

# Meeting Summary

## CISG Sub-Group - Connections strategic change & impact to CUSC (Meeting #5)

**Date:** 24/10/2023      **Location:** MS Teams  
**Start:** 10:00am      **End:** 11:15am

### Participants

Attendee	Company	Attendee	Company
Camille Gilsenan (CG)	ESO (Chair)	Alison Price (AP)	ESO (Tec Sec)
Joseph Henry (JH)	ESO (Presenter)	Will Kirk-Wilson (WKW)	ESO (Presenter)
Kav Patel (KP)	ESO (Presenter)	Helen Stack (HS)	Centrica
Paul Mullen (PM)	ESO (Presenter)	Garth Graham (GG)	SSE
Alex Ikonic (AI)	Orsted	Paul Jones (PJ)	Uniper
Claire Hynes (CH)	RWE	Suzanne Law (SL)	Scottish & Southern Electricity Networks
Grace March (GM)	Sembcorp	Pedro Rodriguez (PR)	Lightsourcebp
Grazina MacDonald	Waters Wye	Precious Nwokoma	Fred Olsen renewables
Ciaran Fitzgerald (CF)	Scottish Power		

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 and agenda. WKW will join late for Non-Firm Update.

### 5PP - KP

KP introduced connections applications. 2023 has seen a high number of applications and the contracted background continues to grow at around 25GW per month. Currently been 404GW this year. There is also 113GW in the distribution queue. Up to 70% of these projects will not be built given the analysis from the ESO.

### TEC Amnesty

TEC amnesty has now closed.-There was 8.1GW of applications. Termination costs can now be recovered by TNUoS. We have reached out to customers to see if customers still interested in terminations. 4.1GW remains in the stack.

### CPA review and Treatment of Storage

CPA Review and Treatment of Storage was discussed. Only 30-40% of projects are connecting. In addition we changed our assumptions on storage. Batteries are now modelled per behaviour (reflective of their behaviour). These changes reduce the assets needed to connect plant. This means significant rework of existing agreements. This led to the two-step offer process being introduced in England. The existing processes operates in Scotland. Scottish TOs are a little further behind and should complete by mid to late November.

## Queue Management

Queue Management modification CMP376 is due for Ofgem decision in November. GG asked Kavita Patel around the Guidance Note. Asked if common parts (boilerplate) of the Guidance Note regardless of decision can be shared. JH advised that the plan was to share the guidance note based on the decision as this would save work for the CMP376 workgroup members. GG asked how long the document would be. KP advised 15-20 pages. GM stated that the guidance note should include what has not changes as a result of CMP376 also. **Action 030 – KP to check if this will be included.**

## Non-Firm Offer Development.

KP advised that ESO have been working with TOs and DNOs through the ENA. Tranche 1 sites have now been contracted and will receive offers imminently. These companies will have 3 months to decide. Tranche 2 roll out is planned for 2024. Distributed connections are covered through the ENA's 3 point plan. GG asked whether the work with DNO's, would be part of the Electricity Storage Connections Guidance note being developed by the ENA. WKW states that this is the case and it is point 2 'Technical Limits' of the documentation. WKW stated that work was ongoing to improve the technical limits between T:D boundaries. What would happen is embedded customers would be managed to a capacity figure but connected non-firm. ENA would give the updates on this piece of work.

## BESS Non-Firm - WKW

WKW gave an update on the network data guidance note being developed to help customers understand what the non-firm offer means. WKW stated that the ESO are supplying all of the public network data, and if people want to understand it further in regard to non-firm offers then parties would need to model the network using information already included in the ETYS, FES and TEC registers. A table was presented to the location of this data within the slide pack. Appreciated network modelling can be complex. Noted that these were thermal constraints so it should make the analysis easier. In addition to this, some site specific data will be required e.g. curtailment of a storage provider if a line is overloaded. GG asked if there would be any historic data in regard to site specific data. WKW said this would be a two year backdate of historical outages. Many generators receive this data already if impacted by an outage. GG gave an example of a new connecting party. They would have no historic data for outages. Potentially the connection agreement may have outages further afield. Would the ESO provide a list to a new connectee of all the circuits listed to the non-firm. WKW confirmed this for 2 years and also confirmed that forecasts of outages. GG asked why this could not be 5 years. WKW said we are pushing for a higher number and was unsure whether it would be 2 years, may be 3. GG highlighted this is critical for certain connectee commercial views. PR asked whether the ESO would provide an updated model for consultants to use. WKW said the data is provided and behind the scenes a full system model is being created but unsure whether this would land before Tranche 1 goes out.

PR said to build a model, historical information would be required for every generator. Is this expected to be given or would this be aggregated information? WKW said the TEC register and regional data would be provided. Further information is available externally at Elexon for example. GM said she understood why the ESO would point to public information but is concerned with the quality of the information and is currently experiencing issues. This is an existing obligation on the ESO.

## **Action 031: CG said she would feed this back into the business.**

GG asked around availability of D-connected information. WKW said there is the Embedded Generation Register (EGR). GG asked how this would work – where would we have visibility of offers via a DNO? WKW stated the technical limits work is being progressed by the ENA. There is a push from the ENA and participants for site visibility that are being accelerated via the TEC limits. Unsure if ENA will publish this but knows that they are thinking about this. GG said that there is a huge impact in terms of exports onto the grid. If modelling occurred it may be out due to distribution connected. Most relevant for batteries. GG suggested that the ESO take this back to the ENA. WKW stated that this is an ENA decision and ESO are one voice amongst many. GG said it would be important to hear on any decision as soon as possible. GG suggested that given the presumption of the energy data task force that everything should be published, the ENA would need to justify not publishing this. GG also asked if any updates to outage information would be provided over the life of the "non-firmness," or is it a one off snapshot of outages. WKW confirmed it would be one off because they are constraints and not tied directly to the outage but the circuit flows. Happy to collaborate with

people for a viable solution, but data will not be provided on an enduring basis. GG stated that whatever information is provided to these parties should be provided to everybody else. WKW said the network document will be a living document which can change if stakeholders need it to. Will be published for transparency. WKW referenced that at the next sub-group meeting, he will show the template of BCA texts which we will be offering to customers.

## Actions Log

AP introduce the actions log.

Action 004 Non-firm update – Update sub-group as non-firm solution develops.  
Agreement to close action as non-firm updates is an agenda item at sub-group.

Action 005 – Non-firm and capacity market – speak to DESNZ to confirm they are aware that the non-firm initiative product restricts Users from participating in the CM.

Update: Non-firm connection for accelerated storage is no different from the current non-firm connection contacts. On that basis, the ESO position is that that they can participate in CM, however, this is pending DESNZ confirmation.

Agreement to close action as we have started the discussion with DESNZ. CG confirmed new action to be raised.

**Action 032 – Update sub-group on DESNZ position regarding BESS non-firm being able to participate in capacity market.**

Action 006 – Non-firm and capacity market – ESO to consider if they need to do more to make it clear that a non-firm product restricts operability in some markets.

Update: ESO have engaged with DESNZ on markets these Users can participate in. Agreement to close action. HS asked for further clarity. WKW advised that batteries will be able to provide reactive stability, CM and frequency subject to confirmation.

**Expand action 32 to include updates from ESO on the other markets BESS non-firm can operate in (frequency response/stability)**

GM asked what difference between firm and non-firm contracts would be. WKW said under non-firm, you are not able to expose the end consumer to any additional cost; whereas for Firm, these additional costs are accepted. GMc said costs would be the same regardless of being firm or non-firm. WKW said that liquidity should increase but the extra costs are total system costs and additional BM actions needed to facilitate, and end consumer would be exposed. HS said there was a UKPN update that DNO firm offer would not be 100% firm – unsure what this means for access to frequency markets. WKW said this was around point 3 of ENA plan. There is a letter from Ofgem supporting the suggested way forwards but WKW has nervousness discussing an ENA initiation. WKW has an understanding that frequency services are looked at on a case by case basis on non-firm. HS said there are many questions that will sit with ES frequency response team and need to be aware of it.

**Action 033 on CG – take back to ESO Freq. Response Team for awareness.**

Action 007– Non-firm curtailment information -What information will the rest of market have on the quantum of curtailment behind T boundaries, both ahead of time and real time?

Update: The detailed process for notifying storage has not been developed yet, and will be developed ahead of the first storage providers connecting under this initiative ~2026

Suggested that action to is but logged as a question which needs to be addressed when the project team is in-situ. GG nervous about something which is further out in the future and nervous it will not be addressed. WKW said ESO has to do something in this area, and a process needs to be created to establish whether they are non-firm or not. This is similar to an RDP (i.e. the ESO is committing to a development ahead of the connection offer being signed). GG said this was more subtle, as there is a broader market information question as opposed to being solely focussed on the connecting party. WKW is not committing to develop this level of detail; as and when ESO project team develop this process is when the what and the how needs to be considered. GG said given the Energy Data Taskforce publication, the project team would need to justify not publishing this, as it may lead to a less efficient system and higher costs. GG stated that he would be reluctant as these feeds into REMIT actions. AP suggested action moved off to an Appendix and tracked. GG said there is a problem that this could be lost in time over the next few years. Wants to make sure if an IT system is being specced that it will be provided to market. AP says this cannot be addressed immediately so should move to appendix. CG questioned whether this is in scope of ToR. Suggested it could be picked up within the Agora. GG stated that the Agora is not the right forum.

Agreed that action would be closed and a log maintained of long-term actions which need to be addressed outside of the sub-group.

**Action 034 on AP to set up this list.**

Action 008 Non-firm curtailment times. 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?

Update: the detailed process for notifying storage has not yet been developed. Similar to previous action, this action is closed and moved to an outstanding actions tab.

Action 010 – Non-firm process – decisions on who gets turned off.

Update: Any curtailment will be conducted using LIFO principles (last in, first off)

Action to be closed. GG wants to understand if this is a continuous process. AP Confirmed.

Action 012 Non-firm and TNUoS taskforce – why non-firm was removed from scope.

Update: ESO discussed with Ofgem and raised at TNUoS taskforce. CG confirmed action to be carried forward.

Action to be closed and added to longer term action slide.

Action 013 – Curtailment interruptions

Update: The non-firm agreement will detail the list of circuits that storage can be curtailed for. This will not be capped to an amount. Action to be closed.

Action 014 – TEC amnesty figure achieved.

Update: Latest TEC amnesty figure provided in the slide deck. KP had confirmed we will not update on TEC amnesty going forward, as this is now closed. Action to be closed.

Action 020 – Storage modelling – if Storage 0MW treatment was for network planning or T&T model.

Update: Storage is not treated as 0MW. Storage modelling for network planning is being made more reflective of actual storage behaviour. Action closed.

Action 022 – Queue Management guidance document.

Action carried forward. GG asked for clarification on timescales – 2 WD post Ofgem decision to receive guidance note and meeting 5 WD's after. JH to put placeholders in diaries.

Action 024 – Non-firm trade and transfer of TEC

Update: The non-firm process does not impact the trade and transfer of TEC. Accelerated non-firm storage will still have TEC. Action closed.

Action 025 Connections applications – numbers to be split between new and mod apps.

Carried Forward

Action 026 – Connections Organogram

This is a slide within the slide deck. Action closed.

Action 027 – CISG ToR

Update: Is an AOB at CUSC Panel this Friday – Action Carried Forward

Action 028 Constraint notifications – feedback from sub-group

Updated: Notification concerns noted. Queries received will be logged to hand to ESO project team. Action closed.

Action 029 Constraint notifications - Investigate if the ESO publishes constraints in real time.

Carried forward.

**CUSC mods – Joseph Henry**

JH recapped discussions at meeting 4. GG asked that wording “existing policy” changes on the slides. JH agrees.

**Action 035 to update wording on slide and re-circulate slide deck.**

JH noted the differing opinions in the workgroup but reiterated ESO standpoint.

## Connection Reform – Paul Mullen

PM said team considering feedback received at connections seminar prior to making final publication. HS asked whether an invite has been sent out for Oct 25<sup>th</sup> Agora. Action on AP to chase up – this action will not be raised; link to the Agora calendar has been sent out to sub-group members immediately after the meeting concluded.

## Close and AOB

Next Subgroup 14<sup>th</sup> November. If stakeholders want an agenda item let team know. CH asked PM if another subgroup around connections reform would be set up. Not seen anything yet – PM confirmed nothing missed. DPG to be replaced and another group to look at code changes and implementation. Expect it to be in place in early 2024 but communication will come from either Ofgem or DESNZ. CG said this will spark review of ToR and how this aligns with this sub-group.

## Action Item Log

Latest view of action log post meeting:

ID	Description	Owner	Notes	Target Date	Status
004	Non-firm updates	WKW/DR	Update sub-group as non-firm solution develops	26/09/23	Closed
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	Closed
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	Closed
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	Closed
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	Closed
010	Non-firm - Process	WKW/DR	As more non-firm is connected on the network, how is it decided 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.	26/09/23	Closed

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

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	Closed
014	TEC amnesty	LH	Confirm the actual TEC amnesty figure against the published expected 8.1GW	26/09/23	Closed
020	Storage assumption 0MW	WKW/DR	Is the 0MW treatment for network planning or T&T Model?	26/09/23	Closed
022	Queue Management guidance document	JH	Set up session with QM workgroup members to review guidance document	24/10/23	Carried Forward
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	Closed
025	Connection applications	LH	To split out applications into new and mod apps	24/10/23	Carried Forward
026	Connections organogram	LH	Provide most recent organogram	24/10/23	Closed
027	Terms of Reference	JH	Take to CUSC panel for review	24/10/23	Carried Forward
028	Constraint notifications	WKW/AQ	Review feedback received on constraint notifications from sub-group as a consideration throughout the development of the BESS non-firm product	24/10/23	Closed
029	Constraint notifications	ESO	ESO to clarify what constraint data they publish in real time	24/10/23	Carried Forward
030	Queue Management	KP	Check if the guidance document will cover what hasn't changed	14/11/23	New
031	Quality of ESO public information e.g. TEC register forming part of the network data guidance note	CG	To feed this comment back into the business	14/11/23	New

032	Non-firm participation in Markets	WKW	Update sub-group on DESNZ position on participation in Capacity Market and ESO position on participation in frequency response and reactive/stability markets.	On-going	New
033	DNO firm not being treated as 100% firm – not clear what this means for frequency markets	CG	Take back to ESO Frequency Response team for awareness that there are many questions that sit with the ESO frequency response team that they may need to be aware of – such as the recent UKPN update on DNO non-firm.	14/11/23	New
034	Long term actions	AP	Create a list of actions which will be handed over to the ESO project team looking at the BESS non-firm process in detail.	On-going	New
035	CUSC mod slide	JH	Update wording on slide in pack and re-circulate to group.	14/11/23	Closed