

# Transmission Charging Methodologies Forum and CUSC Issues Steering Group

Meeting 100

9 January 2020



# Welcome

Jon Wisdom

National Grid ESO



# Agenda

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|---|---|-------------------------------|---------------|
| 1 | Introduction, meeting objectives                          | <b>Jon Wisdom NGESO</b>       | 10.30 – 10.35 |
| 2 | Code admin update   | <b>Paul Mullen NGESO</b>      | 10.35 – 10.45 |
| 3 | Accelerated Loss of Mains Change Programme                | <b>Stephen Marshall NGESO</b> | 10.45 – 11.00 |
| 4 | TNUoS data requirements potential modification            | <b>Tom Laskowski NGESO</b>    | 11.00 – 11.15 |
| 5 | Authority decision on SHEPD island contribution proposals | <b>Rachel Kettles SSEN</b>    | 11.15 – 11.30 |
| 6 | Forecasting TNUoS Tariffs for 2021 onwards                | <b>Rebecca Yang NGESO</b>     | 11.30 – 11.40 |
| 7 | AOB   | <b>Jon Wisdom NGESO</b>       | 11.40 – 11.45 |
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# Introduction and meeting objectives

No open  
actions



# Code Administrator Update

Paul Mullen

National Grid ESO



# Authority Decisions/Implementations – December

Modification Number	What is this Modification doing	Decision/Implementation
CMP295	Putting in place contractual arrangements for Virtual Lead Parties (Project TERRE)	Implemented 6 December 2019

# Authority Decisions – Pending

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 in January 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 in January 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 – expected in January 2020
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 in January 2020

# Authority Decisions – Pending

Modification Number	What is this Modification doing	Decision/ Implementation
CMP322	To allow Ofgem to approve future changes to the terms and conditions for Balancing Service Providers (BSPs) and Balancing Responsible Parties (BRPs), as defined in Article 18 (A18) of the European Balancing Guidelines (EBGL), that have been identified as existing in National Grid ESO SCTs for certain Balancing Services, while maintaining the necessary flexibility required to the SCTs.	Final Modification Report sent to Ofgem 24 December 2019.



# New Modifications

Modification Number	What is this Modification doing	Panel Decision
CMP328	This modification proposes to put in place an appropriate process to be utilised when any connection triggers a Distribution impact assessment.	Standard governance route and proceed to a Workgroup. Panel also agreed to discuss the priority order of this Modifications at February 2020 Panel or separate meeting in early March 2020.
CMP329	To amend incorrect references to National Grid Electricity Transmission Plc to National Grid Electricity System Operator in the CMP295 legal text.	The CUSC Panel unanimously agreed that CMP329 met the Fast Track Self-Governance criteria. 15 working days appeal window opened 17 December 2019.
CMP330	To amend the definition of Connection Assets in section 14 of the CUSC to allow cable and overhead line lengths over 2km to be contestable where agreed between the Transmission Owner and the User.	Standard governance route and proceed to a Workgroup. Panel also agreed to discuss the priority order of this Modifications at February 2020 Panel or separate meeting in early March 2020.
CMP331	To provide new generators with the option to replace the generic Annual Load Factors (ALFs) used to determine their TNUoS charges with a site-specific ALF.	Standard governance route and proceed to a Workgroup. Panel also agreed to discuss the priority order of this Modifications at February 2020 Panel or separate meeting in early March 2020.

# New Modifications

Modification Number	What is this Modification doing	Panel Decision
CMP332	To create a methodology by which the residual element of demand TNUoS can be apportioned to Half Hourly (HH) and Non Half-Hourly (NHH) demand, and a separate methodology to determine the 'bands' against which the residual element of demand TNUoS is levied	The CUSC Panel recommended that CMP332 meets the Urgency criteria and should be treated as Urgent (subject to Ofgem approval).
CMP333	To give effect to Ofgem's decision to levy BSUoS to Suppliers on a gross volumetric basis.	The CUSC Panel recommended that CMP333 meets the Urgency criteria and should be treated as Urgent (subject to Ofgem approval).

# In Flight Modification Updates



# In flight Modifications

For updates on all “live” Modifications please visit  
<https://www.nationalgrideso.com/document/157806/download>

# 2020 Dates



## 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

# Accelerated Loss of Mains Change Programme (ALoMCP)

Stephen Marshall, NGENSO



# Update – Jan'20

## Window 1 outcome

- The table to the right summarises the outcome of Window 1

## BSuOS recovery

- We've been recovering £80k a day since settlement day 9/10/19
- Our estimation of cost incurred in FY19/20 based on the outcome of Window 1 acceptances & their associated works completion deadlines is c£4m
- This is less than originally anticipated with fewer sites registered, of a typically smaller size than hoped for
- Allowing for recovery of DNO stakeholder, admin & operation costs over this period, then we expect a total FY19/20 spend of c£4.2m
- We have therefore decided to cease recovery of ALoMCP through BSuOS wef 1/12/19 through to 1/4/20 to align with our spend profile

## Next steps

- With Window 1 now closed & Window 2 in-progress (closes 11<sup>th</sup> Feb), DNOs are now establishing forecasts of expected work volumes over Window 2 & 3
- We are preparing our formal report on Window 1 outcomes which will be shared next week
- Towards the end of Feb, we will be in a position to judge costs for Q2'20 and thereon make a decision regarding an appropriate level of BSuOS recovery for Q2'20 & Q3'20

**Table 1 – Window one results**

Window		1	2	3	4	5
Applications received	No of applications	2039				
	Total MW capacity	5315				
Applications approved	No of applications	1933				
	Total MW capacity	4352				
Completion dates	Projected No of sites	N/A	1066	723	84	60
	Projected MW capacity	N/A	1994	2071	189	98



# TNUoS data requirements mod

Tom Laskowski, NGENSO



# Background

## TNUoS DCLF Model

- **DCLF model**
  - Calculates the marginal costs of investment in the transmission system required as a result of increase in demand or generation at different points on the network
  - Signals indicate whether adding an increment of generation at a specific location (node) will increase or decrease system flows and impact system investment
- 14 demand zones
  - Based on the locational signal and demand at each node within the zone
  - The locational signal at each node is weighted by the demand
    - Locations with larger amounts of demand / generation have a greater impact on the zonal tariff

# Problem

- Highlighted in **CMP282**
- Final Zonal Locational Demand Tariffs are distorted by exporting nodes when Demand Zone is importing
- Occurs in section of DCLF model which turns underlying locational signals into zonal weighted demand – not the locational signals themselves
  - Week 24 peak winter net demand data
- Exporting embedded generation can lead to negative demand at individual nodes when demand for whole charging zone is positive
- Can impact weighting average across a zone and lead to increases in the locational demand tariff when underlying locational signals indicate that it should decrease

# Problem

## Why is this a problem?

- If number of forecasted exporting GSPs at Peak is high enough it can have a material impact on Demand tariffs
- Can lead to demand tariffs not accurately reflecting the costs imposed on the system and inefficient investment signals
- **CMP282** - set negative GSPs to zero in tariff calculations for Demand zones
- May become a problem in the future

## CUSC – Section 14.19: Data Requirements

- 14.19.2 Users who are owners or operators of a User System (e.g. Distribution companies) provide a forecast for the following Financial Year of the Natural Demand attributable to each Grid Supply Point equal to the forecasts of Natural Demand under both Annual Average Cold Spell (ACS) Conditions and a forecast of the average metered Demand attributable to such Grid Supply Point for the National Grid Triad. This data is published in table 2.4 of the Seven Year Statement and is compiled from week 24 data submitted in accordance with the Grid Code.
- 14.19.3 For the following Financial Year, The Company shall use these forecasts as the basis of Transmission Network Use of System charges for such Financial Year. A description of how this data is incorporated is included in 14.15 Derivation of the Transmission Network Use of System Tariff.
- 14.19.4 If no data is received from the User, then The Company will use the best information available for the purposes of calculation of the TNUoS tariffs. This will normally be the forecasts provided for the previous Financial Year.
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# Proposed Solutions

## Amend 14.19.3 and 14.19.4

- Permit the use of gross demand data from FES
- Or use data which ESO deems most suitable and **require ESO to publish this data alongside the tariff**

14.19.3 For the following Financial Year, **The Company shall use these forecasts as the basis of Transmission Network Use of System charges for such Financial Year.** A description of how this data is incorporated is included in 14.15 Derivation of the Transmission Network Use of System Tariff.

14.19.4 **If no data is received from the User, then The Company will use the best information available for the purposes of calculation of the TNUoS tariffs.** This will normally be the forecasts provided for the previous Financial Year.

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# The Solutions

## Amend 14.15

- Amend DCLF model to incorporate **FES gross demand** data in place of **net demand** data in setting tariffs for Demand Zones
- **Data will need to be mapped to the model and further analysis for tariff setting will be required**
- Will need to understand the locational effects for all tariffs
  
- Will remove distortions and lead to more cost reflective tariffs

# The Solutions

## Potentially raise second mod for Section 11 – Interpretation and Definitions

- Update CUSC to refer to Electricity Ten Year Statement instead of Seven Year Statement

Work is ongoing



# Questions and feedback

# Implementation of Authority decision on SHEPD link contributions: CUSC modification

9 January 2020



**Scottish & Southern**  
Electricity Networks

# SHEPD link contribution proposals

Key documents:

[Ofgem decision](#), published 17 December 2019

[Ofgem consultation](#), May – July 2019

[SHEPD Recommendation](#) and [Addendum](#), November 2018 (updated May and December 2019)

In summary,

- SHEPD recommended that it may contribute financially towards transmission links proposed to be built to Shetland, the Western Isles and Orkney, where these links would lead to avoided costs and provide benefits for distribution system customers.
- SHEPD provided specific methodologies for the calculation of the contributions, reflecting the value of the asset to distribution customers.
- SHEPD recommended that it makes contributions towards the total capital costs of the transmission links, netting the contribution from this total capital cost, resulting in a sharing of costs between customer groups who use and benefit from the assets.
- SHEPD recommended specific contribution values, which for Shetland represents c.£140m saving for consumers.

# Authority decision

## Decision on SHEPD contribution proposals, 17 December

Ofgem has agreed the principle of a DNO contributing towards the cost of a transmission link – contribution to be determined separately by Ofgem – ***“We confirm that we agree the principle of a DNO contributing towards a transmission link, where this is shown to be beneficial to consumers”.***

Ofgem has also specifically approved the following:

- Approval of the Shetland contribution (£140m saving to consumers) - CUSC modification a pre-requisite – *“We confirm that if we approve the Final Needs Case for the proposed Shetland transmission project, we will approve SHEPD’s contribution proposal”.*
- Agreement with the methodology proposed by SHEPD – *“We confirm that, the methodology proposed by SHEPD calculates a contribution value that appropriately reflects the value of the transmission link to its distribution customers”.*
- Subject to the above conditions being met, Authority will set the Shetland contribution figure following Project Assessment of the Shetland transmission project (i.e. Ofgem’s determination of capital cost allowances for the transmission project).
- Authority intends to consult on Western Isles and Orkney contributions in early 2020.
- Agreement in principle with SHEPD’s proposed modification to the CUSC – specifically SHEPD has proposed the netting off of contribution from “actual project costs” (14.15.75) and the pro-rating of the contribution to mirror how the existing methodologies split costs across local and wider TNUoS charges (14.15.76) - *“We agree in principle that SHEPD’s proposed modification to the CUSC reflects the policy intent of this decision”.*
- Authority approval is subject to CUSC mod implementation – *“We therefore expect SHEPD to progress the relevant codes changes (to the CUSC...) through the prescribed industry processes”.*

# CUSC implementation

## Impact of Authority decision

- The proposed Code mod is small procedural change, for purpose of removal of ambiguity - can be progressed quickly as Authority has consulted on the contribution and the implementation, and to avoid impacting on progress of other more complex CUSC modifications.
- Ofgem agrees in principle that the policy intent is met by SHEPD's proposals, which are to net off the contribution from "actual project costs" (14.15.75), and to pro-rate the contribution across local and wider TNUoS charges exactly as the existing TNUoS methodologies allocate project costs across local and wider TNUoS charges (14.15.76) (*e.g. if methodologies determine that 90% of total project costs are allocated to local TNUoS and 10% to wider TNUoS, 90% of the contribution is applied to the costs attributed to local TNUoS*).
- Taking into account the detail of implementation developed and included within Ofgem consultation and decision, there is limited scope or benefit for alternative approach.
- The Legal Text is proposed to be reviewed by NGESO, and the Code mod proposal to progress to Code Administrator Consultation.
- Changes need to be made in time to align with Ofgem approval of the Needs Case for the Shetland transmission link (expected late spring 2020), and be ready to implement Orkney / Western Isles link contributions as their Needs Cases progress – delays risk savings.

# CUSC implementation

## Actions necessary to implement Authority decision

SHEPD modification proposal referenced in Authority decision:

- The changes are limited to removing ambiguity through simple, minor and mechanistic clarifications at CUSC 14.15.75 and 14.15.76.
  1. Minor change proposed to 14.15.75 only to remove ambiguity around whether “actual project costs” may be a value from which a contribution has been netted off – change for clarification purposes only.
  2. Change proposed to 14.15.76 to clarify that the percentage of the contribution which applies to costs recovered via local TNUoS charges is exactly the same as the percentage of total project costs recovered via local TNUoS charges.
- Suggested next steps are that this Code mod should:
  - be reviewed by NGESO (specifically the Legal Text); then
  - be progressed to Code Administrator Consultation; and
  - be progressed to the Authority for approval, within 2 months.



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Electricity Networks

# Forecasting TNUoS Tariffs for 2021 onwards

Rebecca Yang  
& Sarah Chleboun





# Forecasting for 2021 onwards

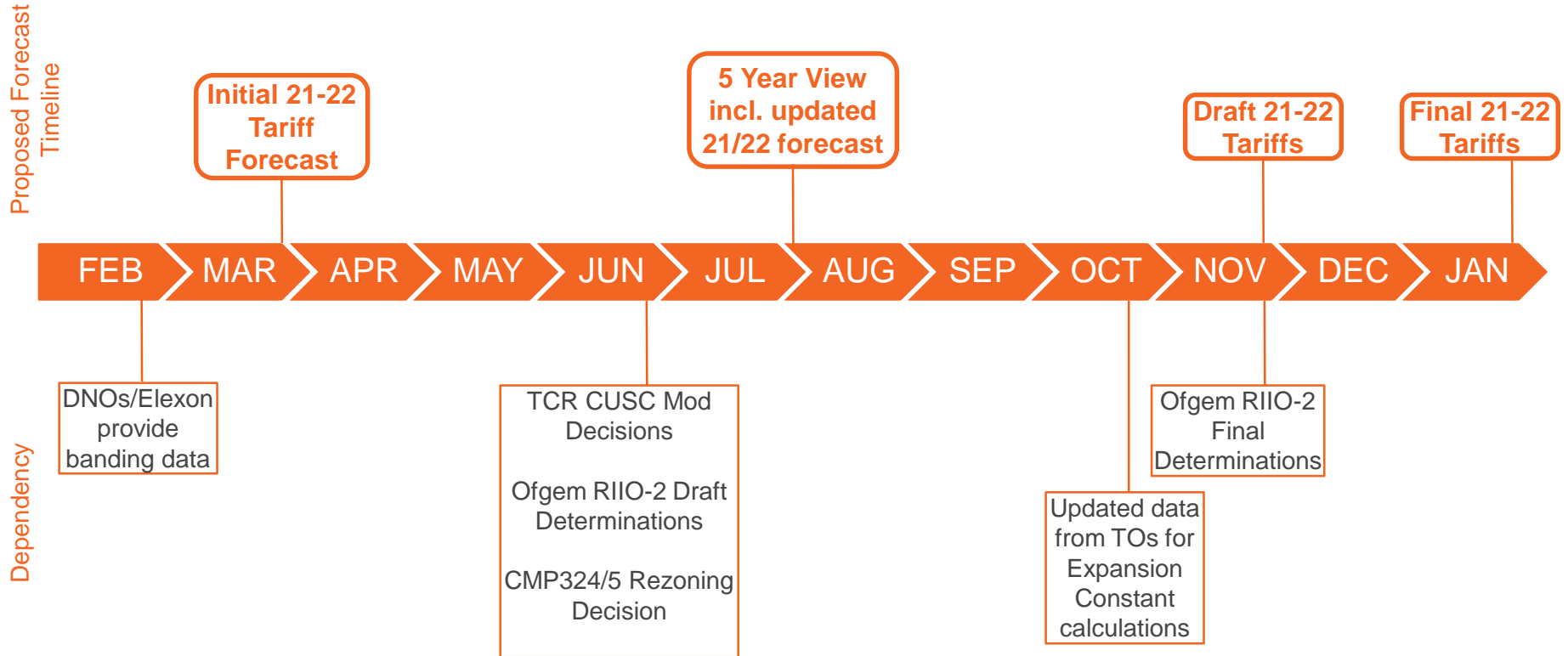
## Context

- Each year, we publish a five year TNUoS Tariff Forecast. The best view tariffs are highly indicative.
- In light of ongoing changes to the TNUoS tariff and billing methodology, there is much uncertainty that will affect the value of a forecast
  - Targeted Charging Review (TCR)
  - Key parameters to be reset for RIIO-2

## Our Aim

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

# Proposed TNUoS Tariff Forecast Timeline



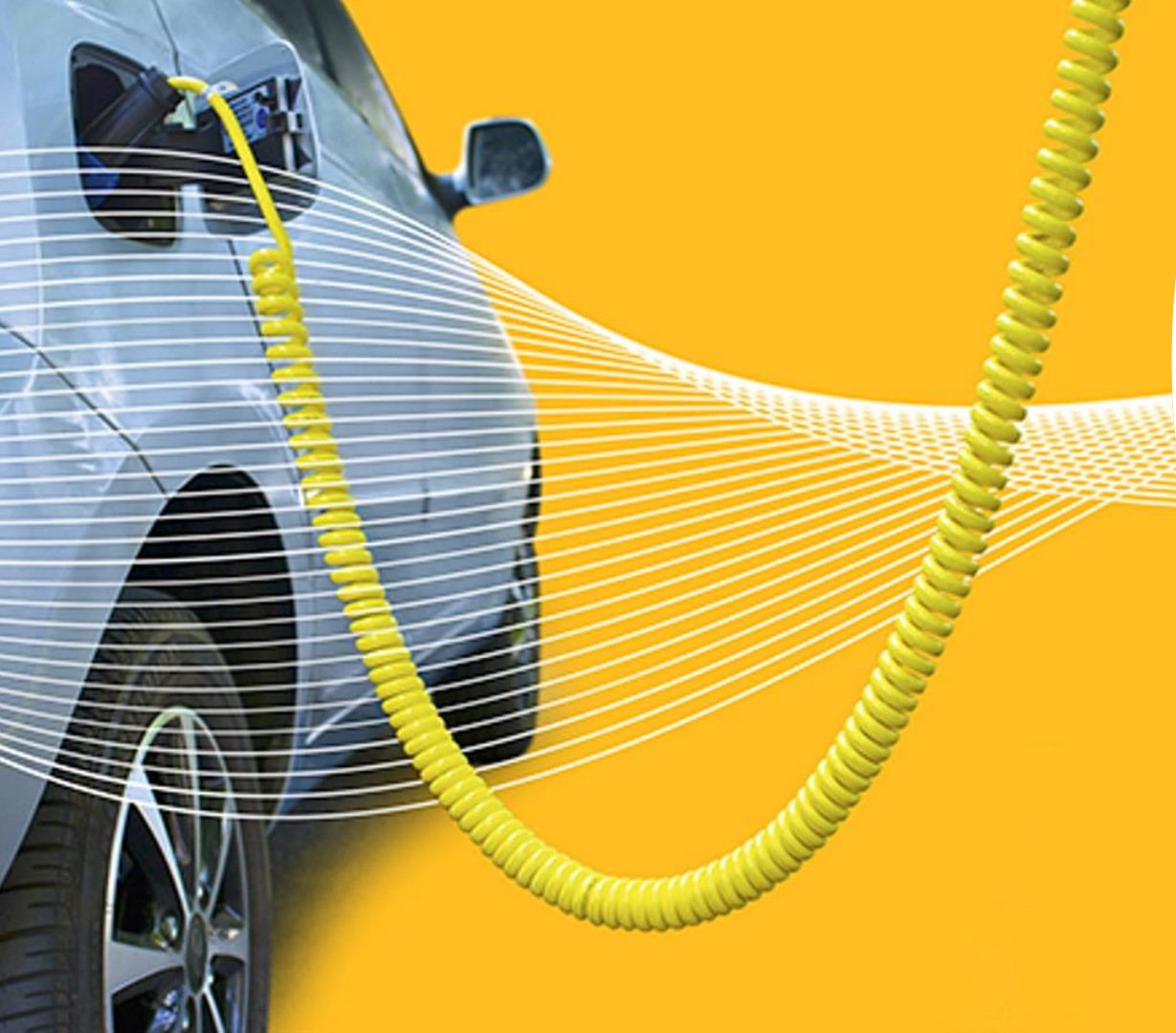
# Next Steps

## Feedback gathering

- We welcome your feedback on our approach to forecasting of TNUoS Tariffs for 2021 onwards, in particular, the timing of the Five Year View
- The consultation letter detailing our proposed approach will be available on the NGESO Website
- Please respond by **24<sup>th</sup> January 2020**, via email to: [TNUoS.queries@nationalgrideso.com](mailto:TNUoS.queries@nationalgrideso.com)

## Publication of the timetable

The TNUoS tariffs forecasting timetable will be published on our website by **31<sup>st</sup> January 2020**.



# Questions & AOB

Jon Wisdom  
NGESO



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