MHHS Guidance: DateTime Field

Version 1.2

MHHS-DEL2860

July 2024

Objectives

This guidance:

- has been provided to support the implementation of CR036, and

- does not change the design to CR036 but provides clarity to Market Participants should use the DateTime fields in MHHS Flows in line with IR7 onwards.

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Representation of Time in Messages

All IF/PUB Date/Time fields are based on ISO-8601, and have the following format:

- YYYY-MM-DDTHH:MM.SS±TZH:TZM

This format allows for time to be represented in either in terms of UTC, or 'local time' accompanied with the appropriate offset from UTC.

For example, during BST, midnight local time could be correctly represented either as:

- 2023-07-**19T23:00.00±00:00** (UTC version), or

- 2023-07-**20T00:00.00+01:00** (local/BST version).

> Registration Service will reject any non-UK time zones that are received.

Please refer to the FAQ section for how participants should expect Date/Times to be populated by the Registration Service.

Participants need to be able to interpret offset and non-offset times.

Reference: ISO-8601

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UTC and Time Zones

Coordinated Universal Time (UTC) does not change with a change of seasons, but local time will change during British Summer Time (BST). During British Summer Time (BST), local time in the UK is advanced one hour forward of Greenwich Mean Time (GMT), in effect changing the time zone from UTC±00:00 to UTC+01:00

Scenario Description	UTC Representation (non-offset)	Local Representation (UTC offset)	Time Zone (GMT or BST)
Summer Midnight	2024-07-**19T23:00.00±00:00**	2024-07-**20T00:00.00+01:00**	Local = BST
Winter Midnight	2024-01-01T00:00.00±00:00	2024-01-01T00:00.00±00:00	Local = GMT

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Service Provider Appointment Date/Times - IR7 Design

The implementation of "MHHS Programme CR36", mandated that Service Provider Appointments should commence at 'Midnight Local' or 'Midnight Clock Time', so that Data Service and Metering Service appointments, align with the periods of 'Supplier ownership' maintained by CSS (Central Switching Service). This means that, in periods where BST (British Summer Time) is in effect, Service Provider Appointment will commence at 23:00:00 on D-1, where D is the 'UTC day' on which supply ownership begins.

However, it should be noted that Data Services will continue to be responsible for collecting/providing consumption data for each full UTC day for which they are appointed i.e. an appointed DS would need to continue to provide consumption data for the hour '23:00 D-1' through to '00:00 D' even though they are not 'technically' appointed for that hour.

As per CR36, Supplier Start Dates align to Service Provider Appointment DateTimes.

Further information on processes around this arrangement can be found in the following documents:
- MHHS-BP003C – Transfer of Readings Change of Data Service BPM
- MHHS-METH001 - SDS Validation & Estimation Method Statement
- MHHS-BRS001 - Data Service Requirements
- MHHS Webinar Change of Supplier Process .pdf

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Service Provider Appointment Date/Times – IR7 Design

IF-031/IF-034 Metering Service Appointment Effective from Date/Time:

- 2024-05-01T00:00:00+01:00 or
- 2024-04-30T23:00:00+00:00

IF-031/IF-034 Metering Service Appointment Effective from Date/Time:

- 2024-05-05T00:00:00+01:00 or
- 2024-05-04T23:00:00+00:00

Outgoing Metering Service

Incoming Metering Service

1/5/24   2/5/24   3/5/24   4/5/24   5/5/24   6/5/24

IF-037 Metering Service De-Appointment Effective to Date/Time:

- 2024-05-04T22:59:59+00:00

Registration Service will not use:

- 2024-05-04T00:00:00+00:00

This would lead to a gap in continuous service.

This is an example during BST where Local Time does not align with UTC. During GMT there is no misalignment as both times will look like midnight with no offset. Only one representation is acceptable, which is:

- 2024-01-01T00:00:00+00:00

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6

Other Events Date/Times

All other DES138 Date/Times, for example Connection/Energisation/Meter Install/MDR Effective From Dates, can be considered as [to take effect at] Midnight on the relevant UTC day.

The MHHS design allows for the implementation of the use of 'exact times' for events at some point in the future. However, under the MHHS design the time element of 'Effective From' data items should ideally be populated as Midnight on the relevant UTC day; or where a non-midnight time is provided should be deemed to be Midnight on the relevant UTC day, as is the convention under the pre-MHHS processes.

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Other Event Date/Times – Meter Exchange Example

As per DES-138, all other DateTimes are aligned to UTC midnight and are agnostic of Local Time clock changes.

IF-005 Meter Exchange
Meter Installation Date/Time:
- 2024-05-05T00:00:00+00:00 or
- 2024-05-05T01:00:00+01:00

Old Meter

New Meter

| 1/5/24 | 2/5/24 | 3/5/24 | 4/5/24 | 5/5/24 | 6/5/24 |

IF-005 Meter Exchange
Meter Removal Date/Time:
- 2024-05-05T00:00:00+00:00 or
- 2024-05-05T01:00:00+01:00

Do not use:
- 2024-05-04T00:00:00+00:00

This would indicate a gap between meters being in place.

📋 Other Event Date/Times

Please see the table below for example scenarios. We have used Meter Exchange for the examples, but these scenarios are equally applicable to other events such as Energisation Status and Market Segment changes.

Scenario Description	Local Time of Physical MEX	UTC Time of Physical MEX	Time used in DIP Messages
Winter afternoon (Local Time = GMT)	2024-02-17T13:24.00+00:00	2024-02-17T13:24.00+00:00	2024-02-17T00:00.00+00:00
Summer Morning (Local Time = BST)	2024-05-06T11:56.23+01:00	2024-05-06T10:56.23+00:00	2024-05-06T00:00.00+00:00 or 2024-05-06T01:00.00+01:00
Summer Morning (Local Time = BST)	2024-07-01T09:23.43+01:00	2024-07-01T08:23.43+00:00	2024-07-01T00:00.00+00:00 or 2024-07-01T01:00.00+01:00
Summer Nighttime Edge Case (Local Time = BST)	2024-08-10T00:33.54+01:00	2024-08-09T23:33.54+00:00	2024-08-09T00:00.00+00:00 or 2024-08-09T01:00.00+01:00
Winter Midnight Edge Case (Local Time = GMT)	2024-01-01T00:00.00+00:00	2024-01-01T00:00.00+00:00	2024-01-01T00:00.00+00:00

Participants need to be able to interpret offset and non-offset times.

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FAQs - IR7 Design

What Data Items are impacted by CR036?

- DI-023 - dataServiceEffectiveFromDate
- DI-061 - meteringServiceEffectiveFromDate
- DI-086 - supplierEffectiveFromDate
- DI-121 - supplierEffectiveToDate
- DI-815 - meteringServiceEffectiveToDate
- DI-818 - dataServiceEffectiveToDate
- DI-824 - incomingMeteringServiceEffectiveFromDate
- DI-827 - incomingDataServiceEffectiveFromDate
- DI-830 - proposedMeteringServiceDIPEffectiveFromDate
- DI-833 - proposedDataServiceDIPEffectiveFromDate

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FAQs - IR7 Design

How will the Registration Service populate the Service Provider EffectiveFromDates?

Data Item	IF Message	Block	Registration Population Notes
DI-833 proposedDataServiceDIPEffectiveFromDate	IF-032	B071	Copied from inbound IF-031 from the Supplier
	IF-033	B071	Copied from inbound IF-031 from the Supplier
	IF-035	B071	Copied from inbound IF-034 from the Data Service, except for event code [DSAppLapsed] which will be in the 'non-offset' format e.g. 2023-07-19T23:00:00.00±00:00
DI-830 proposedMeteringServiceDIPEffectiveFromDate	IF-032	B070	Copied from inbound IF-031 from the Supplier
	IF-033	B070	Copied from inbound IF-031 from the Supplier
	IF-035	B070	Copied from inbound IF-034 from the Metering Service, except for event code [MSAppLapsed] which will be in the 'non-offset' format e.g. 2023-07-19T23:00:00.00±00:00
DI-023 dataServiceEffectiveFromDate	IF-037	B009	'Non-offset' format e.g. 2023-07-19T23:00:00.00±00:00
DI-061 meteringServiceEffectiveFromDate	IF-037	B008	
DI-827 incomingDataServiceEffectiveFromDate	IF-036	B015	
	IF-036	B017	
	IF-037	B011	
DI-824 incomingMeteringServiceEffectiveFromDate	IF-036	B014	
	IF-036	B016	
	IF-037	B010	
DI-086 supplierEffectiveFromDate	IF-001	B002	
	IF-037	B002	

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11

FAQs - IR7 Design

How do I populate a block with SP Date/Times and MDR Date/Time Data Items?

This occurs in IF-031 B071 Block.

The "supplierNominatedMDREffectiveFromDate" is in the same block in the IF-031 as the "proposedDataServiceDIPEffectiveFromDate".
The two dates in the same block are set in different time formats as per the example shown.

It is important to note that the "supplierNominatedMDREffectiveFromDate" must be set to midnight UTC and therefore the MDR is effective 1 hour later than the DS during BST, as per the design – please see 03_REGS_Notes "Time" in DES-138.

Acceptable constructions of B071

"B071": {
    "proposedDataServiceDIPID": "1476539032",
    "proposedDataServiceMPID": "SDSS",
    "proposedDataServiceDIPEffectiveFromDate": "2025-**04-30T00:00:00+01:00**",
    "contractReferenceDataService": "DS-123-123",
    "appointmentScenario": "COS",
    "supplierNominatedMDRDIPID": "1825123845",
    "supplierNominatedMDRMPID": "MMDR",
    "supplierNominatedMDREffectiveFromDate": "2025-**04-30T00:00:00+00:00**",

OR

"B071": {
    "proposedDataServiceDIPID": "1476539032",
    "proposedDataServiceMPID": "SDSS",
    "proposedDataServiceDIPEffectiveFromDate": "2025-04-**29T23**:00:00+00:00",
    "contractReferenceDataService": "DS-123-123",
    "appointmentScenario": "COS",
    "supplierNominatedMDRDIPID": "1825123845",
    "supplierNominatedMDRMPID": "MMDR",
    "supplierNominatedMDREffectiveFromDate": "2025-04-**30T00**:00:00+00:00"

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