

Welcome to the *ESO RIIO-2* webinar

- Thank you for joining us! You will be joined in listen only mode.
- Please do not unmute yourself or turn your camera on
- You can ask questions via the chat function
- The WebEx details are:
 - [0800-376-8336](tel:08003768336) or [020-7108-6317](tel:02071086317)
 - Meeting number (access code): [595 277 211](tel:595277211)
 - Meeting password: [WsTybXf2](#)
- **Please note** we will be recording this webinar

For more information on the ESO's approach to RIIO-2 please visit youenergyfuture.nationalgrid.com

Welcome to the *ESO RIIO-2* webinar



Thursday 28 June 2018

Seamus Gallagher
Seamus.Gallagher@nationalgrid.com



Agenda

Introduction

Stakeholder Engagement

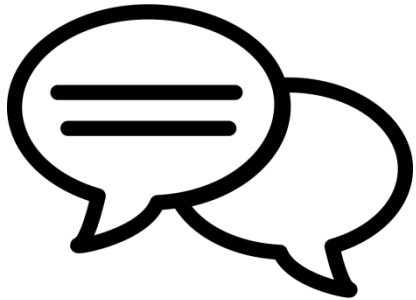
22nd June - Workshop Overview

Whole Energy System

Next Steps and close



How you can get involved today



Throughout the presentation please feel free to provide feedback or ask questions via the chat function and we will pause at points to respond

We will be using a poll at certain stages during the presentation to collect your feedback



We hope to have a question and answer session at the end of the webinar. Please press the 'hand' icon next to your name and we will unmute your line.

ESO Vision

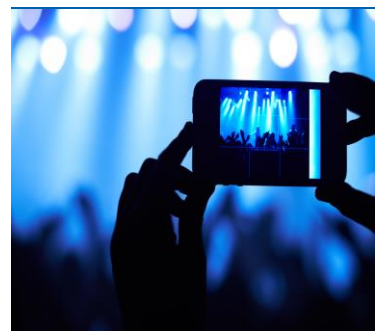
We are developing our vision for the legally separate ESO as part of our Forward Plan and RIIO-2 programmes

Our long-term vision is for an Electricity System Operator (ESO) which thinks across networks, plays a more active part in the energy system and helps to shape frameworks for markets.

In our own role, we will be transparent in our decisions and actions and promote increased use of markets in place of bespoke bilateral action. Alongside this, we will also continue to run the electricity system safely, securely, sustainably and efficiently.



Stakeholder Engagement



Seamus Gallagher
Seamus.Gallagher@nationalgrid.com

Our Consumer Priorities

We developed the consumer and stakeholder priorities based on our engagement over the last year – more details are available in our stakeholder engagement report.

I want an affordable energy bill

I want to use energy when I want

I want a decarbonised energy system, fit for the future

I want a safe and secure energy system

Read the full report at: <http://yourenergyfuture.nationalgrid.com>

Our Stakeholder Priorities

The priorities will underpin our engagement and business plan activity over the coming months. We will review these periodically to ensure they reflect your needs.

I want you to protect the system from cyber and external threats

I want to engage in more active wholesale and capacity markets

I want efficient whole energy system operation

I want you to enable the smart, flexible and low carbon energy system of the future

I want efficient whole energy system operation

I want to engage in more active wholesale and capacity markets

I want to provide more balancing and ancillary services

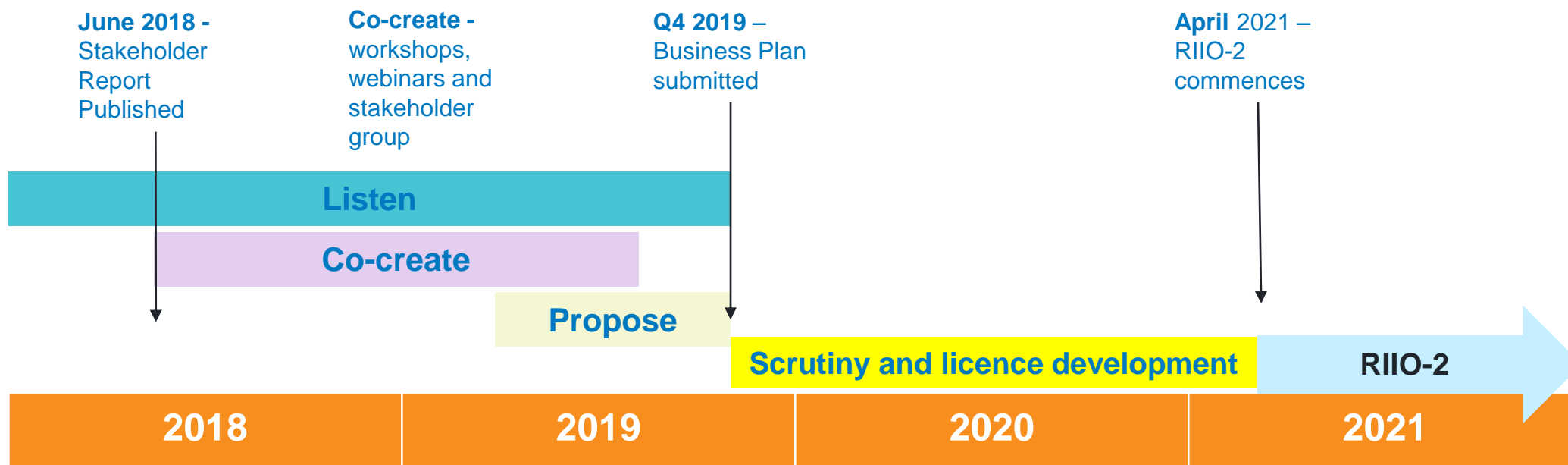
I want to connect to the electricity network in a timely manner

I want to connect to the electricity network in a timely manner

Read the full report at: <http://yourenergyfuture.nationalgrid.com>

We are moving into the “co-create” phase of our stakeholder engagement strategy

- We are now moving to the “co-create” phase— our workshop on the changing energy and regulatory landscape was the first of our co-create activities
- Here we build on your priorities, working with you to develop the detail around our business plan proposals



Using scenarios and the changing energy landscape



Russell Fowler
Russell.Fowler@nationalgrid.com

Scenarios allow us to manage change and uncertainty – FES 2018 is a good starting point for our business plan

Scenarios



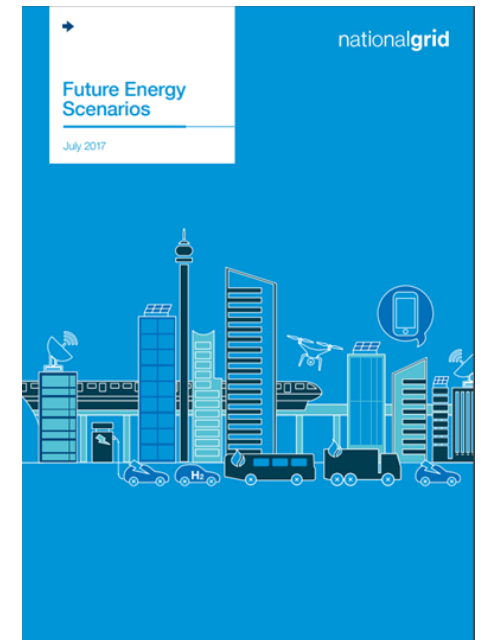
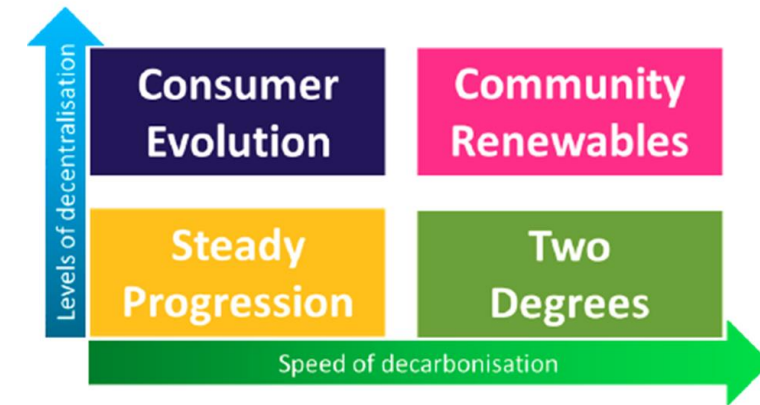
We need scenarios because:

- A single accurate long term view not possible to create
- Of the need to balance this uncertainty with a sound basis for our business plan
- Scenarios provide a consistent, co-ordinated and comparable approach

Good scenarios should:

- Consider the whole energy system
- Be stakeholder developed
- Be evidence based with high quality analysis
- Be flexible to be used across the industry

Future Energy Scenarios

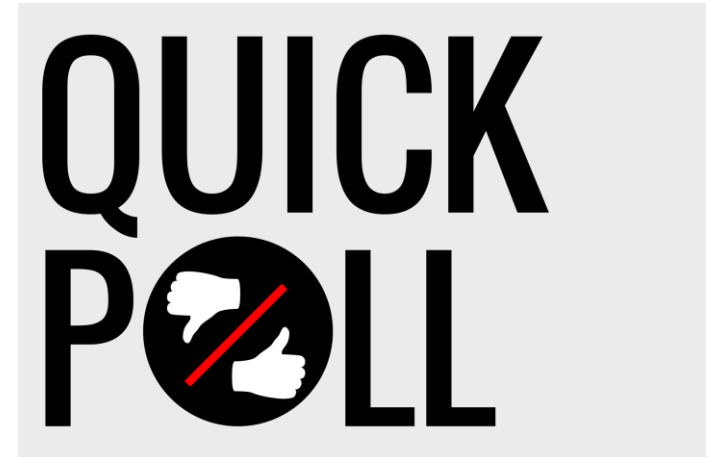


We believe using FES is the right approach for creating our **nationalgrid** business plan - do you agree?

Please consider the question below and vote using the polling function.

Question – Do you agree with the ESO using FES 2018 as a basis for its business plan?

- Yes
- No
- Unsure



Please tell us what you think changes you think will have the greatest effect on industry and consumers

Technology changes

Increased digitisation across the energy sector

Increasing renewable generation capacity

Changing electricity demand profiles

Increased (Battery) storage

Increased decarbonisation of transport

Policy and Market changes

Capacity Market review

Increased peer-to-peer trading

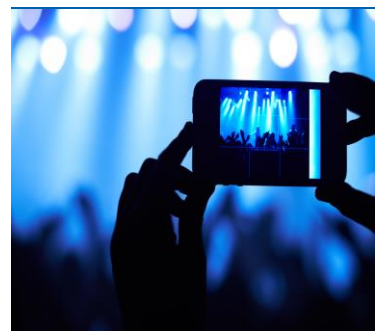
Electricity Charging review

Competition in networks

UK's relationship with the Internal Energy Market

QUICK
POLL

The ESO's Regulatory Framework



Louise Clark
Louise.Clark2@nationalgrid.com

We have developed a set of principles for the ESO's overall nationalgrid RIIO-2 framework, for discussion

- Holistically supports and encourages the ESO to take the actions and investments needed to deliver long term value for customers and consumers, using appropriate incentives to drive exceptional performance and value for consumers;
- Provides an appropriate risk-reward framework tailored to the ability to bear risk and the potential value delivered to consumers;
- Sets clear, manageable and measurable outputs, while building in flexibility to manage uncertainty and respond to changes in customer and consumer needs;
- Encourages whole energy system thinking and use of market-based solutions to support the continuing low-carbon transition of GB's energy system;
- Promotes innovation within the ESO and across the system and market;
- Ensures the ESO is financeable and credit-worthy, and able to operate;
- Prevents windfall gains and losses that are not justified by underlying performance;
- Is sufficiently simple and transparent for the ESO, Ofgem and industry stakeholders to understand.

Regulatory funding models



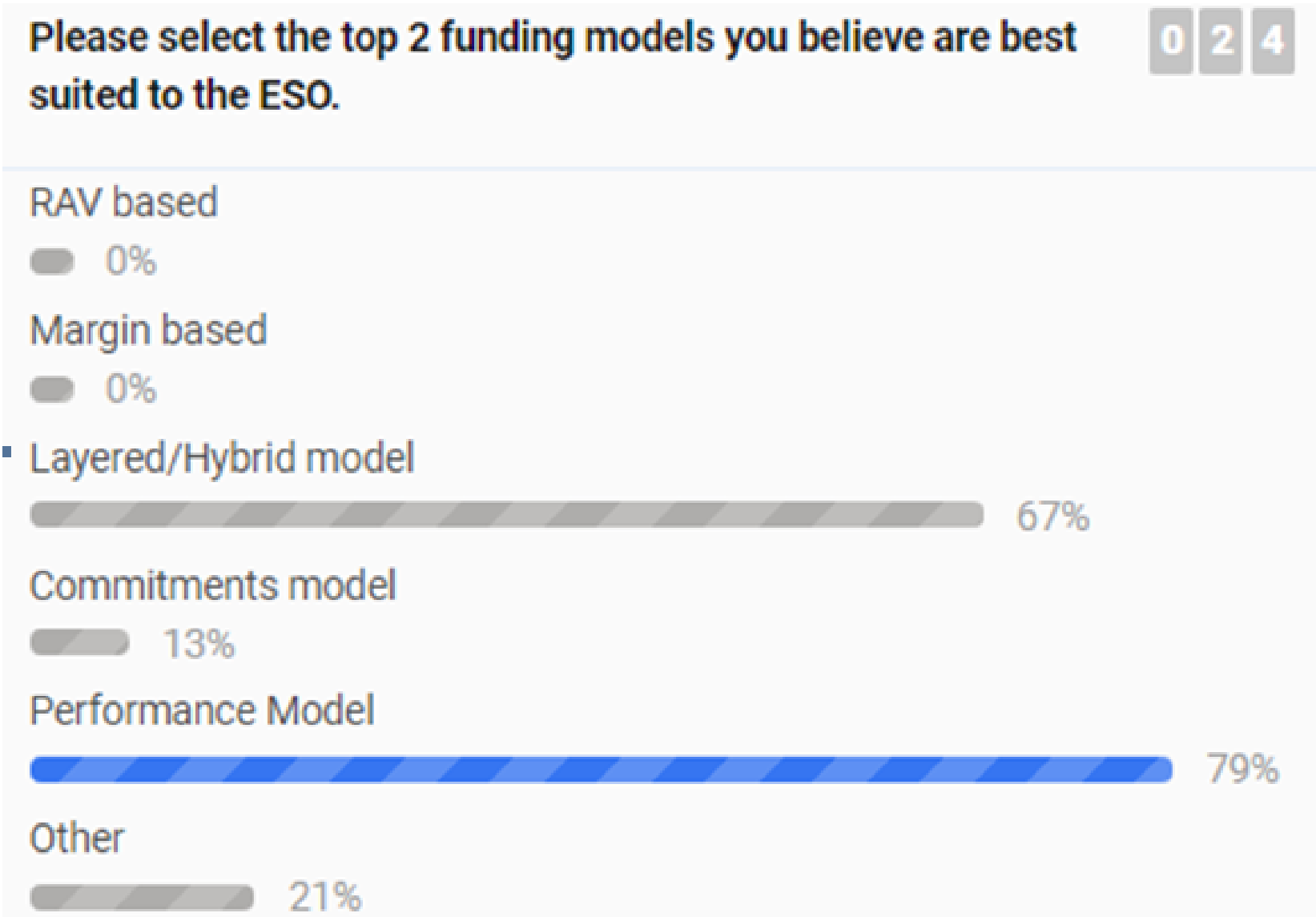
We have explored five different funding models and have developed a strawman for each of them

	RAV	Margin
Attributes	<p>Baseline profitability based on $RAV \times WACC$</p> <p>WACC reflects high operational gearing</p> <p>Outperformance on totex allowances possible</p>	<p>Two margins: on controllable costs and on pass through costs, both ex-ante</p> <p>Outperformance on totex allowances possible</p>
Example	RIIO-T1	DCC
Considerations	<p>Familiar and well understood</p> <p>Not reflective of the ESO's business or risks</p> <p>Risk of too much focus on capex solutions</p>	<p>Relatively simple to understand</p> <p>More reflective of ESO business</p> <p>Too crude a measure</p> <p>Margin can only be identified through benchmarking</p>

We have explored five different funding models and have developed a strawman for each of them

	Layered	Commitments	Performance
Attributes	<ul style="list-style-type: none"> • RAV*WACC for capital • Margin for operating • Margin for revenues collected • Allowance for guarantee • Incentives • Premium for any asymmetry 	<p>Commitments defined through constructive engagement</p> <p>Initial tariffs proposed by the ESO and negotiated with customers</p> <p>Price cap set by Ofgem</p>	<p>No baseline equity profitability</p> <p>Returns based on incentive mechanisms</p>
Example	SONI	Gatwick Airport	No known GB precedents
Considerations	<p>Tailored funding for the ESO's different activities and risks</p> <p>Flexible over the long term</p> <p>Risk of added complexity, although potentially more transparent</p>	<p>Aligns with customer and consumer requirements</p> <p>Unclear on the level of engagement needed from customers and the ESO</p>	<p>Focuses the ESO on outputs</p> <p>Transparent model</p> <p>Limited margin for error could create a risk-averse ESO</p> <p>Risk that the ESO would be unable to operate</p>

In our workshop poll, the Performance and Layered models had clear support from stakeholders as the two most suited to the ESO



Ofgem's ESO RII02 industry workshop

When: 09:30-13:30, Monday 6th August

Where: Ofgem, Canary Wharf office

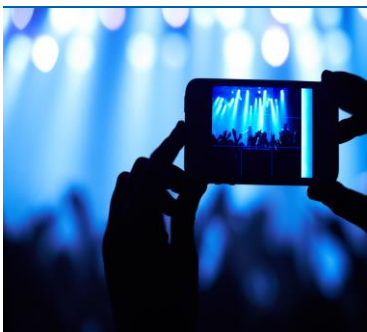
How: to be added to the initial invite list email:

- electricitySOreform@Ofgem.gov.uk
and/or
- Grendon.Thompson@Ofgem.gov.uk

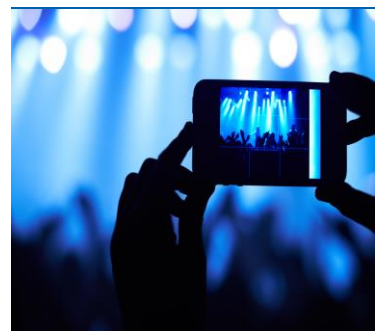
What: To explain our approach and to understand industry participants' priorities and views on some significant questions and options related to the ESO's RII02 price control



Q&A



Whole Energy System



Jenny Phillips
Jenny.Phillips@nationalgrid.com

Why are we talking about this?

Gas
Transmission
stakeholder
priority

I want you to facilitate the whole energy system of the future –innovating to meet the challenges of an uncertain future

Electricity
System Operator
stakeholder
priority

I want efficient whole energy system operation

We have proposed a set of definitions for discussion

Whole Energy System:

Covering gas and electricity, transmission and distribution, including all parties involved in delivering for consumers.

Whole Electricity System:

Covering electricity transmission and distribution, including all parties involved in delivering for consumers

Whole Gas System:

Covering gas transmission and distribution, including all parties involved in delivering for consumers

We look forward to hearing whether Ofgem and stakeholders agree with our definitions for whole energy system.

We have separated Whole Energy into six important focus areas

Markets

Coherent, with no conflicting signals

Governance

Reflective of large numbers of participants

Operability

Common information and assumptions

Innovation

Impact and benefit considered across networks


Technology

Common frameworks for enablers such as data exchange, Artificial Intelligence etc.


Smart Deployment

Options for delivery across networks and markets

What are we going to do next?

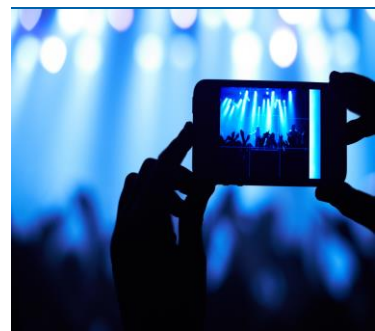


Through our RIIO 2 stakeholder engagement, we intend to clarify the SO's role within the whole energy system



We think there is an opportunity to develop a set of joined-up gas and electricity incentives that will drive the right behaviours and deliver best value for consumers

Whole Electricity System



Andy Wainwright
Andy.Wainwright@nationalgrid.com

What does Whole Electricity System mean to me?

					
<p>Markets <i>Coherent with no conflicting signals</i></p>	<p>Operability <i>Common information and assumptions</i></p>	<p>Innovation <i>Impact and benefit considered across networks</i></p>	<p>Technology <i>Common frameworks for enablers</i></p>	<p>Governance <i>Reflective of larger number of participants</i></p>	<p>Smart Deployment <i>Options for delivery across networks and markets</i></p>

How we are developing our Whole Electricity System thinking

ESO Forward Plan Deliverables

- 'Facilitating Whole System Outcomes' is one of our four ESO roles as a more separate entity
- Deliverables include our collaborative work on Regional Development programmes
- Will be shortly publishing our high level views on to facilitate whole system outcomes

ENA Open Networks

- Collaborative project involving all major UK network companies.
- Next major milestone; 'Future Worlds' consultation (31st July)
- Your feedback to this consultation will inform our future thinking

RIO-2 Engagement

- Your feedback will inform our understanding of customer and stakeholder priorities
- This will support our defining the ESO's activities in RIO-2
- From this we will develop a RIO-2 business plan



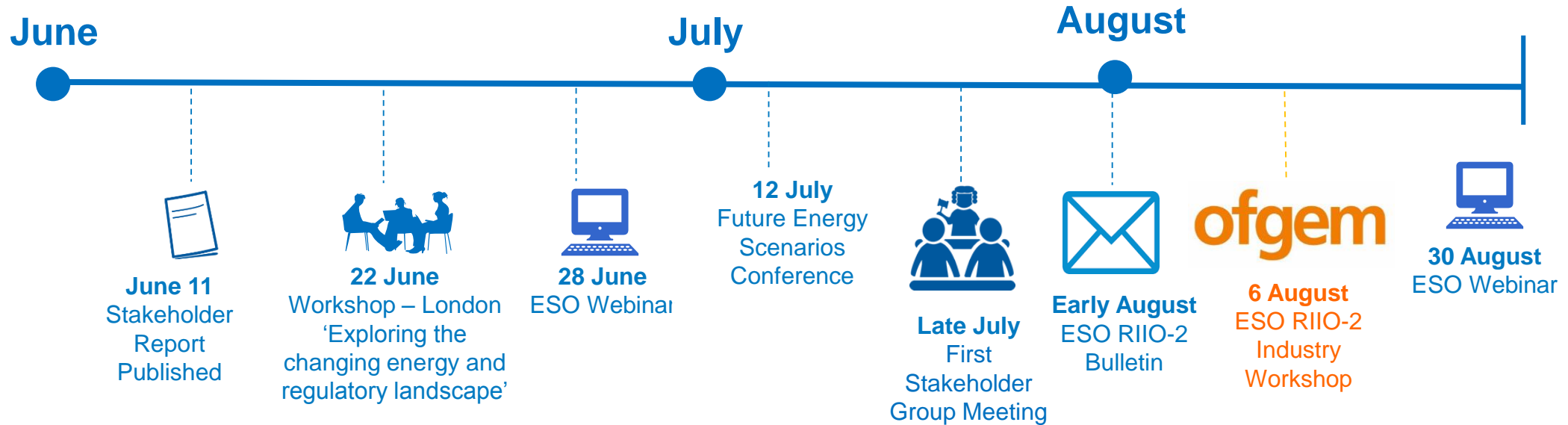
Whole Electricity System – RIO-2 thinking

Next Steps



Timeline of activity

Moving into our co-create phase



Upcoming engagement topics:

- Whole Electricity System
- Innovation
- ESO Vision

We will be discussing these in more detail with you soon

Thank you for attending!
You can get involved further:



<http://youreenergyfuture.nationalgrid.com/>



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Early August - ESO RIIO-2 Bulletin



30 August - ESO RIIO-2 Webinar