

# Mobilising Bioenergy with Policy and Action



February 2019

# Bioenergy Project Commencement

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DWF Dublin  
13 February 2019

# Content

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- Introduction to DWF
- Bioenergy can and should play a greater part in Ireland's electricity sector
- Key Project Commencement Steps

# DWF Introduction

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# Who we are

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We are a global legal business, transforming legal services through our people for our clients.

Like us, our clients recognise that the world is changing fast and the old rules no longer apply. That's why we're always finding agile ways to tackle new challenges together.

DWF Dublin (2007) and Belfast (2016) are vibrant full service offices.

- We are undergoing significant and planned growth.
- DWF Dublin growth 3 partners in 2015 to 9 in 2019.
- Recent infrastructure / energy deals:
  - Solar
  - Anaerobic Digestion / Gas to grid
  - Wind
  - Biofuture Plant in NE England



# Where we are

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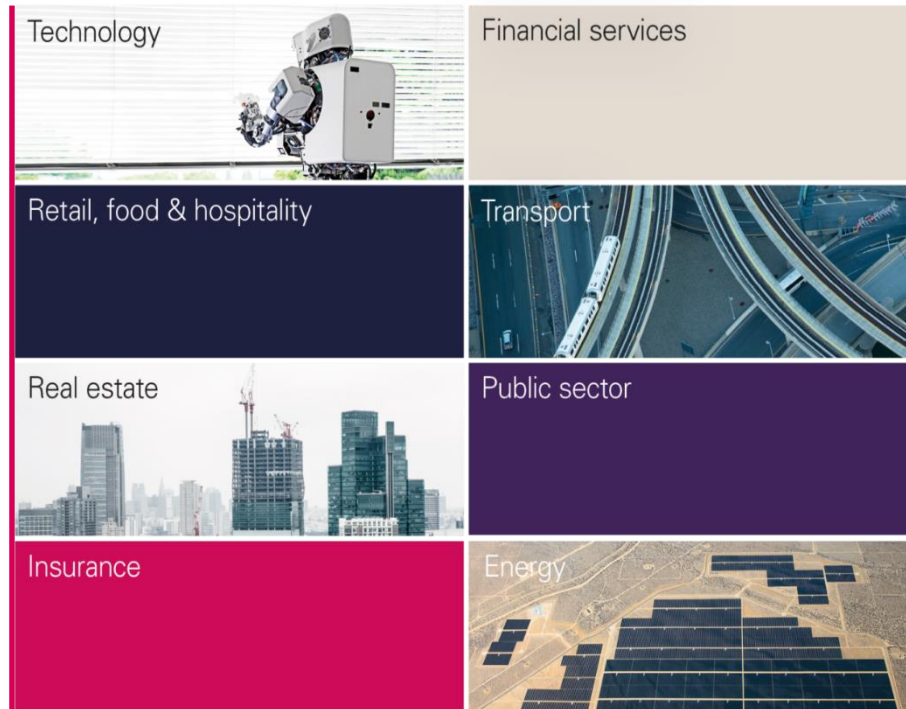
**There are over 2,700 people across the DWF Group, based in 26 key locations.**

Our international links are varied and vast, allowing us to support clients in several jurisdictions through our relationships with other leading legal partners.



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- |               |           |            |
|---------------|-----------|------------|
| Belfast       | Berlin    | Birmingham |
| Brisbane      | Bristol   | Brussels   |
| Chicago       | Cologne   | Dubai      |
| Dublin        | Edinburgh | Glasgow    |
| Leeds         | Liverpool | London     |
| Manchester    | Melbourne | Milan      |
| Milton Keynes | Munich    | Newcastle  |
| Paris         | Singapore | Sydney     |
| Toronto       |           |            |

# Sectors



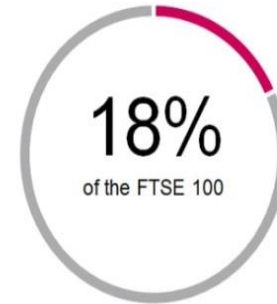
- We go to market through the sectors our clients operate in, so we can identify and anticipate challenges and find solutions to the legal problems they face; provide support for smarter decisions, reduce risks, and give greater clarity and flexibility.
- Our core sector groups include Energy, Financial Services, Corporate, Insurance, Public Sector, Real Estate, Retail, Food & Hospitality, Technology and Transport.

# Our performance

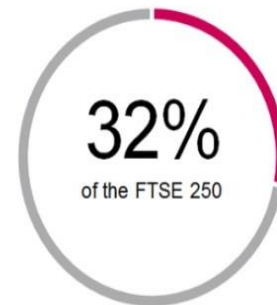
## What our Clients Say

We are ranked by both Chambers and Partners and Legal 500, with comments from our clients including:

*“The DWF team continues to impress with the strength of its renewables offering. The solicitors are excellent specialists who are very methodical and commercially aware, and who have handled a number of complex matters”*



We work for 18% of the FTSE 100



We work for 32% of the FTSE 250





# Electricity Sector

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# The All-Island Electricity Market

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- All Island Generation Capacity Statement 2017 -2026.
- Integrated Single Electricity Market (ISEM).
- National Development Plan 2018 (Project 2040)
  - Population increase of 1M+
  - Focus on non-Dublin growth
  - Decarbonised economy
  - Electricity heat and transport
  - RESS to support new 4,500MW green electricity
- Datacentres
  - Gamechanger
  - GHG Protocol
- Renewable Energy Support Scheme (under consultation)
  - Auctions
  - Technology neutral
  - Overtaken by NDP
  - Competing renewables

# Bioenergy in the Fuel Mix

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# Bioenergy in the Irish (Renewables) fuel mix

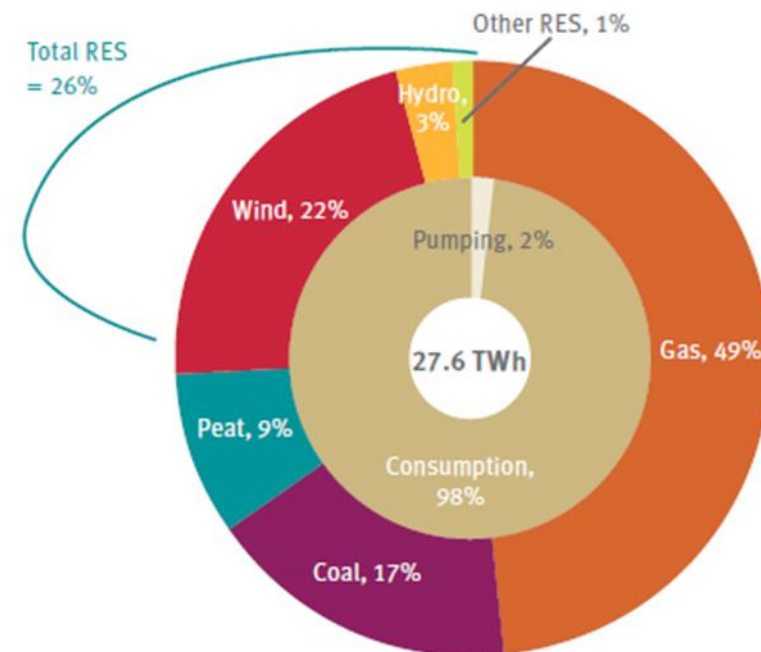
Most renewable sources play second fiddle to onshore wind in Ireland.

at year end:	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b>All Wind</b>	2740	3080	3420	3760	4100	4240	4380	4520	4660	4800	5000
<b>All Hydro</b>	238	238	238	238	238	238	238	238	238	238	238
<b>Biomass/LFG (including Biomass CHP)</b>	54	54	64	84	114	114	114	114	114	114	114
<b>Waste (Assume 50% renewable)</b>	9	40	40	40	40	40	40	40	40	40	40
<b>Edenderry on Biomass</b>	35	35	35	35	35	35	35	35	35	35	35
<b>Solar PV</b>	15	20	25	50	70	80	90	100	100	100	100
<b>Total RES</b>	<b>3091</b>	<b>3467</b>	<b>3822</b>	<b>4207</b>	<b>4597</b>	<b>4747</b>	<b>4897</b>	<b>5047</b>	<b>5187</b>	<b>5327</b>	<b>5527</b>

*EirGrid Group – All Renewable energy sources in Ireland*

# Bioenergy in the Irish (Renewables) fuel mix

- Biogas / AD has performed well in Northern Ireland.
- Irish biogas has unique revenue streams / robustness.
- Confluence of demand, demographics and technology.
- Irish biogas sector needs to step into the power sector.
- Green Gas certification will help solve the identity crisis.



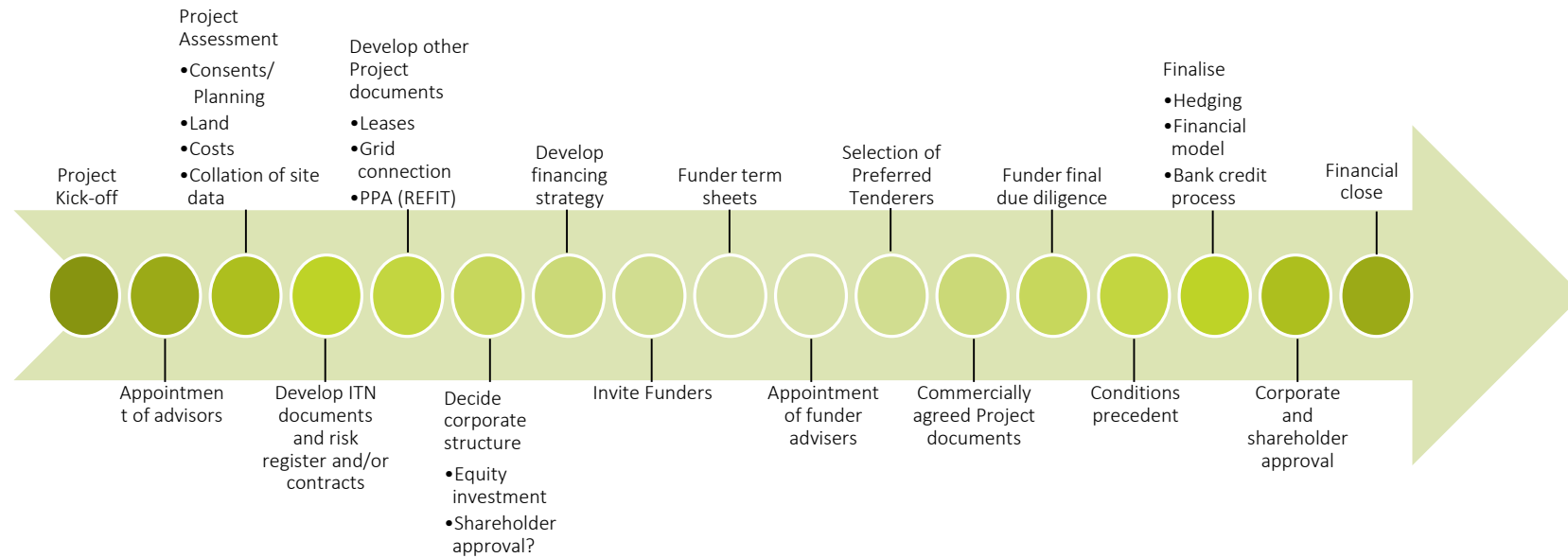
EirGrid Group – Fuel mix in Ireland in 2016

# Developing biogas at scale

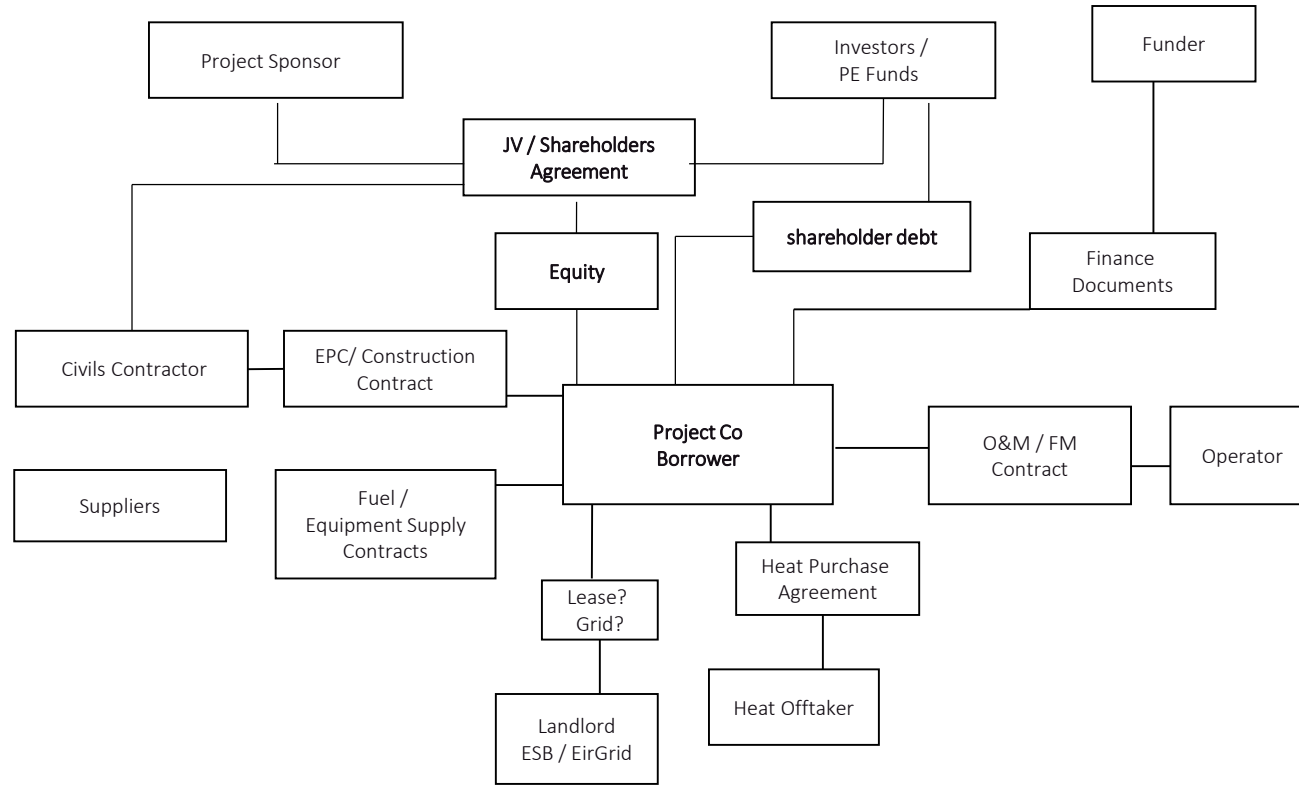
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- Dedicated (biogas) CHP plants need to be built
  - Private wire projects will emerge?
  - Locate the generation near / at demand
- Construction needs to feature true EPC/ Turnkey wraps
  - Non EPC structures are costly and difficult
  - Is the domestic construction sector able to respond?
- Level of requisite Government support?
  - “Support” is not the same as “underwriting” risk
  - Feedstock and offtake certainty / pump prime?
  - Regulatory stability
  - Strong, robust and consistent planning
  - Support Green Gas Certification / GHG Protocol

# Project Finance Lifecycle



# Sample Contract Structure





# Pointers on Fuel Supply Agreements

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- Sustainability of Fuel Choice
- Panel of Suppliers and storage capacity
- Contractual Remedies for Serious Breaches
- Source of compensation
- Currency hedging

# Pointers on Construction of the Plant

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- Technology choice
- EPC versus EDCM
- Interfaces and civils
- Forecast O & M contracts

# Bioenergy / Bankability

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Ticking the box....risk analysis is common to all renewables.

Feedstock Availability	<input checked="" type="checkbox"/>	Diverse Revenues	<input checked="" type="checkbox"/>
Construction	<input checked="" type="checkbox"/>	Regulatory / permitting	<input checked="" type="checkbox"/>
Offtake	<input checked="" type="checkbox"/>	Availability of equity	<input checked="" type="checkbox"/>
O+M	<input checked="" type="checkbox"/>	Availability of debt	<input checked="" type="checkbox"/>
Technology	<input checked="" type="checkbox"/>	Compete in RESS?	<input checked="" type="checkbox"/>
Government Support	<input checked="" type="checkbox"/>	Quality Lawyers!?	<input checked="" type="checkbox"/>

# Speaker

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## Thank You



## Beyond borders, sectors and expectations

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DWF is a global legal business, connecting expert services with innovative thinkers across diverse sectors. Like us, our clients recognise that the world is changing fast and the old rules no longer apply.

That's why we're always finding agile ways to tackle new challenges together. But we don't simply claim to be different. We prove it through every detail of our work, across every level. We go beyond conventions and expectations.

Join us on the journey.

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