

Meeting report

Meeting name	Transmission Charging Methodologies Forum and CUSC Issues Steering Group 88
Date of meeting	Wednesday 08 August 2018
Time	10:30
Location	London

Name	Initials	Company
Rachel Tullis	RT	National Grid ESO (Chair)
Jon Wisdom	JW	National Grid ESO
Jennifer Groome	JG	National Grid ESO (TCMF Technical Secretary)
Joseph Henry	JH	National Grid ESO (Presenter)
Graham Stein	GS	National Grid ESO (Presenter)
Paul Wakeley	PW	National Grid ESO (Presenter)
James Thomson	JT	Ofgem
Karl Maryon	KM	Haven Power
Iwan Hughes	IH	VPI Immingham
Simon Vicary	SV	EDF Energy
Garth Graham	GG	SSE
Joe Underwood	JU	Energy UK
James Anderson	JA	Scottish Power
Andrew Ho	AH	Orsted
Grace Smith	GS	UKPR
Matthew Paige Stimson	MPS	National Grid ETO
Joshua Logan	JL	Drax
Colin Prestwich	CP	SmartestEnergy
Daniel Hickman	DH	NPower
Nicky White	NW	NPower
George Moran	GM	British Gas
Nicola Fitchett	NF	RWE
Robert Longden	RL	Cornwall Insight
Yonna Vitonova	YV	Utilitywise
Graz McDonald	GM	Green Frog
Jeremy Sainsbury	JS	Natural Power Consultants
Lill Sandvik	LS	Statnett

All presentations and supporting papers given at the TCMF meeting can be found at:
<https://www.nationalgrid.com/uk/electricity/charging-and-methodology/transmission-charging-methodology-forum-tcmf>

1 Introduction, meeting objectives and review of previous meeting's actions – Rachel Tullis, National Grid

1. RT gave an action update. Three actions which were raised at July TCMF have been completed. There is an ongoing action for code admin to upload previous modification content to the webpage. Code admin are on track to achieve the due date of October. She advised attendees to get in touch with code admin if there is any material they would like to prioritise uploading first.
2. There were no comments or questions on the actions.

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2 CUSC Modifications Update - Joseph Henry, Code Administrator

3. JH gave an update on new and current modifications in progress. See slides 8-12.
4. There were no questions by attendees.

3 Loss of Mains Protection Update – Graham Stein, National Grid

5. GS (Network Operability Manager – ESO) gave a **background** to Loss of Mains (LoMs) Protection, explained the **issue** and the work done in this area between National Grid and Distribution companies, and **what attendees can do to get involved**.
6. **Background:** It is a requirement of the Distribution Code (D code) that generation connected to the Dx Network must have LoMs protection. It is there to prevent harm from the network and the generators' equipment. It is a protection mechanism which detects when the generation has found itself disconnected from the rest of the network, which triggers it to stop generating. Various methods can be used by the LoMs equipment to detect when disconnection is about to happen. Rate of Change of Frequency (RoCof) and Vector Shift are predominant in Great Britain.
7. **Issue:** A theoretical issue has been known for some time about Loss of Mains protection. Sometimes the LoMs detects wrongly that there has been a loss of mains, when actually it was disturbance on the system as a whole. This results in generation tripping off, potentially triggering a wider system issue that results in Low Frequency Demand Disconnection (Stage 1). Previously when there was more inertia on the system, using RoCof, it was easier to make a clear distinction between what was system disturbance and what was a LoMs. Now that inertia on the system as a whole has declined, this has become more of an issue (slide 17 shows the decline).
8. GG asked for clarification on the YTD figure of Historic RoCof Constraint Costs (slide 18), which is £38 million so far for 2018/19. He suggested that given the YTD figure, 2018/19 is likely to exceed the 2017/18 figure of £59.2 million. GS agreed with this conclusion but highlighted that the majority of costs would be expected to occur over the summer period. GG queried whether this is a GB issue or system wide. GS confirmed it is a system wide issue which affects Balancing Service (BSUoS) constraint costs.
9. GS talked through some key events of when generators have tripped off due to Vector Shifts since 2016 (slide 19). It showed the MW increase in Transmission Demand and by showing the percentage of National Solar Output at the time provided a view of the potential impact.
10. GS talked through three distribution code changes (GC0035, DC0079 (1) and DC0079 (2)) which have been done this area (slide 19).
11. GG queried whether DC0079 (1) and DC0079 (2) are retrospective. GS responded that they only apply to new plant (that which has been connected after the modifications were made).
12. **How attendees can get involved:** The final DC0079 consultation was published on 13 July 2018. The consultation proposes to apply retrospectively to all non-type-tested G59 generation 1.0 Hzs-1, 0.5s definite time for RoCoF and to remove Vector Shift. It also includes a safety risk assessment, cost benefit analysis and an outline implementation proposal. GS urged attendees to respond if they have anything to add to this. Responses are requested by 17 August 2018 and are available at <http://www.dcode.org.uk/consultations/open-consultations>.
13. GS explained the cost benefits in more detail (slide 22). The graph shows the potential savings in RoCof constraint costs if this proposal is accepted. It has been forecast based on last year's steady state scenario as this gives the most conservative view of RoCof constraint costs. 2023 and 2024 show higher constraint cost savings due to more interconnector capacity coming onto the system.

14. GG asked for clarification on whether this means that onwards from 2020, if the proposal was accepted, that there will be no cost for RoCof constraints.
15. Following this, RL asked whether the constraint costs will be completely avoided or whether there will be other costs incurred in their place. GS responded that there are potentially minimal other costs but the savings here are considerably large.
16. GS talked about the cost of implementing the change, and various options they have looked at from highest cost to lowest cost (slide 23). The expected cost is £30.9 million.
17. GG queried where the costs lie. GS responded that if nothing changes, a distribution code modification would go through and be approved and then distributed generators would have to do the work.
18. GG asked GS to confirm that this would mean between £21 m (lowest estimate) and £96.9 million (highest estimate) would fall on distributed generators, rather than it falling on central funds. GS confirmed that it falls on individual parties who have G59 generation.
19. GS made attendees aware that within the consultation document there is a short section which explains what National Grid, WPD, UKPN and SSEN have done in the South of the country on this, this year to manage vector shift related risks. This part of the country was at material risk of vector shift triggered generation trips. National Grid ran an exercise with three DNO's in the affected areas to change the settings on their LoMs protection. This was done as a balancing service. A considerable number of savings in balancing service costs, estimated at £40m per year, were made by addressing 800MW of capacity. £350k is likely to be the final cost.
20. GG queried whether it was voluntary for distributed generators to sign these contracts. GS confirmed it was.
21. GS compared the vector shift work they have already done to what could be done if the final DC0079 modification is implemented (slide 24).
22. GG queried the amount of balancing services costs this would mean in the short term if DC0079 was implemented in the same way as vector shift risks had been resolved. He calculated this to be £5000 per site at the moment.
23. GS explained that distributed generators were asked to organise work and agree to the offer in just over a week and so you would expect costs to be lower for a longer programme with longer lead times.
24. PW raised that in the longer term, the BSUoS would reduce because constraint costs would be removed.
25. GG wanted confirmation from a technical perspective from National Grid that these changes would definitely not affect the Black Start services. **Action GS – to find out if this has any impact on Black Start.**
26. GS ended the presentation with a final plea to attendees to get involved in the consultation and to note the importance in resolving the issue raised in the consultation and its predecessors.
27. RL added that this appears to be an excellent example of communication between the transmission and distribution networks to solve a system problem. He asked whether GS knew about any other changes similar to this coming up around settings changes. GS was unaware of any other specific examples from assessments carried out to-date.

4 Responses to Open Letter on the Five-Year View of TNUoS – Paul Wakeley, National Grid

28. PW firstly explained what the Five-Year View is, why it is done and how it was recently consulted on. He then shared the responses to the open letter which he and the team have received, and what they are intending to publish in September.
29. PW is the Revenue Manager for NGENSO. He introduced his team, which has now merged with the Connection Charging team (addition of four team members). The team are now responsible for forecasting and setting TNUoS and Connection Charging.
30. PW set the context: In September, the team will be publishing the Next Five-Year View of TNUoS tariffs which will cover 2019/20 through 2023/24. This was last published in December 2018. NGENSO is obligated to provide this view once per year. At June's TCMF, PW presented some ideas which the team put forward to include in the next forecast. An open letter went out for responses by early July.
31. PW thanked attendees for providing responses to the open letter; a total of nine organisations responded. A number of organisations asked for their responses not to be published in their entirety, so none of the actual responses will be published. A summary of the responses was shared on slides 31 and 32 and will be published in the Five-Year document.

32. There was both positive and developmental feedback. PW explained that some areas can be developed in line with the feedback, however in other areas there are reasons why these changes can't be made.
33. PW talked through the proposal they put forward in the open letter, to include in the next View, a suite of sensitivities. These are outlined on slide 30.
34. PW talked through the areas they can go further in on slide 31.
35. PW talked through the areas they would like to consider further analysis in on slide 32. These won't be taken forward in the next Five-Year View at this point. The reasons for this are on slide 32.
36. IH queried whether the +/- £1 number used in rezoning is correct. PW responded that it is in the methodology to use this number. He added further that this might result in more than 40 generation zones based on analysis undertaken in 2016; many of these zones would be very small. JW added that this was discussed at a previous TCMF and is on the list of things for NGESO to think about for RIOT2. JW agreed that this is no longer fit for purpose and that it should be discussed with industry, either through a normal workgroup process or through the Charging Futures work.
37. GG suggested this should be updated in line with RPI, as TNUoS charges have been. PW added that +/-£1 existed in 1992, and hadn't been increased since then. JW suggested that a principles assessment needs to be done on this.
38. GG raised that it would be useful to understand sooner rather than later how we would take this forward, and that a workgroup should be established as soon as possible. PW explained that all of the factors which drive the locational tariff have to be recalculated at the start of the price control, these affect the total price which is what is rezoned against.
39. PW made attendees aware that there is a series of things that need to be changed before the next price control. JW added that the list of things will be circulated in due course.
40. PW explained that the team are looking at what the FES scenarios show us in the next five years: There is more wind in the TEC register than appears in the FES scenarios so the View will reflect that. Coal will be reduced in line with FES as all FES scenarios show a significant drop in coal. The volume of CCGT's in the FES scenarios is quite flat, and there are a few in the queue to come on, which would suggest some CCGT's will be dropping off. The oldest and least used plant will be assumed to be coming off first. The assumptions made will be documented.
41. IH asked which FES scenarios will be used. PW responded that it will be a composite of all of them, and that they are relatively similar in the first five years.
42. A dial-in attendee asked whether they will be consulting with the CCGT's that are closing. PW responded that this is merely being done on a mathematical basis to give a best view, and is not implying anything about that plant. This assumption will be well documented.
43. PW then gave a note on the Transmission Demand Residual (TDR), as the TCR is looking at this. In the June forecast for 19/20 the TDR is £2653 million. The forecasted amount and who pays is on slide 35.
44. GG added that using inflation calculator, prices have gone up and £1 in 1992 is worth £2 today.
45. GG made attendees aware of something he has raised with the legal separation team. NGESO is billing some £225m per month from industry parties, and needs to make sure the people paying the bills know about it. He requested that all invoices in run up to April 2019 include a message about the new company details. He added further that this is more reliable and trustworthy than it being on an email or over the phone. PW assured attendees that he is looking at the customer communications on this, and that as soon as details of the new bank account are known, they will communicate it. He was unsure if the detail will be able to go on the invoice itself but something should be sent out with it.
46. JW added that NGESO is also reliant on customers' internal processes. New entities have been set up in the market. He encouraged attendees that if customers are having issues in this space they should contact PW directly.
47. MPS asked a question around bills which might come from the TO directly. JW clarified that any invoices raised under the CUSC will be between NGESO and counterparties to the CUSC.

6 Ofgem Updates – James Thomson, Ofgem

48. JT gave a quick update on Charging Futures: advertising the forum, the consultation and involvement in Charging Delivery body meetings.
49. The next Charging Futures forum is happening on 5 September 2018 in London. Attendees are encouraged to attend. If they think they should have received an invitation and have not yet received one, they should contact chargingfutures@nationalgrid.com
50. Ofgem's [Access and Forward Looking Charges consultation](#) which is open until 18 September 2018 for responses.

51. The Charging Delivery Body meeting was happening on 8 August 2018 (at the same time as this TCMF). JT updated attendees on what is being discussed at this meeting and let them know the [agenda](#) is available to view. JT added further that Charging Futures members can nominate themselves to view Charging Delivery Body meetings.

7 Ofgem's Access and Forward Looking Charges Consultation – Jon Wisdom, National Grid ESO

52. JW gave an update on Ofgem's Access and Forward Looking Charges consultation, he presented on:
- Work to date (slide 40),
 - The aim of the consultation (slide 41),
 - Definitions of Access Rights and Forward Looking Charges (slide 42),
 - The case for change (slide 43),
 - Ofgem's views on priority areas to be reformed (slide 44),
 - Focussed improvements to TNUoS (slide 45),
 - Taking forward the review (slide 46),
 - JW made attendees aware that the ESO may have a new licence condition and encouraged participants to review this.
 - The timeline for change (slide 47)
 - JW pointed out that NGENSO are considering how it can engage industry in changes which are more wide ranging and leading things forward which are outside the SCR. JW mentioned that the ESO is considering taking forward work on BSUoS and the locational element of the transmission charging methodology as a taskforce under charging futures.
 - and how attendees can get involved (slide 48)
 - The consultation closes on 18 September and that attendees should contact the Lead Secretariat chargingfutures@nationalgrid.com if they have not received an invite. The Charging Futures Forum is on 5 September 2018.
53. GG suggested that it would be better if the assessment was carried out by a workgroup, under governance JW pointed out that NGENSO are considering how it can engage industry in changes which are more wide ranging and leading things forward which are outside the SCR. JW mentioned that the ESO is considering taking forward work on BSUoS and the locational element of the transmission charging methodology as a taskforce under charging futures.
54. RL added that using forums helps to develop changes but when it comes to making changes the governance needs to be there. JW assured attendees there is no intent to avoid normal governance process, just to get to that process with a more developed proposal
55. GG queried how long it would take to develop the modification. He added further that this has taken a considerable time in the past. JW pointed out that NGENSO are considering how it can engage industry in changes which are more wide ranging and leading things forward which are outside the SCR. JW mentioned that the ESO is considering taking forward work on BSUoS and the locational element of the transmission charging methodology as a taskforce under charging futures.

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56. No items this month.

8 AOB – Rachel Tullis, National Grid ESO

57. GG raised three areas of AOB: two charging modifications, a non-charging modification and a question relating to SO staffing.
58. **GG item 1 – charging modifications: (Modification 1)** GG referred to the Bank of England Statement which was released w/c 30 August in regards to a Brexit no deal.
59. GG referred to a document published 27 April 2018 by the European Commission titled "[Notice to Stakeholders – Withdrawal of the United Kingdom and the Internal Energy Market](#)".
60. GG advised that SSE is therefore considering raising a modification to apply charges to interconnectors, which he explained should reverse ECM-26 and CMP202.

61. PW clarified that this meant this would reverse the decision which removed BSUoS and TNUoS charges from interconnector flows.
62. GG added further that this would modification would not proceed if a last-minute Brexit deal was arranged.
63. PW made attendees aware that his team at National Grid must provide two months' notice of setting tariffs. GG was aware of this and added further that they would not apply these changes to 2018/19. GG proposed that any change would apply from 1 April 2019. GG recognised there is an issue around giving notice but raised that it is within the authority's gift to shorten the 2 months' notice. PW confirmed this is correct but would require a mid-year tariff change.
64. RT advised that Mike Oxenham from National Grid ESO was looking into the matter of a possible Brexit no deal scenario separately and suggested that he speak to GG. **Action - for MO to contact GG regarding this.**
65. GG explained a second charging modification which attempts to remove an anomaly in CAP48 interruption payments (**Modification 2**). GG explained that interconnectors don't pay TNUoS but in the event of an interruption they can apply for interruption payment. This is intended to be compensation for TNUoS paid. GG advised SSE are considering raising a modification to remove the ability for interconnectors to apply for this payment. GG added that this modification would not need to go through if the first modification he spoke about was to happen, as that would make interconnectors eligible for interruption payments if it was to be approved.
66. **GG item 2 - Non-charging modification:** GG proposed a modification to change current reactive market arrangements within the CUSC. He referred to the Enhanced Reactive Power service modification which was raised at July's TCMF. This modification is different to that modification in that rather than taking the service out of the CUSC, it retains it within the CUSC. GG added that it would be better for a workgroup to be set up to agree, under governance, on reducing the current 12-month commitment period currently outlined in the tender process.
67. **GG item 3 - SO staffing:** GG requested an update on ESO staffing levels at a future TCMF.

Next meeting

Next meeting: Wednesday 12 September 2018

Time: 10:30 (unless otherwise notified)

Venue: Warwick (unless otherwise notified)

Appendix 1 - Actions List

TCMF Month	Requestor	Agenda Item	Action	Owner	Notes	Target Date	Status
Dec-17	PJ	Co-location Guidance Note	Confirm if a spare bay would be considered a new or existing connection	SY	SY and MO are going to pull together a brief response which can be circulated to TCMF members in January.	Jan-18	Complete
Dec-17	GG	Co-location Guidance Note	Confirm if any sites are currently impacted by this guidance note.	SY		Jan-18	Complete
Dec-17	-	Co-location Guidance Note	SY to take away how the document is framed and set the tone according to feedback received	SY		Jan-18	Complete
Dec-17	NF	CMP261 - Update	Look into the possibility of creating some scenarios around outcomes of CMP261 appeal	JW	Not possible ahead of the conclusion of the appeal.	Jan-18	Complete
Dec-17	All	Tariff Update - 5 year forecast	Explore if there is a way to identify mailing lists in email communications such that people know which mailing list that they are on	JW & RT	Feedback and suggestion given to teams internally (including central customer team who have been asked to share more widely).	Mar-18	Complete
Dec-17	PB	AOB	Make enquiries re missing website content specifically in relation to previous mods (TCMF members asked to advise when they come across any additional missing content)	RT	We are planning to get get all archived modifications available on the website, however this will take some time due to the volume of material. Proposal forms, Workgroup reports, FMRs and decision letters will be uploaded. In the meantime any specific requests can be sent to the usc.team@nationalgrid.com .	Oct-18	On-going
Jan-18	-	Electricity System Operator Incentives 2018-2021	Circulate DB's contact details to attendees	UM		Jan-18	Complete
Apr-18	GG	CUSC Modification Update	Check that TAR Modifications are available on NG's website.	JH	These are now available on NG's website	Jun-18	Complete

Apr-18	PM	Updating the Statement of Works Process	Query was raised around a guidance document on small embedded generation, that is currently available on NG's website. NG was asked to look into the content.	RT	We will update the guidance document following modification process to reflect any changes to the CUSC.	End of CMP298 Mod Process	Closed
May-18	-	Ofgem's views following decision to reject CMP261	It was requested by the presenter to ensure a link to the letter is added to material following the meeting	UM	Link has been added to Minutes documents	Jun-18	Complete
Jul-18	-	CUSC Modification Update	It was requested by an attendee that a very brief description of each modification is added to the slide showing upcoming modifications to authority	JH	Abbreviations of code modifications will be used on slides.	Aug-18	Complete
Jul-18	-	Charging Futures update	An attendee asked when the TCR consultation will come out.	BV	Ofgem has advised this will be towards the end of the year. No exact date has been given.	Aug-18	Complete
Jul-18	GG	Charging Futures update	GG asked whether a transcript could be made available for the podcast series which is being hosted by NG about key themes on Ofgem's A&FLC consultation	BV	There will not be a transcript but the podcasts will be available from the Charging Futures website and apple podcasts.	Aug-18	Complete
Aug-18	GG	AOB	Mike Oxenham to contact Garth Graham regarding Brexit discussion	MO		Sep-18	In-progress
Aug-18	GG	Loss of Mains Protection Update	Find out whether LoMs change would have any impact on Black Start	GS		Sep-18	In-progress