

## DCP 138 Draft Legal Text

### Implementation of alternative network use factor (NUF) calculation method in EDCM

#### **Amend Schedule 17, Paragraphs 18.6, 18.7 and 18.8 as follows:**

- 18.6 The network use factor (NUF) caps and collars for 2011/2012 and each network level were calculated using this methodology and isare set out in table 6 below. The NUF caps and collars using 2015/2016 data for each network level have also been determined, and are set out in table 6A below.~~Illustrative charges for 2011/2012 have been calculated using these values.~~

**Table 6 Network use factor caps and collars (2011/2012)**

Network levels	Collar	Cap
132kV	0.273	2.246
132kV/EHV	0.677	1.558
EHV	0.332	3.290
EHV/HV	0.631	2.380
132kV/HV	0.697	2.678

**Table 6A Network use factor caps and collars (using 2015/16 data)**

<u>Network levels</u>	<u>Collar</u>	<u>Cap</u>
<u>132kV</u>	<u>0.192</u>	<u>1.859</u>
<u>132kV/EHV</u>	<u>0.674</u>	<u>1.551</u>
<u>EHV</u>	<u>0.367</u>	<u>2.366</u>
<u>EHV/HV</u>	<u>0.635</u>	<u>1.616</u>

<u>132kV/HV</u>	<u>0.808</u>	<u>1.652</u>
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- 18.7 The caps and collars in ~~the table 6~~ above ~~were~~would be fixed for three years, and ~~would be~~were used to calculate charges for the Charging Years 2012/2013 and 2013/2014. The caps and collars ~~would be~~are to be re-calculated for the subsequent ~~three~~ Charging Years. From Charging Year 2017/2018 onwards the caps and collars are to be calculated using the methodology described in paragraph 18.5 based on the NUFs described in paragraph 18.8. The NUFs themselves are calculated in accordance with paragraphs 29 and 30 below~~averages of the network use factors for each tariff for the previous three years.~~
- 18.8 Table 7 below sets out the schedule for the calculation of the NUF caps and collars for each Charging Year.

**Table 7 NUF cap and collar calculation timeline**

Charging Year	<del>NUFs used create the e</del> <u>Caps and collars</u>
2011/2012 Submission	2011/2012 <u>caps/collars (as per table 6)</u> <del>NUFs</del>
2012/2013	2011/2012 <del>NUFs</del> <u>caps/collars (as per table 6)</u>
2013/2014	2011/2012 <del>NUFs</del> <u>caps/collars (as per table 6)</u>
2014/2015	Average of 2011/2012, 2012/2013, 2013/2014 NUFs
2015/2016	Average of 2011/2012, 2012/2013, 2013/2014 NUFs
2016/2017	Average of 2011/2012, 2012/2013, 2013/2014 NUFs
2017/2018	<del>Average of 2014/2015, 2015/2016, 2016/2017 NUFs</del> <u>2015/2016 caps/collars (as per table 6A)</u>
2018/2019	<del>Average of 2014/2015, 2015/2016, 2016/2017 NUFs</del> <u>caps/collars (as per table 6A)</u>

2019/2020	<del>Average of 2014/2015, 2015/2016, 2016/2017</del> <del>NUFs caps/collars (as per table 6A)</del>
2020/2021	Average of <u>2015/2016, 2016/2017, 2017/2018</u> <del>2017/2018, 2018/2019, 2019/2020</del> NUFs
2021/2022	Average of <u>2015/2016, 2016/2017, 2017/2018</u> <del>2017/18, 2018/2019, 2019/2020</del> NUFs
2022/2023	<u>Average of 2015/2016, 2016/2017, 2017/2018</u> <del>NUFs</del> <u>Average of 2017/2018, 2018/2019,</u> <del>2019/2020</del>
<u>2023/2024</u>	<u>Average of 2017/2018, 2018/2019, 2019/2020,</u> <u>NUFs</u>
<u>2024/2025</u>	<u>Average of 2017/2018, 2018/2019, 2019/2020,</u> <u>NUFs</u>
<u>2025/2026</u>	<u>Average of 2017/2018, 2018/2019, 2019/2020</u> <u>NUFs</u>

**Amend Schedule 18, Paragraphs 18.6, 18.7 and 18.8 as follows:**

- 18.6 The network use factor (NUF) caps and collars for 2011/2012 and each network level were calculated using this methodology and isare set out in table 22 below. The NUF caps and collars using 2015/2016 data for each network level have also been determined, and are set out in table 22A below.~~Illustrative charges for 2011/2012 have been calculated using these values.~~

**Table 22 Network use factor caps and collars (2011/2012)**

Network levels	Collar	Cap
132kV	0.273	2.246
132kV/EHV	0.677	1.558
EHV	0.332	3.290

EHV/HV	0.631	2.380
132kV/HV	0.697	2.678

**Table 22A Network use factor caps and collars (using 2015/16 data)**

<u>Network levels</u>	<u>Collar</u>	<u>Cap</u>
<u>132kV</u>	<u>0.192</u>	<u>1.859</u>
<u>132kV/EHV</u>	<u>0.674</u>	<u>1.551</u>
<u>EHV</u>	<u>0.367</u>	<u>2.366</u>
<u>EHV/HV</u>	<u>0.635</u>	<u>1.616</u>
<u>132kV/HV</u>	<u>0.808</u>	<u>1.652</u>

18.7 The caps and collars in ~~the~~ table 22 above ~~were~~~~would be~~ fixed for three years, and ~~would be~~~~were~~ used to calculate charges for the Charging Years 2012/2013 and 2013/2014. The caps and collars ~~would be~~~~are to~~ be re-calculated for the subsequent ~~three~~ Charging Years. From Charging Year 2017/2018 onwards the caps and collars are to be calculated using the methodology described in paragraph 18.5 based on the NUFs described in paragraph 18.8. The NUFs themselves are calculated in accordance with paragraphs 29 and 30 below~~averages of the network use factors for each tariff for the previous three years.~~

18.8 Table 23 below sets out the schedule for the calculation of the NUF caps and collars for each Charging Year.

**Table 23 NUF cap and collar calculation timeline**

Charging Year	<del>NUFs used create the e</del> <u>Caps and collars</u>
2011/2012 Submission	2011/2012 <u>caps/collars (as per table 22)</u> <del>NUFs</del>
2012/2013	2011/2012 <u>NUFs</u> <del>caps/collars (as per table 22)</del>

2013/2014	2011/2012 <del>NUF</del> escaps/collars (as per table 22)
2014/2015	Average of 2011/2012, 2012/2013, 2013/2014 NUFs
2015/2016	Average of 2011/2012, 2012/2013, 2013/2014 NUFs
2016/2017	Average of 2011/2012, 2012/2013, 2013/2014 NUFs
2017/2018	<del>Average of 2014/2015, 2015/2016, 2016/2017 NUFs—</del> 2015/2016 caps/collars (as per table 22A)
2018/2019	<del>Average of 2014/2015, 2015/2016, 2016/2017 NUFs</del> caps/collars (as per table 22A)
2019/2020	<del>Average of 2014/2015, 2015/2016, 2016/2017 NUF</del> escaps/collars (as per table 22A)
2020/2021	Average of <del>2015/2016, 2016/2017, 2017/2018 017/2018, 2018/2019, 2019/2020</del> NUFs
2021/2022	Average of <del>2015/2016, 2016/2017, 2017/2018 017/18, 2018/2019, 2019/2020</del> NUFs
2022/2023	<del>Average of 2015/2016, 2016/2017, 2017/2018 NUFs</del> Average of 2017/2018, 2018/2019, 2019/2020
<u>2023/2024</u>	<u>Average of 2017/2018, 2018/2019, 2019/2020, NUFs</u>
<u>2024/2025</u>	<u>Average of 2017/2018, 2018/2019, 2019/2020, NUFs</u>
<u>2025/2026</u>	<u>Average of 2017/2018, 2018/2019, 2019/2020 NUFs</u>

**Amend Schedules 17 and 18, Paragraph 30.6 as follows:**

**Step 4:**

30.6 Each nodal demand's proportionate usage of a Branch is determined ~~as the ratio of 'MW usage' of the Branch by the nodal demand to the 'total MW usage' of the Branch. This ratio is multiplied by the annuitised MEAV of the Branch to create a £/annum usage of the Branch by the particular node.~~ using the equation below:

$$\text{Alloc (£/year)} = ([\text{MW usage}] / [\text{Total MW usage}]) * (\text{Abs} [\text{Max contingency flow}] / [\text{Rating}]) * \text{AMEAV}$$

If the Branch is "generation-dominated", or  $(2 * \text{Abs} [\text{Base flow load}]) \leq \text{Abs} ([\text{Base flow}] - [\text{Base flow load}])$ , then use:

$$\text{Alloc (£/year)} = ([\text{MW usage}] / [\text{Total MW usage}]) * (\text{Abs} [\text{Max contingency flow}] / [\text{Rating}]) * \text{Abs} ([\text{Base flow load}] / [\text{Base flow}]) * \text{AMEAV}$$

Where:

- Alloc is the allocation of the AMEAV of the asset to a demand user in £/year
- MW usage is the absolute value of the "MW usage" of the asset attributable to that demand user (expressed in MW)
- Total MW usage is the sum of the absolute values of the "MW usage" of all demand users of that asset (expressed in MW)
- Max contingency flow is the maximum post-contingent flow through the asset in MVA. The maximum post-contingency asset flows may be extracted from the 'locational' analyses.
- Rating is the unadjusted rated capacity of the asset in MVA
- Base flow load is the algebraic sum of power flows through the Branch due to demand only in MW.
- Base flow is the aggregate power flow through the Branch under normal network operation in MW.

- AMEAV is the annualised modern equivalent asset value in £/year of that asset.
- The ratio ([Max contingency flow] / [Rating]) is called the asset utilisation factor and it is capped at 1.
- The quantity (Abs [Max contingency flow] / [Rating]) \* Abs ([Base flow load] / [Base flow]) is called the load utilisation factor.

**Wragge Lawrence Graham & Co LLP**  
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