Meeting 119

25 November 2021

Transmission Charging Methodologies Forum and CUSC Issues Steering Group

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Agenda

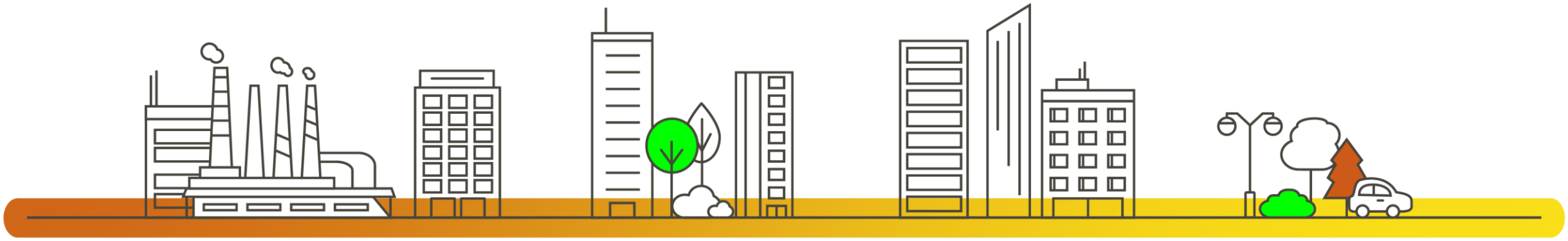
1	Introduction, meeting objectives and review of previous actions **Jenny Doherty - NGESO**	10:30 - 10:35
2	Code administrator update **Paul Mullen - Code Administrator NGESO**	10:35 - 10:45
3	BSUoS Operational Update **Nick Everitt - NGESO**	10:45 - 11:00
4	Security Factor **Damian Clough - SSE**	11:00 - 11:30
5	TCR Securities **Ken Doyle & Dan Hickman - NGESO**	11:30 - 11:45
6	Terminology Housekeeping Modification **Harvey Takhar - NGESO**	11:45 - 12:00
7	AOB and Meeting Close **Jenny Doherty - NGESO**	12:00 - 12:15

Review of previous actions

ID	Month	Agenda Item	Description	Owner	Notes	Target Date	Status
21-8	Oct 21	ESO Bad Debt Recovery	To provide timeline and forecast dates	JM		Nov 21	Open
21-9	Nov 21	BSUoS Operational Update	Share proposed approach for NGESO incentive recovery in future years.	NE		Dec 21	Open

Code Administrator Update

Paul Mullen, Code Administrator



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Authority Decisions Summary (as at 23 November 2021)

On 4 May 2021 (last updated 15 October 2021), Ofgem published a table that provides the expected decision date, or date they intend to publish an impact assessment or consultation, for code modifications/proposals that are with them for decision here

Modification	What this seeks to achieve?	Decision Date / Anticipated Decision Date
CMP335/336 and CMP343/340	Proposes the methodology for Transmission Demand Residual charges to be applied only to 'Final Demand' on a 'Site' basis, as well as how to treat negative locational charges and the application of any charging bands.; CMP335/336 looks at the Transmission Demand Residual billing and consequential changes	Expected final decision date for CMP343, CMP340, CMP335 and CMP336 Modifications was 27 August 2021; however Ofgem confirmed at CUSC Panel on 27 August 2021 that this date would not be met. At CUSC Panel on 29 October 2021, Ofgem confirmed they have no firm date for a decision.
CMP292	Introduces a cut-off date for changes to the Charging Methodologies	TBC in 2021 (previously 30 June 2021 and latterly 30 September 2021) as Ofgem consider this to be low priority
CMP371	Seeks to update CUSC Section 8 such that it is possible, under one CUSC Modification Proposal, to change CUSC provisions relating to Connection Charges, and Use of System Charging Methodologies alongside non-charging provision	Was 19 November 2021 - have reached out to Ofgem for new expected decision date

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Modification	What this seeks to achieve?	Decision Date / Anticipated Decision Date
CMP308	Seeks to modify the CUSC to better align GB market arrangements with those prevalent within other EU member states by removing BSUoS charges from Generation.	At CUSC Panel on 29 October 2021, Ofgem advised that they intend to consult of a minded-to position but cannot confirm yet when this will be issued.
CMP368/369	CMP368 seeks to give effect to the Authority determination within the CMP317/327 decision published on the 17 December 2020 to amend the definition of Assets Required for Connection, create new definitions of 'GB Generation Output' and define Generator charges for use in the Limiting Regulation range calculation. To facilitate the change, CMP369 proposes to update the legal text relating to 'Generation Output' detailed in the tariff setting methodology within Section 14.14.5 and the Ex-Post Reconciliation within Section 14.17.37 of the CUSC to align with the updated definitions introduced by CMP368.	Final Modification Report was sent to Ofgem 23 September 2021 seeking decision on or before 28 October 2021. At CUSC Panel on 29 October 2021, Ofgem noted that their decision will follow the outcome of the current judicial review re: the CMA's decision of 30 March 2021 to dismiss the appeal against decisions by Ofgem on CMP317/327.

Authority Decisions Summary (as at 23 November 2021)

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Modification	What this seeks to achieve?	Decision Date / Anticipated Decision Date
CMP377	Seeks to provide clarity on how the BSUoS charging methodology is described in Section 14 of the CUSC. The four areas being addressed are: Covid-19 cost recovery calculations, capitalisation of defined terms in CMP373 (Deferral of BSUoS billing error adjustment) legal text, clarifying storage import terminology and general housekeeping	Final Modification Report was sent to Ofgem 6 October 2021 but no decision date has yet to be confirmed.
CMP328	Seeks to put in place an appropriate process to be utilised when any connection triggers a Distribution impact assessment.	Final Modification Report was sent to Ofgem 10 November 2021 but no decision date has yet to be confirmed.

Withdrawals Summary (as at 23 November 2021)

Withdrawals (in progress)

Modification	What this does?	Latest
CMP358/ CMP359	The Small Generator Discount (SGD) is currently contained in the ESO's licence. The SGD expired on 1 April 2021. Given the ongoing uncertainty over the Forward Looking and Access SCR, CMP358 proposes that the SGD is put into the CUSC and CMP359 will seek to define SGD and CPI/CPIH.	The Proposer of CMP358 & CMP359 notified Code Admin on 2 November 2021 that they no longer wish to be Proposer of these modifications. Industry were notified on 2 November 2021 and had until 5pm on 10 November 2021 to express their wish to become the new Proposer. As no-one expressed a wish to become the new Proposer by 5pm on 10 November 2021, Panel, on 26 November 2021, will be asked under 8.16.10(b) to agree to the withdrawal of CMP358 and CMP359.

Next Panel

26 November 2021

- One new Modification **CMP380** (“Making the CUSC Gender Neutral”)
- Panel to agree whether or not the **CMP361/362** (Introduction of an ex ante fixed BSUoS tariff and consequential changes) Workgroup has met its Terms of Reference
- Panel to be asked to agree to the withdrawal of **CMP358** and **CMP359**
- Update on our Code Administrator 2021/2022 Deliverables and ESO Customer Satisfaction Survey results
- 2022 Panel Dates
- Forward look out on Modifications for next 12 months

In Flight Modification Updates

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In flight Modifications (as at 23 November 2021)

0 open Workgroup Consultations

0 open Code Administrator Consultations ***but CMP380 anticipated 29 November and CMP361/362 anticipated 3 December***

8 (with 3 more to come) CUSC Workgroups held in November 2021 so far

- 14 to be held across CUSC, Grid Code, STC and SQSS in November 2021
- 8 to be held across CUSC (4 CUSC), Grid Code, SQSS and STC in December 2021

For updates on all “live” Modifications please visit “Modification Tracker” at:
https://www.nationalgrideso.com/industry-information/codes

2021 and 2022 Dates

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CUSC 2021 - Panel dates

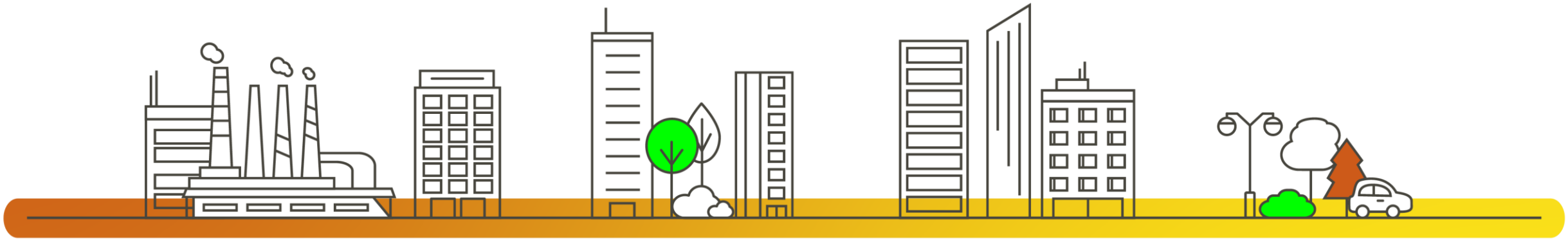
CUSC	(TCMF) CUSC Development Forum	Modification Submission Date	Papers Day	Panel Dates
January	7	14	21	29
February	4	11	18	26
March	4	11	18	26
April	8	15	22	30
May	6	13	20	28
June	3	10	17	25
July	8	15	22	30
August	5	12	19	27
September	2	9	16	24
October	7	14	21	29
November	4	11	18	26
December	25/11	2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

CUSC 2022 - Panel dates

CUSC	Panel Dates	Papers Day	Modification Submission Date	(TCMF) CUSC Development Forum
January	26 (Face to Face Meeting)	18	11	6
February	25	17	10	3
March	25	17	10	3
April	29 (Face to Face Meeting)	21	12 (Taking Bank holidays into account)	7
May	27	19	12	5
June	24	16	9	31/05 (2nd is bank holiday)
July	29 (Face to Face Meeting)	21	14	7
August	26	18	11	4
September	30	22	15	8
October	28 (Face to Face Meeting)	20	13	6
November	25	17	10	3
December	16	8	1	24/11

BSUoS Operational Update

Nick Everitt, National Grid ESO



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BSUoS Operational Update 25th November 2021

ESO Incentive Recovery

- The 2020/21 ESO incentive is being recovered over settlement days from 1st November 2021 to the 31st March 2022.
- This will be invoiced through the SF run from 24th November 2021 to 27th April 2022.
- This will mean a daily recovery value of £33,112.58 per day over 151 days.
- BCR report changes have been made to clarify the recovery of the ESO incentive and the previous trades under recovery. Identified in BCR as **ESO Incentive t-1 + Trades UR**
- Corrected issue with ALoMCP being incorrectly named in BCR.
- Discussion ongoing regards future years ESO incentive recovery, interested to hear industry feedback.

October 20th Invoices Correction

- Ad-hoc invoices/credits to correct this were issued on 11th November, payments debits on 16th November.
- Final comms on this issue were sent out on the 10th November and can be found HERE
- Steps have been added to our disaster recovery plan to ensure that this same issue would not arise again in case of a forced disaster recovery move or another test being undertaken.
- At the BSUoS calculation stage we have instigated a control to check that the chargeable volume used in the BSUoS tariffs calculations are in line with expectations for each settlement day.
- Further process controls are being investigated to prevent this issue occurring in the future.
- Sincere apologies for this issue, please feel free to contact me if you wish to discuss this issue in more detail.

BSUoS Operational Update 25th November 2021

October 18th Invoices Correction

- Comms to highlight this issue were sent out on the 23rd November and can be found HERE
- Ad-hoc credits to correct this were issued on 24th November, payments on 29th November.
- Ad-hoc invoices to correct this issue issued on 25th November, debits on 30th November.
- Still investigating the root cause of this issue but currently looks like it was due to an automated report running partially twice after coming out the back of the disaster recovery test.
- Steps will be added to our disaster recovery plan to ensure that this same issue will not arise again in case of a forced disaster recovery move or another test being undertaken.
- We will look to add further checks into the daily process to help identify this sort of issue should it arise again.
- Sincere apologies for this issue, please feel free to contact me if you wish to discuss this issue in more detail.

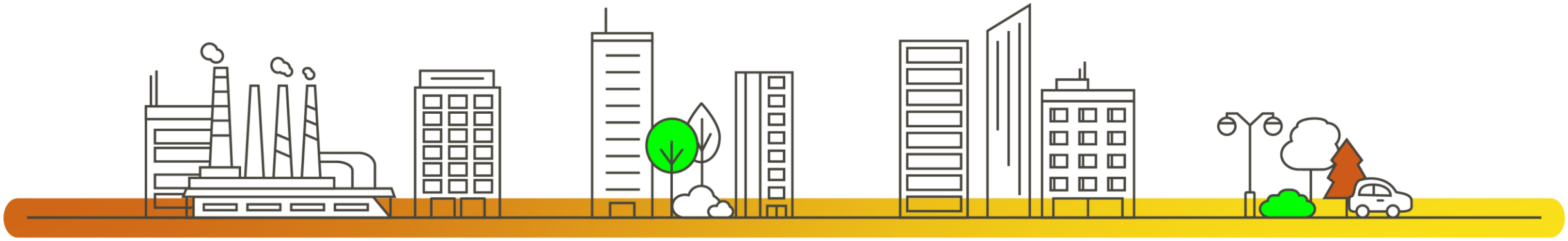
Other issues

- Several II runs delayed this week due to availability of SAA-I014 files, these delayed runs will be processed as and when the files are available from Elexon.
- BPA report fault for 31/10/2021 clock change day, only 49 settlement periods in II and SF run, see comms HERE
- Expeditated change process being followed to correct this report and replacement files will be generated on 27/11/2021. No impact on BSUoS charges, error in report only.

For further information on the above or anything else BSUoS billing related, please contact me directly at nick.everitt@nationalgrideso.com or my team at bsuos.queries@nationalgrideso.com

Security Factor

Damian Clough, SSE



Review of the Security Factor

Approach to changing the Security Factor

The Security Factor (SF)

- What is the purpose of the SF?
  - The DCLF model calculates the marginal cost of investment. However it does not take into account System Security
  - To provide System Security extra capacity is required over and above that shown by the DCLF model in case of faults/outages
  - The Marginal KM for each zone is therefore multiplied by a Security Factor which reflects the extra capacity required to be built to keep the System intact and secure
  - When the SF was maintained in 2004, NGC presented analysis to the support the view that the SF and how it was calculated was a good proxy to actual investment
  - During Project Transmit 2014, NGC presented analysis that the SF calculated under both the Peak and Year Round scenarios presented similar end results

The Security Factor (SF)

- Problem
  - The SF equals 1.76. It therefore increases all tariffs by 76%. It’s not a minor or immaterial input
  - The calculation of the SF is undertaken via a SECULF model not available to Industry
    - It is therefore very difficult for Industry members to test the calculation and suggest improvements and potential changes which is a crucial part of open governance
  - CMP357 'To improve the accuracy of the TNUoS Locational Onshore Security Factor for the RIIO2 Period’ modification highlighted a number of Industry concerns regarding the calculation
  - There is Industry concern over whether the current SF accurately reflects actual investment under both the Security and Economy Backgrounds

Calculation of Security Factor

- Current calculation is based on flows in the Year Round/Economy scenario
  - Why is the SF based on only one scenario?
  - Why is it not based only on Peak Security background reflecting the SQSS Demand Security investment criteria?
  - What would the SF be if we had used the Peak scenario.
    - Are there differences?
    - If Peak is lower does that make sense?

- For those nodes which have a high SF, would the ESO actually build to accommodate those flows or use commercial options instead. Does a node with a high SF really increase investment by that much (i.e. if the maximum redundancy built into the system is 2, how can a node have greater than -2?
  - Introduce a cap and collar on the SF for each node before doing the line of best fit

Possible Changes

1. **SF is not applied to Year Round Tariffs**
   - Year Round circuits should reflect economy, not demand security
     - SQSS Demand Security criteria: PS background should already be fully demand secure
     - Economy/YR circuits are additional beyond that already needed for demand security
     - YR circuit outage: low price constraints, not high price unserved demand
   - Remain applied to Peak Security, as demand still needs to be met with faults/outages
     - Apply SF to Peak Security MWkm before circuits placed into Peak Security vs Year Round buckets
   - As more circuits turn from Peak to YR more of an impact in Scotland going forward
   - The SF being based on the Year Round background would not make sense so may need to also change the SF calculation methodology
     - The SF should only be calculated based on the Peak Background and only be applied to Peak tariffs

Possible Changes

2. Remove SF from HVDC/Certain circuits

- Clearly you do not build 2 HVDC circuits but the tariffs assume you do
- Generators benefit from network security through diversity, not additional redundancy
- Subsea cables built to different security standard
- Are there other circuits which are clearly not built for redundancy?
- If HVDC are YR circuits then removing the SF from YR tariffs achieves the same affect.

3. Change the calculation of the SF

- Does the SECULF SF calculation mean what we think it means?
- Reflect security from network diversity, not always additional redundancy
- Reflect network security needed to accommodate station outages, as well as network
- Cap and collar on SF above X as not reflective of incremental security cost
- Apply different SF to different sized Generators (e.g. <> 1,320MW) - Is network redundancy different for large nuclear vs small OCGT ?
- Do the Scaling Factors already reflect those investment choices

Way forward

Quick win – Stand alone mod for normal industry process

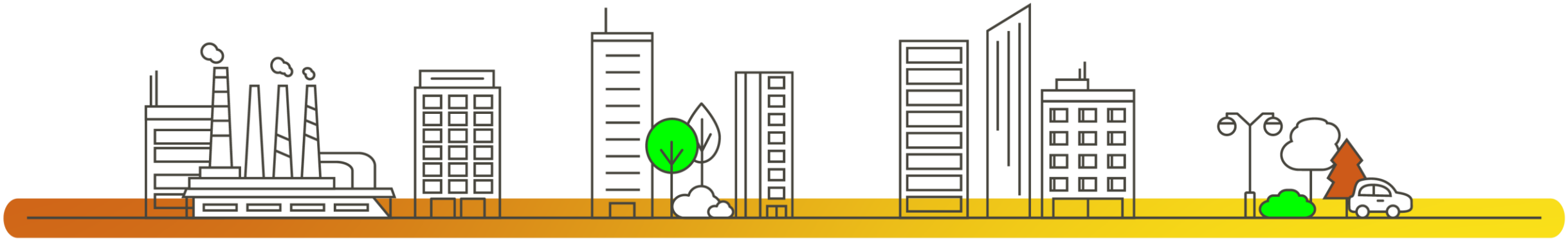
- Remove SF from Year Round circuits, or at least subsea cables

Further consideration – where relevant, how should security be reflected ?

- Better understand network investment decisions for demand security
- Review how SF is calculated: Review ESO SECULF model
- Review the way security is modelled in the ICRP Transport model
- Review the way security is applied to Wider tariffs
- Should security be reflected differently for demand versus generation?
- Review the way security is applied to Local tariffs

TCR Securities

Ken Doyle and Dan Hickman, National Grid ESO



Background

Following the Targeted Charging Review (TCR) Ofgem determined that Residual charges would be levied in form of fixed daily charges for ‘sites’ (households, businesses etc).

NGESO & DNOs were directed to raise modifications necessary to give effect to that decision and the following modifications were raised to update the TNUoS Demand Residual (TDR);

CMP334 (TDR Definitions) – Identified who would be liable by defining ‘Final Demand’ and ‘Site’. Approved by Ofgem 30th Nov 2020.

CMP340/3 (TDR Methodology) – Determined charging bands and the tariffs for each band. With Ofgem for decision.

CMP335/6 (TDR Application) – Updates the post tariff processes e.g. band allocation. With Ofgem for decision.

Discuss potential changes to the CUSC to facilitate the calculation of security requirements.

Paragraph 14.17.20

CMP336 submitted legal text erroneously removes the HH Gross Demand element from the demand forecast

Submitted CMP336 legal text

14.17.20 Throughout the year, Users' monthly demand charges will be based on;

a. the **User's Demand Forecast** which will consist of:

- half-hourly metered embedded export to be supplied during the Triad for each BM Unit, multiplied by the relevant zonal £/kW tariff; and
- non-half hourly metered energy to be supplied over the period 16:00 hrs to 19:00 hrs inclusive every day over the Financial Year for each BM Unit, multiplied by the relevant zonal p/kWh tariff

b. **Final Demand Site Count Forecast** for the latest day (that **The Company** has data available for) multiplied by the relevant £/Site/Day **Transmission Demand Residual Tariff** for the relevant **Charging Band**.

c. the **Unmetered Supply Volume Forecast** for the latest day (that **The Company** has data available for) multiplied by the UMS Tariff.

Proposed revised legal text

14.17.20 Throughout the year, Users' monthly demand charges will be based on;

a. For **HH Charges** the **Users Demand Forecast** half-hourly metered gross demand to be supplied during the Triad for each BM Unit, multiplied by the relevant zonal £/kW tariff; and where this results in a positive value the **Users Demand Forecast** half-hourly metered embedded export to be supplied during the Triad for each BM Unit, multiplied by the relevant zonal £/kW tariff:

b. For N**HH Charges** the **Users Demand Forecast** non-half hourly metered energy to be supplied over the period 16:00 hrs to 19:00 hrs inclusive every day over the Financial Year for each BM Unit, multiplied by the relevant zonal p/kWh tariff

c. for **FDSC Charges** the **Final Demand Site Count Forecast** based on the latest day (that **The Company** has data available for) multiplied by the relevant £/Site/Day **Transmission Demand Residual Tariff** for the relevant **Charging Band**.

d. for the **UMS Charges** the **Unmetered Supply Volume Forecast** based on the latest day (that **The Company** has data available for) multiplied by the UMS Tariff.

Clarification to Defined Terms

prior to the introduction of the defined terms ‘FDSC Charges’ and ‘UMS Charges’ it was clear that ‘HH Charges’ were the charges applied to a HH site and much of the CUSC is written using ‘HH Charges’ to refer to charges applied to a HH site but following TCR implementation a HH site will have 2 charges applied "HH Charges" and “FDSC Charges”* without updating the HH Charges and NHH Charges definitions there is potential ambiguity as to if "HH Charges" also includes the “FDSC Charges” payable by a HH site.

Propose to add "as calculated in accordance with Paragraph 14.17.20" to each of the charges definitions this along with the changes to paragraph 14.17.20 makes it clear that they are all separate charges and removes any potential ambiguity as to what HH Charges and NHH Charges consist of.

Use of Defined Terms to simplify legal text

Prior to the TCR mods the phrase "**Demand** related **Transmission Network Use of System Charges**" was used extensively in the CUSC to refer to TNUoS for demand users, this was fine as all charges for demand users were based on Demand.

With the introduction of residual charges based on FDSC, this mod replaces
"**Demand** related **Transmission Network Use of System Charges**"
with
"**Demand** and **FDSC** and **Unmetered Supply Volume** related **Transmission Network Use of System Charges"**

However there is a defined term '**Transmission Network Use of System Demand Charges**' – that element of Transmission Network Use of System Charges relating to **Demand**, **Final Demand Sites** and **Unmetered Supply**. Which could be used in its place

Paragraph 14.17.25

Initial Reconciliation of demand charges

~~14.17.24~~14.17.25 The initial reconciliation process compares Users' demand forecasts, **The Company's FDSC Forecast** and **Unmetered Supply Volume Forecast** ~~and~~ to the corresponding monthly charges paid over the year against actual outturn data (using latest Settlement data available at the time) and corresponding charges. Initial reconciliation is carried out in three~~two~~ parts; Initial Reconciliation Part 1 deals with the reconciliation of half-hourly metered demand charges, ~~and~~ Initial Reconciliation Part 2 deals with the reconciliation of non-half-hourly metered demand charges and Initial Reconciliation Part 3 deals with the reconciliation of **Transmission Demand Residual** charges.

The replacement of "and" with "to the" in the first sentence of this paragraph inadvertently alters its meaning and should remain unchanged.

Inclusion of FDSC and UMS in forecast validation

3.12 VALIDATION OF DEMAND FORECASTS
3.12.1 The **Demand Forecast** shall represent a **User's** reasonable estimate of its **Demand**.
3.12.1a The Company shall use the latest available data of actual **FDSC** and **Unmetered Supply Volume** as the basis of its **FDSC Forecast** and **Unmetered Supply Volume Forecast**.
3.12.2 **The Company** shall notify the **User** in the event that the **Transmission Network Use of System Charges** due from the **User** to **The Company** or from **The Company** to the **User** (as the case may be) calculated by **The Company** using the **Demand Forecast, FDSC Forecast** and **Unmetered Supply Volume Forecast** differ by more than 20% from that calculated by **The Company** using **The Company's** forecast **Demand**, Inclusion of FDSC and UMS in forecast validation as provided for in the **Charging Statements**.

The inclusion of FDSC and UMS in forecast validation would introduce inefficiency into the CUSC as the FDSC and UMS forecast which are produced by the ESO account for around 95% of the value it would be almost impossible for a users forecast of demand to cause the forecasts of use of system charges to differ by more than 20%

Proposal is to remove 3.12 entirely

Formula correction to example charge table

The Company's FDSC Forecast and Unmetered Supply Volume Forecast for the Supplier (as described in 14.17.20(b)) was as follows:

Charging Band*	Transmission Demand Residual Quantity (A)	Tariff (B)	Days in month (C)	Forecast Charge
FDSC Band 1	25 Sites	£1/Site/Day	30	= A x B x C = 25 x 1 x 30 = £750
FDSC Band 2	15 Sites	£2/Site/Day	30	= A x B x C = 15 x 2 x 30 = £900
UMS	10kWh/day	£2.75/kWh	30	= A x B = 10 x 2.75 x 30 = £825

*Note – only 3 Charging Bands shown in this example for simplicity.

in the table above for UMS "xC" is missing from the last Column

Definitions that currently point to the wrong paragraph number

"HH Base Value at Risk" the sum as calculated in accordance with Paragraph 3.22.3
"NHH Base Value at Risk" the sum as calculated in accordance with Paragraph 3.22.4;

3.22 refers to BSUoS Security
should be 3.23.3 and 3.23.4 respectively

Next Steps

This is our starting point and so currently looking for any immediate feedback

Once decision received on CMP335/6 (assuming approval), look to raise this modification and progress straight to Code Admin Consultation shortly after the decision.

Describe solution and write the legal text in one proposal form then submit for comment

Will keep TCMF informed on progress

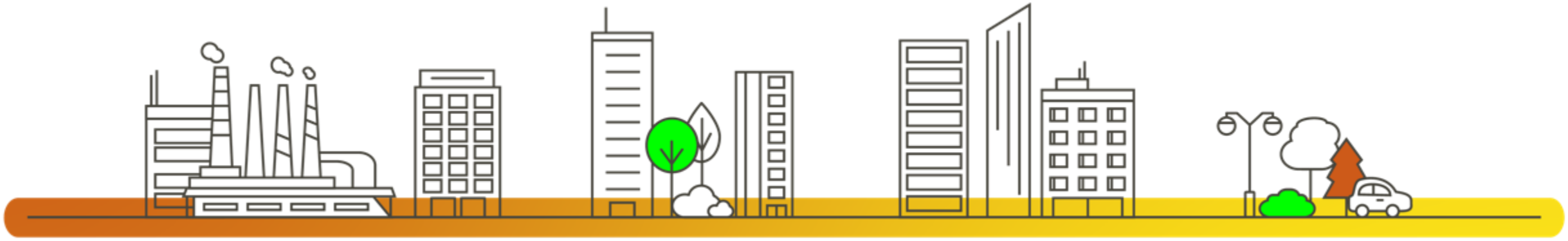
Questions?

Our contact details:

Kenneth.Doyle@nationalgrideso.com
Daniel.Hickman@nationalgrideso.com

Terminology Housekeeping Modification

Harvey Takhar, National Grid ESO



Proposed Housekeeping Change

Removal of all ‘charging year’ and ‘working day’ terminology used in section 14 of ‘Charging Methodologies’ of the CUSC. Replaced with the defined terms ‘Financial Year’ & ‘Business Day’ (as per the below);

- charging year » Financial Year
- working day » Business Day

Reason for this Change

- To resolve ambiguity in the interpretation of the terminology within section 14 only.
- Financial Year & Business Day are already defined in Section 11.
  Financial Year *- the period of 12 months ending on 31st March in each calendar year*
  Business Day *- any week-day other than a Saturday on which banks are open for domestic business in the City of London*
- This modification therefore seeks to align all sections within the CUSC with the aim of providing greater clarity to the end user.

Proposed route to be taken

Self-Governance modification to proceed to Code Administrator Consultation

Discussion

AOB & Close