

CMP367 Legal Text**CUSC - SECTION 14****CHARGING METHODOLOGIES****14.30 Calculation of the Daily Balancing Services Use of System charge****Calculation of the Daily Balancing Services Use of System charge**

14.30.1 The BSUoS charge payable by customer c, on Settlement Day d, will be calculated in accordance with the following formula:

$$BSUoS_{TOT_{cd}} = \sum_{i \in c} \sum_{j \in d} BSUoS_{TOT_{ij}}$$

Where:

- i - refers to the individual BM Unit
- j - refers to an individual Settlement Period
- $\sum_{i \in c} \sum_{j \in d}$ - refers to the sum over all BM units 'i', for which customer 'c' is the Lead Party* summed over all Settlement Periods 'j' on a Settlement Day 'd'

14.30.2 The BSUoS tariff for each settlement period is calculated by the following formula:

$$BSUoS_{Tariff_j} = \frac{BSUoS_{TOT_j}}{TQM_j + SGQM_j}$$

Where:

- $BSUoS_{TOT_j}$ - refers to the total BSUoS Charge that needs to be recovered for Settlement Period j
- TQM_j - refers to the total Transmission Connected Site BM Unit Metered Volume for Settlement Period j
- $SGQM_j$ - refers to the Gross Demand BM Unit Volume for Settlement Period j

14.30.3 A Supplier BM Unit's and ~~Export-Exempt~~ Export BM Unit's charge is calculated by the following formula:

$$BSUoS_{TOT_{ij}} = BSUoS_{Tariff_j} \times SGQM_{ij}$$

14.30.4 All other BSUoS liable customers with a Bilateral Agreement with The Company will have their charge calculated by the following formula:

* or CUSC party associated with the BMUnits (listed in Appendix C of the BEGA) who is exempt from also being a BSC Party

** Detailed definition in Balancing and Settlement Code Annex X2—Technical Glossary

$$BSUoS_{TOTij} = BSUoS_{Tariffj} \times TQM_{ij}$$

14.30.2 A customer's charge is based on their proportion of BM Unit Metered Volume for each Settlement Period relative to the total BM Unit Metered Volume for each Settlement Period, adjusted for transmission losses by the application of the relevant Transmission Losses Multiplier.

For all liable importing and exporting BM Units in delivering Trading Units in a Settlement Period:

$$BSUoS_{TOTij} = \frac{BSUoS_{TOTj} * QMBSUoS_{ij} * TLM_{ij}}{\left\{ \sum^+ (QMBSUoS_{ij} * TLM_{ij}) + \left| \sum^- (QMBSUoS_{ij} * TLM_{ij}) \right| \right\}}$$

For all liable importing and exporting BM Units in offtaking Trading Units in a Settlement Period:

$$BSUoS_{TOTij} = \frac{-1 * BSUoS_{TOTj} * QMBSUoS_{ij} * TLM_{ij}}{\left\{ \sum^+ (QMBSUoS_{ij} * TLM_{ij}) + \left| \sum^- (QMBSUoS_{ij} * TLM_{ij}) \right| \right\}}$$

Where:

$BSUoS_{TOTj}$ Total BSUoS Charge applicable for Settlement Period j

$QMBSUoS_{ij}$ BM Unit Metered Volume (QM_{ij})** for BSUoS Liable BM Units, minus imports to SVA Storage Facilities or CVA Storage Facilities, as relevant, registered to that BM Unit

TLM_{ij} Transmission Loss Multiplier **

\sum^+ - refers to the sum over all BM Units that are in delivering Trading Units in Settlement Period 'j'

\sum^- - refers to the sum over all BM Units that are in offtaking Trading Units in Settlement Period 'j'

'delivering' and 'offtaking' in relation to Trading Units have the meaning set out in the Balancing and Settlement Code (excluding all Interconnector BMUs and Trading Units)

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14.30.3 For the avoidance of doubt, BM Units that are registered in Trading Units will be charged on a net Trading Unit basis i.e. if a BM Unit is exporting to the system and is within a Trading Unit that is offtaking from the system then the BM Unit in essence would be paid the BSUoS charge. Conversely, if a BM Unit is importing from the system in a delivering Trading Unit then the BM Unit in essence would pay the BSUoS charge.

Interconnector BM Units

14.30.5 BM Unit and Trading Units associated with Interconnectors, including those associated with the Interconnector Error Administrator, are not liable for BSUoS charges. BM Units, including Secondary BM Units, which are associated with Virtual Lead Parties are not liable for BSUoS charges.

Storage Facilities

14.30.6 The BM Units associated with CVA Storage Facilities will not be charged BSUoS against imported volumes where the imports of that BM Unit are solely for the purposes of operating that CVA Storage Facility.

14.30.7 Where the BM Unit is a Supplier BM Unit and one or more SVA Storage Facilities are registered to that Supplier BM Unit, the Supplier shall be liable for BSUoS in accordance with 14.30.3, excluding any imports to such SVA Storage Facilities where those imports are solely for the purposes of operating that Storage Facility.

14.30.8 In all cases, where a facility ceases to be a CVA Storage Facility, the exemption in para 14.30.6 shall no longer apply. The User, shall inform The Company as soon as is reasonably practicable and in any event no more fewer than 5 Working Days from the date on which the facility ceased to be a CVA Storage Facility.

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Total BSUoS Charge (Internal + External) for each Settlement Period (BSUoSTOT_{jd})

14.30.414.30.9 The Total BSUoS charges for each Settlement Period (BSUoSTOT_{jd}) for a particular day are calculated by summing the external BSUoS charge (BSUoSEXT_{jd}) and internal BSUoS charge (BSUoSINT_{jd}) for each Settlement Period.

$$BSUoSTOT_{jd} = BSUoSEXT_{jd} + BSUoSINT_{jd}$$

External BSUoS Charge for each Settlement Period (BSUoSEXT_{jd})

14.30.514.30.10 The External BSUoS Charges for each Settlement Period (BSUoSEXT_{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.

$$BSUoSEXT_{jd} = CSOBM_{jd} + BSCCV_{jd} + [(IncPayExt_d + BSCCA_d + ET_d - OM_d + BSC_d + SOTOC_d) * \{ \left| \sum^+ (QMBSUoS_{ijd} * TLM_{ijd}) \right| + \left| \sum^- (QMBSUoS_{ijd} * TLM_{ijd}) \right| \} / \sum_{j \in d} \{ \left| \sum^+ (QMBSUoS_{ij} * TLM_{ij}) \right| + \left| \sum^- (QMBSUoS_{ij} * TLM_{ij}) \right| \}]$$

$$BSUoSEXT_{jd} = CSOBM_{jd} + BSCCV_{jd} + [(IncPayExt_d + BSCCA_d + ET_d - OM_d + BSC_d + SOTOC_d) * (TQM_{ijd} + SGQM_{ijd}) / \sum_{j \in d} (TQM_{ij} + SGQM_{ij})]$$

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$$\begin{aligned} BSUoSEXT_{jd} &= CSOBM_{jd} + BSCCV_{jd} \\ &+ [(BSCCA_d + TotAdj_d - OM_d + BSC_d + SOTOC_d + LOCTRU_d + BSUoSCCOVID_d) \\ &* \{ \left| \sum^+ (QMBSUoS_{ij_d} * TLM_{ij_d}) + \left| \sum^- (QMBSUoS_{ij_d} * TLM_{ij_d}) \right| \right\} / \\ &\sum_{j \in d} \{ \left| \sum^+ (QMBSUoS_{ij} * TLM_{ij}) \right| + \left| \sum^- (QMBSUoS_{ij} * TLM_{ij}) \right| \}] \end{aligned}$$

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$$\begin{aligned} BSUoSEXT_{jd} &= CSOBM_{jd} + BSCCV_{jd} \\ &+ [(BSCCA_d + TotAdj_d - OM_d + BSC_d + SOTOC_d + LOCTRU_d + BSUoSCCOVID_d) \\ &* (TQM_{ij_d} + SGQM_{ij_d}) / \\ &\sum_{j \in d} (TQM_{ij} + SGQM_{ij})] \end{aligned}$$

Calculation of the daily External Incentive Payment (IncPayExt_d)

14.30.6 ~~Not Used~~ IncPayExt_d is the external incentive payment for the Current Financial Year. This amount of this will be determined in line with Transmission Licence Special Condition 4M.

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14.30.7 ~~For Financial Year 2018/19~~ IncPayExt_d is calculated by dividing IncPayExt_d for Financial Year 2018/19 by the amount of days remaining within the current incentive scheme year. IncPayExt_d will be evenly spread and then apportioned by volume as per the current process (14.30.2).

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Internal BSUoS Charge for each Settlement Period (BSUoSINT_{jd})

~~14.30.8~~14.30.11 The Internal BSUoS Charges (BSUoSINT_{jd}) for each Settlement Period j for a particular day are calculated by taking the incentivised and non-incentivised SO Internal Costs (as determined in line with Transmission Licence Special Condition 4.1) for each Settlement Day allocated on a MWh basis across each Settlement Period in a day.

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$$BSUoSINT_{jd} = [(SOPU_d + SOMOD_d + SOEMR_d + SOEMRCO_d + SOTRU_d) * RPIF_t] \\ * \left\{ \left| \sum^+ (QMBSUoS_{ijd} * TLM_{ijd}) \right| + \left| \sum^- (QMBSUoS_{ijd} * TLM_{ijd}) \right| \right\} \\ / \sum_{j \in d} \left\{ \left| \sum^+ (QMBSUoS_{ij} * TLM_{ij}) \right| + \left| \sum^- (QMBSUoS_{ij} * TLM_{ij}) \right| \right\}$$

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$$BSUoSINT_{jd} = [(ADJR_d + SOLAR_d)] \\ * \left\{ \left| \sum^+ (QMBSUoS_{ijd} * TLM_{ijd}) \right| + \left| \sum^- (QMBSUoS_{ijd} * TLM_{ijd}) \right| \right\} \\ / \sum_{j \in d} \left\{ \left| \sum^+ (QMBSUoS_{ij} * TLM_{ij}) \right| + \left| \sum^- (QMBSUoS_{ij} * TLM_{ij}) \right| \right\}$$

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$$BSUoSINT_{jd} = [(SOPU_d + SOMOD_d + SOEMR_d + SOEMRCO_d + SOTRU_d) * RPIF_t] \\ * (TQM_{ijd} + SGQM_{ijd}) / \sum_{j \in d} (TQM_{ij} + SGQM_{ij})$$

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$$BSUoSINT_{jd} = [(ADJR_d + SOLAR_d)] \\ * (TQM_{ijd} + SGQM_{ijd}) / \sum_{j \in d} (TQM_{ij} + SGQM_{ij})$$

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Inclusion of Profiling Factors

~~14.30.9~~14.30.12 Profiling factors have been included to give an effective mechanism for calculating a representative level of the incentive payments to/from The Company according to the time of year. All PFT_k are assumed to be one for the duration of the current external incentive scheme

Covid-19 specific changes

~~14.30.10~~14.30.13 As a result of the Coronavirus-19 (Covid-19) pandemic, The Company will make specific and time-limited changes to the BSUoS methodology in this Section 2 to support those Users identified in 14.29.4. This will consist of deferring the BSUoS costs associated with Covid-19 ("Covid

Costs") from the calculation in 14.30.95 to a later date as described in 14.30.43 and 14.30.44-4315 (the "Covid Support Scheme").

14.30.1414.30.14 Covid Costs shall be calculated as;

If $BSUoSTOT_j \leq COVIDCAPTOT_j$, then $BSUoSCVID_j = £0$
 Or $BSUoSTOT_j > COVIDCAPTOT_j$, then $BSUoSCVID_j = BSUoSTOT_j - COVIDCAPTOT_j$

Where;

From 25th June 2020 until the Business Day after the Authority's decision on CMP350, $COVIDCAPTOT_j$ is calculated as;

$$£15/MWh * \left\{ \left| \sum^+ (QMBSUoS_{ij} * TLM_{ij}) \right| + \left| \sum^- (QMBSUoS_{ij} * TLM_{ij}) \right| \right\}$$

And

From the first Settlement Period of the Business Day after the Authority's decision on CMP350 to the Covid Support Scheme End Date, $COVIDCAPTOT_j$ is calculated as;

$$£10/MWh * \left\{ \left| \sum^+ (QMBSUoS_{ij} * TLM_{ij}) \right| + \left| \sum^- (QMBSUoS_{ij} * TLM_{ij}) \right| \right\}$$

14.30.1214.30.15 Between 2 working days from The Authority's decision on CMP345 and the Covid Support Scheme End Date, the formula in 14.30.95 shall be updated so that Covid Costs ($BSUoSCVID_{jd}$) for Settlement Period j in Settlement Day d are removed as follows;

$$BSUoSTOT_{jd} = BSUoSEXT_{jd} + BSUoSINT_{jd} - BSUoSCVID_{jd}$$

The Covid Support Scheme End Date shall be the earlier of:

1. The 25th October 2020, or,
2. The day as advised by The Company as described in 14.30.4518.

14.30.1314.30.16 During the Financial Year 2021/22, the formula in 14.30.95 shall be updated so that Covid Costs ($BSUoSCVID_{jd}$) for Settlement Period j in Settlement Day d are added as follows;

$$BSUoSTOT_{jd} = BSUoSEXT_{jd} + BSUoSINT_{jd} + BSUoSCVID_{jd}$$

Where $BSUoSCVID_{jd}$, is the cumulative total Covid Cost of the Covid Support Scheme (including any administrative or financing cost borne by The Company, as agreed by The Authority) recovered equally from each Settlement Period in the Financial Year.

Outside of the date ranges listed in 14.30.151213 and 14.30.161314, the formula in 14.30.95 shall be unchanged and in effect.

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~~14.30.14~~14.30.17 The Company shall provide weekly updates to notify industry of the total Covid Costs removed under paragraphs 14.30.14~~14.2~~ and 14.30.15~~29~~. When BSUoSCOVId reaches a value of £60m, The Company shall revise the frequency of these updates to each Business Day from the next Business Day after BSUoSCOVId reaches a value of £60m.

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~~14.30.15~~14.30.18 ~~14.30.15~~ When The Company, exercising its reasonable judgement, has reason to believe that the cumulative total for BSUoSCOVId since 25th June 2020 could exceed £100m (excluding of VAT), The Company shall notify Users of when the Covid Support Scheme will end. The Company shall give no less than 2 Business Days notice of the Covid Support Scheme ending. Such notice shall be accompanied by an opinion which states that it is the reasonable judgement of The Company that if the Covid Support Scheme continued beyond the notified end date then the cumulative total for BSUoSCOVId from 25th June 2020 would exceed £100m.

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14.31.8 Balancing Services Use of System Acronym Definitions

For the avoidance of doubt “as defined in the BSC” relates to the Balancing and Settlement Code as published from time to time.

EXPRESSION	ACRONYM	Unit	Definition
Daily Adjusted Revenue	ADJR _d	£	Means adjusted revenue published by the Authority pursuant to Special Condition 5.2 (Annual Iteration Process for the ESO Price Control Financial Model) prior to the end of Regulatory Year t; as calculated for Settlement Day, d.
BETTA Preparation Costs	BI	£	As defined in the Transmission Licence
Balancing Mechanism Unit	BM Unit or BMU		As defined in the BSC
Black Start Costs	BSC	£	As defined in the Transmission Licence ¹ (means the allowed revenue from and associated with Black Start services in accordance with paragraph 4G.5 of Special Condition 4G (Black Start Allowed Revenue Cost Incentive))
Balancing service contract costs – non-Settlement Period specific	BSCCA _d	£	Non Settlement Period specific Balancing Contract Costs for settlement day d less any costs incurred within these values relating to Supplementary Balancing Reserve and Demand Side Balancing Reserve
Balancing Service Contract Cost	BSCC _j	£	Balancing Service Contract Cost from purchasing Ancillary services applicable to a Settlement Period j less any costs

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¹ Current electricity transmission network price control starting 2021 (RIIO-T2) licence drafting being updated

			incurred within these values relating to Supplementary Balancing Reserve and Demand Side Balancing Reserve
Balancing service contract costs – Settlement Period specific	BSCCVjd	£	Settlement Period j specific Balancing Contract Costs for settlement day d
<u>Cost of the Covid Support Scheme incurred in 2020/21</u>	<u>BSUoSCOVId</u>	<u>£</u>	<u>As defined in the Transmission Licence calculated for Settlement Day, d</u>
External Balancing Services Use of System charge	BSUoSEXTjd	£	External System Operator (SO) Balancing Services Use of System charge applicable to Settlement Period j for settlement day d
Internal Balancing Services Use of System charge	BSUoSINTjd	£	Internal System Operator (SO) Balancing Services Use of System charge applicable to Settlement Period j for settlement day d
<u>Balancing Services Use of System tariff</u>	<u>BSUoStariffj</u>	<u>£/MWh</u>	<u>Tariff for the Balancing Services Use of System charge applicable to Settlement Period j</u>
Total Balancing Services Use of System charge	BSUoSTOTcd	£	The sum determined for each customer, c, in accordance with this Statement and payable by that customer in respect of each Settlement Day d, in accordance with the terms of the Supplemental Agreement
Total Balancing Services Use of System charge	BSUoSTOTj	£	Total Balancing Services Use of System Charge applicable for Settlement Period j
System Operator BM Cash Flow	CSOBMj	£	As defined in the Balancing and Settlement Code in force immediately prior to 1 April 2001 less any costs incurred within these values relating to Supplementary Balancing Reserve and Demand Side Balancing Reserve
Daily balancing services adjustment	<u>ETTotAdj_d</u>	<u>£</u>	Is the contribution on Settlement Day, d, to the value of <u>ET-TotAdj_d</u> , where <u>ET-TotAdj_d</u> is determined pursuant to part B of Special Condition 4.2 <u>C</u> of the Transmission Licence
Forecast incentivised Balancing Cost	FBCd	£	Forecast incentivised Balancing Cost for duration of the Incentive Scheme as at settlement day d
Allowed Income Adjustment relating to the SO-TO Code	IAT	£	As defined in the Transmission Licence
<u>External incentive payment</u>	<u>IncPayExt_t</u>	<u>£</u>	<u>As defined in the Transmission Licence</u>
<u>Daily External incentive payment</u>	<u>IncPayExt_d</u>	<u>£</u>	<u>External Incentive payment for Settlement Day d</u>
<u>Legacy adjustment with respect to actual and assumed RPI values</u>	<u>LOCTRUd</u>	<u>£</u>	<u>As defined in the Transmission Licence, calculated for Settlement Day, d</u>
Cost associated with the Provision of Balancing Services to others	OMd	£	Is the contribution on Settlement Day, d, to the value of OMt where OMt is determined pursuant to part 2C of <u>special</u> Condition <u>AA5A 4.2</u> of the Transmission Licence

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Outage change allowance amount	ON	£	As defined in the Transmission Licence
BM Unit Metered Volume	QM _{ij}	MWh	As defined in the BSC
BSUoS Liable BM Unit Metered Volume	QMBSUoS_{ij}	MWh	QM_{ij} for all BM Units liable for BSUoS
Retail Price Index Adjustment Factor	RPIF		As defined in the Transmission Licence
Balancing services deemed costs	RT _d	£	Is the contribution on Settlement Day, d, to the value of RT _i , where RT _i is determined pursuant to part 2 of Condition AA5A of the Transmission Licence
Gross Demand BM Unit Volume	SGQM	MWh	The Import data as at the Transmission System Boundary by Settlement Period for Supplier BM Units and Exempt Export BM Units, minus imports for registered SVA storage facilities where those imports are solely for the purposes of operating that Storage Facility, multiplied by the applicable TLM
SOEMR Preparation Costs	SOEMR	£	As defined in the Transmission Licence
SOEMR Preparation Costs Adjustment	SOEMRCO	£	As defined in the Transmission Licence
Incremental change from SO Opening Base Revenue Allowance	SOMOD		As defined in the Transmission Licence
SO Opening Base Revenue Allowance	SOPU		As defined in the Transmission Licence
SO-TO funding allowance	SOTOC	£	As defined in the Transmission Licence means the SO-TO cost allowance term, calculated in accordance with Special Condition 4.4 (SO-TO Mechanism) (means the SO-TO Mechanism cost allowance calculated in accordance with 4C.29 Special Condition 4J (SO-TO Mechanism))
Supplier BM Unit			As defined in the BSC
Revenue Adjustment with respect to actual and assumed RPI values	SOTRU		As defined in the Transmission Licence
System Operator Legacy Adjustments	SOLAR _d	£	As defined in the Transmission Licence calculated for Settlement Day, d
Tax Allowance	T	£	As defined in the Transmission Licence

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<u>Trading Unit Delivery Mode Multiplier</u>			<u>Trading Units as defined in the Balancing and Settlement Code can be either in 'delivering' or 'offtaking' mode. If the Trading Unit Delivery Mode of a Trading Unit is 'Delivering' the Trading Unit Delivery Mode Multiplier is +1 for all BM Units within that Trading Unit. If the Trading Unit Delivery Mode of a Trading Unit is 'offtaking' the Trading Unit Delivery Mode Multiplier is -1 for all BM Units within that Trading Unit.</u>
Transmission Loss Multiplier	TLMij		As defined in the BSC
<u>Transmission Connected Site BM Unit Metered Volume</u>	<u>TQM</u>	<u>MWh</u>	<u>The BM Unit Metered Volume for BSUs liable Users with a Bilateral Agreement with The Company, excluding Exempt Export BM Units, minus imports to registered CVA storage facilities where those imports are solely for the purposes of operating that Storage Facility, which is multiplied by the TLM and Trading Unit Delivery Mode Multiplier</u>
<u>Transmission System Boundary</u>			<u>As defined in the Balancing and Settlement Code</u>
Total System Energy Imbalance Volume	TQEij	MWh	As defined in the Balancing and Settlement Code in force immediately prior to 1 April 2001
Final Reconciliation Settlement Run			As defined in the BSC
Final Reconciliation Volume Allocation Run			As defined in the BSC
Initial Settlement Run			As defined in the BSC
Initial Volume Allocation Run			As defined in the BSC
Lead Party			As defined in the BSC

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