

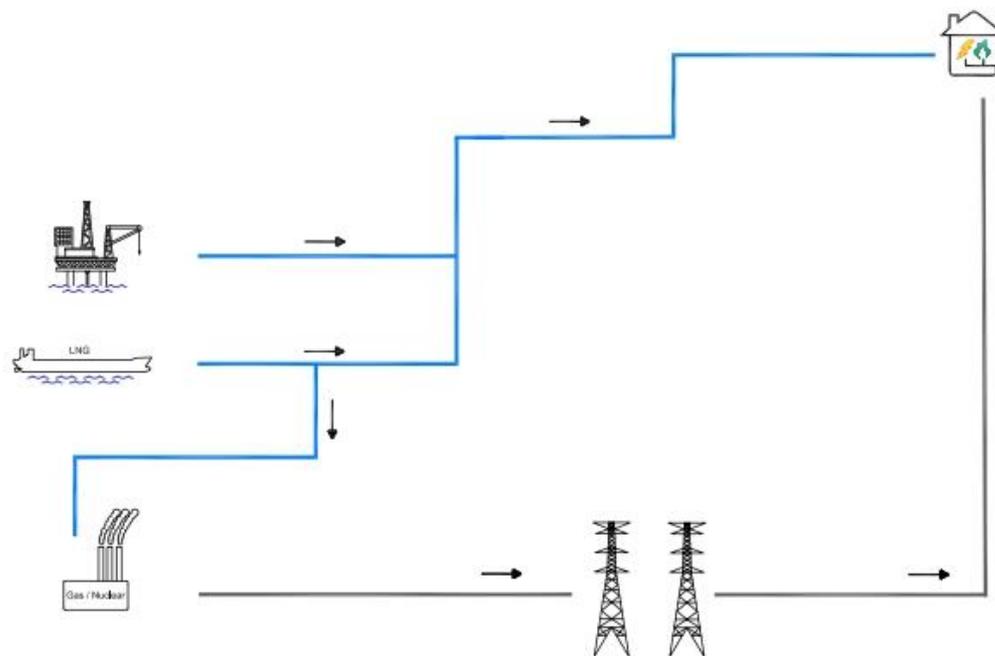
RIIO-2 Whole System workshop



Welcome and introduction

- **Context for Whole System (WS) policy workshop**
 - Almost unanimous that clarity around definition wanted, but unclear on:
 - what beneficial activities networks are unable to undertake,
 - how these might be supported by – and operate in – the price control, and
 - how the scope of a ‘Whole System’ definition would change these behaviours
 - Working towards RIIO-2 December methodology consultations
- **Approach for the day**
 - informative, collaborative, exploratory
- **Outcomes for the day**
 - better understanding of WS outcome barriers for network companies
 - potential enablers to those barriers for further exploration
 - collective understanding impact of WS definition options

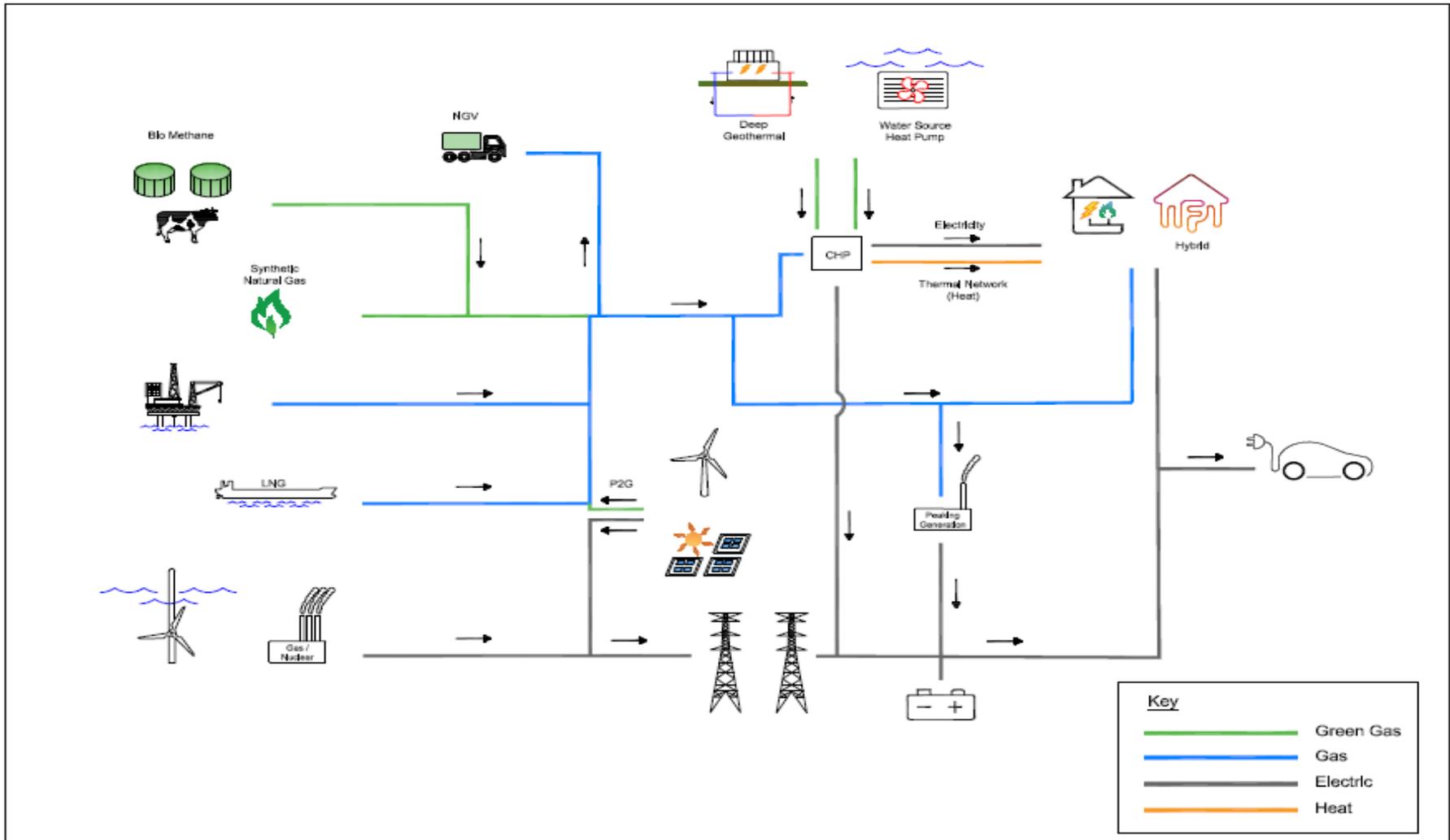
For 120 years – simple system, little or no interaction



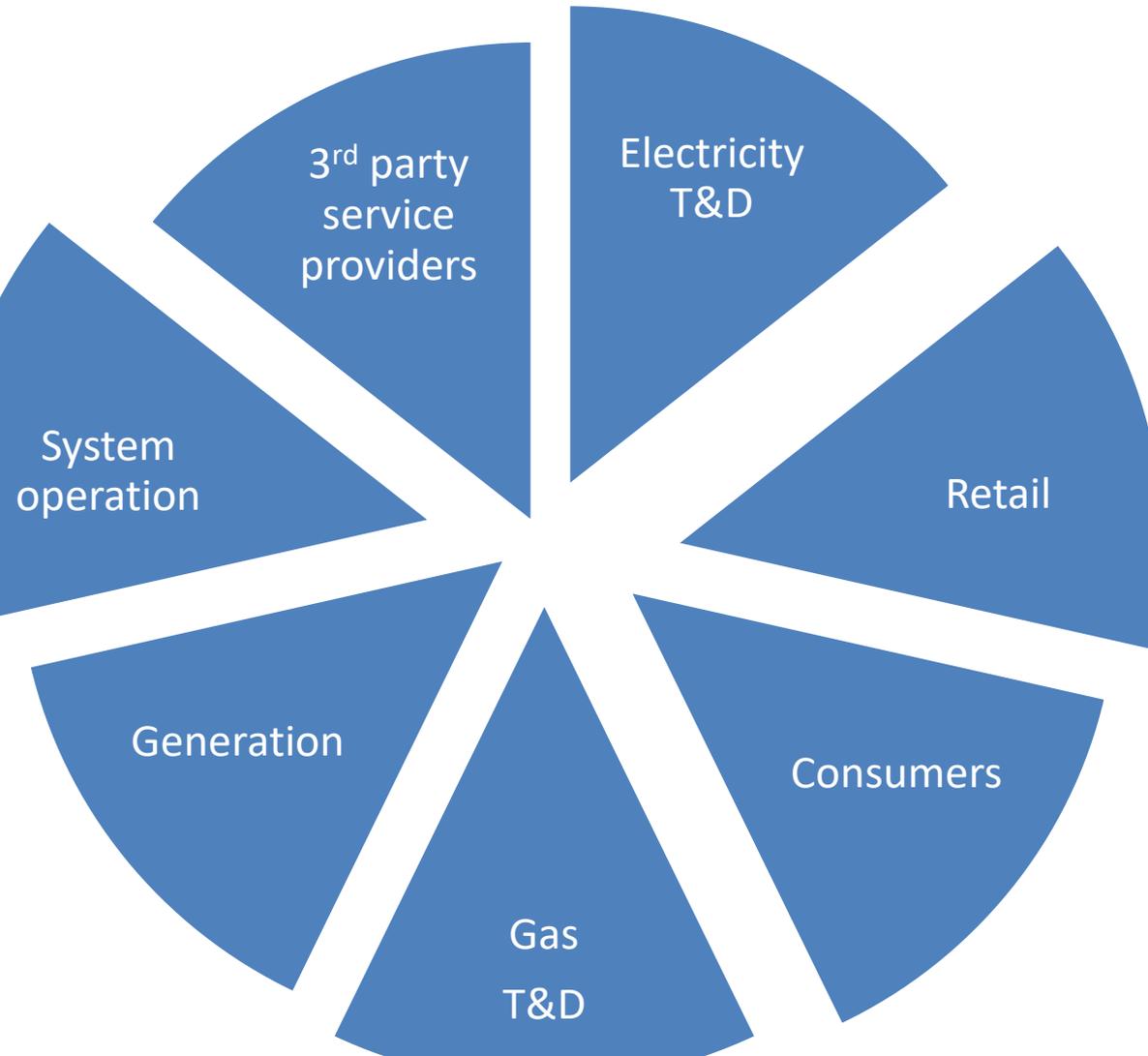
Key

- Gas
- Electricity

Supply and demand constantly changing with time of day, season, weather.



Theory behind whole system focus



- what is preventing these from being captured?
- what are the enablers, best placed in the price control, which would lead to more Whole System benefits?
- how would different definitions change the desired behaviour and enablers?

09:10 Session 1: barriers, issues, examples

Aim: clarify and discuss existing and future barriers to whole system activities

10:30 Session 2: Whole System outcomes to be addressed through RIIO-2

Aim: raise potential enablers – eg, business planning, incentives, innovation

11:35 Session 3: Clarifying 'Whole System' & principles

Aim: clarify scope of definition and implications

12:45 Wrap up / next steps / lunch

Network visibility/data

Incentives/outputs

Funding (including
transfer routes)

Network usage signals

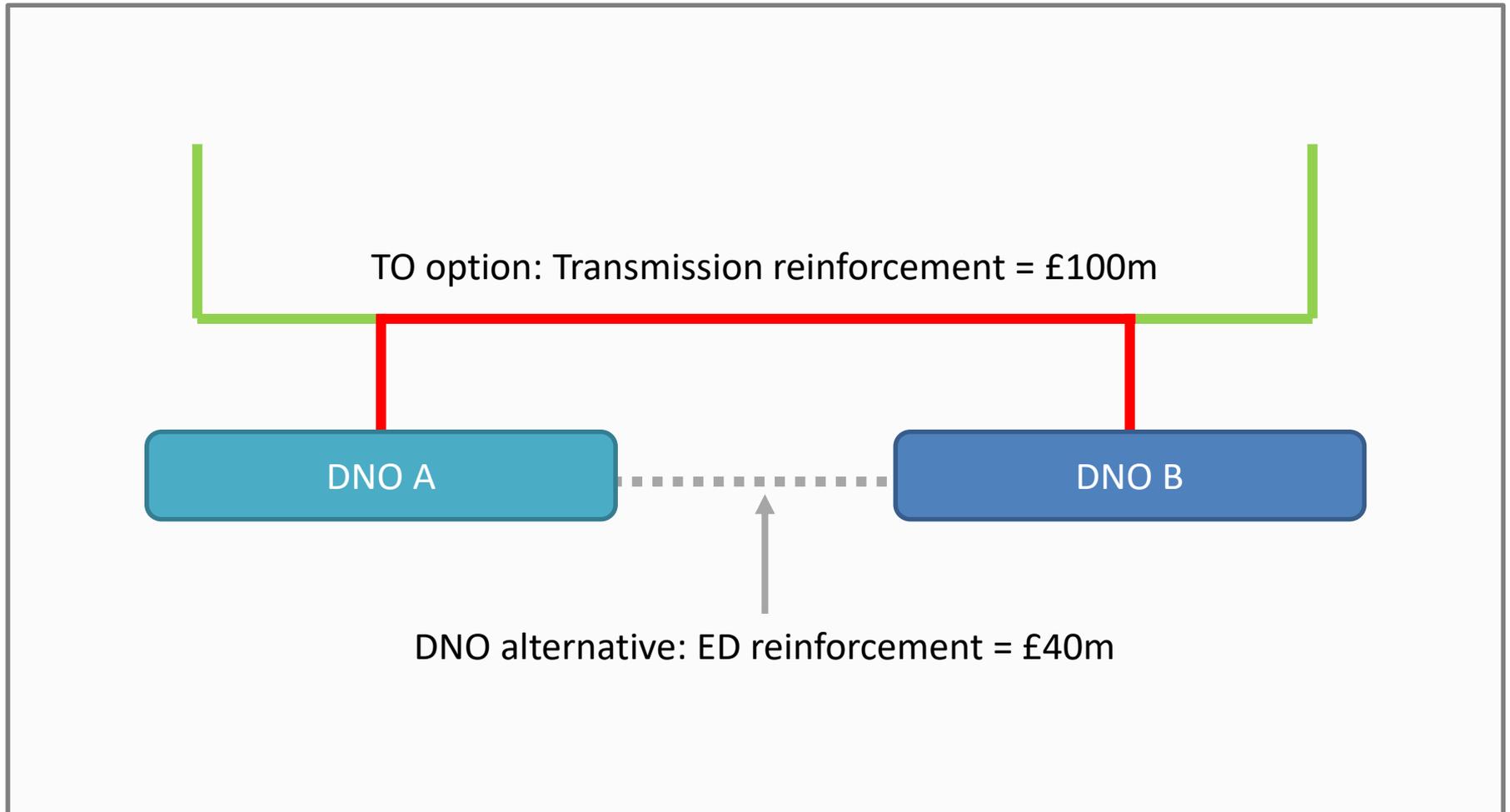
Vires and legislation

Codes

Institutional change

Type	Examples raised by companies
<p>- for one monopoly to implement operational or investment solution on behalf of another</p>	<p>SO have predicted very high future costs in managing inertia (around £800m), which could be significantly reduced by DNO changes to DG relay settings (below £200m) <i>licence issue?</i></p>
<p>- for greater coordination to reduce inefficient costs imposed by one monopoly on another</p>	<p>SO identified that some DNO active network management (ANM) systems may be counteracting SO balancing actions, leading to inefficient costs. In response SO prevented providers in ANM zones from bidding into balancing services. Inefficient and unsustainable as ANM grows. <i>incentive issue?</i></p>
	<p>SO did not liaise with DNOs over the Enhanced Frequency Response tender - has prevented providers on flexible connections from bidding in to ancillary services. Given growth in flexible connections at distribution level, has effect of reducing the pool of providers and driving up costs. <i>coordination issue?</i></p>
	<p>SO are increasingly using distribution level balancing resource, without the impacts on distribution constraints being costed. <i>coordination issue?</i></p>
<p>- for greater coordination to realise benefits through synergies</p>	<p>SO and DSOs will increasingly need to access distribution level resources to manage T and D constraints and frequency. Joint procurement could bring down costs (eg where one provider is dispatched rather than two). <i>coordination issue?</i></p>

Stylised example of WS activity: no clear route for cooperation



Group work

- Using the examples of potential whole system behaviours you pre-prepared, or the stylized example discussed above, discuss potential barriers (15 minutes)
- Focus on those barriers which are specifically related to the price control (15 minutes)

Plenary session

- Feedback and discussion (25 minutes)

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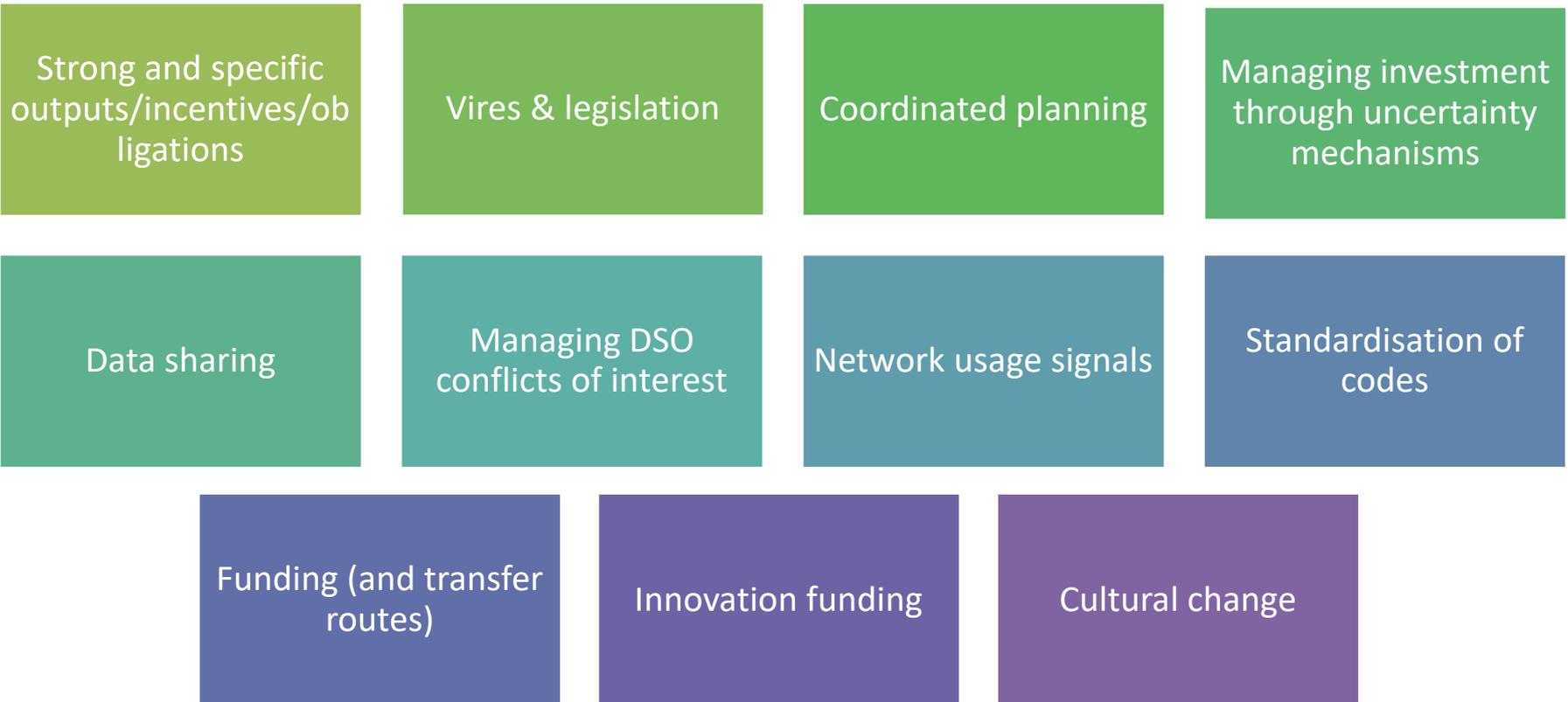
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Measure	Responses
Data access / co-ordination	Open access data and energy service providers (SGN) WS CBA model (ENWL)
Business plans / stakeholder engagement	Assessment of DNO & TO solutions for network issues (NP'grid) Better coordination (SGN)
Clarity for cost transfers / funding routes	Clarity over funding routes (ENWL) Appropriate flex in allowed revenues (NP'grid)
WS incentives	Network investment in beyond-meter technologies (ENWL) Price signals re: connection to incorporate whole system (SSE)
Innovation stimulus package	Innovation co-ordinated across gas and elec (NP'grid)
Outputs & incentives	Low Carbon Incentive (Sustainability First) 'Portfolio' of incentives for network and WS (UKPN)

Of some the potential areas to focus our attention, we are closely considering the following:

Strong and specific
outputs/incentives/ob-
ligations

Vires & legislation

Coordinated planning

Managing investment
through uncertainty
mechanisms

Data sharing

Managing DSO
conflicts of interest

Network usage signals

Standardisation of
codes

Funding (and transfer
routes)

Innovation funding

Cultural change

There are many levers which could possibly enhance whole system outcomes.

Of these potential enablers, which can:

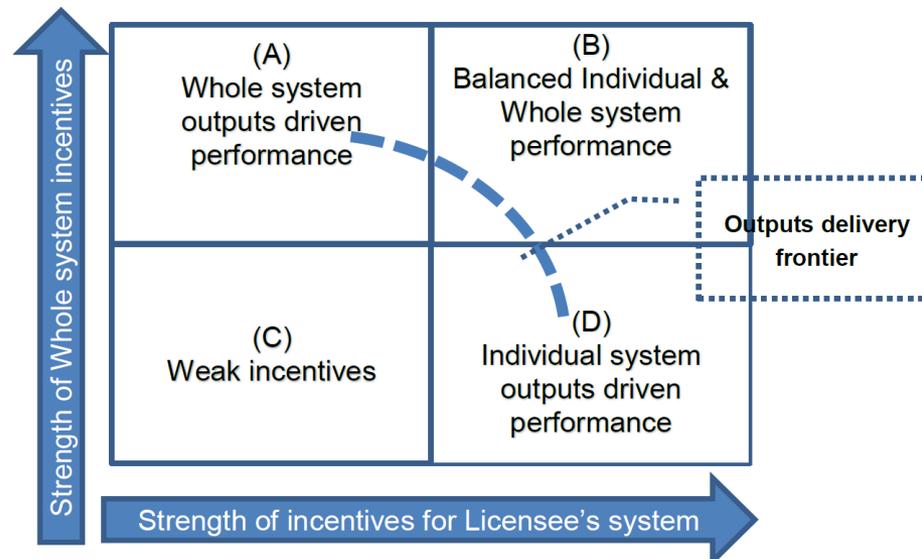
- **only be addressed by**, or are
- **best addressed by**

the price control?

*This is particularly relevant given the Authority's focus on **simplifying** the price control.*

Example 1: UKPN separate pot for WS incentives

- Identify WS works/projects across ED/ET
- Separate whole systems pot
- Ensure incentive is sufficient to encourage behaviour (UKPN's 'frontier' below)



Group work

- Discuss and prioritise potential enablers
(15 minutes)

Remember to address why is your enabler needs to be incorporated into the price control (and not solved through regulation or commercial solutions more broadly)?

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Definitions varied in consultation responses:

Narrow: relationship between transmission & distribution in same sector

Wide: relationship between transmission & distribution across sectors, including elements of non-network that affect network responses, such as heat, transport, waste, plus new vectors e.g. hydrogen

'most popular' definition G&T, T&D, plus heat and transport

Design principles:

Develop RIIO-2 Whole System design principles

- Achieve greater net-beneficial whole system outcomes through the price control
- Set direction for RIIO-2 and future price controls
- Maximise consumer benefit, not whole system outcomes, while meeting regulatory stances

Sectoral application:

Shaping network behaviour through shared and sector-specific incentives and obligations

- Providing clarity to companies on what is expected of them
- **Potential reputational/discretionary incentives in RIIO-2** for more ambitious behaviour where exact **output unknown**
- **Obligations** (eg to coordinate) and potential incentives

Scope:

Develop ambitious scope in the context of whole systems vision

- Broader scope signposts longer term vision
- Ambitious – deliberately wide and non-exclusionary
- Sets frame for incentivising greater whole system ambitions in business plan proposals (RIIO-2)

- *We will adopt an approach that enables Ofgem to appropriately facilitate whole system outcomes to deliver **best value for consumers***
- *We will seek to avoid inefficient **cross-subsidy** between sectors and vectors*
- *We will seek to minimise the inefficient participation of networks in **competitive markets**, and appropriately manage any conflicts*
- *We will use the most **appropriate instrument** to address whole system benefits, and will ensure the price control is not a **barrier** to whole system transition and policy*
- *We will ensure that whole system interventions are **proportionate** to their potential benefits*

Sectoral application

- In addition to defining ‘whole system’, are there any broad or specific principles which could focus network behaviour through the price control?

- As illustrative example, if ‘whole system’ includes decarbonisation:

‘where two options are broadly equivalent for addressing an investment requirement, networks should select the option most likely to reduce carbon emissions’

- What type of co-ordination should be expected of each sector? How this this be achieved (e.g. NOA style)?

Group work

- Investigate the behavioural impact of different whole system definitions, and to raise any potential guiding principles (potentially sector-specific) (30 minutes)

Questions:

1. Starting from a narrow definition (G&E T&D), identify what behaviours/opportunities you might expect to see in RIIO-2. Then, start to expand that definition (towards G&E T&D, heat, transport, waste) and observe how your answer changes
2. What type of design principles should Ofgem adopt for RIIO-2?
3. Are there any principles which should be sector-specific?

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Next Steps

- Circulate note from workshop
 - please do send any additional information, examples, etc
- Q4 GEMA
- December sector methodology consultation
- Open to ongoing consultation and informal talks

Our core purpose is to ensure that all consumers can get good value and service from the energy market. In support of this we favour market solutions where practical, incentive regulation for monopolies and an approach that seeks to enable innovation and beneficial change whilst protecting consumers.

We will ensure that Ofgem will operate as an efficient organisation, driven by skilled and empowered staff, that will act quickly, predictably and effectively in the consumer interest, based on independent and transparent insight into consumers' experiences and the operation of energy systems and markets.