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Regulated Transmission Planning and Delivery

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Scale of investment Transmission investment 2020 split by type

Investment in GB Electricity Infrastructure by 2020:

- *Generation £75bn*
- *T & D Networks £35bn*

It is vital to ensure that transmission investment will be undertaken in the most efficient manner, while not compromising new renewables connections and reliability

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Integrated investment and delivery: strengths according to market participants (1/2)

Transmission planning is **centrally** determined and delivered by incumbent TOs (similar to current GB onshore regime).

This approach would support:

- holistic balance of short and long-term network costs, by a single body with expertise in both network assets and operation
- higher users benefits, through network developers who make proposals that can be directly valued by users
- to exploit economies of scales, that includes integrated solutions

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Integrated investment and delivery: strengths according to market participants (2/2)

- to minimise environmental impacts of piecemeal/incremental designs
- to minimise barriers to entry for new generation through anticipatory investment
- to optimise the connection of new capacity, especially interconnectors
- to minimise operational/maintenance complexity
- expeditious delivery of new investment

Challenges and key necessary changes

Key changes are needed to overcome potential weaknesses of the framework

- Network charges, for users to value (and therefore pay for) the real costs of the proposed investment solutions and balance them against benefits
- Probabilistic security standards, to assess economic efficiency and reliability of non-assets-heavy solutions in an integrated manner

Further weaknesses might be:

- Conflicts of interests of TSO (address through business separation, reporting and transparency**?**)
- Need to scrutinise technically TOs investment solutions (address through incentives to TOs, users network charges, and increased regulatory expertise**?**)

Why not to decouple planning and delivery?

- Decoupling planning from delivery would impede designers to remain liable for designs proposed (incentives on ISO or IDA?), especially important for anticipatory investment.

- Needed coordination would be unlikely to arise in a market-led environment, where generators are fundamentally competitors amongst themselves (this may explain why voluntary integration of multiple projects in current GB offshore regime has not occurred), ending up in piecemeal network development.

- Risks of costs overruns, longer delivery times and even non-delivery, under an auction regime for delivery