

Transmission Charging Methodologies Forum & CUSC Issues Steering Group



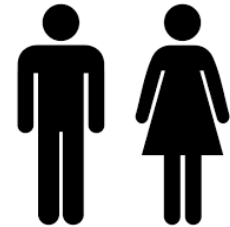
11th April 2018

Welcome

Jon Wisdom, National Grid

Housekeeping

- Fire alarms
- Facilities
- Red Lanyards



Actions

| TCMF Mor | Request | Agenda Item | Action | Owner | Notes | Target Date | Status |
|----------|---------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------|
| 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 cus.team@nationalgrid.com . | Oct-18 | On-going |

Today's TCMF

CUSC Modifications Update

**ESO Incentives 2018-2021 Modification
Proposal Update**

Today's CISG

Updating the Statement of Works Process

Introducing new contractual arrangements
for Aggregators

Emergency Disconnection of Embedded Gen

AOB

CUSC Modifications Update

Joseph Henry, Code Admin

New Modifications

- No new Modifications tabled at the March 2018 CUSC Panel

Ofgem decisions

- **Ofgem decisions and pending decisions since last TCMF:**

There have been no decisions made this month

Ongoing modification proposals

| Mod Ref | Mod area | Customer impacted | Proposal raised by | Process stage | Key activities since last update | next steps |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CMP271 | Improving the cost reflectivity of demand transmission charges | Generators, Suppliers, Embedded Generators | RWE | Workgroup meetings ~ suspended | WG received update on impact of SCR on CMP271 | <p>Ofgem published further clarity to the industry on the scope of the SCR/TCR on 6 November 2017 and Code Admin discussed impact with the Proposers and the WG.</p> <p>The CUSC Panel at its November 2017 meeting agreed to a further extension to the point that Ofgem issues its minded-to position or another event means that the WG should be re-convened.</p> |
| CMP274 | Winter TNUoS Time of Use Tariff (TToUT) for Demand TNUoS | Generators, Suppliers, Embedded Generation, Transmission Network Operators, HH Demand Customers | UK Power Reserve | | WG received update on impact of SCR on CMP274 | |
| CMP276 | Socialising TO costs associated with 'green polices' (reduction in the demand residual element of the TNUoS £/kW ("Triad") charge by creating two new charge lines for all demand offtakes | Parties that manage demand during Triad periods, i.e. embedded generators and those half hourly metered consumers who respond to Triad | Alkane Energy | | WG received update on impact of SCR on CMP276 | |

Ongoing modification proposals

| Mod Ref | Mod area | Customer impacted | Proposal raised by | Process stage | Key activities since last update | next steps |
|---------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CMP275 | Preventing BM units from accessing multiple sources of duplicate and overlapping revenue from ancillary services on the same asset | Generators, Transmission Company and Ancillary Service Providers | UK Power Reserve | WG report sent to WG members for review | WG voted on proposal and new WACM against baseline. WG decided that Baseline currently working better | CUSC Panel extended timetable by 1 month in March, and further extension will be requested at April CUSC panel. WG hope to bring modification vote before April CUSC panel. |

Ongoing modification proposals

| Mod Ref | Mod area | Customer impacted | Proposal raised by | Process stage | Key activities since last update | next steps |
|---------------|----------------------------------------------------------------------------------------------|--------------------------------|--------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CMP280 | TNUoS: remove liability from Generators for the Demand Residual element of the TNUoS tariff. | Suppliers, Generators and NGET | Scottish Power | WG to continue developing the Proposal | WG issued a draft of the WG reports for review 7 March 2018 for a two week review period. Comments currently being reviewed. | Consolidate comments received by the WG on the WG report – will either agree comments ex-committee or arranged a WG to agree. Note WG Consultation due to be issued April/May 2018 |
| CMP281 | BSUoS: remove liability from Generators BSUoS charges on imports | | | | | |

Ongoing modification proposals

| Mod Ref | Mod area | Customer impacted | Proposal raised by | Process stage | Key activities since last update | next steps |
|---------------|------------------------------------------------------|----------------------|--------------------|----------------------------------------|----------------------------------|----------------------------------------------------------------------------------------|
| CMP285 | CUSC Governance Reform – Levelling the Playing Field | All CUSC Signatories | UKPR | WG to continue developing the Proposal | WG reviewing draft of WG report | Legal text currently being reviewed. Note WG Consultation due to be issued May 2018 |

Ongoing modification proposals

| Mod Ref | Mod area | Customer impacted | Proposal raised by | Process stage | Key activities since last update | next steps |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------|----------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| CMP286 | Improve the predictability of TNUoS demand charges by bringing forward the date at which the target revenue used in TNUoS tariff setting is fixed to allow customer prices to more accurately reflect final TNUoS rates. | Suppliers, Generators, embedded generators and National Grid | Npower | WG to continue developing the Proposal | WG Report Issued | WG Consultation report scheduled to be issued at start of May 2018 – this is at risk but until WG meetings held no extension to be requested |
| CMP287 | Improve the predictability of TNUoS demand charges by bringing forward the date at which certain parameters used in TNUoS tariff setting (such as demand forecasts) are fixed to allow customer prices to more accurately reflect final TNUoS rates | | | | | |

New Modifications

- Five new Modifications tabled at the February 2018 CUSC Panel

| Mod Ref | Mod area | Customer impacted | Proposal raised by | Process stage | Key activities since last update | next steps |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------|----------------------------------|-------------------------------------------------------------------|
| CMP288 | Introduce explicit charging arrangements to recover additional costs incurred by Transmission Owners and TNUoS liable parties as a result of transmission works undertaken early due to a User initiated delay to the Completion Date of the works, or to facilitate a backfeed. | Electricity Transmission Owners; Developers requiring new generation, interconnector or demand connections and Parties that pay TNUoS | NGET | Workgroup nominations received and agreed by CUSC Panel | n/a | 1 st Working Group to be arranged late April/Early May |
| CMP289 | Consequential change to support the introduction of explicit charging arrangements for customer delays and backfeeds via CMP288. | | | | | |

New Modifications continued

| Mod Ref | Mod area | Customer impacted | Proposal raised by | Process stage | Key activities since last update | next steps |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------|
| CMP291 | Set out within the CUSC the obligations in the EU Connection Network Codes and System Operation Guideline as they relate to the harmonised rules for connection and system operation in GB. | Transmission Owners (including OFTOs and Interconnectors), Distribution Network Operators, Transmission System Users, System Operator, Generators, Demand customers and providers of services | SSE | Workgroup nominations open ~ proposer asked to source extra workgroup members | n/a | Proposer to source extra Working Group Members. Once this is arranged, 1 st WG to be organised |
| CMP292 | Ensure that the charging methodologies (all Charging Methodologies as defined in the CUSC) are fixed in advance of the relevant Charging Year to allow The Company – as Electricity System Operator - to appropriately set and forecast charges. Introducing a cut-off date for changes to the methodologies will help to reduce the risk of charges out-turning differently to the forecasts produced by the Company and created by Users | CUSC Parties, NGRID | NGET | Workgroup nominations closed | n/a | 1 st WG to be arranged |

CUSC Modifications

Plan on a Page and other CUSC Panel related material can be accessed using the following link:
<https://www.nationalgrid.com/uk/electricity/codes/connection-and-use-system-code/meeting-docs>

With Authority, awaiting decision – please refer to the following link for further information;
https://www.ofgem.gov.uk/system/files/docs/2017/04/indicative_decision_dates_for_modification_with_ofgem.pdf

CMP251 - Remove error margin cap on TNUoS compliance with EU (British Gas)

WG - Workgroup
 ConS – Consultation
 WG ConC – Workgroup Conclusion
 CA – Code Administrator Consultation
 DFMR – Draft Final Modification Report
 * Timetable at risk/to be confirmed by Panel

| | April | May | June | July | August | September | October |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------|---------|------|----------------|-----------|---------|
| Modifications | | | | | | | |
| CMP250 - Stabilising BSUoS with 12 month notice period (Drax Power) | With Authority | | | | | | |
| * CMP271 - Improving the cost reflectivity of demand tx charges (RWE) and CMP274 - Winter TNUoS Time of Use Tariff for Demand TNUoS (UK Power Reserve) and CMP276 – Socialising T costs associated with “green policies” (Alkane) | WG Mod Dev on hold pending outcome from SCR/TCR | | | | | | |
| * CMP275 - Transmission generator benefits in the provision of ancillary and balancing services – levelling the playing field.* | | ◆ CA ConS | DFMR | ◇ | With Authority | | |
| CMP280 - New Generator TNUoS Demand Tariff which Removes Liability for TNUoS Demand Residual Charges from Gen and Storage Users' and CMP281 - Removal of BSUoS Charges From Energy Taken From the National Grid System by Storage Facilities (Scottish Power) | WG | WG ConS | WG ConC | | | ◆ | CA ConS |
| CMP285 - CUSC Governance Reform – Levelling the Playing Field' (UKPR) | WG | WG ConS | WG ConC | | | ◆ | CA ConS |
| * CMP286 - Improving TNUoS Predictability Through Increased Notice of the Target Revenue used in the TNUoS Tariff Setting Process. (npower) and CMP287 - Improving TNUoS Predictability Through Increased Notice of Inputs Used in the TNUoS Tariff Setting Process. (npower) | WG Mod Dev | | | | | | |



CUSC Modifications

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 DRMR – Draft Final Modification Report
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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|------|------|--------|-----------|---------|--|
| Modifications | | | | | | | | |
| CMP288 - Introduce explicit charging arrangements to recover additional costs incurred by Transmission Owners and TNUoS liable parties as a result of transmission works undertaken early due to a User initiated delay to the Completion Date of the works, or to facilitate a backfeed (NGRID) and CMP289 - Consequential change to support the introduction of explicit charging arrangements for customer delays and backfeeds via CMP288. | | WG Mod Dev | | | | | | |
| | | | | | | | | |
| CMP290 Housekeeping change to CUSC Section 14 required as a result of the implementation of CMP264, CMP265, CMP268 and CMP282 (NGRID) | Implement | | | | | | | |
| CMP291 - Set out within the CUSC the obligations in the EU Connection Network Codes and System Operation Guideline as they relate to the harmonised rules for connection and system operation in GB (SSE) | WG nominations | WG Mod Dev | | | | | | |
| | | | | | | | | |
| CMP292 - Ensure that the charging methodologies are fixed in advance of the relevant Charging Year to allow The Company to appropriately set and forecast charges. (NGRID) | | WG Mod Dev | | | | | | |
| | | | | | | | | |



Code Governance Team – who to contact

- For **CUSC** related matters Email: cusc.team@nationalgrid.com
- For **Grid Code** related matters Email: Grid.Code@nationalgrid.com
- For **STC** related matters Email: STCTeam@nationalgrid.com
- For **SQSS** related matters contact Email: box.SQSS@nationalgrid.com
- For **JESG** related matters Email: box.europeancodes.electricity@nationalgrid.com

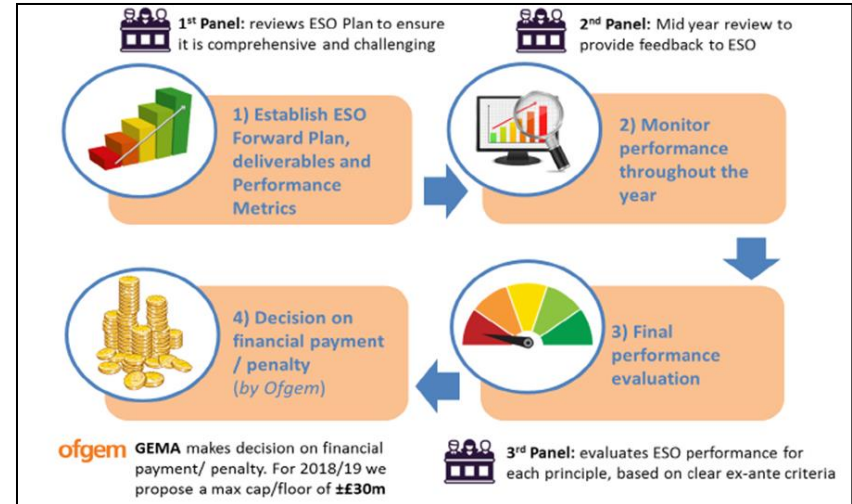
ESO incentives 2018-2021 Modification Proposal Update

Urmi Mistry, National Grid

Recap

- The ESO regulatory and incentive framework for 2018-21 has been revamped
- There is now a **single evaluative incentive** covering all of the ESO's activities
- This is worth \pm £30m per year
- There is no more BSIS

Annual Process



Performance criteria

- Evidence of delivered benefits
- Evidence of future benefits / longer term initiatives
- Wider stakeholder evidence
- Plan delivery
- Performance metrics and justifications

Reason for Change

- New Incentive framework has gone live (1st April 2018).
 - Reflecting Licence changes that have already been agreed.
 - New special Licence Condition 4M.
- Change to how external incentive scheme payment element is generated.
- Move from a mechanistic approach to an evaluative approach.

Ofgem's Decision

- On 28th March Ofgem published their consultation decision letter.
- Going ahead with changes consulted on with minor typographical changes.
- Suggested NG change (on next slide) not appropriate at this time.
- Ofgem are happy to work on this with the ESO and industry to determine method for future years.

Reason for Updated Proposal

- Reconciliation - BSUoS volatility
- NG response to Licence change consultation
 - Licence should allow for an adjustment in relevant year $t+1$.
 - Suggestion of a $TotAdj_t$ term
 - Will work with Ofgem and industry to determine a suitable approach.

The Proposal (Updated)

DRAFT LEGAL TEXT Changes

External BSUoS Charge for each Settlement Period (BSUoS_{EXT}_{jd})

14.30.6 The External BSUoS Charges for each Settlement Period (BSUoS_{EXT}_{jd}) are calculated by taking each Settlement Period System Operator BM Cash Flow (CSOBM_j) and Balancing Service Variable Contract Cost (BSCCV_j) and allocating the daily elements on a MWh basis across each Settlement Period in a day.

[Need to amend equation below from $Inc\text{payext}_d$ to $inc\text{payext}_t$ and remove LBS]

$$\begin{aligned}
 & \text{BSUoS}_{EXT\ jd} = \text{CSOBM}_{jd} + \text{BSCCV}_{jd} \\
 & + [\text{Inc\text{payEXT}}_d - \text{BSCCA}_d + \text{ET}_d - \text{OM}_d + \text{FIIR}_d + \text{BSC}_d + \text{SOTOC}_d + \text{LBS}_d] \\
 & * \left\{ \left| \sum^+ (\text{QMBSUoS}_{jd} * \text{TLM}_{jd}) \right| + \left| \sum^- (\text{QMBSUoS}_{jd} * \text{TLM}_{jd}) \right| \right\} / \\
 & \sum_{j \neq d} \left\{ \left| \sum^+ (\text{QMBSUoS}_j * \text{TLM}_j) \right| + \left| \sum^- (\text{QMBSUoS}_j * \text{TLM}_j) \right| \right\}]
 \end{aligned}$$

The Proposal (Updated)

DRAFT LEGAL TEXT

External Incentive Payment (IncPayExt_t)

14.30.7 In respect of each settlement d, IncPayExt_t will be determined in line with Transmission Licence Special Condition 4M.

- Remove original 14.30.7 to 14.30.13 and removal of section 14.32.
- Update acronyms in 14.31.8
- Removal of section 14.32 (worked example)

We have removed our proposed text 14.30.8 which can be found in March's TCMF slide pack.

New Proposal

- Recommend **straight to Code Admin Consultation:**
 - WHY...?
 - Confirmation from Ofgem on actual changes.
 - [National Grid Circular document](#)
 - Reduction in scope of CUSC Change (no change to reconciliation process)

CUSC Issues Steering Group (CISG)

Updating the Statement of Works Process

Rachel Tullis, National Grid

Statement of Works

- Statement of Works Process outlined in CUSC section 6.5 (Obligations of Users Who Own or Operate Distribution Systems)
 - Process between National Grid and Distribution Network Operators (DNO)
 - Does not cover any processes between DNOs and Distributed Generators
- Designed to identify impact on the NETS of Distributed Generation wishing to connect to the Distribution System:
 - On receipt of request for connection to / use of Distribution System DNO to make a request for a Statement of Works to NGET
 - NGET will respond with a Statement of Works
 - DNO to return Confirmation of Project Progression

What is the issue?

- Current Statement of Works process considered not to be fit for purpose:
 - Can take up to 12 months to complete (from initial DG application)
 - Does not consider cumulative impact of DG making for an inefficient process

What has been done by industry?

- CMP238 (Application of Statement of Works process when a modification application is made)
 - Allowed DNOs to skip stage 1 of the Statement of Works process where the DNO already knows that there is a transmission system impact
 - Felt by industry to be only part of the solution and ENA Statement of Works Workgroup established to consider further improvements to the process
- Appendix G Trial (becoming known as Transmission Impact Assessment)
 - Facilitates assessment of DG on an aggregated basis
 - DNO updates SO with details of DG regularly
 - DNO able to make offers to DG customers without individual reference to National Grid in majority of cases

Scope of Modification Proposal

- Amendments to CUSC section 6.5 to facilitate Appendix G / Transmission Impact Assessment process
 - Retaining existing Statement of Works process for where single applications are still appropriate
 - Introducing option for aggregated applications as per Appendix G trials
 - High level process between National Grid and DNOs for Appendix G updates (currently outlined in BCAs) to be outlined in CUSC
 - Request for assessment
 - Timescales for response
 - Ongoing requirements and timescales for updates and confirmation

Out of Scope for Modification Proposal

- DNO / Distributed Generator Process
- Detailed internal processes
 - Appendix G, and therefore the **detailed** internal processes associated will continue to evolve. We do not want to include a level of detail in the CUSC that becomes onerous to maintain / keep up to date.
 - Happy to discuss the extent of detail around process required in the workgroup.
- Overly prescriptive Appendix G format
 - As above, the Appendix G format is continuing to evolve – we would like a format which offers a framework to work within but is flexible enough that it doesn't become onerous to maintain as improvements are identified.

Recent Engagement & Next steps

- Presented at ENA Statement of Works Workshop in March
- Plan to submit modification to April CUSC panel



Introducing new contractual arrangements for Aggregators (Project TERRE)

Harriet Harmon, National Grid

Background

- P344 looks at the implementation of EU TERRE arrangements into the GB Market;
- Under this BSC change, non-BSC Parties can choose to become, “Virtual Lead Parties”
- These VLPs will accede to certain sections of the BSC such that they can participate in the BM;
- Relevant sites will be registered to a VLP’s “Secondary BMU” and the Supplier’s Base BMU;
- A VLP won’t be a Trading Party, and won’t submit Notifications;

VLPs as ‘Aggregators’

- Under the BSC, a VLP will be able to aggregate multiple EGs to create a BMU;
- Those EGs will take instruction to provide Ancillary/Balancing Services via the VLP;
- The Supplier who has the SVA EG registration will bear the BSUoS & TNUoS liability;
- The VLP – as the aggregator – does not itself own the connection points and isn’t the DNO’s connection customer;
- ‘Aggregator’ could be a broader definition than the BSC-specific VLP – future-proofing against market movements

Why Change?

- Concept of Aggregators doesn't exist in CUSC (pending S14/11 mods);
- EG normally would have BELLA or BEGA directly with NGET;
- Aggregator doesn't own or technically operate the EG plant – no TEC requirements;
- Some technical requirements being delivered through GC0097;
- Some technical requirements would normally be in the F5 of BEGA;
- CUSC Accession → Grid Code compliance

Principles of change

- Limited to SVA – any CVA EG must use extant arrangements;
- Aggregators don't need TEC;
- Aggregators aren't the User liable for UoS charges;
- The Operational Metering requirements rest with the aggregator;
- Incremental, minimal change to facilitate TERRE only;
- Ensure accession to S1, 5-8 & 11;
- No changes to Accession, BELL or BEG Agreements;

What's changing?

- Introduce & define new party category – Aggregators (*S1 & S11*);
- Update application process to include new party (*S1*)
- Create a new or amend extant (tbd by WG) Application Form for new party category (non-'user') (*Exhibit F*);
- Create a new Agreement for Aggregators – BELLA/BEGA hybrid – utilise existing F5 (*Schedule 2, new Exhibit*);

- *Charging mod being raised separately - complete suite*

For reference – areas covered by referenced sections (inter alia)

- Section 1 – application of sections, User categories
- Sections 5 – 8 – GC compliance, governance, de-en, discon, disputes & general provisions;
- Section 11 – definitions and interpretation;
- Exhibit F – Supplier/Interconnector application form;
- App F5 – appendix to BEGA which contains site-specific tech requirements;

Emergency Disconnection of Embedded Generation

Bieshoy Awad, National Grid

Contents

- High Level Objective
- Wider Access to BM
- Emergency Instructions
- Emergency Disconnection of Embedded Generation
- Next Steps

High Level Objective

As the capacity of embedded generation increases we need to ensure that we have the tools to manage the networks in emergency situations as well as normal operating conditions.

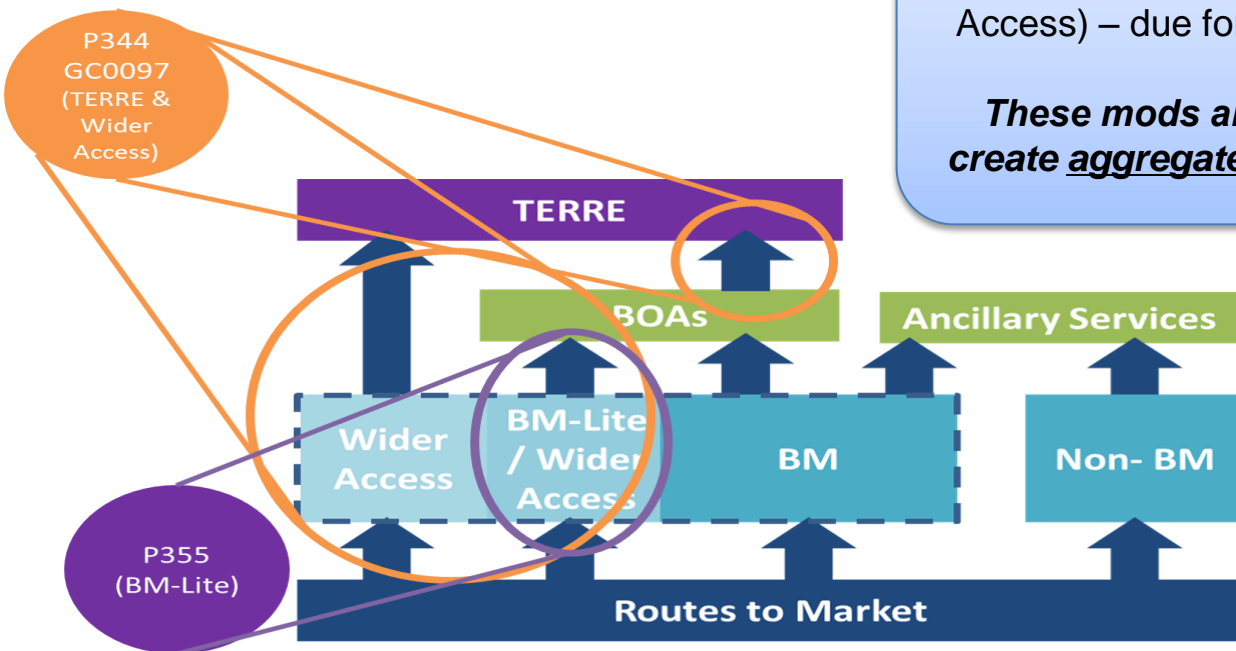
Wider Access to BM

Overview of Current Mods

- Access routes to the BM and TERRE for Distribution connected participants are being developed through BSC modification P344 and corresponding Grid Code modification GC0097.
- These modifications are due to be submitted to the Authority for decision June 2018.
- Proposed implementation Q4 2019.
- If approved, will provide a mechanism for call off and compensation of Distribution connected generation through the BM.

Wider Access to BM

Overview of Current Mods



P355 (BM-Lite) on hold as wider access is being delivered through P344 & GC0097 (TERRE & Wider Access) – due for submission to Ofgem June 2018

These mods allows “Virtual Lead Parties” to create aggregated “Secondary BMUs” for use in TERRE & BM

Potential issues for consideration

- P344 and GC0097 provide a mechanism through which aggregated BMUs will be able to be called for Balancing Services, including the BM.
- This gives a potential call off and compensation route for distributed participants without having to use Emergency Instructions.
- However, still uncertainties around how aggregation will work with this in terms of systems. It may be that a whole aggregated BMU (which could be across a whole GSP group) would need to be called as a single unit rather than by sub-unit.
- Also, participation will be optional rather than mandatory so not all distributed participants captured.

Emergency Instructions: Background Material

- The Grid Code:
BC2.9, OC6
- Balancing Principles Statement: Part B Section 5 – available online at <https://www.nationalgrid.com/sites/default/files/documents/Balancing%20Principles%20Statement%20v15%20Effective%20from%201%20April%202017.pdf>
- CUSC:
5.2 and the associated definition

Emergency Instructions: Utilisation

| When | Sequence of Disconnection |
|-----------------------------------------------------------|------------------------------|
| Events | Most effective units |
| Demand Control | Price (Bid-Offer) |
| System and Localised Negative Reserve Active Power Margin | Contribution to losses |
| Black Start | Reserve/ response capability |
| Max Gen | Reactive capability |
| Frequency Sensitivity | Dynamic parameters |
| Communication Failure | |

If a commercial option is available within the timescales required we would take commercial actions first

Emergency Instructions: Post Event

- Restoration:

Reverse order of disconnection

- Compensation:

Generation: In line with Access Rights and BM Participation

Demand: No compensation offered

- Reporting:

Immediate: Balancing Mechanism Reporting Service

Annual: Balancing Principles Statement Report –
Audited by an independent consultant

Emergency Instructions: Plant covered

| Plant | Covered or not |
|---------------------------------|----------------|
| Transmission Connected | |
| Generation | ✓ |
| Demand | ✓ |
| Grid Supply Point | ✓ |
| Distribution Connected | |
| Demand | ✓ |
| Large Power Station | ✓ |
| “An item of Plant or Apparatus” | ✓ |
| Medium/Small Power Station | Not explicitly |

Emergency Instruction for EG

Why Change

- Issue:

Ability to issue emergency instructions to DNOs to disconnect embedded small and medium power stations is subject to interpretation

- Risk:

Inability to manage emergency situations that are caused or exacerbated by an embedded small or medium power station

- Interim Solution:

Through the SoW process, impose emergency disconnection requirements, via the DNO, on new embedded generation (generally listed in the BCA)

- Enduring Solution:

Modify the Grid Code, Distribution Code, CUSC, and BSC – if required – to provide clarity



Emergency Disconnection of EG

What Needs to Change

- Clear and transparent requirements – potentially a new OC or a change to OC6
- Set of equitable rules to reduce the risk on any specific Generator
- Generic process
- Relevant data submissions
- Any relevant changes to the legal and commercial frameworks

Emergency Disconnection of EG

What Needs to Be Agreed

- Should we have the capability?
 - If not, need to justify why embedded generation receives preferential treatment to everyone else.
- Affected plant:
 - All embedded generation?
 - Above certain MW capacity?
 - After certain date?
 - Reopener for revision
- Process
 - We have a process agreed with some DNOs. This can be rolled out unless there are any concerns.
- Week 24 Submissions
 - Can we tailor this on emergency demand disconnection?

Emergency Disconnection of EG

Risks to EG

- Minimal risk – only 13 Emergency Instructions in the last 4 years.
- Impact is less severe than the consequence of the emergency situation materialises.
- Rules will be developed to ensure equitable impact on all parties.
- Opportunity for embedded generation to join the BM.

Emergency Disconnection of EG

Legal and Commercial Issues

- Embedded Medium and Small Power Stations are generally not CUSC or BSC Parties

- CUSC

Section 5.2 covers emergency disconnection for embedded Large Power Stations (Users). Could this be extended to cover all embedded power stations?

Any other impact?

- Distribution Code

What rights do DNOs have?

Could these be extended

- BSC

Any views on this?

- BCAs

Changes to any BCAs as a part of this Grid Code modification should be minimal– if at all required.

Next Steps

- Agree the impact on the Grid Code;
- Identify potential consequential changes to other codes, policies, and industry frameworks;
- Agree timescales for submission of these proposals;
- Develop a proposal for a Grid Code modification and submit it to the GCRP;
- Propose any consequential modifications in accordance with the governance of the affected code/policy/framework.

AOB

Jon Wisdom, National Grid

Next meetings

May

9

Wednesday

June

13

Wednesday

Will be an 10:30am start unless otherwise notified.

We value your feedback and comments

If you have any **questions** or would like to give us **feedback** or share **ideas**, please email us at:

cusc.team@nationalgrid.com

Also, from time to time, we may ask you to participate in surveys to help us to improve our forum – *please look out for these requests*

LUNCH



Close
