









## Part A: Generic

DCUSA Change Proposal (DCP)		At what stage is this document in the process?
<h1>DCP 319:</h1> <h2>Removal of residual charging for embedded generators in the CDCM</h2> <p><i>Insert date raised: 11/05/2018</i></p> <p><i>Proposer Name: Andrew Enzor</i></p> <p><i>Company Name: Northern Powergrid</i></p> <p><i>Company Category: DNO</i></p>		<div>01 – Change Proposal</div> <div>02 – Consultation</div> <div>03 – Change Report</div> <div>04 – Change Declaration</div>
<p><b>Purpose of Change Proposal:</b></p> <p>The intent of this change proposal is to amend the application of residual charging in respect of embedded generators.</p>		
	<p><b>Governance:</b></p> <p>The Proposer recommends that this Change Proposal should be:</p> <ul style="list-style-type: none"> <li>• Treated as a Part 1 Matter</li> <li>• Treated as a Standard Change</li> <li>• Proceed to a Working Group</li> </ul> <p>The Panel will consider the proposer's recommendation and determine the appropriate route.</p>	
	<p><b>Impacted Parties:</b> embedded generators, suppliers, demand consumers to the extent that any revenue shortfall will be reflected as an increase to demand tariffs.</p>	
	<p><b>Impacted Clauses:</b> Schedule 16 – Various</p>	

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Indicative Timeline		
The Secretariat recommends the following timetable:		
Initial Assessment Report	11 May 2018	
Consultation Issued to Industry Participants	TBC	
Change Report Approved by Panel	18 July 2018	
Change Report issued for Voting	20 July 2018	
Party Voting Closes	10 August 2018	
Change Declaration Issued to Authority	14 August 2018	
Authority Decision	18 September 2018	

## 1 Summary

### What

Changes are required to the Common Distribution Charging Methodology (CDCM) to ensure that embedded generators (including storage sites) are not subject to residual charges for either demand or generation.

### Why

Residual charges exist to ensure that distributors recover their allowed revenue. They generally recover sunk costs in respect of historic investments into network infrastructure for the purpose of serving demand customers. Embedded generators can provide a benefit to DNOs by offsetting demand and so reducing the loading on, and subsequently deferring the need for reinforcement of, upstream assets. Embedded generators have an import capacity which ranges from a small capacity for start-up (of for example a wind turbine) through to a larger import capacity for the import element of a battery storage facility. This current charging regime whereby the import element of an embedded generation connection is charged the 'HH metered' tariff at the appropriate voltage (e.g. the import side of an LV connected embedded generator will be charged the 'LV HH Metered' tariff) exposes embedded generators to

disproportionate costs in respect of residual charging for assets which the DNO has invested in predominantly for the purpose of serving demand customers, not embedded generators.

## How

The detail for the solution should be developed by a working group, but it is initially envisaged that this change will be implemented by the introduction of a new set of tariffs which will be applied in respect of the demand element of embedded generation sites, which will mirror the existing LV HH metered, LV Sub HH metered and HV HH metered tariffs but with no 'adder' applied to unit rates (i.e. with no residual element).

## 2 Governance

### Justification for Part 1 and Part 2 Matter

#### Requested Next Steps

This Change Proposal should:

- Be treated as a Part 1 Matter
- Be treated as a Standard Change
- Proceed to a Working Group

## 3 Why Change?

Each export Meter Point Administration Number (MPAN) charged under the CDCM has an associated import MPAN, which is charged an import tariff. For example, a half-hourly (HH) settled LV connected embedded generator will have an export MPAN on either the 'LV Generation Intermittent' or 'LV Generation Non-Intermittent' tariff (which attracts no residual charges) and an import MPAN on the 'LV HH Metered' tariff (which does attract residual charges). As a result, CDCM embedded generators are paying residual charges for import, with the level of residual charge paid varying dependent on the location of the embedded generator (i.e. within which DNO network the embedded generator is sited) and the size of the import (and specifically the unit volume imported since residual charging in the CDCM is applied exclusively to unit rates).

Although the identified defect in the CDCM impacts all embedded generators, it has come to light primarily as a result of increased interest in connections for battery storage. More traditional forms of embedded generation generally have small import capacities, and so residual charging on the demand element is relatively small. Storage facilities have a much higher import capacity (generally equal to their export capacity) and so residual charging on the demand element represent a significant charge.

If the change were not made, traditional forms of embedded generation will continue to be exposed to small demand residual charges as a result of their small import connections to the DNO network, whilst storage operators will face higher demand residual charges as a result of their much larger import connections to the DNO network. As a result, storage would not be competing on a level playing field with other forms of embedded generation.

Any reduction in residual charges paid by embedded generators will be recovered from the remainder of CDCM demand customers. The demand from embedded generators is relatively small as a proportion of the total and hence the impact is expected to be noticeable but not substantial.

An indication of the impact is shown in **Table 1** below – this is based on published 2019/20 CDCM models, and significant assumptions on the level of demand associated with embedded generation, with these assumptions being summarised in the first part of the table, and the impact on core customer groups shown in the second part. Note – three new tariffs have been created for this purpose (named ‘xx HH Generation Import’) which would be the proposed tariffs to apply to the import element of embedded generators, and which exclude any residual charging element.

Inputs	GB Total	GB Min	GB Average	GB Max
Count of Generators	11,103	68	793	1,432
Assumed Annual MWh Import by Generators	6,198,616	36,145	442,758	815,479
Change in average p/kWh	GB Total	GB Min	GB Average	GB Max
Domestic Unrestricted		-	1.04%	3.25%
Small Non Domestic Unrestricted		-	1.21%	3.63%
LV HH Metered		( 0.01%)	1.15%	3.53%
LV Sub HH Metered		-	1.37%	4.66%
HV HH Metered		-	1.52%	4.34%
LV HH Generation Import		( 62.07%)	( 38.78%)	3.95%
LV Sub HH Generation Import		( 60.60%)	( 35.64%)	0.88%
HV HH Generation Import		( 56.19%)	( 34.01%)	0.53%
LV UMS (Pseudo HH Metered)		-	1.05%	2.88%

Table 1 - Illustrative impact of removing residual charging for embedded generators

As can be seen in **Table 1**, the impact on the import tariffs for embedded generators is significant, with average decreases in import charges for generators of 39%, 36% and 34% for LV, LV Sub and HV connected embedded generators respectively. The knock-on impact on other charges is smaller but not immaterial, with on average a 1% increase in other tariffs to make up the shortfall created.

The impact is uniform for 13 DNO licensees, with decreases for the import tariffs for embedded generators and increases for all other tariffs, with the magnitude of the impact varying dependent on the magnitude of scaling in each DNO area and the volume of import assumed to be associated with embedded generation (which is proportional to the number of export MPANs in each region).

The one remaining DNO licensee (the London region) sees the inverse of this impact, with import tariffs for embedded generators increasing and other tariffs decreasing – this is because scaling in the London region is negative, i.e. the underlying charges generated by the CDCM would generate revenue in excess of revenue allowances so underlying charges are ‘scaled’ down to allowed revenue. This means that the ‘pre-scaled’ tariffs (which are being applied to the import for embedded generators) are in fact higher than the scaled tariffs.

## Part B: Code Specific Details

### 4 Solution and Legal Text

Changes will be required to Schedule 16 of DCUSA, which details the CDCM. If new tariffs are to be introduced, this will require changes to multiple clauses and tables to include the new tariffs. The treatment of residual charging for such tariffs would then be applied through changes to clauses 92-95.

#### Legal Text

The Working Group should draft legal text appropriate for the solution developed.

## 5 Code Specific Matters

### Reference Documents

Connection and Use of System Code (CUSC) modification CMP 280 – ‘Creation of a New Generator TNUoS Demand Tariff which Removes Liability for TNUoS Demand Residual Charges from Generation and Storage Users’<sup>1</sup> is currently progressing through the CUSC modification process to address the same issue in the Transmission Network Use of System (TNUoS) charging framework.

On 29 September 2017 Ofgem consulted on its proposed approach to providing regulatory clarity on the treatment of electricity storage by making amendments to the electricity generation licence to make it fit for storage<sup>2</sup>. This consultation is now closed, and is awaiting an Ofgem decision.

## 6 Relevant Objectives

DCUSA Charging Objectives	Identified impact
<input type="checkbox"/> 1 that compliance by each DNO Party with the Charging Methodologies facilitates the discharge by the DNO Party of the obligations imposed on it under the Act and by its Distribution Licence	Positive
<input type="checkbox"/> 2 that compliance by each DNO Party with the Charging Methodologies facilitates competition in the generation and supply of electricity and will not restrict, distort, or prevent competition in the transmission or distribution of electricity or in participation in the operation of an Interconnector (as defined in the Distribution Licences)	Positive
<input type="checkbox"/> 3 that compliance by each DNO Party with the Charging Methodologies results in charges which, so far as is reasonably practicable after taking account of implementation costs, reflect the costs incurred, or reasonably expected to be incurred, by the DNO Party in its Distribution Business	Positive
<input type="checkbox"/> 4 that, so far as is consistent with Clauses 3.2.1 to 3.2.3, the Charging Methodologies, so far as is reasonably practicable, properly take account of developments in each DNO Party's Distribution Business	Positive
<input type="checkbox"/> 5 that compliance by each DNO Party with the Charging Methodologies facilitates compliance with the Regulation on Cross-Border Exchange in Electricity and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	None

<sup>1</sup> <https://www.nationalgrid.com/uk/electricity/codes/connection-and-use-system-code/modifications/creation-new-generator-tnuos>

<sup>2</sup> <https://www.ofgem.gov.uk/publications-and-updates/clarifying-regulatory-framework-electricity-storage-licensing>

Charging Objective One: Standard Licence Condition four of the electricity distribution licence requires that distributors operate their businesses in a way that does not distort competition in the generation of electricity. This change will ensure that battery storage operators connected at HV and LV are able to compete on a level playing field with traditional embedded generation technologies, and so will avoid a distortion to competition in the generation of electricity.

Charging Objective Two: This change will ensure that battery storage operators connected at HV and LV are able to compete on a level playing field with traditional embedded generation technologies, and so will avoid a distortion to competition in the generation of electricity.

Charging Objective Three: This change will increase the cost-reflectivity of tariffs for embedded generators by ensuring they are not exposed to residual charges.

Charging Objective Four: DNOs are seeing an increase in the number of applications for the connection of battery storage facilities to their networks. This change will ensure that such battery operators can compete on a level playing field with other embedded generators.

## 7 Impacts & Other Considerations

### Does this Change Proposal impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

This change proposal has a significant crossover with Targeted Charging Review (TCR) Significant Code Review (SCR) which is currently being progressed by Ofgem, which is looking at residual charging more generally. Ofgem has indicated that it views this change as a 'quick win' which can be progressed in isolation whilst the TCR looks at the issue of residual charging more fundamentally.

### Does this Change Proposal Impact Other Codes?

- |           |                          |
|-----------|--------------------------|
| BSC       | <input type="checkbox"/> |
| CUSC      | <input type="checkbox"/> |
| Grid Code | <input type="checkbox"/> |
| MRA       | <input type="checkbox"/> |
| SEC       | <input type="checkbox"/> |
| Other     | <input type="checkbox"/> |
| None      | <input type="checkbox"/> |

### Consideration of Wider Industry Impacts

The issue was initially discussed at the December 2017 Distribution Charging Methodology Development Group (DCMDG) meeting, where Ofgem indicated its preference for industry to raise a modification to look at this issue, specifically in relation to battery storage. It was formally raised as a DCMDG issue at the January 2018 meeting, with a draft change proposal presented to the February DCMDG meeting. Concerns were raised at this meeting regarding the interaction with the TCR and agreement that further discussion with Ofgem was required to confirm that this change is compatible with the TCR. Ofgem has subsequently confirmed that it wishes this change to progress through the DCUSA process.

## Confidentiality

Non-confidential

## 8 Implementation

This change should be implemented as soon as possible. Use of System charges were published for 2019/20 in December 2017; hence the earliest a change to Use of System charges can be made is 1 April 2020. Charges for 2020/21 will be published in December 2018, so in order to achieve this an Ofgem decision will be required by 31 October 2018 in order to comply with DCP 293 – ‘Charging Methodology Cut-Off Date’.

### Proposed Implementation Date

The proposed implementation date for this CP is 1 April 2020.

## 9 Recommendations

*The Code Administrator will provide a summary of any recommendations/determinations provided by the Panel in considering the initial Change Proposal. This will form part of a Final Change Report.*

### Part C: Guidance Notes for Completing the Form

Ref	Section	Guidance
1	<b>Attachments</b>	Append any proposed legal text or supporting documentation in order to better support / explain the CP.
2	<b>Governance</b>	<p>A CP must be categorised as a Part 1 or Part 2 matter in accordance with Clause 10.4.7 of the DCUSA. All Part 1 matters require Authority Consent.</p> <p>Part 1 Matter</p> <p>A change Proposal is considered a Part 1 Matter if it satisfies one or more of the following criteria:</p> <ul style="list-style-type: none"> <li>a) it is likely to have a significant impact on the interests of electricity consumers;</li> <li>b) it is likely to have a significant impact on competition in one or more of: <ul style="list-style-type: none"> <li>i. the generation of electricity;</li> <li>ii. the distribution of electricity;</li> <li>iii. the supply of electricity; and</li> <li>iv. any commercial activities connected with the generation, distribution or supply of electricity;</li> </ul> </li> <li>c) it is likely to discriminate in its effects between one Party (or class of Parties) and another Party (or class of Parties);</li> </ul>



		<p>i. it is directly related to the safety or security of the Distribution Network; and</p> <p>ii. it concerns the governance or the change control arrangements applying to the DCUSA; and</p> <p>iii. it has been raised by the Authority or a DNO/IDNO Party pursuant to Clause 10.2.5, and/or the Authority has made one or more directions in relation to it in accordance with Clause 11.9A.</p> <p>Part 2 Matter</p> <p>A CP is considered a Part 2 Matter if it is proposing to change any actual or potential provisions of the DCUSA which does not satisfy one or more of the criteria set out above.</p>
3	<b>Related Change Proposals</b>	Indicate if the CP is related to or impacts any CP already in the DCUSA or other industry change process.
4	<b>Proposed Solution and Draft Legal Text</b>	<p>Outline the proposed solution for addressing the stated intent of the CP. The Change Proposal Intent will take precedence in the event of any inconsistency. A DCUSA Working Group may develop alternative solutions.</p> <p>The plain English description of the proposed solution should include the changes or additions to existing DCUSA Clauses (including Clause numbers).</p> <p>Insert proposed legal drafting (change marked against any existing DCUSA drafting) which enacts the intent of the solution. The legal text will be reviewed by the Working Group (if convened) and is likely to be subject to legal review as part of its progress through the DCUSA change process.</p>
5	<b>Proposed Implementation Date</b>	<p>The Change can be implemented in February, June, and November of each year or as an extraordinary release. For Charging Methodology CPs, select an implementation date which takes into consideration the minimum notice periods for publishing tariffs. These are:</p> <ul style="list-style-type: none"> <li>15 months, for DNOs acting within their Distribution Services Areas; or</li> <li>14 months, for IDNOs and DNOs acting outside their Distribution Services Area.</li> </ul> <p>Please select an implementation date that provides sufficient time for the Change to be incorporated into the appropriate charging model and the DCUSA in order to be reflected in future tariffs.</p> <p>Contact the DCUSA helpdesk for any further information on the releases <a href="mailto:dcusa@electralink.co.uk">dcusa@electralink.co.uk</a>.</p>
6	<b>Impacts &amp; Other Considerations</b>	Indicate whether this Change Proposal will be impacted by or have an impact upon wider industry developments. If an impact is identified, explain why the benefit of the Change Proposal may outweigh the potential impact and indicate the likely duration of the Change.



<b>7</b>	<b>Environmental Impact</b>	Indicate whether it is likely that there would be a material impact on greenhouse gas emissions as a result of the proposed variation being made. Please see <a href="#">Ofgem Guidance</a> .
<b>8</b>	<b>Confidentiality</b>	Clearly indicate if any parts of this Change Proposal Form are to remain confidential to DCUSA Panel (and any subsequent DCUSA Working Group) and Ofgem
<b>9</b>	<b>DCUSA General Objectives</b>	Indicate which of the DCUSA Objectives will be better facilitated by the Change Proposal.
<b>10</b>	<b>Detailed Rationale for DCUSA Objectives</b>	Provide detailed supporting reasons and information (including any initial analysis that supports your views) to demonstrate why the CP will better facilitate each of the DCUSA Objectives identified.
<b>11</b>	<b>DCUSA Charging Objectives</b>	Indicate which of the DCUSA Charging Objectives will be better facilitated by the Change Proposal. Please note that a CDCM or EDCM change may also facilitate the DCUSA General objectives.