

# What needs to happen to make the grid fit for purpose in 2020?

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BWEA30

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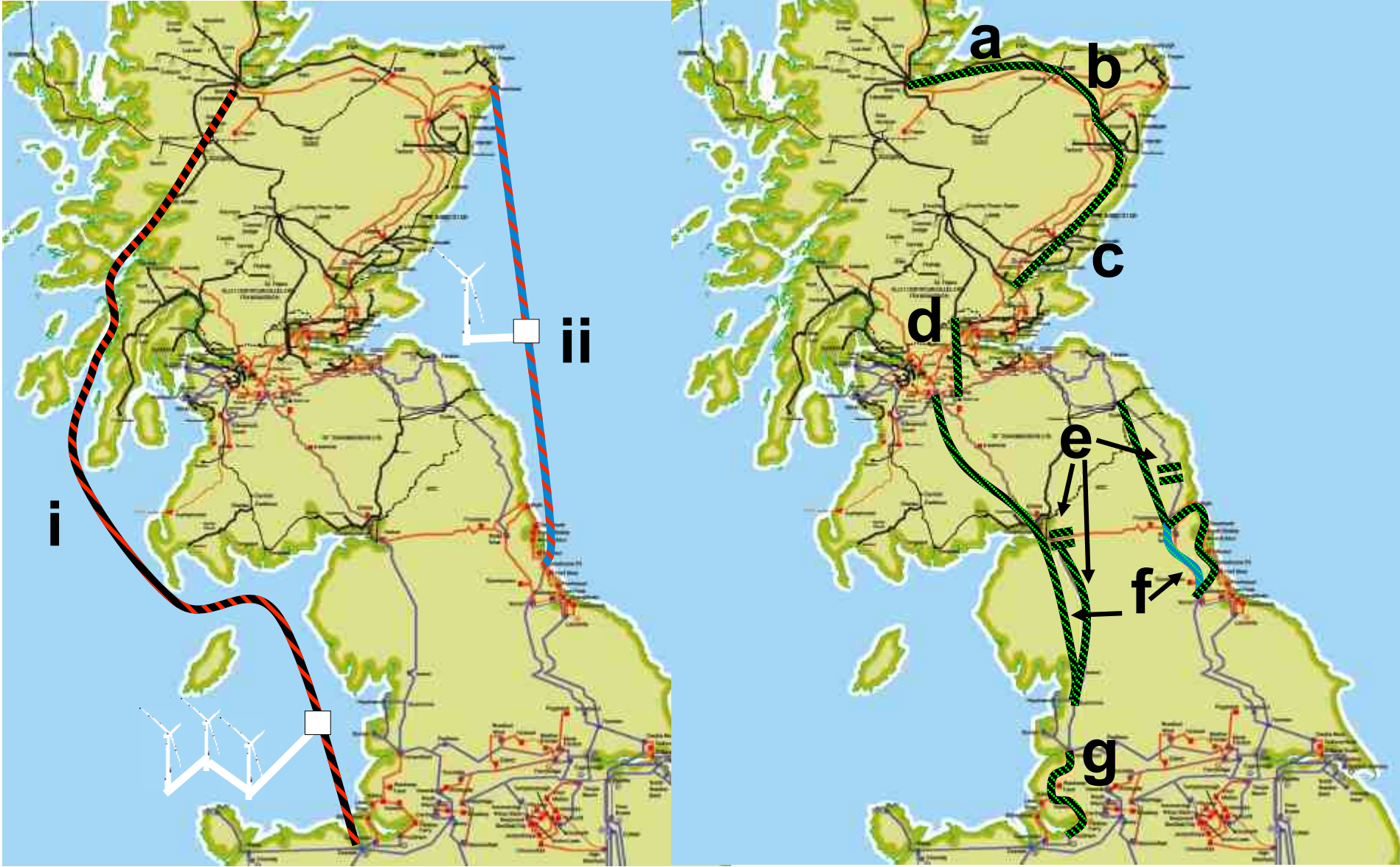
Regulatory Strategy Manager

# Transmission changes needed

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- ◆ More connections. Strengthened infrastructure. Faster.
- ◆ Co-ordinate offshore & onshore developments
- ◆ Some key network investments anticipate need (not just responding to users at financial close)
- ◆ Use existing capacity better (especially given variable nature of wind)
- ◆ Pursue all short-term fixes

# Getting Renewables from Scotland

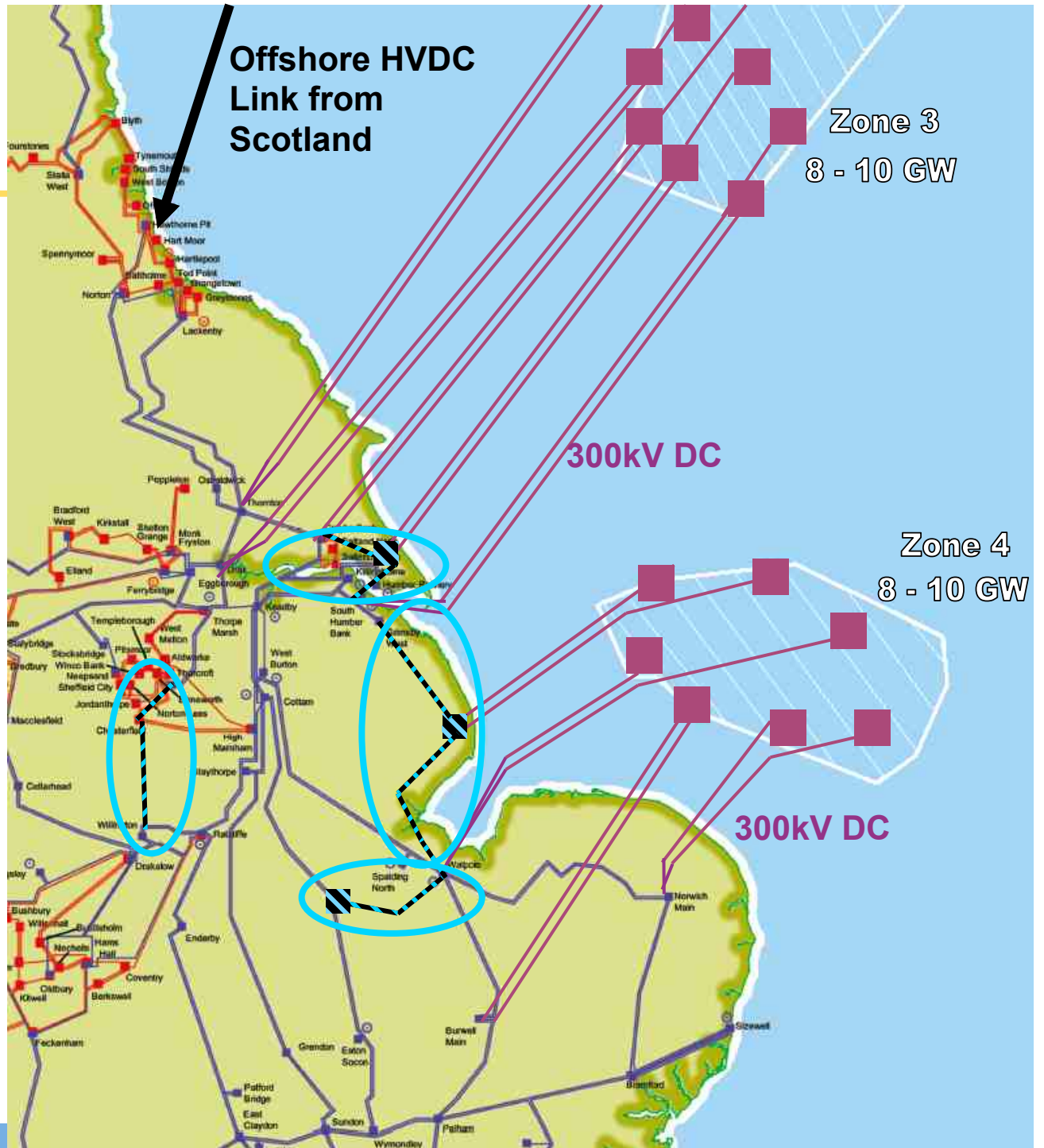


# Connecting Onshore Windfarms in Wales



# East Coast

## Onshore & Offshore Networks



# Anticipatory investment

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- ◆ Network does not always wait for financial commitment from users
- ◆ Networks risk investment ahead of firm need
  - ◆ Aligning construction programmes
  - ◆ Facilitating further access
- ◆ In return for rewards for doing it right
  - ◆ The right assets built
  - ◆ Users accommodated more quickly
  - ◆ Economies of scale correctly anticipated

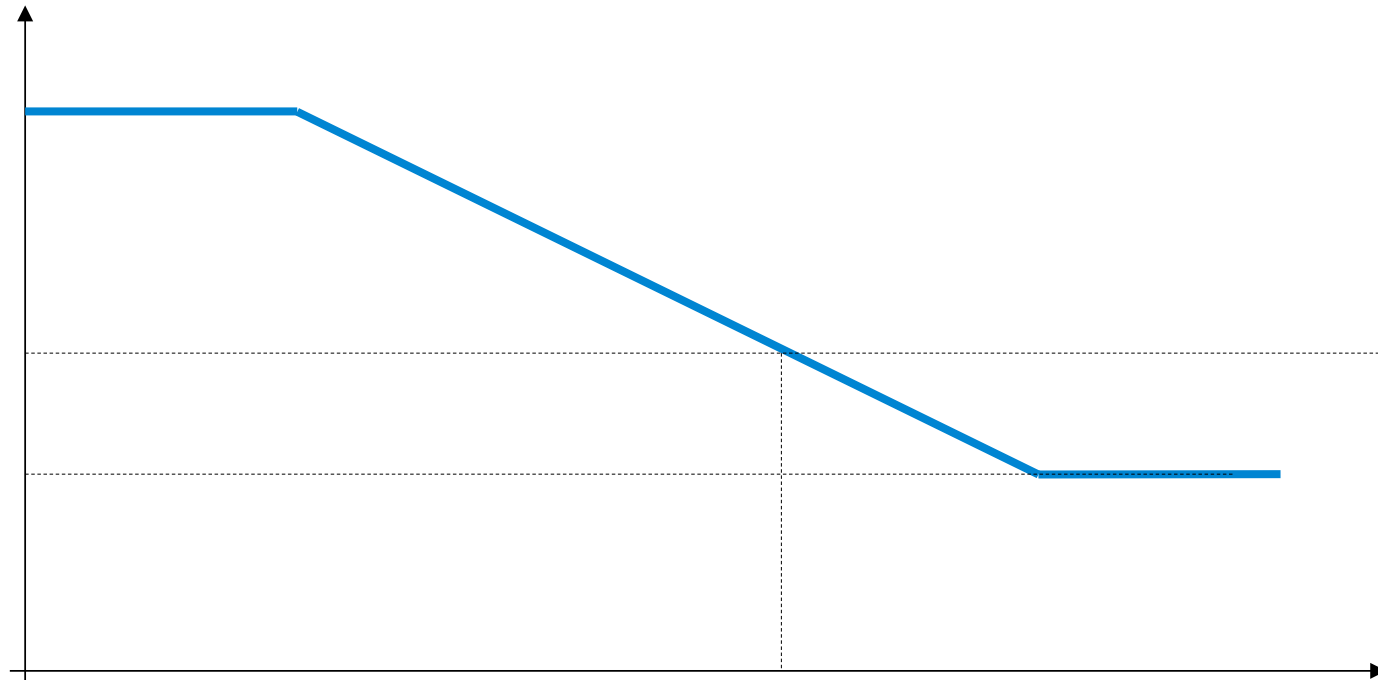
# Incentive Arrangements

Return/Revenue

Enhanced

Normal

Floor



Successful connections  
- faster than default, utilised

Unsuccessful connections  
- Slower than default, under utilised

Return/Revenue linked to success of investment **nationalgrid**

# Transmission Access - What's wrong?

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- ◆ New generation can't get timely access to the transmission system
  - ◆ GB queue stretching out beyond 2015
  - ◆ Closure uncertainty (what capacity can be re-used?)
- ◆ Current (all firm) access may not be appropriate with increased volume of renewable generation
  - ◆ Characteristics of wind mean that sharing of capacity (between wind and conventional) much more important

# A different approach

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- ◆ National Grid proposed a suite of framework changes that could be used to implement 3 access straw men
  - ◆ Consideration of all options more likely to result in the right answer
- ◆ National Grid organised these proposals into 3 working groups which consider access (CUSC) and charging together
  - ◆ Concerns expressed by industry – difficult to discuss CUSC and charging issues in isolation

# What are the models?

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- ◆ Connect & manage
  - ◆ Firm connection date provided by SO in exchange for firm financial commitment
  - ◆ Operational costs caused when reinforcements cannot be completed are socialised
- ◆ Evolutionary change
  - ◆ Flexible, cost-reflective short-term access regime
  - ◆ Finite, tradable long-term access rights
- ◆ Capacity auctions
  - ◆ As evolutionary change, but long-term access rights are allocated by auction

- ◆ All models get new generation connected more quickly
- ◆ Different consequences for on-going regime

# Short-term Initiatives - GB queue management

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- ◆ **CAP150: TEC reduction**

- ◆ This allows NG to reduce user capacity bookings in circumstances in which it is clear that the user is not in a position to utilise them

- ◆ **Queue methodology**

- ◆ Use the quarterly reporting process to allow “gaps” in the queue to be reallocated to those best able to utilise them

- ◆ **TEC sharing**

- ◆ Consider options of new users sharing existing capacity

- ◆ **Derogations from planning standards**

- ◆ Identifying opportunities to use derogations to achieve earlier connection of generation projects ahead of enduring access reform

# Summary

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## Two issues to solve...

1. Build more transmission capacity faster

2. Allocate available transmission capacity more sensibly

## The proposals...

1. “Strategic Investment” in transmission

2a. Interim connect & manage

2b. Transmission Access Reform