Public

GSR029: Review of Demand Connection Criteria to Align with EREC P2/7

Workgroup 15, 23 October 2025

Online Meeting via Teams

NESO
National Energy System Operator

WELCOME

Agenda

Topics to be discussed	Lead
Introductions	Chair
Code Modification Process Overview	Chair
Timeline Update • Agenda for added workgroups • Meeting times	Chair
Review Workgroup Consultation Document	All
Group Demand • Definition and storage contribution	Proposer
Agree methodologies • EREP130/131 • Security calculations (DNO vs TOs)	Proposer
Any Other Business • Agree Timeline	Chair
Next Steps	Chair

Expectations of a Workgroup Member

- Contribute to the discussion
- Be respectful of each other's opinions
- Language and Conduct to be consistent with the values of equality and diversity
- Do not share commercially sensitive information
- Be prepared – Review Papers and Reports ahead of meetings
- Complete actions in a timely manner
- Keep to agreed scope
- Email communications to/cc'ing the .box email

Your Roles

- Help refine/develop the solution(s)
- Bring forward alternatives as early as possible
- Vote on whether or not to proceed with requests for Alternatives
- Vote on whether the solution(s) better facilitate the Code Objectives

Workgroup Membership

Role	Name	Company
Proposer	Bieshoy Awad	NESO
Proposer	Fiona Williams	NESO
Workgroup Member	Terry Baldwin	NESO
Workgroup Member	Alan Creighton	Northern Powergrid
Workgroup Member	Andrew Hood	Western Power
Workgroup Member	Gary Louden	Electricity North West
Workgroup Member	Graeme Vincent	SP Energy Networks
Workgroup Member	Le Fu	NGET

Workgroup Membership

Role	Name	Company
Workgroup Member	Zivanayi Musanhi	UK Power Networks
Workgroup Member	Roddy Wilson	SSE
Workgroup Member Alternate	Odilia Bertetti	UK Power Networks
Workgroup Member Alternate	Peter Stanton	NGET
Observer	Philip Bale	Road Night Taylor
Workgroup Member Alternate	Rebekah Pryn	UK Power Networks
Workgroup Member Alternate	Steve Quinn	Western Power
Observer	Andrew Larkins	Sygensys

Updated Timeline for GSR029

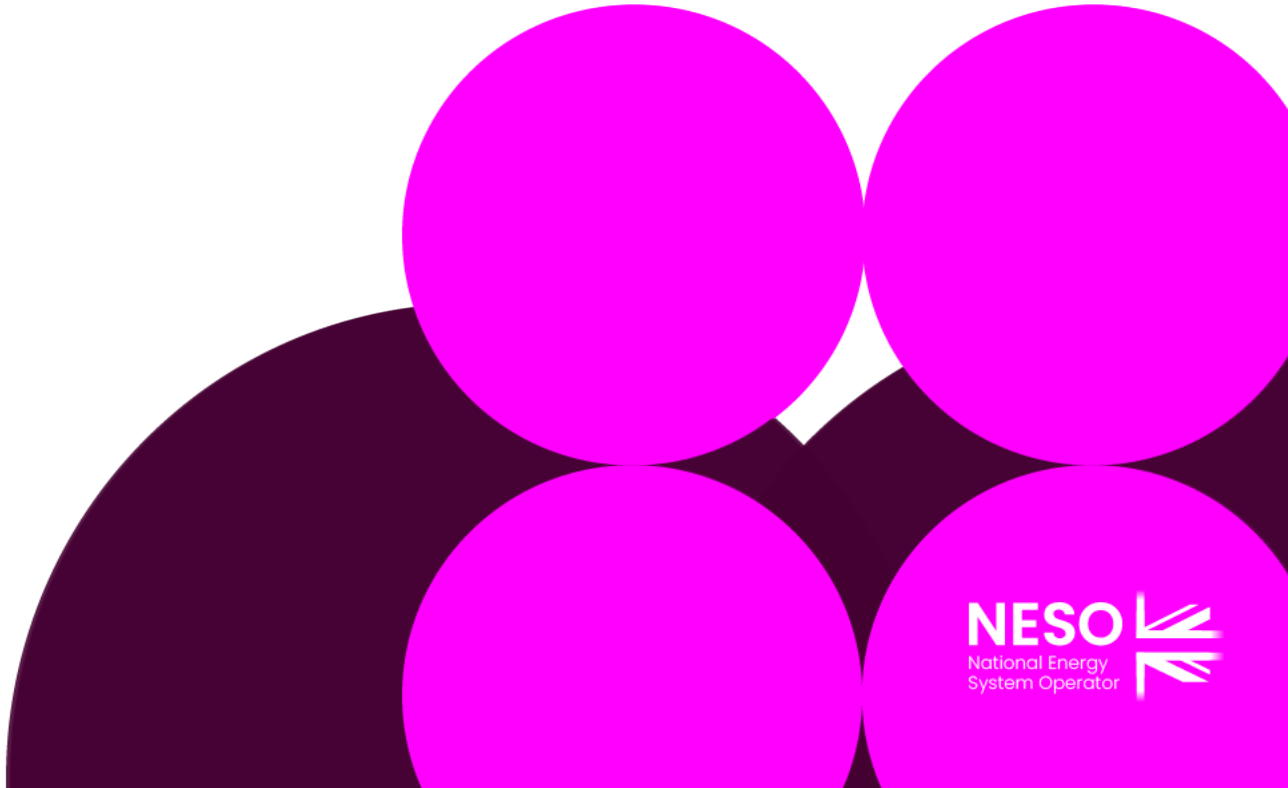
Milestone	Date	Milestone	Date
Modification presented to Panel	13/07/22	Workgroup Consultation (21 business days)	03/03/26 - 24/03/26
Workgroup Nominations (15 business days)	18/07/22 - 05/08/22	Workgroups 19-21	• 28/04/26 • 14/05/26 • 26/06/26
Workgroups 1 to 8	• 08/08/22 • 06/09/22 • 10/10/22 • 07/11/22 • 21/11/22 • 12/12/22 • 18/01/23 • 09/02/23	Workgroup report issued to Panel	09/09/26
Workgroups 9-18	• 05/05/23 • 22/09/23 • 10/11/23 • 16/02/24 • 16/07/25 • 16/09/25 • 23/10/25 • 10/11/25 • 09/12/25 • 16/02/25	Panel sign off that Workgroup Report has met its Terms of Reference	09/09/26

Updated Timeline for GSR029

Milestone	Date	Milestone	Date
Code Administrator Consultation	22/09/26 - 14/10/26	Final Modification Report issued to Ofgem	TBC
Draft Final Modification Report (DFMR) issued to Panel (5 business days)	09/11/26	Ofgem decision needed by	TBC
Panel undertake DFMR recommendation vote	25/11/26	Implementation Date	TBC
Final Modification Report issued to Panel to check votes recorded correctly	03/12/26		

Proposer Update

Bieshoy Awad – NESO



GSR029 – What needs to be Agreed

Definition of Group Demand: <u>Pages 4 to 11 and 23 to 26</u>

- *Gross vs net*
- *What elements are included*
- *Contribution of Storage towards that*
- *Practical issues – aggregation*

Demand Security Contributions

- *What is included*
  - *Inclusion of embedded small and medium power stations and demand flexibility*
- *Who is responsible for the assessment*
  - *TO's vs DNOs*
  - *Aggregation issues*
- *Methodology*
  - *Suitability of EREP130/131*
  - *Storage contribution*
- *Data sharing requirements*

GSR029 – What needs to be Agreed

3.Impact Assessment

- *Recap of what has been done*
- *Way forward*

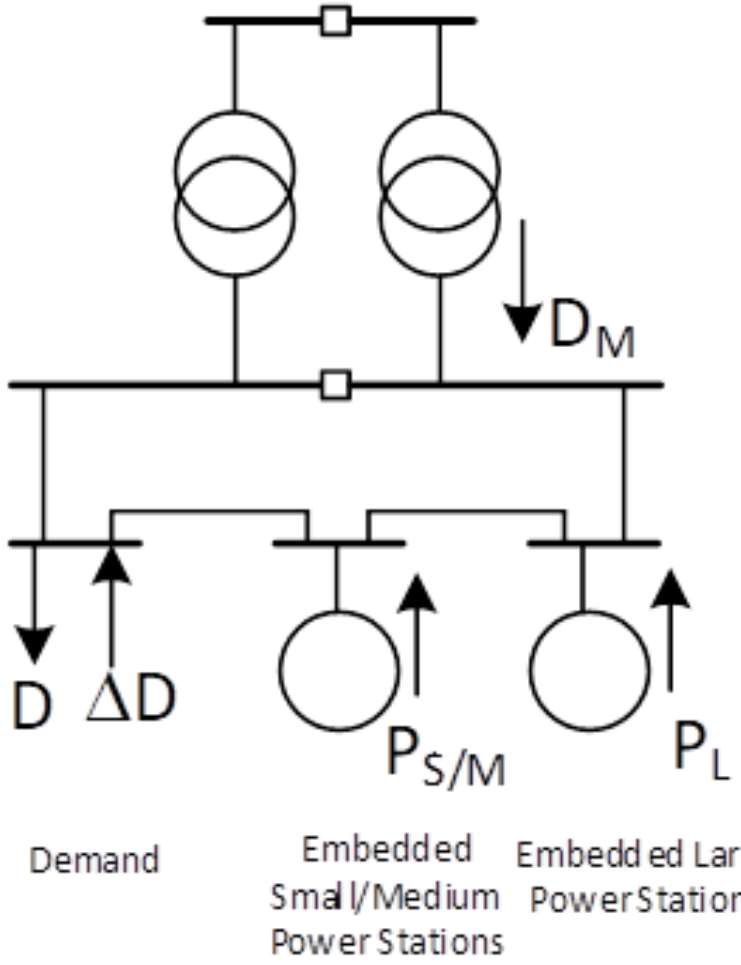
4.Grid Code Interactions

- *Review of data that TOs require*
- *Review of data that DNOs require*
- *Gap analysis for GC baseline vs GC0139*

5.Storage – Should not be new but needs to be brough out separately

- *How it contributes to Group Demand*
- *Security Contributions*
- *Design Methodologies (informative but not specifically related)*

Definition of Group Demand



For P2 :

Group Demand =D

For Baseline SQSS:

Group Demand $=D-\Delta D-P_{S/M}$

$=D_M+P_L$

The proposal aims to bring the NETS SQSS Group Demand in line with the P2 Group Demand

Definition of Group Demand

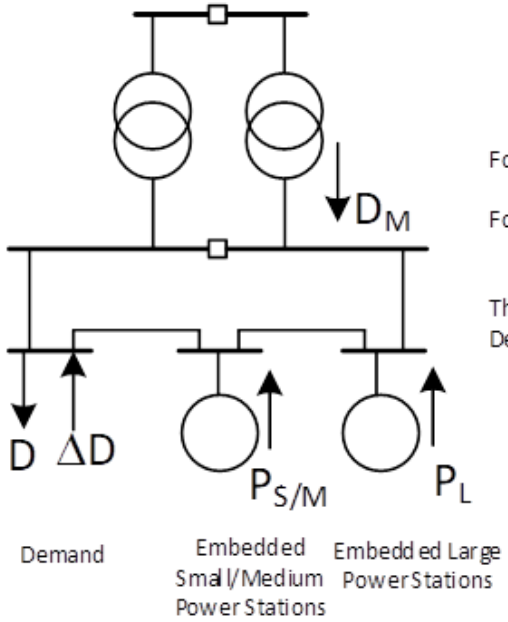
3.5 The *group demand* which is applicable for the assessment of connection capacity requirements is expected to be the unrestricted demand value that is supplied from a *network operator's system* or the demand consumed within the *non-embedded customer's* system, include any allowances for cold load pick-up, include any losses associated with supplying this demand, and excluding any demand supplied to a *power station* ~~dependent on the nature of the associated connections, i.e.:~~

~~3.5.1 where the network associated with a transmission connection comprises demand connections and connections to small or medium power stations (including those in composite-user sites), group demand for future years is equal to the Network Operator's estimated maximum demand for the group which they believe could reasonably be imposed on the onshore transmission system, after taking due cognisance of demand diversity and the expected operation of any embedded small or medium power stations.~~

~~3.5.2 where the network associated with a transmission connection hosts the connection of one or more large power stations, irrespective of whether the large power station is connected at the transmission interface point or embedded within the Network Operator's system, the group demand at the date and time of the system/site maximum demand or other relevant assessment period is equal to:~~

~~3.5.2.1 the Network Operator's group demand in accordance with paragraph 3.5.1, plus:~~

~~3.5.2.2 the output of large power station(s)~~



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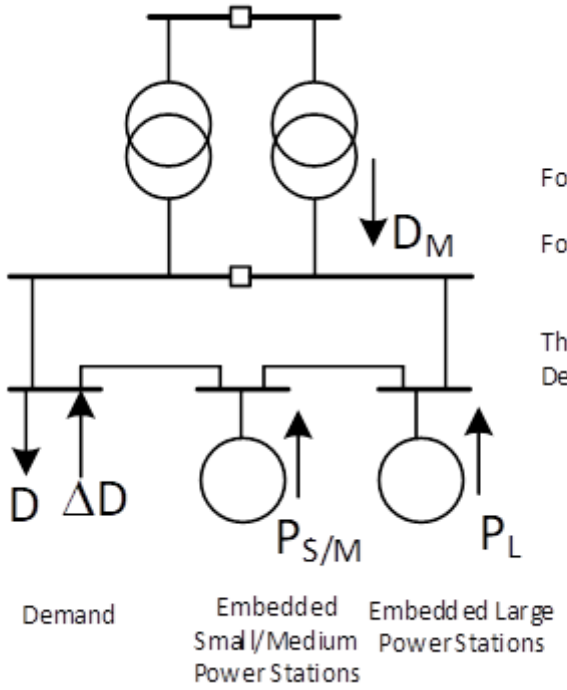
Definition of Group Demand

Group Demand

In accordance with the Grid Code, for a single *GSP* or *OSP*: The forecast maximum demand for the *GSP* or *OSP* provided in accordance with the requirements of the Grid Code by the *network operators* or *non-embedded customers* taking demand from the *national electricity transmission system*. For multiple *GSPs* or *OSPs*: The sum of the forecast maximum demands for the *GSPs* or *OSPs* provided by the *network operators* or *non-embedded customers* taking demand from the *national electricity transmission system* after accounting for demand diversity.



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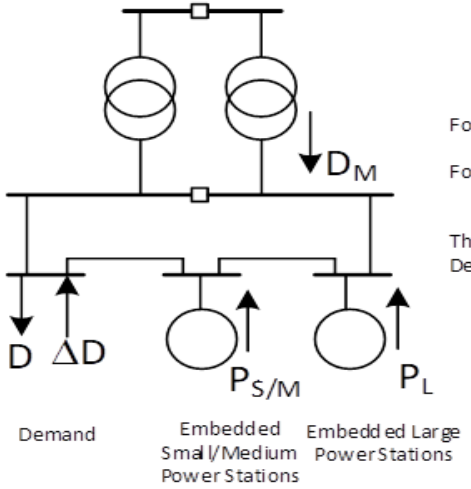
Definition of Group Demand

Storage, and other Power Station Contribution

- *Relevance of the Question*
- *Clause 1.23*
- *Clause 3.5.1/2 (Baseline)*
- *P2/7, 8, and 9*
- *Socioeconomic considerations*
- *Storage design and system access*



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$=D_M+P_L$

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1.23.2 where sites are composite and have a mixture of demand connections and generation connections, the security afforded to the block of demand customers shall be not less than that provided for a standard demand connection of an identical size. The applicable security standard should therefore be the more secure of the corresponding criteria of Section 2 or Section 3. Specifically excluded from this category is a generation site with on-site station demand. Such sites shall be treated as a generation site connected to the *onshore transmission system* with appropriate security levels.

3.5 The *group demand* which is applicable for the assessment of connection capacity requirements is dependent on the nature of the associated connections, i.e.:

3.5.1 where the network associated with a transmission connection comprises demand connections and connections to *small* or *medium power stations* (including those in composite-user sites), *group demand* for future years is equal to the *Network Operator's* estimated maximum demand for the group which they believe could reasonably be imposed on the *onshore transmission system*, after taking due cognisance of demand diversity and the expected operation of any embedded *small* or *medium power stations*.

3.5.2 where the network associated with a transmission connection hosts the connection of one or more *large power stations*, irrespective of whether the *large power station* is connected at the transmission interface point or embedded within the *Network Operator's* system, the *group demand* at the date and time of the system/site maximum demand or other relevant assessment period is equal to:

3.5.2.1 the *Network Operator's group demand* in accordance with paragraph 3.5.1, plus:

3.5.2.2 the output of *large power station(s)*.

Definition of Group Demand

Options for Storage, and other Power Station Contribution

Zero: Option adopted here

A specified value that is equal to:

- 100% of its capacity
- A level that is advised by the Generator
- A level that is calculated by the *network operator* in accordance with an agreed formulae that reflects either operational experience or societal benefit.

As per 2 but updated annually to reflect operational experience

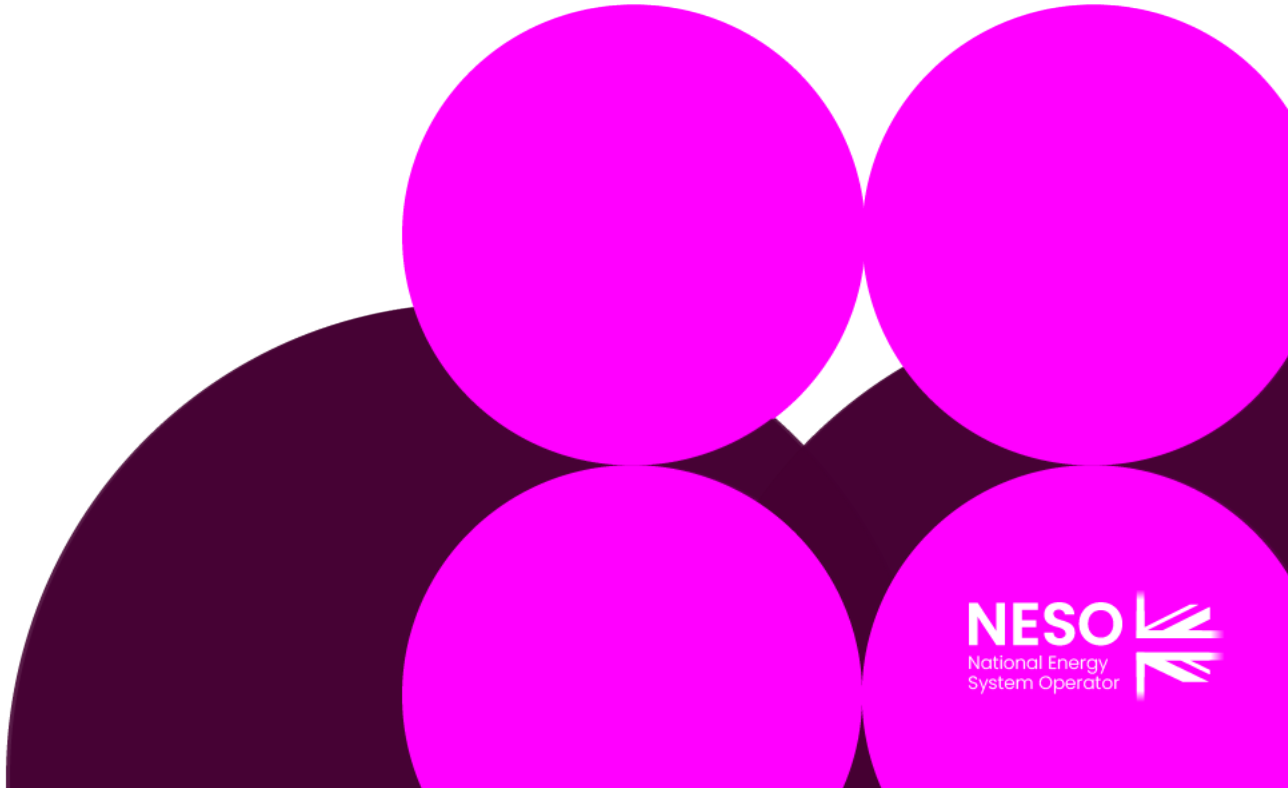
Definition of Group Demand

Aggregation Issues for Shared Sites

- *Grid Code needs to allow data sharing*
- *A pragmatic approach to compliance assessment to reduce sharing of comprehensive datasets*

Workgroup Consultation Discussion

All



Workgroup Consultation

- Focus on Pages 4 to 11 and 23 to 26
- Any questions that needs bringing out

Terms of Reference

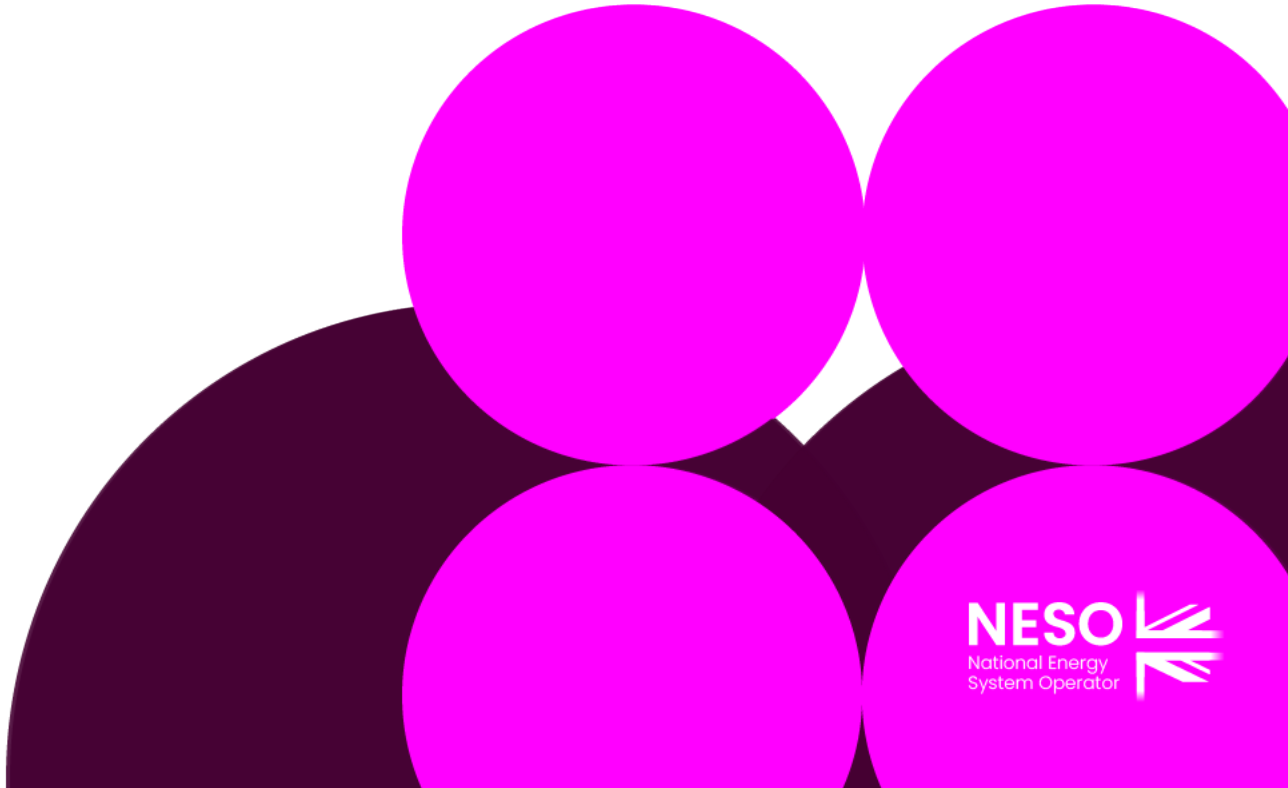
Workgroup Terms of Reference	Workgroup thoughts
Consider whether the guidance provided in EREP 130 for assessing the security contribution to the distribution system is suitable for assessing the security contribution to the transmission system	
Consider the option to review the analysis undertaken by Imperial College London when developing EREP 130	
Given the materiality of typical BESS installations, provided specific guidance on the assessment of BESS demand on the transmission system and assessing the security contribution from it (noting that the security contribution from a BESS is not included in the scope of EREP 130)	

Terms of Reference

Workgroup Terms of Reference	Workgroup thoughts
Consider if there are any alternative proposals	
Consider if there are consequential changes to other codes, such as the Grid Code in relation to planning data.	ToR needs to be thought about both in terms of the existing Grid Code baseline and the proposals developed under GC0139
Consider any versions of P2 that have been published or in development beyond P2/7 and EREP 130 and their implications on the proposal	

Any Other Business

Prisca Evans – NESO Code Administrator



Next Steps

Prisca Evans – NESO Code Administrator