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Distributed Generation: Engagement with the Distribution Networks

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Grid Policy Team

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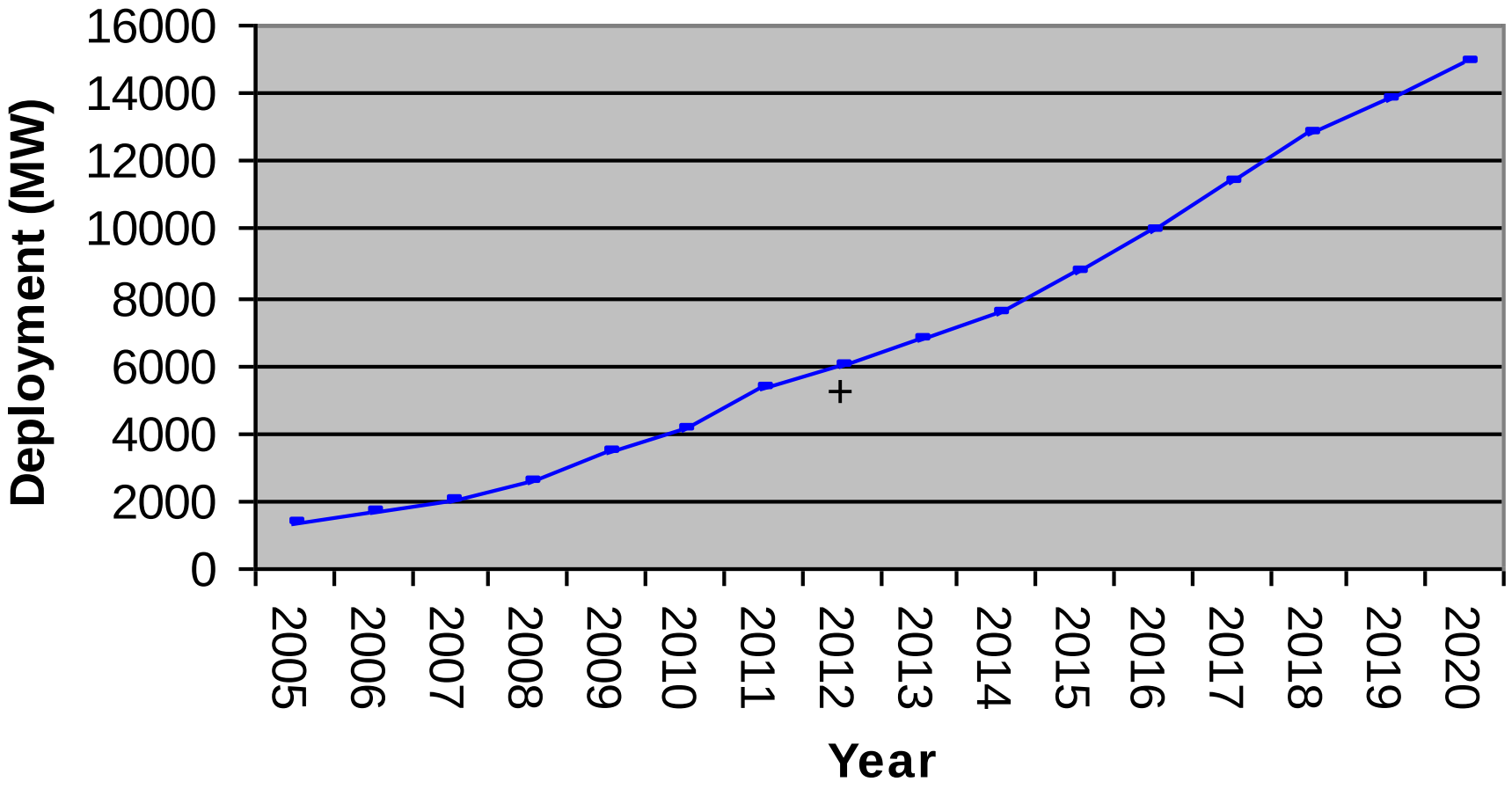
To cover:

- Deployment rates
- Engagement and sources of feedback
- Successes, difficulties, and impact
- Next steps


c. 60% of onshore wind generation capacity is distribution connected.

Cumulative Deployment – Onshore Wind



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http://www.renewableuk.com/ukwed/map-in-planning.html

RenewableUK - UKWED Pro...

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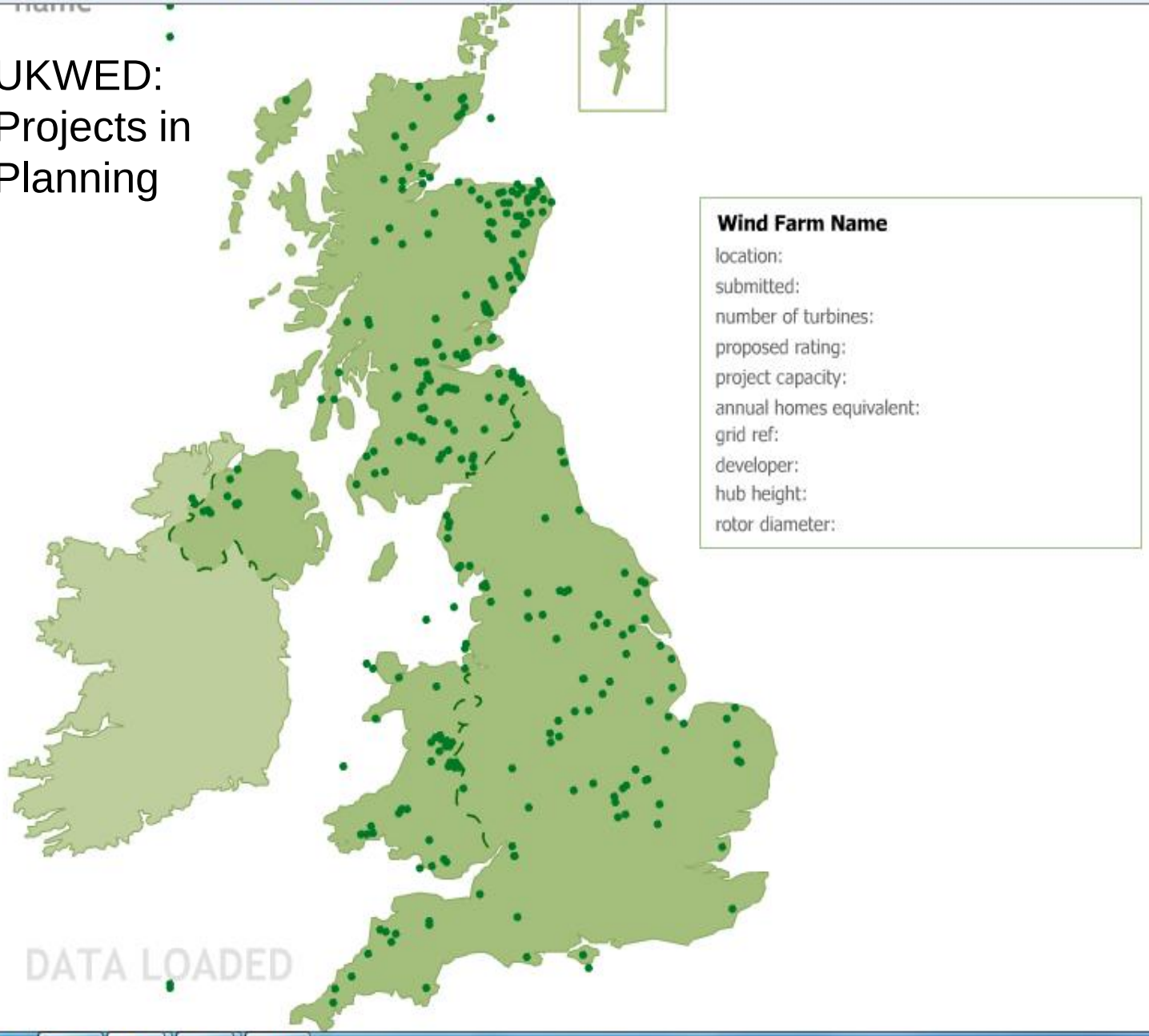
UKWED: Projects in Planning



Wind Farm Name
location:
submitted:
number of turbines:
proposed rating:
project capacity:
annual homes equivalent:
grid ref:
developer:
hub height:
rotor diameter:

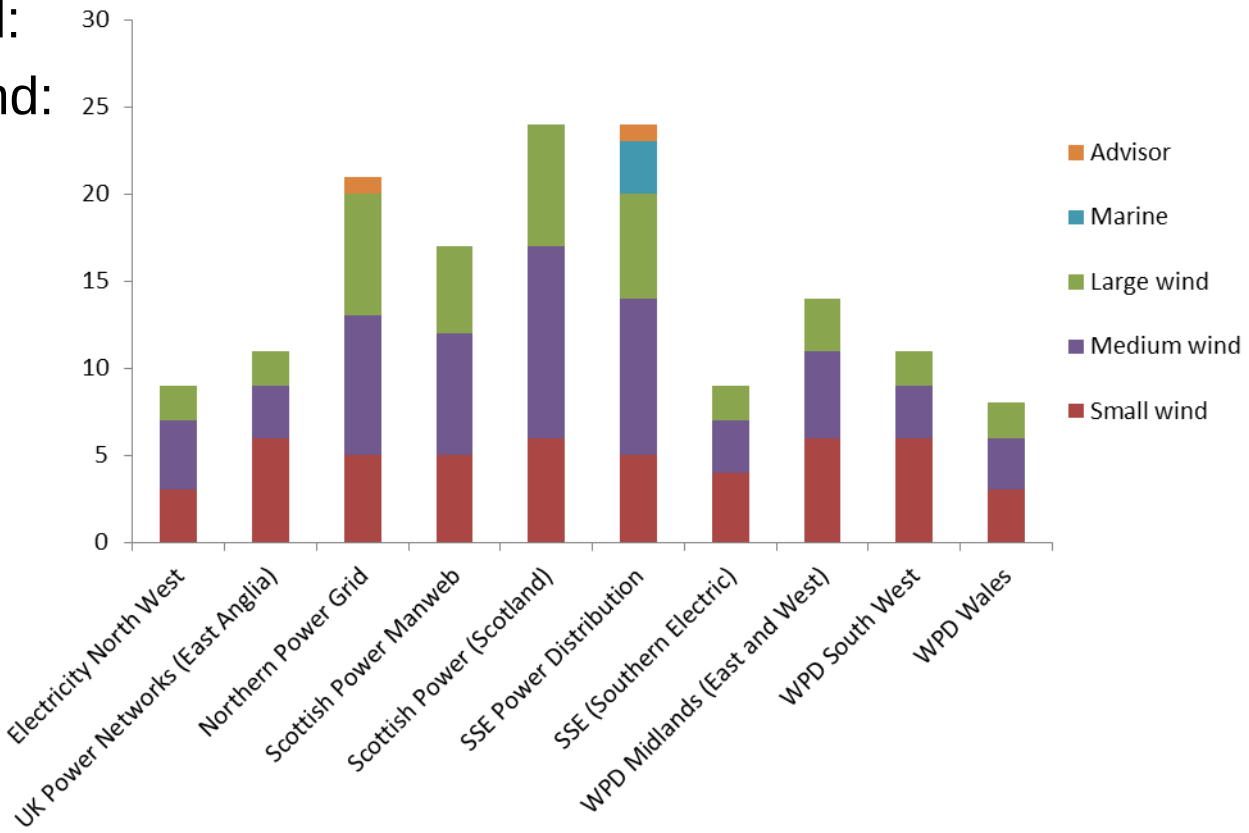
Scope to work togeth
projections by DNO r

Engagement

- Working relationship with ENA
- Individual relationships with DNOs
- Welcome:
  - DG connections guide
  - standard application form
  - LTDS availability
  - LCNF innovation
  - and some dynamic individuals

Survey of Recent DG Experience

- Our own member discussions and:
- Scottish Renewables members and:
- Garrad Hassan interviews
- September-November 2012
- 25 interviews, multiple projects
- Most DNO areas
- Small, medium, large, utility



Fundamentals 1: Consent and Connection

- Two un-coordinated but interrelated ‘regulated’ processes
- Financial Closure requires both workable consent and grid connection
- Two basic strategies from developers

Accept connection offer ahead of planning consent

i) Planning may be refused – putting substantial connection deposit potentially at risk
ii) Planning may be delayed but connection offer withdrawn due to lack of development progress

Project at risk that workable planning consent is obtainable

Secure planning ahead of grid connection acceptance

i) Connection offer may expire before planning is achieved
ii) Network capacity may be unavailable once planning is obtained

Project at risk that grid connection is available on viable terms

- Both strategies expose a developer to risks which they have no power to mitigate

Fundamentals 2: Cost, Risk, and Programme

- A DNO provided a connection offer for a 20MW wind farm which includes a river or rail crossing as part of the works.
- Nominally lowest cost solution but wayleaves possibly risky – developer concerned about cost or programme overruns.
- Developer was aware of alternative, less risky, but higher cost solution. Not all developers, esp. new entrants, would be.

DNOs have a regulatory requirement to provide connections offers at **least cost** to the developer.

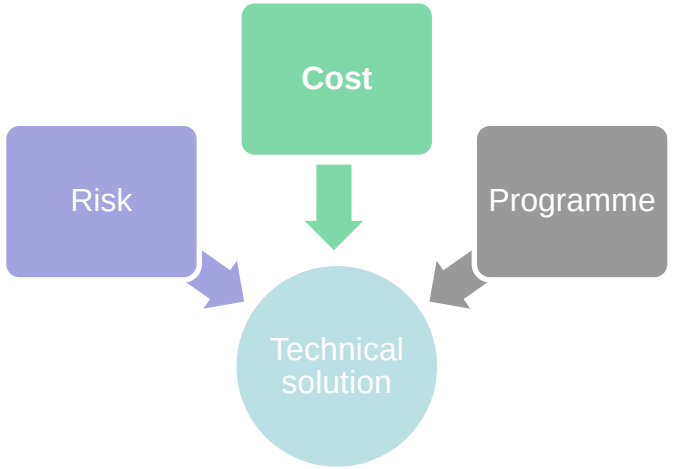
Possible mitigations:

Informal *– Pre-application dialogue with DNO to give an appreciation of relative importance of cost, risk and programme.*

Formal - *Requirement on DNO to notify developer of alternative more costly options within +X% of least-cost option:*

As part of Connection Offer;

Or during preparation of the Connection Offer.



"Least cost' does not always equate to 'most appropriate' connection offer…"

Issues Still Encountered

- Customer service – not really
- Application process – onerous, inflexible
- Information – inadequate on LV
- Technical – little innovation or unexplained requirements
- Charging – opaque
- Choice – limited
- Feedback – risky

Is it Important in the Scheme of Things?

Grid issues are yet another hurdle for wind generation.

- Project delays and uncertainty = cost
- Foregone electricity generation = cost
- Lack of competitive pressure on DNO = cost
- Barriers to entry for competition in generation = cost
- Slower progress towards environmental targets = cost

A Work Programme

Issue	Suggestions	By When?
Customer service	• monitor customer satisfaction • checklist of what customers can expect • account managers • recruitment of non-technical support	?
Application process	• iterative process • database of turbine specs • option for extension of validity • contestable works part of same application	?
Information provision	• information on LV network, voltage issues, and plans	?
Technical	• innovation collation and roll-out • safeguards against unnecessary works • consistency in standards interpretation • use of legacy projects and strategic developments	?
Charging	• fair deposit • itemised breakdown of costs, incl. contestable • application fee	?
Choice	• address barriers to competition	?
Feedback	• risk-free appeals process • customer feedback seminars • issues log – also to capture new issues	?

Next steps

- A prioritised, scheduled, co-ordinated work programme
- Monitoring of progress – not just an annual discussion!
- RIIO-ED1 business plans: smart, co-ordinated engagement
- In the longer term, will Ofgem's proposed incentive schemes under RIIO-ED1 address the outstanding issues?

END

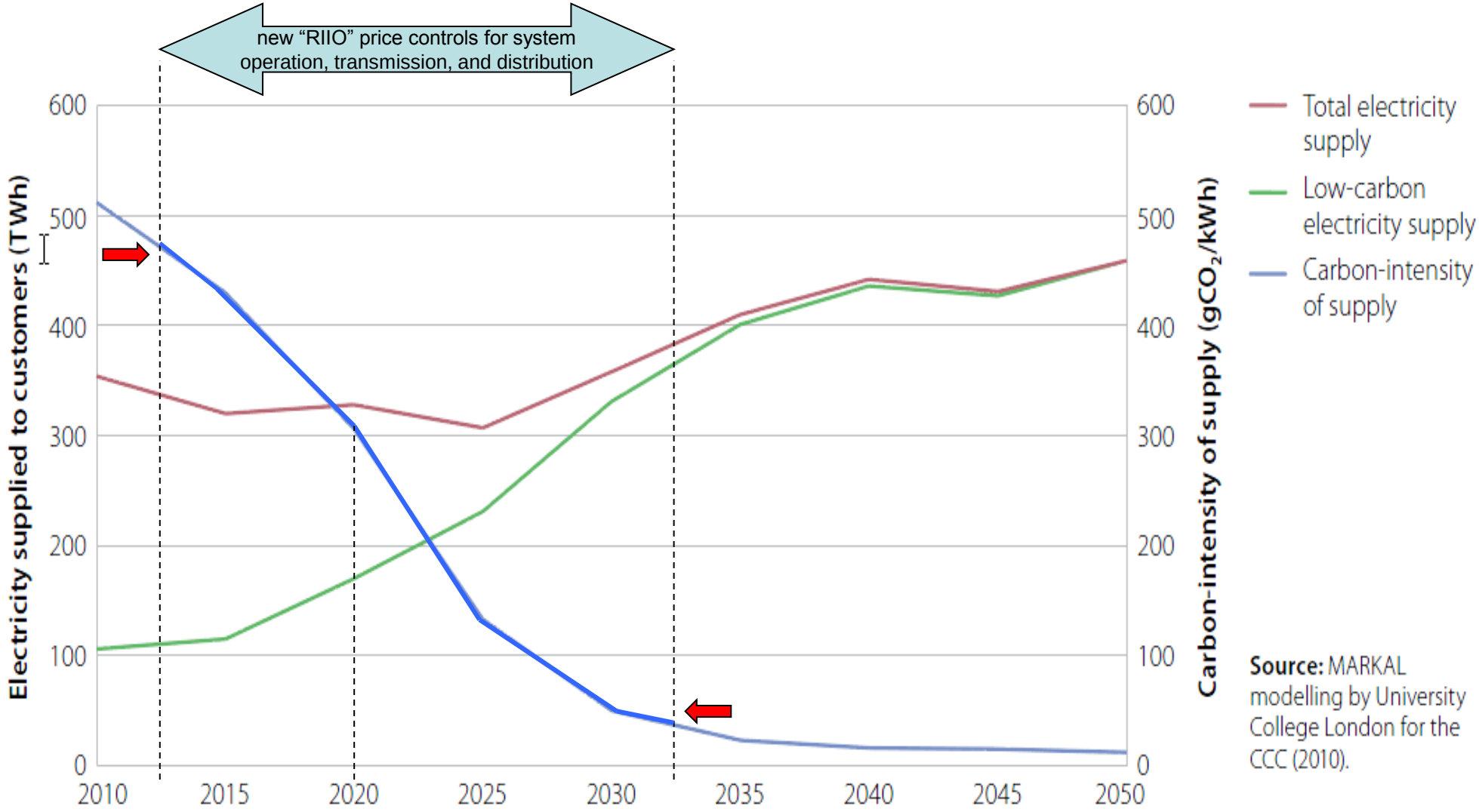
What we would like to see from DNOs

- Consultative, Iterative Connection Process
- Good Customer Service
- Pro-Active Outreach and Information Provision
- Reasonable Network Protection Measures & Standards
- Timely, Low-Cost Connections without Hoarding

…

- Innovation Roll-out (not just LCNF projects)
- Facilitation of Low-Carbon Technology Roll-out
- Active Network Management

Progress on Decarbonisation of Electricity



Source: The Committee on Climate Change www.the-ccc.org.uk