

# Transmission Charging Methodologies Forum and CUSC Issues Steering Group

Meeting 94  
13 March 2019

# Welcome

Jennifer Doherty  
National Grid ESO





# Housekeeping

- Fire alarms
- Facilities
- Red lanyards

# Today's agenda

#	Item
1	Introduction, meeting objectives and review of previous actions
	<b>CISG</b>
2	Code modifications update
3	CUSC Horizon Scan
4	Loss of Mains Protection update
	<b>TCMF</b>
5	Update on proposal to maintain compliance with 838/2010
6	RIO2 update
7	Balancing Services Charges Task Force update
8	<b>AOB</b>
	<b>Close</b>

## Action Item Log

### Action items: In progress and completed since last meeting

ID	Month	Agenda Item	Description	Owner	Notes	Target Date	Status
22	Feb-19	Actions	JW took an action to speak to the revenue team to ascertain whether they could publish anything on the calculation of the error margin.	JW	Details of the error margin calculation will be published in the Five Year View this month (March).	Mar-19	Complete
23	Feb-19	Update on ESO TGR removal proposal	Action on JW to provide more context on this at a future TCMF.	JW	Update given in March meeting.	Mar-19	Complete



# CUSC Issues Steering Group (CISG)

13 March 2019



# Code Modifications update

Rachel Hinsley  
Code Administrator  
National Grid ESO



# New modifications

## **New Proposed Urgent Modification**

### **CMP312 - Correcting erroneous legal text in Section 14 following implementation of CMPs 264/5 (consequential)**

The Panel unanimously recommended for the modification to proceed under Urgent status. Ofgem approved this following the Urgent route.

Panel, by majority vote, concluded for this to proceed to a five day Code Administrator Consultation (CAC).

## **New Non- Urgent Modifications**

### **CMP309 – CUSC changes in the event the UK leaves the EU without an agreement is proposed by NG ESO**

Panel, by majority vote, approved for this to follow the self-governance route and proceed straight to CAC.

### **CMP310 – CUSC section 14 changes in the event the UK leaves the EU without an agreement is proposed by NG ESO**

Panel, by majority vote, approved for this to follow the self-governance route and proceed straight to CAC.

### **CMP311 - Reassessment of CUSC credit requirements for Suppliers, specifically for “User Allowed Credit” as defined in Section 3, Part III section 3.27 of the CUSC**

Panel agreed for this to proceed for Authority decision and to proceed to Workgroup. Panel requested that workgroup attendance be extended to invite Suppliers, especially small Suppliers, for Workgroup discussions. If you wish to join this Workgroup please contact [cusc.team@nationalgrid.com](mailto:cusc.team@nationalgrid.com)



# Modifications at workgroup (1/2)

Mod	Latest update	Next WG date	Next meeting
CMP280/ CMP281	1 WG held: CMP280 WG Report Est. May Panel – 2 alternatives raised and voted on CMP281 WG Report Est. May Panel – Extension Granted to take into account BS Task force	March 2019	WG13
CMP285	Code Admin consultation closed in February. Panel voted on the DFMR. The FMR will be issued to the Authority no later than the 11 March for decision	NA	NA
CMP286	Separated from CMP287, NG ESO liaising with proposer to discuss the RFI being issued	TBC	WG7
CMP287	Liaising with the proposer to discuss the contents of the WG Consultation. Extension on Report until May	TBC	WG7
CMP288/ CMP289	WG Consultation Closed 1 February 2019, WG to be arranged in coming weeks. Extension until June	March 2019	WG8
CMP291	WG decoupled from GC0117	March 2019	WG3
CMP292	WG consultation closed 22 January 2019. WG TBC March 2019	March 2019	WG3

## Modifications at workgroup (2/2)

Mod	Latest update	Next WG date	Next meeting
CMP295	WG4 held 14 February. WG5 held 11 March	TBC	WG6
CMP298	WG2 held December, further workgroup to be held in 8 March	8 March	WG3
CMP300	WG1 held 15 February, WG2 scheduled 22 March; WG consultation to follow thereafter	22 March	WG2
CMP303	Progressed to CAC, closes 19 March	NA	NA
CMP304	WG3 held 28 January 2019. Next workgroup 22 March	22 March	WG4
CMP306	WG held on 31 January 2019	TBC March 2019	WG2
CMP308	WG3 held 1 March, WG consultation to be progressed in April	TBC late March 2019	WG4

# Authority Decision updates

## Pending Authority decisions

There are no pending decisions

## Authority Decisions

There have been no authority decisions.

# Dashboard - CUSC

New Modifications	In-flight Modifications	Modifications issued for workgroup consultation	Modifications issued for code admin consultation
4	26	0	4

Workgroups held February	Authority Decisions	Modifications on hold
5	0	5

# Questions





# CUSC Horizon Scan

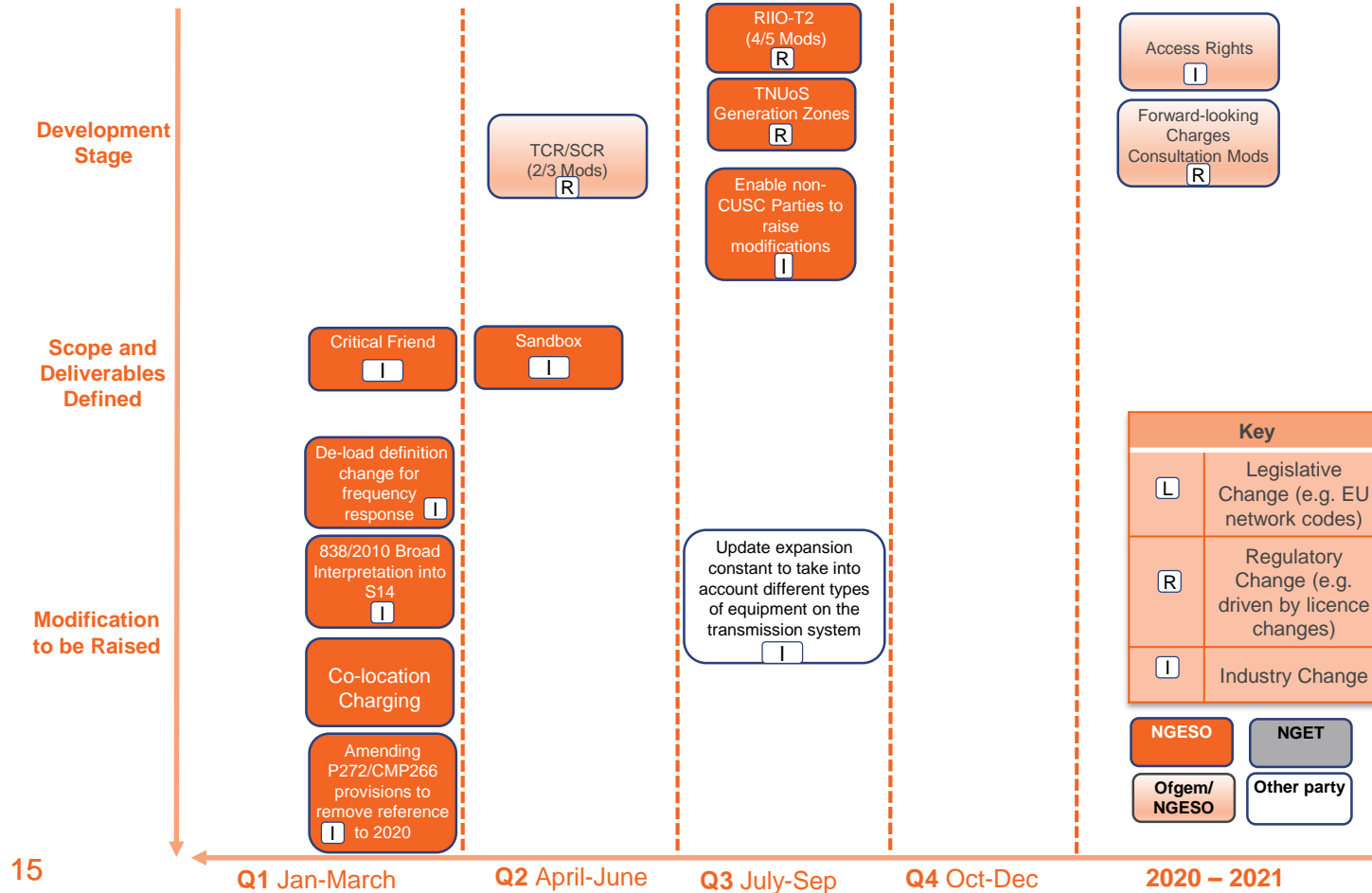
Rachel Hinsley

Code Administrator

National Grid ESO



# CUSC Horizon Scan\* - February 2019



\*This information is true at the point of publication and is intended for indicative purposes only

# Additional Information

Modification	Summary of Defect
Co-location Charging	There are currently no arrangements to deal with multiple fuel types behind the same connection point. Therefore this could lead to incorrect revenue recovery, discriminatory treatment and not charging in an economic or efficient manner.
Amending P272/CMP266 provisions to remove reference to 2020	14.17.29.9 of CUSC hardcodes an end date for transitional TNUoS arrangements - the end date should be the start of the first charging year after the smart meter deadline contained in the Standard Conditions of Electricity Supply. Without this mod, when the smart meter deadline for Suppliers moves, there will be a disconnect between charging arrangements and the intent of CMP266.
838/2010 Broad Interpretation into S14	Removing all local circuits from the calculation of the cap within the CUSC.
De-load definition change for frequency response	The need to get wind generation to participate in December 19 auction trial.
Update the expansion constant to take into account all different types of equipment on the transmission system	Seeking to increase the value of the TDL by reducing the TDR and also increasing the value of EET. The way the reference node and expansion constants currently work are not properly cost reflective.
Enable non CUSC Parties to raise modifications	BSC proposal (P370) has been raised to better enable non-BSC Parties to raise modifications. A similar modification will also be raised on the CUSC.
TNUoS Generation Zones	At the start/end of a price control the zones and methodology for calculation need to be reviewed and re-done.

## CACoP Horizon Scan (cross codes)

The CACoP Horizon Scan provides a combined view of all the Code Administrators key legislative and regulatory changes expected to impact the industry. It is true at the time of publication and is intended for indicative purposes only.

The CACoP Horizon Scan will be used by Code Administrators to co-ordinate any changes that have cross code impacts and can be found here:

<https://www.nationalgrideso.com/codes>

# Questions





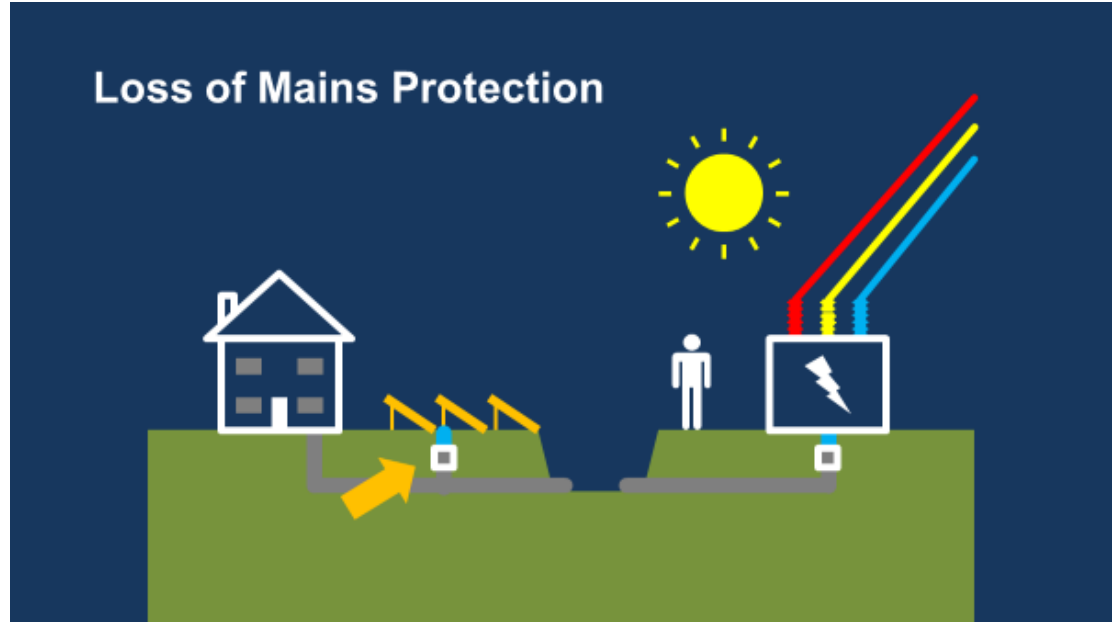
# Loss of Mains Protection update

Graham Stein  
National Grid ESO



# Loss of Mains Protection Accelerated Change

- Progress Update
- Costs
- Process



# Loss of Mains Protection Accelerated Change



DC0079 Report to the Authority approved by DCRP.



Project Setup Well Progressed: look out for the Payment Process and Procurement Methodology publication in late March. Please provide feedback.



Stakeholder Events Scheduled for London and Glasgow in Week 1 of April.



Costs for this year now £120m. Plans for next year under review.



We will also provide more information on programme governance – there's an opportunity to Participate by sitting on the Steering Committee.

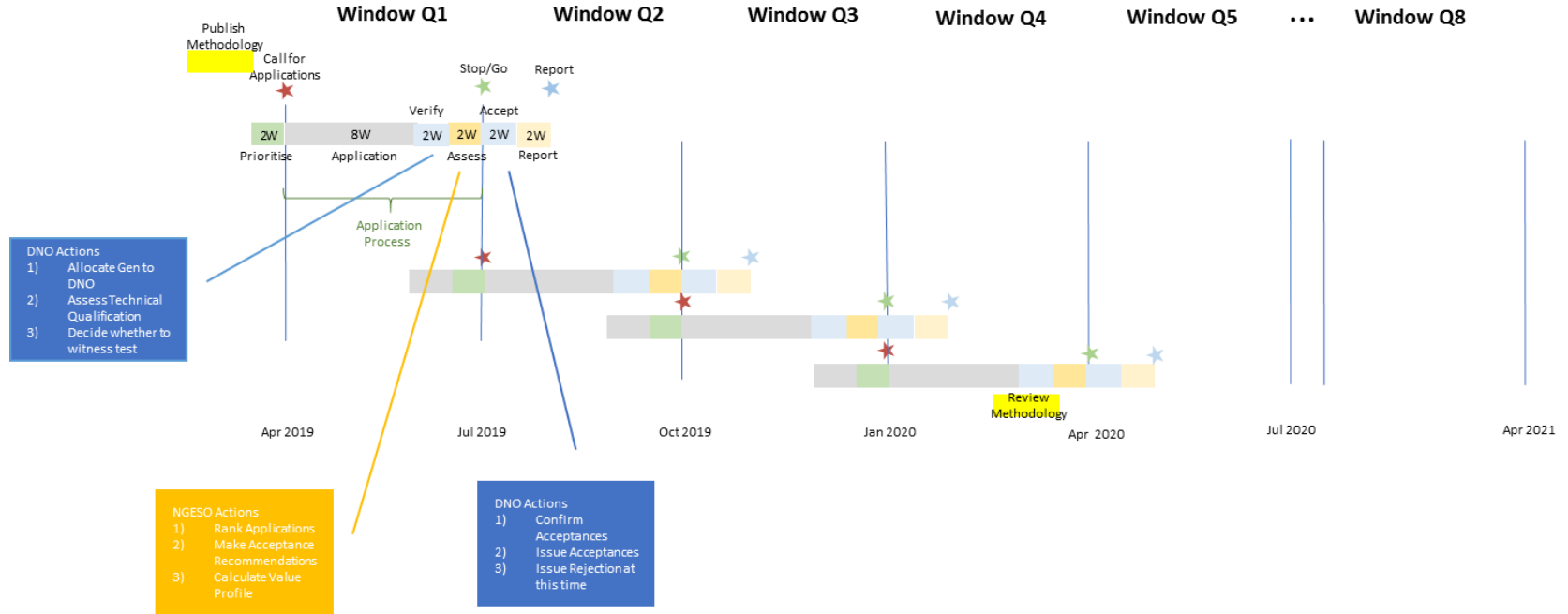


Our target is to open the payment process on 1<sup>st</sup> May. Commercial arrangements and process development is on track but ambitious.

# Costs

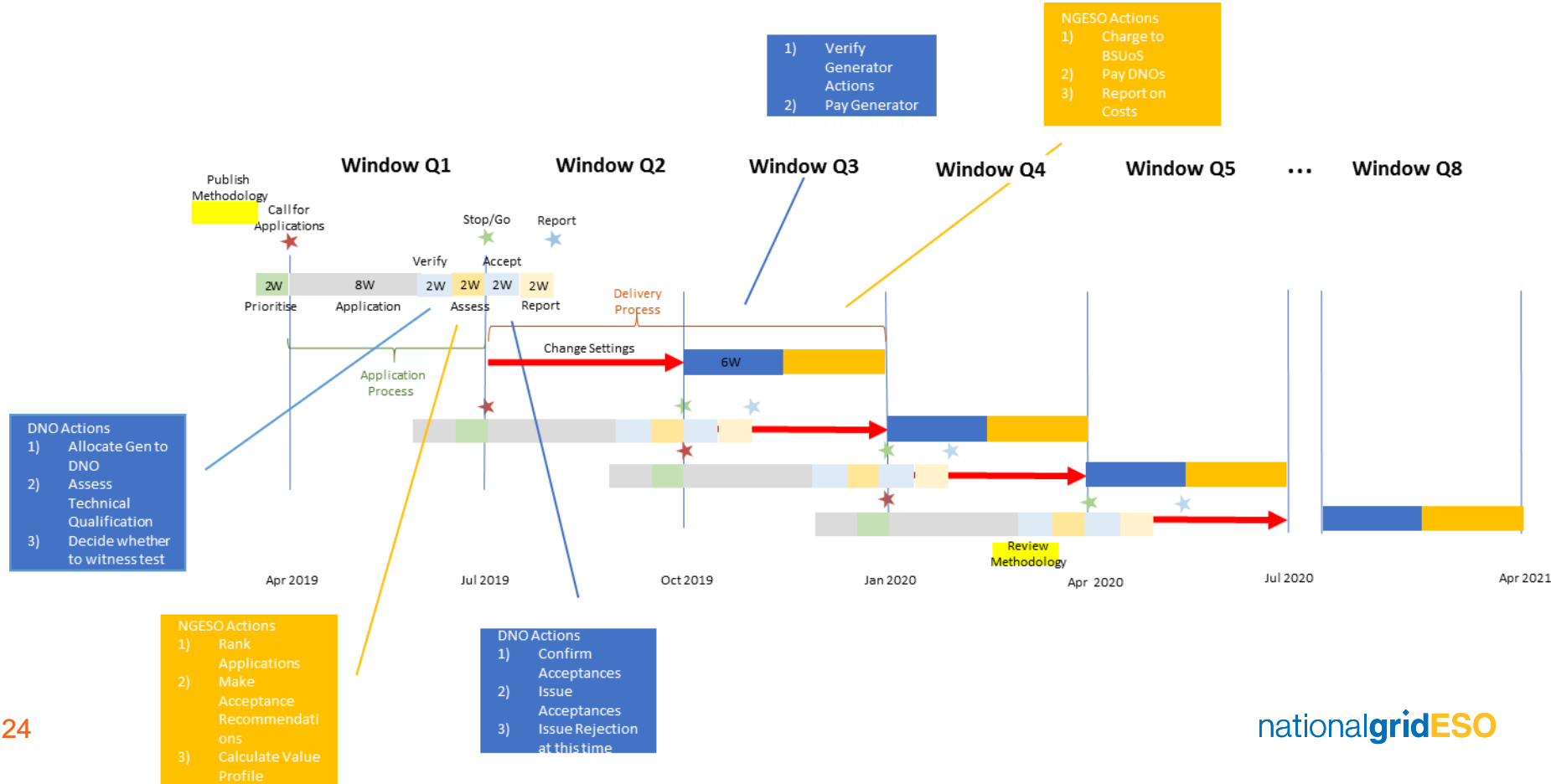
£m		19/20	20/21	21/22	22/23	23/24	24/25
<b>Do Nothing</b>	Forecast Balancing Costs	130	150	150	170	190	290
	Cumulative	130	280	430	600	790	1080
<b>Implement Change Programme</b>	Forecast Balancing Costs	130	150	40			
	Forecast Change Costs	20	30	10			
	Total Balancing Costs	150	180	50			
	Cumulative	150	330	380			

# Payment Process - Application





# Payment Process – Action and Payment



# Questions



# Transmission Charging Methodology Forum

13 March 2019



# ESO Proposed Mod to maintain compliance with 838/2010

Harriet Harmon  
National Grid ESO



# Background - the regulation

## 838/2010, Part B:

“...transmission charges shall exclude:

- (1) charges paid by producers for *physical assets required for connection*\* to the system or the upgrade of the connection;
- (2) charges paid by producers related to ancillary services;
- (3) specific system loss charges paid by producers.

Annual average transmission charges paid by producers in Ireland, Great Britain and Northern Ireland shall be within a range of 0 to 2,5 EUR/MWh...”

\* - “the connection exclusion”

## CMP 224 & 261

- The ‘limiting regulation’ was introduced into the CUSC through CMP224;
- ‘physical assets required for connection’ is undefined;
- In its approval of CMP224, the Authority noted that the term was ambiguous and could be interpreted broadly, or narrowly
  
- Authority determined, and CMA upheld that connecting equipment does not cease to be an asset required for connection following the initial act of connecting.



# What's the purpose of the mod?

*The CUSC needs to be updated to establish a methodology by which The Company can determine which assets are to be included, and which are to be excluded when assessing compliance with the €0-2.50/MWh range, and can more broadly maintain compliance on an ex ante and ex post basis.*

(Draft Defect, ESO Mod)

ESO needs a methodology to include:

- An error margin;
- A way to set compliant tariffs (ex ante); and
- A way to be compliant at reconciliation (ex post)



# What's the proposal?

Assets Required for Connection should be a defined term (“ARC”);

The CUSC needs a way to identify which circuits/assets should be captured

The revenues associated to ARC (RARC) should be excluded from the calculation of the maximum amount to be collected from generators;

Wider components			Local components			Residual (£m)	Total (£m)
Peak Security (£m)	Year Round Shared (£m)	Year Round Not Shared (£m)	Offshore Local (£m)	Onshore Local Circuit (£m)	Onshore Local Substation (£m)		
153.1	17.0	165.0	245.3	18.4	19.2	-187.9	430.1

# What might this look like? - illustrative figures for the purposes of demonstrating the relative effect of removing all local charges, should not be construed as indicative or actual charges/applicable tariffs.

**£430.1m is the result of ‘aiming’ for 2.50/MWh – the absolute cap limit (c.£5.98/kW)**

Removing the Local from the calculation of the cap limit would mean:

- The residual moves from -£188m to £95m
- The £282.90m Local charges are recovered in addition
- The total paid by Gen is £430.10m plus £282.90m ~ £713m (c.£9.92/kW)

**We know that not all elements of Local will or can be excluded, and that the Residual is the focus of the TCR, so this is only an illustrative example, not the proposed solution.**

Wider components			Local components				
Peak Security (£m)	Year Round Shared (£m)	Year Round Not Shared (£m)	Offshore Local (£m)	Onshore Local Circuit (£m)	Onshore Local Substation (£m)	Residual (£m)	Total (£m)
153.1	17.0	165.0	0	0	0	95.0	430.1

# Why can't the TGR be £0 today?

Harriet Harmon

National Grid ESO



# How do we calculate the equivalent generation cap?

€2.50 per MWh  
- 21% error margin

=

€1.98

€1.98 ÷  
£:€ exchange rate of €1.16

=

£1.71/MWh

(FES Generation Forecast)  
253TWh

X

£1.71/MWh

= **£430m** cap on generation revenue (for 2018/19)

# Components of the tariff and the residual

		2020/21	2021/22	2022/23	2023/24
Components of Tariff (£m)	(A) Locational	362.67	391.39	477.67	597.62
	(B) Local Circuit Onshore	19.44	45.67	55.88	131.18
	(C) Local Substation	19.84	20.24	20.43	24.16
	(D) Offshore	311.19	337.01	426.92	495.76
	<b>(E) Residual</b>	<b>-320.61</b>	<b>-412.12</b>	<b>-608.53</b>	<b>-886.6</b>
	(F) Total from Generation	392.53	382.20	372.37	362.13
	(G) Exchange Rate	1.11	1.10	1.10	1.10
	(E) MWh from Transmission Generation	221.22	213.65	206.98	201.28

The residual currently keeps us below the 2.50/MWh cap, a £0 TGR without any other changes leads to non-compliance against the upper limit.

# Without a residual...

(The below illustrative and relative rates are not actual or potential charged values and should not be construed as indicative charges)

		2020/21	2021/22	2022/23	2023/24
Components of Tariff (£m)	(A) Locational	362.67	391.39	477.67	597.62
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**Illustrative** baseline rate (€/MWh)

1.98

1.98

1.98

1.98

Total from gen (£m), £0 residual

713.14

794.32

980.9

1248.73

**Relative** rate (€/MWh), £0 residual

3.58

4.09

5.21

6.82



# Questions



# RIIO-2 Price Control for the ESO

Katharine Clench  
National Grid ESO



# First price control for a legally separate ESO

RIIO: Revenue = Incentives + Innovation + Outputs

## RIIO-T1 (2013 – 2021)

ESO funded as a joint entity with the England & Wales electricity transmission owner, under the National Grid Electricity Transmission (NGET) licence

- Balancing services incentive scheme (BSIS)
- Wind and demand forecasting incentives

### Forward Plan (2018 – 2021)

A new holistic incentive approach across all ESO activities

## RIIO-2 (2021 onwards)

The first price control for a legally separate ESO (remaining within National Grid Group)

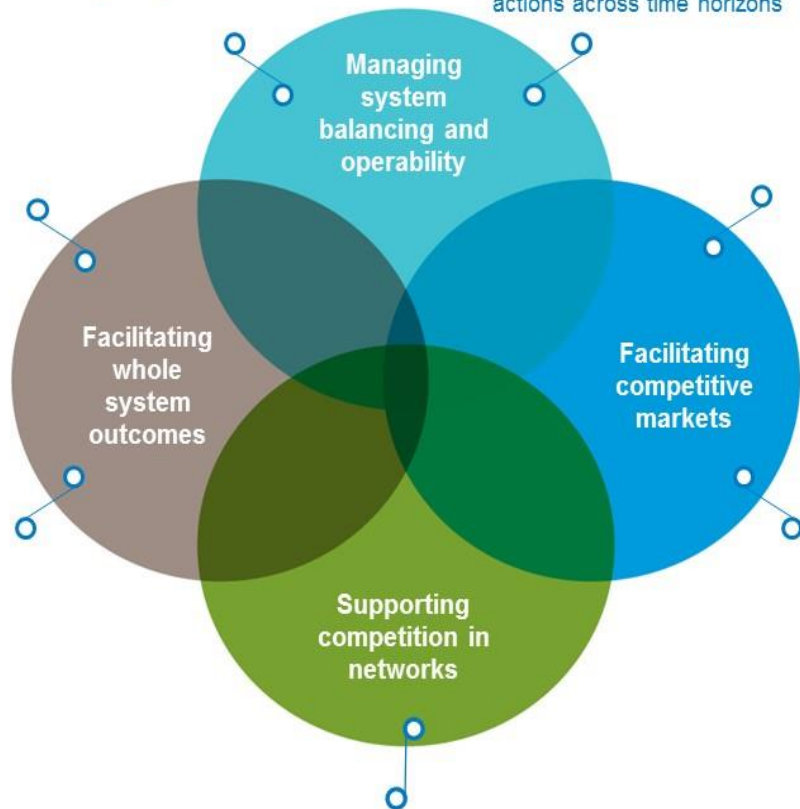
**Incentives** should be used to

- drive performance over and above the baseline; and
- deliver additional value to consumers.

# Roles and Principles

**Principle 1:** Support market participants to make informed decisions by providing user friendly, comprehensive and accurate information

**Principle 2:** Drive overall efficiency and transparency in balancing services, taking into account impacts of ESO actions across time horizons



**Principle 5:** Coordinate across system boundaries to deliver efficient network planning and development

**Principle 3:** Ensure the rules and processes for procuring balancing services, maximise competition where possible and are simple, fair and transparent

**Principle 6:** Coordinate effectively to ensure efficient whole system operation and optimal use of resources

**Principle 4:** Promote competition in the wholesale and capacity markets

**Principle 7:** Facilitate timely, efficient and competitive network investments

# Timeline and Ofgem's proposals

	Dec '18	Jan '19	Feb	March	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
<b>Key dates</b>	Ofgem sector specific consultation ▲		Consultation response →	★	★ ESO RIIIO-2 ambition consultation	Ofgem sector decision ▲		★	★ First draft business plan published		★	★ Second draft business plan published	★ Final Business Plan Submitted

## Ofgem's Proposals for the ESO

### 1) Length of price control

- 2 year business planning cycle within a longer-term plan
- Considering 2+2+1 year to align with network companies in 2026

### 2) Funding model

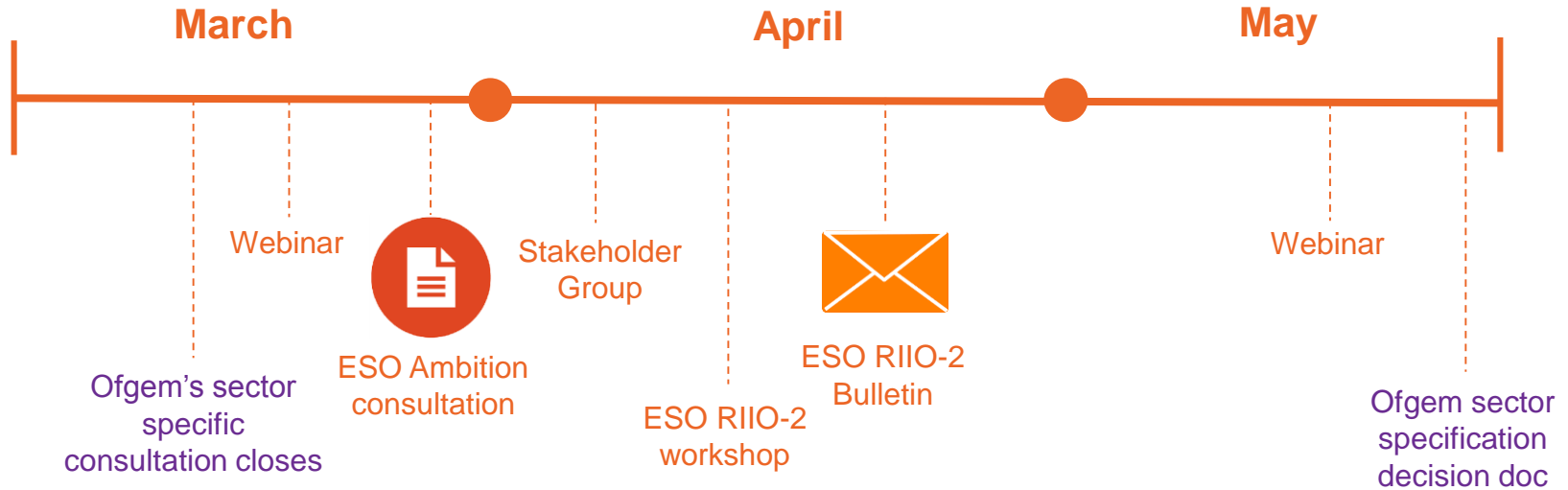
- Activity based model with 'pass-through plus margin' approach for each layer of activity
- Ex ante and ex post cost scrutiny mechanisms inc. cost disallowance and audits

### 3) Incentives

- Continue current evaluative scheme



# How to get involved



**ESO.RIIO2@nationalgrid.com**

**<http://yourenergyfuture.nationalgrid.com>**





# Balancing Services Charges Task Force Update

Sophie van Caloen  
National Grid ESO

- **Update of the Task Force progress**
- **Communication and engagement plan**

# Update of the Task Force

Deliverable	Status	Task Force view
<b>Deliverable 1</b> (assessing the current situation) <i>Feb</i>	The Task Force has reached a tentative conclusion	<ul style="list-style-type: none"><li>• In general, the existing elements of balancing services charges do not currently provide a forward-looking signal which influences user behaviour. This is mainly due to balancing services charges being hard to forecast, complex, increasingly volatile and other market elements taking precedence.</li><li>• The exceptions identified being in relation to risk premia and overnight periods of high wind and low demand, neither of which are of benefit to the system or ultimately to consumers</li></ul>
<b>Deliverable 2</b> (assessing potential options) <i>March</i>	At a high-level the Task Force has tentatively identified potential options and will further explore these in greater detail over the coming weeks.	<p>4 potential options:</p> <ul style="list-style-type: none"><li>• Locational Transmission Constraints</li><li>• Locations Reactive and Voltage Constraints</li><li>• Response and Reserve Banding</li><li>• Response and Reserve Utilisation</li></ul> <p>The Task Force has not yet considered whether any of these are feasible but believe that they warrant further consideration.</p>

# Update of the Task Force

## Our aim is to work transparently and collectively with the wider industry

- The TF is committed to keep wider industry updated and engaged on its work throughout the process through regular engagement and publication of agreed documents.
- All the information regarding the Task Force (agenda, minutes, presentations, podcasts, contact details) is available and updated regularly on the **Charging Futures website** [here](#).
- In particular, the **first Webinar of the Task Force** that took place on the 7<sup>th</sup> March has been recorded [here](#).

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# Questions



**AOB**

Jennifer Doherty  
National Grid ESO







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