nationalgrid

Industry Consultation

Consultation on changes to "Data Validation, Consistency and Defaulting Rules" document

This proposal seeks to modify the Grid Code Associated Document "Data Validation, Consistency and Defaulting Rules" for the introduction of National Grid's new IT System, the Electricity Balancing System.

This document is open for Industry Consultation. Any interested party may make a response in line with the guidance set out in Section 4 of this document.

Published on: **4 November 2013**
Length of Consultation: **20 Working Days**
Responses by: **03 December 2013**

National Grid recommends:
Implementation of the proposed changes to the Data Validation, Consistency and Defaulting Rules

High Impact:
BM Participants, National Grid

Medium Impact:
None identified

Low Impact:
None identified

Contents

About this document

This consultation asks interested parties for their views on a number of changes identified by National Grid as being required to the Data Validation, Consistency and Defaulting Rules document as a result of the introduction of National Grid's new IT System, the Electricity Balancing System. Following the consultation, the views of respondents will be summarised in an Annex of the related Grid Code Report to the Authority.

Parties are requested to respond either in the related consultation GC0068 Response Proforma or separately to grid.code@nationalgrid.com by 03 December 2013

Document Control

Version	Date	Author	Change Reference
0.1	2 October 2013	National Grid	Draft Industry Consultation for review by EBSG Workgroup
0.2	18 October 2013	National Grid	Draft for review by GCRP
1.0	4 November 2013	National Grid	Final Industry Consultation

Any Questions?

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1 Executive Summary

Data Validation, Consistency & Defaulting Rules (DVC&D)

A Grid Code Associated document containing the validation and consistency checks to which submitted BM Unit Data is subject and the defaulting rules to be applied in the absence of data submissions

1.1 BM Unit Data submitted by Trading Points and Control Points is subject to validation and consistency checks. The rules governing these checks are defined in the Grid Code Associated Document "Data Validation, Consistency & Defaulting Rules"[1] (DVC&D Rules). The DVC&D Rules define the validation and consistency checks to which submitted BM Unit Data is subject; they also cover the defaulting rules to be applied in the absence of data submissions.

1.2 The Grid Code exercises control over the DVC&D Rules by referencing them in the Glossary and Definitions along with their date and issue number. The related Grid Code change, amongst other things, proposes that the date and issue number are revised accordingly.

1.3 The proposed changes arise from the replacement of the National Grid system that implements the DVC&D Rules with the Electricity Balancing System (EBS), currently planned for the third quarter of 2014. The main reason for these proposed changes is to document the detailed rules for data submission associated with the proposed Grid Code changes facilitated by EBS.

1.4 The change-marked text of the proposed DVC&D Rules can be found in Annex 1 and interested parties are invited to respond with any comments either in the related consultation GC0068 Response Proforma or separately to grid.code@nationalgrid.com by 3 December 2013.

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[1] http://www.nationalgrid.com/NR/rdonlyres/EA72E14A-855F-4511-BF4C-37B6DA62280E/52348/DVCDR_Version2012.pdf

2 Why Change?

2.1 The proposed changes to the Data Validation, Consistency and Defaulting (DVC&D) Rules[1] arise from the replacement of the National Grid system that implements these rules with the Electricity Balancing System (EBS), currently planned for the third quarter of 2014.

2.2 The main reason for these proposed changes is to document the detailed rules for data submission associated with the proposed Grid Code changes. The reasons for these changes are given in the related formal Grid Code consultation which can be found here:

http://www.nationalgrid.com/uk/Electricity/Codes/gridcode/consultationpapers/current/

2.3 Other changes result from EBS being a different system to the BM System it replaces. This means that it performs certain functions differently to the BM System and, where this is the case, these have been reflected in the proposed changes to the DVC&D Rules.

3 Summary of proposed changes

3.1 The proposed changes to the DVC&D Rules fall into the following categories:

Introduction of the new industry interface EDT*

3.2 The new industry interface of EDT* is introduced and Section 5 has been added to detail the validation and consistency checks that apply to data submitted by this means. Note that EDT* is expected to be made available to BM Participants some six months after EBS go-live.

New and revised Dynamic Parameters

3.3 The related changes to the Grid Code allow up to ten Run-Up and Run-Down Rates and time-varying Stable Export and Import Limits to be submitted by the new industry interface of EDT*. The minimum Run-Up and Run-Down Rate has been reduced from 0.2MW/min to 0.02MW/min to better reflect "holds" in BM Unit run-up profiles whilst still allowing the output to change by a whole megawatt within the minimum extent of the Balancing Mechanism Window. EDT* also supports the electronic submission of the recently introduced Dynamic Parameter: Last Time to Cancel Synchronisation. Section 5 of the DVC&D Rules details the validation and consistency checks that apply to these new and revised Dynamic Parameters submitted by EDT*. As Stable Export and Import Limits are now time-varying then default rules are required for them. These have been added to Section 6 and are the same as those for Maximum Export and Import Limits.

3.4 In line with the proposed Grid Code changes, Day Ahead Dynamic Parameters have been removed from the DVC&D Rules. However, if a BM Participant's existing IT systems or business processes mean that they must continue to send this data to National Grid, then they can continue to do so via the existing industry interface of EDT for up to five years following EBS go-live.

Other changes resulting from the introduction of EBS

3.5 There have been a few other, generally minor, changes as a result of the introduction of EBS. For example, Submission Maximum Date which controls how far into the future data can be submitted has been simplified to always be the end of the current Operational Day + 5 days. Previously it varied with time of day; for the majority of the time is was the same as the proposed definition, but for a number of hours each day it was more restrictive.

3.6 In order to maintain consistency between the various power vs. time profiles (Physical Notifications, Quiescent Physical Notifications, Maximum Export and Import Limits and Stable Export and Import Limits) when defaulting missing data, a single "copy previous" or "default to zero" flag has been introduced that will apply to the defaulting of all these data types for a particular BM Unit.

3.7 Unlike the BM Systems, EBS does not populate a set of initial data for newly registered BM Units – instead, for those BM Units that wish to actively participate in the Balancing Mechanism, the associated Trading Point or Control Point should submit appropriate values.

Changes to Definitions and Abbreviations

3.8 There have been a number of changes to section 1.3 Definitions and Abbreviations. These have been to include new terms from the proposed or recent Grid Code changes and to align definitions with other industry codes.

Proposed Implementation Timescales

3.9 In line with the changes to the Grid Code that give force to these proposed changes, National Grid proposes that these changes be implemented on or around the date of the go-live of the Electricity Balancing System, currently planned for the third quarter of 2014.

4 Consultation Responses

4.1 Views are invited upon the proposals outlined in this report, which should be received by 03 December 2013. Please respond either in the related consultation GC0068 Response Proforma or separately to grid.code@nationalgrid.com. Following the consultation, the views of respondents will be summarised in an Annex of the related Grid Code Report to the Authority.

4.2 Your responses may be:-

Posted to: Sally Lewis
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Annex 1 – Change-marked DVC&D Rules

The change-marked Data Validation, Consistency and Defaulting Rules document is attached below.

Data Validation, Consistency & Defaulting Rules

IS/24.12.0003

Issue 9~~Issue 9 Draft 3~~~~Issue 8,~~

31 October 2013~~11 October 2013~~~~10 October 2013~~~~25 January 2012~~

National Grid Electricity Transmission plc

CONTENTS

1 INTRODUCTION

1.1 Purpose

This document defines the rules for data validation and consistency checking which are applied to Balancing Mechanism data received from Trading ~~Agents~~ Points and Control Points under the terms of the Grid Code [2]. It also covers defaulting rules to be applied in the absence of expected data. This document forms one of the Grid Code's "associated documents" and is referenced from the Grid Code [~~22222~~].

The ~~two~~ mechanisms used for data transfer are EDT (for Trading ~~Agents~~ Points, see [~~33333~~]) and EDL (for Control Points, see [~~44444~~]) and their replacement EDT* (see [5]). The Grid Code refers to the EDT and the data submission part of EDL as Electronic Data Communication Facilities (EDL & EDT), and EDT* as Electronic Data Communication Facilities (EDT*). It ~~must~~should be noted that with respect to EDL, only submission messages to ~~NGC~~ National Grid will be covered in this document; no information is ~~given concerning~~provided regarding the ~~b~~Bid-~~o~~Offer ~~a~~Acceptances and ~~a~~Ancillary S~~s~~ervice instructions sent to Control Points ~~in this document~~by National Grid.

1.2 Scope

The normal definition of terms still applies. That is, data validation is concerned with checking that data is in the correct format and within the correct limits, e.g. is it an integer, is it between given limits etc.

Data consistency concerns itself with checking if a particular data record is consistent with other data records and defaulting rules are applied in cases of missing data which should have been submitted.

Failure to comply with the validation or consistency rules will result in rejection of the submission for the BM Unit affected ~~(reference 7 gives details of the high level rules in this area)~~. Section 3 of this document details the validation checks for data submissions by EDL and EDT and section 4 the consistency checks for data submitted by these means. The validation and consistency checks for EDT* are detailed in section 5. Section 6 details the default rules that apply where data submissions are incomplete and which are independent of the data submission method.

This document does not cover physical data formats for EDT, ~~or~~ EDL or EDT*. These issues are covered in references [3, ~~,~~4~~,5~~,5].

~~1.3~~

1.3 Definitions and Abbreviations

Automatic Logging Device	As defined in the Grid Code. It is ~~either EDL* or~~ the instruction ~~issu~~receiving part of EDL or its replacement EDL*.~~.~~

Balancing Mechanism Window Period	In relation to a particular time, the Balancing Mechanism Window Period is the period from that time to the end of the Settlement Period for which Gate Closure has most recently occurred at that time.
BM Unit	Balancing Mechanism Unit
BST	British Summer Time - time set one hour ahead of Greenwich Mean Time (GMT)
CEC	Connection Entry Capacity, as defined in the CUSC
EDL	Electronic Dispatch Logging – a bi-directional message transfer mechanism. National Grid uses it to send instructions to Control Points and they use it to send BM Unit Data to National Grid. The instruction--issureceiving part of EDL is referred to as an Automatic Logging Device (EDL) in the Grid Code, while the data submission part of EDL is referred to as Electronic Data Communication Facilities (EDL & EDT).
EDT	Electronic Data Transfer – Flat file transfer of submissions. This is referred to as –Electronic Data Communication Facilities (EDL & EDT) in the Grid Code.
EDT*	A web-services submission mechanism that replaces EDT and the data submission aspects of EDL. This is referred to as Electronic Data Communication Facilities (EDT*) in the Grid Code.
~~EDL~~	~~Electronic Dispatch Logging – A message transfer mechanism~~
Gate Closure	Means, in relation to a Settlement Period, the spot time 1 hour before the spot time at the start of that Settlement Period.~~Means, in relation to a Settlement Period, the spot time 1 hour before the spot timeinstantaneous at the start of that Settlement Period.Gate Closure for a particular Settlement Period is the spot time one Gate Closure Period in advance of the spot time at the start of that Settlement Period (see appendix A for further explanation)~~
~~Gate Closure Period~~	~~The Gate Closure Period is the length of time between Gate Closure and the spot time at the start of the associated Settlement Period (see appendix A for further explanation)~~
GMT	Greenwich Mean Time - mean solar time on the 0° meridian passing through Greenwich, England, measured from midnight.
LTCS	Last Time to Cancel Synchronisation

M	A parameter used for some of the following validation rules – initially set to 239
MEL	Maximum Export Limit
MDP	Maximum Delivery Period
MDV	Maximum Delivery Volume
MIL	Maximum Import Limit
MNZT	Minimum Non-Zero Time
MZT	Minimum Zero Time
N	A parameter used for some of the following validation rules – set to 59
National Grid	In the context of this document means National Grid Electricity Transmission plc ~~or its acronym NGET~~
NDZ	Notice to Deviate from Zero
NETA	New Electricity Trading Arrangements
Notification Time	The time at which the transfer of a submission to the ~~NGC~~ National Grid ~~S~~system is completed.
NTB	Notice to Deliver Bids
NTO	Notice to Deliver Offers
Operational Day	Runs from 05:00 to 05:00 local time
Submission Maximum Date	A maximum limit will be placed on the date/times allowed in a given submission. ~~From 05:00 to 11:00 local time the Submission Maximum Date is set equal to the end of the current Operational Day + 4 days. From 11:00 to 05:00 local time t~~The Submission Maximum Date is equal to the end of the current Operational Day + 5 days. ~~If a single record within a submission extends beyond this date the entire submission for the BMU would be rejected (see appendix A for further explanation)~~
~~PDO~~	~~Programme Development Office~~
PN	The Physical Notification (PN) for a BM Unit is the expected level of export or import for that BM Unit in the absence of any Balancing Mechanism Bid-Offer Acceptances from ~~NGC~~National Grid. ~~The submissions of PN provided at the day-ahead stage for the following Operational Day are termed the Initial Physical Notification (IPN). It is expected that further PNs will be submitted after this time. At Gate Closure, the PN submissions applicable for the period for which the gate has closed then become the Final Physical Notification (FPN) for that period.~~

QPN	A Quiescent Physical Notification is a MW value expressing the level of demand expected to be consumed by an underlying process that forms part of the operation of a particular BM Unit at any particular time
RDRE	Run-down Rates for an Exporting BM Unit
RDRI	Run-down Rates for an Importing BM Unit
RURE	Run-up Rates for an Exporting BM Unit
RURI	Run-up Rates for an Importing BM Unit
SEL	Stable Export Limit
SIL	Stable Import Limit
U	A parameter used for some of the following validation rules – initially set to –99999
V	A parameter used for some of the following validation rules – initially set to 99999

~~The~~ The majority of the terms used here are as defined in references 1 and 2.

1.4 Related Documents

1. Balancing and Settlement Code, www.~~E~~elexon.co.uk
2. The Grid Code, ~~National Grid.~~www.nationalgrid.com/uk/Electricity/Codes/gridcode
3. EDT Interface Specification~~, CT/24.12.0002.~~
4. EDL Message Interface Specifications
5. EDT* Interface Specification [not yet agreed or published]
6. EBS-Participant External Interfaces Functional Description Version 1.0 03/01/2012

References 3 and 4 are available on the Grid Code, Governance of Electrical Standards web-page: www.nationalgrid.com/uk/Electricity/Codes/gridcode/ges/ewelecstandards/desdocs.htm ~~, CT/24.13.0013.~~

2.Electronic Dispatch Logging, Redeclaration Message – Error Checking, NGC/CTC/Comm 112, Issue 4, December 1995.

3.NETA Timing Conventions, NGC/CT/AS/NETA/CRS, Issue 2.

27. “High level principles for data validation, consistency checking and defaulting”, Note to PDO from NGC, 21 January 2000, Issue 2.

2

2 DIFFERENCES BETWEEN EDL, AND EDT AND EDT*

The physical data formats for EDL and EDT are covered in references [3,4]. EDL is the primary mechanism by which Control Points inform NGC National Grid of changes to their operating conditions while EDT is used by Trading Agents Points to inform NGC National Grid of changes to other data. As a result the two mechanisms can have different validation and consistency rules applied to the data submitted. EDT* is the single replacement for the data submission parts of both EDL and EDT and its physical data format is covered in reference [5].

The following table summarises these differences between EDL, EDT & EDT*.

Data Item	EDL	EDT	EDT*
Physical Notifications	Not submitted by EDL	Can be submitted by EDT but only for certain date/times enforced by the rules contained in this document	Can be submitted by EDT* but only for certain date/times enforced by the rules contained in this document
Quiescent Physical Notifications	Not submitted by EDL	Can be submitted by EDT but only for certain date/times enforced by the rules contained in this document	Can be submitted by EDT* but only for certain date/times enforced by the rules contained in this document
Bid-Offer Data	Not submitted by EDL	Can be submitted by EDT but only for certain date/times enforced by the rules contained in this document	Can be submitted by EDT* but only for certain date/times enforced by the rules contained in this document
Maximum Export Limits & Maximum Import Limits	Can be submitted by EDL. (NOTE the rules for EDL and EDT are different)	Can be submitted by EDT but only for certain date/times enforced by the rules contained in this document (NOTE the rules for EDT and EDL are different)	Can be submitted by EDT*.
Existing, unchanging, Dynamic DataParameters that are not changing, : i.e. SEL, SIL, RURE, RDRE, RURI, RDRI, NDZ, NTO, NTB, MZT, MNZT, MDV & & MDP	Can be submitted by EDL and will be applicable from the Notification Time – this is operational data.	Only Dday Aahead Dynamic Parameters can be submitted by EDT, but they The only kind of Dynamic Parameter that could be submitted by EDT was day ahead indicative planning data. Day Ahead Dynamic Parameters have been removed from the Grid Code and are not longer used by National Grid and therefore market participants may stop sending this data to National Grid. Market participants' EDT clients may continue to send this data to National Grid if it is not possible to stop sending it. Any Dday Aahead Dynamic Parameters submitted to	Can be submitted by EDT* and will be applicable from the Notification Time.
Existing versions of Dynamic Parameters that are changing: SEL[static], SIL[static], RURE[3 rates], RDRE[3 rates], RURI[3 rates] & RDRI[3 rates]	Can be submitted by EDL and will be applicable from the Notification Time – this is operational data.		Not submitted by EDT*

		National Grid via EDT will be accepted by National Grid without any data validation or consistency checks.~~Can be submitted by EDT but is only applicable for day ahead indicative planning data (that is this data will never become operational data). Separate sets of data, or subsets, can be submitted for each Operational Day up to and including the Submission Maximum Date.~~	
New or changed Dynamic Parameters: SEL[time-varying], SIL[time-varying], RURE[10 rates], RDRE[10 rates], RURI[10 rates], RDRI[10 rates] & LTCS	Not submitted by EDL	Not submitted by EDT	Can be submitted by EDT* and will be applicable from the Notification Time, with the exception of SEL and SIL which are time-varying when submitted by EDT*.

It is also worth noting that EDL is a message based system while EDT is a file based system. As a result data records sent via EDL are processed separately and will have distinct notification times. However, data records sent via EDT are part of a single file and so will have the same notification time as will data that is part of the same EDT* submission. The notification time is important because it determines the precedence of different submissions.

3 VALIDATION CHECKS FOR EDL & EDT

~~7.1Timing Conventions~~

~~3.2Timing conventions for EDT files follow those given in reference 6.~~

~~3.~~2~~3~~.1 Valid Date/Times

Rule Number	Description
V_GEN_1	All date/times must obey the formats given below
V_GEN_2	Any submitted date/times must be valid calendar date/times

Fields designated as date/times must be in GMT ~~(unless it is explicitly stated otherwise in this document)~~ and must be to a resolution of one minute.

Rule V_GEN_2 ensures that a date such as 2000-02-31 will be rejected.

~~3.2.1~~3.1.1 EDT Date/Time Formats

EDT date/time formats follow the convention

YYYY-MM-DD HH:MI

Where the following definitions apply:

YYYY	A 4 digit integer
MM	A 2 digit integer from the set {01..12}
DD	A 2 digit integer from the set {01..31}
HH	A 2 digit number from the set {00..23}
MI	A 2 digit number from the set {00..59}

~~3.2.2~~3.1.2 EDL Date/Time Formats

EDL date formats follow the convention

DD-MON-YYYY HH:MI

Where the following definitions apply:

DD	A 2 digit integer from the set {01..31}
MON	From the set {JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC}
YYYY	A 4 digit integer
HH	A 2 digit number from the set {00..23}
MI	A 2 digit number from the set {00..59}

~~3.3~~3.2 Other General Validation Rules

The following rules enforce checks on the BM_Unit names and the relationship between the BM_Unit and ~~Trading Agent~~Control Point or Trading Point. Also there could be general format problems with the submitted data, meaning that validation and consistency rules cannot be applied.

Rule Number	Description
V_GEN_3	Submissions will be checked to ensure that the submitter has the right to send data for a given BM_Unit
V_GEN_4	The BM_Unit must have a valid name
V_GEN_5	It must be possible to process a submission in order to check its validity or consistency. The rule covers cases where the data submission does not follow basic EDT or EDL formats and therefore cannot be checked. For example an EDT file could be so corrupted that individual data items may not be identifiable.

~~3.4~~3.3 Valid Physical Notifications

Physical Notifications (PN) can only be submitted via EDT, i.e. EDL does not have the capability to handle this information.

A Physical Notification record consists of the following fields.

- A date/time from.
- A PN level from (units of MW).
- A date/time to.
- A PN level to (units of MW).

Rule Number	Description
V_PN_1	A PN level must be an integer greater than or equal to –9999MW and less than or equal to the Connection Entry Capacity (CEC) of the BM Unit where such a value exists or an alternative value agreed with the Lead Party where such a value does not exist. In either case, the Lead Party may from time to time choose to submit alternative lower values to validate against.
V_PN_2	Null fields are not allowed
V_PN_3	A Physical Notification "date/time from" must be earlier than its "date/time to"
V_PN_4	The Physical Notification "date/time from" field must be later than or equal to the end of the ~~last Settlement Period for which Gate Closure has occurred at the Notification Time~~Balancing Mechanism Window Period.
V_PN_5	The Physical Notification "date/time to" field must be earlier than or equal to the Submission Maximum Date

MW levels for exporters of power would be expected to be positive. MW levels for importers of power would be expected to be negative.

~~3.5~~3.4 Valid Quiescent Physical Notifications

Quiescent Physical Notifications (QPN) can only be submitted via EDT, i.e. EDL does not have the capability to handle this information.

A quiescent physical notification record consists of the following fields.

- A date/time from.
- A QPN level from (units of MW).
- A date/time to.
- A QPN level to (units of MW).

Rule Number	Description

Rule Number	Description
V_QPN_1	A QPN level must be an integer greater than or equal to –9999MW and less than or equal to 0MW
V_QPN_2	Null fields are not allowed
V_QPN_3	A Quiescent Physical Notification "date/time from" must be earlier than its "date/time to"
V_QPN_4	The Quiescent Physical Notification "date/time from" field must be later than or equal to the end of the ~~last Settlement Period for which Gate Closure has occurred at the Notification Time~~Balancing Mechanism Window Period.
V_QPN_5	The Quiescent Physical Notification "date/time to" field must be earlier than or equal to the Submission Maximum Date

From the ranges allowed for QPN levels it can be deduced that only importers of power are expected to submit non-zero values for Quiescent Physical Notifications.

~~3.6~~3.5 Valid Bid-Offer Data

Bid-offer data can only be submitted via EDT, i.e. EDL does not have the capability to handle this information.

A bid-offer record consists of the following fields.

- A date/time from.
- A date/time to.
- A bid-offer pair number.
- A bid-offer level from (units of MW).
- A bid-offer level to (units of MW).
- An offer price (units of £/MWh).
- A bid price (units of £/MWh).

Rule Number	Description
V_BOD_1	The fields "date/time from" and "date/time to" must correspond to settlement half hour period boundaries

Rule Number	Description
V_BOD_2	The field "date/time from" must be earlier than the field "date/time to"
V_BOD_3	The "bid-offer pair number" must be an integer greater than or equal to –5 and less than or equal to 5 BUT must not have the value 0
V_BOD_4	The fields "bid-offer level from" and "bid-offer level to" must be an integer greater than or equal to –9999MW and less than or equal to 9999MW
V_BOD_5	The fields "bid-offer level from" and "bid-offer level to" must be equal
V_BOD_6	If the "bid-offer pair number" is positive then the values of the fields "bid-offer level from" and "bid-offer level to" must also be positive or zero. If the "bid-offer pair number" is negative then the values of the fields "bid-offer level from" and "bid-offer level to" must also be negative or zero.
V_BOD_7	Null fields are not allowed
V_BOD_8	All "offer prices" and "bid prices" must be a real number, accurate to 2 decimal places, which must be greater than or equal to –99999.00 £/MWh and less than or equal to 99999.00 £/MWh
V_BOD_9	The bid-offer "date/time from" field must be later than or equal to the end of the ~~last Settlement Period for which Gate Closure has occurred at the Notification Time~~Balancing Mechanism Window Period.
V_BOD_10	The bid-offer "date/time to" field must be earlier than or equal to the Submission Maximum Date
V_BOD_11	~~Bid Offer Data can only be submitted in respect of BM Units~~ In order to submit Bid-Offer Data, a BM Unit must have an Automatic Logging Device associated with it.~~which have an EDL installation.~~

3.73.6 Valid Maximum Export Limits

A Maximum Export Limit (MEL) record consists of the following fields.

- A date/time from.
- A MEL level from (units of MW).
- A date/time to.
- A MEL level to (units of MW).

Rule Number	Description
V_MEL_1	The fields “MEL level from” and “MEL level to” must be integers greater than or equal to 0MW and less than or equal to 9999MW
V_MEL_2	Null fields are not allowed
V_MEL_3	The field “date/time from” must be earlier than the field “date/time to”
V_MEL_4	If the submission has been received via EDT then the MEL “date/time from” field must be later than or equal to the end of the ~~last Settlement Period for which Gate Closure has occurred at the Notification Time~~Balancing Mechanism Window Period.
V_MEL_5	The MEL “date/time to” field must be earlier than or equal to the Submission Maximum Date
V_MEL_6	The MEL “date/time from” field must be later than or equal to the Notification Time.

3.83.7 Valid Maximum Import Limits

A Maximum Import Limit (MIL) record consists of the following fields.

- A date/time from.
- A MIL level from (units of MW).
- A date/time to.

- A MIL level to (units of MW).

Rule Number	Description
V_MIL_1	The fields “MIL level from” and “MIL level to” must be integers greater than or equal to –9999MW and less than or equal to 0MW
V_MIL_2	Null fields are not allowed
V_MIL_3	The field “date/time from” must be earlier than the field “date/time to”
V_MIL_4	If the submission has been received via EDT then the MIL “date/time from” field must be later than or equal to the end of the ~~last Settlement Period for which Gate Closure has occurred at the Notification Time~~Balancing Mechanism Window Period.
V_MIL_5	The MIL “date/time to” field must be earlier than or equal to the Submission Maximum Date.
V_MIL_6	The MIL “date/time from” field must be later than or equal to the Notification Time.

~~3.9~~3.8 Valid Run-up and Run-down Rates

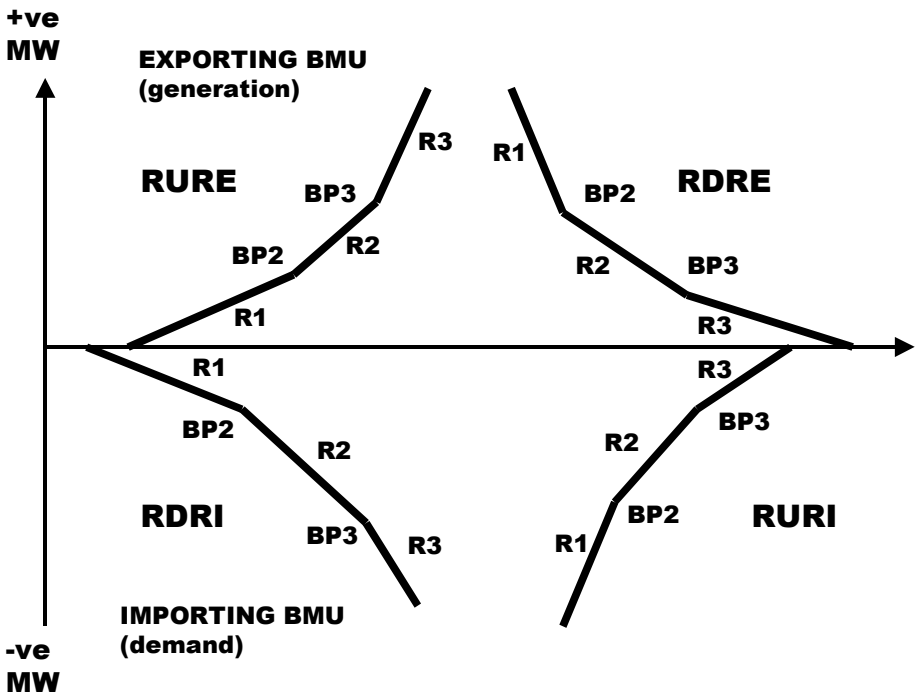
~~Under NETA s~~Submissions can be made for run-up and run-down rates which correspond to changes in the production and consumption of power. Hence a given BM Unit can have four sets of rates and breakpoints in the following way.

- A set of parameters describing run-up rates when exporting.
- A set of parameters describing run-down rates when exporting.
- A set of parameters describing run-up rates when importing.
- A set of parameters describing run-down rates when importing.

This section 3.8 only applies to the ~~current Operational Day~~immediately-applicable versions of Run-Up and Run-Down Rates submitted by EDL, as day-~~-~~ahead Dynamic Parameters have been removed from the Grid Code and are not used by National Grid~~.as National Grid no longer makes use of day ahead Dynamic Parameters submitted by EDT~~. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks.

Reference 1 uses the abbreviation ^{g}RUR and ^{g}RUE for the run-up rates and the elbow points for a given BM Unit. The g superscripts for the run-up dynamics of an exporting BM Unit are described in detail but the use of this superscript for an importing BM Unit is less well defined (there is a simple statement that in this case g will be less than zero). Similar abbreviations are proposed for run-down dynamics.

It has proved very difficult to use the proposed negative g superscripts in a logical way and as a result this document deviates from the proposal in reference 1 and will instead use the abbreviations given ~~below~~overleaf.



3.9.13.8.1 Valid Run-up Rates for an Exporting BM Unit

A record for the Run-up Rates of an Exporting BM Unit (RURE) consists of the following fields.

- Effective time (EDT submissions use this field - the concept does not exist in EDL).
- First Run-up Rate (abbreviation RURE_R1, units MW/minute).
- Second Run-up Rate Breakpoint (abbreviation RURE_BP2, units MW).
- Second Run-up Rate (abbreviation RURE_R2, units MW/minute).
- Third Run-up Rate Breakpoint (abbreviation RURE_BP3, units MW).
- Third Run-up Rate (abbreviation RURE_R3, units MW/minute).

Rule Number	Description
V_RURE_1	The "effective time" field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The "effective time" cannot be later than the Submission Maximum Date. If the field has a valid Operational Day start date/time then these run-up rates will only be used for planning purposes.

Comment [A1]: Modify this and other dynamic parameters?

Rule Number	Description
V_RURE_2	The following are the only valid combinations of rates and breakpoint fields allowed 1st valid combination RURE_R1 = NOT NULL RURE_BP2 = NULL RURE_R2 = NULL RURE_BP3 = NULL RURE_R3 = NULL 2nd valid combination RURE_R1 = NOT NULL RURE_BP2 = NOT NULL RURE_R2 = NOT NULL RURE_BP3 = NULL RURE_R3 = NULL 3rd valid combination RURE_R1 = NOT NULL RURE_BP2 = NOT NULL RURE_R2 = NOT NULL RURE_BP3 = NOT NULL RURE_R3 = NOT NULL
V_RURE_3	If a run-up rate field is not null it must be a real number, accurate to 1 decimal place, greater than or equal to 0.2MW/minute and less than or equal to 999.0MW/minute.
V_RURE_4	If a run-up rate breakpoint field is not null it must be an integer greater than or equal to 1MW and less than or equal to 9999MW
V_RURE_5	If both run-up rate breakpoints are not null then the field “Second Run-up Rate Breakpoint” must be less than the field “Third Run-up Rate Breakpoint”

3.9.23.8.2 Valid Run-down Rates for an Exporting BM Unit

A record for the Run-down Rates of an Exporting BM Unit (RDRE) consists of the following fields.

- Effective time (EDT submissions use this field - the concept does not exist in EDL).
- First Run-down Rate (abbreviation RDRE_R1, units MW/minute).
- Second Run-down Rate Breakpoint (abbreviation RDRE_BP2, units MW).
- Second Run-down Rate (abbreviation RDRE_R2, units MW/minute).
- Third Run-down Rate Breakpoint (abbreviation RDRE_BP3, units MW).
- Third Run-down Rate (abbreviation RDRE_R3, units MW/minute).

Rule Number	Description
~~V_RDRE_1~~	~~The "effective time" field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The "effective time" cannot be later than the Submission Maximum Date.~~ ~~If the field has a valid Operational Day start date/time then these run-down rates will only be used for planning purposes.~~
V_RDRE_2	The following are the only valid combinations of rates and breakpoint fields allowed 1st valid combination RDRE_R1 = NOT NULL RDRE_BP2 = NULL RDRE_R2 = NULL RDRE_BP3 = NULL RDRE_R3 = NULL 2nd valid combination RDRE_R1 = NOT NULL RDRE_BP2 = NOT NULL RDRE_R2 = NOT NULL RDRE_BP3 = NULL RDRE_R3 = NULL 3rd valid combination RDRE_R1 = NOT NULL RDRE_BP2 = NOT NULL RDRE_R2 = NOT NULL RDRE_BP3 = NOT NULL RDRE_R3 = NOT NULL

Rule Number	Description
V_RDRE_3	If a run-down rate field is not null it must be a real, accurate to 1 decimal place, greater than or equal to 0.2MW/minute and less than or equal to 999.0MW/minute.
V_RDRE_4	If a run-down rate breakpoint field is not null it must be an integer greater than or equal to 1MW and less than or equal to 9999MW
V_RDRE_5	If both run-down rate breakpoints are not null then the field “Second Run-down Rate Breakpoint” must be greater than the field “Third Run-down Rate Breakpoint”

~~3.9.3~~3.8.3 Valid Run-up Rates for an Importing BM Unit

A record for the Run-up Rates of an Importing BM Unit (RURI) consists of the following fields.

- ~~Effective time (EDT submissions use this field - the concept does not exist in EDL).~~
- First Run-up Rate (abbreviation RURI_R1, units MW/minute).
- Second Run-up Rate Breakpoint (abbreviation RURI_BP2, units MW).
- Second Run-up Rate (abbreviation RURI_R2, units MW/minute).
- Third Run-up Rate Breakpoint (abbreviation RURI_BP3, units MW).
- Third Run-up Rate (abbreviation RURI_R3, units MW/minute).

Rule Number	Description
~~V_RURI_1~~	~~The "effective time" field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The "effective time" cannot be later than the Submission Maximum Date.~~ ~~If the field has a valid Operational Day start date/time then these run-up rates will only be used for planning purposes.~~

Rule Number	Description
V_RURI_2	The following are the only valid combinations of rates and breakpoint fields allowed 1st valid combination RURI_R1 = NOT NULL RURI_BP2 = NULL RURI_R2 = NULL RURI_BP3 = NULL RURI_R3 = NULL 2nd valid combination RURI_R1 = NOT NULL RURI_BP2 = NOT NULL RURI_R2 = NOT NULL RURI_BP3 = NULL RURI_R3 = NULL 3rd valid combination RURI_R1 = NOT NULL RURI_BP2 = NOT NULL RURI_R2 = NOT NULL RURI_BP3 = NOT NULL RURI_R3 = NOT NULL
V_RURI_3	If a run-up rate field is not null it must be a real number, accurate to 1 decimal place, greater than or equal to 0.2MW/minute and less than or equal to 999.0MW/minute.
V_RURI_4	If a run-up rate breakpoint field is not null it must be an integer greater than or equal to -9999MW and less than or equal to -1MW
V_RURI_5	If both run-up rate breakpoints are not null then the field “Second Run-up Rate Breakpoint” must be less than the field “Third Run-up Rate Breakpoint”

~~3.9.43.8.4~~ Valid Run-down Rates for an Importing BM Unit

A record for the Run-down Rates of an Importing BM Unit (RDRI) consists of the following fields.

- ~~Effective time (EDT submissions use this field - the concept does not exist in EDL).~~
- First Run-down Rate (abbreviation RDRI_R1, units MW/minute).
- Second Run-down Rate Breakpoint (abbreviation RDRI_BP2, units MW).
- Second Run-down Rate (abbreviation RDRI_R2, units MW/minute).
- Third Run-down Rate Breakpoint (abbreviation RDRI_BP3, units MW).
- Third Run-down Rate (abbreviation RDRI_R3, units MW/minute).

Rule Number	Description
~~V_RDRI_1~~	~~The "effective time" field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The "effective time" cannot be later than the Submission Maximum Date.~~ ~~If the field has a valid Operational Day start date/time then these run-down rates will only be used for planning purposes.~~
V_RDRI_2	The following are the only valid combinations of rates and breakpoint fields allowed 1st valid combination RDRI_R1 = NOT NULL RDRI_BP2 = NULL RDRI_R2 = NULL RDRI_BP3 = NULL RDRI_R3 = NULL 2nd valid combination RDRI_R1 = NOT NULL RDRI_BP2 = NOT NULL RDRI_R2 = NOT NULL RDRI_BP3 = NULL RDRI_R3 = NULL 3rd valid combination RDRI_R1 = NOT NULL RDRI_BP2 = NOT NULL RDRI_R2 = NOT NULL RDRI_BP3 = NOT NULL RDRI_R3 = NOT NULL

Rule Number	Description
V_RDRI_3	If a run-down rate field is not null it must be a real, accurate to 1 decimal place, greater than or equal to 0.2MW/minute and less than or equal to 999.0MW/minute.
V_RDRI_4	If a run-down rate breakpoint field is not null it must be an integer greater than or equal to -9999MW and less than or equal to –1MW
V_RDRI_5	If both run-down rate breakpoints are not null then the field “Second Run-up Rate Breakpoint” must be greater than the field “Third Run-up Rate Breakpoint”

~~3.10~~3.9 Valid Notice to Deviate from Zero

This section 3.9 only applies to the immediately-applicable version of Notice to Deviate from Zero submitted by EDL, as day-ahead Dynamic Parameters have been removed from the Grid Code and are not used by National Grid. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~This section only applies to the current Operational Day version of Notice to Deviate from Zero submitted by EDL, as National Grid no longer makes use of day ahead Dynamic Parameters submitted by EDT. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks.~~

A Notice to Deviate from Zero (NDZ) record consists of the following field~~s~~.

- ~~An effective time (EDT submissions use this field - the concept does not exist in EDL).~~
- An NDZ value (units of minutes).

Rule Number	Description
~~V_NDZ_1~~	~~The “effective time” field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The “effective time” cannot be later than the Submission Maximum Date.~~ ~~If the field has a valid Operational Day~~

	~~start date/time then this submission will only be used for planning purposes.~~
V_NDZ_2	The field “NDZ value” cannot be null and must be an integer greater than or equal to 0 minutes and less than or equal to 999 minutes

~~3.11~~3.10 Valid Notice to Deliver Offers

This section 3.10 only applies to the immediately-applicable version of Notice to Deliver Offers submitted by EDL, as day-~~-~~ahead Dynamic Parameters have been removed from the Grid Code and are not used by National Grid. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks.~~This section only applies to the current Operational Day version of Notice to Deliver Offers submitted by EDL, as National Grid no longer makes use of day ahead Dynamic Parameters submitted by EDT. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks.~~

A Notice to Deliver Offers (NTO) record consists of the following field~~s~~.

- ~~An effective time (EDT submissions use this field - the concept does not exist in EDL).~~
- An NTO value (units of minutes).

Rule Number	Description
~~V_NTO_1~~	~~The "effective time" field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The "effective time" cannot be later than the Submission Maximum Date.~~ ~~If the field has a valid Operational Day start date/time then this submission will only be used for planning purposes.~~
V_NTO_2	The field "NTO value" cannot be null and must be an integer greater than or equal to 0 minutes and less than or equal to N minutes

~~3.12~~3.11 Valid Notice to Deliver Bids

This section 3.11 only applies to the immediately-applicable version of Notice to Deliver Bids submitted by EDL, as day–-ahead Dynamic Parameters have been removed from the Grid Code and are not used by National Grid. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~This section only applies to the current Operational Day version of Notice to Deliver Bids submitted by EDL, as National Grid no longer makes use of day ahead Dynamic Parameters submitted by EDT. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~.

A Notice to Deliver Bids ~~-~~(NTB) record consists of the following field~~s~~.

- ~~An effective time (EDT submissions use this field - the concept does not exist in EDL).~~
- An NTB value (units of minutes).

Rule Number	Description
~~V_NTB_1~~	~~The "effective time" field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The "effective time" cannot be later than the Submission Maximum Date.~~ ~~If the field has a valid Operational Day start date/time then this submission will only be used for planning purposes.~~
V_NTB_2	The field "NTB value" cannot be null and must be an integer greater than or equal to 0 minutes and less than or equal to N minutes

3.133.12 Valid Minimum Zero Time

This section 3.12 only applies to the immediately-applicable version of Minimum Zero Time submitted by EDL, as day–-ahead Dynamic Parameters have been removed from the Grid Code and are not used by National Grid. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~This section only applies to the current Operational Day version of Minimum Zero Time submitted by EDL, as National Grid no longer makes use of day ahead Dynamic Parameters submitted by EDT. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~.

A Minimum Zero Time (MZT) record consists of the following field~~s~~.

- ~~An effective time (EDT submissions use this field - the concept does not exist in EDL).~~
- An MZT value (units of minutes).

Rule Number	Description
~~V_MZT_1~~	~~The "effective time" field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The "effective time" cannot be later than the Submission Maximum Date.~~ ~~If the field has a valid Operational Day start date/time then this submission will only be used for planning purposes.~~
V_MZT_2	The field "MZT value" cannot be null and must be an integer greater than or equal to 0 minutes and less than or equal to 999 minutes

3.143.13 Valid Minimum Non-Zero Time

This section 3.13 only applies to the immediately-applicable version of Minimum Non-Zero Time submitted by EDL, as day–-ahead Dynamic Parameters have been removed from the Grid Code and are not used by National Grid. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~This section only applies to the current Operational Day version of Minimum Non-Zero Time submitted by EDL,~~

~~as National Grid no longer makes use of day ahead Dynamic Parameters submitted by EDT. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks.~~

A Minimum Non-~~z~~Zero Time (MNZT) record consists of the following field~~s~~.

- ~~An effective time (EDT submissions use this field - the concept does not exist in EDL).~~
- An MNZT value (units of minutes).

Rule Number	Description
~~V_MNZT_1~~	~~The "effective time" field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The "effective time" cannot be later than the Submission Maximum Date.~~ ~~If the field has a valid Operational Day start date/time then this submission will only be used for planning purposes.~~
V_MNZT_2	The field "MNZT value" cannot be null and must be an integer greater than or equal to 0 minutes and less than or equal to 999 minutes

3.153.14 Valid Stable Export Limit

This section 3.14 only applies to the immediately-applicable version of Stable Export Limit submitted by EDL, as day-ahead Dynamic Parameters have been removed from the Grid Code and are not used by National Grid. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~This section only applies to the current Operational Day version of Stable Export Limit submitted by EDL, as National Grid no longer makes use of day ahead Dynamic Parameters submitted by EDT. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~.

A Stable Export Limit (SEL) record consists of the following field~~s~~.

- ~~An effective time (EDT submissions use this field - the concept does not exist in EDL).~~
- A~~n~~ SEL value (units of MW).

Rule Number	Description
~~V_SEL_1~~	~~The "effective time" field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The "effective time" cannot be later than the Submission Maximum Date.~~ ~~If the field has a valid Operational Day start date/time then this submission will only be used for planning purposes.~~
V_SEL_2	The field "SEL value" cannot be null and must be an integer greater than or equal to 0MW and less than or equal to 9999MW

3.163.15 Valid Stable Import Limit

This section 3.15 only applies to the immediately-applicable version of Stable Import Limit submitted by EDL, as day-ahead Dynamic Parameters have been removed from the Grid Code and are not used by National Grid. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~This section only applies to the current Operational Day version of Stable Import Limit submitted by EDL, as National Grid no longer makes use of day ahead Dynamic Parameters submitted by~~

~~EDT. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks.~~

A Stable Import Limit (SIL) record consists of the following fields.

- ~~An effective time (EDT submissions use this field - the concept does not exist in EDL).~~
- A~~n~~ SIL value (units of MW).

Rule Number	Description
~~V_SIL_1~~	~~The "effective time" field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The "effective time" cannot be later than the Submission Maximum Date.~~ ~~If the field has a valid Operational Day start date/time then this submission will only be used for planning purposes.~~
V_SIL_2	The field "SIL value" cannot be null and must be an integer greater than or equal to –9999MW and less than or equal to 0MW

~~3.17~~3.16 Valid Maximum Delivery Volume

This section 3.16 only applies to the immediately-applicable version of Maximum Delivery Volume submitted by EDL, as day-ahead Dynamic Parameters have been removed from the Grid Code and are not used by National Grid. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~This section only applies to the current Operational Day version of Maximum Delivery Volume submitted by EDL, as National Grid no longer makes use of day ahead Dynamic Parameters submitted by EDT. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~.

A Maximum Delivery Volume (MDV) record consists of the following field~~s~~.

~~•An effective time (EDT submissions use this field - the concept does not exist in EDL).~~

- An MDV value (units of MWh).

Rule Number	Description
~~V_MDV_1~~	~~The "effective time" field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The "effective time" cannot be later than the Submission Maximum Date.~~ ~~If the field has a valid Operational Day start date/time then this submission will only be used for planning purposes.~~
V_MDV_2	The field "MDV value" cannot be null and must be an integer greater than or equal to U MWh and less than or equal to V MWh

~~3.18~~3.17 Valid Maximum Delivery Period

This section 3.17 only applies to the immediately-applicable version of Maximum Delivery Period submitted by EDL, as day-ahead Dynamic Parameters have been removed from the Grid Code and are not used by National Grid. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic

Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~This section only applies to the current Operational Day version of Maximum Delivery Period submitted by EDL, as National Grid no longer makes use of day ahead Dynamic Parameters submitted by EDT. For the purposes of backwards compatibility, Trading Points may still submit day ahead Dynamic Parameters by EDT in accordance with reference [3] and these will be accepted by National Grid without any validation or consistency checks~~.

A Maximum Delivery Period (MDP) record consists of the following field~~s~~.

- ~~An effective time (EDT submissions use this field - the concept does not exist in EDL).~~
- An MDP value (units of minutes).

Rule Number	Description
~~V_MDP_1~~	~~The "effective time" field is only relevant to EDT submissions and can only have a value corresponding to the start date/time of a future Operational Day (note times are in GMT). The "effective time" cannot be later than the Submission Maximum Date.~~ ~~If the field has a valid Operational Day start date/time then this submission will only be used for planning purposes.~~
V_MDP_2	The field "MDP value" cannot be null and must be an integer greater than or equal to 1 minute and less than or equal to M minutes

4 CONSISTENCY CHECKS FOR EDT FILES

4.1 Physical Notification Consistency Rules

Physical Notification records are submitted via EDT flat files. Within an EDT file there is no implied ordering and as a result records for the same BM Unit cannot cover the same time period. If the records did cover the same time period it would be impossible to determine which record took precedence.

There is also a requirement that a Physical Notification for a given BM Unit must be submitted for every half hour period start "date/time" covered by the submission and that the records submitted must cover complete half hour periods. For example the following combination of to and from date/times is acceptable

"from date/time"	"to date/time"
2000-02-07 10:00	2000-02-07 10:15
2000-02-07 10:15	2000-02-07 10:30
2000-02-07 10:30	2000-02-07 11:00

However this combination

"from date/time"	"to date/time"
2000-02-07 10:00	2000-02-07 10:15
2000-02-07 10:16	2000-02-07 10:31
2000-02-07 10:31	2000-02-07 10:59

will fail consistency checking because there is a gap in the records between 10:15 and 10:16, the record starting at 10:16 and extending to 10:31 goes beyond the settlement half hour end time of 10:30, there is no record corresponding to the settlement period start of 10:30, and there is a gap between 10:59 and the end of the settlement period given by 11:00.

Rule Number	Description
C_PN_1	Physical Notification records, for the same BM Unit, with the same Notification Time must cover distinct time ranges.
C_PN_2	Physical Notification records, for the same BM Unit, with the same Notification Time must cover complete settlement half hour periods. In addition a sub-set of the records must have "date/time" fields corresponding to the start of each half hour period covered.

4.2 Quiescent Physical Notification Rules

The clarification comments given in section 4.1 for physical notifications are equally applicable to quiescent physical notifications.

Rule Number	Description
C_QPN_1	Quiescent Physical Notification records, for the same BM Unit, with the same Notification Time must cover distinct time ranges.
C_QPN_2	Quiescent Physical Notification records, for the same BM Unit, with the same Notification Time must cover complete settlement half hour periods. In addition a sub-set of the records must have "date/time" fields corresponding to the start of each half hour period covered.

4.3 Bid-~~o~~Offer Consistency Rules

A bid-offer set is defined as those bid-offer records, for a given BM Unit, that have the same Notification Times, the same "date/time from" fields, and the same "date/time to" fields.

Rule Number	Description
C_BOD_1	Bid-offer sets must cover distinct time ranges.
C_BOD_2	For a given bid-offer set "offer prices" submitted must not decrease as the values of the "bid-offer pair number" increases, i.e. prices must be monotonically non-decreasing
C_BOD_3	For a given bid-offer set "bid prices" submitted must not decrease as the values of the "bid-offer pair number" increases, i.e. prices must be monotonically non-decreasing

Rule Number	Description
C_BOD_4	Each bid-offer set must contain bid-offer records corresponding to the "bid-offer pair numbers" +1 and –1 and for a given bid-offer set the "bid-offer pair numbers" must be continuous (with the exception that 0 is not an allowed value).
C_BOD_5	For a given bid-offer set the "offer price" must be equal to or greater than the "bid price" for each individual "bid-offer pair number".
C_BOD_6	For a given bid-offer set, the fields "bid-offer level from" and "bid-offer level to", for all bid-offer pairs other than the pair with the highest positive "bid-offer pair number" and the pair with the lowest negative "bid-offer pair number", must not be zero.

4.4 Maximum Export Limit Consistency Rules

Rule Number	Description
C_MEL_1	Maximum Export Limit records, for the same BM Unit, with the same Notification Time must cover distinct time ranges.

4.5 Maximum Import Limit Consistency Rules

Rule Number	Description
C_MIL_1	Maximum Import Limit records, for the same BM Unit, with the same Notification Time must cover distinct time ranges.

5 EDT* VALIDATION & CONSISTENCY CHECKS

5.1 Valid Date/Times

Control Points and Trading Points can choose whether the date/times in a submission are in GMT or BST by setting the Date Time Indicator in the submission header. All the date/times in a submission must either be in GMT, or alternatively in BST.

Rule Number	Description
VX-1	The Date Time Indicator in the Submission Header must be either "BST" or "GMT"

Fields designated as date/times must obey the formats given below and be valid calendar date/times.

5.1.1 XML Date format

XML Dates follow the convention:

YYYY-MM-DD

Where the following definitions apply:

YYYY	A 4 digit integer
MM	A 2 digit integer from the set {01..12}
DD	A 2 digit integer from the set {01..31}

5.1.2 XML Time format

XML Times follow the convention:

HH:MM:SS

Where the following definitions apply:

HH	A 2 digit number from the set {00..23}
MM	A 2 digit number from the set {00..59}
SS	For time submissions, this must be "00". This does not apply for notification times which will be generated by National Grid's system and can be non-zero.

5.2 Header Date

The Date field in the submission header specifies the Operational Day within which all Date/Time data in the submission must fall.

5.3 Validation and Consistency Rule ~~acronymsabbreviationsabbreviationsreferences~~

In the following sections, rules that check the format of the data submitted ~~(by comparing it against the XML Schema)~~ are referred to using the convention "VX-n" ~~is the abbreviation for validation performed by the XML Schema~~, whereas rules that check the content of the data are referred to using the convention "VR-n" ~~is the abbreviation for the validation performed after the XML Schema validation on the server-side~~. In both cases n is the n^{th} validation for this field or combination of fields.

5.4 Physical and Quiescent Notification

The XML data payload for Physical Notifications (PN) and Quiescent Notifications (QPN) consists of the following fields and associated validation:

Field Name	Validation
BM Unit Name	A valid BM Unit name for which the data is submitted. The participant must have privileges to submit data on this BM Unit. • VX-1: Must be between 2 and 32 characters long.
Start Date/Time	Start date/time of the notification. • VX-1: Must be a valid XML time and date format. • VR-2: Must be greater than or equal to the end of the Balancing Mechanism Window Period. • VR-3: Must fall within the same Operational Day as the header "Date" attribute. • VR-4: Must be within the current Operational Day or the next five Operational Days.

Field Name	Validation
End Date/Time	End time of the notification. • VX-1: Must be a valid XML time and date format. • VR-2 Must be later than the Start Time/Date. • VR-3: Must fall within the same Operational Day as the header "Date" attribute. • VR-4 [Start Date/Time, End Date/Time]: Must cover distinct date/time ranges for all the records in a submission. • VR-5 [Start Date/Time, End Date/Time]: The overall date/time range for each unit for all records in a single submission must cover complete settlement half hour periods. • VR-6 [Start Date/Time, End Date/Time]: A subset of the records for each unit must correspond to the start of each half hour period covered.
Notification Type	Valid notification types are "PHYSICAL" and "QUIESCENT". • VX-1: Must be a valid notification type.
From Value	From MW value of the notification. • VX-1: Must be an integer between -9999 and +9999. • VR-2: For "PHYSICAL" notification, value must be less than or equal to the Connection Entry Capacity (CEC) of the BM Unit.
To Value	To MW value of the notification. • VX-1: Must be an integer between -9999 and +9999. • VR-2: For "PHYSICAL" notification, value must be less than or equal to the Connection Entry Capacity (CEC) of the BM Unit.

5.5 Bid-Offer Data

The XML data payload for Bid-Offer Data consists of the following fields and associated validation:

Field Name	Validation
BM Unit Name	A valid BM Unit name for which the data is submitted. The participant must have privileges to submit data on this BM Unit. • VX-1: Must be between 2 and 32 characters long. • VR-2: In order to submit Bid-Offer Data, a BM Unit must have an Automatic Logging Device associated with it.
Start Date/Time	Start date/time of the Bid-Offer. • VX-1: Must be a valid XML time and date format. • VR-2: Must be greater than or equal to the end of the Balancing Mechanism Window Period. • VR-3: Must fall within the same Operational Day as the header “Date” attribute. • VR-4: Must be within the current Operational Day or the next five Operational Days. • VR-5: Must be on the settlement period half hour boundary.

Field Name	Validation
End Date/Time	End date/time of the Bid-Offer. • VX-1: Must be a valid XML time and date format. • VR-2: Must be later than the Start Date/Time. • VR-3: Must fall within the same Operational Day as the header "Date" attribute. • VR-4: Must be on the settlement period half hour boundary. • VR-5 [Start Date/Time, End Date/Time]: Must cover distinct date/time ranges for each BM Unit in a submission.
Pair Number	Bid-Offer pair number. • VX-1: Must be an integer between -5 and 5. • VR-2: Must not be 0. • VR-3: Bid-Offer pair numbers must be continuous, with the exception of 0. • VR-4: Must contain the Bid-Offer data for Bid-Offer pair numbers +1 and -1.
From Value	From MW value of the bid/offer. • VX-1: Must be an integer between -9999 to +9999. • VR-2: Except for the first (lowest negative) or last (highest positive) "Pair Number" in the submission, it cannot be 0. • VR-3 [Pair Number, From Value]: If "Pair Number" is positive, the "From Value" must be positive. Otherwise, it must be negative.

Field Name	Validation
To Value	To MW value of the Bid-Offer. • VX-1: Must be an integer between -9999 to +9999. • VR-2: Must be equal to “From Value”. • VR-3: Except for the first (lowest negative) or last (highest positive) “Pair Number” in the submission, it cannot be 0. • VR-4 [Pair Number, To Value]: If “Pair Number” is positive, the “To Value” must be positive. Otherwise, it must be negative.
Offer Price	Offer price in £ / MWh • VX-1: Must be between -99999.00 and +99999.00 and the precision must not exceed 2 decimals. • VR-2: Offer prices must not decrease as the values of the “Pair Number” increase. In other words, the Offer prices must be monotonically non-decreasing. • VR-3: Must be equal to or greater than the corresponding “Bid Price”.
Bid Price	Bid price in £ / MWh. • VX-1: Must be between -99999.00 and +99999.00 and the precision must not exceed 2 decimals. • VR-2: Bid prices must not decrease as the values of the “Pair Number” increase. In other words, the Bid prices must be monotonically non-decreasing.

5.6 Maximum Export and Import Limit Submissions

The XML data payload for Maximum Export Limits (MEL) and Maximum Import Limits (MIL) consists of the following fields and associated validation:

Field Name	Validation
BM Unit Name	A valid BM Unit name for which the data is submitted. The participant must have privileges to submit data on this BM Unit. • VX-1: Must be between 2 and 32 characters long.
Start Date/Time	Start date/time of the Export/Import Limit. • VX-1: Must be a valid XML time and date format. • VR-2: Must be greater than or equal to the current National Grid system date/time (rounded down to the minute level (truncate the seconds field)). • VR-3: Must fall within the same Operational Day as the header “Date” attribute. • VR-4: Must be within the current Operational Day or the next five Operational Days.
End Date/Time	End date/time of the Export/Import Limit. • VX-1: Must be a valid XML time and date format. • VR-2: Must be later than the Start Date/Time. • VR-3: Must fall within the same Operational Day as the header “Date” attribute. • VR-4 [Start Date/Time, End Date/Time]: Must cover distinct date/time ranges in a submission.
Export/Import Limit Type	Valid Export/Import Limit types are “MAX_EXPORT” and “MAX_IMPORT”. • VX-1: Must be either “MAX_EXPORT” or “MAX_IMPORT”.

Field Name	Validation
From Value	From MW value of the Maximum Export/Import Limit. • VX-1: Must be an integer between -9999 and +9999. • VR-1: If the type is "MAX_EXPORT", value must be greater than or equal to 0. • VR-2: If the type is "MAX_IMPORT", value must be less than or equal to 0. • VR-3: If the type is "MAX_EXPORT", value must be less than or equal to the Connection Entry Capacity (CEC) of the BM Unit.
To Value	To MW value of the Maximum Export/Import Limit. • VX-1: Must be an integer between -9999 and +9999. • VR-1: If the type is "MAX_EXPORT", value must be greater than or equal to 0. • VR-2: If the type is "MAX_IMPORT", value must be less than or equal to 0. • VR-3: If the type is "MAX_EXPORT", value must be less than or equal to the Connection Entry Capacity (CEC) of the BM Unit.

5.7 Stable Export and Import Limits

The XML data payload for Stable Export Limits (SEL) and Stable Import Limits (SIL) consists of the following fields and associated validation:

Field Name	Validation
BM Unit Name	A valid BM Unit name for which the data is submitted. The participant must have privileges to submit data on this BM Unit. • VX-1: Must be between 2 and 32 characters long.

Field Name	Validation
Start Date/Time	Start date/time of the Stable Limit. • VX-1: Must be a valid XML time and date format. • VR-2: Must be greater than or equal to the current National Grid system date/time (rounded down to the minute level (truncate the seconds field)). • VR-3: Must fall within the same Operational Day as the header "Date" attribute. • VR-4: Must be within the current Operational Day or the next five Operational Days.
End Date/Time	End date/time of the Stable Limit and is optional. If it is not submitted, the Stable Limit submission will be open-ended and the End date/time will be stored as NULL in the database. • VX-1: If submitted, it must be a valid XML time and date format. • VR-2: If submitted, must be later than the Start Date/Time. • VR-3: If submitted, must fall within the same Operational Day as the header "Date" attribute. • VR-4 [Start Time, End Time]: Must cover distinct date/time ranges in a submission.
Limit Type	Valid types are "STABLE_EXPORT", and "STABLE_IMPORT". • VX-1: Must be one of the valid Stable Limit types.
From Value	From MW value of the Stable Export/Import Limit. • VX-1: Must be an integer between -9999 and +9999. • VR-1: If the type is "STABLE_EXPORT", value must be greater than or equal to 0. • VR-2: If the type is "STABLE_IMPORT", value must be less than or equal to 0.

Field Name	Validation
To Value	To MW value of the Stable Export/Import Limit. • VX-1: Must be an integer between -9999 and +9999. • VR-1: If the type is "STABLE_EXPORT", value must be greater than or equal to 0. • VR-2: If the type is "STABLE_IMPORT", value must be less than or equal to 0. • VR-5 [End Time, To Value]: If the End Time is not submitted (NULL), then the "To Value" must be equal to the "From Value".

5.8 Run-Up and Run-Down Rates

The XML data payload for Run-Up Rates and Run-Down Rates consists of the following fields and associated validation:

Field Name	Validation
BM Unit Name	A valid BM Unit name for which the data is submitted. The participant must have privileges to submit data on this BM Unit. • VX-1: Must be between 2 and 32 characters long.
Run Rate Type	Valid Run Rate types are "RUN_UP_EXPORT", "RUN_DOWN_EXPORT", "RUN_UP_IMPORT" and "RUN_DOWN_IMPORT". • VX-1: Must be one of the valid Run Rate types.
Rate	Run Rate in MW/minute. Maximum of 10 rates can be submitted. • VX-1: Must be between 0.02 and 999.0, with a maximum of 2 decimal places.

Field Name	Validation
Quantity	Elbow value in MW. Maximum of 9 quantities can be submitted. ~~Rate and quantity are submitted in pairs except the first rate.~~ • VX-1: Must be integer between -9999 and +9999. • VR-2: Quantity 1 must not be submitted. • VR-3: Except for the Rate 1, Rates and Quantities must be submitted in pairs. • VR-~~2~~4: If the Run Rate type is "RUN_UP_EXPORT" or "RUN_DOWN_EXPORT", the quantity must be greater than or equal to 1. • VR-~~5~~3: If the Run Rate type is "RUN_UP_IMPORT" or "RUN_DOWN_IMPORT", the quantity must be less than or equal to -1. • VR-~~6~~4: The quantities, if not null, must be in increasing order (e.g. Q2 > Q1; Q3 > Q2; etc.) for "RUN_UP_EXPORT" and "RUN_UP_IMPORT". • VR-~~7~~5: The quantities, if not null, must be in decreasing order (e.g. Q2 < Q1; Q3 < Q2; etc.) for "RUN_DOWN_EXPORT" and "RUN_DOWN_IMPORT".

5.9 Notice to Deviate from Zero, to Deliver Offers and Bids

The XML data payload for Notice to Deviate from Zero (NDZ), Notice to Deliver Offers (NTO) and Notice to Deliver Bids (NTB) consists of the following fields and associated validation:

Field Name	Validation
BM Unit Name	A valid BM Unit name for which the data is submitted. The participant must have privileges to submit data on this BM Unit. • VX-1: Must be between 2 and 32 characters long.
Notice Type	Valid Notice types are "DEVIATE_FROM_ZERO", "DELIVER_OFFERS", and "DELIVER_BIDS". • VX-1: Must be one of the valid Notice types.
Value	Notice value in minutes. • VX-1: Must be an integer and between 0 and 999. • VR-2: If the Notice Type is "DELIVER_OFFERS" or "DELIVER_BIDS", then the value must be less than or equal to 2 minutes.

5.10 Minimum Zero and Non-Zero Times

The XML data payload for Minimum Zero Time (MZT) and Minimum Non-Zero Time (MNZT) consists of the following fields and associated validation:

Field Name	Validation
BM Unit Name	A valid BM Unit name for which the data is submitted. The participant must have privileges to submit data on this BM Unit. • VX-1: Must be between 2 and 32 characters long.
Minimum Time Submission Type	Valid Minimum Time types are "ZERO_TIME", and "NON_ZERO_TIME". • VX-1: Must be one of the valid Minimum Time types.
Value	Minimum Time value in minutes. • VX-1: Must be an integer and between 0 and 999.

5.11 Maximum Delivery Volume and Period

The XML data payload for Maximum Delivery Volume (MDV) and Maximum Delivery Period (MDP) consists of the following fields and associated validation:

Field Name	Validation
BM Unit Name	A valid BM Unit name for which the data is submitted. The participant must have privileges to submit data on this BM Unit. • VX-1: Must be between 2 and 32 characters long.
Maximum Delivery Volume	Maximum Delivery Volume in MWh. • VX-1: Must be an integer and between -99999 and +99999.
Maximum Delivery Period	Maximum Delivery Period in minutes. • VX-1: Must be an integer and between 1 and 999. • VR-2: It must be less than or equal to M.

5.12 Last Time to Cancel Synchronisation

The XML data payload for Last Time to Cancel Synchronisation (LTCS) consists of the following fields and associated validation. Each Cancel Time is applicable for a range of values of the BM Unit's Notice to Deviate from Zero (NDZ) determined by the values of the CS Break Points.

Field Name	Validation
BM Unit Name	A valid BM Unit name for which the data is submitted. The participant must have privileges to submit data on this BM Unit. • VX-1: Must be between 2 and 32 characters long.
Cancel Time 1	Last Time (in minutes) to Cancel Sync 1. Applies for: 0 < NDZ <= CS Break Point (CSBP) 2. • VX-1: Must be an integer and between 0 and 60 (inclusive).
CS Break Point 2	Last Time to Cancel Sync/NDZ Breakpoint 2. • VX-1: Must be an integer and between 0 and 999 (exclusive).
Cancel Time 2	Last Time (in minutes) to Cancel Sync 2. Applies for: CSBP 2 < NDZ <= CSBP 3. • VX-1: Must be an integer and between 0 and 60 (inclusive).
CS Break Point 3	Last Time to Cancel Sync/NDZ Breakpoint 3. • VX-1: Must be an integer and between 0 and 999 (exclusive). • VR-2: CSBP 3 must be greater than CSBP 2.
Cancel Time 3	Last Time (in minutes) to Cancel Sync 3. Applies for: NDZ > CSBP 3. • VX-1: Must be an integer and between 0 and 60 (inclusive).

96 DEFAULTS

5.16.1 Default Data

It should be noted that, in general, if defaulted data is not overwritten by subsequent submissions it will become operational data. The exception to this statement is planning dynamic data which is never used to call off bid-offers in the balancing mechanism.

There is a single defaulting rule for Bid-Offer Data. However, Ffor each of the following data types: Physical Notifications, Quiescent Physical Notifications, Maximum Export Limits, Minimum Import Limits, Stable Export Limits and Bid-Offer Data Stable Import Limits, there are is a choice between two different defaulting rules; available. the selected option However for each BMU and data type only one rule will bewill applied for all these data types for a particular BM Unit. In the absence of any request to apply a specific rule for any BM Unit and data type, the first rule C will be applied as a matter of course for the following data types – PN, MEL, MIL & QPN, i.e. D_PN_1, D_QPN_1, D_MEL_1 or D_MIL_1, unless it relates to an External Interconnection, in which case the second rule Z will apply in the absence of any such request apply. For Bid-Offer data D_BOD_1 will be applied as default except in the situation where a BM unit does not have EDL installed and in that situation D_BOD_2 will be applied. The decision as to which rule can be applied to a specific BM Unit and data type is the responsibility of the System OperatorNational Grid.

Data defaulting is applied where the submitted data is not complete for any Operational Day at the relevant time. For example, at 1999-12-06 11:00 if there were a gap in data covering a period from 1999-12-07 13:00 to 1999-12-07 14:00 (that is in the following Operational Day) then default data would be generated to fill the gap. Using the first rule, the data from 1999-12-06 13:00 to 1999-12-06 14:00 would be copied to fill the gap. This data would include all updates that had been made up to 1999-12-06 11:00 for that time period. Using the second rule Z (i.e. D_PN_2, D_QPN_2, D_MEL_2 or D_MIL_2), this gap would be filled with zero level data.

5.26.2 Defaulting and Clock change Days

For real-time systems operating twenty-four hours per day in local time, an issue exists with duplicated and missing hours as local time changes between time standards. In general, the clock change occurs in the early hours (at 01:00 GMT) on a Sunday. The nature of the Operational Day (05:00 to 05:00 local time) means that the clock change occurs towards the end of the Saturday Operational Day. As a result of the clock change, a Short Day (23hrs) occurs in spring and a Long Day (25hrs) occurs in autumn.

On the basis of these assumptions, the following table describes the mechanism used to generate default data where gaps exist in the data submitted. The table defines the mechanism for each of the Operational Days before, during and after each clock change. The last column defines, for each day, the source of data for any gaps in that Operational Day for which defaulting is done. Note that all times shown in the table are in local time.

The method adopted preserves the local time profiles for data from Operational Days before to those after the Operational Day in which the clock change falls. However, on the clock change Operational Days themselves, there is a shift in data for part of the day. In the case of the spring clock change, periods after the clock change are shifted one hour later according to local time. In the case of the autumn clock change, periods before the clock change are shifted one hour later according to local time.

Clock Change	Operational Day	Day Type	When Defaulted	Default Mechanism
Spring	Friday	GMT	11:00 Thursday	Copy data from period 24 hours earlier
	Saturday	Short Day	11:00 Friday	Copy data from period 24 hours earlier
	Sunday	BST	11:00 Saturday	For periods from 05:00 to 04:00: Copy data from period 23 hours earlier For periods from 04:00 to 05:00: Copy data from period 47 hours earlier
Autumn	Friday	BST	11:00 Thursday	Copy data from period 24 hours earlier
	Saturday	Long Day	11:00 Friday	Copy data from period 25 hours earlier
	Sunday	GMT	11:00 Saturday	Copy data from period 24 hours earlier

~~5.~~36.3 Default Rules for Physical Notifications

Rule ~~Number~~	Description
~~D_PN_1~~C	~~Day ahead Physical Notifications must be submitted for every BMU by 11:00 local time.~~ If no Physical Notification submission, or a partial submission, has been made by 11:00 the data for the current Operational Day will be copied forward to fill gaps in the next Operational Day.

~~D_PN_2Z~~	~~Day ahead Physical Notifications must be submitted for every BMU by 11:00 local time.~~ If no Physical Notification submission, or a partial submission, has been made by 11:00 a zero profile will be applied to fill gaps in data for the next Operational Day.

~~5.4N.B. Either D_PN_1 or D_PN_2 will be applied for each BMU.~~

~~5.~~6.4 Default Rules for Quiescent Physical Notifications

Rule ~~Number~~	Description
~~D_QPN_1~~C	~~Day ahead Quiescent Physical Notifications must be submitted for every BMU by 11:00 local time.~~ If no Quiescent Physical Notification submission, or a partial submission, has been made by 11:00 the data for the current Operational Day will be copied forward to fill gaps in the next Operational Day.
~~D_QPN_2Z~~	~~Day ahead Quiescent Physical Notifications must be submitted for every BMU by 11:00 local time.~~ If no Quiescent Physical Notification submission, or a partial submission, has been made by 11:00 a zero profile will be applied to fill gaps in data for the next Operational Day.

~~5.5N.B. Either D_QPN_1 or D_QPN_2 will be applied for each BMU.~~

~~5.5~~6.5 Default Rules for Maximum Export Limit

Rule ~~Number~~	Description

D_MEL_1C	Day ahead Maximum Export Limits must be submitted for every BMU by 11:00 local time. If no Maximum Export Limit submission, or a partial submission, has been made by 11:00 the data for the current Operational Day will be copied forward to fill gaps in the next Operational Day.
D_MEL_2Z	Day ahead Maximum Export Limits must be submitted for every BMU by 11:00 local time. If no Maximum Export Limit submission, or a partial submission, has been made by 11:00 a zero profile will be applied to fill gaps in data for the next Operational Day.

5.6N.B. Either D_MEL_1 or D_MEL_2 will be applied for each BMU.

5.66.6 Default Rules for Maximum Import Limit

Rule Number	Description
D_MIL_1C	Day ahead Maximum Import Limits must be submitted for every BMU by 11:00 local time. If no Maximum Import Limit submission, or a partial submission, has been made by 11:00 the data for the current Operational Day will be copied forward to fill gaps in the next Operational Day.
D_MIL_2Z	Day ahead Maximum Import Limits must be submitted for every BMU by 11:00 local time. If no Maximum Import Limit submission, or a partial submission, has been made by 11:00 a zero profile will be applied to fill gaps in data for the next Operational Day.

6.7 Default Rules for Stable Export Limit

Rule	Description
C	If no Stable Export Limit submission, or a partial submission, has been made by 11:00 the data for the current Operational Day will be copied forward to fill gaps in the next Operational Day.
Z	If no Stable Export Limit submission, or a partial submission, has been made by 11:00 a zero profile will be applied to fill gaps in data for the next Operational Day.

6.8 Default Rules for Stable Import Limit

Rule	Description
C	If no Stable Import Limit submission, or a partial submission, has been made by 11:00 the data for the current Operational Day will be copied forward to fill gaps in the next Operational Day.
Z	If no Stable Import Limit submission, or a partial submission, has been made by 11:00 a zero profile will be applied to fill gaps in data for the next Operational Day.

~~N.B. Either D_MIL_1 or D_MIL_2 will be applied for each BMU.~~

~~9.7Default Rule for Planning Dynamic Data~~

~~5.8Rule Number~~	~~5.8Description~~

5.8Rule Number	5.8Description
5.8D_PLAN_1	5.8The following planning dynamic data must be submitted for every BMU by 11:00 local time, 5.8RURE, RDRE, RURI, RDRI, NDZ, NTO, NTB, MZT, MNZT, SEL, SIL, MDV and MDP. 5.8**This data will only be used for planning purposes**. 5.8In the event that any data item from the above list has not been submitted the previous days value for that planning data item will be copied forward and used for planning purposes

5.8

5.8Note that there is no default rule for operational dynamic data. The last submitted value always applies and in the absence of any submissions the value given during BMU commissioning will be used.

5.86.9 Default Rules for Bid-Offer Data

Rule Number	Description
D_BOD_1	Day ahead bid-offer data may be submitted for every BMU by 11:00 local time. If no bBid-Ooffer submission, or a partial submission, has been made by 11:00 the data for the current Operational Day will be copied forward to fill gaps in the next Operational Day.
D_BOD_2	Day ahead bid-offer data may be submitted for every BMU by 11:00 local time. If no bid-offer submission, or a partial submission, has been made by 11:00 then a single Bid-Offer Pair with zero prices and zero Bid-Offer Volume will be used to fill the periods where no submission has been received for the next Operational Day.

~~6N.B. Either D_BOD_1 or D_BOD_2 will be applied for each BMU.~~

~~6~~7 INITIAL DATA

There are no initial data values populated for a BM Unit when it is first registered with National Grid. Instead, for those BM Units that wish to actively participate in the Balancing Mechanism, the associated Trading Point/Control Point should submit appropriate values using the communication methods specified in Grid Code BC1.4.1(a) [2].

~~When a BM unit is first registered with Elexon and setup, by NGC, within the BM a set of initial values for each of the submitted data items is given. These values are used in the absence of a submission from the responsible Trading Point/Control Point.~~

~~The following values are used for the following data types:~~

- ~~MEL, PN, QPN, MIL, SEL, SIL, MZT & MNZT are all zero.~~
- ~~Bid-Offer Volume, Bid Price and Offer Price are all zero for all initial settlement periods up to the end of the next Operational Day.~~
- ~~RURE, RDRE, RURI & RDRI is 10.~~
- ~~MDP is 1~~
- ~~MDV is 99999~~
- ~~NDZ, NTO & NTB is 2~~

APPENDIX A: CLARIFICATION OF GATE CLOSURE AND SUBMISSION MAXIMUM DATE

The concepts of Gate Closure and Submission Maximum Date are used throughout this document and are of central importance when applying some of the rules given. This appendix expands the explanations given in section 1.3.

Data submitted is time stamped with the time when a transfer to the NGC system is complete – this is known as the Notification Time. This Notification Time is used to define Gate Closure and the Submission Maximum Date for the data within the submission.

A.1 Gate Closure

As an example of Gate Closure and the Gate Closure Period consider a submission which has a Notification Time of 2000-03-03 10:00. Consider how the validation rule V_PN_4 would be applied. This rule states that the Physical Notification "date/time from" field must be later than or equal to the end of the last Settlement Period for which Gate Closure has occurred at the Notification Time.

For this Notification Time the last Gate Closure occurred at 2000-03-03 10:00. We take the Gate Closure Period as 1 hour. This latest Gate Closure therefore occurs for the Settlement Period commencing one hour after this time, i.e. 2000-03-03 11:00. Thus, the end of the Settlement Period for which Gate Closure has occurred is 2000-03-03 11:30. As a result all Physical Notifications in this submission must have a "date/time from" field with date/times later than or equal to 2000-03-03 11:30.

Because Gate Closure is always on a half-hour period the same date/times apply for submissions with Notification Times up to 2000-03-03 10:30. So if a submission had a Notification Time of 2000-03-03 10:29 the values quoted in the last paragraph would still apply.

However for a submission with a Notification Time of 2000-03-03 10:30, the most recent Gate Closure would be at 2000-03-03 10:30 and all times quoted above would increase by 30 minutes.

A.2 Submission Maximum Date

The following tables provide examples of the calculation of the Submission Maximum Date.

Note that Notification Times and the Submission Maximum Date should be used in the GMT time convention as they relate to data in a submission which is always in GMT.

However it is easier to think in local time and then convert to GMT because the concept of a Submission Maximum Date is related to the Operational Day which runs from 05:00 to 05:00 local time.

The following table gives examples of the calculation of the Submission Maximum Date over a spring clock change on 2000-03-26.

Notification Times			Days Added	Submission Maximum Date		
Date	Local Time	GMT		Date	Local Time	GMT
2000-03-20	10:59	10:59	4	2000-03-25	05:00	05:00
2000-03-20	11:00	11:00	5	2000-03-26	05:00	04:00
2000-03-24	03:59	03:59	5	2000-03-29	05:00	04:00
2000-03-24	04:00	04:00	5	2000-03-29	05:00	04:00
2000-03-24	04:59	04:59	5	2000-03-29	05:00	04:00
2000-03-24	05:00	05:00	4	2000-03-29	05:00	04:00
2000-03-24	10:59	10:59	4	2000-03-29	05:00	04:00
2000-03-24	11:00	11:00	5	2000-03-30	05:00	04:00
2000-03-25	03:59	03:59	5	2000-03-30	05:00	04:00
2000-03-25	04:00	04:00	5	2000-03-30	05:00	04:00
2000-03-25	04:59	04:59	5	2000-03-30	05:00	04:00
2000-03-25	05:00	05:00	4	2000-03-30	05:00	04:00
2000-03-25	10:59	10:59	4	2000-03-30	05:00	04:00
2000-03-25	11:00	11:00	5	2000-03-31	05:00	04:00
2000-03-26	03:59	02:59	5	2000-03-31	05:00	04:00
2000-03-26	04:00	03:00	5	2000-03-31	05:00	04:00
2000-03-26	04:59	03:59	5	2000-03-31	05:00	04:00
2000-03-26	05:00	04:00	4	2000-03-31	05:00	04:00
2000-03-26	10:59	09:59	4	2000-03-31	05:00	04:00
2000-03-26	11:00	10:00	5	2000-04-01	05:00	04:00

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AMENDMENT RECORD

Issue	Draft	Date	Author	Description of changes
9	4	31/10/13	RJP	Updated following comments from GCRP members in preparation for industry consultation
9	3	10/10/13	RJP	Updated following review at the EBSG Workgroup for circulation to GCRP for comments
9	2	18/09/13	RJP	Updated following internal review for circulation to EBSG Workgroup
9	1	23/08/13	RJP	Changes for the introduction of National Grid's new IT system EBS including adding the section on EDT*
8	3	25/01/12	RDG	Add validation rule D_BOD_2; update introduction. Update initial NDZ to 2 minutes in line with NTO & NTB
8	2	2/11/11	RDG	Updates after review Update value for N
8	1	24/10/11	RDG	Add validation rule V_BOD_11 Add Section 6: Initial values
7		11/10/04	PH	Authority approval of Issue 7 draft 1 changes
7	1	3/11/03	PH	Replace Generation Capacity with Connection Entry Capacity or equivalent.
6		25/05/04	RDG	Authority approval of Issue 6 draft 1 changes
6	1	19/11/02	RDG	Introduce D_PN_2, D_QPN_1, D_MEL_1, D_MIL_1 as alternative rules for data defaulting. Modify Gate Closure parameter from 3.5 to 1 hours

5		19/12/00	DJB	Include comments from internal review.
5	1	06/12/00	DJB	Include notes on how clock change affects defaulting rules and other clarifications. Removed rules: D_BOD_2; D_BOD_3; D_BOD_4. NGC Events: 2540, 2539, 2744
4		24/05/00	JMW	Included comments from internal reviews. Added new rule C_BOD_6. Added clarification for rule V_GEN_5 and V_BOD_6
4	1	17/05/00	MBD	Included new rules V_GEN_5, V_MEL_6 and V_MIL_6. Added clarification for rule C_BOD_4.
3		14/03/00	MBD	Final comments included before issued
2		10/02/00	MBD	Final changes before release to PDO
1		28/01/00	MBD	Included final internal review comments