Transmission Charging Methodologies Forum and CUSC Issues Steering Group

Meeting 96

12 June 2019

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Welcome

Jon Wisdom

National Grid ESO

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Housekeeping

- Fire alarms
- Facilities
- Red lanyards

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Today's agenda

#	Item
1	Introduction, meeting objectives and review of previous actions
	TCMF
2	Code modifications update
3	BSUoS Task Force Update
4	Targeted Charging Review timings update
	Potential CMP: Reconciling generic ALFs with actual data
	CISG
5	EBGL Article 18 update and next steps
6	Targeted market improvements
	AOB
	Close

Action Item Log

Action items: In progress and completed since last meeting

ID	Month	Agenda Item	Description	Owner	Notes	Target Date	Status
22	Feb-19	Actions	JW took an action to speak to the revenue team to ascertain whether they could publish anything on the calculation of the error margin. Action updated in March: A request was for an explanation of the governance and the precise calculation of the error margin - showing evidence of methodology.	JW	An explanation was published in the TNUoS Tariffs document.	Jun-19	Complete

Transmission Charging Methodology Forum

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Code Administrator Update

Rachel Hinsley,

National Grid ESO

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New modifications

New Non-Urgent Modifications - Raised in April

CMP314 - Updating the CUSC to align Power Available with the Grid Code definition for Power Park Modules
Following deferral within the March meeting, the Panel recommended that CMP314 proceed to Code Administrator consultation. The questions and answers posed by Panel will be annexed into the report for visibility.

CMP315 - TNUoS: Review of the expansion constant and the elements of the transmission system charged for
Panel agreed for this to proceed for Authority decision and to proceed to Workgroup. Panel requested that workgroup attendance by Transmission Owners to allow fully informed discussions and for all to understand the implications of the modification.

CMP316 - TNUoS Arrangements for Co-located Generation Sites
Panel agreed for this to proceed for Authority decision and to proceed to Workgroup.

New modifications

New Non- Urgent Modifications - Raised in May

CMP317 - Identification and exclusion of Assets Required for Connection when setting Generator Transmission Network Use of System (TNUoS) charges
Panel agreed for this to proceed via the standard Authority governance route and to proceed to Workgroup. Panel requested a shorter nomination period and for the workgroup to have two consecutive workgroup days in a month to progress the modification.

CMP318 - Maintaining Non-Half-Hourly (NHH) charging arrangements for Measurement Classes F and G
Panel agreed for this to proceed via the standard Authority governance route and to proceed to Code Administrator Consultation (CAC). This will be issued following Ofgem confirmation that this does not impact on the SCR / TCR.

Modifications at workgroup

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Modifications at workgroup (1/2)

Mod	Latest update	Next WG date	Next meeting
CMP280/ CMP281	1 WG held: CMP280 WG Report Est. June Panel – 1 WACM developed CMP281 WG Report Est. June Panel – Extension Granted to take into account BS Task force	18 June 2019	WG18
CMP286	Separated from CMP287, Request For Information was issued on 7 May and closed on 30 May. Reponses to be reviewed by NGESO prior to discussion re next steps.	TBC	WG7
CMP287	WG consultation responses need to be reviewed at the next WG. Extension on Report until July.	25 June	WG7
CMP288/ CMP289	Next WG scheduled; awaiting Ofgem outcome for the proposer to have materially impacted status	21 June	WG8
CMP291	WG decoupled from GC0117; All scheduled WGs have failed to obtain quoracy. A request will be made to industry to increase workgroup membership	TBC	WG3
CMP295	WG6 required to be held; struggling with quoracy. The industry has been requested for further membership. This is highest on the prioritisation stack. Panel approved an extension until August 2019	June	WG6

Modifications at workgroup (2/2)

Mod	Latest update	Next WG date	Next meeting
CMP298	Next WG to be held in July, progressing and on track	11 July	WG5
CMP300	1 WACM being developed by the WG; aiming to conclude for June Panel	June	WG4
CMP304	Proposer awaiting the NG ESO roadmap to be produced July 2019. The WG will convene thereafter	TBC	WG5
CMP306	WG consultation concluded; WG to be convened to discuss consultation responses	TBC	WG4
CMP308	WG consultation concluded; 1 WACM being developed and legal text being reviewed	July	WG7
CMP311	WG 3 to be held in June; progressing well and on track	17 June	WG3
CMP315	WG1 to be held early July following the Authority's decision with whether the modification impacts on the SCR	July	WG1
CMP316	WG1 to be held 20 June and the timeline to be agreed with Panel thereafter	20 June	WG1
CMP317	Nominations close 17 June, webinar scheduled 14 June, WG1 to be held thereafter	TBC	WG1

Authority Decision Updates

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Authority Decision updates

Pending Authority decisions

CMP285 - CUSC Governance Reform - Leveling the Playing Field - anticipated 19 June

CMP301 - Clarification on the treatment of project costs associated with HVDC and subsea circuits; and

CMP303 - Improving local circuit charge cost-reflectivity

Both anticipated week commencing 10 June

Authority Decisions

CMP285 was sent back in March however this has been re-issued back to the Authority

Dashboard – CUSC (March)

New Modifications	In-flight Modifications	Modifications issued for workgroup consultation	Modifications issued for code admin consultation
2	27*	0	0

Workgroups held March	Authority Decisions	Modifications on hold	Workgroups postponed due to quoracy issues
9	1	4	5 (CMP288/289, 295, 291,292)

*includes 4 on hold, and those not at Workgroup phase for example any at CAC and any approved awaiting implementation

Dashboard – CUSC (April)

New Modifications	In-flight Modifications	Modifications issued for workgroup consultation	Modifications issued for code admin consultation
2	29*	4	1

Workgroups held April	Authority Decisions	Modifications on hold	Workgroups postponed due to quoracy issues
5	1 send back	4	3 (CMP295, 291,292)

*includes 4 on hold, and those not at Workgroup phase for example any at CAC and any approved awaiting implementation

Questions

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Balancing Services Charges Task Force Update

Mike Oxenham

National Grid ESO

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Targeted Charging Review/AFLC timings update

Harriet Harmon

National Grid ESO

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Ofgem have published updated timelines for charging reforms…

If the Targeted Charging Review (TCR) produces any changes, they will take effect no earlier than April 2021

The Access & Forward-Looking Charges (AFLC) work will take effect from April 2023

https://www.ofgem.gov.uk/system/files/docs/2019/05/may_charging_open_letter_final_21-may.pdf

In practice…

TCR – residual charge (demand only)

Unavoidable demand residual:

- Ofgem looking for TDR to be borne by all demand consumers, not just those unable to triad-avoid/load shift;
- A year-round residual to be charged based on either:
  - Line Loss Factor Class (categorisation used in DUoS to illustrate voltage/losses/type of premises – 18 categories); or
  - Capacity (DNO-level – either agreed – "MIC" – or deemed – akin to P272 process)

Originally considered implementation dates of 2021 or phased over 2021-23
April 2023 is leading option

TCR – embedded benefits – TGR & BSUoS reform

Generator Residual = £0:

- Subject to compliance with Part B of EC Reg 838/2010, the TGR should be set to £0 so as to:
  - resolve an embedded (dis)benefit (i.e. a credit not available to Dx-connected generators) and;
  - remove a consumer TNUoS subsidy to Tx-connected generators

Originally considered implementation dates of 2020 or 2021

2020 has now been ruled out pending further analysis on CM interactions

BSUoS:

- Potential for gross charging arrangements and possibly for embedded generators to pay BSUoS directly

Originally considered implementation dates of 2020 or 2021

2020 has now been ruled out pending further analysis on CM interactions

Ofgem to consider final report of BSUoS TF in its decision

Update on charging reform timelines - AFLC

Initially targeted implementation of any transmission changes for 2022 and distribution for 2023
All changes to be implemented 1 April 2023 (RIIO-ED2)

Two working papers to be published:

Paper 1 - access rights, distribution network charges and transmission demand network charges (Summer); and
Paper 2 - other specific changes to transmission network charges, distribution connection charges and access and charging arrangements for small users ("later in the year")

Consultation on AFLC conclusions mid-2020, decision 2021, implementation 2023.

Potential change to the reference node, no other transport model effect currently anticipated

Questions

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Potential new CUSC modification: *Reconcile Generic Annual Load Factors with actual data*

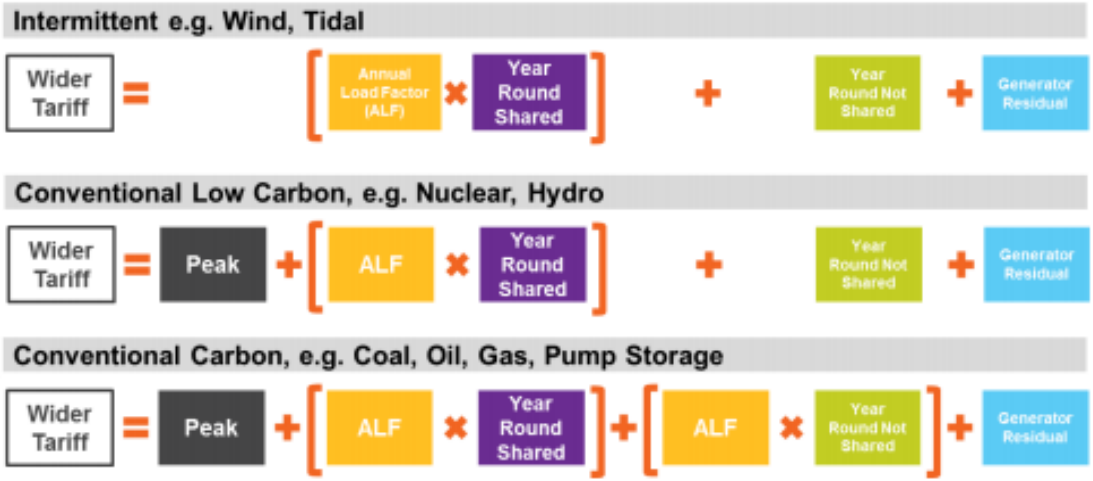
Andy Pace

Energy Potential Limited

Energy Potential

Background –Annual Load Factors (ALFs)

- Annual Load Factors (ALFs) are used to determine a transmission connected generators wider TNUoS charge
- ALFs are used to allocate TNUoS costs that are incurred throughout the year (i.e. those costs that are not driven by peak demand)



Energy Potential

Background – ALF Calculation

- ALFs are calculated for each power station
  - ALF calculated for each year
  - Highest and lowest ALF discarded
  - Three remaining ALFs averaged to determined applicable ALF for charging year
  - Where 4 years data available, lowest ALF is discarded
  - Where 3 years data available, all data is used

- Where a new generator connects to the transmission system there is no ALF
- To enable the TNUoS charge to be determined a generic ALF is used to replace missing data:

14.15.107 In the event that there are not three full charging years of an individual power station's output available, missing output (FPN or actual metered) data would be replaced by generic data for that generation plant type to ensure three charging years of information are available for the Power Station.

Energy Potential

Background – Generic ALF Calculation

- Generic ALFs are calculated from the average annual output of the ten most recently commissioned GB generation of a particular generation plant type that have at least five charging years' data

Power Station	Technology	Yearly Load Factor Source					Yearly Load Factor Value					Specific ALF
		2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	
ACHRUACH	Onshore_Wind	Generic	Generic	Partial	Actual	Actual	0.0000%	0.0000%	33.6464%	36.7140%	44.3464%	38.2356%
AFTON	Onshore_Wind	Generic	Generic	Generic	Generic	Partial	0.0000%	0.0000%	0.0000%	0.0000%	34.8738%	37.2641%
AIKENGALL II	Onshore_Wind	Generic	Generic	Generic	Generic	Partial	0.0000%	0.0000%	0.0000%	0.0000%	33.5082%	36.8089%
AN SUIDHE	Onshore_Wind	Actual	Actual	Actual	Actual	Actual	41.5843%	36.9422%	35.4900%	34.0938%	41.2323%	37.8882%
ARECLEOCH	Onshore_Wind	Actual	Actual	Actual	Actual	Actual	33.8296%	29.7298%	36.8612%	19.7246%	35.1728%	32.9108%
BEINNEUN	Onshore_Wind	Generic	Generic	Generic	Partial	Actual	0.0000%	0.0000%	0.0000%	30.9623%	25.8214%	31.7476%
BHLARAIDH	Onshore_Wind	Generic	Generic	Generic	Partial	Actual	0.0000%	0.0000%	0.0000%	33.4339%	46.3209%	39.4047%
BLACK LAW	Onshore_Wind	Actual	Actual	Actual	Actual	Actual	31.9648%	26.7881%	26.9035%	23.4623%	21.2137%	25.7180%
BLACKCRAIG WINDFARM	Onshore_Wind	Generic	Generic	Generic	Generic	Partial	0.0000%	0.0000%	0.0000%	0.0000%	36.0208%	37.6465%
BLACKLAW EXTENSION	Onshore_Wind	Generic	Generic	Partial	Actual	Actual	0.0000%	0.0000%	33.4635%	13.1095%	30.4870%	25.6867%
CARRAIG GHEAL	Onshore_Wind	Actual	Actual	Actual	Actual	Actual	45.2760%	48.9277%	45.6254%	40.4211%	45.5371%	45.4795%
CLYDE (NORTH)	Onshore_Wind	Actual	Actual	Actual	Actual	Actual	42.6598%	36.8882%	41.4120%	26.8858%	39.2619%	39.1873%
CLYDE (SOUTH)	Onshore_Wind	Actual	Actual	Actual	Actual	Actual	39.8941%	29.4115%	39.9615%	34.8751%	39.1634%	37.9775%
CORRIEGARTH	Onshore_Wind	Generic	Generic	Generic	Partial	Actual	0.0000%	0.0000%	0.0000%	22.5645%	41.2013%	34.0750%
CORRIEMOILLIE	Onshore_Wind	Generic	Generic	Generic	Partial	Actual	0.0000%	0.0000%	0.0000%	33.2316%	30.4210%	33.7040%

Fuel Type
Biomass
Coal
Gas
Hydro
Nuclear (by reactor type)
Oil & OCGTs
Pumped Storage
Onshore Wind
Offshore Wind
CHP

Energy Potential

Defect – Issue with Generic ALF

- Generic ALFs can be very different to actual load factors for a generation type.
- This can lead to a generator over or under paying for TNUoS:
  - ALF < generic ALF: Generators pays too much TNUoS
  - ALF > generic ALF: Generators pays insufficient TNUoS
- Range of ALFs in 2018 for onshore wind:

	Min	Average	Max
2018 ALFs	25.7%	37.1%	52.0%

Technology	Generic ALF
Gas_Oil	0.2715%
Pumped_Storage	10.6826%
Tidal	18.9000%
Biomass	26.8847%
Wave	31.0000%
Onshore_Wind	38.4593%
CCGT_CHP	48.6379%
Hydro	42.4165%
Offshore_Wind	49.5519%
Coal	37.6162%
Nuclear	76.3178%

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Proposed Solution – Replace Generic ALF with actual data

- For setting charges, the Generic ALFs would be set at:
  - Forecast of the site specific ALF as determined by an independent third party
  - Generic ALF if site specific ALF not accepted by National Grid
- At period end, the "Outturn ALF" will be used to replace the site specific/generic ALF retrospectively
- The "Outturn ALF" will be calculated as the average ALF over the first 3 years of operation:
  - Full reconciliation not possible until three years of historical ALF data available
  - Possible to undertake an annual reconciliation with a final reconciliation once three years ALF data available
  - Possible variation would be to use a shorter time period to determine the outturn ALF
- The proposed solution will effectively mean that generators pay their first three years of TNUoS based on their average ALF over the first three years

Energy Potential

Proposed Solution – Benefits/ Impact

Benefits of change

- More cost reflective TNUoS charges for new generation:
  - Wider TNUoS charge is always derived on the actual ALF of the generator rather than generic values
- TNUoS charge for generators align more closely with the income from wholesale market

Impact

- Minimal impact on demand customers
- Re-adjustment of generation TNUoS between new generation sites:
  - Actual ALF > generic ALF : Will experience an increase in TNUoS for first three years
  - Actual ALF < generic ALF : Will experience a decrease in TNUoS for first three years
- After first three years of full data available there will be no impact

Energy Potential

Comments/ Questions

Energy Potential

CUSC Issues Steering Group (CISG)

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EGBL Article 18 update and next steps

Simon Sheridan

National Grid ESO

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EBGL Article 18 - Historic timelines

- **European Balancing Guidelines Article 18**
  - Article 18 of the EBGL requires the TSO to develop a proposal for the Terms and Conditions (T's & C's) for Balance Responsible Parties (BSPs) and Balance Responsible Parties (BRPs).
- **18 June 2018:** 1 submission by ESO of proposed EBGL A18 T's & C's to Ofgem
- **4 Feb 2019:** Ofgem formally requested further amendments to the T's & C's
- **28 Feb 2019:** Industry consultation for 1 month by ESO on its amended proposal
- **4 April 2019:** ESO submits amended proposal to Ofgem for decision
  - Proposal letter
  - Mapping document
  - Proposed code and SCT (Standard Contract Terms) process changes
  - Implementation timeline
  - Industry feedback and ESO comment
- **4 June 2019:** Ofgem reject the proposal and request additional amendments

Ofgem decision letter - 4 June 2019

- **Feedback on NGESO amended proposal**
  - Satisfied the amendments made address previous requests
  - Is more robust, delivers greater clarity and transparency for BSPs and BRPs
  - Action to progress with modifications as laid out in the ESO proposals of 4 April to capture the process for future changes and compliance with EBGL in GB codes/SCTs

- **Further changes required to comply with EBGL**
  - Frequency Containment Reserve in SCTs to be included
  - Article 34 of EBGL needs to be accurately captured – how parties holding reserve are able to transfer its balancing capacity
  - A16.6 exemption request remove from A18 request or submit new exemption outlining higher economic efficiency for GB

Next steps - timeline

- **NGESO has 2 months to review and update proposal**
  - During which a 1 month industry consultation must occur before submitting to Ofgem

- **By 4 July 2019**: Send out A18 proposal for industry consultation for 1 month
- **By 4 August 2019**: Submit final amendment proposal with industry feedback to Ofgem
- **By 4 October 2019**: Ofgem decision on NGESO proposal
- **By 30 June 2020**: Implement EBGL A18 T and Cs and necessary GB code/SCT process changes

- During this time NGESO will be progressing modifications in GB codes and SCTs to comply with EBGL A18 process for future amendments

CUSC change

- ESO to proceed with code modifications and implement the proposals as detailed within Annex 3-5 of the Article 18 submission proposal
- Annex 4 captures the changes required in the CUSC to allow the Authority to have a clear and transparent role in approving and amending any future changes in SCTs that will have an impact on Article 18 T's & C's

NGESO proposed a change to section 4 of the CUSC.

- An effective and efficient way to allow Ofgem the authority to approve any changes to the Terms and Conditions relevant to Article 18 within the STCs terms for Balancing Services.
- This proposal meets the obligations on NGESO in Article 18, whilst ensuring the SCTs remain flexible in a changing energy market and support building a competitive market place which is inclusive for all parties.
- Section 4 titled "Balancing Services" and Paragraph 4.2B within that section is titled "Other Balancing Services" and has some general provisions. It seems best therefore to utilise the existing structure and "relationship" with balancing services than to place these provisions in any other code.

CUSC Section 4 and SCTs

Proposed change to the CUSC:

- CUSC Section 4, will state that new or amended terms and conditions in Balancing Services Agreements, initially those within the SCTs identified in the mapping process which are within the scope of EBGL Article 18, must be the subject of consultation and prior Ofgem approval as envisaged by EBGL

Proposed changes to the SCTs:

- The template for the SCTs containing terms and conditions which form part of the Article 18 Ts and Cs approved by Ofgem will be updated to (a) acknowledge that it contains terms and conditions within the scope of Article 18 and (b) identify the Article 18 terms and conditions within it.
- The change procedure for SCTs shall be amended so future changes to the Article 18 Ts and Cs includes provision for industry consultation (1 month) and Ofgem approval before the changes can take effect
- Terms and conditions within the scope of Article 18 in any new forms of balancing services agreements will likewise be subject to consultation and prior Ofgem approval as envisaged by EBGL Article 18
- For these purposes, where balancing services are being trialed they will only be considered for the purposes of Article 18 once they have officially been confirmed as an active service by NGESO

Questions

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Targeted Market Improvements

Mike Oxenham

National Grid ESO

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Targeted Market Improvements

- There is a significant amount of planned industry change through major reform programmes
- There is also additional ongoing change through open governance arrangements
- Being mindful of the above regarding time and resource constraints, we are now considering a potential pipeline of more targeted and incremental market improvements
- Whilst we may not be in a position to progress any potential changes immediately, we would like to work with you to understand where there might be an opportunity to make such targeted market improvements in future
- For example, we are currently considering the implications of P370 for CUSC and Grid Code
- If you would like to discuss or have any suggestions, please contact Mike Oxenham Michael.Oxenham1@nationalgrideso.com

Questions

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