

Managing Demand for DCC User Interface Services

H3.22 The DCC may, where reasonably necessary to avoid or mitigate material adverse effects on the performance of the DCC Systems:

- (a) limit the number of communications of a DM Message Type that a User may send over the DCC User Interface during a DM Period to the User's Total Throughput Allocation for that DM Message Type; and/or
- (b) reject any communications of a DM Message Type sent by the User during a DM Period over and above the User's Total Throughput Allocation for that DM Message Type.

H3.23 The DCC shall determine the value of each User's Total Throughput Allocation for each DM Message Type on a monthly basis. For these purposes, the DCC shall:

- (a) develop, in consultation with Users and the Panel, a methodology for determining Total Throughput Allocation and the values used to determine Total Throughput Allocation;
- (b) periodically (including where directed to do so by the Panel) review such methodology, in consultation with Users and the Panel;
- (c) publish on the DCC Website the up-to-date version of such methodology from time to time, together with the outcome of the most recent consultation undertaken in respect of such methodology; and
- (d) determine, in accordance with such methodology, the Total Throughput Allocation (for each User and DM Message Type) to apply to each month prior to the beginning of that month; and
- (e) notify each User, prior to the beginning of each month, of that User's Total Throughput Allocation for each DM Message Type to apply during that month.

H3.24 Where the DCC, in reliance on Section H3.22, limits the number of communications that one or more Users can send, the DCC shall:

- (a) produce a report detailing the circumstances that arose and provide that report to the Panel and the Authority;

- (b) send to each User that was affected the section of the report that is relevant to that User (but without revealing the Total Throughput Allocations of other Users that were affected); and
- (c) respond to any queries raised by the Panel concerning the circumstances that led to the DCC limiting communications in reliance on Section H3.22.

FOR SECTION A –

DM Message Types	means the groups of messages that can be sent to the following three web services: 'Transform Service', 'Send Command Service', and 'Non-Device Service' (in each case as defined in the DCC User Interface Specification); and " DM Message Type " means each of those three groups of messages.
DM Period	means [a second].
Total Throughput Allocation	means (for each User, DM Message Type and month) the number calculated as such in accordance with the DCC User Interface Services Schedule.

Replace paragraph 7 of UISS with -

7 For the purposes of Section H3.22 (Managing Demand for DCC User Interface Services), the following shall apply:

- (a) Each User's "**Total Throughput Allocation**" (TTA_{wu}) for each DM Message Type shall be determined as follows:

$$TTA_{wu} = \sum_e T_{Awe}$$

Where:

$\sum e_u$ is a sum over all User Roles 'e' for that User 'u'; and

TA_{we} is the User Role Throughput Allocation for each User Role 'e' of each User for each DM Message Type 'w'.

- (b) The "**User Role Throughput Allocation**" for each User Role 'e' of each User shall be determined for each DM Message Type 'w' as:

$$TA_{we} = R(TSF_w * NTA_{we})$$

Where:

R represents the rounding up of the value in the brackets to the next highest integer number;

TSF_w is the Throughput Scaling Factor for DM Message Type 'w' (see paragraph (e) below); and

NTA_{we} is the Nominal Throughput Allocation for User Role 'e' of each User for DM Message Type 'w'.

- (c) The "**Nominal Throughput Allocation**" for each User Role 'e' of each User shall be determined in accordance with the following:

- (i) for the User Roles of Import Supplier, Export Supplier, Gas Supplier, and Electricity Distributor:

$$\text{If } TSC_w * \{\alpha_e * NSM_e / WSMS\} \leq Min_{we}, \text{ then } NTA_{we} = Min_{we}, \text{ and } N_{we} = 1$$

or, otherwise:

$$N_{we} = 0, \text{ and } NTA_{we} = \{TSC_w - \sum_e (Min_{we} * N_{we})\} * \{\alpha_e * NSM_e / \sum_e ((1 - N_{we}) * \alpha_e * NSM_e)\}.$$

Where:

TSC_w is the Total System Capacity for DM Message Type 'w' (see paragraph (d) below);

NSMe is for each User acting in each User Role 'e', the number of Enrolled Smart Metering Systems for which that User acts in that User Role;

WSMS is calculated as follows: $\sum e (\alpha e * NSMe)$, where:

$\sum e$ represents a sum of the value in brackets across all Users and all User Roles 'e' that are subject to this paragraph (i); and

αe is the Charging Group Weighting Factor (as defined in Section K (Charging Methodology)) for the Charging Group that corresponds to each User Role 'e' that is subject to this paragraph (i);

- (ii) following the determination of the values of NTAwe in accordance with paragraph (i) above (where 'e' represents the User Roles that are subject to paragraph (i) above):

If $NTAwe \geq Minwe$ for all e, then NTAwe values remain as set for all e

or, otherwise:

for any User Role e for which $NTAwe < Minwe$, then $NTAwe = Minwe$ and $Nwe = 1$; and

for all other User Roles for which $Nwe = 0$, $NTAwe = \{TSCw - \sum e (Minwe * Nwe)\} * \{(\alpha e * NSMe) / \sum e ((1 - Nwe) * \alpha e * NSMe)\}$;

- (iii) the steps in paragraph (ii) above shall be repeated until there are no values of NTAwe that are less than Minwe;
- (iv) for the User Roles of Gas Transporter, Registered Supplier Agent and Other User, the value of NTAwe shall be 1 message per DM Period (save for the DM Message Type relating to the 'Transform Service', for which the value of NTAwe shall be zero); and
- (v) for the purposes of the calculations under this paragraph (c), the DCC shall

determine the number of Enrolled Smart Metering Systems for which a User acts in a User Role based on the DCC's reasonable estimate of the number of Enrolled Smart Metering Systems that there will be at the end of the 15th day of the month in respect of which the calculation is being undertake.

- (d) The "**Total System Capacity**" shall, for each DM Message Type, be the DCC's reasonable estimate of the maximum number of messages of that type that can be received by the DCC during any one DM Period without materially and adversely affecting the performance of the DCC Systems in their processing of those messages.
- (e) The "**Throughput Scaling Factor**" shall be a factor determined by DCC in relation to each DM Message Type such that:

$$1 \leq \text{TSF}_w$$

and the value of TSF_w is the maximum value that may be reasonably be set, taking into account the likely number of messages of that DM Message Type that a User is likely to send in any one DM Period, such that (where the DCC does reject messages sent by one or more Users) the DCC has a reasonable expectation that the total number of messages of that DM Message Type that are not rejected will not exceed the Total System Capacity associated with that DM Message Type.