

A photograph of an industrial facility, likely a power plant or refinery, featuring a complex network of large pipes, valves, and machinery. The scene is captured from a low angle, looking up at the structure. A semi-transparent blue banner is overlaid on the center of the image, containing white text.

**Welcome to National Grid's webinar  
on Compressor Strategy.**

**We are due to start at 2pm**

# Compressor Strategy

Working with you to develop our proposals

Jon Dutton  
December 2017

# Objectives

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- To provide background on the legislative drivers for our proposals
- To explain how we have developed our approach since our previous proposals in 2015
- To summarise the feedback you gave us at our recent stakeholder events
- To propose next steps on how we engage with you between now and our submission to Ofgem in May 2018

# Industrial Emissions Directive (IED)

- **IED** brought together 7 existing emissions related Directives into one
- Two of these have a major impact on our system planning and operation
  - **Large Combustion Plant (LCP) Directive**
  - **Integrated Pollution Prevention & Control (IPPC)**
- Affects many different industry sectors including power generation

# LCP - what it means in practice

- Applies **unit by unit**
- Any unit **50 MW** and above must meet emissions limits for **Carbon Monoxide (CO)** and **Nitrogen Oxide (NOx)**
- Units not meeting these limits had to cease operation by the end of 2015 unless a derogation was granted:
- **Limited Lifetime Derogation:** 17,500 hours until the end of 2023, then cease operation; or
- **Emergency Use Derogation:** no more than 500 hours per year, with no end date

# Current status of our LCP units

## LCP

**Disconnected**

**Carnforth A  
Kirriemuir D**

**Converted to  
smaller unit**

**Wisbech B**

**Emergency  
Use Derogation  
(500 hours)**

**Carnforth B Hatton A  
Moffat A / B Wisbech A  
Warrington A / B**

**Limited Life  
Derogation  
(17,500 hours)**

**Hatton B / C  
St Fergus 2A / 2D**

**Static Catalytic  
Abatement**

**Aylesbury A / B**



# IPPC - What it means in practice

- Applies **site by site**
- A **national strategy** is agreed with the **EA and SEPA** to target the sites with the highest emissions of Nitrogen Oxide
- Three phases have been agreed to date covering units at St Fergus, Kirriemuir, Hatton, Huntingdon and Peterborough
- Our proposal for phase 4 is for further works at **St Fergus, Huntingdon and Peterborough**

## IPPC

Phases 1 and 2  
(complete)

St Fergus (2 electric units)  
Kirriemuir (1 electric unit)  
Hatton (1 electric unit)

Phase 3  
(in progress)

Peterborough (1 gas unit)  
Huntingdon (1 gas unit)

Phase 4  
(proposed)

St Fergus  
Peterborough  
Huntingdon

# Decisions required in this re-opener

## LCP

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Kirriemuir D

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Use Derogation  
(500 hours)

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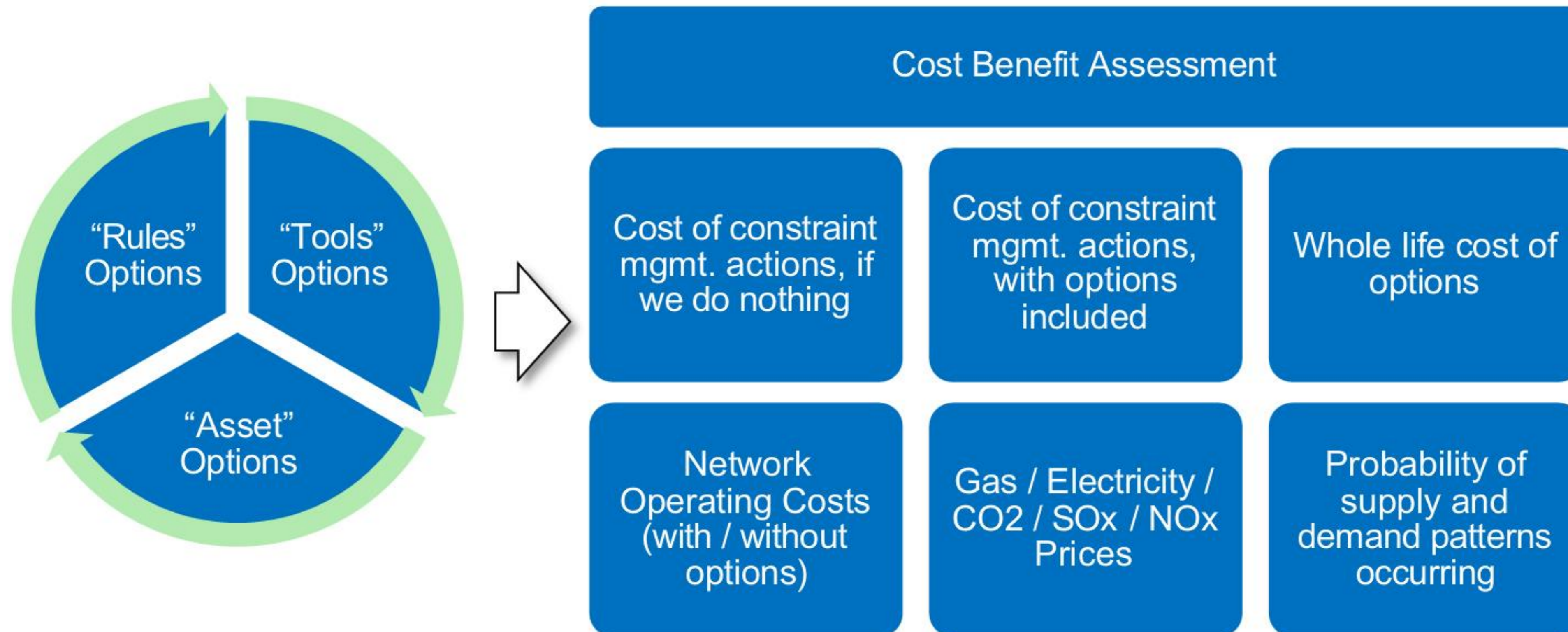
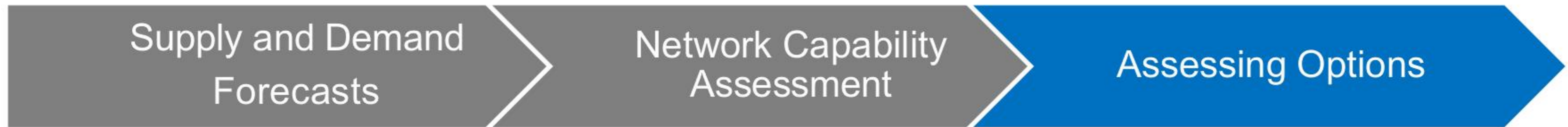
Funding agreed

Funding to be  
requested

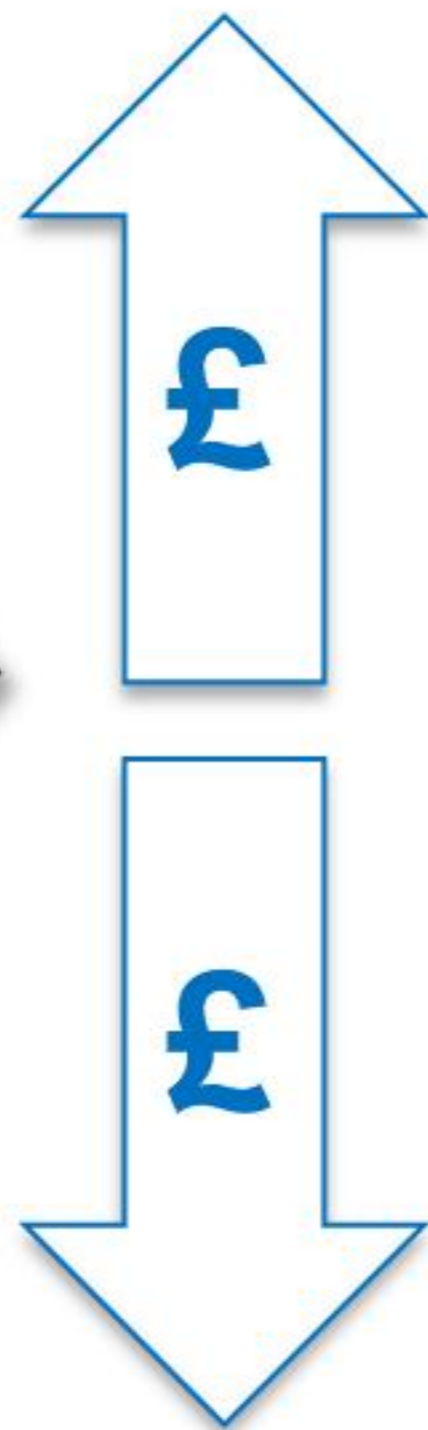
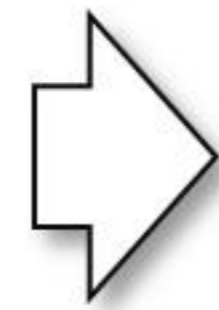
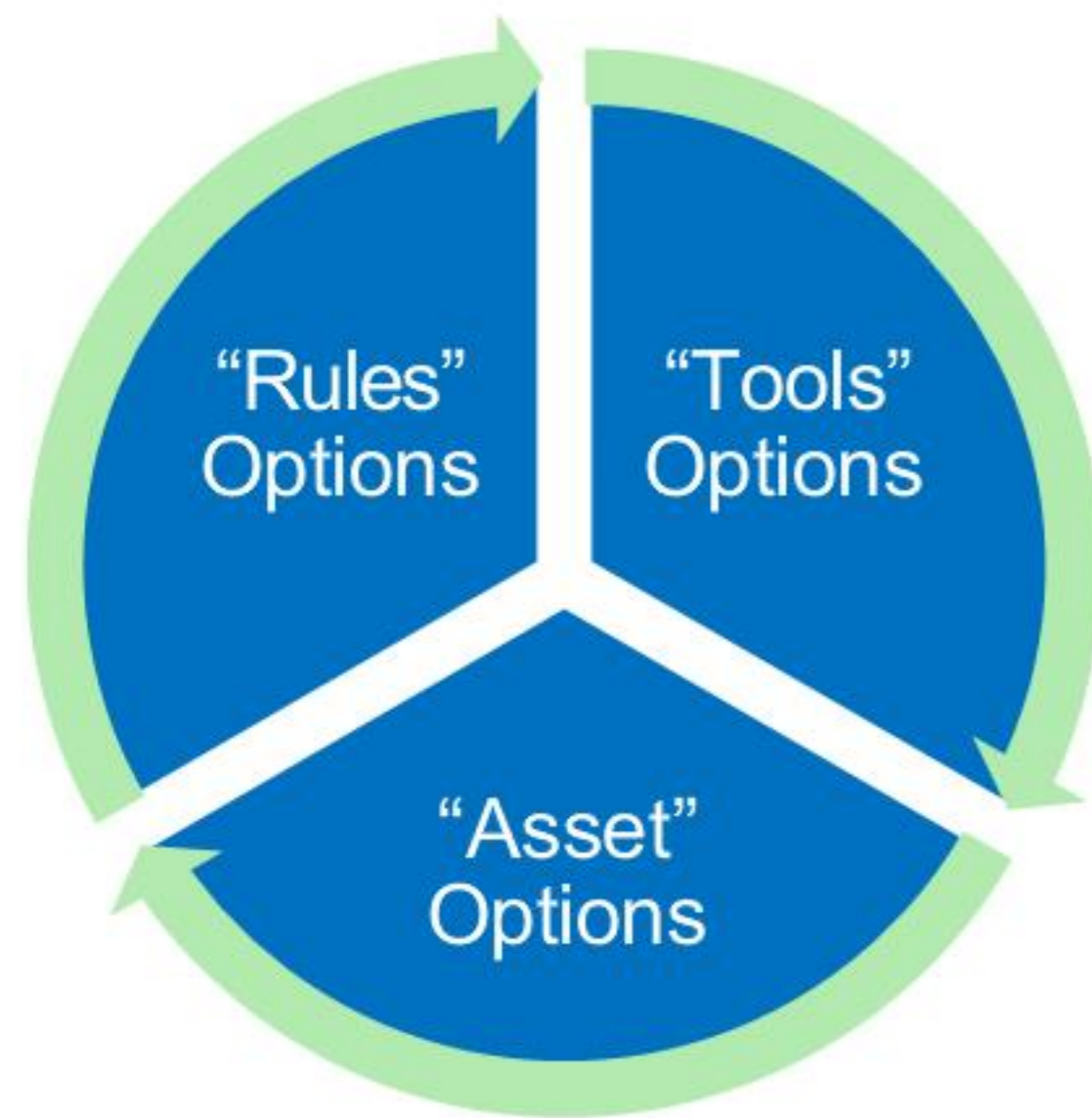
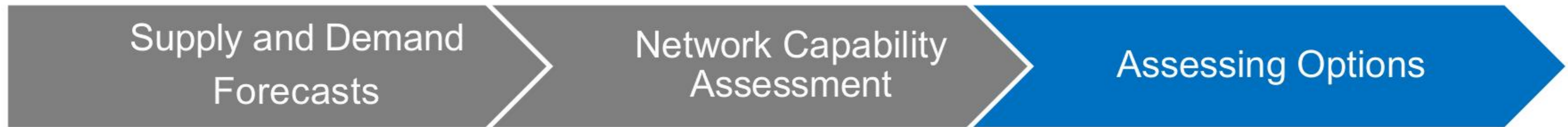
Decision required



# How we assess the options



# What kind of network do you want?



Higher reliability	Retain future optionality
Higher cost?	Higher resilience
Lower reliability	Limited future optionality
Lower cost?	Lower resilience



# Feedback from stakeholder workshops

'Don't tell us things you've already told us'

'You need a constructive partnership with Ofgem as well as industry'

'We value a robust and reliable network – this keeps the UK market attractive'

'Constraints have wider costs beyond those directly incurred by National Grid'

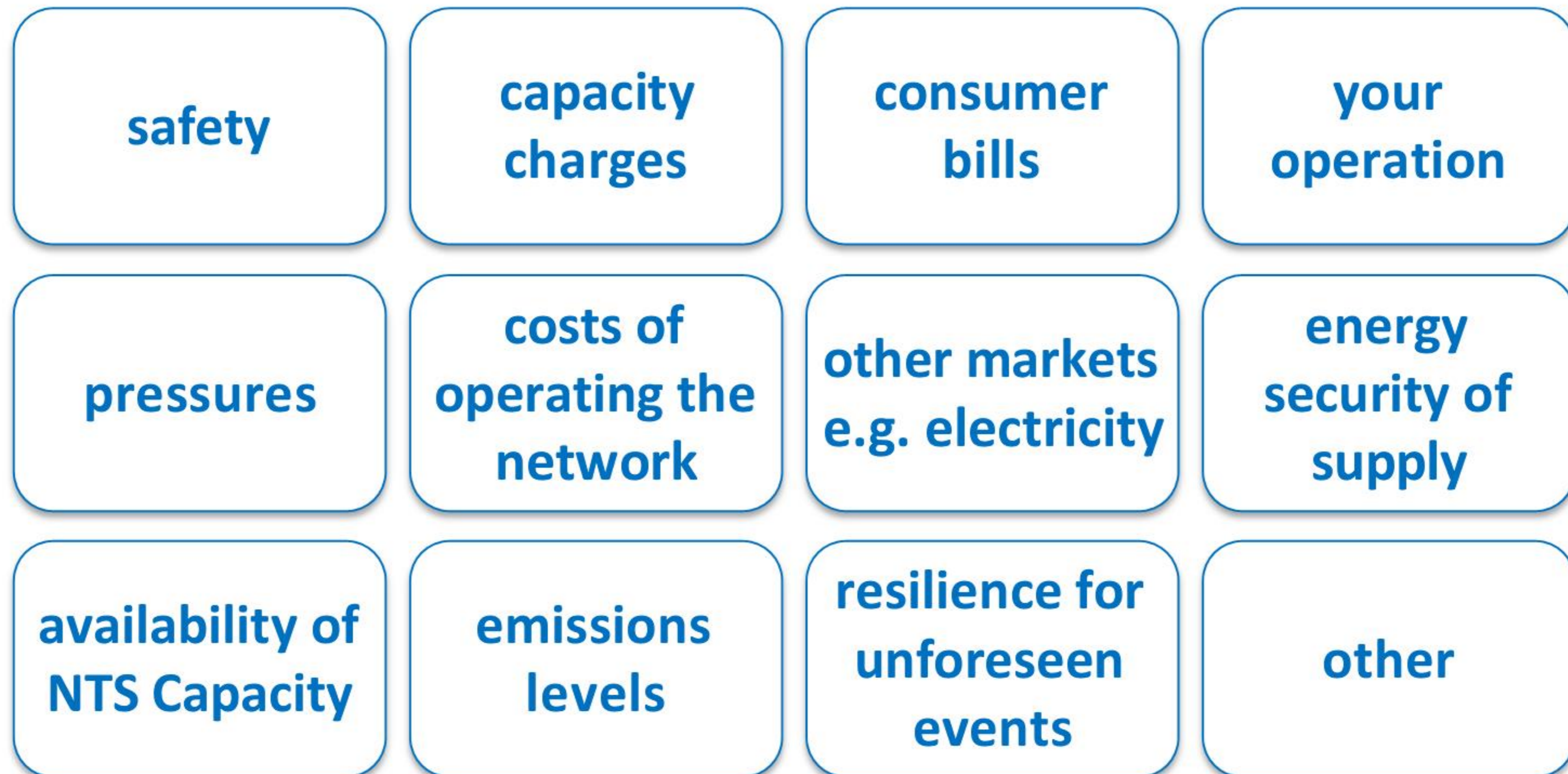
How will we build this into our proposals?

- Be joined up / co-ordinated / efficient in our engagement
- Use existing fora
- Invite/involve Ofgem

- Optionality of the network
- Retain capability/flexibility e.g. defer decisions where possible
- High baselines provide optionality
- Can we articulate the wider costs/benefits of optionality?

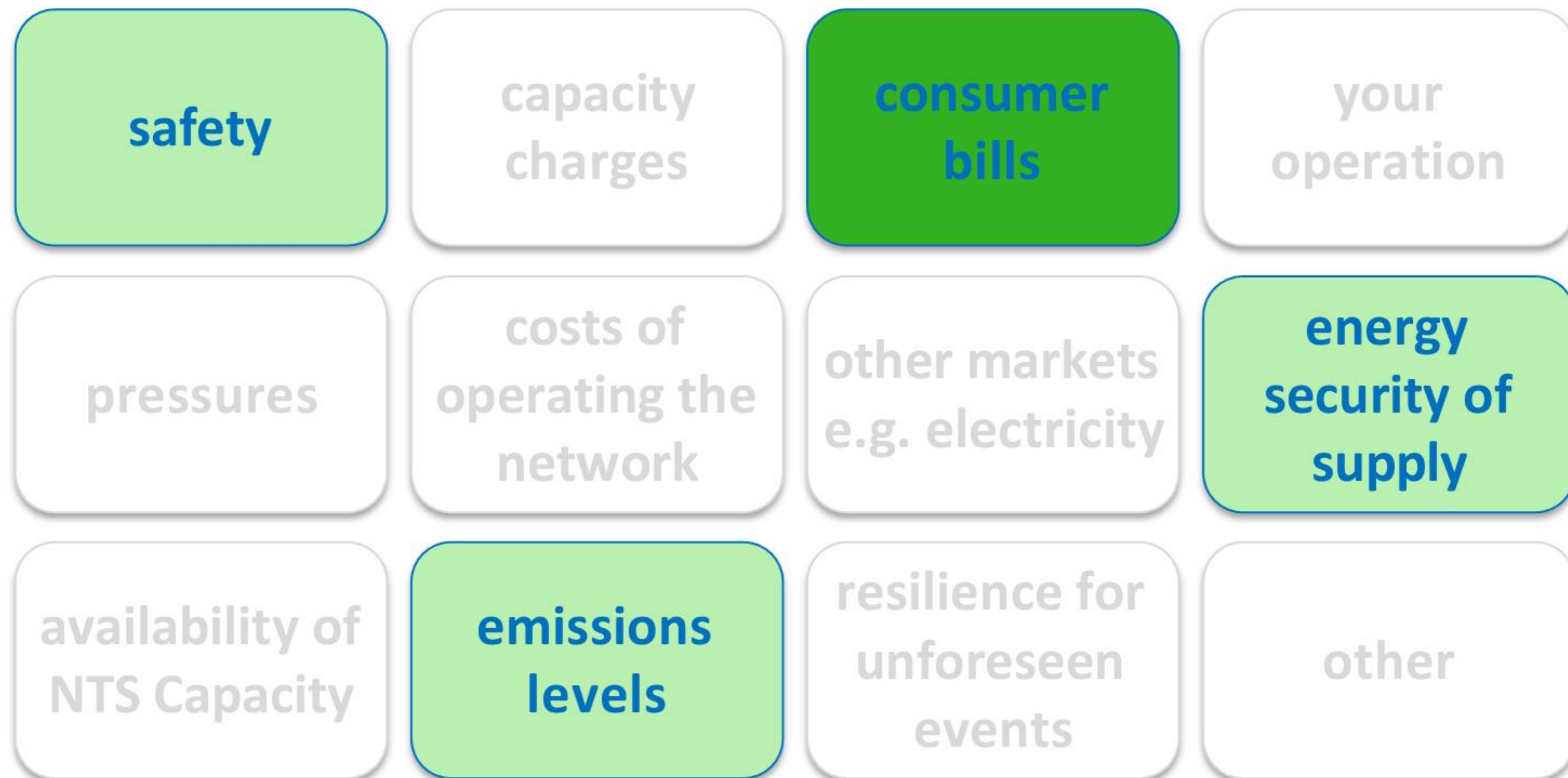
## We asked you what your key outputs were

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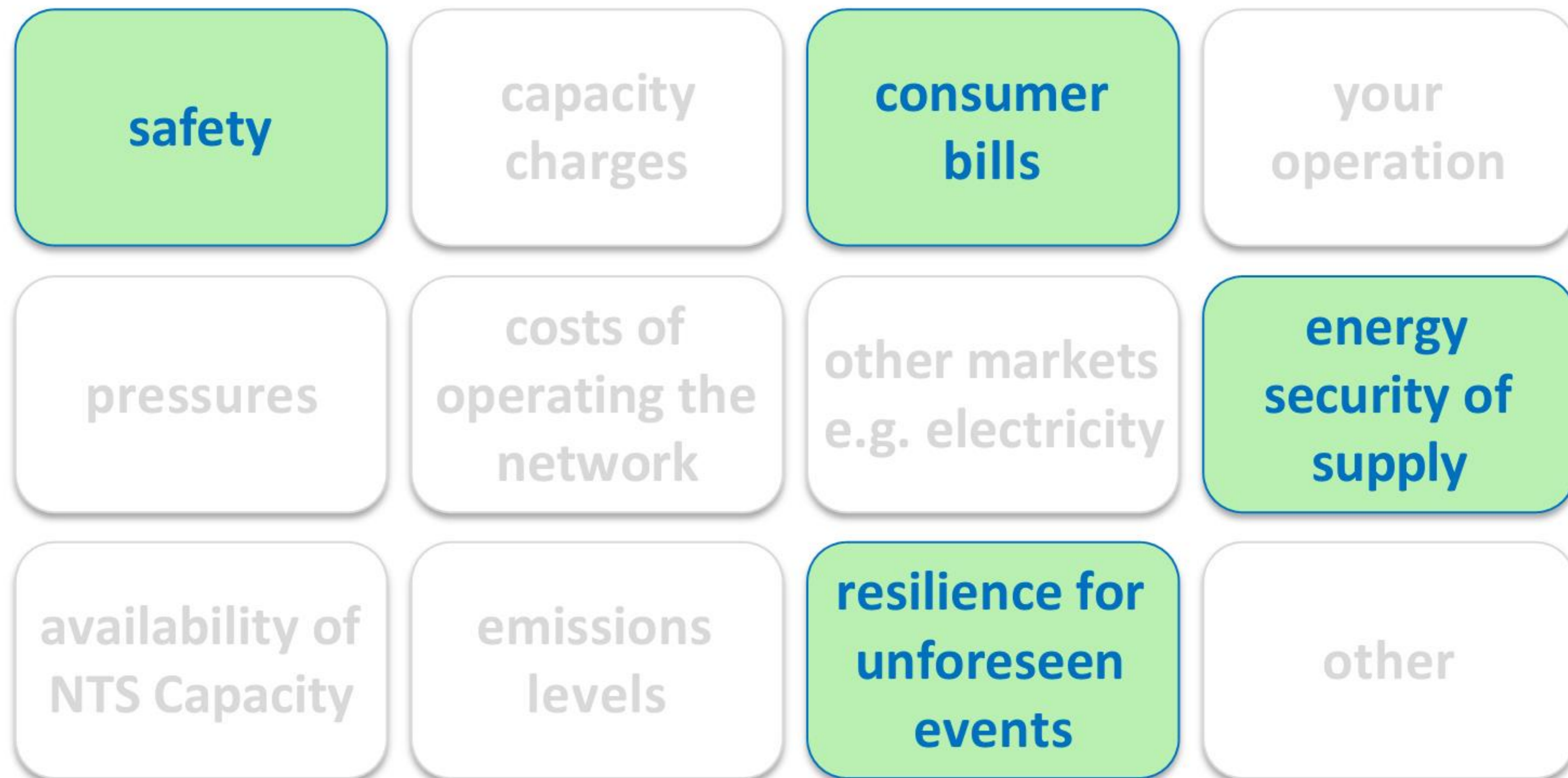
# Preferences as end consumers

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# Preferences as stakeholder groups

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## Next steps

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- Engagement on site-specific proposals through Transmission Workgroup, other fora and bilaterals
  - ‘Less interactive’ sites – can be considered individually
    - Moffat, Warrington, Wisbech
  - ‘Complex’ sites
    - St Fergus
    - Central ‘cluster’ – Peterborough, Huntingdon, Hatton, Carnforth
- Background document to be published shortly
- Formal consultation on detailed proposals likely to be undertaken in early spring

# Any questions?

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