

Meeting Summary

CISG Sub-Group - Connections strategic change & impact to CUSC (Meeting #3)

Date: 26/09/2023 **Location:** MS Teams
Start: 10:00am **End:** 12:30am

Participants

Attendee	Company	Attendee	Company
Camille Gilsean (CG)	ESO (Chair)	Alison Price (AP)	ESO (Tec Sec)
Joseph Henry (JH)	ESO (Presenter)	Laura Henry (JS)	ESO (Presenter)
Paul Mullen (PM)	ESO (Presenter)	Will Kirk-Wilson (WKW)	ESO (Presenter)
Djaved Rostrom (DR)	ESO (Presenter)	Pedro Rodriguez (PR)	Lightsourcebp
Dennis Gowland (DG)	Research Relay Ltd	Garth Graham (GG)	SSE
Alex Ikonic (AI)	Orsted	Lisa Waters (LW)	Waters Wye
Claire Hynes (CH)	RWE	Suzanne Law (SL)	Scottish & Southern Electricity Networks
Paul Youngman (PY)	Drax	Precious Nwokoma (PN)	Fred Olsen renewables
Paul Jones (PJ)	Uniper		

Please note: These notes are produced as an accompaniment to the slide pack, [link here](#):

Introduction and ways of working – CG

CG introduced the meeting. CG readvised that she would be chairing in place of KTL.

Actions Log

AP ran through the non-firm related actions – non-firm actions to be discussed after the non-firm presentation.

003 – QM Uploading Evidence

LH advised that the CMP376 expected decision from the Authority has been delayed until 10 November 2023. A draft of the guidance note would be sent to the CMP376 WG to review. As and when Ofgem make a decision, the guidance note will be socialised (after being tweaked to remove any non-relevant pieces following the decision). GG suggested that a placeholder be put in for 14^h November 2023. JH advised that it

would not be an official recommencement of the workgroup, albeit a meeting with the CMP376 workgroup members. LW asked why the decision was delayed by Ofgem. LH said it has not been made clear as to why the date has slipped to November. LW asked ESO to pass on industry surprise at this slipping, and that it should be high on Ofgem's priority list. LH agreed she would do this. PJ agreed with GG about dates but cognisant that this could slip once more. GG suggests 14th November for Guidance Note review.

Action 022: LH to pick up with JH and Kavita Patel about organising meeting.

Action moved to closed.

012 – Non-firm & TNUoS taskforce

CG said this was wider than the Taskforces scope. ESO going to seek feedback from Ofgem and will report back to subgroup.

Action carried forward.

014 – TEC Amnesty – Confirm Figure

LH - nearer to 6GW mark but yet to be confirmed. The confirmation process is ongoing. Final number will be available at the subgroup on 26th October.

Action carried forward.

015 – Amended Draft ToR

JH to pick up later in call.

Action subsequently moved to closed as amends were approved by subgroup.

016/017 – Storage Contracted Generation

Slides have been updated and will be addressed as part of the 5PP Update.

Action moved to closed as no further comments received when LH presented the slides.

BESS Non-Firm Product Update.

WKW and DR presented. WKW advised policy was published in June. This is covered as point 5 of the 5PP. The detail has been worked up since June. ESO has worked with DNOs and TOs to get this information. The ESO published an EOI on this also.

WKW highlighted that policy was not completely finalised but is mindful that there has been radio silence on this and we are still finalising the detail.

It is important to note that this is not mandatory and the connectee has the final decision on whether to participate.

Plan is to launch product initially with initial tranche of 20 sites. There has been no CUSC impact identified. GG stated he was struggling with the concept of non CUSC impact as the CUSC connection conditions would be changing. GG's understanding is that this is a significant policy change which Ofgem are yet to give a view on. WKW said it was essentially the rollout of the existing RAA scheme and that it was customer choice and is similar to what has been done already. WKW offered a call with ESO legal. PY said other colleagues should be involved. GG agreed. GG reiterates this is a policy change and it is not certain from a legal perspective that this can take place without an authority decision. CG stated that we should record an action to have a

discussion on this, either by AQ coming back to the subgroup or we take offline with GG and PY. CH advised that she would like to join that call, as did PJ, LW AI and SL. GG said this should happen sooner than later.

Action 023: Meeting to be set up by the ESO discuss this point in more detail.

PJ asked whether the contracts would be similar to previous contracts which allowed for firm connection unless certain conditions happened on certain assets, in which case they could “come off.” WKW advised this was the case and was looking into contractual ramifications. If there was an export constraint no export allowed but import would be. PJ asked whether this would be a permanent or temporary arrangement. WKW advised temporary arrangement (non-firm to firm), either via a backstop or using analysis to verify if storage helps constraints. PJ stated it sounds like an extension of arrangements that have already been undertaken in Scotland.

WKW highlighted the difference between this and RAA. The main difference is the RAA is managed through ANM, and we are managing it through the ESO to reduce a delay in time – the flip side being that Users may subsequently be constrained more than if it was managed via ANM. GG asked if this would be a rare occurrence. WKW said it would be for the customers to determine. There would be a table of import or export constraints to aid the customer with this. PY asked for clarity whether this would be accepted by the party or not. WKW said Network data would be provided for the party themselves to make the calculation as to whether the connection was the right choice for them. PY questioned whether the party could establish the context to make the decision. WKW said the ESO would make clear the circuit conditions parties would be constrained under and pointing parties towards the data to make the calculation. Parties may need to engage consultants to do so. LW agreed parties may struggle to know when impacted or not impacted. LW has had complaints from solar sites as work occurred over the summer period for 4 months back to back which causes issues. We need to think about whether information could be provided. LW unsure where consultants would find useful information around outages. For storage seasonality, it is not an issue but for solar projects it would be especially if outages happened when conditions favourable to generation type (e.g. solar in summer). WKW advised that the ESO’s intention is to write a note (which is currently in draft) advising the 5 pieces of information a customer will need to make a decision: network data (ETYS); Generation (ETYS/FES); Demand (ETYS/FES) – these are public data and outage date and a user’s queue position – which is not public data.

ESO would send these to the impacted parties. LW said these should be made public to avoid trading advantages. This will be taken away for further consideration. GG concurs in regard to REMIT and Insider information. Government assumption that everything should be published and opposed to justified why it should be published. WKW said publishing all outage information is a wider consideration but may not change by tranche 1 going live. PJ concerned with REMIT issue. Parties could breach REMIT by having the data. WKW said this was normal BAU practise but will take this point away and check.

Action 023 extended: Meeting to be set up by the ESO discuss this point in more detail.

WKW advised T1 was 20 sites across England and Wales based on suitability. T1 sites have been contacted and will receive offer in the next month or so. They will have 3 months to sign the offer. ESO to provide supporting data. If user is not in T1 they may be picked up in a follow up.

T1 is England and Wales transmission. Policy not finalised with Scottish counterparts. T2 sites will be worked up within the next few months. For Distribution, ESO working with ENA on their 3PP. Strong overlap between technical limits work. ENA running a webinar on this ~ 14/10. ESO holding their own customer seminar in London on 16th October. PY asked what compliance assessment or process had the ESO undertaken to assess the legal and commercial impact of its proposed approach. WKW advised that Customer Choice was key and the issue had not been raised as a concern.

Actions log – non-firm

Action 004 - Non-Firm updates to be provided monthly to subgroup.

Remains open and remains an agenda stand-alone item.

Action 005 – DESNZ and Capacity Market participation

DR advised ESO aware and extending what can be classified as non-firm. LW asked whether users would still have TEC and would be fine for the CM. DR said non-firm cannot participate in CM and that this had been in place for a while. LW advised that she did not think that this would be correct. Stated that she was worried that GWs of batteries could be in the CM and be off for months on end. LW does not think the CM does not say anything about firm and non-firm. DR to take Lisa's point away and clarify this with the ESO CM team.

Action carried forward.

006 - Non-firm and Capacity Market

DR advised that restrictions would form part of the Guidance note the ESO are producing. GG was concerned that offers will be sent out in the next month or so and the guidance note is still to be finalised. Concerned that by not sending out the guidance note with the offer, offers cannot be appropriately assessed by users. DR advised GG that the guidance note is work in progress. GG was not happy with this and advised that there is a risk for products unable to sell.

Action carried forward.

007 – non-firm curtailment information

DR advised that this was still being worked through.

Action carried forward.

008 – non-firm curtailment times

Dr confirmed this work is ongoing. Discussions ongoing closer to real time. GG asked whether this would be known ahead of offers as it impacts a user's risk profile and how often the network assessments will be done.

Action carried forward.

009 – non-firm curtailment queue

DR confirmed that the intention is to do this on a reverse queue order allowing for user visibility of queue position. GG asked if there would be a rotation aspect. DR confirmed it would be last in, first out with no rotational aspect applied.

Action closed.

010 – non-firm process

DR working through how transparent this will be for whole industry. GG asked if there would two connections at one node, only one would be fully restricted, with the other restricted based on the LIFO? DR suggested that this would be the case. Discussions ongoing with the control room about whether the last connection can be restricted for a partial amount or 100%. GG said it is important to understand if the ESO was moving away from this. DR advised this is what ESO was pushing for but depends on contingencies.

Action to remain open until confirmation received by control room, LW not convinced and sees it as a competition issue. LW said there should be a fairer way to do this. Contrary to how gas interruptions are undertaken and seems like preferential treatment. Control room need to manage this. LW stated an opinion that this is unduly discriminatory.

DR believes it unlikely that you would have 2 parties with the same queue position. LW believes the ESO needs to consider how this process works if the ESO does not process an application in a timely manner.

011 – non-firm process

Balancing Actions. DR stated that restricted availability connections are primary to address thermal issues and overloads, this would be specified within the contract. There would not be other system impacts that take them off. For things like reactive power, this will be clearly set out within the guidance note.

Action Closed

013 – non-firm curtailment interruptions

DR confirmed that it will be the responsibility of the User to assess how often they are likely be interrupted. This would depend on queue position. If more people connect who are behind it should not impact and vice versa. GG asked whether this would be extended to users other than batteries. DR said it was being considered. GG mentioned that if it is extended beyond batteries, parties need to be aware of this as it would change a user's risk profile.

PR mentioned that although the main driver for curtailment was thermal overloading, there are also other factors to consider. Is this being considered? If so why? DR said we are referring to thermal curtailment only in the offers.

PR mentioned if other ESO actions have been considered – such as the trade and transfer of TEC.

Action 024: DR to take away the question around trade and transfer of TEC.

018 – Storage modelling

DR said storage is not being modelled at OMW by default. What we have done is essentially update model for storage to align with how it would operate to create generation backgrounds. The ESO has updated the model to align with the principle of storage in the tool for generation modelling.

When the ESO provides CPAs, these are the generation backgrounds we provide. Our CPA for an area focus on establishing the conditions resulting in the top 5% flows out of an area (for an exporting area). We then work at what storage was typically doing across these samples. For the majority of CPAs, the storage projects are dispatched to OMW because that's typically the output of the modelling for those samples but there have been CPAs where some storage projects were dispatched to a non-zero value.

Note that for the study of an individual storage project, the local enabling works would be determined with the specific storage project being dispatched at full import and export. This is a requirement of the SQSS to establish the works that may be required to enable the project to operate at full capacity in either export or import mode.

GG asked how this is modelled in the TnT model (this relates to open action 020). WKW said he would not expect any change to the TnT model and non-firm is not a new concept. They have TEC and are charged via the methodology and there is no intention for a TNUoS discount. GG stated that it needs to be examined as

10 GW coming along in first tranche alone. It is a large volume being connected and this will impact on constraints modelling and cost reflectivity.

Action 18 is closed, action 20 is carried forward.

Actions 019, 021 were not discussed due to time limits – these actions have been carried forward.

5 point plan

LH updated on 5PP. Following feedback from last meeting the way that they information is presented has changed. Monthly increases are shown by number of applications each year.

LH hopes this is clearer. We are currently at 845 applications for this year to date (only 5 months into the financial year), whereas last year was 1718 last year, compared with 359 in 2017. There has been an increase of ~100MW in last 5 months.

LW said she would like to better understand what is behind this data and if ESO upstaffing. LH advised that BEGAs included in figures, and mod apps could be looked at for the future. .

Action 025 – LH to update graph to separate out mod apps and new applications.

Connections are increasing numbers within connections team, with an increase of around 30 staff members from 2018 (54). This will go to >100 staff members by the end of the year. LH gave a brief explanation of how the structure will look. LW asked for an organogram.

Action 026 – LH to provide a Connections organogram when an updated version is available.

Connections Queue was discussed. Data now included distribution queue which sits at 113GW whereas Transmission is at 395GW. LH advised that hybrid figures encompass battery and other types of technology. Storage is just storage on its own. GG queried BESS. 1/3 of all capacity is supposed to be part of T1 going off the information provided by WKW. GGs observation noted. LH advised that the pre 2026 project had commenced where projects that are not progressing in next 3 years will be contacted in order to understand where customers are in relation to their construction programme. LW stated that the ESO move out of sync with the capacity to market which causes some of these issues. LH stated that odd few customers may have 2-step offer but not aware of any other instances where CM participants can not submit pre-qual. LH invited LW to raise any other issues she is aware of with her.

1. TEC Amnesty

LH advised that the volume is nearer to 2GW leaving ESO at around 6GW. Terminations have begun and TEC reduction is going to commence shortly now contractual mechanisms have been resolved around expressions of interests. Mod offers to be submitted to EOI submission customers. This goes across TEC Amnesty, non-firm and the TWR.

2. CPA Review

Studies in NGET continuing. Methodologies in Scotland being finalised. ESO currently working with DNOs to incorporate all distribution EOI as part of this process. Need cooperation from DNOs. Conversations ongoing. Timeline to be updated next month. GG referenced a DCUSA mod where DNO's provide a number of hours of curtailment and how these fit into the CPA review and if they align. LH advised this particular project was about bringing dates forward on a firm basis only – and not looking at non-firm.

3. Queue Management

Ofgem decision 10th November 2023. ESO have answered Ofgem queries, ESO meeting with Ofgem tomorrow. Guidance document being worked up.

Timeline

LH discussed timeline for each of the points.

Connections Reform

PM shared a high level review of consultation responses. Recommendations to come out in November. PM briefly talked through the 4 TOMs. PM advised that the original recommendation was around TOM4. There were 78 consultations received, with ~20% of consultations were confidential. Good overall response but ICs did not respond. ESO still talking to respondents to understand responses etc.

PM advised that the majority of stakeholders provided a clear view. Confirmed that the respondents agreed with the broad building blocks outlined within the consultation. Also not mandating centralised deployment of generation and large demand came through as a theme. Broad feedback that a reasonable range of options considered. TMO4 received majority support. Some parties thought more frequent application windows were required as annual too long. More info on RDC required. Broadly supported the principle but the need for extra information came through.

When gate 2 occurs was also an issue for discussion. There was a three way split between agreement with ESO position, others feel it needs to be less onerous, whilst some feel there is technological discrimination. There was also minority support for the other TOMS 1,2,4. Quick wins, implementation and transitional arrangements were also discussed. PM advised that final recommendation is due in November, with further engagement to occur. Feedback will also go under further consideration.

LW asked around landowner authority audit processes. PM advised that there would be a duplication check but understand that timing was important in regard to these checks. Unsure who would do that at this point.

Terms of Reference

CISG agreed ToR. GG asked whether this would go to panel. JH advised that it would.

Action 027 to take Terms of Reference to CUSC panel.

AOB

GG asked if an interim meeting was needed ahead of offers going out. Next meeting is planned in on 24th. WG asked whether the Legal meeting can be dealt with at this point. PY stated there were also other issues to discussed – guidance note being an example. WKW stated this should be ok but LIFO was an established industry principle and proved little risk. GG and PY disagreed with WKW, especially when the quantum involved in England and Wales were substantial. 10th October suggested as a potential date. WKW said that this was close to customer seminar. GG said this was an inappropriate forum for this discussion.

Action 023 extended: AP to send out Teams form for availability, and will put in placeholders thereafter.

LW asked for sign up for seminar and Connections newsletter. These were shared whilst on the call:

[Connection seminar](#)

[Connections newsletter](#)

LW asked for link to CISG sub-group location on ESO website. It can be found [here](#) (scroll down to “Find a TCMF & CISG meeting – it’s titled 2023 CISG subgroup).

PM – Ofgem and DESNZ want a new external governance forum for connections activities. ESO to check in with Panels – connections delivery board to be set up and managed by Ofgem and DESNEZ. New body called the connections process design group – cross section expert group. LW stated she was sceptical about this being led by civil servants.

GG asked if this changed dates on recommendations from PM. PM said it would be taken into consideration. PM advised that he would be discussing the structure in more detail at a forthcoming CUSC panel.

Action Item Log

Action items: In progress

ID	Description	Owner	Notes	Target Date	Status
003	Queue Management – uploading evidence	LH	Giving stakeholders sight of the guidance document before publication (updated to reflect that this is after the Ofgem decision)	26/09/23	Closed
004	Non-firm updates	WKW/DR	Update sub-group as non-firm solution develops	26/09/23	C/Forward
005	Non-firm and Capacity Market	WKW/DR	Speak to DESNZ to confirm that they are aware that the non-firm initiative restricts Users from participating in the CM	26/09/23	C/Forward
006	Non-firm and Capacity Market	WKW/DR	ESO to consider if they need to do more to make it clear that a move to a non-firm product restricts operability in some markets, such as the Capacity Market	26/09/23	C/Forward
007	Non-firm – Curtailment information	WKW/DR	What information will the rest of market have on the quantum of curtailment behind T boundaries, both ahead of time and real time?	26/09/23	C/Forward
008	Non-firm – Curtailment times	WKW/DR	How long is the curtailment to be active– in market timeframes for the products being used by the ESO, such as settlement period(s) in BM?	26/09/23	C/Forward
009	Non-firm – Curtailment queue	WKW/DR	As curtailment is to be in reverse queue order (Djaved answered a few moments ago) will users have visibility of their place in the queue, relative to other users signed up to this option, for them to understand the probability of curtailment?	26/09/23	Closed
010	Non-firm - Process	WKW/DR	As more non-firm is connected on the network, how is it decided	26/09/23	C/Forward

which gets turned off first? What is the process? How transparent will this be?

For example, if there are two non-firm connections at one node – will both be restricted to 50%? Or only one asset 100% restricted? (Is it all or nothing? Or can there be partial?) etc. This needs to be completely transparent.

Additional information added post mtg by LH: Will you rotate sites, scale, or something else?

011	Non-firm – Process	WKW/DR	How is this activity accounted for beside balancing actions – what conditions would the ESO be allowed to instruct non-firm to turn down/off, or when should they take a bid/offer from another asset at the same node – national energy balancing vs. locational system impacts. How are the local impacts defined/calculated? And is it only on an energy basis, or are other system products like Short Circuit Level and Reactive power also restricted?		C/Forward
012	Non-firm and TNUoS task force	CG	TNUoS taskforce have non-firm as out of scope however the ESO is trying to encourage it. Reach out to TNUoS taskforce to discuss why it may not be in their scope of work	26/09/23	C/Forward
013	Non-firm and Curtailment - interruptions	WKW/DR	On sign-up, a User may agree to be interrupted x times per year. Should more sites subsequently connect, can NGESO increase the triggers that interrupt me?	26/09/23	C/Forward
014	TEC amnesty	LH	Confirm the actual TEC amnesty figure against the published expected 8.1GW	26/09/23	C/Forward
015	Terms of Reference	JH	Update ToR to include liaison with DNO's and ENA	26/09/23	Closed
016	Storage as contracted Generation	LH	Consider breaking down storage based on duration timeframes	26/09/23	Closed
017	Storage modelling of 0MW	LH	Should the Connections queue for Storage show contracted and non-firm position?	26/09/23	Closed

018	Storage modelling	WKW/DR	Confirm if Storage is modelled at 0MW for studies regardless of whether they are firm/non-firm	26/09/23	Closed
019	Non-firm topics which need confirmation	WKW/DR	(1) contractual certainty, to the User, around the very rare occasions when intact system conditions apply (including details of exactly what local constraint(s) will / will not be relevant to them) such that they will be clear about the probability of uncompensated curtailment (if they sign up to this new approach); (2) consistency of the application of this contractually by the ESO to all relevant Users; and (3) transparency to all market participants of the volume to be curtailed, uncompensated / out of merit, by local constraint(s), as well as (real time) when the volume has been so curtailed by the ESO	26/09/23	C/Forward
020	Storage assumption 0MW	WKW/DR	Is the 0MW treatment for network planning or T&T Model?	26/09/23	C/Forward
021	Scottish and Southern experience in how stacking works	WKW/DR	Reach out to see how non-firm operates in regions where this is already in existence	26/09/23	C/Forward
022	Queue Management guidance document	JH	Set up session with QM workgroup members to review guidance document	24/10/23	New
023	Non-firm	AP	Meeting to be set up before next sub-group to discuss the concern raised that a policy change will need Ofgem decision; whether the data we provide could breach REMIT; guidance note to be reviewed – Session in diary for 10th October	Mid-October	Closed
024	Non-firm – trade and transfer of TEC	WKW/DR	Does the non-firm process impact the trade and transfer of TEC?	24/10/23	New
025	Connection applications	LH	To split out applications into new and mod apps	24/10/23	New
026	Connections organogram	LH	Provide most recent organogram	24/10/23	New
027	Terms of Reference	JH	Take to CUSC panel for review	24/10/23	New