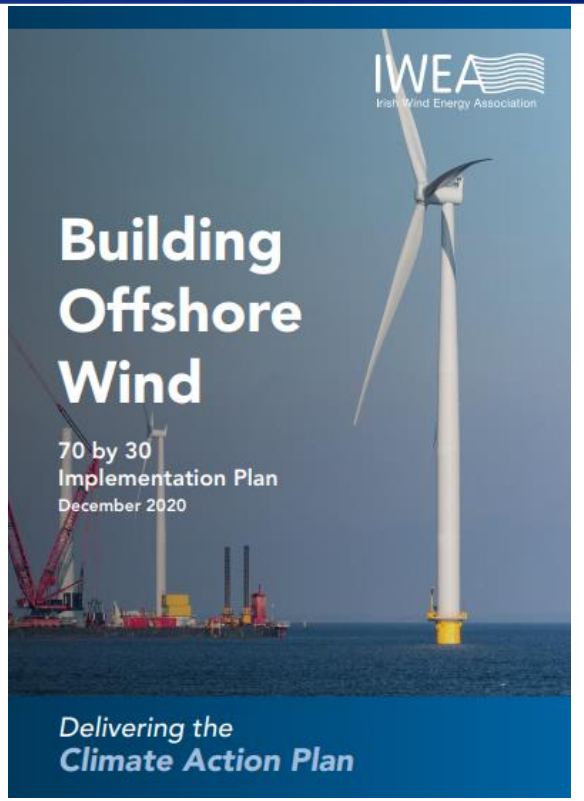
8 projects for the South coast

6 (~3) GW

6 projects for the West coast

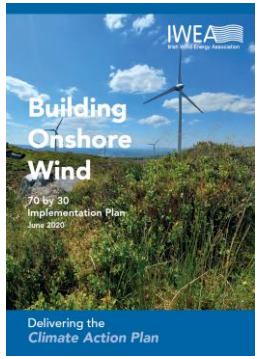
Wind Energy Ireland's Building Offshore Wind Report

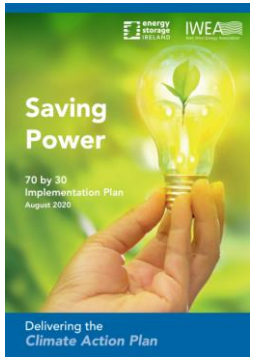
- WEI produced the 70by30 Implementation Plan in 2020
- Building Offshore Wind report launched in December 2020 sets out how to deliver 5 GW of offshore wind by 2030
- Analysed pipeline of offshore wind projects in two scenarios - Business-as-Usual and 2030 Target Delivered



Key Takeaway:

To account for **potential project attrition** and to **still achieve 5GW by 2030** we forecast that a **pipeline multiple times larger than 5GW** will be required to **deliver 2030 targets**.





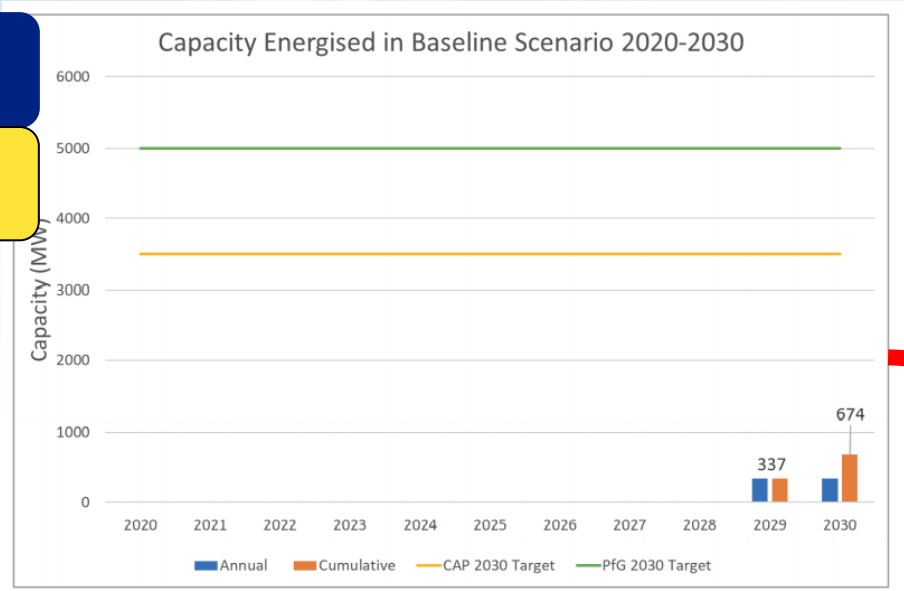
Planning: 5+ Years

Construction: 4+ Years

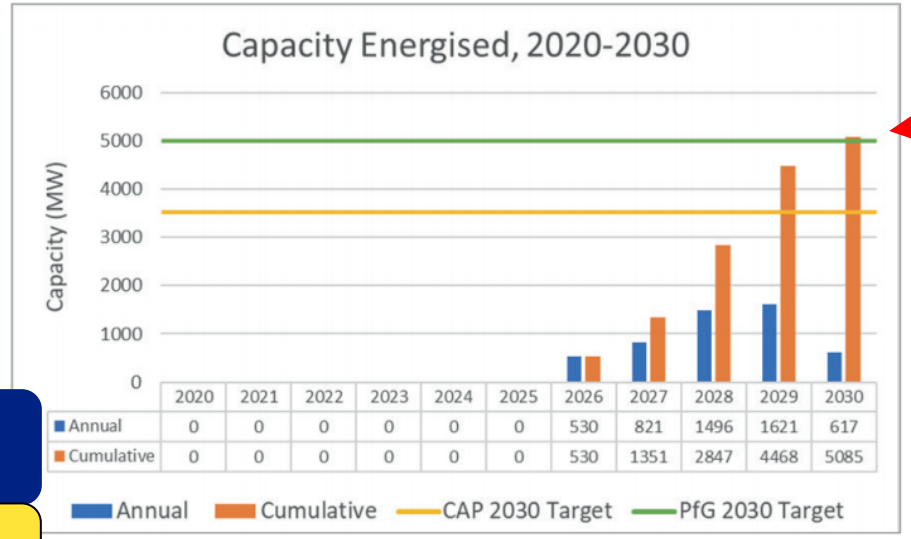
Baseline Scenario results show that only 674 MW of offshore capacity will deliver by 2030 unless we see Policy Improvements across:

- Planning
- Grid Connections
- Route-to-Market and
- Grid Capacity

Critical that Government & State Bodies are appropriately resourced to deliver these.



8 Policy Improvements to get to 5 GW



Planning: 3-4 Years

Construction: 3-4 Years

Floating Offshore Wind in Ireland - Industry Ambition for the Decade Ahead

'*Floating Offshore Wind in Ireland - Industry Ambition for the Decade Ahead*' being published soon

The key messages are:

- **Costs are falling rapidly** and **floating offshore wind can deliver for 2030**
- **First-mover advantage** is there for the taking and is an **economic opportunity** as well as **critical for climate action**
- **Immediate policy change is required** to unlock Ireland's FLOW potential:
  - Policymakers must seize the advantage of early-mover status for Ireland, by **paving the way for FLOW projects to energise from 2030**
  - In order to facilitate FLOW's take off in the Irish electricity market **grid upgrades are required for the south and west coasts**
  - A **"floating wind pot" or new Floating-RESS in 2025** to support early commercial scale projects for Celtic Sea and Atlantic production zones

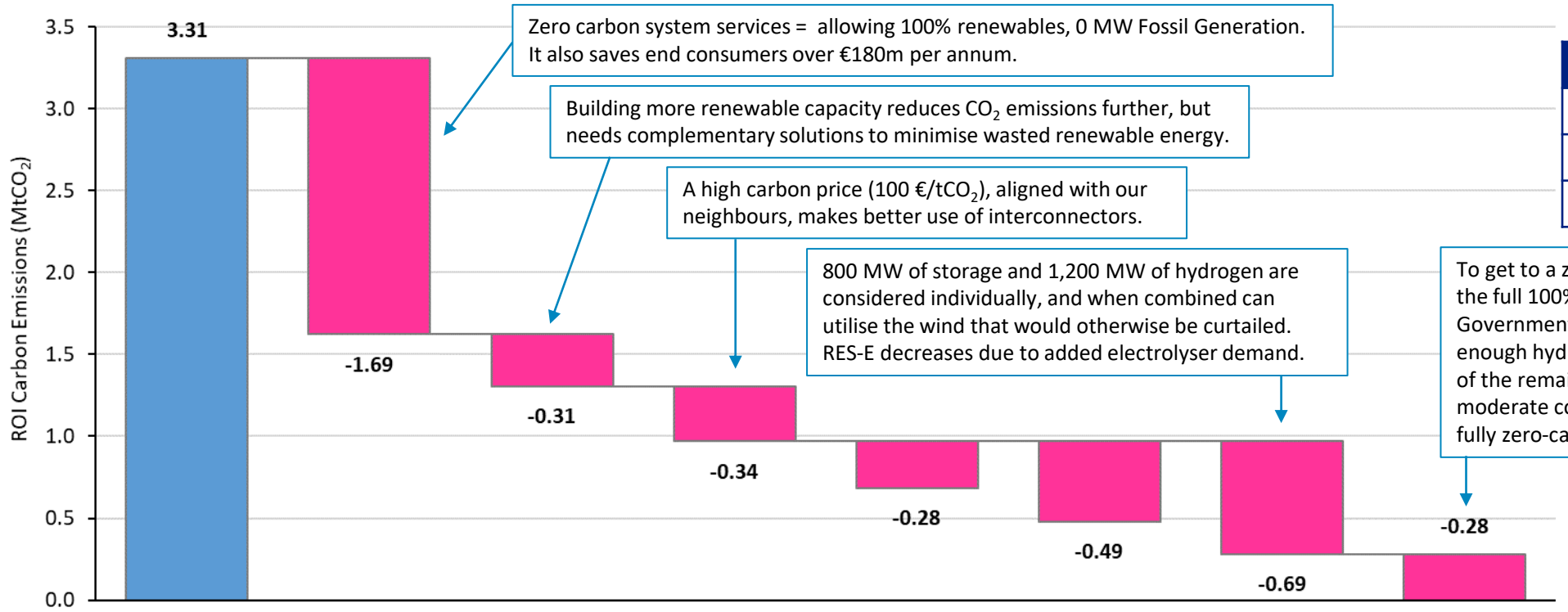
Pathway to a Zero-Carbon Power System Report

Being published at the end of June

WIND ENERGY IRELAND

We demonstrate a path to zero carbon in the Irish electricity sector using known technologies, keeping the lights on and at minimal cost to consumers

Power Sector CO_2 Emission Savings in Ireland



Baringa

Technology	100% Capacity
Onshore Wind	8.2 GW
Offshore Wind	5 GW
Solar PV	5 GW

	70 by 30 (3.3 $MtCO_2$)	Less than 2 $MtCO_2$	80% of PfG Capacities	Same CO_2 price as non-ETS	Long-Duration Storage	Green Hydrogen	Storage & Hydrogen	Zero Carbon (100% of PfG)
RES-E	70%	85%	94%	94%	97%	89%	90%	101%
PfG Capacity	50%	67%	80%	80%	80%	80%	80%	100%
Residual CO_2	3.31 Mt	1.62 Mt	1.31 Mt	0.97 Mt	0.68 Mt	0.48 Mt	0.28 Mt	0 Mt

WIND ENERGY IRELAND

windenergyireland.com