

Code Administrator Meeting Summary

Meeting name: CMP405 -TNUoS Locational Demand Signals for Storage Workgroup Meeting 3

Date: 09/11/2023

Contact Details

Chair: catia.gomes@nationalgrideso.com

Proposer: damian.clough@sse.com

Key areas of discussion

The aim of Workgroup 4 was for external analysis commissioned by the Proposer to be presented by LCP Delta and Frontier Economics and discussed by the Workgroup.

Review Action Log

The Chair led a review of the Action Log.

Terms of Reference

The Workgroup agreed that reference to CMP394 in Terms of Reference b) and c) be removed, as CMP394 has been withdrawn.

Proposer Full Analysis Review

A Full Analysis Review was presented by LCP Delta and Frontier Economics.

- One Workgroup member asked if 2hr and 4hr durations are included in the Full Report. The consultants clarified that although not in presentation slides presented at Workgroup 4 that Charging Load Factor for 2hr and 4hr durations are detailed in the Full Report Annex D. The consultants explained that the modelling really focused on when Generation was there but in the wrong place and the benefits storage can bring. One Workgroup member asked how the benefit is going to be realised.
- The consultants explained by having a TNUoS signal reflective of storage benefit it would provide the correct investment signal. The consultants clarified and agreed that TNUoS should not be affecting dispatch.
- One Workgroup member shared the importance of the sharing methodology and asked how this analysis links to that and suggested the need to understand how the Backgrounds are working. The consultants shared that the Future Energy Scenario (FES) "System Transformation" was used for the modelling as deemed the most

plausible in their opinion, although adjustments were made to the level of wind build out as this looked too high. The consultants explained the use of 4GW storage was an illustration of benefit to the system and had come from the FES “Leading the way”.

- The Authority Representative asked if cost benefit to consumers and the Demand Residual had been modelled. The consultants stated that it hadn't and advised that could be easily done if required.
- One Workgroup member shared thoughts that constraints are good as evidence that you don't have too much network and asked if credit should be targeted on storage alone, rather than to all behind the constraint via sharing, due to the difficulty of measuring constraints.
- The Authority Representative queried the documented loss of signal due to the TDR and asked if this is quantified within the report and whether any of the solutions proportionality relate to this. The consultants clarified that investor behavior had not been modelled.
- One Workgroup member queried how the solutions relate to the Backgrounds and suggested there had been no consideration of pre-balancing mechanism and that there was a need to investigate the fundamentals more.
- One Workgroup member asked why only Scotland and Northern Scotland had been modelled. The consultant explained that the scope of modelling had been limited to Scottish area as that's where the highest demand charges are currently and long duration storage located in Scotland in the FES.
- The Proposer clarified belief that the modification is not unduly discriminatory and that the current investment signal is not to invest in an area that is constrained but are thinking is that storage is useful.
- One Workgroup member asked for clarity on the hint that the modification would apply to all Demand and for quantification of the scale of the issue, mentioning that the defect should be tightened as it is quite ambiguous.
- One Workgroup commented about the long duration and the Scotland focus, stating that it should investigate how storage can help in all parts of GB, also questioning if it does reduce the need for transmission investment.
- One Workgroup member commented that TNUoS is not about incentivising but about how much network you need.
- One Workgroup member reminded the workgroup that the TNUoS Task Force is looking at some of the issues discussed maybe more holistically and about the need to ensure industry and the Task Force are aware of what is being discussed at a detailed level. The Chair related to ToR (d) Consider wider TNUoS Taskforce work and purpose of TNUoS charging methodology.
- One Workgroup member stated that its quite clear that proper governance is in the code change space and not within the TNUoS Task Force, with another Workgroup member adding belief that Task Force is high level view with recommendations for modifications that are not in flight.

AOB & Next Steps

Next Steps

- Chair to circulate the summary and the slides from Proposer that focus on the solution options.

Actions

For the full action log, click [here](#).

Action number	Workgroup Raised	Owner	Action	Comment	Due by	Status
2	WG1	All	Workgroup to consider what additional analysis is required for the consultants that has not yet been extracted.	External consultants presented the Full Report to WG4.	09/02/2023	Closed
4	WG1	Proposer	Consider timeline for external consultants	External consultants presented the Full Report to WG4.	24/02/2023	Closed
6	WG2	AP/RDL	ESO to request initial data from ESO ENCC	Data shared previously.	WG3	Closed
7	WG3	ALL	Workgroup members to consider the 4 solutions the proposer presented and provide any feedback.	To be revisited when workgroup discuss the solution in detail.	TBC	Open
8	WG3	Proposer	To clarify: Year-Round Demand		WG4	Open
9	WG3	Proposer	Consider a suggested analysis question: Does the charge happen at the same time as constraints?	Proposer confirmed details contained within the external consultants Full Report.	WG4	Closed
10	WG3	Proposer	Provide the average duration of a constraint	Proposer confirmed details contained within the external consultants Full Report.	WG4	Closed
11	WG4	CG	Remove reference to CMP394 in Terms of Reference b) and c), as CMP394 has been withdrawn.		WG5	Open
12	WG4	DC	Will TOs need to invest less on the network due to storage reducing stress		WG5	Open

			and constraints boundaries?		
13	WG4	DC	Is it possible to model the other zones across GB to help qualify and quantify the scale of the problem?	WG5	Open
14	WG4	DC	Clarify whether the modification will be extended to all Demand?	WG5	Open
15	WG4	DC	Tightening of the underlying defect. At the WG there were divergent views on whether this was a loss of operational signal or a loss of investment signal from the TCR. The underlying principles of the TCR were reducing harmful distortions, fairness and proportionality, and practical considerations.	WG5	Open
16	WG4	DC	Model the network charges to further consider the consumer impact.	WG5	Open
17	WG4	DC	Is this modification discriminatory?	WG5	Open

Attendees

Name	Initial	Company	Role
Catia Gomes	CG	Code Administrator, ESO	Chair
Andrew Hemus	AH	Code Administrator, ESO	Tech Sec
Damian Clough	DC	SSE Generation	Proposer
Stephan Dale	SD	ESO	ESO Rep
Chris Matson	CM	LCP Delta	Proposer Consultant
Luke Davison	LD	Frontier Economics	Proposer Consultant
Sam Street	SSt	Frontier Economics	Proposer Consultant
Yasmin Valji	YV	Frontier Economics	Proposer Consultant
Alison Price	AP	ESO	ESO Rep Alternate
Daniel Hickman	DH	ESO	Observer
Damian Jackman	DJ	Field Energy	Observer
David Jones	DAJ	Ofgem	Authority Rep
Ishtyaq Hussain	IH	ESO	Observer

Jo Zhou	JZ	ESO	Observer
John Prime	JP	Amp Energy	Workgroup Member
John Tindal	JT	SSE Generation	Workgroup Alternate
Lauren Jauss	LJ	RWE	Workgroup Member
Lewis Elder	LE	Statera Energy	Workgroup Alternate
Mark Field	MF	Sembcorp	Workgroup Member
Paul Youngman	PY	Drax	Workgroup Alternate
Robert Newton	RN	Zenobe	Workgroup Member
Ryan Ward	RW	Scottish Power	Workgroup Alternate
Simon Lord	SL	First Hydro Company	Workgroup Member
Susan Stead	SS	SSE Generation	Workgroup Alternate