Transmission Charging Methodologies Forum and CUSC Issues Steering Group

Meeting 101

6 February 2020

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Welcome

Jon Wisdom

National Grid ESO

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Agenda

1	Introduction, meeting objectives	**Jon Wisdom NGESO**	10.30 – 10.35
2	Code admin update	**Paul Mullen NGESO**	10.35 – 10.45
3	TCR 1 – Transmission Demand Residual (TDR)	**Grahame Neale NGESO**	10.45 – 11.00
4	TCR 2 – Transmission Generation Residual (TGR)	**Jon Wisdom NGESO**	11.00 – 11.15
5	TCR 3 – BSUoS Gross Demand	**Jenny Doherty NGESO**	11.15 – 11.30
6	TCR 4 – 2nd BSUoS Taskforce Update	**Eleanor Horn NGESO**	11.30 – 11.45
7	Forecasting TNUoS Tariffs for 2021 onwards	**Sarah Chleboun NGESO**	11.45 – 12.15
8	AOB	**Jon Wisdom NGESO**	12.15 – 12.20

Introduction and meeting objectives

No open actions

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Code Administrator Update

Paul Mullen

6 February 2020

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Authority Decisions/Implementations (as at 5 February)

Modification Number	What is this Modification doing	Decision/ Implementation
CMP317/327 Amalgamation	Defining the assets required for connection within the CUSC to remove any ambiguity as to which assets are included in the calculation on Generator TNUoS. This will ensure the average annual transmission charge for all generators will remain within the range of €0-2.50/MWh in Great Britain. (CMP317) Change the TNUoS Charging Methodology such that the Residual element of Generator TNUoS is £0 (CMP327)	Decision 29 January 2020 to allow these 2 Modifications to be progressed jointly
CMP322	Seeks to amend the CUSC to create a mechanism for Ofgem to approve changes to the ESO Standard Contract Terms when those changes include amendments to the Terms & Conditions related to balancing.	Decision 5 February 2020, Implementation Date 4 April 2020

Authority Decisions – Pending (as at 5 February)

Modification Number	What is this Modification doing	Decision/ Implementation
CMP280, CMP281 and CMP319	Remove the liability from storage facilities to the TNUoS Demand Residual tariff element (CMP280) and BSUoS charges on imports (CMP281). CMP319 raised to carry out changes to the CUSC definitions as a result of CMP280 and CMP281.	Due 19 November – expected Q1 2020
CMP292	Looking to ensure that the charging methodologies are fixed in advance of the relevant Charging Year to Electricity System Operator to appropriately set and forecast charges.	Due 20 September – expected summer 2020
CMP303	To make part of the TNUoS charge more cost-reflective through removal of additional costs from local circuit expansion factors that are incurred beyond the connected, or to-be-connected, generation developers' need.	Due 16 December – no firm date on decision from Ofgem
CMP306	Align the rate of return applied to the net asset value of connection points in the calculation of annual connection charges to the pre-tax cost of capital in the price control of the Relevant Transmission Licensee (plus a margin of 1.5 percentage points in the case of MEA-linked assets).	Due 19 December – expected imminently

Authority Decisions – Pending (as at 5 February)

Modification Number	What is this Modification doing	Decision/ Implementation
CMP320	Islands that have a MITS Node but are served by a single circuit radial link are exposed to non-cost reflective charging of a 1.8 Security Factor rather than the application of a 1.0 Security Factor. This proposal will apply a 1.0 Security Factor in that situation.	To be sent to Ofgem 12 February 2020

New Modifications (raised at January Panel)

Modification Number	What is this Modification doing	Panel Decision
CMP334 / CMP335 and CMP336	CMP332 is developing a methodology for the Transmission Demand Residual to be applied only to ‘Final Demand’ on a ‘Site’ basis. CMP334 creates the definitions of "Final Demand" and "Site. CMP335 and CMP336 modifications aims to revise Section 3 & 11 and Section 14 of the CUSC respectively to set out how/when the Residual is recovered from parties once the Residual charges are determined.	Panel recommended that CMP334, CMP335 and CMP336 meet the Urgency criteria and should be treated as Urgent (subject to Ofgem approval). Panel noted that CMP334 would be progressed in a joint workgroup with DCUSA Modification DCP359. Panel agreed that CMP335 would be progressed in a joint workgroup with CMP336.

New Modifications (raised at January Panel)

Modification Number	What is this Modification doing	Panel Decision
CMP337 / CMP338	CMP337 seeks to allow Distribution Network Operators to contribute to the cost of new transmission assets, and allow this contribution to be netted off from the Transmission Owner's actual project costs in a way which maintains the exact pro-rating of costs between local and wider TNUoS charge elements as is currently in place. CMP338 introduces a new definition of "Cost Adjustment" to give effect to CMP337.	Panel asked for clarity on a number of issues (notably the impact on wider TNUoS) before determining whether this should proceed to Workgroup or Code Administrator Consultation. Decision to be made at February 2020 Panel.

In Flight Modification Updates

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In flight Modifications

For updates on all “live” Modifications please visit “Modification Tracker” at:
https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc

Critical Friend Feedback

12 CUSC Modification Proposals received from 1 November to 16 January inclusive

- 11 of the 12 of these have had all critical friend checks undertaken on them – the exception was CMP327 which was raised just before November Panel; and
- For 9 of these, required communications were sent to Independent Chair, Panel and industry within agreed timescales (i.e. on the next working day after Modification Proposal Submission Date) – note that the other 3 (CMP327, CMP332 and CMP333) were raised as Urgent after the Modification Proposal Submission Date).
- Note there have been 2 Grid Code Modification Proposals raised in the same period.

General areas of feedback (across all CUSC and Grid Code Modifications)

- Proposed amendments to the titles of a number of Modifications to ensure they are clear;
- Continue to seek definition of acronyms and not assume the reader has a prior understanding of the proposed change; and
- Provided input on impacted parties and impacted codes and proposed changes were accepted by the Proposers.

Feedback we will act on to further improve our service:

- Internal training completed and clear process (with timescales) embedded within the team;
- More detailed checklist created (which is reviewed after each cycle) so we ensure we have the right checks in place; and
- Continue to have discussions with Proposers ahead of Modification Proposal Submission Date so clear on expectations, level of detail and process.

Any thoughts?

- Are you seeing better quality Modification Proposals?
- Any further feedback?

2020 Dates

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CUSC 2020 Workgroups and Panel dates

CUSC - Workgroups	1	2	3	4
March	6	12	20	26
April	3	9	15	23
May	8	14	22	28
June	5	10	15	25
July	10	16	24	30
August	7	13	21	27
September	4	10	18	24
October	9	14	23	29
November	6	11	16	23
December	30/11	7	17	21

CUSC	Panel Dates	Papers Day	Modification Submission Date	TCMF
January	31	23	16	9
February	28	20	13	6
March	27	19	12	5
April	24	16	9	2
May	29	21	14	7
June	26	18	11	4
July	31	23	16	9
August	28	20	13	6
September	25	17	10	3
October	30	22	15	8
November	27	19	12	5
December	18	10	3	26/11

Update - Targeted Charging Review (TCR)

February 2020

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Ofgem's TCR Decision

Ofgem's decision on TCR released on 21st November

- Full details can be found here - Link to Ofgem's website
- Key points are;
  - Major reform of TNUoS Demand Residual (TDR). Make the TDR unavoidable and remove any behavioural signals by charging on a £/site/day basis.
  - TNUoS Generation Residual (TGR) to be set at £0 (subject to compliance with EU Regulation No 838/2010 as being progressed via CMP317)
  - BSUoS to Suppliers to be based on gross demand as measured at the GSP
  - 2nd BSUoS taskforce to determine who should pay BSUoS and on what basis

All of the above to be implemented by April 2021 for Transmission (April 2022 for Distribution)

Transmission Demand Residual (TDR)

February 2020

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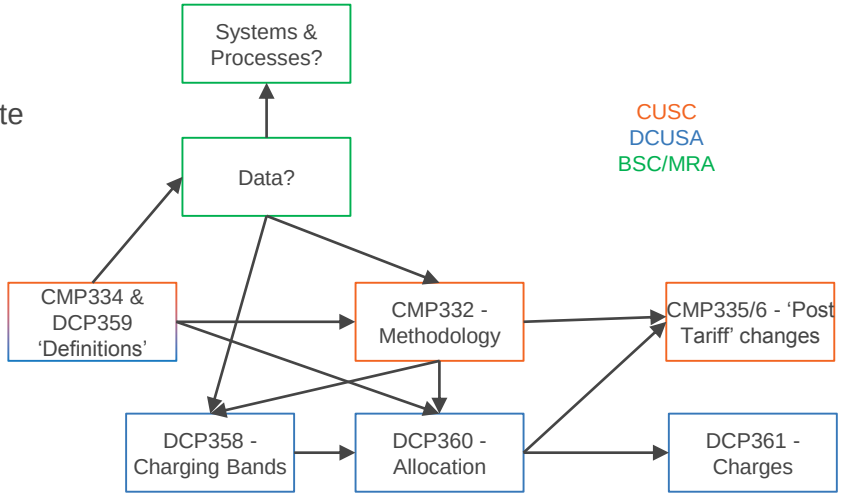
ENA PID & CUSC/DCUSA Interactions

ENA Project Initiation Document (PID)* created to show how ESO and DNOs will implement Ofgem's TCR Decision on the TDR.

The PID includes;

- High-level plan for how to meet the directed 2021 implementation date
- 4 DCUSA change proposals raised
- 3 CUSC modifications raised;
- BSC changes still TBC at this stage
- Key risks and dependencies



There will be interactions between these 7 changes

* http://www.chargingfutures.com/media/1390/tcr-joint-eso-dno-pid-v10.pdf

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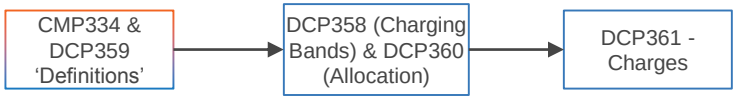
DCUSA Change Proposals

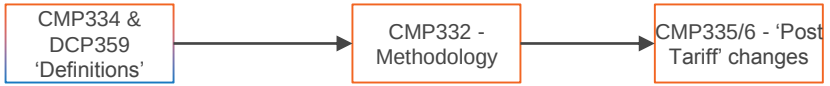


The 4 DCUSA modifications were raised by the DNOs in January.

DCUSA CP no.	Proposer	Title	Description
DCP358	ENW	Determination of Banding Boundaries	Setting non-domestic charging bands
DCP359	NPG	Who should pay?	Defining 'Site' and 'Final Demand'
DCP360	WPD	Allocation to bands and interventions	Allocating to non-domestic charging bands (based on LLFC) including disputes and reallocation
DCP361	SPEN	Calculation of Charges	Calculating charges including treatment of bands with low customer numbers

- All raised as urgent at a special DCUSA panel in mid-January
- DCP359 to be run jointly with CMP334 for consistency
- DCP358 and DCP360 to be progressed together
- All of the above have had 1 workgroup; more info available - https://www.dcusa.co.uk/change-proposal-register/

CUSC Modifications



The 3 CUSC modifications were raised by NGESO.

CMP Number	Date Raised	Title	Description
CMP332	Dec 2019	Transmission Demand Residual bandings and allocation (TCR)	Creating the methodology to charge the TDR on a £/site/day basis in line with Ofgem's direction
CMP334	Jan 2020	Transmission Demand Residual – consequential definition changes (TCR)	Defining 'Site' and 'Final Demand' to determine who will pay the TDR
CMP335/6	Jan 2020	Transmission Demand Residual - Billing and consequential changes	Will review all 'post-tariff' aspects including assigning to bands, disputes, forecasting, billing, securitisation and reconciliation processes

- All raised as urgent to meet timescales for 2021
- CMP332, four workgroup meetings held, workgroup consultation open now for feedback – linked here
- CMP334 to be jointly run with DCP359. 1 DCUSA workgroup run so CMP334 will need to catch up – workgroup nominations open.
- CMP335/6 – workgroup nominations open.
- Contract the CUSC team (cusc.team@nationalgrideso.com) if you'd like to join these workgroups or respond to the consultation

TNUoS Generation Residual

Jon Wisdom, NGESO

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CMP317 and CMP327

- CMP317 was raised by the ESO in 2019 to ensure that average generator transmission charges set under the CUSC methodology did not fall below the €0-2.50/MWh range stipulated in EU regulation 838/2010 (The Limiting Regulation)
- Currently the CUSC includes all wider and local transmission charges when assessing compliance. Following Ofgem and the CMA's decision on CMP261 this methodology may result in a fall below 0 in 2021/22 due to the increasing size of offshore investment.
- To address this CMP317 stated that the CUSC should exclude local circuit charges from the calculation of compliance with the Limiting Regulation.
- Following the conclusion of The Authority's Significant Code Review into residual charges (the Targeted Charging Review) the ESO was directed to raise a modification to set the transmission generation residual to 0. Currently the residual is used to ensure that the cap is not breached so this change has a significant interaction with CMP317.
- Part of this direction also specified that the ESO should ensure that the correct interpretation of the Limiting Regulation is in place and that the modification does not undermine the ESO's ability to comply with the direction.
- The ESO therefore raised CMP327 to set the transmission generation residual to 0 and requested that it proceed with CMP317. The Panel agreed that it should proceed with CMP317 and requested Ofgem to allow the proposals to be amalgamated. Ofgem agreed to the amalgamation on the 30th January 2021.

The workgroup consultation is expected to be published on the 14th February 2020.

CMP317 and CMP327 will be implemented for charging year 2021/22.

Current Modelled Effects of CMP317/327

Excluding all Local Circuit charges

£/kW impact	2021/22	2022/23	2023/24	2024/25
Current Forecast of Generator residual tariff	-5.56	-6.66	-8.56	-9.91
TCR Proposed Generator residual tariff	0.00	0.00	0.00	0.00
Compliance Adjustment for EU cap with assumed €2.50/MWh target, existing error margin and exclusion of all local asset costs	0.00	-0.58	-2.03	-2.21
Additional cost to transmission connected generators	5.56	6.08	6.52	7.70

Excluding all Local Circuit charges except shared assets and pre-existing assets

£/kW impact	2021/22	2022/23	2023/24	2024/25
Current Forecast of Generator residual tariff	-5.56	-6.66	-8.56	-9.91
TCR Proposed Generator residual tariff	0.00	0.00	0.00	0.00
Compliance Adjustment for EU cap with assumed €2.50/MWh target, existing error margin and exclusion of pre-existing and shared asset costs	0.00	-0.71	-2.49	-2.75
Additional cost to transmission connected generators	5.56	5.95	6.07	7.15

Other Potential Options and Next Steps

- The workgroup have discussed other options to the defect presented by CMP317/327.
- These have focussed on:
  - Consideration of a target in the €0-2.5/MWh range. The workgroup have considered targeting €0, €0.5, or €1.25
  - Looking at changing the locational methodology within the transport model – ie altering the reference node
  - Inclusion of other costs such as ETNUoS in the compliance cap.
  - A staggered implementation similar to CMP264/5
- Ofgem have indicated that they are willing to consider alternatives along these lines provided that there is justification for any proposal.

The workgroup consultation is expected to be published on the 14th February 2020.

CMP317 and CMP327 will be implemented for charging year 2021/22.

BSUoS Gross Demand

Jenny Doherty, NGESO

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BSUoS Calculation today for all BSUoS liable users

BSUoS Charge	=	**BSUoS tariff £/MWh**	X	**Net BM Unit Metered Energy Volume (MWh)**	X	**Transmission Loss Multiplier**	X	**Trading Unit Delivery Mode (+1 or -1)**

How the BSUoS tariff (£/MWh) is calculated after CMP333

BSUoS tariff £/MWh = **Total BSUoS charge for the Settlement Period (£)** / **Total BSUoS chargeable base for the Settlement Period (MWh)**

Continues as is today

Changes as set out below

Total BSUoS chargeable base for the Settlement Period (MWh) = (**Net BM Unit Metered Energy Volume (MWh)** x **Transmission Loss Multiplier** x **Trading Unit Delivery Mode (+1 or -1)**) + (**Gross BM Unit Metered Energy Volume (MWh)** x **Transmission Loss Multiplier**)

Transmission Connected Sites

Supplier BMUs

BSUoS Calculation after CMP333

For Transmission Connected Sites* the calculation remains as is today

BSUoS Charge for Transmission Connected Sites*	=	**BSUoS tariff £/MWh**	X	**Net BM Unit Metered Energy Volume (MWh)**	X	**Transmission Loss Multiplier**	X	**Trading Unit Delivery Mode (+1 or -1)**

* transmission connected generators (with a BCA), transmission connected demand and sites with a BEGA that are not exempt export BMUs

For Supplier BMUs there is a change in the data used, which is no longer on a trading unit basis

BSUoS Charge for Supplier BMUs	=	**BSUoS tariff £/MWh**	X	**Gross BM Unit Metered Energy Volume (MWh)**	X	**Transmission Loss Multiplier**

2nd BSUoS Taskforce Update

Eleanor Horn,
Taskforce Secretariat

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The First Balancing Services Charges Task Force: Jan – May 2019

1. Deliverable 1 - does BSUoS currently provide a useful forward-looking signal?
2. Deliverable 2 - potential options for charging BSUoS differently, to be cost-reflective and provide a forward-looking signal
3. Deliverable 3 - feasibility of charging potentially cost reflective elements of BSUoS to provide a forward-looking signal

"It is not feasible to charge any of the components of BSUoS in a more cost-reflective and forward looking manner that would effectively influence user behaviour that would help the system and/or lower costs to customers. Therefore, the costs included within BSUoS should all be treated on a cost-recovery basis".

The Task Force submitted their conclusions to Ofgem in May 2019, following Industry consultation.

Industry were engaged by the use of various mediums, such as consultations, podcasts and webinars

Ofgem in their TCR decision decided to launch a Second Task Force to answer two key questions:

Deliverable 1 – Consideration and assessment based recommendation as to WHO should pay BSUoS Charges

This should be carried out using the aims and principles of the TCR, noting any potential differences between residual charges, which are subject to RIIO price controls, and balancing services charges, which are not.

Deliverable 2 - Investigation and recommendation for RECOVERING balancing services charges, including collection methodology and frequency.

This should also be carried out using the aims and principles of the TCR but also consider the implications for the RIIO-2 price control determinations. In particular, the design of BSUoS charges should take into account any additional costs and risk placed upon the ESO.

Each deliverable must be supported by robust analysis and data.

- In their first meeting the TF considered what data and analysis would be needed to inform a final recommendation
- Discussion and breakout sessions on Deliverable 1.
- Full minutes at the CFF website

Outcomes of the First Meeting of BSUoS TF2 – 30/01/2020

Each deliverable must be supported by robust analysis and data.

- **In their first meeting the TF recapped the outcome of TF1 and the conclusion that BSUoS costs should be treated on a cost recovery basis.**

- **The Ofgem representative gave some guidance on the scope of TF2 and reiterated the importance of an open-minded approach.**

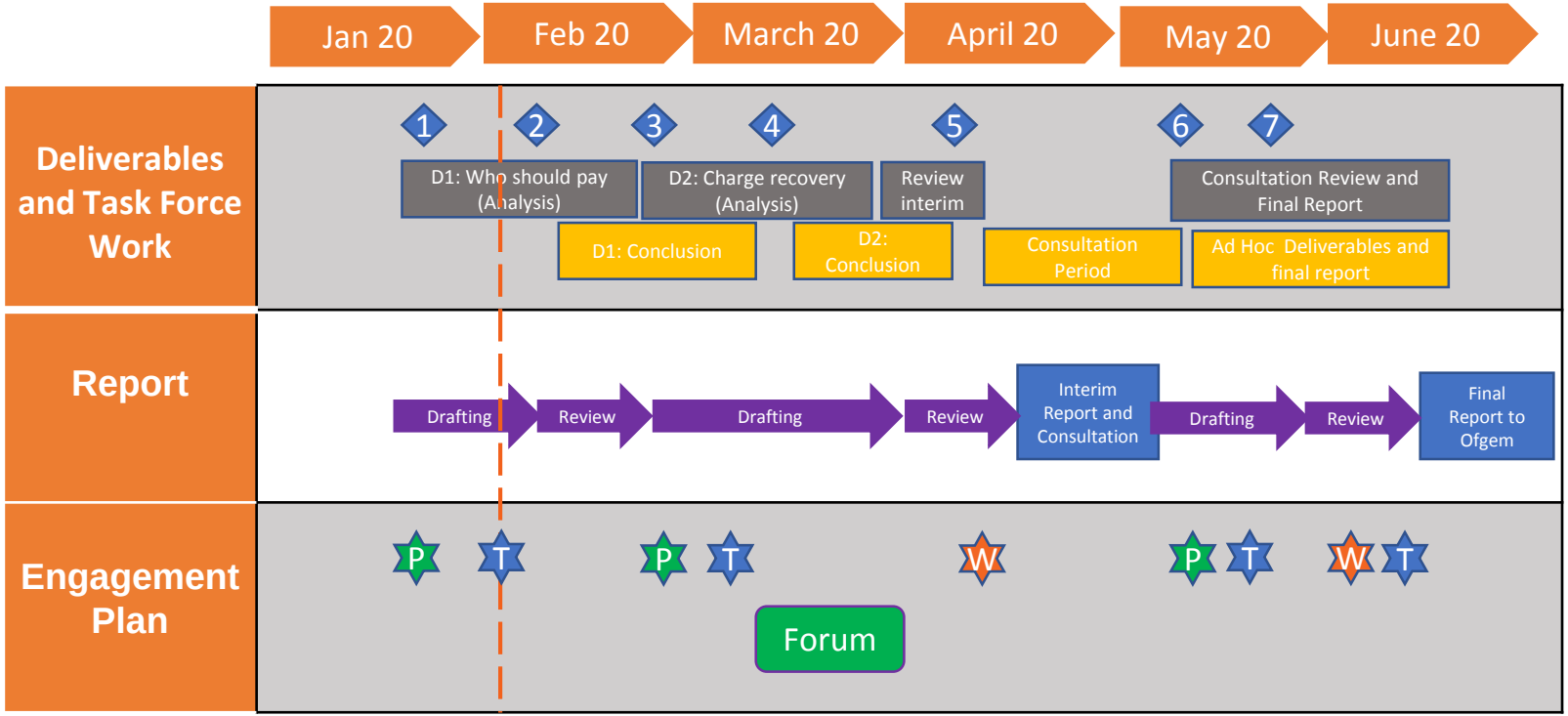
- **Examined the historic and on-going code changes in this area:**

CMP201, CMP202, CMP250, CMP296, CMP281, CMP307, CMP308, CMP333

- **The TF discussed Deliverable 1, WHO should pay BSUoS and preliminarily concluded that either suppliers should pay the full costs of BSUoS or everyone should pay (suppliers, Tx generators, Dx generators, BtM, foreign generators accessing the GB market over the interconnectors)**

- **Full minutes at the CFF website**

Overview of Deliverables and Engagement Plan



Key	
P	Podcast
W	Webinar
Forum	Charging Futures Forum
T	TCMF

- The ESO will engage with Citizen's Advice at the conclusion of each taskforce
- Engagement will be shared between taskforce members

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Thank you for listening

Please contact **Chargingfutures@nationalgrideso.com** if you have any questions on the Taskforce or would like to learn more

http://www.chargingfutures.com/charging-reforms/task-forces/second-balancing-services-charges-task-force/resources/ all of the meeting resources will be uploaded at this link

TNUoS tariff forecast for 2021 onwards

Rebecca Yang

& Sarah Chleboun, NGESO

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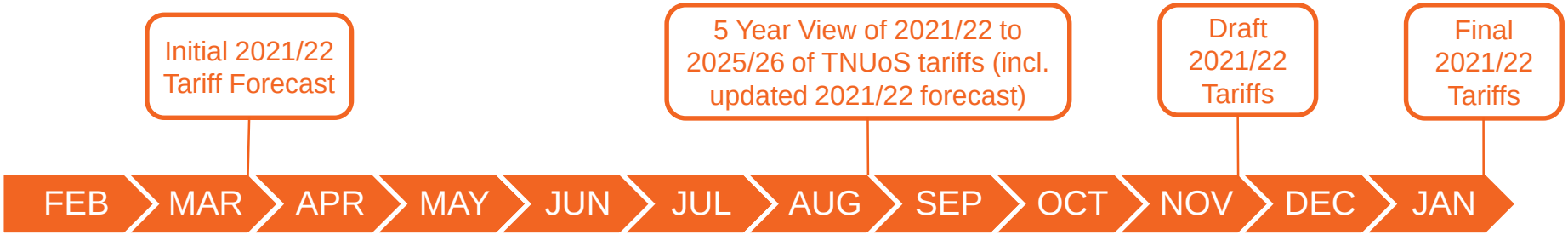
Forecasting for 2021 onwards

Context

- We recently asked for your feedback on our proposed approach for forthcoming forecasting publications – Thank you for your feedback.
- Taking into account the feedback received, we have finalised the timetable for 2021/22 tariffs forecast publications as below:



Our Aim

- To share our proposed forecasting analysis
- To gain your feedback and suggestions

Proposed Forecast Analysis

Inputs to be used or sensitivities to be tested.

Inputs to Tariffs	Initial 21/22 Forecast (March)	Five Year View (August)
The error margin and other parameters in G/D split calculation	Best view based on current parameters and FES view of chargeable generation volume	Sensitivity testing on the error margin, exchange rate & chargeable generation volume
Demand volumes & Embedded Export volume	Best view based on Monte Carlo forecasting model	Sensitivity testing on impact of changing charging base
Change in total £m revenue	As per TO revenue submissions	Sensitivity testing of impact of additional revenue
Removal of generation residual tariff (CMP327) and excluding assets required for connection (CMP317)	Best view (based on mod workgroup progress)	Mod decisions or Best View (based on mod workgroup progress)
Demand Residual bandings and allocation (CMP332)		
DNO demand data (Week 24 nodal demand)	As per DNO submission for 21/22	Sensitivity testing on demand growth

Proposed Forecast Analysis

RIIO-2 Parameters	Initial 21/22 Forecast (March)	Five Year View (August)
Generation Zones	Sensitivities for 14, 27 and 50+ zones (or appropriate zones based on workgroup progress)	CMP324/5 decision **or** Sensitivities for 14, 27 and 50+ zones (or appropriate zones based on workgroup progress)
Locational Onshore Security Factor	Existing RIIO-1 values	Indicative RIIO-2 values
Expansion Constants & Factors	Existing RIIO-1 values inflated by RPI	Indicative RIIO-2 values
Avoided GSP Infrastructure Credit		
Local Substation Tariffs		
Offshore Substation Discount		
Offshore Local Tariffs	Indicative RIIO-2 Values based on existing Offshore substation discount (inflated by RPI)	Indicative RIIO-2 Values based on updated offshore substation discount

Next Steps

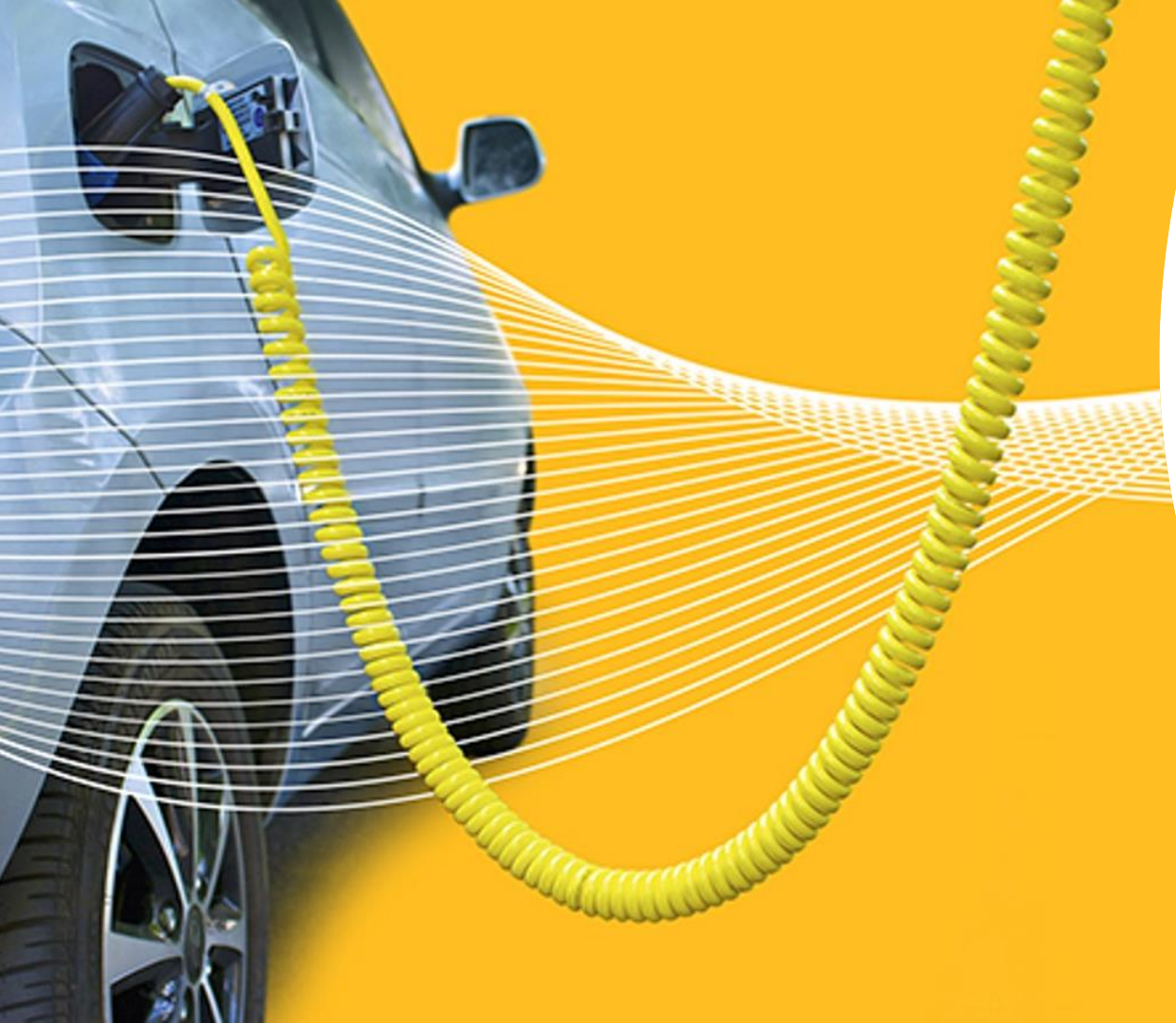
Feedback

- Your thoughts?

- We will continue to monitor the information available to us and modification workgroup progress to create the most useful forecasts that we can.

Get in touch:

- If you have any further suggestions, please get in touch: TNUoS.queries@nationalgrideso.com



Questions & AOB

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