

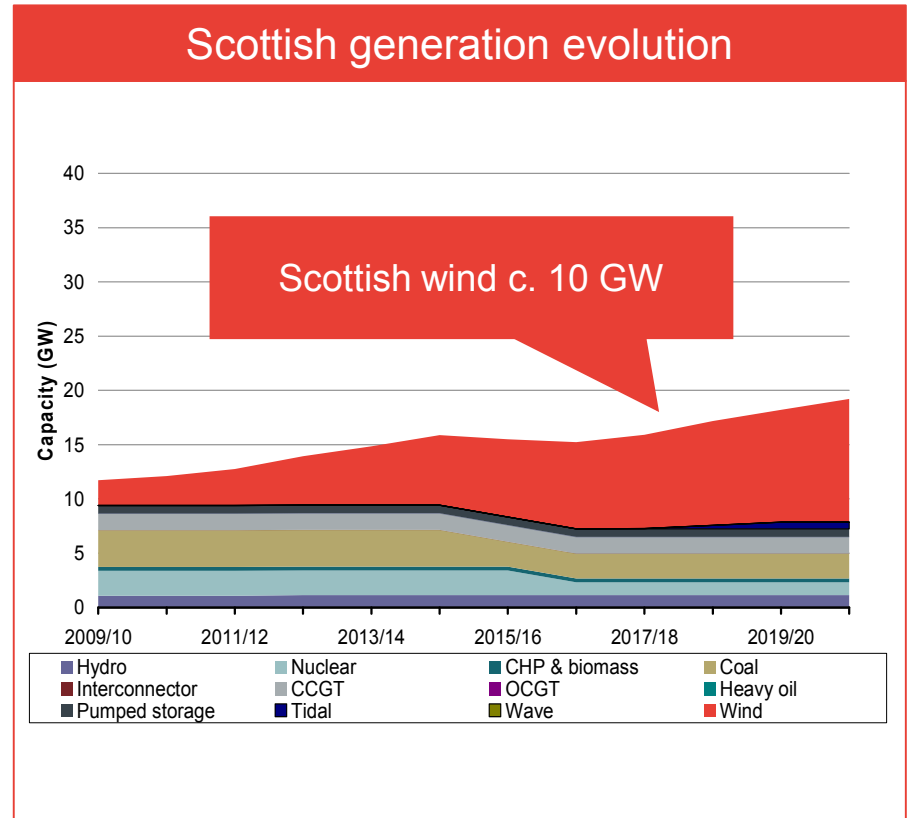
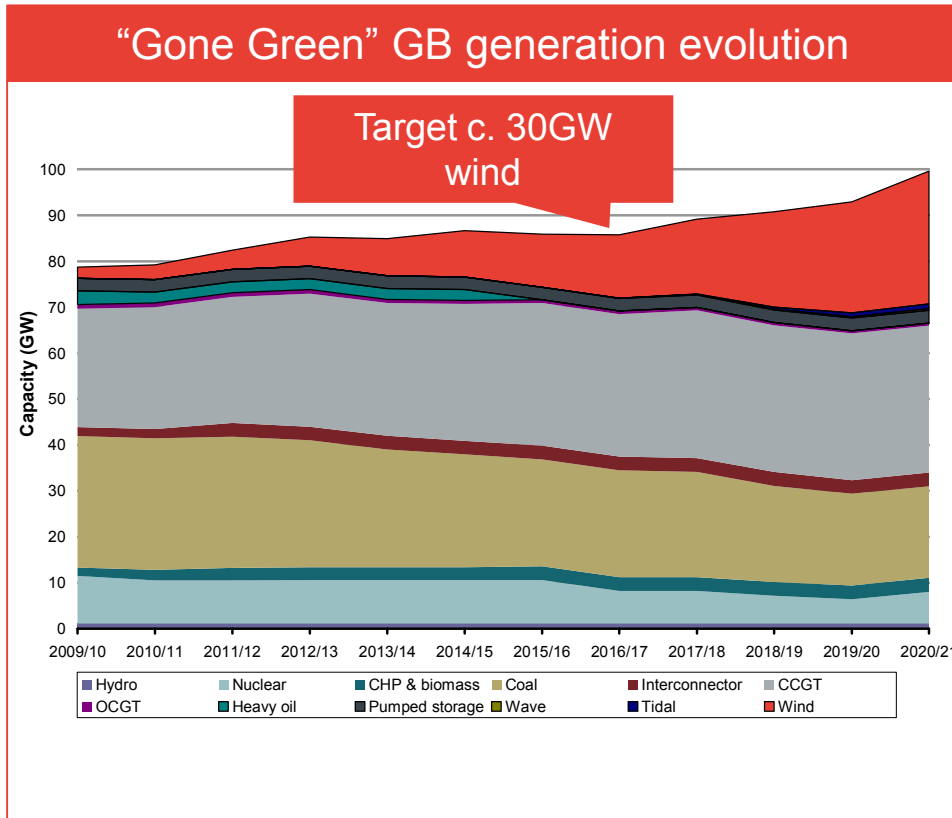


# When (the right) intervention is justified

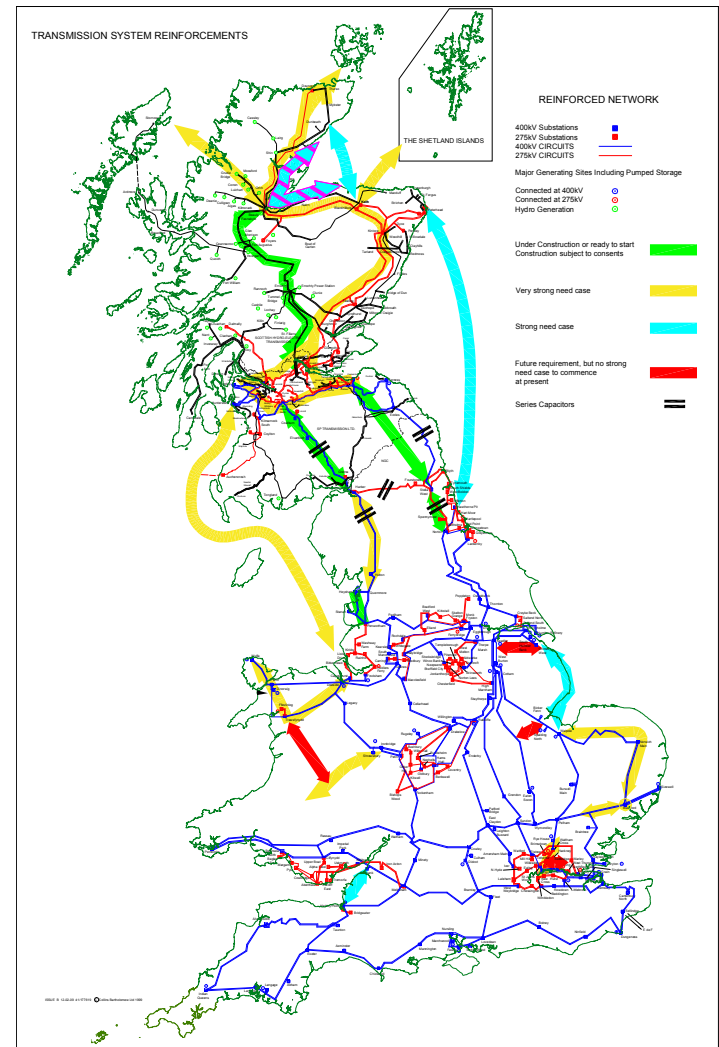
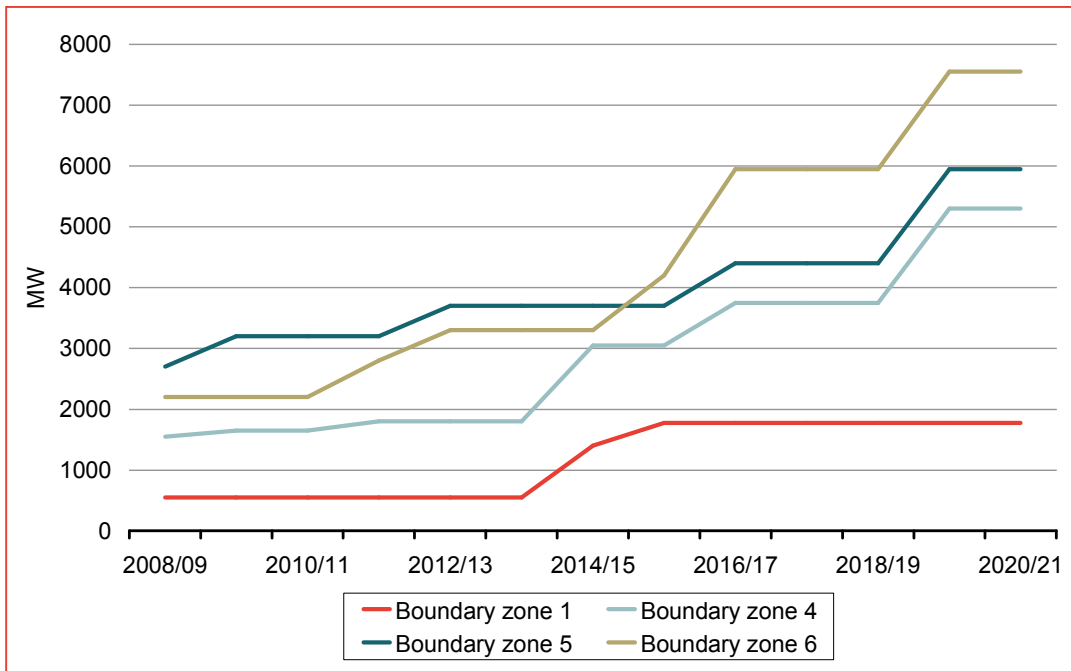
Renewables targets and transmission access

14 September 2010

# Government renewable targets imply the need for significant wind generation connections in Scotland



# To accommodate their output, major transmission reinforcements are required



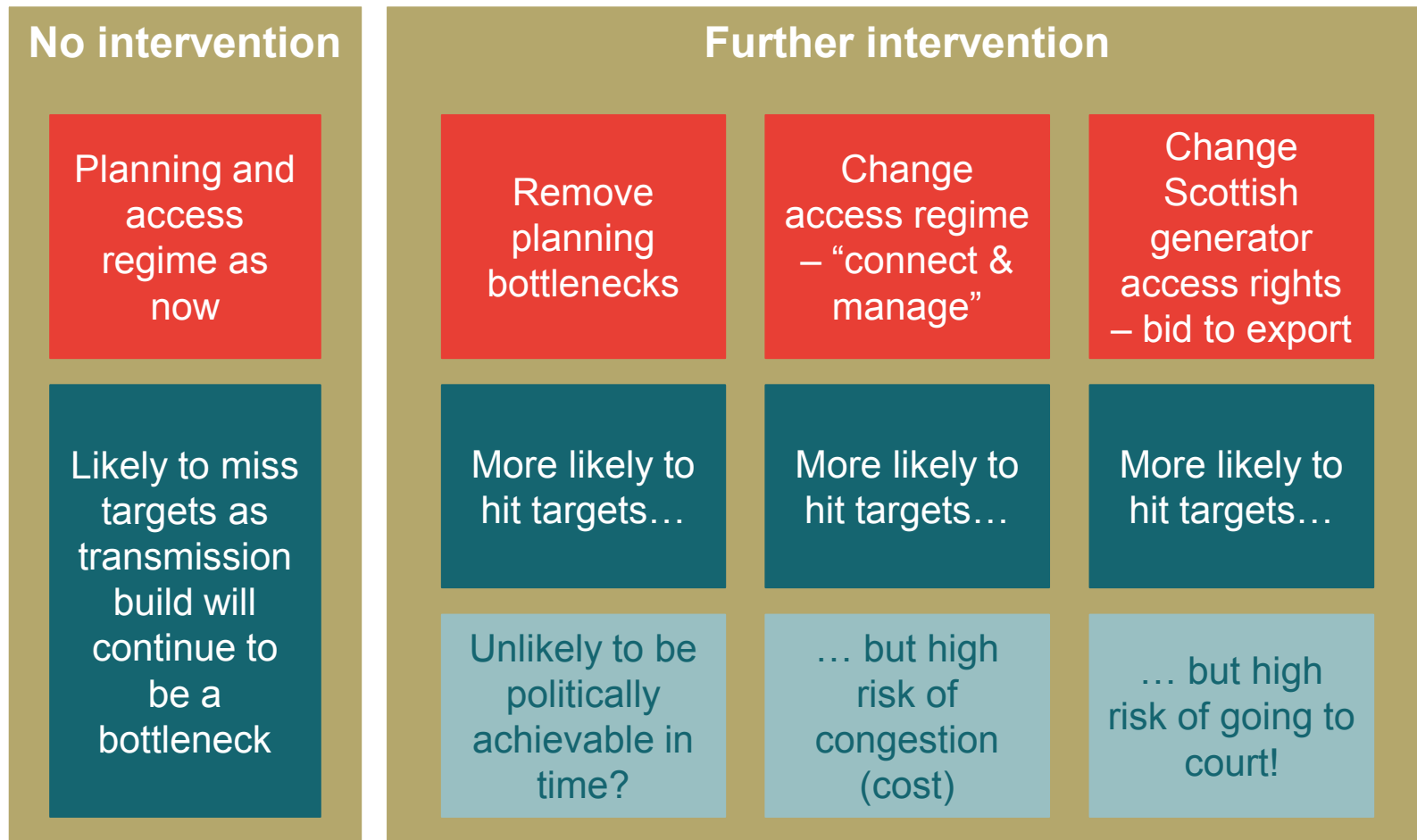
## In Scotland...

- Beaully-Denny line in 2012-13
- Interconnector in 2014-15
- Eastern and western HVDC projects towards end of decade.

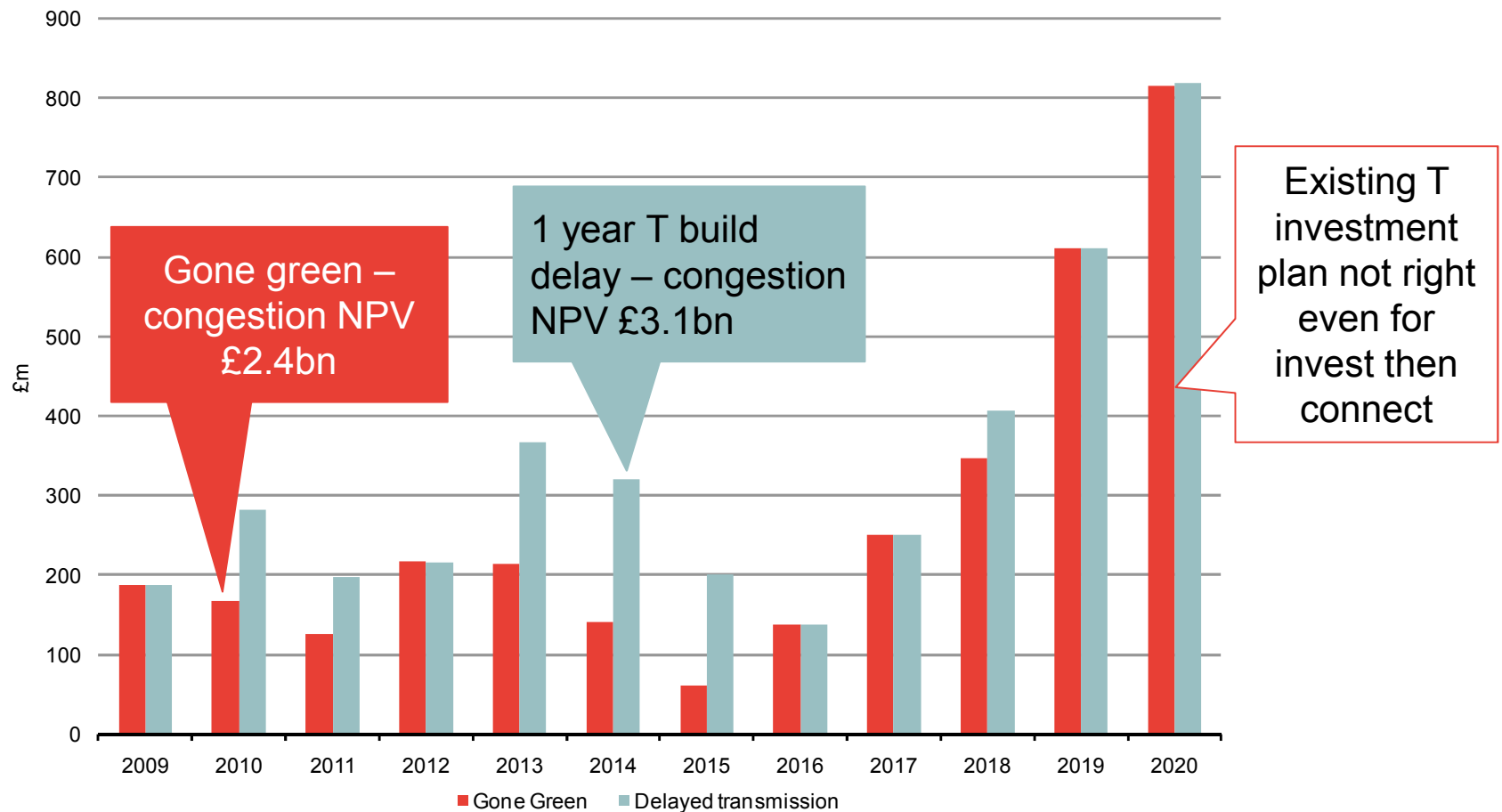
# Previous regulatory interventions mean problems are likely to arise from this dependency

Planning regime	<ul style="list-style-type: none"><li>● Significant lead time for new transmission build</li><li>● C. 10 years for a new line project (of which the majority results from the planning and approvals process)</li></ul>	<i>Scope for delay in T build</i>
“Invest then connect” access regime	<ul style="list-style-type: none"><li>● Access regime for regulated monopoly transmission network already defined in licences and codes</li><li>● Generation can connect only when “deep” system works complete</li></ul>	<i>Lack of T build is a bottleneck for renewables</i>
BETTA reform and access rights	<ul style="list-style-type: none"><li>● Scottish installed generation capacity &gt; demand + exports</li><li>● Before BETTA, Scottish generators had interconnector export access rights equal to interconnector capacity</li><li>● Regulatory intervention to implement BETTA<ul style="list-style-type: none"><li>□ removed the interconnector (generators have access to GB grid)...</li><li>□ ... and its capacity limitation, meaning generators have access up to their installed capacity (and are compensated if the grid cannot accommodate them)</li></ul></li></ul>	<i>Surplus generation (relative to T capacity) has a (potentially high) cost</i>

# So further intervention is needed if we are to hit targets through Scottish wind – but the policy choice is not easy!

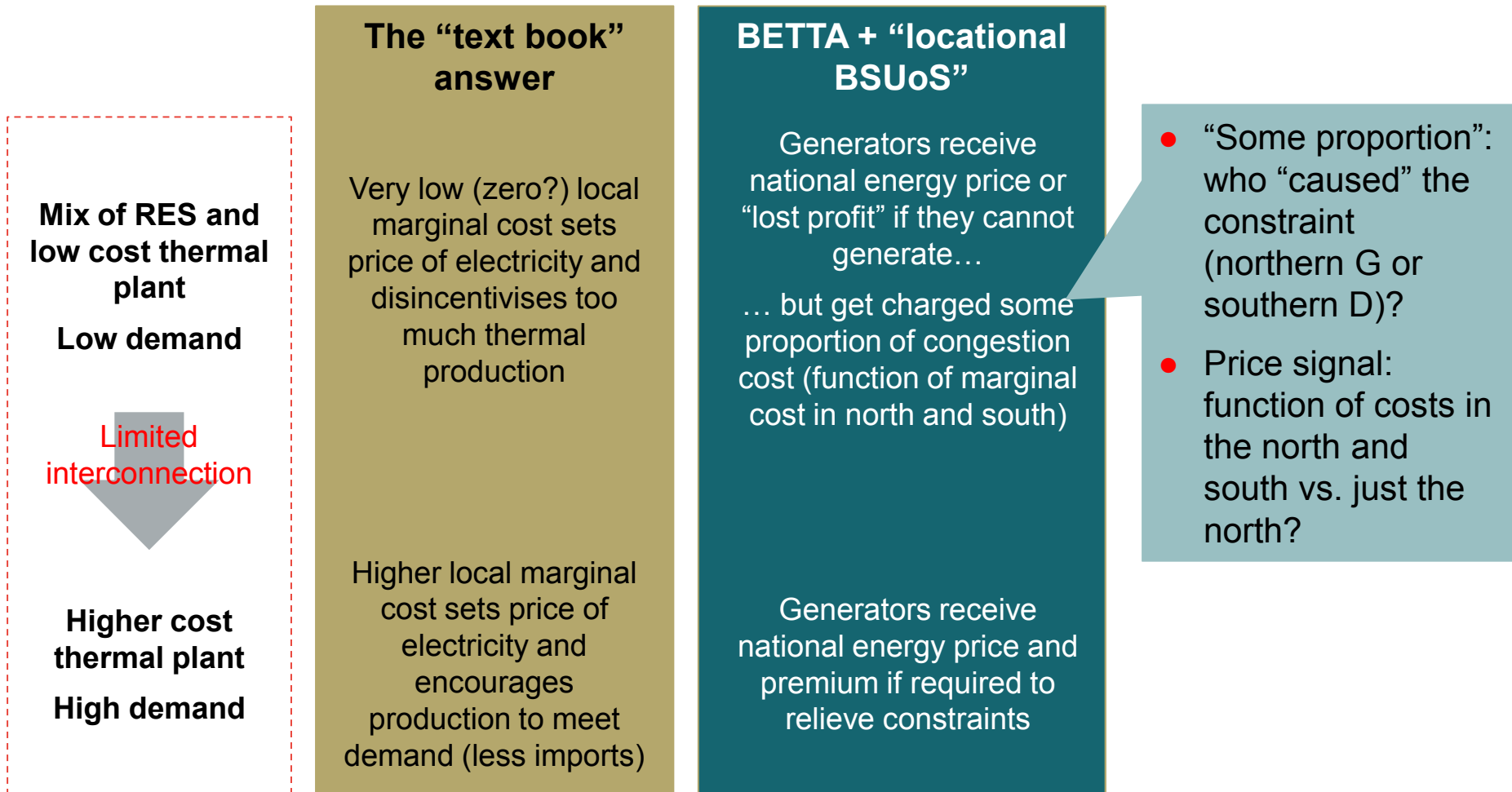


# The government is adopting a “connect & manage” regime – but the risk to customers is high...

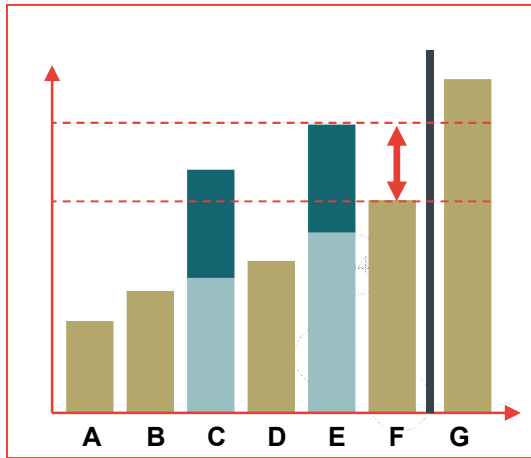


... as cost of congestion is recovered from generality of customers

# Proposed further intervention addressing symptoms of this regime (“charging the cost back”) is not the answer...

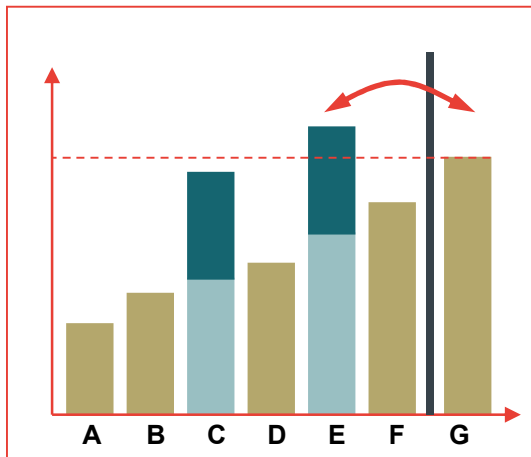


... indeed, it may increase prices and could result in inefficient despatch



### The “price” issue

- Risk of price increase to *all demand* even if congestion cost set competitively



### The “efficiency” issue

- If market power exploited in setting of congestion cost, merit order may not be in “least cost” order

Northern G
  Southern G
  Chargeback



## Rather, further intervention targeting (one of) the causes of the problem may be merited

- To meet targets, some further regulatory intervention is likely to be required. The first best answer might be changes to the planning system – but may not be credible
- Connect & Manage might be a “second best” intervention, but its risks should be managed...
- ... part of this involves monitoring participant behaviour which abusively influences constraint costs (Market Power Licence Condition)
- ... but part might also have been revisiting the specific impacts of BETTA on the risk of congestion costs as a previous major regulatory intervention
- Layering further distortions on the market to address the symptoms of the second best solution is not the right approach



Frontier Economics Limited in Europe is a member of the Frontier Economics network, which consists of separate companies based in Europe (Brussels, Cologne, London and Madrid) and Australia (Melbourne & Sydney). The companies are independently owned, and legal commitments entered into by any one company do not impose any obligations on other companies in the network. All views expressed in this document are the views of Frontier Economics Limited.

FRONTIER ECONOMICS EUROPE LTD.  
BRUSSELS | COLOGNE | LONDON | MADRID

Frontier Economics Ltd, 71 High Holborn, London, WC1V 6DA  
Tel. +44 (0)20 7031 7000 Fax. +44 (0)20 7031 7001 [www.frontier-economics.com](http://www.frontier-economics.com)