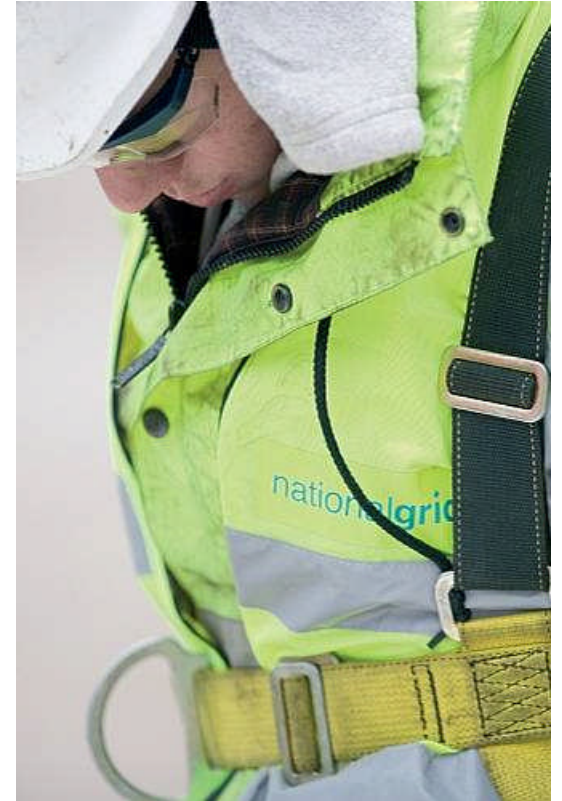


# Future Networks

## Five minutes, no nonsense

Duncan Burt, All Energy 2010



**nationalgrid**

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# Contents

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1. Back to basics

2. Key Parameters – an example

3. The proposition

# Back to basics – network obligations

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- ◆ Facilitate competition
  - ◆ Connect people
  - ◆ Don't discriminate
  - ◆ Enhance/support the wider industry investment proposition

# Back to basics – network obligations

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- ◆ Facilitate competition
  - ◆ Connect people
  - ◆ Don't discriminate
  - ◆ Enhance/support the wider industry investment proposition
- ◆ Act in a co-ordinated way
  - ◆ Listen to everyone, act in concert
  - ◆ Join things up, short term *and* long term

# Back to basics – network obligations

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- ◆ Facilitate competition
  - ◆ Connect people
  - ◆ Don't discriminate
  - ◆ Enhance/support the wider industry investment proposition
- ◆ Act in a co-ordinated way
  - ◆ Listen to everyone, act in concert
  - ◆ Join things up, short term *and* long term
- ◆ Plan, Build, Operate and Maintain efficiently and economically
  - ◆ Run our business well
  - ◆ Minimise the *overall* cost to consumers *over time*

# Back to basics - overarching aims

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- ◆ Be a valued partner to you
- ◆ Deliver vital low carbon infrastructure alongside other network companies
- ◆ Grow our business sustainably



# Parameters – new project

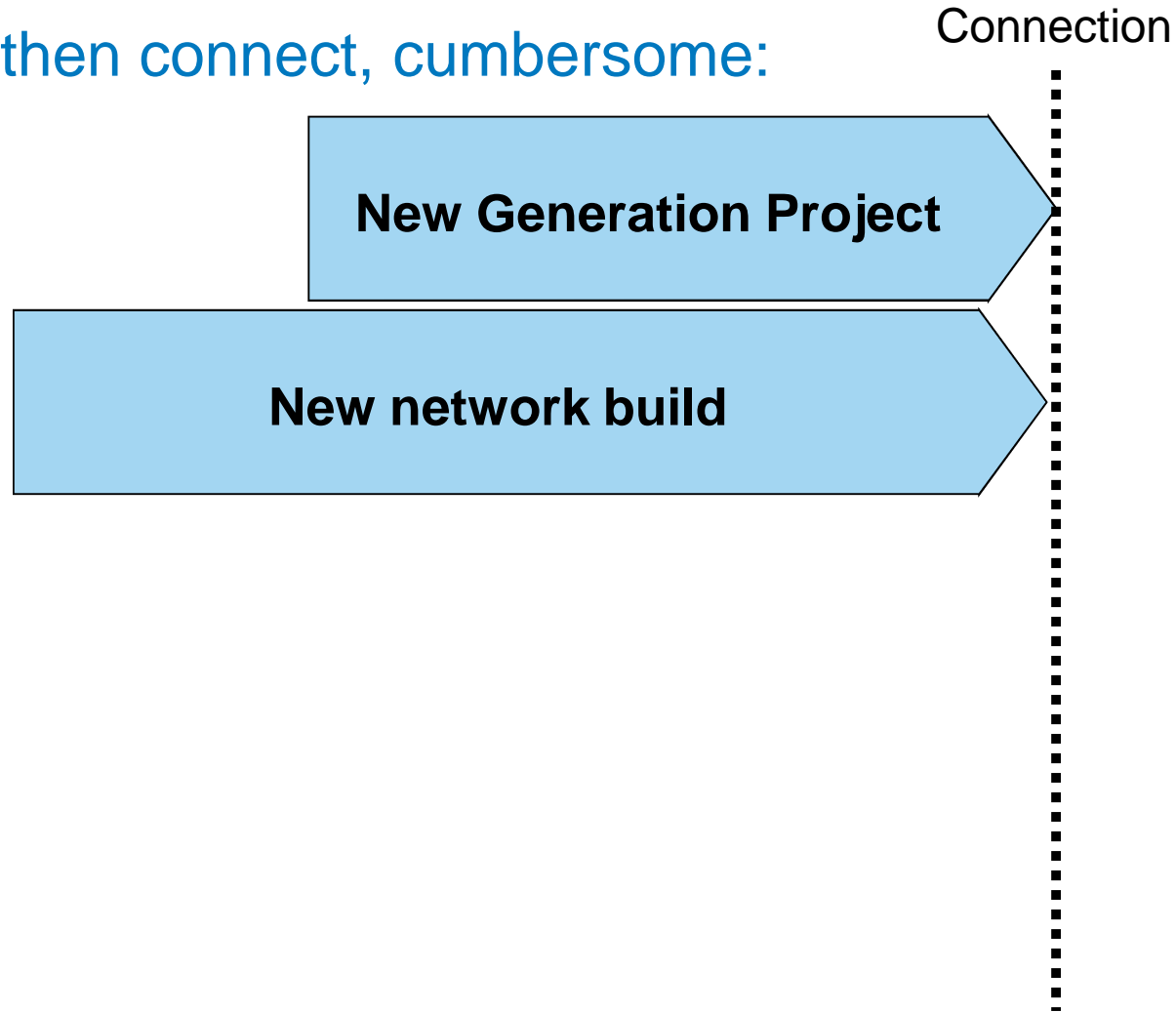
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- ◆ Projects need certainty of connection date
  - ◆ But are uncertain and like any large project, may need/choose to delay
- ◆ Planning consents are challenging
  - ◆ Creates uncertainty around network delivery
- ◆ Answer:
  - ◆ Pro-active support from us – hard work minimises cost
  - ◆ De-couple connection from wider network build where possible..... .....An example

# An example: connect and manage

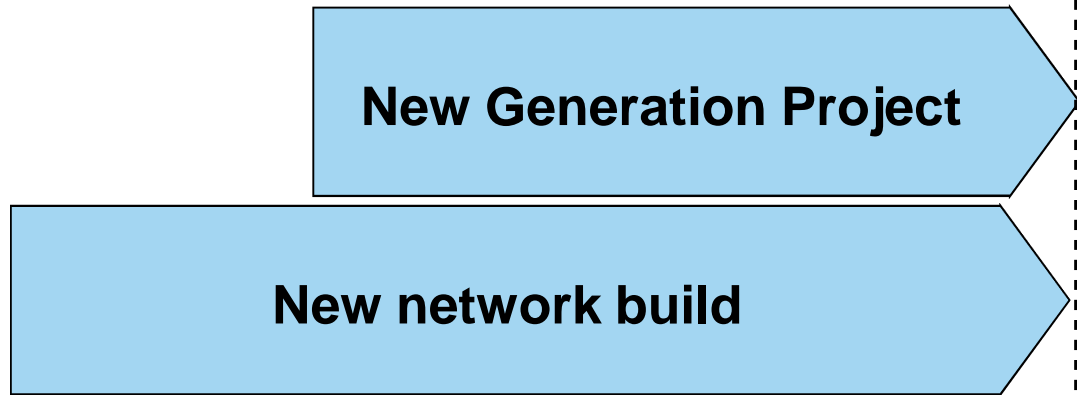
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- ◆ Invest then connect, cumbersome:

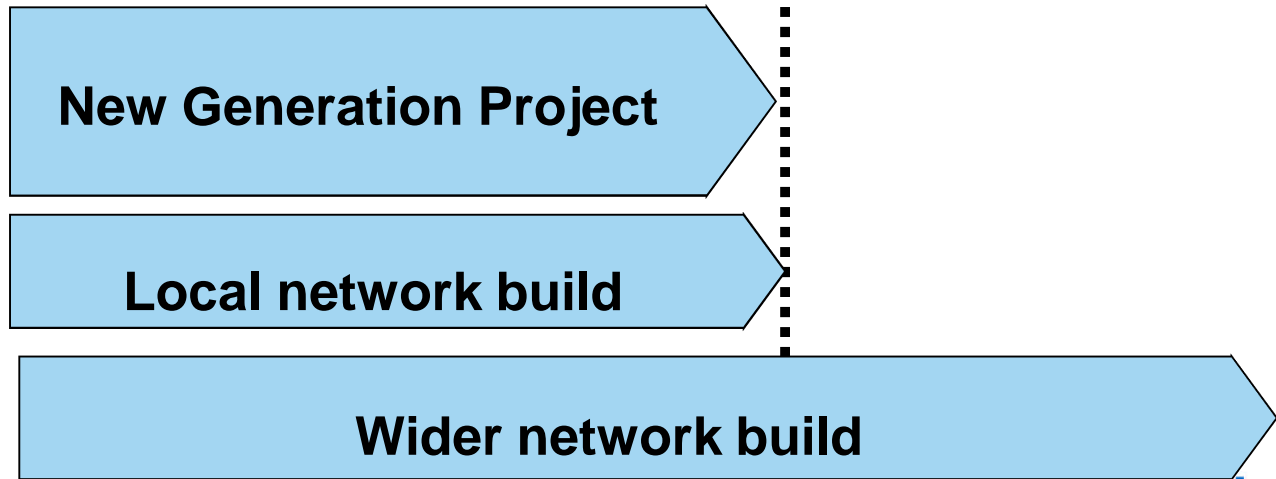


# An example: connect and manage

- ◆ Invest then connect, cumbersome: Connection



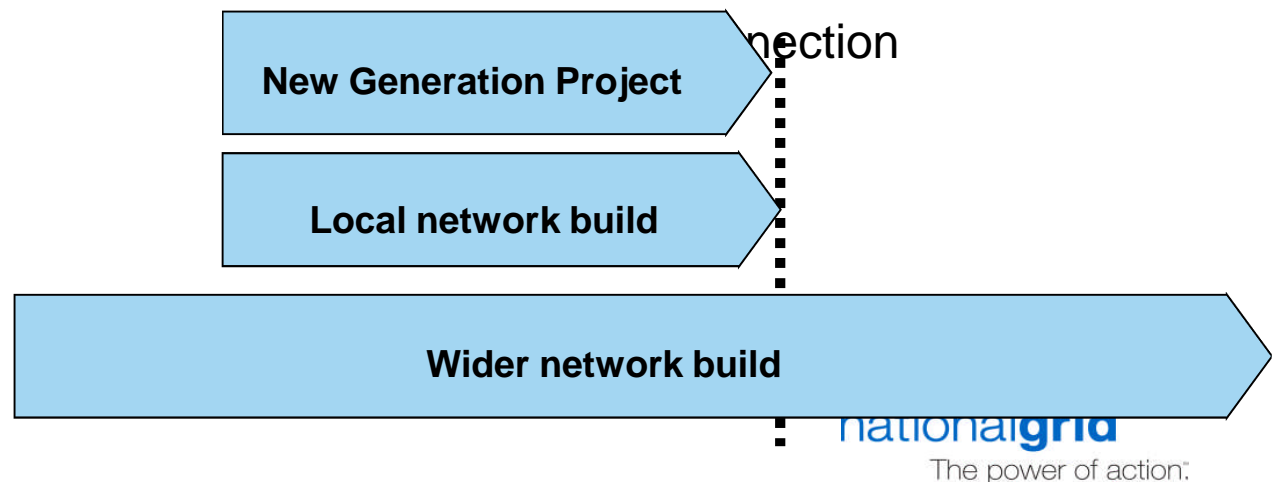
- ◆ Connect and Manage: flexible



# Connect and Manage: powerful principles

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- ◆ Connect and Manage brings:
  - ◆ **Flexibility** to project
  - ◆ Wider network investment undertaken with more **certainty**
  - ◆ Trade off:
    - ◆ Additional constraint cost risk for greater long term investment certainty for project and network:
    - ◆ **Cheaper in the long run...**



# Wider network investment

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- ◆ Need to act strategically
  - ◆ Build towards long term vision
  - ◆ Co-ordinated planning of single on and offshore network
  - ◆ View networks at a national area and a European level
- ◆ Always remember, planning consent remains the greatest risk

# Long term network proposition

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- ◆ To deliver long term assets effectively and efficiently we need:
  - ◆ A close partnership
  - ◆ Flexibility when committing to assets
    - ◆ Connect and Manage
    - ◆ Low cost 'Future proof' options
  - ◆ Build the wider network strategically
  
- ◆ Framework should then provide for long term stable signals:
  - ◆ Network Charging
  - ◆ Future Network use

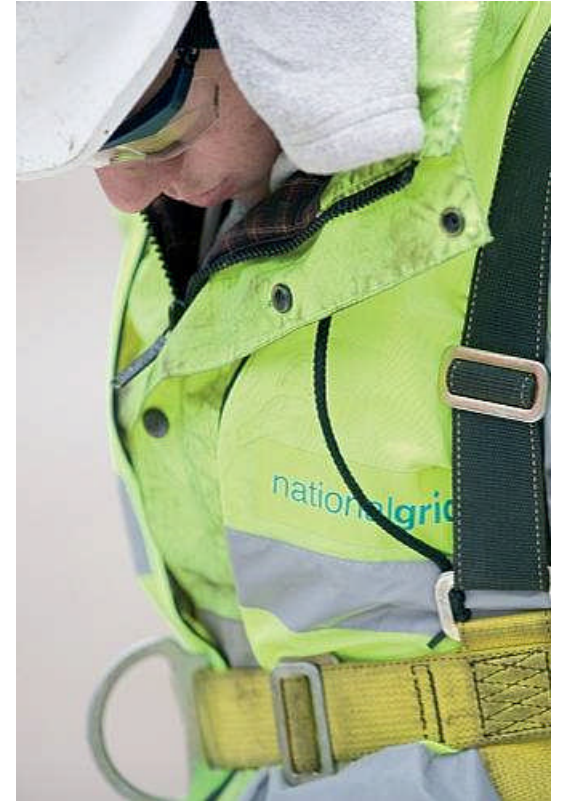
# Our promise

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- ◆ Work closely with our customers/stakeholders
- ◆ Innovate to manage risk and investment cost
- ◆ Continually review and re-optimize



# Thank you

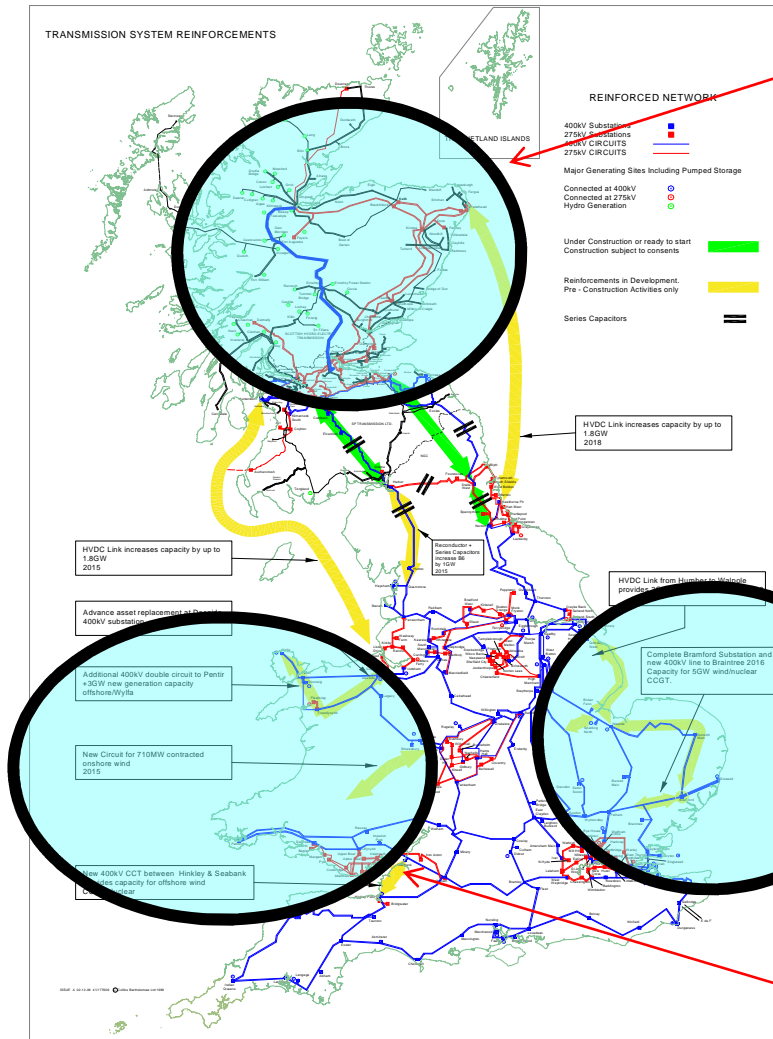


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# Where are we: Network build



## Scotland

Driven by onshore and offshore

## East Coast

Driven by offshore / nuclear

## South & West

Driven by nuclear/wind

Electricity Networks Strategy Group: transmission network vision (March 2009)

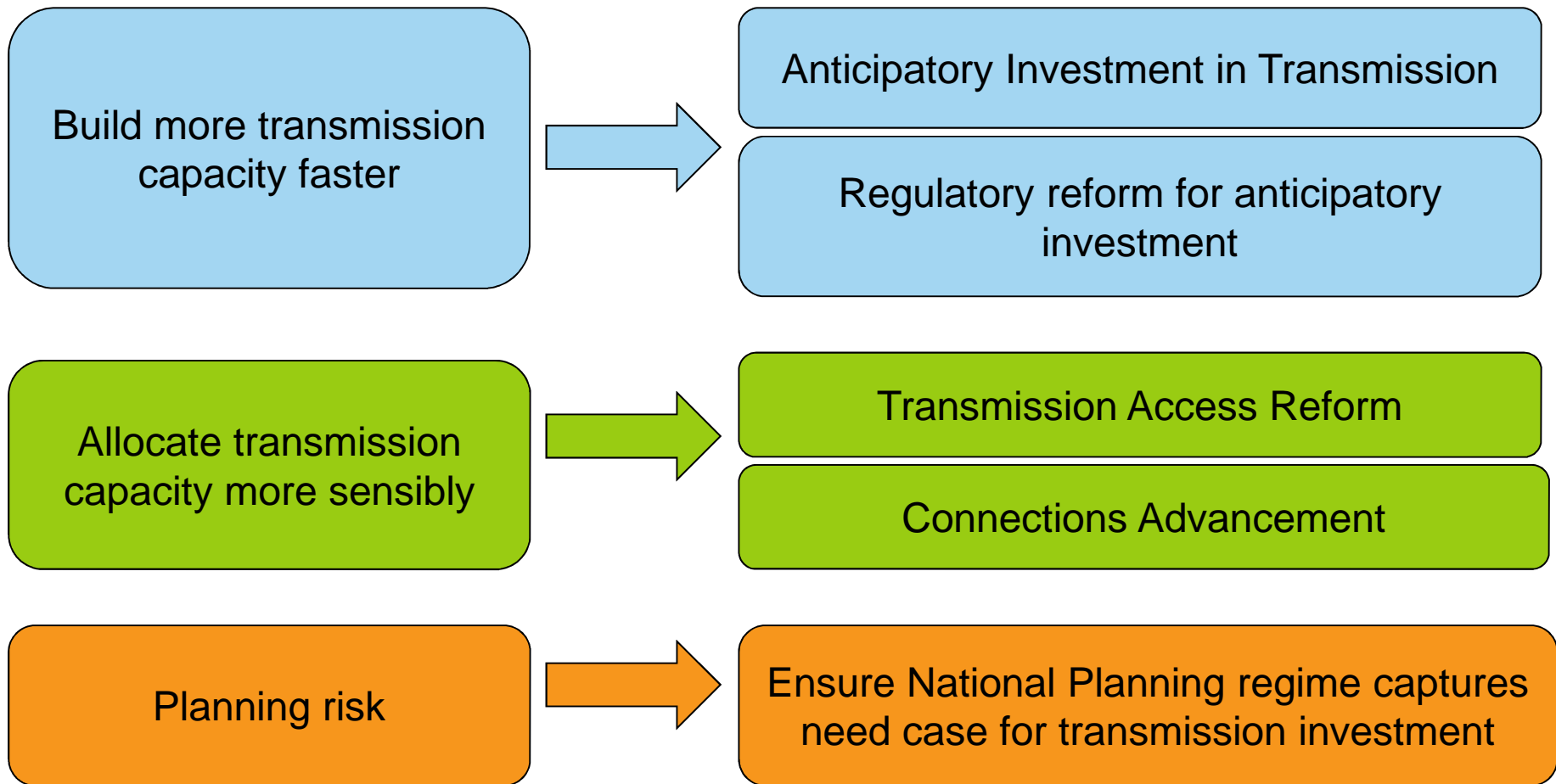
- ◆ Cross-industry working group including DECC and Ofgem
- ◆ Developed scenarios for reinforcements required to facilitate new generation
- ◆ £4.7bn of proposed reinforcements - new technologies and complexity

Enhanced Transmission Investment Incentives: Final Proposals (January 2010)

- ◆ We don't wait for financial commitment from users
- ◆ Programme of extra transmission investment identified to March 2012
- ◆ £319 million approved
  - ◆ £78 pre-construction costs for all projects
  - ◆ £241m construction costs for projects starting in 2010/11
- ◆ £764m to be determined

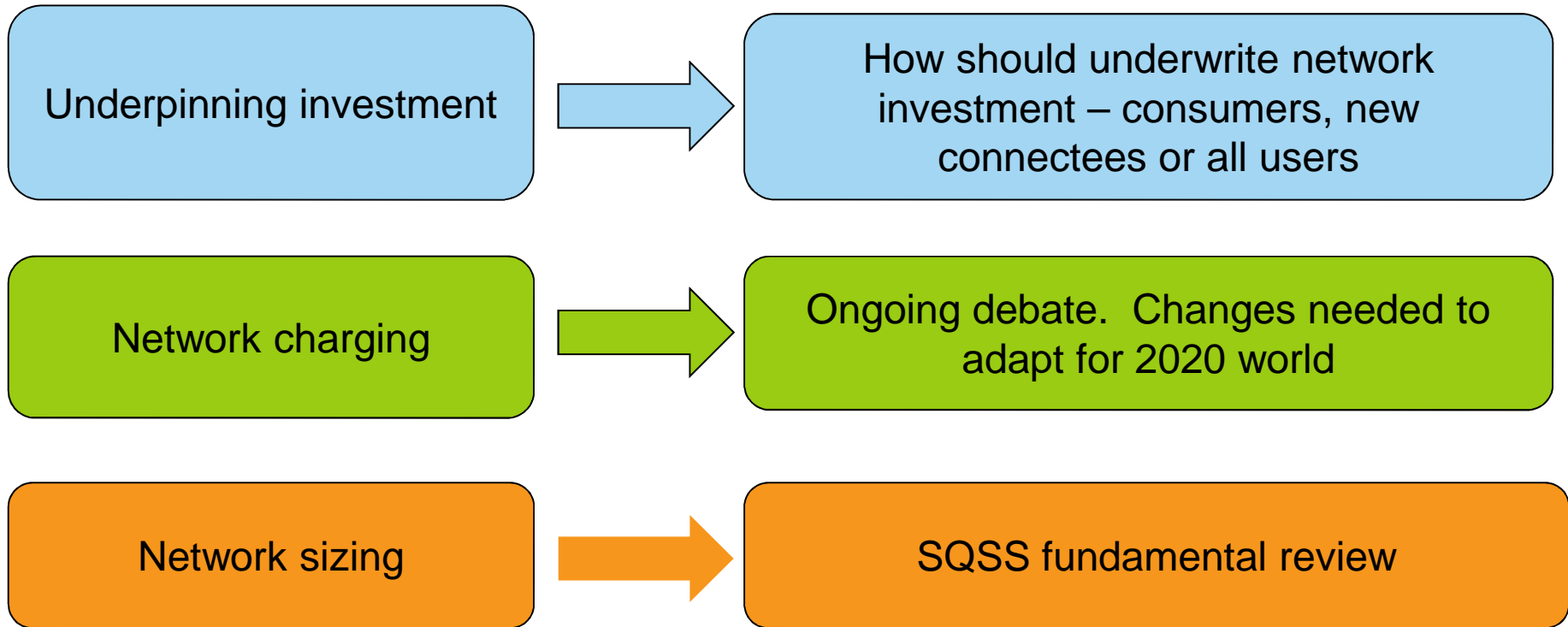
# Where are we..

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# In flight...

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**Major programme to improve customer service**