

# Innovation Stimulus Package

Monday, 15 November 2010  
14.00-16.45

Ofgem, 9 Millbank

## Welcome and Agenda

- **14.00**            **Introduction** (Stuart Cook)
- **14.15**            **Innovation Stimulus Package** (Anna Rossington)
- **14.30**            **DNO Experience with the Low Carbon Networks Fund**  
(Jim Cardwell– ENA)
- **14.45**            **Plenary Q&A Session - Table Discussions**
- **15.45**            **Tea Break, Panel to review responses**
- **16.00**            **Summary and Q&A session**
- **16.40**            **Close**

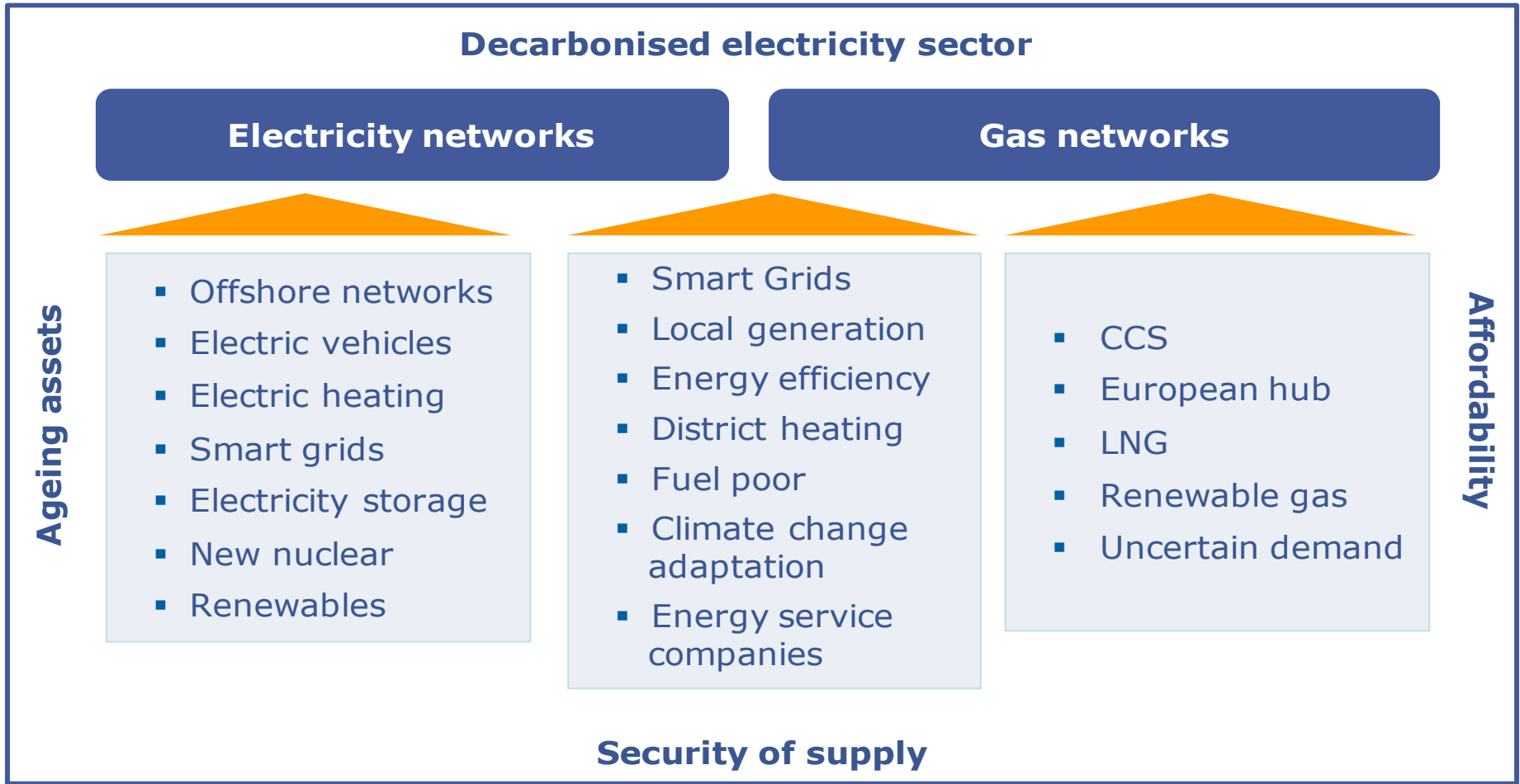
The background of the slide features a large, stylized white arrow pointing to the right, set against a blurred image of a modern building with a glass facade and a large, glowing orange and white circular object, possibly a light fixture or a piece of machinery. The overall color palette is dominated by blues, oranges, and whites.

# **Introduction**

## **RIIO and innovation**

Stuart Cook, Senior Partner  
Ofgem

# We Face an Unprecedented Challenge



*£200 bn of investment. £32bn of network investment.*

# What are we seeking to achieve?

## Desired outcomes from the future regulatory framework

**Play a full role in the delivery of a sustainable energy sector**

**Deliver long-term value for money network services for existing and future consumers**

## Issues that the network companies should be considering

Long-term focus on value for money

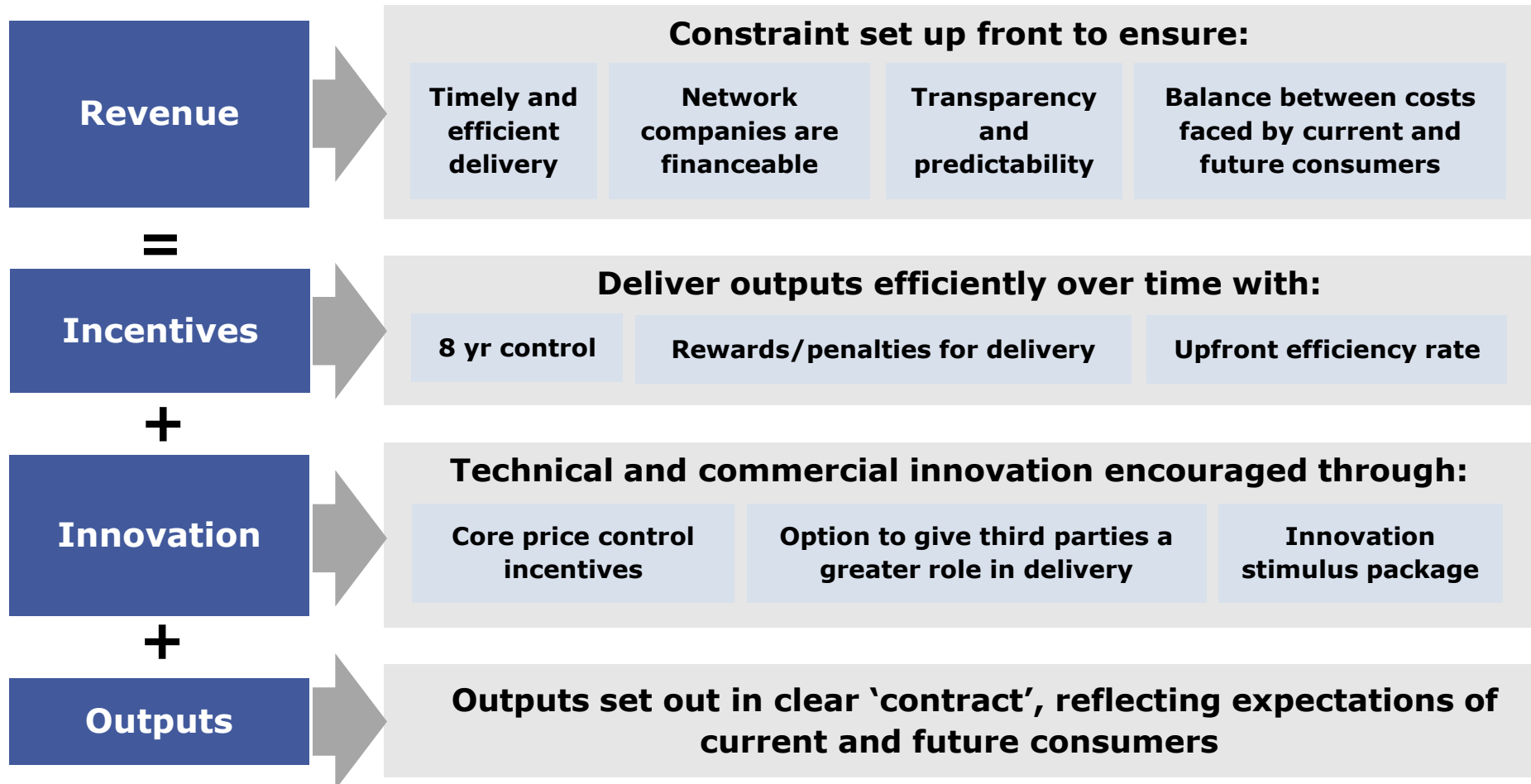
Innovation

Optionality and flexibility

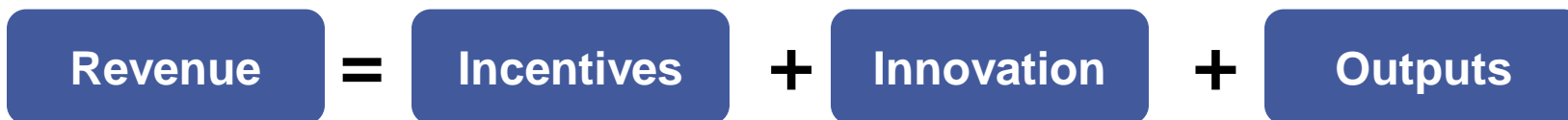
Working with others to identify best delivery solutions

Understanding and responding to needs of existing and future consumers

# RIIO: A new approach to regulation



## RIIO



### Technical and commercial innovation encouraged through:

Core price control  
incentives

Option to give third parties a  
greater role in delivery

**Innovation  
stimulus package**

- Networks will need to be smarter, integrating intermittent sources and encourage customers to manage their demand.
- The shape of the low carbon future is not clear, therefore companies will need to innovate.

# Introduction

## The need for an innovation stimulus package

Anna Rossington – Head of Distribution Policy  
Ofgem



**Network companies are facing a number of drivers for change that will affect how the networks are used to deliver a low carbon future.**

## Electricity networks – specific challenges

Reduced demand / energy efficiency

Back-up generation for renewables

Renewable energy targets

Ageing assets

Electric vehicles

Electric space heating

### Transmission

Connecting remote renewables

Closure of existing coal and nuclear plants

New nuclear, gas and CCS generation

### Distribution

Distributed generation

Active demand management

Adapting to impacts of climate change

## Gas networks – specific challenges

Secure sources of supply

Safety

Storage

Reduced demand / energy efficiency

Ageing assets

Alternative network use for CCS

Uncertain future demand average or peak

Renewable gas

### Transmission

Changing mix of supplies

Potential gas hub for Europe

Gas quality issues

New sources in new places

Liquid Natural Gas

Increasing import dependency

### Distribution

Mains replacement

District Heating

Adapting to impacts of climate change

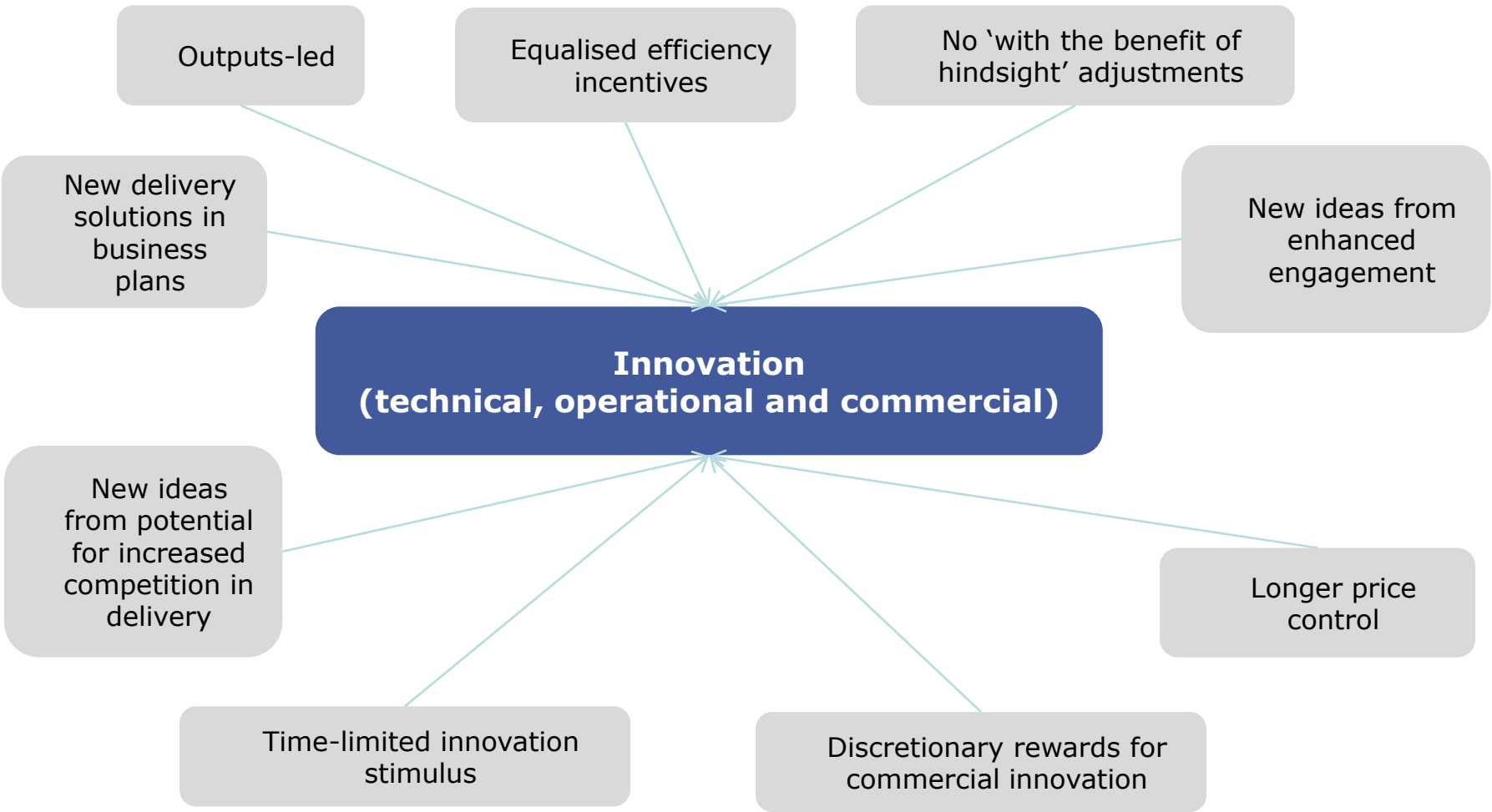
Demand from Combined Heat and Power

Social obligations extension

## Need for innovation in networks

- Companies may not take account of all the benefits from innovation that accrue to a wide range of parties as they consider the relative merits of innovations;
- The upfront costs of innovation may be significant, potentially outweighing expected benefits for the network company itself;
- The long-term private cost to network companies from choosing not to innovate may not be significant, particularly if the costs associated with continuing to deploy existing technologies are generally funded under a price control;
- Companies may discount the future benefits of innovation if the carbon price is low or they doubt the political commitment to meet the targets

**Historically, regulated companies have had little incentive to innovate. A number of aspects of the new framework will encourage innovation.**



## Additional support for innovation

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### Innovation stimulus package



- Innovation expected to be included in the business plans
- Incentives in the price control may not be sufficient to deliver the type and scale of innovation needed
  - Therefore framework includes competitive time-limited innovation stimulus funding (separate for gas and electricity)
- Aim: to encourage innovation in the provision of network-services related to delivery of a sustainable energy sector that may not develop in the absence of the innovation stimulus package

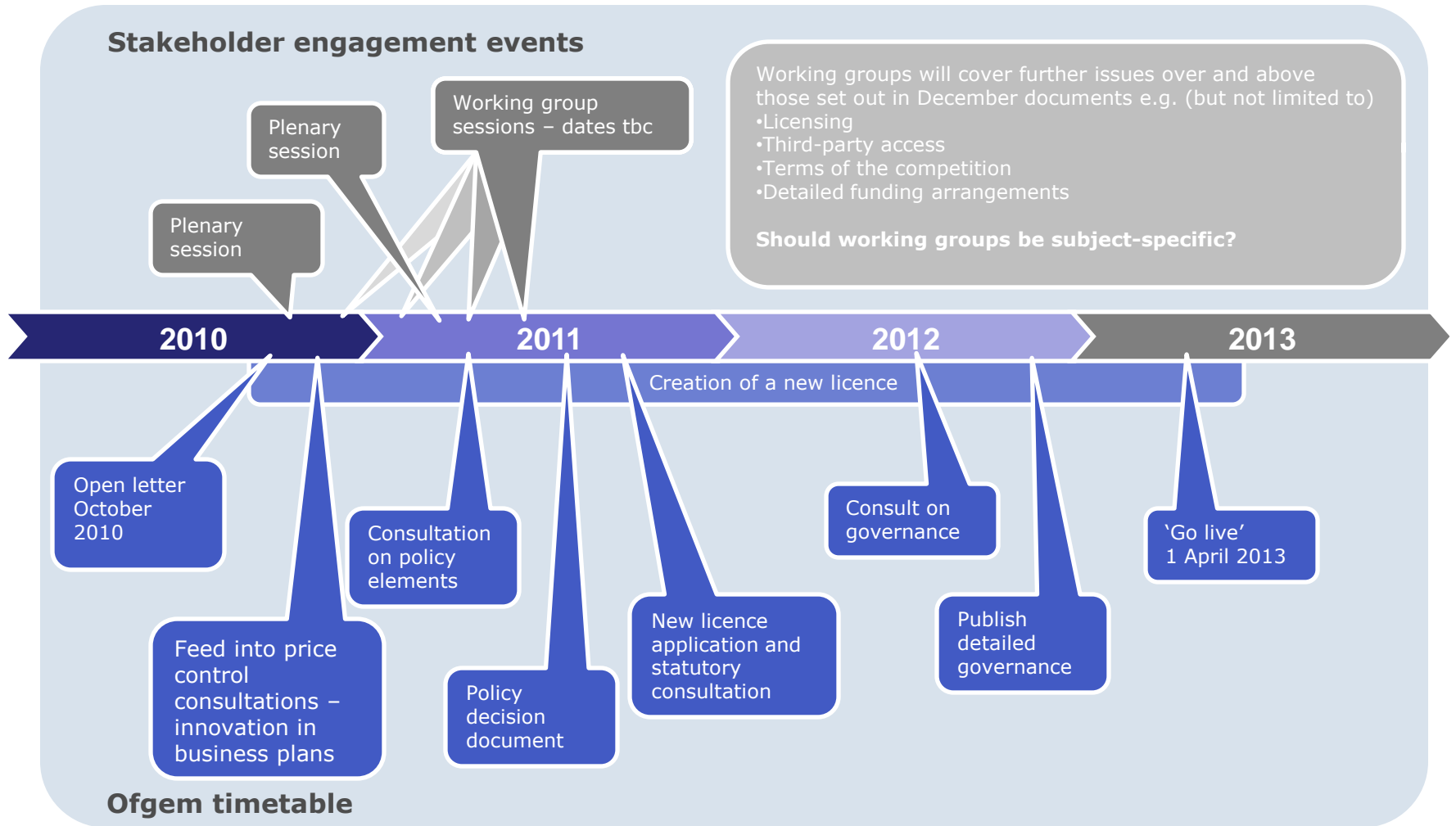
## Additional support for innovation

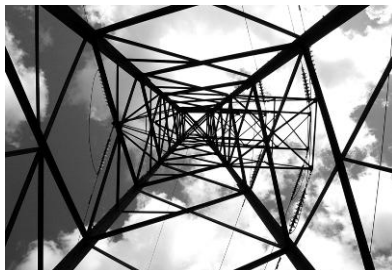
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### Innovation stimulus

- Building on Low Carbon Networks Fund (LCNF) from DPCR5
- Open to network companies and (licensed) third parties
- Partial project funding (implementing company commitment)
- Open to projects at any point in innovation cycle
- Bids assessed by independent panel; final decision GEMA
- Funded by transfers of money between licensees (no central fund)
- Projects selected must share the information and knowledge gained
- Specific rewards for new commercial and charging arrangements aligned with sustainability

# Development process





## Low carbon networks fund – a DNO's perspective

Jim Cardwell

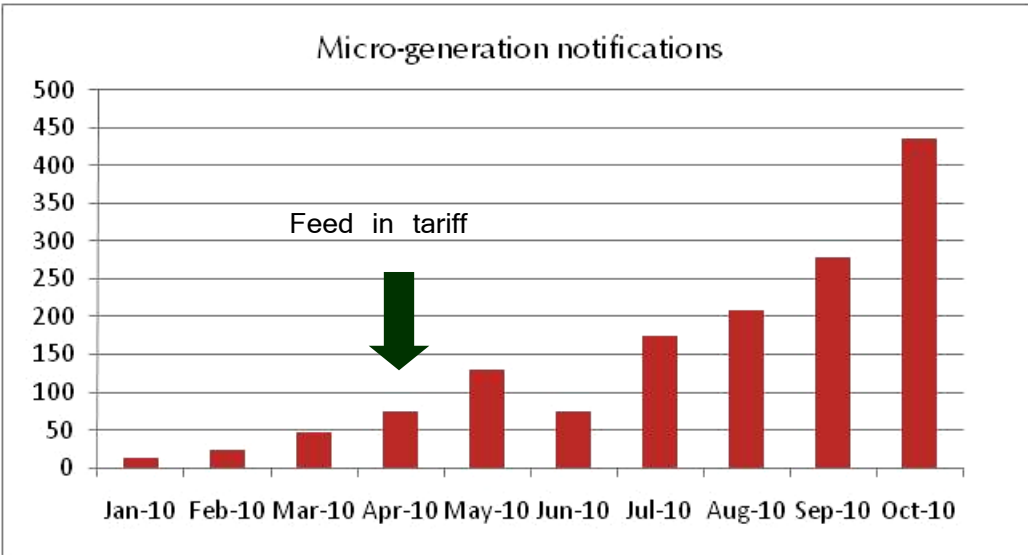
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The £500m low carbon networks (LCN) fund is a welcome extension to the prior existing innovation funding incentive

DPCR4	Innovation funding incentive (IFI)	<ul style="list-style-type: none"> <li>• £100m DNO funds</li> <li>• Technical R&amp;D</li> </ul>
+ DPCR5	LCN fund tier 1	<ul style="list-style-type: none"> <li>• £80m DNO funds</li> <li>• Smaller trial projects</li> </ul>
	LCN fund tier 2	<ul style="list-style-type: none"> <li>• £320 central fund</li> <li>• Flagship projects</li> </ul>
	Discretionary reward	<ul style="list-style-type: none"> <li>• £100m central fund</li> <li>• Reward learning:             <ul style="list-style-type: none"> <li>– 10% DNO compulsory contribution</li> <li>– Exceptional learning</li> </ul> </li> </ul>

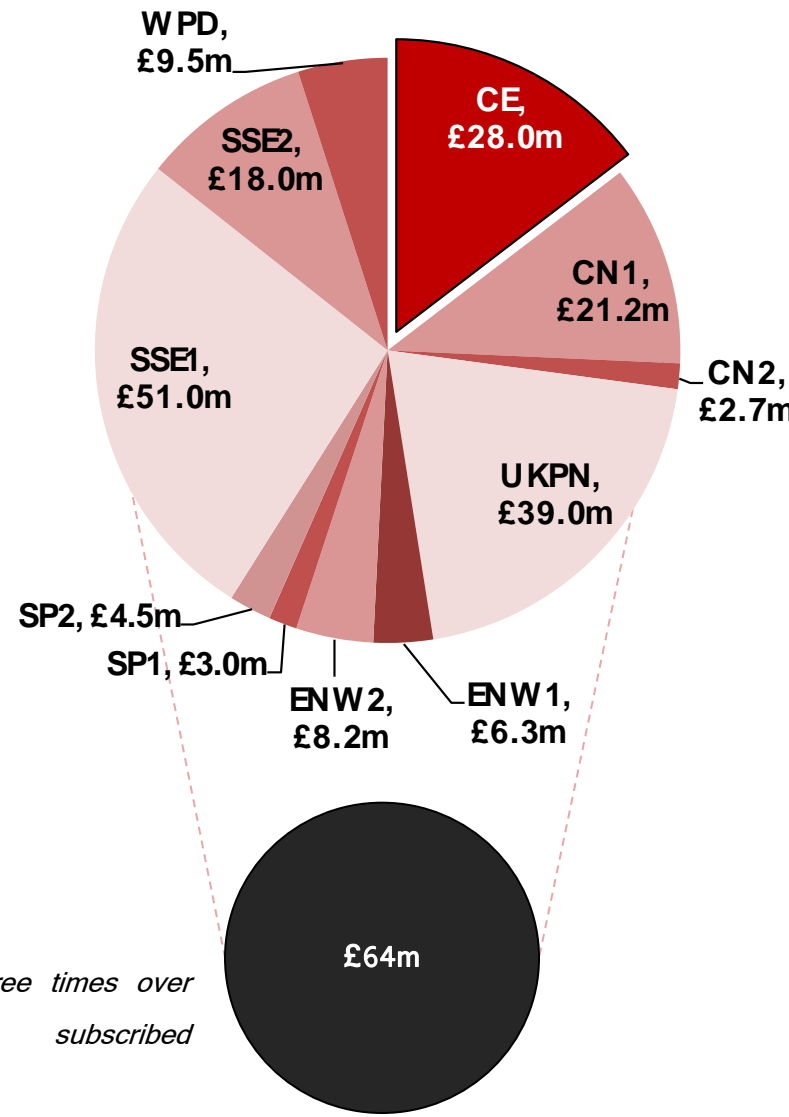
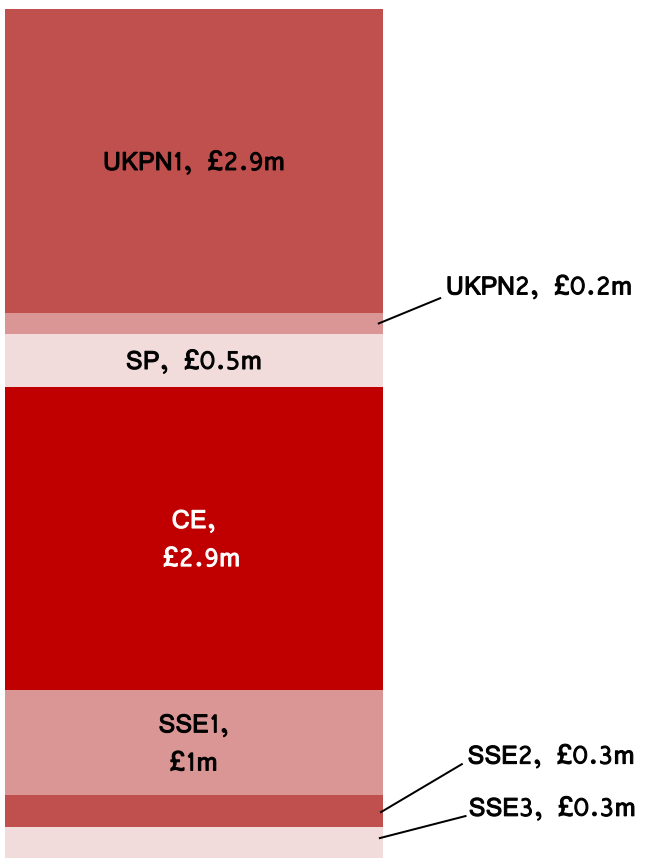


Customers are responding to government policy imperatives such that the need for smart grids remains compelling



# Distributors have responded enthusiastically to the LCN fund

Seven projects registered in first tier total £8.1m

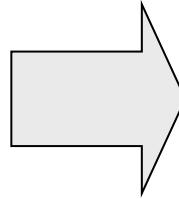


Second tier three times over subscribed

## Distributors responding predictably and positively to the innovation incentives framework

### LCN fund objectives

- Shared learning
- Specified outcomes
- Leveraged funding
- Replicable solutions
- Deliverable



### Behaviours and outcomes

- Highly competitive second tier bidding environment
- Range of regional and national project partners
- Consortium partners enrich projects
- Several projects with similar scope
- All innovation funding routes being utilised
- Positive outlook for DNO and wider industry collaboration

The background features a large, semi-transparent white arrow pointing from the left towards the right. Behind the arrow, there is a composite image: on the left, a perspective view of solar panels under a bright sky; on the right, a close-up of a white ceramic flower-shaped light fixture. The overall color palette is soft, with blues, oranges, and whites.

# **Plenary Q&A session**

## **Table discussions**

## Questions for table discussions

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- **Type of innovation and potential projects**

What innovation might be required to facilitate a low carbon economy and securing supplies as efficiently as possible in each of:

- Gas distribution
- Gas transmission
- Electricity transmission

What are your views on specific projects that could be funded under this scheme and what are the potential costs of these projects?

- **Level of funding**

What annual level of funding is required to facilitate innovation in each sector – how does this compare to the existing LCN fund of £64m? How should funding be profiled over the 8 year period of the RIIO price control?

- **Split between price control and innovation stimulus**

What speculative investment companies should include in their business plans to be funded through the price control, versus what they should compete for through the stimulus – and the potential value and required justification for this speculative investment

The background of the slide is a composite image. On the left, there are rows of solar panels under a bright sun. On the right, a hand is shown holding a white document. In the bottom left corner, a blue gas burner is visible. The overall theme is energy and customer service.

*ofgem*

Promoting choice and value  
for all gas and electricity customers