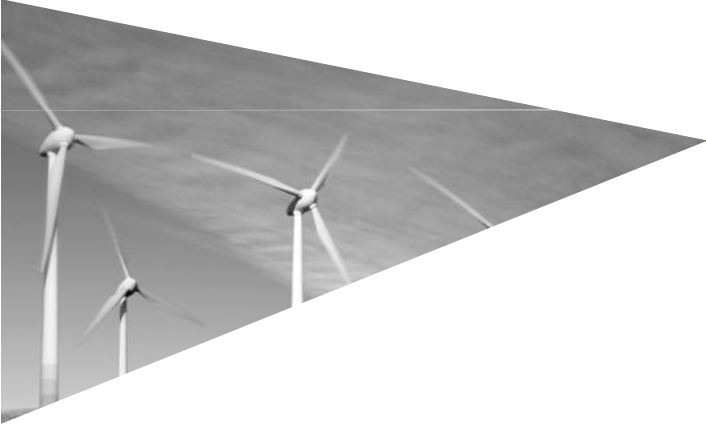


Drivers impacting investment in renewable energy

Energy Ireland

2 June 2011



Agenda

		Page
Section 1	Introductions	3
Section 2	Funding Ireland's renewables ambition	5
Section 3	Beyond financing – other factors to consider	11
Section 4	The role of government	13

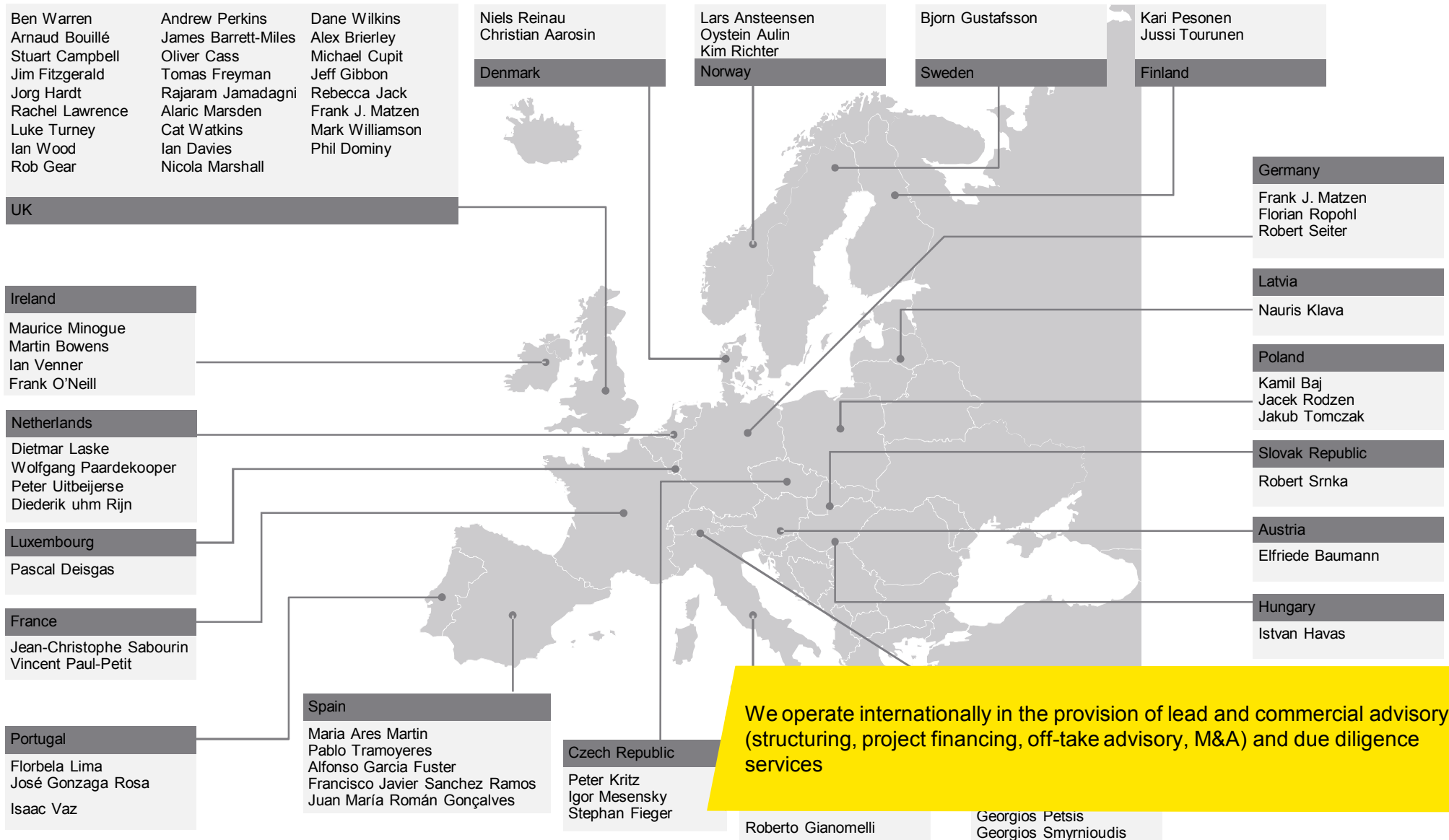


Section 1

Introductions



Ernst & Young has market leading renewable energy teams across Europe



Section 2

Funding Ireland's renewables ambition



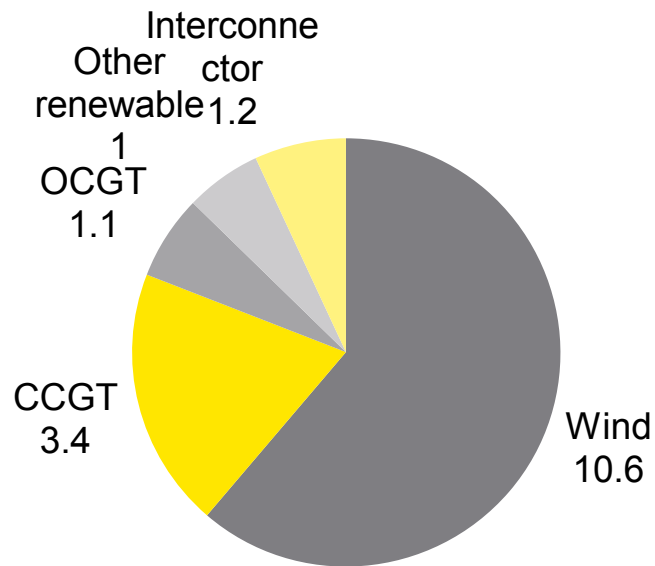
Confronting the competition for capital

- ▶ Irish renewable energy industry directly or indirectly competes for capital against broader energy and infrastructure asset classes
- ▶ Magnitude of investment required is massive, for example:
 - ▶ €17-28bn for Irish total generation capital investment (Source: Eirgrid)
 - ▶ €1,100bn for EU energy networks, storage and generation
 - ▶ £199bn for UK energy infrastructure by 2020
 - ▶ Equivalent to building 29 new nuclear plants
- ▶ All this investment is occurring simultaneously
- ▶ Traditional financing model is corporate (recourse) debt, supplemented by infrequent equity injections and a limited amount of project finance
 - ▶ This model will not attract sufficient capital to the renewables sector on the timescales sought
- ▶ Ireland can bridge the funding gap, but only with creativity and flexibility

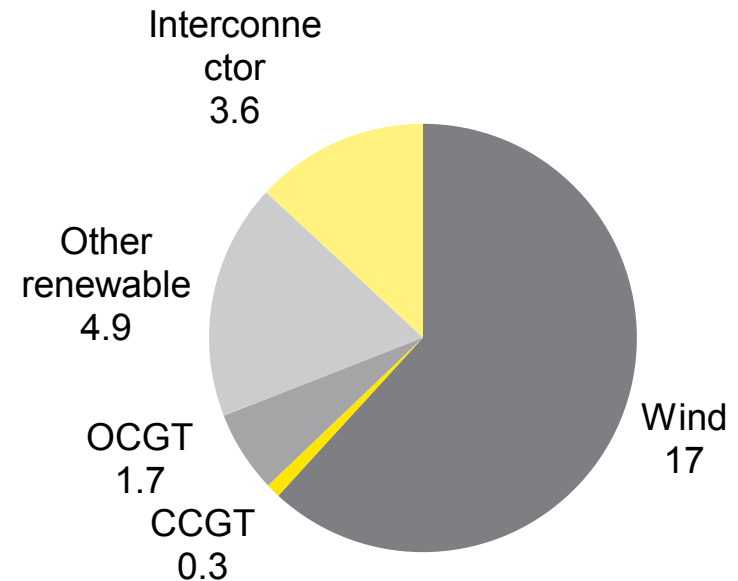


Eirgrid's assessments of Irish generation capital investment

**Irish total generation capital investment to 2035
Gas scenario (€17bn)**



**Irish total generation capital investment to 2035
High renewables + interconnection scenario (€28bn)**



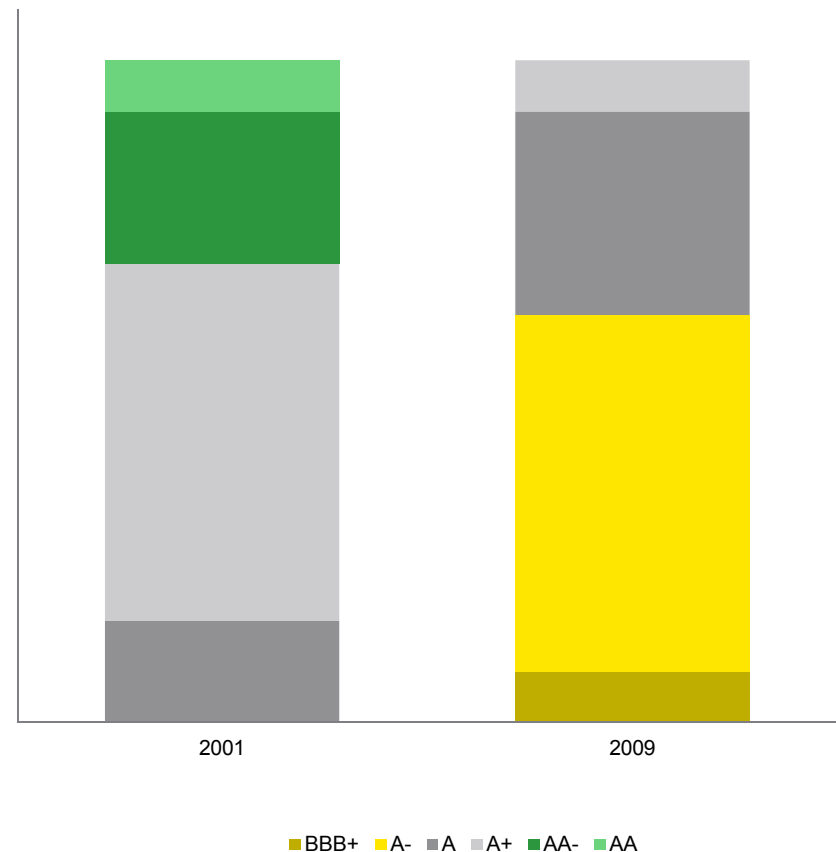
Source: Pöyry Low Carbon Generation Options for the All-Island market Report to Eirgrid March 2010

Utility credit quality has steadily fallen

Traditional corporate finance not up to the task

- ▶ In 2001, 10 of the top 13 utilities in Europe were rated AA+ to A+
 - ▶ In 2010, one (EDF) was in that range
- ▶ Capex was on average 56% of top utility EBITDA in 2005
 - ▶ In 2009 it was 81%...
- ▶ A- is an absolute minimum rating level
- ▶ Downgrade to BBB category would increase cost of debt, and cost of doing business
- ▶ 7 of the top 13 utilities now at A- level
- ▶ So we see defensive actions
- ▶ Utilities' capacity to carry out renewable energy ambitions of Europe/Ireland is constrained

Credit ratings trajectory – top 12 integrated utilities plus DONG Energy

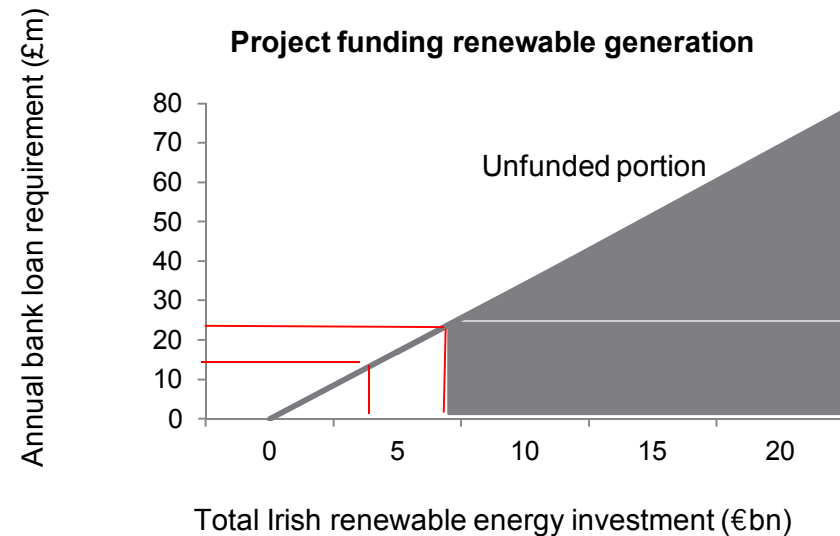


Project finance cannot (entirely) save the day

Realistically one-third of Irish renewable generation investment could be project financed

- ▶ Project financing Irish renewable energy investment to 2035 (€10-20bn) would mean:
 - ▶ €35-70m annual project loan issuance
 - ▶ for 10 banks active in the Irish sector
 - ▶ every year for twenty five years
- ▶ This is far beyond many banks' appetites/capacity

- ▶ More realistically:
 - ▶ Only 35% (£3.5-7bn) project financeable
- ▶ Utilities constrained on funding remaining £6.5-13bn



Other limitations on project lending

- ▶ Looser project contractual structures are challenging tolerance of bank credit committees
- ▶ Increasingly, these credit challenges are only overcome by the imperative of relationship banking

Attracting proverbial deep pools – two examples

Equity – Investment funds

- ▶ Utilities may not want to accept the lower IRRs that lower leverage implies
- ▶ But in capital constrained world they may not have a choice
- ▶ New asset classes are needed to soak up fund capital
- ▶ Renewables can fit the bill if hurdles overcome

- ▶ Funds can pool assets to reach required deal size
- ▶ Listing can attract new investors by providing liquidity (meeting regulatory requirements or providing visibility on potential exit)
- ▶ Can be structured to attract mezzanine-type investors

Debt – Structured finance

- ▶ Even post credit crunch, still a vast pool of capital
- ▶ Dwarfs traditional lending
- ▶ Within a few years collateralised loan obligations (CLOs) of renewable assets may be viable
- ▶ This would allow banks to recycle capital lent to the sector
- ▶ Currently, CLOs restricted to government-backed loan books of single originators
- ▶ Multi-party CLO of offshore wind loans would significantly ease funding pressure on the industry

Section 3

Beyond financing – other factors to consider



Other factors impacting investment in renewable energy markets

	Near term	Long term
Infrastructure index	35%	35%
Electricity market regulatory risk	29%	29%
Planning and grid connection issues	42%	42%
Access to finance	29%	29%
Technology factors	65%	65%
Power offtake attractiveness	27%	19%
Tax climate	8%	11%
Grant/soft loan availability	-	9%
Market growth potential	40%	18.5%
Current installed base	-	8%
Resource quality	14%	19%
Project size	11%	15.5%

Section 4

The role of government



Role of government

What is the objective?

- ▶ Strategic:
 - ▶ meet Ireland-specific renewables targets
 - ▶ lower cost to consumers, enhancing the political viability of pro-renewable energy policies
 - ▶ create green collar jobs
- ▶ Tactical:
 - ▶ add predictability and stability to the sector, thereby:
 - ▶ attracting more capital, lowering cost of capital

Illustrative options on government intervention

- ▶ Procure new strategic infrastructure directly: pseudo-PPP
- ▶ Act as guarantor or first loss investor
- ▶ Facilitate securitisation of consumer receivables to fund upfront investment
- ▶ Inbound investment incentives to deploy supply chains



Summary

Capital needs are huge

- ▶ Renewable energy/Ireland compete against other asset classes/markets for capital
- ▶ Energy investment needs are huge across Europe / being undertaken simultaneously

New sources of capital are needed

- ▶ Utilities cannot do it all / banks cannot project finance it all
- ▶ New debt and equity sources are needed

New capital requires new structures

- ▶ Innovative structures are needed to access capital (e.g., investment funds)
- ▶ New strategic relationships also key, for example: between developers and suppliers, to access new equity; amongst smaller utilities, to gain from creation of asset portfolios



Ernst & Young LLP

Assurance | Tax | Transactions | Advisory

www.ey.com/uk

The UK firm Ernst & Young LLP is a limited liability partnership registered in England and Wales with registered number OC300001 and is a member firm of Ernst & Young Global Limited.

Ernst & Young LLP, 1 More London Place, London SE1 2AF.

© Ernst & Young LLP 2011. Published in the UK.
All rights reserved.

This document has been prepared by Ernst & Young. The information and opinions contained in this document are derived from public and private sources which we believe to be reliable and accurate but which, without further investigation, cannot be warranted as to their accuracy, completeness or correctness. This information is supplied on the condition that Ernst & Young, and any partner or employee of Ernst & Young, are not liable for any error or inaccuracy contained herein, whether negligently caused or otherwise, or for loss or damage suffered by any person due to such error, omission or inaccuracy as a result of such supply. In particular any numbers, initial valuations and schedules contained in this document are preliminary and are for discussion purposes only.