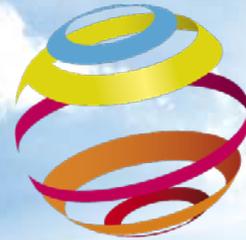


Consenting Cost Reduction Opportunities

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Offshore Wind Cost Reduction Task Force

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MAINSTREAM
RENEWABLE
POWER

Cost of Consent

•Key Levers to Cost Reduction

- Reduce Development Cost (Timelines) - typically costs £50k/MW and takes 9yrs to FID
- Reduce Development Risk – improve uncertainty of consenting process to give confidence to sponsors, investors and the supply chain
- Reduce Pre-FID Procurement Exposure - can be additional >£100k-£400k/MW pre FID but need to allow key decisions and commitments pre FID to accelerate delivery

UK Offshore Wind Consenting to date

	MW	%	
Consented	5,516	92%	(1.5GW Operational & 2GW Under Construction)
Withdrawn	486	8%	(After Submission or Approval)
<hr/> Total	<hr/> 6,002	<hr/> 100%	
In Determination	2,275	5%	(1.7GW with DECC, 550MW with IPC)
In Development	39,329	95%	(32GW is R3)
<hr/> Total	<hr/> 41,604	<hr/> 100%	

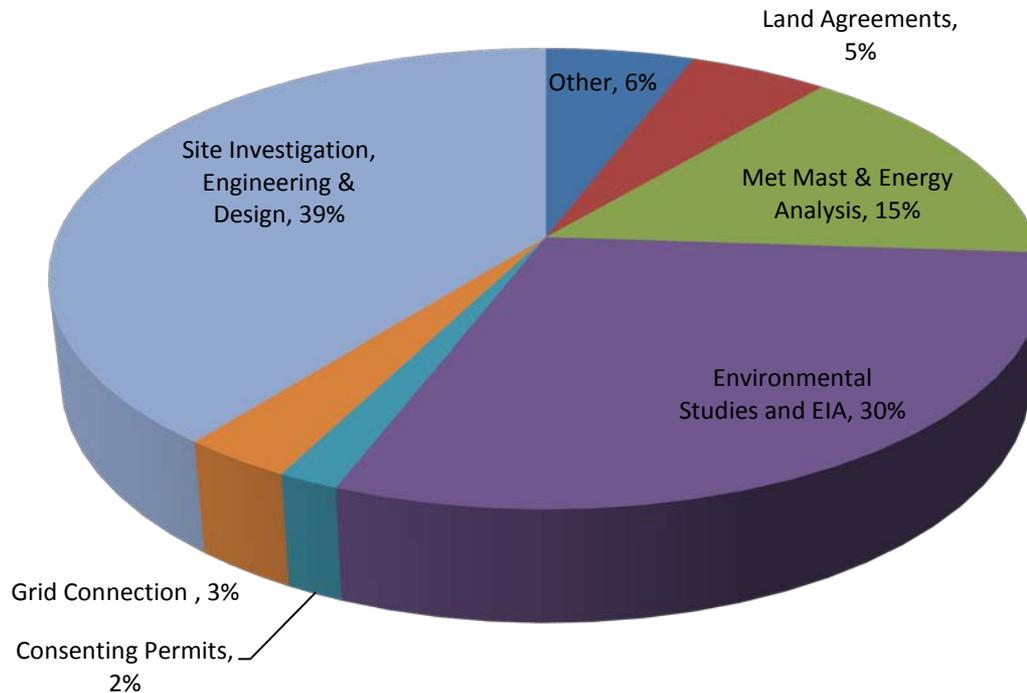
Why isn't this success translated into confidence?

Contents

- What it Costs
- Timeline & Key Decision Gates
- Impact of Design on Cost
- Giving Confidence to Sponsors, Investors & the Supply Chain
- Other Issues
- Conclusions – Key Levers for Consenting Cost Reduction

What it Costs

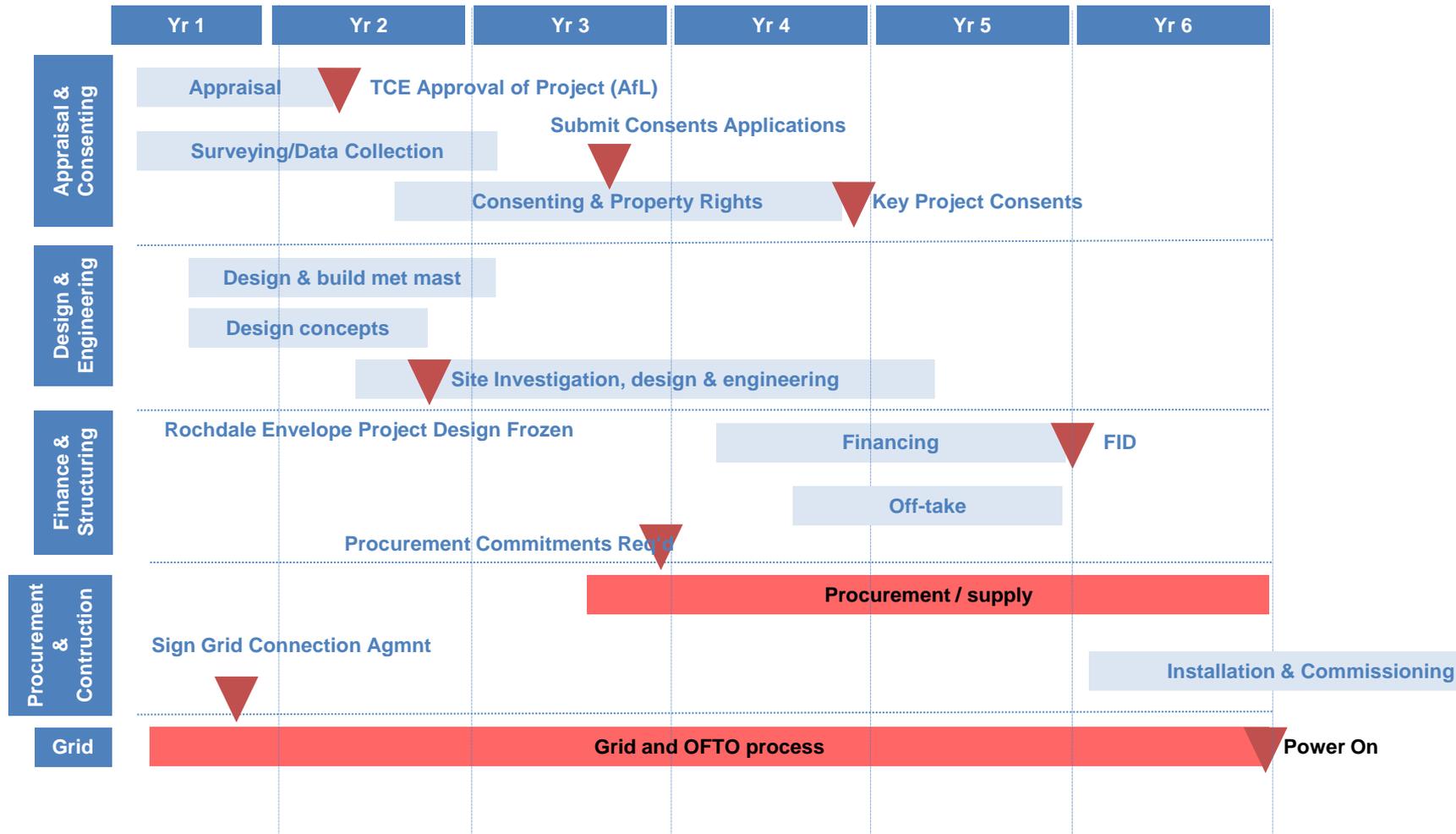
Typical Development Costs



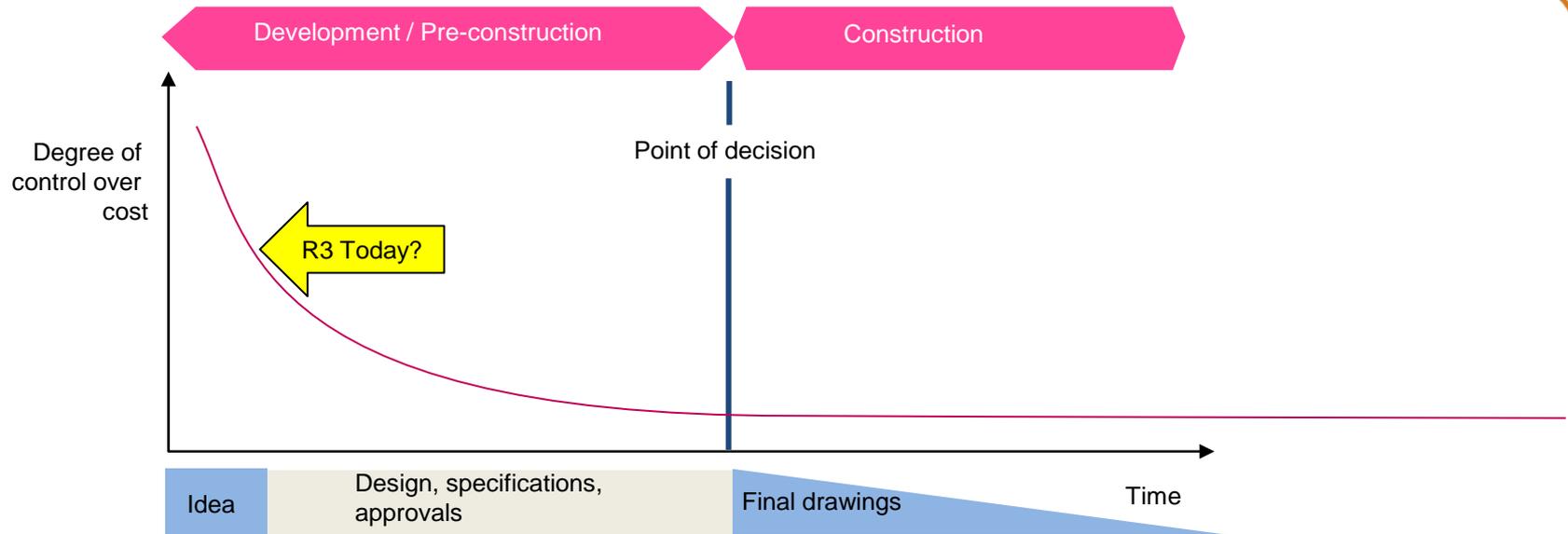
- Development Costs typically £50k/MW @ circa 25% Cost of Capital equates to around 3% LCOE
- In addition pre FID Construction Costs can be >£100k-£400k/MW (Grid Security & Procurement costs) depending on risk profile & sponsor appetite (Cost of Capital?)

Example Development Timeline & Key Decision Gates

Parallel Activities – Fastest Possible Programme?



Impact of Design on Cost



- Project Design Statements being “frozen” this year for 1st tranche of R3
- Start of a new industry and technology development – expect significant change over coming years with large potential to reduce cost
- Need to secure supply chain partners (alliancing/frameworks etc)
- Flexibility of design statements affected by:
 1. Stakeholder understanding and approach (“precautionary principal v pragmatism)
 2. Planning Regime (IPC approach to “Rochdale Envelope”)
 3. Consent Validity – currently 5yrs
 4. Inability to amend applications – sub optimal v new application

Giving Confidence

To Sponsors, Investors & the Supply Chain

- **Pre-application streamlining (on average 2.5 to 3yrs)**
 - Pragmatic approach from stakeholders to data collection, cumulative impact assessments and conditions (balanced use of “precautionary principal”)
 - Stakeholder resources, quality & quantity (10s of jobs to “unlock” 10,000s of jobs)
 - Interaction with European Designated Sites
 - Need to capitalise on learning to date
 - Local Authority support and “buy in” to Government Policy
 - “Joined up” Government to resolve key issues & drive through strategic level solutions (radar/oil & gas etc)
- **Flexible wind farm specification**
 - Clear & understood guidance on “Rochdale Envelope”
 - Allow use of yet untested technology
 - Allow greater cost optimisation
 - Encourage more suppliers - price competition
 - Include cost to consumer as an IPC decision making criteria?

Giving Confidence

To Sponsors, Investors & the Supply Chain

- **Predictability of determination timings (IPC - 15.5mnths)**
 - Eliminate timing uncertainty for consent determination
 - Allow projects to actively progress engineering, procurement and grid solutions in parallel to consent
 - SoS Decision Making <3mnths
 - “How big will the market be?” - confidence to supply chain to invest
 - Improve regulator feedback during pre-consent & determination & allow provision of supplementary information
- **Expiry of consent (5yrs)**
 - Support healthy flow of projects (no more “Project Gap”)
 - Encourage early development of projects to give confidence to pipeline
- **Reduce Burden of Consent and monitoring conditions**
 - “Standardised conditions template” (including across jurisdictions) with mechanism to make project specific
 - Feedback and learning from existing projects to reduce future requirements

Other Issues

- **Accelerating Demonstration Projects**
 - Reduce delivery time for new cost saving technologies
- **Consenting of ancillary works**
 - Ports & supply chain requirements (Green port Hull, Marine Energy Park)
 - Needs supplier confidence in consenting process
- **Clear OFTO Regime**
 - What is most efficient route (early, late, customer build?)
- **Challenge to National Grid?**
 - National Grid selection of grid selection point open to challenge due to lack of environmental consideration
 - Is a co-ordinated network the solution? How to consent stranded assets?

Conclusions: Key Levers for Consenting Cost Reduction

Reduce Development Cost (Timeline)

- Little scope to reduce £50k/MW, scope to reduce timeline (25% cost of money)
- Streamline consenting process to increase confidence (RUK NIRAS Study due February)
- Joined up Government with Local Authority support & buy in
- Predictable determination timings with SoS decision making <3mnths
- Reduce consent monitoring conditions

Reduce Development Risk

- Potential to improve environment to enable key commitments pre-FID
- Flexible wind farm specifications (post application amendments)
- Predictable determination timings with SoS decision making <3mnths
- Expiry of consent >5years
- Greater use of framework & alliancing relationships to incorporate supplychain in early design phase

Reduce Pre FID Procurement Exposure

- Large potential to reduce pre-FID procurement exposure
- Reduce development cost (timeline)
- Reduce development risk
- Increase supply chain – more competition
- Greater use of framework and alliancing relationships to work together on commitments
- Reduce grid security & related requirements