

Transmission Charging Methodologies Forum and CUSC Issues Steering Group

Meeting 92

16 January 2019

Welcome

Jon Wisdom

National Grid ESO





Housekeeping

- Fire alarms
- Facilities
- Red lanyards

Today's (revised) agenda

#	Item
1	Introduction, meeting objectives and review of previous actions
	CISG
2	TNUoS Tariff Timetable for 2020/21
	TCMF
3	Code modifications update
4	Orkney transmission reinforcement
	Lunch
5	EU Exit Modifications
6	BSUoS Task Force update
7	TCR update – key messages on NGESO response
8	CUSC changes for RIIO2 & Discussion of interaction of current CUSC modifications with Significant Code Review
9	Launch of Network Access and Forward-Looking Charges Significant Code Review
11	Expansion constant modification
12	AOB and close

Action Item Log

Action items: In progress and completed since last meeting

ID	Month	Agenda Item	Description	Owner	Notes	Target Date	Status
18	Dec-18	TNUoS Draft Tariffs Q&A	TS to get clarity on whether commentary can be provided from the TO on regulatory changes which affect revenues.	TS		Jan-19	In-progress
19	Dec-18	Review of ESO credit cover requirements	NGESO estimates there is an approximate value of £200m of TNUoS being underpaid. PB stated that if there is ever and overpayment of TNUoS, this should be taken off the estimate figure. HH to find out and confirm figure.	HH		Jan-19	In-progress
20	Dec-18	AOB	HH to find out whether any methodology changes are required on the designated sum calculation.	HH		Jan-19	In-progress
17	Nov-18	Introduction, meeting objectives and review of actions	To get confirmation on the year revenue will be recovered and the basis of assessment.	TA	This is regarding the increase in TO costs in relation to CACM licence changes.	Dec-18	Complete

TNUoS Tariff Timetable for 2020/21

Tom Selby
National Grid ESO



Timetable for 2020/21 Tariffs

By the end of January, NGESO must publish our timetable for TNUoS Tariff publications for 2020/21 Tariffs.

We will publish this as a letter as normal

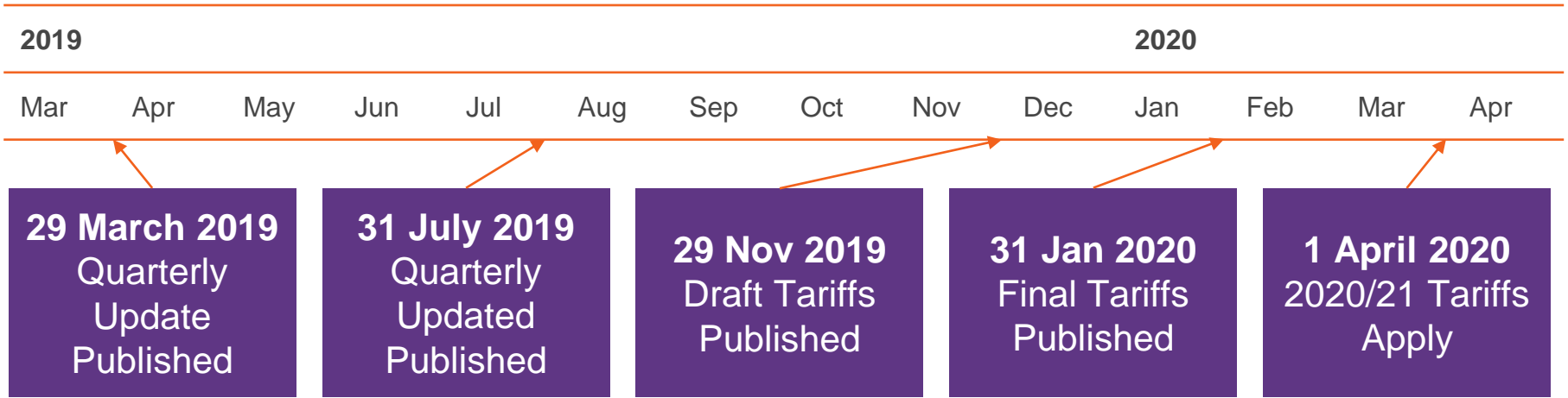
We are at TCMF today to share our proposals for feedback prior to publication

Feedback from the 2019/20 Tariff Setting Cycle



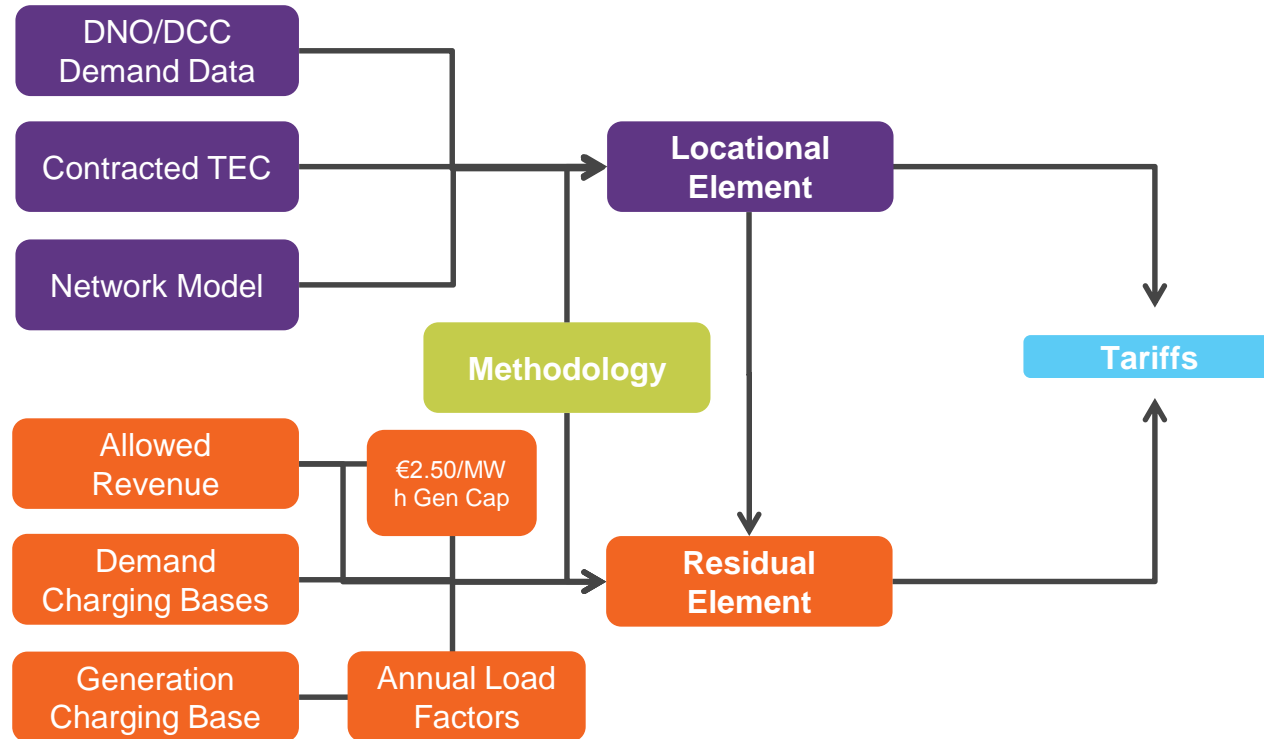
- The **Five-Year Forecast** was moved in 2017 to reflect the significant methodology change, but the data that drives it is most available in the early part of the year. We propose moving back to the traditional annual time for the five-year view.
- The **April tariffs and June tariffs** were very close together, and then a long gap until November.
- The move of **Draft tariffs from December to November** was well received, and we will retain this.
- Providing **clarity in when inputs** will be updated and / or fixed was well received in helping customer understand what might change.

Proposal for 2020/21 Tariffs



29 March 2019
Five Year view
of 2021/22 to
2024/25 tariffs

Inputs to the Methodology



2020/21 TNUoS Tariff Forecast

		September 2018 (Five-year View)	March 2019	July 2019	November 2019 (Draft Tariffs)	January 2020 (Final tariffs)
METHODOLOGY		Open to industry governance				
LOCATIONAL	DNO/DCC Week 24 Demand Data	Previous year			Week 24 updated	
	Contracted TEC	Latest TEC Register	Latest TEC Register	Latest TEC Register	TEC Register Frozen at 31 October	
	Network Model	Previous year (except local circuit changes)	Latest version based on ETYS	Previous version (except local circuit changes)	Latest version based on ETYS	
RESIDUAL	OFTO Revenue (part of allowed revenue)	Forecast	Forecast	Forecast	Forecast	NG Best View
	Allowed Revenue (non OFTO changes)	Update financial parameters	Updated financial parameters	Latest onshore TO Forecasts	Latest TO Forecasts	From TOs
	Demand Charging Bases	Revised Forecast	Revised Forecast	Revised Forecast	Final Forecast	<i>By exception</i>
	Generation Charging Base	NG Best View	NG Best View	NG Best View	NG Best View	NG Final Best View
	Generation ALFs	Previous year			New ALFs published	
	Generation Revenue Cap (G/D split)	Forecast	Forecast	Generation revenue fixed		

The error margin

The TNUoS methodology uses the highest error in revenue collection and actual generation TWh output forecasting from the past five years

It is currently 21%, due to past forecasting inaccuracies

The result is a more negative generation residual, and a more positive demand residual

Ofgem decision (reject) on CMP251:

We are aware of the concerns raised by industry in the CMP251 FMR about the effect the error margin is having on generator and supplier costs. We are content with the inclusion of an error margin with the existing ex-ante approach. However, NGET should make sure the size of the error margin – currently 21% - is as low as possible in order to minimise any potential distortion and the transfer of costs between generators and suppliers.

The error margin – what will we do for future forecasts?

2019/20: 21% (unchanged)

2020/21: Recalculated in the same way using latest data

Future: We propose reviewing the approach to setting the error margin, in the post-CMP251 CUSC review of the generation cap, and Ofgem's comments in the CMP251 decision

The recalculation of the error margin for 2020/21

The error margin is likely to reduce for 2020/21 pending 2018/19 outturn data; likely to be around 17%

Based on the current 2020/21 forecast:

Generation residual increase: £0.32/kW

Demand HH residual decrease: £0.44/kW

(Increase in generation revenue of £22m)

This will be published in our next report on 2020/21 tariffs in March 2019



TNUoS
Queries

E: Tnuos.queries@nationalgrid.com
T: 01926 654633

nationalgridESO

Code Modifications update

Joseph Henry,
National Grid ESO



New modifications at workgroup

No new modifications raised at December Panel

Modifications at workgroup (1/2)

Modification	Latest update	Next WG date	Next meeting
CMP280/ CMP281	2 workgroups held: CMP280 Workgroup report estimated to be February Panel – 2 alternatives raised and voted on CMP281 Workgroup report estimated to be January Panel	22/29 January 2019	WG12
CMP285	Code Administrator consultation closes 17 January 2019	TBC January/February 2019	WG7
CMP286/ CMP287	Liaising with the proposer to discuss the contents of the workgroup consultation.	TBC	WG7
CMP288/ CMP289	Workgroup consultation published 11 January 2019 – Closing date 1 February 2019	Post consultation in February 2019	WG8
CMP291	Workgroup decoupled from GC0117	TBC – likely to be February 2019	WG3
CMP292	Workgroup consultation published. Closes 22 January 2019	TBC – February 2019	WG3

Modifications at workgroup (2/2)

Modification	Latest update	Next WG date	Next meeting
CMP295	WG3 held on 11 January 2019. Consultation to be published on 16 January 2019	TBC February 2019	WG4
CMP298	WG2 held in December - further workgroup to be held in January, date TBC	TBC January 2019	WG3
CMP300	Quoracy has been achieved – the first meeting to ‘Kick Off’ will be scheduled, with workgroup in January 2019	TBC	Kick Off
CMP303	Workgroup consultation published. Closing date on 23 January 2019	24 January 2019	WG4
CMP304	WG2 held 15 November 2019. Second workgroup to be arranged in January 2019	TBC January 2019	WG2
CMP306	Kick Off meeting held on 7 December 2018. Workgroup to be held on or 31 January 2019	23/31 January 2019	WG1
CMP308	First workgroup held 18 December 2018	TBC January 2019	WG2

Authority Decision updates

Pending Authority decisions

There are no pending decisions

Authority Decisions

No new Authority Decisions

Dashboard - CUSC

New Modifications	In-flight Modifications	Modifications issued for workgroup consultation	Modifications issued for code admin consultation
0	25	3	1

Workgroups held (December)	Authority Decisions	Modifications on hold
7	0	5

Questions



Orkney transmission reinforcement

January 2019



Scottish & Southern
Electricity Networks

Needs Case update

Needs Case update

SSEN's Needs Case submission

- In March 2018, we submitted our Need Case to Ofgem for a 220kV subsea cable link to connect the Scottish Mainland to Orkney.
- This proposed a tipping point of 70MW of committed to new generation, signed up to Alternative Approach, to justify investment.
- The 70MW was based on well-established, industry best practice, used to assess similar transmission investments across GB.
- Our analysis, by independent economic consultations, is also supported by National Grid, as the System Operator, with National Grid's own cost benefit analysis supporting the 70MW tipping point.
- We have also provided a consumer impact assessment to Ofgem setting out the wider GB consumer benefits the reinforcement would provide in respect of reductions in wholesale energy costs, as well as the wider socio-economic benefits the project will provide locally and nationally – this verified the tipping point of 70MW.

Needs Case update

SSEN's Alternative Approach- overcoming barriers to investment

We have developed a stakeholder led, Alternative Approach, designed to overcome barriers to connection and provide certainty that the generators would connect.

This new, proposed policy, which formed part of the Needs Case, consists of the following two elements:

1. **Ready to connect process** – a queue management system which will allocate capacity to those who are able to demonstrate they are ready to connect.
2. **Adjusted liabilities-** for a temporary period liabilities and securities would be adjusted to allow projects to progress and demonstrate financial commitment in line with mainland North of Scotland.

Needs Case update

Ofgem's Needs Case consultation

- On 14 December, Ofgem published its Needs Case minded-to decision for consultation.
- This recognised there was a need, that the 220MW proposal was the optimal solution, and that the link was deliverable.
- However, Ofgem has proposed a tipping point of 135MW - it is unclear why Ofgem is proposing a different test for Orkney, which conflicts with Ofgem's own guidance on these types of transmission investments.
- Ofgem has also proposed that by December 2019, that a total of at least 135MW of new generation on Orkney has either:
 - **been awarded a Contract for Difference in the 2019 CfD Auction; or**
 - **secured planning consent and secured finance to construct its generation project.**

Needs Case update

SSEN's Alternative Approach- Ofgem's response

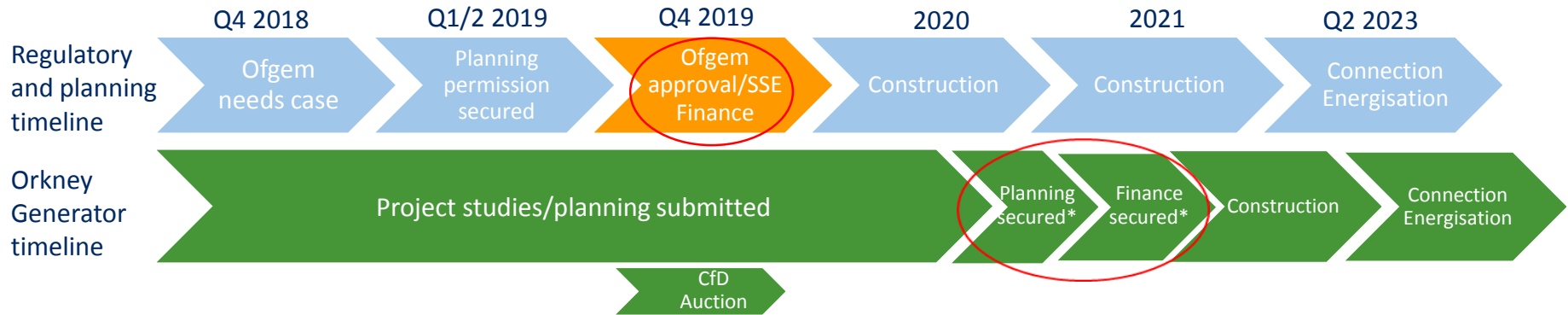
On 14 December 2018, Ofgem published its Alternative Approach, minded-to decision, for consultation.

This sets out that Ofgem is minded to:

1. **Approve** the derogation request relating to the ready to connect process. This proposes an alternative approach to allocate capacity i.e. to those able to demonstrate readiness to connect through submission of delivery plans and progress against specified milestones; and
2. **Reject** the derogation request relating to temporarily adjusting liabilities. This proposes removal of the unique subsea cable element of costs to bring securities in line with those on the mainland for a limited period of 9 months, to help projects progress during the early stages.

Needs Case update

Timeline



Needs Case update

Next steps

- Ofgem’s Needs Case consultation is seeking views by 8 February 2019.
- Ofgem’s Alternative Approach consultation is seeking views by 25 January 2019.
- We plan to engage widely with Orkney and industry stakeholders to help shape our response to both consultations.
- We would encourage all stakeholders with an interest in the reinforcement project to respond to both consultations to make their views known.

	SSEN	Ofgem
Tipping point	70MW	135MW
Conditionality	Commercial commitment via the Alternative Approach	Demonstrate by December 2019: <ul style="list-style-type: none">• Successful CfD; or• Planning and finance

Conclusion

- Project is at most advanced stage ever with Ofgem recognising there is a need.
- However, there are a number of challenges still to overcome if we are to realise Orkney's vast renewables potential.
- We plan to engage widely with Orkney and industry stakeholders to help address these challenges and shape our response to both consultation and we encourage all stakeholders with an interest in the reinforcement project to respond to both consultations to make their views known.

Thank you for listening

Questions?

EU Exit Modifications

Sophie Val Caloen,
National Grid ESO



Purpose of today

The purpose of today is to **provide you with an update** and also to **discuss with you and get your views** on:

- The initial analysis of modifications based on Statutory Instruments
- The expected process for EU Exit code modifications in case of no deal

No deal preparation

- **We are preparing for all scenarios, including the outcome that we leave the EU with no deal in March 2019.**
- The UK Government has agreed the full legal text of the Withdrawal Agreement with the EU. If this is implemented, an implementation period will run until 31 December 2020 and the working assumption is that consequential changes to licences and codes will not be required during this time.
- However, BEIS, Ofgem and the industry are preparing for making changes to licences and codes in the event that the UK leaves the EU without a deal.

No deal preparation

- **BEIS has released Statutory Instruments in December 2018.**
 - The SIs aim to ensure that domestic and retained EU legislation in energy would continue to operate effectively.
 - The principle of minimal possible changes is implemented, to ensure continued operability and minimise disruption to the UK's energy market.
- **National Grid ESO is working to prepare changes required to codes.**
 - We are closely working with other Code Administrators and have been engaging collectively with BEIS and Ofgem. The aim is to ensure the process for modification to licences and codes is aligned.
 - We have been informing the industry on how we are preparing for the case of the UK leaving the EU without a deal (letters of [20Nov](#) and [21Dec](#)).

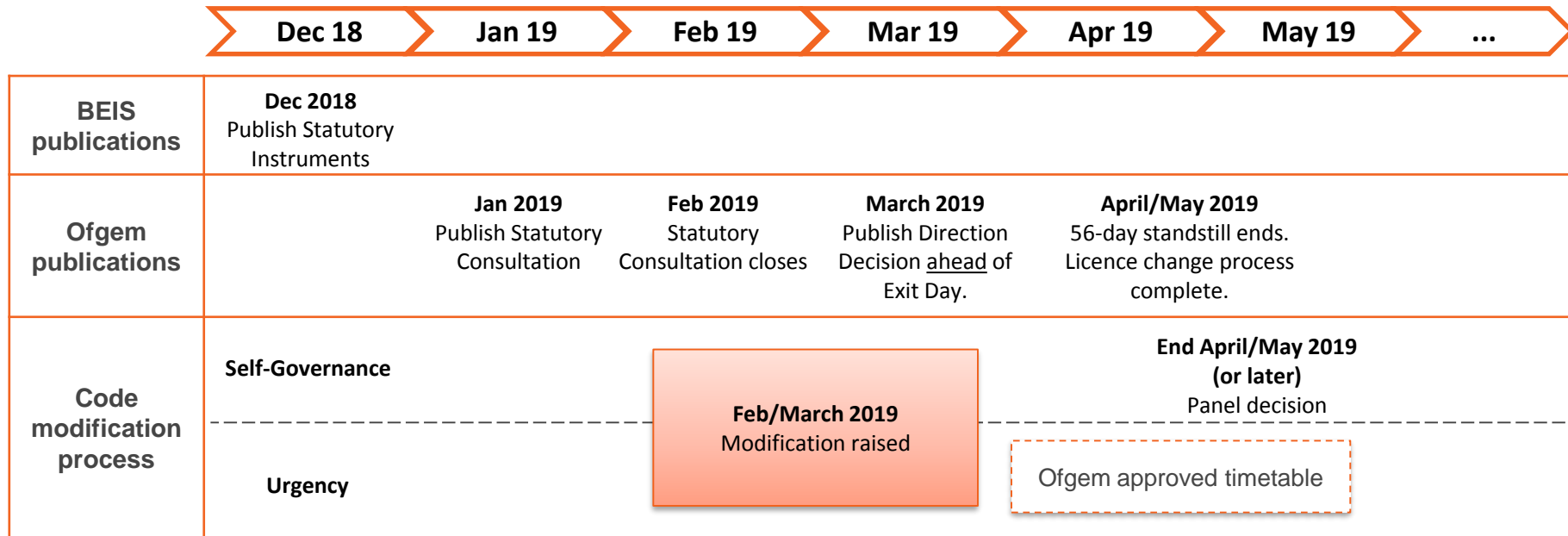
Code modification requirements - CUSC

- **The intent of the code modifications is ensuring sufficient alignment with retained legislation and licences.**
 - The objective is minimum changes to support progression in a timely manner.
 - No benefit or detriment is intended to any industry party.
- **The majority of the envisaged changes are straightforward.**
 - References to EU legislation need to be replaced as they would no longer apply with the corresponding UK legislation.

Indicative code modifications - CUSC

	Current text	Proposed change, based on SI text
Mod Process	Code modification process “ <i>necessary to comply with or implement the Electricity Regulation and/or any relevant legally binding decisions of the European Commission and/or the Agency</i> ”	Update reference to EU legislation. Replace European Commission by Secretary of State and Agency by Regulatory Authority.
UoS charging methodology	<p>“<i>The application of a Transmission Network Use of System Revenue split between generation and demand where the proportion of the total revenue paid by generation, for the purposes of tariff setting for a charging year n, is x times the total revenue, where x is:</i></p> <ol style="list-style-type: none"><i>1. Whilst European Commission Regulation 838/2010 Part B paragraph 3 (or any subsequent regulation specifying such a limit on annual average transmission charge payable by generation) is in effect (a “Limiting Regulation”) then $x_n = [..]$</i><i>2. Where there is no Limiting Regulation, then x for charging year n is set as the value of x used in the last charging year for which there was a Limiting Regulation.”</i>	Update reference to EU legislation.
Glossary	Agency, Competent Authority, Electricity Regulation, European Commission, Significant Code Review,	Delete, add and update relevant terminology.

Indicative timeline



- Given the current timelines, there is a strong possibility that an interregnum period - between exit day and the licence and codes changes taking effect - will be unavoidable. We are engaging with Ofgem to understand the implication of this.
- We are considering what would be the most appropriate route (likely self-governance?) and liaising with Ofgem to understand the trigger point to raise the proposal as well as the desire for coordination across codes.

**What is your view on the modification and indicative timeline?
Do you think another route might be more appropriate?**

Thank you

If you have further queries, please contact if you have any further views on the proposed process and modifications to the codes which you would like to share or discuss please get in contact with us via box.codes.mce@nationalgrid.com.

Questions



Lunch



BSUoS Task Force update

Mike Oxenham
National Grid ESO



Questions



Targeted Charging Review – ESO Consultation response

Harriet Harmon
National Grid ESO

Our key messages...

- We support Ofgem's view that residual charges should be unavoidable and that generators shouldn't pay residual charges;
- We do not agree that Line Loss Factor Class (DUoS banding) is the best way to charge TNUoS or BSUoS;
- Subject to compliance with 838/2010 we support a £0 TGR, but do not agree that imports to storage should equally be exempt from residuals ("interim" demand);
- We are happy to take a leading role in BSUoS reform; and
- We believe that the questions as to who pays BSUoS, and whether it is charged against net or gross volumes are best answered after the cost stack has been examined in the task force

Residual charging

1. An unavoidable TDR, levied on a per MPAN basis;
2. Residual charges not paid by generators;
3. Establish whether BSUoS has FLC and residual elements

Consumers who cannot avoid triad are effectively subsidising those who can – we support the removal of this unfair practice.

By ‘LLFC’ we think Ofgem mean the 18 demand CDCM DUoS categories (per LC14 statements).

We are keen to lead a BSUoS task force examining whether BSUoS does, or can, provide price signals and should not be considered entirely a residual charge.

What are the 18 categories?

Tariff name	Open LLFCs	PCs
Domestic Unrestricted	1	1
Domestic Two Rate	4	2
Domestic Off Peak (related MPAN)	34	2
Small Non Domestic Unrestricted	7	3
Small Non Domestic Two Rate	10	4
Small Non Domestic Off Peak (related MPAN)	40	4
LV Medium Non-Domestic	21	5-8
LV Sub Medium Non-Domestic	19	5-8
LV Network Domestic	632	0
LV Network Non-Domestic Non-CT	633	0
LV HH Metered	127, 129	0
LV Sub HH Metered	128	0
HV HH Metered	365, 367	0

These categories denote how DUoS is charged to different types of demand users.

They allow for different DNO voltages, domestic/non-domestic and some metering information.

Tariff name	Open LLFCs	PCs
NHH UMS category A	95	8
NHH UMS category B	96	1
NHH UMS category C	97	1
NHH UMS category D	98	1
LV UMS (Pseudo HH Metered)	99	0

Residual charging – using CCCs/MCs and MICs

A CCC (Consumption Component Class) indicates wide range of information for segmentation and is less fluid than LLFC; Measurement Class is simpler but less granular

The CDCM is under review per A&FLC SCR so current DUoS bandings may not last.

In lieu of LLFC/DUoS tariffs we would prefer capacity charging for any site with a MIC (MCs C&E), and a ‘fixed’ charge for everyone else – CCC or MC?

If one approach to be used across all UoS charges need common information – either use existing dataset or create new links between DNOs/ESO/Suppliers

BSUoS

The taskforce will assess components of BSUoS and determine whether they are or could be cost reflective

We have had feedback that we also need to look at whether to keep charges HH or base them on another timeframe

The costs of operating the ESO (people, buildings etc.) are arguably residual, as are costs that relate to the whole system.

Under Ofgem's TCR principles these should not be charged to generators.

Our preference is that no changes are made to BSUoS until a full assessment is made through the taskforce to avoid multiple methodology changes in a short period.

If there are forward-looking and residual components that can and should be split out, we have to consider the extent to which we can then assign charges to individual half hours or to days/months etc.

Questions



CUSC changes for RII02

Graham Neale
National Grid ESO



CUSC changes for RIIO2

- The following slides show our latest thinking of what RIIO2 related CUSC changes the ESO are likely to progress between now and the start of RIIO2.
- These are in addition to any modifications we progress as a result of other workstreams (e.g. BSUoS Taskforce)
- This is not a final list and will continue to evolve as we;
 - Engage with industry and listen to feedback
 - Identify opportunities to benefit the consumer
 - Align to the conclusions of Ofgem's TCR and SCR
 - Determine the risks and opportunities NGENSO will see in RIIO2
- We will progress by engaging with interested parties on each of these proposals and submit each proposal in to the code change process when ready.

CUSC changes for RII02

1. TNUoS Zoning (+/- £1/kw)
2. Value of expansion factors & constants
3. Necessary Offshore calculations
4. TNUoS Error Margin Review
5. User Commitment
6. SQSS Review
7. Connection Asset Charging methodology alignment
8. TORI charging methodology



The Ask for Today...

1. What are your thoughts on the proposals?
2. Thoughts on timelines to begin reviewing and raising modifications?
3. Any other potential changes to add?

Any Questions?



Significant Code Review: Electricity Network Access and Forward-Looking Charges

Presentation to TCMF

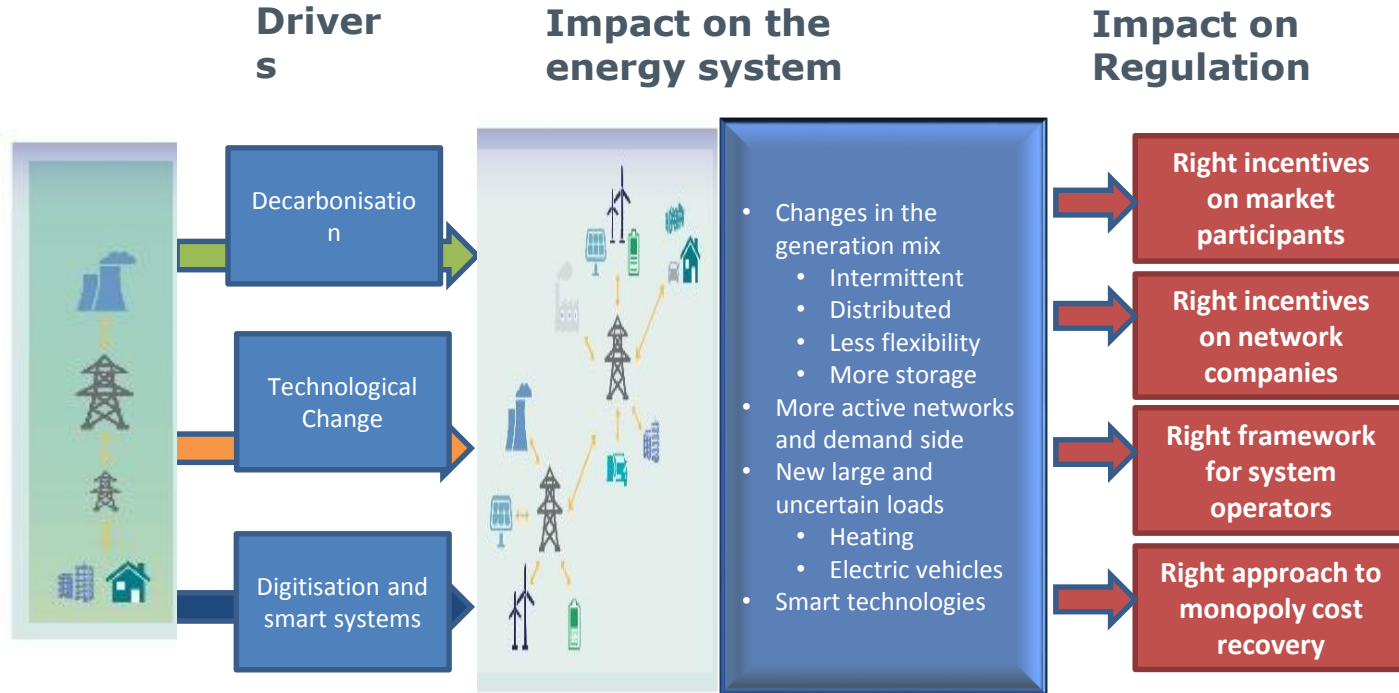


In December 2018, we launched a Significant Code Review of electricity network access and forward-looking charges. The purpose of today's presentation:

- Update on the Access and Forward-looking Charges: Significant Code Review
 - What are access arrangements and forward-looking charges?
 - The case for change
 - Our previous work including recap of our July 2018 consultation
 - Overview of our December 2018 decision to launch an SCR
- Next steps and how to get involved
- As a basis for discussion on the interaction of current code mods and the SCR

The first set of slides (up to slide 9) are high-level and similar to the slides from our recent webinar. Given the level of detailed understanding at this forum, we may focus on the latter slides (from slide 10 onwards).

Changes in the system means changes in regulation



Facilitating change in future energy systems is an important part of our forward work programme

Context: The energy system is changing (eg growth of electric vehicles, distributed generation and battery storage). These changes could create challenges and opportunities for our electricity networks.

The case for change

Increasing **constraints** caused by both **generation and demand at distribution** level, yet also increasing **opportunity** to mitigate these through **flexibility** (eg Imperial College suggests potential **savings of up to £4-15bn cumulatively to 2050** from reducing electricity network reinforcement).

Substantially **different approach across transmission/distribution and generation/demand boundaries** means increasing risk of **distorting investment and operational decisions**

What are access arrangements and forward looking arrangements?

Our Electricity Network Access project is seeking to reform electricity network access and forward-looking charge arrangements –

Access arrangements – the nature of users’ access to the electricity networks (for example, when users can import/export electricity and how much) and how these rights are allocated.

Forward-looking charges – the type of ongoing electricity network charges which signal to users how their actions can either increase or decrease network costs in the future.

This is different to the **residual element** of network charges that are ‘top up’ charges set to ensure that the network companies’ allowed revenue can be recovered, after other charges have been levied. The residual charges are being reviewed as part of our Targeted Charging Review and we have asked for responses to our proposals by 4 February 2019.

- Published a working paper in November 2017 on “Reform of electricity network access and forward looking charges”
- Commissioned **Baringa to gather evidence** to assess the materiality of current inefficiencies
- Set **up two industry task forces under the Charging Futures** to help assess options for the change.
- Presented at last three Fora and held workshops on some potential options for change in Glasgow.
- Published a **consultation in July 2018**, seeking views on launching an SCR and priority areas for reform.
- Decision on SCR and scope of the review published on 18 December 2019.

We sought views on:

- Case for change
- The scope of the review (our view in the July consultation is outlined below)

Network access arrangements

Improving access choice and definition for larger users

Clarify access rights and choices for smaller users, including households

Improving the allocation of access rights, including enhancing the scope for markets

Forward-looking charging arrangements

Wide-ranging review of distribution use of system charges (DUoS)

Review of distribution connection charging boundary

Focused improvements to the transmission use of system charges (TNUoS)

- How to take forward the work
- Timelines for the review
- Engagement with stakeholders

December 2018 Decision to launch a Significant Code Review

In December 2018, we decided to launch a Significant Code Review of access and forward-looking charges

What is an Significant Code Review? The Significant Code Review (SCR) process provides a tool for Ofgem to initiate wide ranging and holistic change and to implement reform to a code based issue.

Why have we decided to launch an SCR? We believe an SCR is the best tool available for us to manage successfully the complex and interrelated questions which may need changes across multiple industry codes to deliver this objective. There was considerable support for this from stakeholders.

Objective of the SCR? We want to ensure electricity networks are used efficiently and flexibly, reflecting users' needs and allowing consumers to benefit from new technologies and services while avoiding unnecessary costs on energy bills in general.

Guiding principles: We have developed some detailed guiding principles to help inform the development and assessment of options:

1. Arrangements support efficient use and development of network capacity
2. Arrangements reflect the needs of consumers as appropriate for an essential service
3. Any changes are practical and proportionate

Included in the SCR – Ofgem-led

- Review of the definition and choice of transmission and distribution access rights
- Wide-ranging review of Distribution Use of System (DUoS) network charges
- Review of distribution connection charging boundary
- Focussed review of Transmission Network Use of System (TNUoS) charges

Areas led by industry outside the SCR

- Review of balancing services charges (BSUoS)
- Access right allocation

Excluded from the SCR and wider industry review

- Introducing fixed duration long-term access rights
- Introducing geographically exclusive local access rights which do not allow access to the rest of the system
- Wider changes to transmission network charges
- The transmission connection charging boundary

INCLUDED WITHIN THE SCR

Priority areas

- Increased clarity and choice of firmness levels
- Increased choice around time-profiled access
- Better defined access rights and greater choice for small users, and potential protections
- Clarifying access rights of distribution-connected users to the transmission network

We will additionally explore the feasibility and value of shared across sites and/or different users – this may become a priority

Other areas

Short-term duration access and new conditions such as 'use-it-or-lose-it' or 'use-it-or-sell-it' are not currently priorities but this is subject to change

Wide-ranging review of Distribution Use of System (DUoS) network charges

INCLUDED WITHIN THE SCR

A wide-ranging review of the distribution charging methodology, including the following issues:

- Charging design of distribution charges, including:
 - the balance between usage-based and capacity-based charges
 - time-of-use based variants of both options
 - considering the treatment of different types of users
- Improvements to signals about how network costs and benefits vary by location
- Options to mitigate the potential adverse impacts of the reforms for small users, including considering a basic charging tier.

INCLUDED WITHIN THE SCR

If better locational signals can be sent through DUoS charges, we will consider whether there is a case for moving to a more 'shallow' connection charging boundary.

This will also consider:

- User commitment arrangements
- The treatment of existing users

A focused review of Transmission Network Use of System (TNUoS) charges

INCLUDED WITHIN THE SCR

Priority areas

The charging design for:

- Distributed generation (DG)
- Demand users (including those engaged in DSR)

Other areas

We will review evidence on the materiality of issues associated with the 'reference node' used in the model that derives the locational charges for different users and areas is not currently a priority. We may take forward options for change here if the evidence suggests this is warranted.

The SCR is not reviewing other elements of the TNUoS charging methodology

INCLUDED WITHIN THE WIDER REVIEW – LED BY INDUSTRY

We believe the ESO and network companies should lead on reviewing incremental improvements to allocation of access

For example –

- Better management of connection queues
- Allowing generation who have non-firm connections to trade with others to reduce extent of their curtailment
- Enabling exchange of access rights between users

The use of auctions will not be included in the review.

INCLUDED WITHIN THE WIDER REVIEW – LED BY INDUSTRY

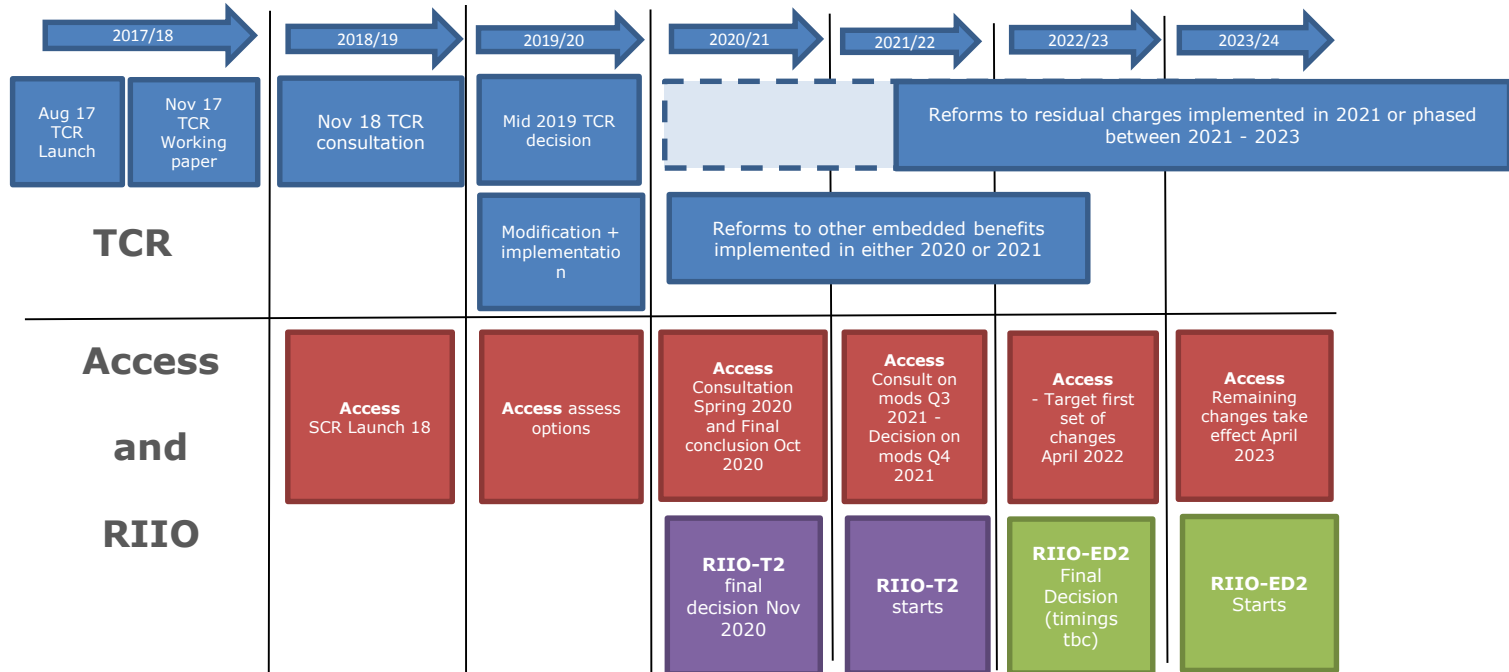
In November this year, we asked the ESO to launch a [task force](#) under the Charging Futures Forum.

The objective of the task force is to provide analysis to support further decisions on the future direction of BSUoS.

In particular, it will examine the potential for, and feasibility of, some elements of BSUoS being made more cost reflective, and which elements should instead be treated as cost recovery charges.

Timelines and links with other projects

We are reviewing the charging framework holistically; working closely with the Electricity Network Access and RIIO project teams to ensure a consistent approach is taken to the different reforms underway across the energy system.



We are committed to undertaking the SCR in a transparent and open manner. There will be ongoing role for the Charging Delivery Body and Charging Futures Forum.

In addition, we intend to introduce and chair a new Challenge Group and Delivery Group:

- **Challenge Group** – will provide ongoing wider stakeholder input into the SCR. This will provide a challenge function and ensure that policy development takes into account a wide range of perspectives and is sufficiently ambitious.
- **Delivery Group** - will comprise network companies, the Electricity System Operator and relevant code administrators. This group will help us develop and assess options, drawing on their expertise and knowledge of how the networks are planned and operated. May commission and coordinate smaller working groups to complete some activities.

There are lots of opportunities to stay up to date and get involved by:

- Attending the Charging Futures Forum (**next CFF – 15 January**) and using Charging Futures resources (eg webinars, podcasts)
- Applying to become a member of the Challenge Group email networkaccessreform@ofgem.gov.uk by **21 January**.
- Observing Delivery Group meetings
- Getting involved with the wider industry work on balancing services charges (National Grid ESO) and allocation of access (ENA).

Q & A

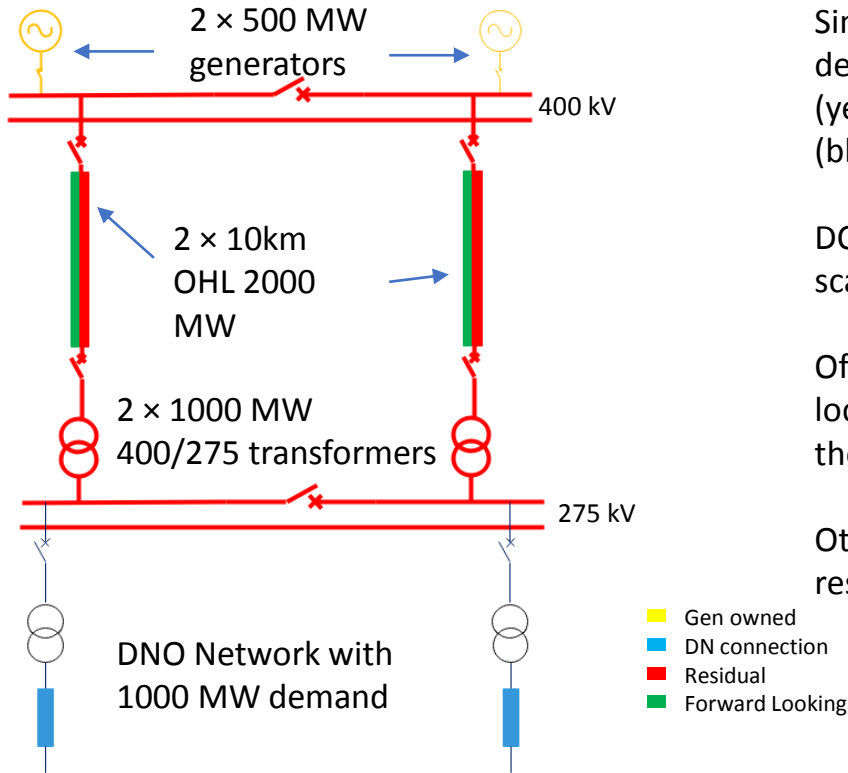
Our core purpose is to ensure that all consumers can get good value and service from the energy market. In support of this we favour market solutions where practical, incentive regulation for monopolies and an approach that seeks to enable innovation and beneficial change whilst protecting consumers.

We will ensure that Ofgem will operate as an efficient organisation, driven by skilled and empowered staff, that will act quickly, predictably and effectively in the consumer interest, based on independent and transparent insight into consumers' experiences and the operation of energy systems and markets.

TCMF: Allocation of assets to charges

Nick Sillito, Peak Gen

Current asset charging allocation



Simplified network connecting 1000 MW of generation and demand. Generator bays are owned by the generator(s) (yellow). DNO connection assets are charged separately (blue).

DCLF model results in 500 MW flow on each circuit. This is scaled up to 900 MW for security (1.8×).

Of the 2000 MW circuit capacity, 900 MW allocated to the locational charge (green stripe) and 1100 MW is allocated to the residual charge (red stripe).

Other assets (switchgear, transformers) are fully allocated to residual (shown in red).

Observations

- The locational charge only recovers costs for assets that connect “nodes” on the system (underground cables and overhead lines). Other transmission equipment such as switchgear, reactive compensation and transformers are not allocated to the locational charge.
- When allocating the costs of circuits, should the full costs be allocated to the circuit’s users:
 - If a 1500 MW circuit is loaded at 1000 MW in the model, should the users causing the flow be charged for the full cost of the circuit?
 - What, if any, proportion of the cost of the circuit should be allocated to the residual?
 - Would it have been possible to avoid 1/3 of the cost by building a 1000 MW circuit instead of a 1500 MW circuit?
- Many key assets in the transmission system are excluded from the locational charge, but are key to the bulk transfer of power on the system.

Proposal

- Potential CUSC modification proposal to:
 - Consider if the expansion constant correctly reflects the cost of the assets required to move 1 MW by 1km; and
 - Consider if other assets such as switchgear, reactive compensation, transformers etc., should be included in the forward looking charge.

Objective is to ensure that the locational charge properly reflects the costs of providing the transmission assets required

- Any questions or feedback: nsillito@peakgen.com

AOB

Jon Wisdom
National Grid ESO





nationalgridso.com

National Grid SO, Faraday House, Warwick Technology Park,
Gallows Hill, Warwick, CV346DA

nationalgridESO