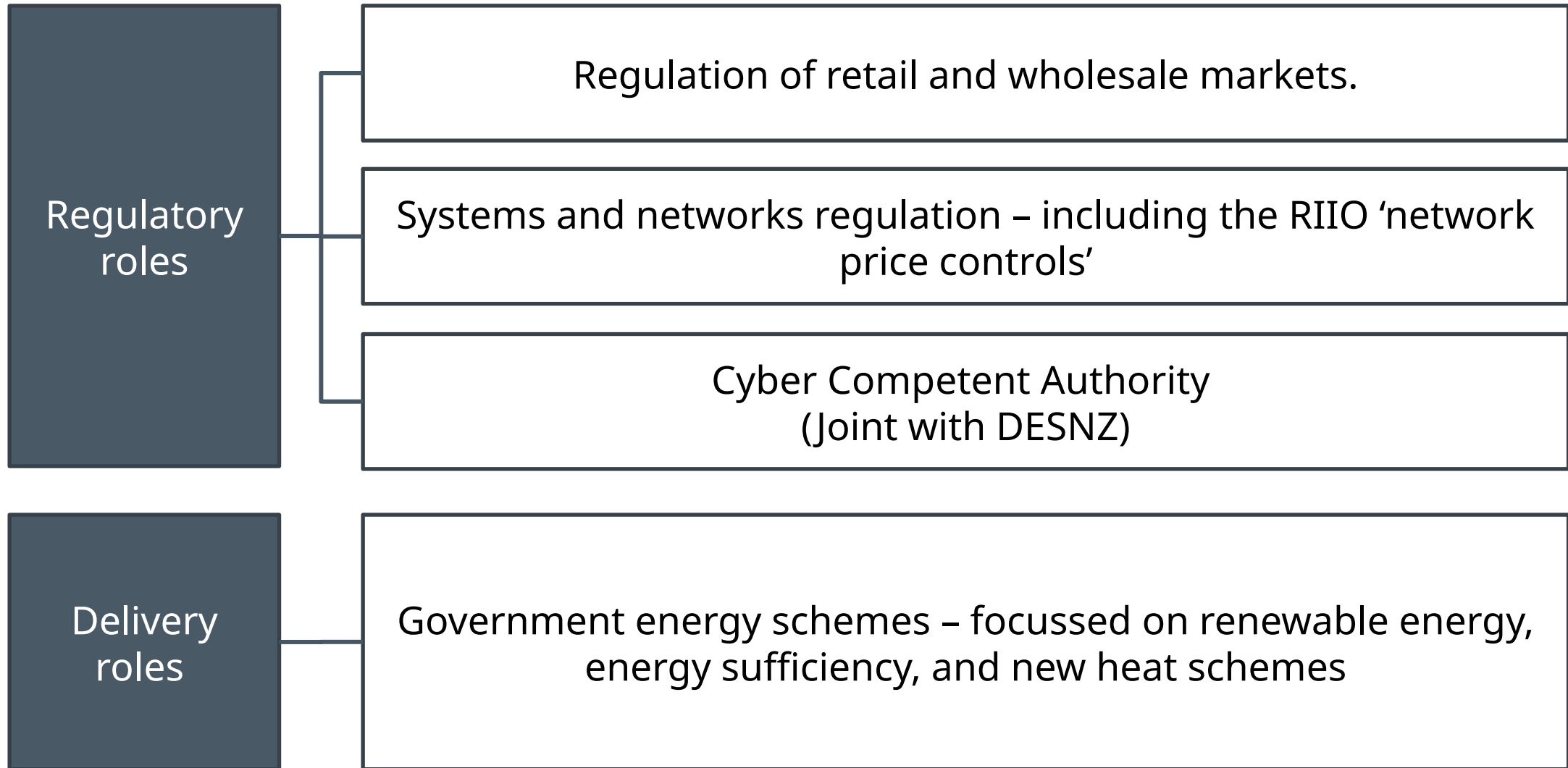


# RIIO-ED2: Preparing the electricity networks for a smarter, more integrated, low carbon energy system



**Steve McMahon**  
Deputy Director, Networks and Head  
of Scotland

**27 April 2023**



# We are taking action to plan the energy system for 2035, accelerate network build, and speed up connections to the grid

## National and local system planning

- Holistic network design (HND) published by ESO in July 2022 to meet 2030 targets for offshore wind
- HND second edition likely in 2023 to target post-2030 offshore wind (including ScotWind)
- Central Strategic Network Plan (CSNP) to be published in 2025, identifying all transmission network upgrades needed for 2035 target
- Now developing framework for regional system planning by FSO to do the same for the distribution grids.

## Accelerating network build

- Approved initial £22bn of investment in local distribution grids through ED2 Determinations, which is where much of anticipatory investment for heat and transport is needed
- Now consulting on the future of network regulation (Future Systems and Network Regulation) – focus on need to build on this acceleration model
- New 'ASTI' regulatory framework for accelerated transmission grid investment onshore, worth over £20bn

## Speeding up connections

- Priority to work with government and industry to resolve connection date delays
- Short term: better queue management will speed up connections to those wanting to connect in line with 2030 and 2035 targets.
- Long term: two key areas of potential focus: (a) offering connections in line with system plan; and (b) ability to prioritise projects based on likelihood of progress to connection.

# RIO-ED2: accelerating local distribution grid investment to support cleaner, cheaper and more secure sources of energy

£22bn+  
investment  
programme



- Doubling investment in network upgrades to support connection of more clean power and new demands, including millions of EVs and heat pumps
- Flexible and adaptive regulation to allow investment to respond quickly in-period to changing circumstances

Delivering net  
zero at lowest  
cost



- Overall bill impact flat in real terms, largely achieved through sharp efficiency challenge and lower cost of capital
- Encouraging new approaches to managing local systems, investing in innovation, and regulating to maximise the value from flexibility and other smart technologies

Delivering high  
quality network  
services



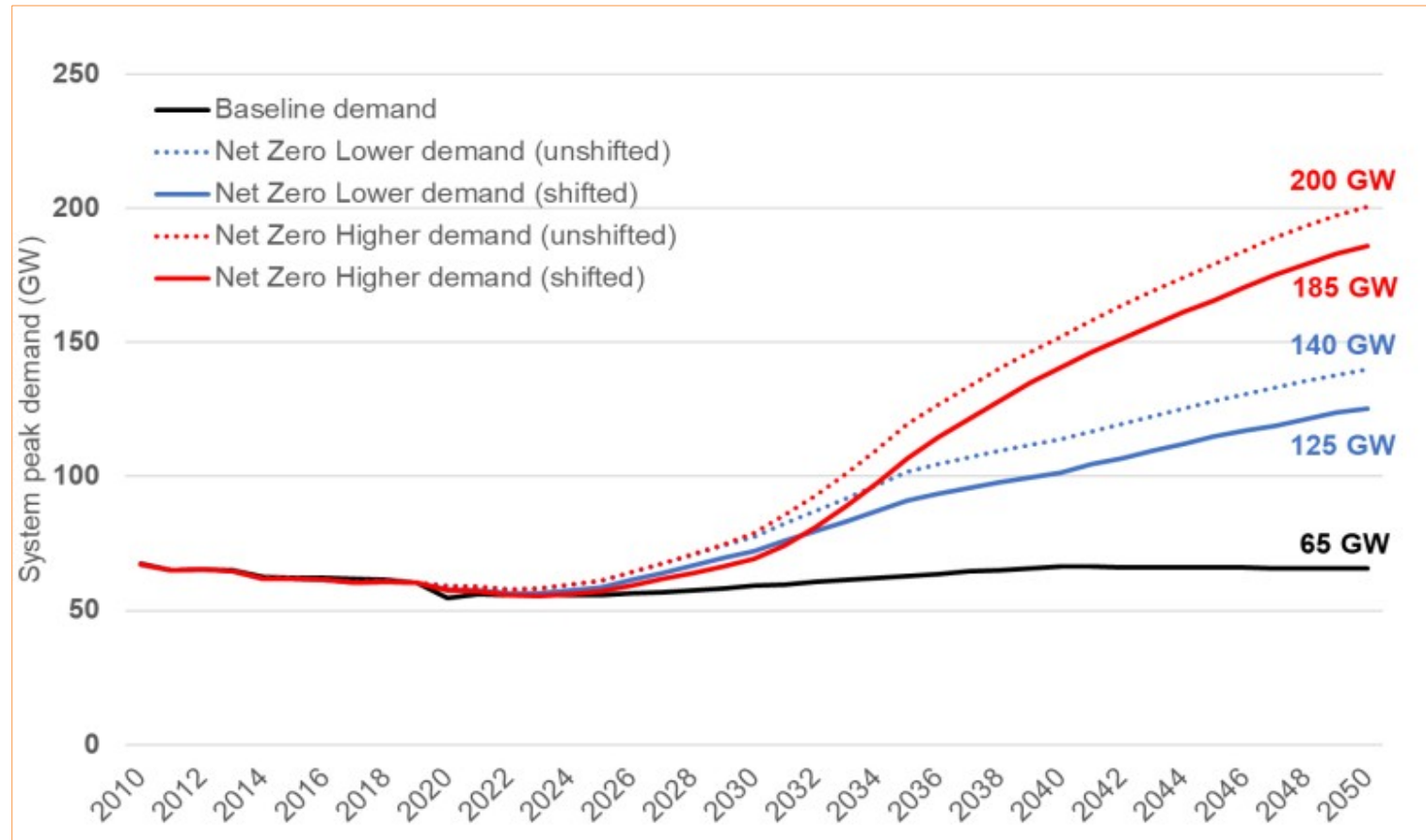
- Increased investment to improve network resilience and response to extreme weather events
- Tougher targets on reliability, connections and customer service, and improved protections for the most vulnerable
- New incentives for effective Distribution System Operation (DSO), major connections and vulnerability

# FSNR and reviewing the existing network regulation regime: is the RIIIO model still fit for purpose?

There are several changes which may require and/or enable changes to price controls:

- 1 **A step change in amount, location, timeliness, and type of investment needed - potential 2-3 times increase in peak demand vs current levels by 2050**
- 2 **The potential for new holistic and strategic network planning bodies**
- 3 **Increased data and digitalization with new information-gathering and processing capabilities**
- 4 **Wider system complexity and uncertainties**

System peak demand and the impact of DSR



Source: Ofgem/DESNZ in [Electricity networks strategic framework Appendix I: Electricity Networks Modelling \(publishing.service.gov.uk\)](#)

**Ofgem is the Office of Gas and Electricity Markets. We are a non-ministerial government department and an independent National Regulatory Authority. Our role is to protect consumers now and in the future by working to deliver a greener, fairer energy system.**

**We do this by:**

- **working with Government, industry and consumer groups to deliver a net zero economy at the lowest cost to consumers.**
- **stamping out sharp and bad practice, ensuring fair treatment for all consumers, especially the vulnerable.**
- **enabling competition and innovation, which drives down prices and results in new products and services for consumers.**

[www.ofgem.gov.uk](http://www.ofgem.gov.uk)