EFET Electronic Regulatory Reporting

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# About this Document

## Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Changes | Author of changes |
| 1.0a | August 13 | New document | EFET eRR WG |
| 1.0b | September 13 | Draft | EFET eRR WG |
| 1.0c | October 13 | Draft | EFET eRR WG |
| 1.0d | November 13 | Draft | EFET eRR WG |
| 1.0e | December 13 | Draft | EFET eRR WG |
| 1.0f | January 14 | Draft | EFET eRR WG |
| 1.0g | January 14 | Draft | EFET eRR WG |
| 1.0h | February 14 | Draft | EFET eRR WG |
| 1.0i | April 14 | Draft | EFET eRR WG |
| 1.0j | June 14 | Draft | EFET eRR WG |
| 1.0k | July 14 | EMIR specific clarifications | EFET eRR WG |
| 1.0l | Aug 14 | EMIR specific clarifications | EFET eRR WG |
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| 1.0o | Feb 15 | EMIR specific clarifications | EFET eRR WG |
| 1.0o | Mar 15 | EMIR specific clarifications | EFET eRR WG |
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| 1.0q | May 15 | EMIR specific clarifications | EFET eRR WG |
| 1.0r | Jun 15 | EMIR specific clarifications | EFET eRR WG |
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| 1.0t | Nov 2015 | EMIR Level 2.1 validation and specific clarifications | EFET eRR WG |
| 1.0u | Feb 2016 | CpML modifications and clarifications | EFET eRR WG |
|  | Feb 2016 | Clarification of ReportingRole | EFET eRR WG |
| 1.0v | March 2016 |  | EFET eRR WG |
| 1.0w | May 2016 |  | EFET eRR WG |
| 1.0w | July 2016 |  | EFET eRR WG |
| 1.0x | August 2016 |  | EFET eRR WG |
| 2.0a | March 2017 | EMIR RTS/ITS (Level 3) | EFET eRR WG |
| 2.0b | April 2017 | Minor corrections:* Enrichment of “LoadDeliveryInterval” updated due to CpML change.
* Enrichment of ‘EarlyTerminationDate’ corrected.
 | EFET eRR WG |
| 2.0c | May 2017 | Minor corrections:* Enrichment of ‘Collateralisation’ and ‘CollateralisationPortfolio’ corrected.
* Enrichment of ‘NotionalAmount’ corrected.
 |  |
| 2.0d | June 2017 | Overview of changes:* ‘NotionalAmount’ in ‘EURegulatory­Details’: Business rules changed.
* Collateralisation, Other­Counterparty­ID and CollateralPortfolio added to the collateral message.
* Level added to collateral and valuation messages.
* Added section that asset classes “Equity & Bonds” as well as “Credit Default Swaps” are not supported by eRR. Business rules adjusted accordingly.
 |  |
| 2.0e | July 2017 | * Consolidated track changes for EMIR L3. No content updates.
 |  |
| 2.0f | September 2017 | Overview of changes:* Rules for CFI generation replaced.
* Enrichment for Collateralisation corrected.
* Enrichment for ‘FinancialDeliveryInformation\Interconnection­Point’ removed.
 |  |
| 2.0g | October 2017 | Overview of changes:* Appendix C: Mappings for commodity base and commodity details corrected and rules for physical transactions added.
 |  |
| 2.0h | October 2017 | Overview of changes:* Enrichment rule for ‘ClearingObligation’ added.
 |  |
| 2.1a | January 2018 | Overview of changes:* Extend eRR Process for MiFID II.
 |  |
| 2.1b | March 2018 | Overview of changes:* Updated CFI generation index.
 |  |
| 2.2a | September 2019 | Overview of changes:* REMIT: Reworked cross-reference table
* REMIT: Appendix B added for REMIT
* EMIR: Mapping errors corrected
 |  |
| 2.3a | May 2020 | Update to eRR EMIR and REMIT filtering criteria to include the redefinition of derivatives and the introduction of OTFs under MiFID II |  |
| 2.3 | August | Final version 2.3 |  |
| **2.4** | April 2024 | Updated for EMIR Refit  |  |

## Purpose and Scope

This document describes the EFET Electronic Regulatory Reporting Process (eRR Process), an industry standard solution for the reporting of transactions that fall within the scope of the applicable reporting regimes, for example, EMIR and REMIT.

## Target Audience

This document is for business analysts and IT professionals in commodity trading who want to provide standardized trade information in the CpML format for reporting under regimes including EMIR and/or REMIT.

For example, this can be:

* Software engineers and data architects who implement CpML interfaces
* Business analysts who develop process interfaces

The following knowledge is assumed:

* Familiarity with the terms and processes used in the commodity trading industry
* Know-how regarding the structure and functionality of XML schemas
* Some knowledge of the applicable regulatory reporting regimes

## Additional Information

This section lists web sites or documents with additional information related to the eRR Process.

|  |  |  |
| --- | --- | --- |
| **Reference document** | **Description** | **Source** |
| 1.
 | CpML Specification |  |
| 1.
 | Official Journal of the European Union L52, Vol56 |  |
| 1.
 | ACER: Transaction Reporting User Manual (TRUM) | <https://www.acer.europa.eu/remit-knowledge-base/transaction-reporting-user-manual-trum> |
| 1.
 | List of codes specific to EFET and CpML, for example, broker codes | <https://efet.org/home/staticdata> |
| 1.
 | EIC codes published by ENTSO-E | <https://www.entsoe.eu/data/energy-identification-codes-eic/eic-documentation/Pages/default.aspx> |
| 1.
 | Esma register of Regulated Markets | <https://registers.esma.europa.eu/publication/searchRegister?core=esma_registers_mifid_rma> |
|  | EMIR regulation, standards, and validation table publishes by ESMA | <https://www.esma.europa.eu/policy-rules/post-trading/trade-reporting> |
|  | ISO 20022 | <https://www.iso20022.org/> |
|  | Guidelines on transaction reporting, order record keeping and clock synchronisation under MiFID II | <https://www.esma.europa.eu/document/guidelines-transaction-reporting-order-record-keeping-and-clock-synchronisation-under-mifid> |

## Conventions

### Use of Modal Verbs

For compliance with the eRR Process, implementers need to be able to distinguish between mandatory requirements, recommendations and permissions, as well as possibilities and capabilities. This is supported by the following rules for using modal verbs.

The key words “must”, “must not”, “required”, “should”, “should not”, “recommended”, “may” and “optional” in this document are to be interpreted as follows:

| **Key word** | **Description** |
| --- | --- |
| Must | Indicates an absolute requirement. Requirements must be followed strictly to conform to the standard. Deviations are not allowed.Alternative expression: required, is mandatory |
| Must not | Indicates an absolute prohibition. This phrase means that the provision must not be used in any implementation of the standard.Alternative expression: must be omitted |
| Should | Indicates a recommendation. Among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others. There may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.Alternative expression: recommended |
| May | Indicates a permission. This word means that an item is truly optional within the limits of CpML. One data supplier may choose to include the item because a particular transaction requires it or because the data supplier feels that it enhances the document while another data supplier may omit the same item.Alternative expression: optional |
| Should not | This phrase means that there may exist valid reasons in particular circumstances when the particular behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.Alternative expression: “not recommended” |

### Typographical Conventions

This documentation uses the following typographical conventions:

* ‘AgentID’: Single quotation marks are used to indicate field names in XML schemas.
* “trader”: Double quotation marks are used to indicate field values in XML schemas.
* Reporting/Europe: Slashes indicate paths or nested nodes within XML schemas.
* TotalVolumeUnit: Field names and values as well as attributes are consistently written with camel case spelling, as in the XML schemas. There are no spaces between words and each new word starts with an uppercase letter.

# Introduction to the eRR Process

Regulatory reporting defined under the corresponding European establishes operational requirements on trading businesses operating in commodities and other asset classes.

EMIR and MiFID II as well as REMIT are separate regulatory frameworks with their own scope and purpose but with overlapping data reporting requirements. The eRR Process is an industry standard solution that allows process users to report transaction, continuation and lifecycle event data to multiple regimes in a single message. The process users can report this data as counterparty to a transaction and/or on behalf of a counterparty or as a completely independent and separate reporting agent commercially unconnected with the transactions being reported. eRR makes reporting independent of the various data formats, codification schemes, transmission protocols and technical interfaces of underlying databases and trade repositories. The eRR Process facilitates automation of electronic regulatory reporting processes and minimizes the risk and cost of implementing the operational processes related to EMIR, MiFID II and REMIT into European and international commodity markets. The eRR Process defines the workflow and message choreography for notifying regulatory databases of new trades and lifecycle events.

## Scope of eRR

The scope of the eRR Process includes:

* A standard set of filtering criteria that can be applied to a portfolio of trades to identify the trades that are eligible for reporting under the supported regulatory frameworks. The filters mitigate the risk of discrepancies between the reports of both counterparties to a trade.
* A CpML-compliant trade message extension that enables market participants to use a single CpML message (see reference document [1]) to report eligible trades on standard contracts under the supported regimes. Using a single message mitigates the risk for market participants who must report to multiple regimes or multiple underlying databases. For REMIT, the ACER XML format is used for order data, non-standard contracts and standard contracts as an alternative to CpML.
* Provide a standard process and message choreography for notifying regulatory databases of multiple action types, see “Supported Action Types”.
* The eRR Process is independent of any specific mechanisms defined by underlying trade repositories or regulatory databases to which the message must be delivered. This ensures that market participants are insulated from the complexity of the underlying trade repository landscape.
* Document the approach to UTI processing in the eRR Process, see section 2.2.1, “Unique Transaction Identifiers”, and section 3.3, “UTI Processing”.
* Define a standard mechanism by which an agent can report on behalf of one or both counterparties to a transaction. That way, a counterparty does not need to report directly, but can delegate the reporting to an agent, for example, the counterparty or the execution platform. For more information, see section 2.2.4, “Agent Reporting” and section 2.2.5, “Reporting on Behalf Of”.

**Important:** The eRR Process uses the CpML standard as an exchange format for the input message of transaction reports. Any rules and conditions described in the eRR Process are only valid in combination with the rules and conditions described in the CpML standard. For REMIT, the eRR Process also supports the native ACER XML format, which does not require enrichment or mapping by the eRR Process.

The eRR Process has been developed directly from official documentation and with reference to the work of other industry bodies and associations.

### Supported Asset Classes

The eRR Process supports the following asset classes:

* Commodity
* Interest rate
* Foreign exchange

Some reporting regimes regulate additional asset classes. For example, EMIR also covers equities & bonds and credit default swaps. The corresponding field values and business rules do not reflect validation rules for unsupported asset classes.

### Supported Transaction Types

An OTC transaction is either negotiated bilaterally or executed on an uncleared electronic execution platform.

#### OTC transactions

OTC transactions are bilaterally settled and are entered into directly between the counterparties to the trade, that is, the buyer and the seller. They can be executed through a broker or negotiated directly between the parties. OTC transactions can be reported by the counterparties themselves or by an agent privy to the terms of the transaction, for example, the broker.

#### Cleared Transactions

Cleared transactions are executed on an exchange or anonymously as so-called ‘block trades’, on an off-exchange electronic platform, for example, a broker platform.

**Note:** In terms of the eRR Process, this does not include OTC trades that are subsequently given up for clearing, unless they were traded with the intention of exchanging the contract for an equivalent cleared contract at the time of execution.

Upon execution (or exchange), transactions are created at the CCP. The original execution event results in four new trades:

* Two back-to-back trades:
	+ A trade between the CCP and the clearing member acting on behalf of the counterparty.
	+ An equal and opposite trade between the CCP and the clearing member acting on behalf of the other counterparty.
* A back-to-back trade between the original counterparty and their clearing member, equivalent to the original transaction executed on the platform, which is subsequently rolled into a position.
* Another back-to-back trade between the other counterparty and their clearing member, equivalent to the original transaction executed on the platform, which is subsequently rolled into a position.

Counterparties can use the eRR Process to report trades with their clearing members. Both trades are reported independently. Platforms can use the eRR Process to report their executed orders and trades executed.

The CpML format offers a special structure for cleared transactions, the ‘ETDTradeDetails’ section. The structure is used for reporting any standardised contract, which is traded in lots, has a legal definition and uses a valid identifier, such as an ISIN.

### Supported Action Types

The eRR Process supports the following action types that fall into the scope of regulatory reporting:

* New trades
* Amendments
	+ Eligible lifecycle events
		- Modifications that are common to both counterparties (bilateral changes)
		- Nullifications or early terminations
	+ Revisions, that is, corrections to previous submissions without modification of the trade details (unilateral change)
	+ Cancellation of erroneous submissions
* Positions
* Compression events

### Supported Regimes

#### EMIR

For EMIR, the eRR Process supports reporting of all supported asset classes, transaction types, action types and associated collateral and valuation data where the regulation requires that this information is reported.

EMIR requires dual-sided reporting by both counterparties of a trade. The eRR Process allows one party to report both sides in a single CpMLDocument: for example, the counterparty may report for itself and the other counterparty at the same time.

Counterparties may use agents to report on their behalf, see section 2.2.4, “Agent Reporting” and section 2.2.5, “Reporting on Behalf Of”.

**Note:** EMIR permits transaction-level reporting of collateralisation information, but the eRR Process recommends portfolio-level collateralisation reporting.

EMIR mandates that LEIs be used to identify counterparties. CpML supports EIC codes as well as LEIs in the input message. If the input message contains EIC codes instead of LEIs, the eRR Process automatically converts the EIC codes to LEIs in the output message.

Transaction reports eligible for EMIR are converted to the corresponding output format and send to the designated EMIR trade repository.

#### MiFID II

The scope of MiFID II is similar to EMIR. It includes derivatives traded by MPs based in the European Union that are executed on eligible venues, including exchanges, OTFs and MTFs.

For MiFID II, the eRR Process supports reporting of all supported asset classes and transaction types. It covers only new events, but no lifecycle events, position reporting, collateralisation or valuation messages.

Parties may also use agents to report on their behalf, see section 2.2.4, “Agent Reporting” and section 2.2.5, “Reporting on Behalf Of”.

MiFID II requires dual-sided reporting, that is a report submitted by or on behalf of both counterparties to a trade. Whilst EMIR implicitly supports reporting on behalf of the other counterparty, MiFID II explicitly requires separate reports. Consequently, although the eRR Process permits reporting for both sides of a transaction using a single CpMLDocument, it is not recommended to use this functionality for MiFID II. If the functionality is used for MiFID II, then the input message is mapped to two separate output messages, giving rise to the technical risk of one of those messages being rejected for some reason whilst the other is accepted. Under these circumstances, the original report would have to be modified only to report for the failed ‘side’, resulting in complicated processing by the process user.

MiFID II mandates that LEIs be used to identify counterparties. CpML supports EIC codes as well as LEIs in the input message. If the input message contains EIC codes instead of LEIs, the eRR Process automatically converts the EIC codes to LEIs in the output message.

#### REMIT

For REMIT, the eRR Process supports reporting of the asset classes electricity and natural gas, both for OTC transactions and ETDs, including all action types, but without collateralization or valuation since this information is not required under REMIT regulation. The eRR Process is used by OMPs to report transactions on behalf of their clients and by counterparties to report on behalf of the other counterparty.

Parties may also use agents to report on their behalf, see section 2.2.4, “Agent Reporting” and section 2.2.5, “Reporting on Behalf Of”.

REMIT requires dual-sided reporting, that is a report submitted by or on behalf of both counterparties to a trade. Whilst EMIR implicitly supports reporting on behalf of the other counterparty, REMIT explicitly requires separate reports. Consequently, although the eRR Process permits reporting for both sides of a transaction using a single CpMLDocument for both EMIR and for REMIT, it is not recommended to use this functionality for REMIT. If the functionality is used for REMIT, then the input message is mapped to two separate output messages for the REMIT Database, giving rise to the technical risk of one of those messages being rejected for some reason whilst the other is accepted. Under these circumstances, the original report would have to be modified only to report for the failed ‘side’, resulting in complicated processing by the process user.

Under REMIT, ACER codes are used to identify counterparties. CpML also supports EIC and LEI codes in the input message. The eRR Process automatically converts EIC codes and LEIs to ACER codes in the output message.

## Important Concepts

This section provides a high-level overview of important concepts for the eRR Process and applies only to data submitted to the process in the CpMLDocument format. Data submitted in the ACER XML format is simply passed to the ACER database in its native form.

### Unique Transaction Identifiers

Transactions eligible for reporting under the applicable regulatory regimes must have a Unique Transaction Identifier (UTI). The UTI must be applied to all reports relating to both ‘sides’ of that transaction, regardless of who creates the report.

Often, the counterparties already use a shared UTI that was externally generated, for example, at the point of execution. In cases where no established mechanism for UTI sharing exists, transaction reports may be submitted to the eRR Process without a UTI. The eRR Process then generates the UTI internally and returns the UTI value to the system of record. This UTI must be used for subsequent reports relating to the same transaction, for example, to report lifecycle events and/or continuation information.

For more information, see section 3.3, “UTI Processing”.

**Note:** If the reports submitted by the counterparties to a transaction contain different UTIs, then the counterparties must reconcile the discrepancy and amend the originally submitted reports. UTI reconciliation is outside the scope of the eRR Process.

### Eligibility

The eRR Process determines the eligibility of a transaction for reporting under the supported regimes and processes the trade report accordingly. To determine the eligibility, the system applies standard rules and filter criteria. As output, it generates a report for the applicable regulatory regime. The report contains the trade details and the UTI of the trade. The filter criteria are based on the essential regulatory clauses and provide a different set of filter values for each regime. For more information, see section 3.4, “Eligibility Processing”.

### Lifecycle Events (EMIR and REMIT only)

Any lifecycle events affecting a reported transaction must be reported as amended versions of the original reports.

Lifecycle events may be reported by an agent of the reporting counterparty, the counterparty and/or on behalf of the other counterparty.

If a compression event causes one or more lifecycle events for an eligible transaction, including a new transaction, a modification of an existing transaction, or the termination of a transaction, then the lifecycle event must be reported with the information that it is related to a compression event.

For more information, see section 2.1.3, “Supported Action Types”, and section 3.8, “Amendments”.

### Agent Reporting

Both counterparties to a trade may use an agent to report trade details on their behalf and/or on behalf of the other counterparty. An agent requires access to certain details about the counterparty. In the eRR Process, the reporting agent must make these details available for each party upon whose behalf they are reporting as a set of Standing Instructions, see “Standing Instructions”.

Depending on the regime, eligible counterparties must report daily valuations and collateralisation information. An agent may report this information in the role of the counterparty, but not on behalf of the other counterparty.

The clearing member may offer to act as the agent (clearing agent) to report both for himself and for their client, the “other counterparty”. Clearing members can easily provide this service because they have access to all commercial information relating to the trade and to continuation data, where relevant. For example, this can be the daily valuation of the transaction, the collateralisation information at the portfolio level, as well as all lifecycle events affecting the transaction.

Counterparties and clearing members need to maintain reference data used in compiling regulatory reports including data about their own organisation and other organisations, such as LEI information.

### Reporting on Behalf Of

The eRR Process supports reporting of both sides to a trade using a single document.

For example, a counterparty can report on their own behalf and as an agent on behalf of the other counterparty. Also, a third-party agent such as the operator of an electronic execution platform can report on behalf of the counterparty and on behalf of the other counterparty.

The following rules apply to the reporting of amendments on behalf of the other counterparty:

* A counterparty can report lifecycle events on behalf of the other counterparty in the role of counterparty agent.
* Third-party agents that have access to the transaction details of both counterparties can report lifecycle events on behalf of the counterparties.

### Position Reporting (EMIR only)

Reporting of position data for cleared transactions in addition to the transaction-level reporting is supported by the eRR Process for EMIR. Each daily position comprises a netted, aggregated trade position with a UTI that acts as a unique position identifier.

The grouping of transactions into positions must be agreed bilaterally between the counterparty and the clearing member. Typically, transactions are grouped by cleared product. If the clearing broker offers such services, then the counterparty may ask the clearing agent to report position data on their behalf.

Lifecycle event reporting at the position level is addressed with the daily position report because transaction-level events affecting the position will be incorporated within the daily report. Cascading, explosion or amalgamation events relating to individual transactions may impact how these transactions are grouped into positions (e.g. by product). The grouping must be agreed bilaterally between the clearing broker and the counterparty to ensure a consistent reporting of daily positions and incorporation of the impact of such changes into the daily position report.

### Valuation and Collateralisation (EMIR only)

Eligible counterparties to cleared transactions are obliged to report daily valuation on a transaction level and collateralisation information on portfolio and transaction level. If the service is offered by the clearing broker, the other counterparty may opt to have the clearing agent report this information on their behalf.

The eRR Process supports reporting of valuations at trade or position level and collateral information at trade or portfolio level. Separate document types are used for both. For more information, see section 3.9, “Valuation and Collateralisation”, section 4.2, “eRR Valuation Message” and section 4.3, “eRR Collateral Message”.

## Actors and Roles

This section defines the key actors and roles that are part of the eRR Process.

### Classes of Traded Instruments

The transactions that can be reported to the relevant regime using the eRR Process are divided into the following classes of traded instruments. Each class is processed with a different set of mapping rules to provide the correct values in the output message.

#### OTC Commodity

This class describes physically and financially settled OTC transactions, including options.

#### OTC Commodity Formula Swap

This class describes physically settled OTC transactions, including options, where the price is based on a bilaterally agreed formula.

#### OTC Interest Rate (OTC IRS, EMIR only)

This class describes uncleared interest-rate transactions, including options.

#### OTC Foreign Exchange (OTC FX, EMIR only)

This class describes physically and financially settled uncleared foreign-exchange transactions, including options, that can have a fixed and/or floating price.

#### Exchange-Traded Derivates (ETD)

This class describes standardized transactions that are cleared, typically executed through an exchange.

### Roles

The following general role concepts are defined by the eRR Process:

* *Process user*: common term for a legal entity that uses the eRR Process to report transactions under the applicable regimes, for example, the counterparties to the transaction or an agent.
* *Counterparty*: the party to a transaction from whose perspective the transaction is reported. The counterparty can be the buyer or the seller.
* *Other counterparty*: the other party to a transaction that is reported from the perspective of the counterparty. The other counterparty can be the buyer or the seller.

To support agent reporting, the eRR Process defines the following roles:

* *Trader*: the default role of a counterparty that reports on their own behalf only.
* *Execution agent*: the platform where a reportable transaction was executed, for example, a broker or an exchange. The execution agent knows the commercial terms of the transaction and the identity of both counterparties. Therefore, the agent can act for the buyer or the seller or the buyer and the seller. The execution agent can create a new report but cannot report lifecycle events.
* *Counterparty agent*: one of the counterparties to the reportable transaction who can report for themselves and on behalf of the other counterparty. The counterparty agent knows the commercial terms and the identity of the other counterparty. Therefore, the agent can act on behalf of the buyer (if they are the seller) and on behalf of the seller (if they are the buyer). The counterparty agent can create new reports as well as report lifecycle events including modifications, terminations, valuations, etc.
* *Internal agent*: a member of an organisation group who has the corporate responsibility to report on behalf of subsidiaries. If both, the counterparty and the other counterparty are subsidiaries of the internal agent, the internal agent can report both sides of a transaction. Otherwise, the internal agent can only report on behalf of the counterparty (buyer or seller) that is a subsidiary. The internal agent cannot be a counterparty to the reportable transaction. Internal agents are similar to execution agents, but have access to all the information for the market participants upon whose behalf they are reporting and can create new reports as well as report lifecycle events including modifications, terminations, valuations, etc.
* *Clearing agent*: a special case of the counterparty agent, only applicable to cleared transactions. The clearing agent is a party to the transaction and can create new reports as well as report lifecycle events including modifications, terminations, valuations, etc.

In all cases of agent reporting, the agent must maintain reference data for the parties upon whose behalf they are reporting, such as the ‘TradingCapacity’ value that is used when compiling a report on behalf of the reporting party. This reference data can be provided to the eRR service using Standing Instructions, see the section 3.2.1, “Standing Instructions”.

### Systems & Platforms

Electronic execution platform: electronic marketplace used by an OMP to match buyers and sellers, for example, an exchange, an MTF or an OTF.

* *System of record*: trading system or back office system of a counterparty.
* *eRR service*: a technical solution that implements the eRR Process. The eRR service may provide additional features for process users that are not part of this specification, for example, manual data entry or reconciliation of trade data.
* *Central Counterparty (CCP)*: a legal entity that acts as clearing house for cleared transactions. A CCP interposes itself between the counterparties, becoming the buyer to every seller and the seller to every buyer.
* *EMIR Trade Repository*: any trade repository that is authorised by ESMA to accept transaction reports under EMIR.
* *REMIT Database = ARIS*: central registration database for transaction reports under REMIT. The database is maintained by ACER.
* *RRM (Registered Reporting Mechanism)*: used by MPs and OMPs to submit REMIT-compliant reports to the ARIS database
* *ARM (Approved Reporting Mechanism*: used by investment firms who are not themselves an ARM to submit MiFID II-compliant reports to the appropriate NCA.
* *NCA (National Competent Authority)*: national regulator who has regulatory authority over the reporting parties, i.e. investment firms and venues. The NCA collects transaction reports under MiFID II.

### Document Types

The following document types are defined as input, intermediary or output documents by the eRR Process:

* *Input message*: a transaction report in CpML format created by a process user as input to the eRR Process in CpML format.
* *Enriched message*: an intermediary document created by the eRR Process in CpML format, see section 3.2, “Enrichment of the Input Message”. If all required fields are already included in the input message, then no enrichment is performed and this document is identical to the input message.
* *Output message*: the report created by the eRR Process in the format requested by the corresponding trade repository, for example, CpML or ACER XML, see section 3.6, “Mapping to Output Formats”.
* *Valuation message* (EMIR only): a CpML-related format to report daily valuations, see the section 4.2, “eRR Valuation Message”.
* *Collateral message* (EMIR only): a CpML-related format to report collateral, see the section 4.3, “eRR Collateral Message”.
* *Box result*: a CpML-related format to exchange system messages between the eRR service and the system of record of a process user, see the section 4.4, “Box Result Document (BRS)”.

# eRR Workflow

This section describes the workflow defined for the eRR Process for documents submitted in the CpMLDocument format, for example, how input messages are processed by the eRR Process and mapped to the required output formats for each supported regime.

For this purpose, the actors and external systems are considered to be black boxes. The eRR Process only defines the interface requirements for the incoming and outgoing documents and processing criteria, where appropriate.

The following figures provide an overview of the workflow, show which messages are exchanged and which format is applied at each stage.

Figure 1 shows how transaction reports are processed within the eRR Process. The workflow applies to new trades as well as amendments. Valuation and collateralization messages are treated in a similar manner, the differences are described in the section 2.2.7, “Valuation and Collateralisation”.



Figure 1: Workflow in the eRR Process

Figure 2 describes the interaction between the system of record, the eRR Process and the trade repositories/database for new transactions. This figure focuses on the sequence of actions and the messages that are exchanged between the actors.



Figure 2: Interaction and message exchange transaction reports

Figure 3 shows which document formats are used at the different stages of the eRR Process and how they are transformed.



Figure 3: Transformation of document formats

For REMIT, the CpML format can be directly mapped to the required output format, that is, ACER XML. For EMIR, ESMA only provides field definitions that are implemented by each EMIR Trade Repository in their own format. For more information, see section 3.6, “Mapping to Output Formats”.

**Note:** The formats of the EMIR Trade Repositories listed here are only provided as examples.

## Input Message

The input message for a transaction report must contain all mandatory reportable business data that is maintained within the system of record, such as the price and volume specific to the transaction. The input message is a valid CpMLDocument. The CpML specification defines which fields are mandatory in the CpMLDocument, see reference document [1].

Other data required for compliant reporting under the supported regimes may be maintained outside the system of record and can be added to the input message by the eRR Process. For more information, see section 3.2, “Enrichment of the Input Message”.

## Enrichment of the Input Message

Many fields in the CpMLDocument are optional or conditional in the input message to the eRR Process. They can be omitted because it is possible to automatically add the values and create a complete, enriched message in CpML format.

Process users can decide how rich their input messages are:

* A richer message reduces the amount of processing that is needed to complete the report before it is submitted to the underlying repositories and databases.
* A less rich message means that more fields are automatically generated by the eRR service, reducing the amount of processing that needs to be implemented by the process user.

The essential commercial terms of eligible transactions can be complemented with the following:

* Information captured in addition to the commercial terms during booking of the transaction.
* Information derived from commercial terms.
* Information created as part of the reporting process or added to the submitted report from some external source.

The values that are added during enrichment are derived using one of the following mechanisms:

* Standing Instructions: a set of counterparty-specific default values for specific fields that is maintained by the counterparty or an agent acting on behalf of the counterparty. For more information, see section 3.2.1, “Standing Instructions”.
* Generated field values: data that can be derived from other field values in the input message or generated dynamically. For more information, see section 3.2.2, “Generated Field Values”.
* Reference lookup: data that can be looked up from external data sources. For more information, see section 3.2.3, “Reference Lookup”.

### Standing Instructions (EMIR and REMIT only)

Standing Instructions provide default values for information about the counterparty to a transaction. The default values are used to enrich the input messages for transactions of the counterparty. If the default value for a counterparty applies to a transaction report, then the reporting party may choose to omit the value from the input message. In that case, the enriched CpMLDocument is populated with the value from the Standing Instructions. If the reporting party wants to report a value that differs from the default value in the Standing Instructions, then they must include the corresponding field in the input message.

**Example:** The Standing Instructions contain the value “A” for ‘TradingCapacity’ because the counterparty reporting the transaction is usually acting in the role of an agent. If the counterparty reports on their own behalf, they add the value “P” to the input message.

Standing Instructions can be maintained by the counterparty or by an agent acting on behalf of the counterparty.

This procedure has two benefits:

* It reduces the reporting overhead of the counterparty, because they do no longer need to maintain this data or add it to the commercial terms within the input message.
* It allows an agent who has access to the commercial terms of the individual transactions to report on behalf of the counterparty because the agent usually does not have access to the complementary data that is required for reporting purposes.

**Important:** Standing Instructions can only be maintained if the corresponding counterparty is identified using an LEI. If a client code is used, then all information otherwise available from Standing Instructions must be included in the input message.

The data tables in section 4.1, “CpMLDocument”, indicate which fields can be enriched from Standing Instructions.

### Generated Field Values

Some field values in the output CpMLDocument can be generated as follows:

* Values are created automatically within the eRR Process, for example, time stamps and the UTI.
* Values in the ‘Europe/Reporting’ section can be derived from the commercial terms within the transaction details section of the input CpMLDocument. Some of these values are simple mappings from one field to another that depend on certain conditions. Other values are calculated according to a formula.

The data tables in section 4.1, “CpMLDocument”, indicate which fields can be generated and how the values are calculated.

### Reference Lookup

Some field values can be derived from looking up reference data from external sources, for example, the ETD database.

The data tables in section 4.1, “CpMLDocument”, indicate which field values can be looked up from reference data.

## UTI Processing

From the coming into force of EMIR ‘Refit’ on 29th April 2024, UTI processing is no longer part of the eRR Process.

Article 7 of EMIR Refit’s ITS and Article 8(4) EMIR UK Technical Standard, further described in Section 4.11 Final Report EMIR Refit, defines how UTIs must be generated and distributed under EMIR and UKMIR. The rules define a hierarchy:

1. Regulated Markets
2. Other order matching platforms (such as OTFs)
3. Confirmation matching platforms
4. By a counterparty to the trade.

Furthermore, the format of the UTI has been defined to include the LEI of the generating entity, be it that of the execution platform, confirmation platform or counterparty.

eRR previously generated UTIs on behalf of users of the process. The introduction of rules for who can generate the UTI and under which circumstances, and the requirement to include the identity of the generating entity in the UTI, mean that eRR can no longer generate UTIs on behalf of users of the process and the functionality is removed from the eRR Process description.

### UTI Amendment

If the input message contains a different UTI than the original report, then the message is rejected. The UTI for a transaction can only be amended within the eRR Process by cancelling a submission and reporting a new transaction. To change the UTI on a previously submitted transaction report, the process user must perform the following steps:

1. Cancel the transaction report by submitting an input message for the old UTI using ‘ActionType’ = “E”.
2. Submit a new report with the new UTI using ‘ActionType’ = “N”.

## Eligibility Processing

After processing the input message, the eRR Process determines the reporting eligibility of the transaction.

When using the ‘Europe’ section, process users can provide the eligibility information in the input message using the corresponding report mode field:

* If ‘EMIRReportMode’ and, optionally, ‘REMITReportMode’ is set to “Report”, then the transaction report is considered to be eligible for EMIR.
* If only ‘REMITReportMode’ is set to “Report”, then the transaction report is considered to be eligible for REMIT.
* If ‘EMIRReportMode’ or ‘REMITReportMode’ is set to “NoReport”, then the transaction report is considered to be not eligible for the corresponding regime.
* If ‘EMIRReportMode’ and/or ‘REMITReportMode’ is set to “CMSReport”, then the eRR Process determines the eligibility by applying filter criteria as described in the following. The eRR Process stores the eligibility information and returns a corresponding box result message to the system of record of the process user.
* If ‘MiFID2ReportMode’ is set to “Report”, then the transaction report is considered to be eligible for MiFID II.
The eligibility for MiFID II cannot be determined automatically by the eRR Process. Therefore, the value “CMSReport” is not available for ‘MiFID2ReportMode’ and no filter criteria are required.

**Important:** If a transaction is eligible for reporting under EMIR and REMIT, then the report is submitted under EMIR only. It is then the responsibility of the corresponding trade repository to make the information available to ACER as well.

If a transaction is not eligible for reporting under any regime, then the information submitted to the eRR Process is returned to the process user to be stored in the system of record. The eRR Process ends for such a submission.

### Filter Criteria for EMIR Eligibility

The base criteria for EMIR reporting are:

1. Eligibility filtering applies only to commodity trades but not to other asset classes including interest rates and foreign exchange contracts.
2. The legal entity acting in the capacity of counterparty or other counterparty is legally resident within the European Union (or the UK whilst UKMIR is treated as a special case of EMIR). If an LEI is not registered in the EU (or UK), then the LEI is not subject to EMIR (or UKMIR).
3. If an agent reports on behalf of at least one counterparty with an LEI registered within the EU (or UK), then the whole report will be considered eligible for reporting.
4. If the trade was, or could have been, executed on a trading venue, it may be eligible for EMIR reporting. Conversely, all physically-settled trades not executed on a trading venue, specifically trades for which the “VenueOfExecution” = “XXXX”, are not subject to EMIR.
5. All order data is ineligible for reporting under EMIR.

Figure 4: Eligibility Filtering Flow Diagram shows the filtering mechanism that implements the CpML analysis in the following commentary based on *MiFID I definitions, Section C*, for the reporting of financial instruments in the Commodity asset class.



Figure 4: Eligibility Filtering Flow Diagram

#### C5: all financial instruments with cash settlement

Defined as:

* *Options, futures, swaps, forwards and any other derivative contracts relating to commodities that must be settled in cash or may be settled in cash at the option of one of the parties other than by reason of default or other termination event;*

CpML analysis:

* All OTC commodity swaps (including spot notional deliveries) and OTC financial commodity options defined within the CpML format are cash-settled instruments and therefore eligible under this clause.
* Options on OTC commodity swaps (swaptions), unless they must or may be financially settled, exercise ‘physically’ into the underling OTC swap contract and so are not financially settled and are excluded from this clause, but rather they result in a new swap contract which should be separately reported at exercise, and which would be captured by this clause.
* All OTC physical commodity forwards (including spot physical deliveries), both with fixed and floating price, are physically-settled instruments and therefore ineligible under this clause.
* Options on OTC physical commodity forwards exercise ‘physically’ into the underling OTC physical commodity contract and so are not financially settled and are excluded from this clause.
* All Exchange Traded Derivatives (ETDs) on commodities including futures contracts and ETD option contracts, but excluding spot contracts for physical delivery, are considered to be financial instruments even if they can result in physical delivery and are eligible under this clause.

CpML filter criteria:

* CPMLDocuments that contain a ‘TradeConfirmation’ section with the following ‘TransactionType’ values are eligible under this clause:
	+ “FXD\_SWP”: Fixed/float swap
	+ “FXD\_FXD\_SWP”: Fixed/fixed swap
	+ “FLT\_SWP”: Float/float swap
	+ “OPT\_FIN\_INX”: Option on an index
	+ If ‘OptionDetails/CashSettlement’ = “True” and ‘TransactionType’ is:
		- “OPT\_FXD\_SWP”: Fixed/float swaption
		- “OPT\_FXD\_FXD\_SWP”: Fixed/fixed swaption
		- “OPT\_FLT\_SWP”: Float/float swaption
* CpMLDocuments with an ‘ETDTradeDetails’ section with any permitted ‘TransactionType’ value where ‘PrimaryAssetClass’ = “Commodity” AND (‘EffectiveDate’ > DATE(Execution Timestamp)+2 OR ‘EURegulatoryDetails/ETDProductInformation/DeliveryType’ = “C” or “O"), are considered financially settled and are therefore eligible under this clause.
* CpMLDocuments with other ‘TransactionType’ values are ineligible under this clause and must be evaluated against C6.

#### C6: all physically-settled instruments traded on a Regulated Market, MTF or OTF with physical delivery

Defined as:

* *Options, futures, swaps, and any other derivative contract relating to commodities that can be physically settled provided that they are traded on a regulated market, a MTF, or an OTF, except for wholesale energy products traded on an OTF that must be physically settled;*

CpML analysis:

* All OTC commodity swaps (including spot notional deliveries) and OTC financial commodity options defined within the CpML format are cash-settled instruments and therefore eligible under C5, but ineligible under C6.
* Options on OTC commodity swaps (swaptions), unless they must or may be financially settled, exercise ‘physically’ into the underling OTC swap contract and so are not financially settled and are excluded from C5, but are eligible under this clause, if executed on an eligible platform and not carved out of EMIR by REMIT.
* All OTC physical commodity forwards with both fixed and floating price are physically-settled instruments and therefore ineligible under C5, but eligible under this clause, if executed on an eligible platform and not considered spot trades and not carved out of EMIR by REMIT.
* Options on OTC physical commodity forwards exercise ‘physically’ into the underling OTC physical commodity contract and so are not financially settled and are excluded from C5, are eligible under this clause, if executed on an eligible platform and not carved out of EMIR by REMIT.
* All Exchange Traded Derivatives (ETDs) on commodities including futures contracts and ETD option contracts, but excluding spot contracts for physical delivery, are considered to be financial instruments even if they can result in physical delivery and are eligible under C5 but are ineligible under this clause.

CpML filter criteria:

* If ‘VenueOfExecution’ contains a MIC registered as RM, MTF or OTF and the REMIT carve-out for wholesale energy products does not apply (see section 3.4.2, “Filter Criteria for ‘REMIT Carve-Out’ from MiFID II”), then the following transaction types are eligible for reporting under this clause. Note that the REMIT carve-out does not apply unless the underlying electricity or natural gas spot contract is traded within the EU and the trade is executed on an OTF within the EU:
* CpMLDocuments that contain a ‘TradeConfirmation’ section with the following ‘Transaction­Type’ values are eligible under this clause if ‘OptionDetails/CashSettlement’ = “False”:
	+ - “OPT\_FXD\_SWP”: Fixed/float swaption
		- “OPT\_FXD\_FXD\_SWP”: Fixed/fixed swaption
		- “OPT\_FLT\_SWP”: Float/float swaption
* CpMLDocuments that contain a ‘TradeConfirmation’ section with the following ‘Transaction­Type’ values are eligible under this clause:
	+ - “OPT”: Option on a physical forward
		- “OPT\_PHYS\_INX”: Option on a physical forward that settles against an index
* CpMLDocuments with the following ‘Transaction­Type’ values are eligible under this clause if the EMIR Delivery Start Date > ‘DATE(Execution Timestamp)+2:
	+ - “FOR”: Physical forward that settles against a fixed price
		- “PHYS\_INX”: Physical forward that settles against an index
* Else, these CpML ‘TransactionType’ values are ineligible under this clause and must be evaluated against C7.

#### C7: Other (physically delivered commodity) derivative financial instruments

Defined as:

* *Options, futures, swaps, forwards and any other derivative contracts relating to commodities, that can be physically settled not otherwise mentioned in point 6 of this Section and not being for commercial purposes, which have the characteristics of other derivative financial instruments.*

CpML analysis:

* All OTC commodity swaps (including spot notional deliveries) and OTC financial commodity options defined within the CpML format are cash-settled instruments and therefore eligible under C5, but ineligible under C6 or C7.
* Options on OTC commodity swaps (swaptions), unless they must or may be financially settled, exercise ‘physically’ into the underling OTC swap contract and so are not financially settled and are excluded from clause C5, but are eligible under Clause C6, if executed on an eligible platform and not carved out of EMIR by REMIT; otherwise they are eligible under this clause.
* All OTC physical commodity forwards (including spot physical deliveries), both with fixed and floating price are physically-settled instruments and therefore ineligible under C5, but are eligible under C6, if executed on an eligible platform and not carved out of EMIR by REMIT; otherwise they are eligible under this clause.
* Options on OTC physical commodity forwards exercise ‘physically’ into the underling OTC physical commodity contract and so are not financially settled and are excluded from C5, but are eligible under clause C6, if executed on an eligible platform, not considered spot trades and not carved out of EMIR by REMIT; otherwise they are eligible under this clause.
* All Exchange Traded Derivatives (ETDs) on commodities including futures contracts and ETD option contracts, but excluding spot contracts for physical delivery, are considered to be financial instruments even if they can result in physical delivery and are eligible under C5 but are ineligible under C6 and under this clause.

CpML filter criteria:

* If ‘VenueOfExecution’ contains a MIC that is NOT registered as RM, MTF or OTF, or ‘VenueOfExecution’ is set to “XOFF”, then the following transaction types are eligible for reporting under this clause:
	+ CpMLDocuments that contain a ‘TradeConfirmation’ section with the following ‘Transaction­Type’ values are eligible under this clause if ‘OptionDetails/CashSettlement’ = “False”:
		- “OPT\_FXD\_SWP”: Fixed/float swaption
		- “OPT\_FXD\_FXD\_SWP”: Fixed/fixed swaption
		- “OPT\_FLT\_SWP”: Float/float swaption
	+ CpMLDocuments that contain a ‘TradeConfirmation’ section with the following ‘Transaction­Type’ values are eligible under this clause:
		- “OPT”: Option on a physical forward
		- “OPT\_PHYS\_INX”: Option on a physical forward that settles against an index
	+ CpMLDocuments with the following ‘Transaction­Type’ values are eligible under this clause if the EMIR Delivery Start Date > ‘DATE(Execution Timestamp)+2:
		- “FOR”: Physical forward that settles against a fixed price
		- “PHYS\_INX”: Physical forward that settles against an index
* Else, these CpML ‘TransactionType’ values are ineligible under this clause and must be evaluated against C10.

#### C10: Cash-settled options, futures, swaps, forward rate agreements relating to climatic variables, freight rates, emission allowances

Defined as:

* *Options, futures, swaps, forward rate agreements and any other derivative contracts relating to* climatic *variables, freight rates or inflation rates or other official economic statistics that must be settled in cash or may be settled in cash at the option of one of the parties other than by reason of default or other termination event, as well as any other derivative contracts relating to assets, rights, obligations, indices and measures not otherwise mentioned in this Section, which have the characteristics of other derivative financial instruments, having regard to whether, inter alia, they are traded on a regulated market, OTF, or an MTF.*

CpML analysis:

* In the analysis for clauses 5, 6 & 7 no restriction has been placed on the underlying in particular referring to climatic variables, freight rates or inflation rates or other official economic statistics and so such transaction reports in the CpML format will be captured by those clauses and no additional filtering criteria are required here.

CpML filter criteria:

* Not applicable.

### Filter Criteria for ‘REMIT Carve-Out’ from MiFID II

The REMIT Carve-Out is defined here for the purposes of filtering as:

* *those wholesale energy products traded on an OTF that must be physically settled*.

#### Natural gas and electricity for delivery

CpML analysis:

* All physical forwards (including spot contract) with both fixed and floating price for electricity or natural gas and options on these underlying instruments are eligible under the REMIT Carve-Out if the venue of execution is a registered OTF and one of the following applies:
	+ The contract is for physical delivery of electricity or natural gas within the EU.
	+ The contract is for physical delivery of electricity or natural gas for a location for which an active spot market exists within the EU.
* All swaps, swaptions and financial options are ineligible under the REMIT Carve-Out.
* Futures and exchange-traded options are ineligible under the REMIT Carve-Out.

CpML filter criteria:

* CpMLDocuments that contain a ‘TradeConfirmation’ section with the following ‘TransactionType’ values are eligible under this clause if ‘SubProduct’ = “NGAS” or “ELEC”:
	+ “FOR”: Physical forward that settles against a fixed price
	+ “OPT”: Option on a physical forward
	+ “PHYS\_INX”: Physical forward that settles against an index
	+ “OPT\_PHYS\_INX”: Option on a physical forward that settles against an index
* CpMLDocuments that contain a ‘TradeConfirmation’ section with the following ‘TransactionType’ values are ineligible under this clause:
	+ “FXD\_SWP”: Fixed/float swap
	+ “FXD\_FXD\_SWP”: Fixed/fixed swap
	+ “FLT\_SWP”: Float/float swap
	+ “OPT\_FXD\_SWP”: Fixed/float swaption
	+ “OPT\_FXD\_FXD\_SWP”: Fixed/fixed swaption
	+ “OPT\_FLT\_SWP”: Float/float swaption
	+ “OPT\_FIN\_INX”: Option on an index
* All input messages that contain an ‘ETDTradeDetails’ section are ineligible under this clause.

## Filter Criteria for REMIT Eligibility

The following commentary is based on the REMIT Transaction Reporting User Manual (TRUM), see reference document [3].

The scope of REMIT includes all trades, both executed on and off a trading venue, and orders submitted to electronic venues, related to contracts for physical or notional delivery of electricity or natural gas within the European Union. Contracts and orders for contracts for physical delivery (settlement) are in scope if they deliver to a location within the European Union. Contracts and orders for contracts for financial settlement (with no physical delivery or which can deliver physically) are in scope if they refer to an underlying contract for delivery within the European Union.

CpML does not model orders to trade, therefore this section is concerned only with trade reports.

CpML analysis:

* All physical forwards (including spot contracts) both fixed and floating price for electricity or natural gas referencing a delivery point or area within the EU and options on these underlying instruments are eligible under REMIT.
* All swaps, swaptions and financial options for electricity or natural gas priced off a contract referencing a delivery point or area within the EU are eligible under REMIT.
* Futures (including spot contracts) and exchange-traded options for which the “CRAProductCode” refers to electricity or natural gas at a delivery point or area with the EU are eligible under REMIT.

CpML filter criteria:

* CpMLDocuments that contain a ‘TradeConfirmation’ section with the following ‘TransactionType’ values are eligible under this clause if ‘SubProduct = “NGAS” or “ELEC” and ‘Market’ contains the ISO two letter country code for a member state of the EU:
	+ “FOR”: Physical forward that settles against a fixed price
	+ “OPT”: Option on a physical forward
	+ “PHYS\_INX”: Physical forward that settles against an index
	+ “OPT\_PHYS\_INX”: Option on a physical forward that settles against an index
* CpMLDocuments that contain a ‘TradeConfirmation’ section with the following ‘TransactionType’ values are eligible under this clause if ‘SubProduct’ = “NGAS” or “ELEC” and ‘FinancialDeliveryInformation/DeliveryPointOrZone’ contains one or more delivery points or areas that are located within a member state of the EU:
	+ “FXD\_SWP”: Fixed/float swap
	+ “FXD\_FXD\_SWP”: Fixed/fixed swap
	+ “FLT\_SWP”: Float/float swap
	+ “OPT\_FXD\_SWP”: Fixed/float swaption
	+ “OPT\_FXD\_FXD\_SWP”: Fixed/fixed swaption
	+ “OPT\_FLT\_SWP”: Float/float swaption
	+ “OPT\_FIN\_INX”: Option on an index
* All input messages that contain an ‘ETDTradeDetails’ section are eligible under this clause if ‘‘SubProduct’ = “NGAS” or “ELEC” and ETDProductInformation/DeliveryPointOrZone contains a delivery point or area that is located within a member state of the EU:
	+ “FOR”: Physical forward that settles against a fixed price
	+ “OPT”: Option on a physical forward
	+ “PHYS\_INX”: Physical forward that settles against an index
	+ “OPT\_PHYS\_INX”: Option on a physical forward that settles against an index
	+ “FXD\_SWP”: Fixed/float swap
	+ “FLT\_SWP”: Float/float swap
	+ “OPT\_FXD\_SWP”: Fixed/float swaption
	+ “OPT\_FLT\_SWP”: Float/float swaption
	+ “OPT\_FIN\_INX”: Option on an index
	+ “FUT”: Future
	+ “OPT\_FUT”: Exchange traded option
	+ “SPT”: Spot transaction

## Mapping to Output Formats

When the eRR Process has determined the eligibility of a transaction report and selected the corresponding regime, it creates the corresponding output message. To do so, the data contained in the enriched input message in CpML format is mapped to the required fields of the output format. The mapping from the enriched CpML message to the EMIR fields and ACER XML is described in cross-reference tables, which are attached to this process specification as Excel files.

### EMIR

ESMA uses the ISO 20022 message format for transaction reporting under EMIR Refit. The EMIR format specification is a list of fields with descriptions, conditions, and business rules. This field list is independently implemented in the ISO 20022 format by each EMIR Trade Repository.

Therefore, the cross-reference table describes the mapping from the CpML format to the EMIR fields. The mapping to the ISO 20022 implementations required by each EMIR Trade Repository is part of the implementation of the eRR Service provider and not considered within the scope of the eRR Process.

The EMIR mapping is specified in the attached file “<EFET_eRR_cross-reference_EMIR_v2.4.xlsx>”.

### REMIT

ACER provides a format specification with a list of fields with descriptions, conditions, and business rules called the Transaction Reporting User Manual (TRUM). This field list is implemented by a technical format specification in ACER XML called REMITTable1. The cross-reference table describes the mapping to the REMIT format specification.

The REMIT mapping is specified in the attached file “<EFET_eRR_cross_reference_REMIT_v2.2a.xlsx>”.

**Note:** The REMIT mapping has not yet been updated to reflect the changes in the schema for EMIR Refit.

### MiFID II

ESMA has stipulated that ISO 20022 is the only format in which the NCAs (National Competent Authorities) will accept MiFID II transactions reports. Therefore, the XML format provided by ISO 20022 is used as the output format for MiFID II transaction reports that are processed by the eRR Process.

The MiFID II mapping is specified in the attached file “<EFET_eRR_cross-reference_MiFID2_v2.1.a.xlsx>”.

**Note:** The MiFID II mapping has not yet been updated to reflect the changes in the schema for EMIR Refit.

For some fields, the MiFID II cross-reference table refers to the mappings described in the EMIR cross-reference table. This way it is ensured that the mappings for both regimes stay consistent, where this is appropriate.

## Submitting Reports

When the eRR Process determines that a report is eligible for reporting, then it submits the report. The eRR Process manages all necessary interactions with the underlying trade repositories and/or databases.

* EMIR: The target repository is specified in the generated output message.
* REMIT: The target ARIS database is determined depending on mechanisms agreed between ACER and the National Regulatory Authorities (NRAs).
* MiFID II: The target database is determined depending on mechanisms agreed between the ARM and the corresponding NCA.

The successful submission of a report must be acknowledged by the underlying trade repository and/or trade database. After successful reporting, this information is logged by the eRR service and the process user receives a box result with the updated status.

## Amendments

Changes to the trade data in the original input message are only allowed for lifecycle events, that is, if ‘ActionType’ is set to “M”.

For all other amendments, only the following changes to the original input message are allowed:

* The value for ‘ActionType’ is changed to either “C” or “E”. In case of “E”, the UTI and all related report data are removed from the process.

**Important**: For all amendments, the value of ‘DocumentVersion’ in the transaction details section of the CpMLDocument must be increased compared to the ‘DocumentVersion’ value in the previous submission of the same transaction.

For information on UTI amendment, see section 3.3.1, “UTI Amendment”.

## Valuation and Collateralisation (EMIR only)

Collateralisation and valuation information is reported using separate document types that are described in section 4.2, “eRR Valuation Message” and section 4.3, “eRR Collateral Message”.

Valuation and collateralisation messages must use the same UTI as the original report of the same transaction.

Because valuation and collateralisation messages are associated with a known transaction, there is no eligibility processing.

With one exception, valuation and collateralisation message are not enriched before mapping them to the corresponding output format.

## Box Results

The box result document is sent from the eRR service to the system of record of the process user. It is used to transfer information between the IT systems involved in the eRR Process and thus not part of the eRR Process definition.

More than one box result is sent per submission. On successful completion of a process stage, the eRR Process generates a box result with feedback. For example, the eRR Process returns a message for the successful submission of a report. After completion of the eRR Process, a submission has the following box results:

* Submit: “Submit” / “OK”
* Processing: “Processing” / “Report”
* Reporting: “Reporting” / “OK”

In case of an error, the process user receives a box result for the corresponding stage that indicates the reason of the error: “Submit” / “Error”.

For an overview of the message exchange, see Figure 2.

## Document IDs

To provide a common syntax for CpMLDocuments that is comprehensible and maintains uniqueness, the CpML standard defines rules for creating document IDs. These rules are also applicable in the scope of the eRR Process. For more information, see the section “Document IDs” in the CpML specification.

### Constraints on Document ID Usage in the eRR Process

A document ID is unique per sender, trade and document type. The document ID that is used to first report a transaction, must never change and be used for all future documents relating to this trade.

The eRR Process must reject a document in the following cases:

* The document ID is already in use by another customer.
* A document with document ID “123” contains a UTI that is known to the eRR service with document ID “567” (from the same sender).

If the transaction details section is ‘TradeConfirmation’, ‘IRSTradeDetails’ or ‘FXTradeDetails’, then the ‘ReceiverID’ must be set to the identification code used to identify the other counterparty to the trade. This ID must differ from the ‘SenderID’.

# eRR Document Reference

The CpML standard is used to exchange transaction data in the eRR Process. For a full description of the CpML schema, see the CpML specification (see reference document [1]). This section contains the business rules specific to the eRR Process that apply to the corresponding sections in the CpMLDocument. In addition, it contains descriptions of additional messages that are generated and exchanged, for example, valuation messages.

## CpMLDocument

The following tables provide details about the enrichment that is applied to fields in the input CpMLDocument. The tables describe the relevant parts of the CpML XML schema in a flattened form. The fields are listed in the same order as they occur in the schema. The tables list only those sections and fields that have additional processing rules in the eRR Process, for example, Standing Instructions or other enrichment rules.

For each field, you find the location in the CpML schema, the enrichment type and the corresponding processing rules.

For a general description and business rules in the CpML schema, see the CpML specification (reference document [1]).

The Enrichment column provides information on the corresponding enrichment type:

* SI = Standing Instructions, see “Standing Instructions”.
* Gen = Generated, see “Generated Field Values”.
* Default = A default value is applied.
* Lookup = Lookup in external data source, see “Reference Lookup”.

If a field with a matching Enrichment rule is present in the input CpMLDocument, then that value is also used in the output CpMLDocument. If a field with a matching Enrichment rule is missing from the input CpMLDocument, then the field can be automatically generated and added to the output CpMLDocument.

Sometimes enrichment is only applied to a field in certain contexts. For example, different rules can be applied depending on the value of another field or a specific combination of asset type and transaction type. These rules are listed as conditions in the table. If no conditions are stated, then the field is mandatory in the output CpML in all contexts.

**Example:**

The input CpMLDocument has no ‘EURegulatoryDetails/BeneficiaryID’ field:

* ‘TradingCapacity’ is set to “A”. The Standing Instructions must have a value, which is added to the output CpMLDocument during enrichment.
* ‘TradingCapacity’ is set to “P”. The field is populated in the output CpMLDocument using the value of ‘CounterpartyID’.

Sometimes, only complete sections can be enriched. In these cases, either the input CpMLDocument must contain all fields that are mandatory for the output CpMLDocument, or the whole section must be missing from the input CpMLDocument and is generated automatically. Such sections are clearly marked in the following tables.

### Reporting/Europe

The ‘Reporting/Europe’ section of the CpMLDocument contains fields specific to the REMIT and EMIR reporting processes. This section provides details about the enrichment that is applied and lists additional business rules that are process-specific.

**Note:** To improve readability and findability, the section is split into several tables.

#### Action

This section is mandatory in the output CpMLDocument.

| Field name | Subsection | Enrich­ment | Conditions & Rules |
| --- | --- | --- | --- |
| EventDate | Action | Gen | If not present in the incoming CpML document, then this field is enriched according to the following rules:* If ‘Reporting/Europe/Action/ActionType’ = "New", then set to ‘Reporting/Europe/EURegulatory­Details/­Execution­Timestamp’.
* Else, if 'Reporting/Europe/EURegulatoryDetails/­Reporting­Timestamp’ is present, then set to ‘Reporting/Europe/EURegulatoryDetails/­ReportingTimestamp’.
* Else, set to current system date.
 |

#### EURegulatoryDetails

If information is not present in the input CpML document, but has been included in the Standing Instructions, then the data included in the Standing Instructions is used to enrich the fields of the counterparty or the other counterparty to the trade.

| Field name | Subsection | Enrich­ment | Conditions & Rules |
| --- | --- | --- | --- |
| UTI |  | Gen |  |
| Reporting­Timestamp | EURegulatoryDetails  | Gen | If this field is enriched, then it is the time when the enrichment was performed. |
| CPFinancial­Nature | EURegulatoryDetails or EURegulatory­Details/Other-CounterpartyDetails | SI |  |
| CPSector | EURegulatoryDetails/ CP­Sectors or EURegulatory­Details/Other-CounterpartyDetails/ CP­Sectors | SI | At least one ‘CPSector’ value must be present in the output CpMLDocument if ‘CPFinancialNature’ is set to “F” or “N”.The Standing Instructions may contain multiple values for ‘CPSector’. If a report requires multiple ‘CPSector’ values, then the fields in the CpMLDocument are enriched in a defined order. The first ‘CPSector’ field is enriched using the first ‘CPSector’ value in the Standing Instructions, the second field with the second value, and so on. |
| BeneficiaryID | EURegulatoryDetails or EURegulatory­Details/Other-CounterpartyDetails | SI | This field can be enriched if ‘TradingCapacity’ is set to “A”. |
| TradingCapacity | EURegulatoryDetails or EURegulatory­Details/­Other­Counterparty­Details | SI |   |
| CPCountry | EURegulatoryDetails or EURegulatory­Details/­Other­Counterparty­Details | Gen | The country code is derived from the LEI of the counterparty, which is looked up from a valid LEI database. Depending on the reporting perspective, this is the ID of the seller or the buyer.For the lookup, the ID of the reporting counterparty or the ID of counterparty.The rules for deriving these IDs from fields in the input message are described in the corresponding cross-reference table, see section 3.6, “Mapping to Output Formats”.  |
| Commercial­OrTreasury | EURegulatoryDetails or EURegulatory­Details/­Other­Counterparty­Details | SI | This field is mandatory in the output CpMLDocument if ‘CPFinancialNature’ is set to “N” and the transaction details section is not ‘ETDTradeDetails’ or ‘Position’ is set to “False”. |
| Clearing-Threshold | EURegulatoryDetails or EURegulatory­Details/­Other­Counterparty­Details | SI | This field is mandatory in the output CpMLDocument if ‘CPFinancialNature’ is set to “N” or “F”. |
| Collateralisation | EURegulatoryDetails or EURegulatory­Details/­Other­Counterparty­Details | SI | This field is optional in the output CpMLDocument. |
| Collateral­isation­­Portfolio | EURegulatoryDetails or EURegulatory­Details/­Other­Counterparty­Details  | SI | This field is mandatory in the output CpMLDocument. |
| Collateral­isation­Portfolio­Code | EURegulatoryDetails or EURegulatoryDetails/­Other­Counterparty­Details  | SI | This field is mandatory in the output CpMLDocument if ‘CollateralisationPortfolio’ is set to “True”. |
| EMIRReporting­Obligation | EURegulatoryDetails/­Other­Counterparty­Details | Gen | If not present in the input document for the other counterparty, this field is enriched based on the LEI of the counterparty:* If the LEI belongs to a company within the EU, the field is set to “True”.
* Else, this field is set to “False”.

For the reporting party, the value is set to “true” if it is within the EU, otherwise to “false”. |

#### EURegulatoryDetails/ProductIdentifier

This section is mandatory in the output CpMLDocument.

**Important:** Only the whole section can be enriched, not individual fields. Fields that are optional in the output CpMLDocument are not enriched.

| Field name | Subsection | Enrich­ment | Conditions & Rules |
| --- | --- | --- | --- |
| Product­Identification­Type |  | Gen | This field is enriched according to the following rules:* If ‘VenueOfExecution’ is set to “XOFF” or contains a MIC classified as ISIN, then this field is set to “I”.
* If ‘VenueOfExecution’ contains a MIC classified as Aii, then this field is set to “A”.
* Else, the field is omitted from the output CpMLDocument.

**Important:** If the trade is an ETD and the ETD database contains an ISIN or Aii for the product, both ‘ProductIdentificationType’ and ‘ProductIdentification’ are filled accordingly. |
| Product­Identification |  | Gen | This field is enriched according to the following rules:* If ‘ProductIdentificationType’ is set to “I”, then this field is set to the ISIN for the traded product.
* If ‘ProductIdentificationType’ is set to “A”, then this field is set to the Aii for the traded product.
* Else, the field is omitted from the output CpMLDocument.

**Important:** If the trade is an ETD and the ETD database contains an ISIN or Aii for the product, both ‘ProductIdentificationType’ and ‘ProductIdentification’ are filled accordingly. |
| Product­Classification­Type[1] |  | Gen | This field is set to “C”. |
| Product­Classification[1] |  | Gen | This field is set to an ISO-compliant CFI, for example, “OPXCXX”, “OCXTXX”, “FCXXXX”, “FFCXXX” or “MRTXXX”.The rules for generating CFIs are described in “Rules for CFI Generation”. |
| EProductID1 | EProduct | Gen | This field is enriched according to the following rules:* If the transaction details section is ‘TradeConfirmation’, then this field is set to “CO”.
* If the transaction details section is ‘IRSTradeDetails’, then this field is set to “IR”.
* If the transaction details section is ‘ETDTradeDetails’, then this field is mapped to the value of ‘ETDTradeDetails/Primary­Asset­Class’.
* If the transaction details section is ‘FXTradeDetails’, then this field is set to “CU”.
 |
| EProductID2 | EProduct | Gen | This enrichment is used for EMIR only. The field is enriched according to the following rules:Transaction details section is ‘TradeConfirmation’:* If ‘TransactionType’ is set to “FOR” or “PHYS\_INX”, then this field is set to “FW”.
* If ‘TransactionType’ is set to “OPT”, “OPT\_PHYS\_INX” or “OPT\_FIN”, then this field is set to “OP”.
* If ‘TransactionType’ is set to “OPT\_FXD\_SWP” or “OPT\_FLT\_SWP”, then this field is set to “ST”.
* If ‘TransactionType’ is set to “FXD\_SWP” or “FLT\_SWP”, then this field is set to “SW”.

Transaction details section is ‘IRSTradeDetails’:* If ‘TransactionType’ is set to “OPT\_FXD\_SWP”, “OPT\_FLT\_SWP” or “OPT\_FXD\_FXD\_SWP”, then this field is set to “ST”.
* If ‘TransactionType’ is set to “FXD\_SWP”, “FLT\_SWP” or “FXD\_FXD\_SWP”, then this field is set to “SW”.

Transaction details section is ‘FXTradeDetails’:* If ‘TransactionType’ is set to “OPT”, then this field is set to “OP”.
* If ‘TransactionType’ is set to “OPT\_FXD\_FXD\_SWP”, then this field is set to “ST”.
* If ‘TransactionType’ is set to “FXD\_FXD\_SWP”, then this field is set to “SW”.
* If ‘TransactionType’ is set to “FOR” or “SPT”, then this field is set to “FW”.

Transaction details section is ‘ETDTradeDetails’: * If ‘TransactionType’ is set to “FOR” or “SPT”, then this field is set to “FW”.
* If ‘TransactionType’ is set to “OPT”, “OPT\_PHYS\_INX”, “OPT\_FIN” or “OPT\_FUT”, then this field is set to “OP”.
* If ‘TransactionType’ is set to “OPT\_FXD\_SWP”, “OPT\_FLT\_SWP” or “OPT\_FXD\_FXD\_SWP, then this field is set to “ST”.
* If ‘TransactionType’ is set to “FXD\_SWP”, “FLT\_SWP” or “FXD\_FXD\_SWP”, then this field is set to “SW”.
* If ‘TransactionType’ is set to “FUT”, then this field is set to “FU”.

**Important: Contract for Financial Differences (CFDS):*** A value cannot be derived from CpML and the value “CD” must be entered in this field by the document submitter.
 |

#### EURegulatoryDetails (cont.)

| Field name | Subsection | Enrich­ment | Conditions & Rules |
| --- | --- | --- | --- |
| ­ContractType |  | Gen | This enrichment is used for REMIT only. The field is enriched according to the following rules:**OTC commodities:*** If ‘TransactionType’ is set to “FOR” or “PHYS\_INX”, then set to “FW”.
* If ‘TransactionType’ is set to “OPT” or “OPT\_PHYS\_INX”, then set to “OP\_FW”.
* If ‘TransactionType’ is set to “OPT\_FXD\_SWP” or “OPT\_FLT\_SWP”, then set to “OP\_SW”.
* If ‘TransactionType’ is set to “FXD\_SWP” or “FLT\_SWP”, then set to “SW”.
* If ‘TransactionType’ is set to “OPT\_FIN\_INX”, then set to “OP”.

**OTC commodity formula swaps:*** If ‘TransactionType’ is set to “PHYS\_INX”, then set to “FW”.
* If ‘TransactionType’ is set to “OPT\_PHYS\_INX”, then set to “OP\_FW”.
* If ‘TransactionType’ is set to “OPT\_FXD\_SWP” or “OPT\_FLT\_SWP”, then set to “OP\_SW”.
* If ‘TransactionType’ is set to “FXD\_SWP” or “FLT\_SWP”, then set to “SW”.
* If ‘TransactionType’ is set to “OPT\_FIN\_INX”, then set to “OP”.

**ETDS:*** If ‘TransactionType’ is set to “SPT”, “FOR” or “PHYS\_INX”, then set to “FW”.
* If ‘TransactionType’ is set to “OPT” or “OPT\_PHYS\_INX”, then set to “OP\_FW”.
* If ‘TransactionType’ is set to “OPT\_FXD\_SWP” or “OPT\_FLT\_SWP”, then set to “OP\_SW”.
* If ‘TransactionType’ is set to “FXD\_SWP” or “FLT\_SWP”, then set to “SW”.
* If ‘TransactionType’ is set to “OPT\_FIN\_INX”, then set to “OP”.
* If ‘TransactionType’ is set to “FUT”, then set to “FU”.
* If ‘TransactionType’ is set to “OPT\_FUT”, then set to “OP\_FU”.

**OTC FX:*** If ‘TransactionType’ is set to “SPT” or “FOR”, then set to “FW.
* If ‘TransactionType’ is set to “OPT”, then set to “OP\_FW”.
* If ‘TransactionType’ is set to “OPT FXD\_FXD­\_SWP”, then set to “OP\_SW”.
* If ‘TransactionType’ is set to “FXD\_FXD\_SWP”, then set to “SW”.

**OTC IRS:*** If ‘TransactionType’ is set to “OPT FXD\_­FXD­\_SWP”, “OPT\_FXD\_SWP” or “OPT\_FLT\_SWP”, then set to “OP\_SW”.
* If ‘TransactionType’ is set to “FXD\_FXD\_SWP”, “FXD\_SWP” or “FLT\_SWP”, then set to “SW”.
 |
| Derivative­Based­On­Crypto­Assets |  | Default | If not present in the incoming CpML document, this field is set to “False”. |
| Linked­Trans­actionID@Type |  | Default | If the attribute @Type of the field ‘Linked­Trans­actionID’ is not set, the default value “OtherUTI” is used. |
| Execution­­Timestamp |  | Gen | This field is set to the date and time defined in the transaction details section: **OTC commodities, OTC commodity formula swaps, OTC IRS, OTC FX:*** Set to ‘TradeExecutionTimestamp’ or ‘TradeDate’ and ‘TradeTime’, respectively.

**ETDs:*** Set to:
	+ ‘ETDTradeDetails/BuyerDetails/Execution­TimeStamp’ or
	+ ‘ETDTradeDetails/Seller­Details/­Execution­TimeStamp’ or
	+ ‘ETDTrade­Details/­MTF­Details/­Execution­TimeStamp’
 |
| Master­Agree­ment­Version |  | SI |  |
| Clearing­Obligation |  | Default | If not present in the incoming CpML document, this field is set to “unknown”.**Note:** ETDs executed on a 3rd-country platform must be reported according to the validation rules of OTC trade reports. |
| LoadType |  | Gen | For Financial Transactions, this field is enriched as follows:* If ‘EURegulatory­Details/Commodity/SubProduct’ is set to “ELEC”, then this field is set to “OT”.
* If ‘EURegulatory­Details/Commodity/SubProduct’ is set to “NGAS”, then this field is set to “GD”.
* If ‘TradeConfirmation/FloatPriceInformation[1‑2]/Commodity­Reference[1-n]/IndexCommodity’ is set to “Electricity”, then this field is set to “OT”.
* If ‘TradeConfirmation/FloatPriceInformation[1‑2]/Commodity­Reference[1-n]/IndexCommodity’ is set to “Nat\_Gas”, then this field is set to “GD”.

**Important:** The enrichment is performed if any of the fields contains a value that corresponds to electricity or natural gas transactions. If there are conflicting values, then electricity takes precedence: If any field contains an electricity value, then ‘LoadType’ is set to “OT”. |
| NotionalAmount |  | Gen | ‘NotionalAmount’ may have a negative value for commodity transactions of electricity or natural gas.In CpML the value ‘TradeConfirmation/Currency’ can be in the fractional unit of the currency, for example, GBX instead of GBP. * If 'NotionalAmount' is mapped from ‘TradeConfirmation/Currency’ and the @UseFractionalUnit attribute for ‘TradeConfirmation/Currency’ is set to “True”, then the result is divided by 100.

The value is generated as follows: **OTC commodities:**FXD\_SWP:* SUM(TradeConfirmation/­Delivery­Periods/­Delivery­Period[1..n]/FixedPrice **\*** TradeConfirmation/­DeliveryPeriods/Delivery­Period[1..n]/Delivery­Period­Notional­Quantity)

OPT\_FXD\_SWP:* SUM(TradeConfirmation/OptionDetails/Strike­Price **\*** TradeConfirmation/DeliveryPeriods/­Delivery­Period[1..n]/DeliveryPeriodNotional­Quantity)

OPT\_FIN\_INX:* SUM(TradeConfirmation/Delivery­Periods/­Delivery­Period[1..n]/­DeliveryPeriod­Notional­Quantity **\*** TradeConfirmation/­OptionDetails/­StrikePrice)

FLT\_SWP:* If ‘TradeConfirmation/FloatPriceInformation[1]/­CommodityReferences/CommodityReference[1]/­CalculationPeriods/CalculationPeriod[1..n]/­CPNotionalQuantity’ is not an empty set, then SUM(Trade­Confirmation/FloatPrice­Information[1]/­Commodity­References/­Commodity­Reference[1]/­­Spread­Information/­Spread­Amount **\*** TradeConfirmation/FloatPriceInformation[1]/­Commodity­References/­Commodity­Reference[1]/­Calculation­Periods/­Calculation­Period[1..n]/­CPNotionalQuantity)
* Else, SUM(TradeConfirmation/­FloatPrice­Information[1]/­Commodity­References/­Commodity­Reference[1]/­Spread­Information/­Spread­Amount **\*** TradeConfirmation/DeliveryPeriods/­Delivery­Period[1..n]/­DeliveryPeriod­Notional­Quantity)
* Else, if no ‘SpreadAmount’ is present, this field is set to “9999999999999999999999999”.

OPT\_FLT\_SWP:* If ‘TradeConfirmation/­FloatPriceInformation[1]/­Commodity­References/­Commodity­Reference[1]/­Calculation­Periods/­Calculation­Period[1..n]/­CPNotionalQuantity’ is not an empty set, then SUM(TradeConfirmation/­Option­Details/­StrikePrice **\*** TradeConfirmation/­FloatPrice­Information[1]/­Commodity­References/­CommodityReference[1]/­Calculation­Periods/­Calculation­Period[1..n]/­CPNotionalQuantity)
* Else, SUM(TradeConfirmation/­OptionDetails/­StrikePrice **\*** TradeConfirmation/DeliveryPeriods/­Delivery­Period[1..n]/­DeliveryPeriod­Notional­Quantity)

PHYS\_INX:* SUM((TradeConfirmation/­TimeInterval­Quantities/­TimeInterval­Quantity[1..n]/­Delivery­End­Timestamp **-** TradeConfirmation/­TimeInterval­Quantities/­TimeIntervalQuantity[p]/­Delivery­StartTimestamp) **\*** TradeConfirmation/TimeIntervalQuantities/­Time­Interval­Quantity[1..n]/­ContractCapacity **\*** TradeConfirmation/­FloatPrice­Information[1]/­Commodity­References/­Commodity­Reference[1]/­Spread­Information/­SpreadAmount)
* Else, if no ‘SpreadAmount’ is present, this field is set to “9999999999999999999999999”.

OPT\_PHYS\_INX:* SUM((TradeConfirmation/TimeIntervalQuantities/­TimeInterval­Quantity[1..n]/­Delivery­End­Timestamp **-** TradeConfirmation/TimeIntervalQuantities/TimeInterval­Quantity[p]/­Delivery­Start­Timestamp) **\*** TradeConfirmation/­Time­Interval­Quantities/­Time­Interval­Quantity[1..n]/­ContractCapacity **\*** TradeConfirmation/­OptionDetails/­StrikePrice’)

FOR, OPT:* ‘TradeConfirmation/TotalContractValue’

**OTC commodity formula swaps:**FXD\_SWP:* SUM(TradeConfirmation/­DeliveryPeriods/­Delivery­Period[1..n]/­FixedPrice **\*** TradeConfirmation/­Delivery­Periods/­Delivery­Period[1..n]/Delivery­Period­NotionalQuantity)

OPT\_FIN\_INX:* SUM(TradeConfirmation/Delivery­Periods/­Delivery­Period[1..n]/­Delivery­Period­Notional­Quantity **\*** TradeConfirmation/OptionDetails/StrikePrice)

FLT\_SWP:* SUM(TradeConfirmation/FloatPriceInformation[1]/­FormulaSpreadInformation/SpreadAmount **\*** TradeConfirmation/Delivery­Periods/Delivery­Period[1..n]/DeliveryPeriodNotionalQuantity)
* Else, if no ‘SpreadAmount’ is present, this field is set to “9999999999999999999999999”.

OPT\_FLT\_SWP:* SUM(TradeConfirmation/OptionDetails/StrikePrice**\*** TradeConfirmation/­DeliveryPeriods/­Delivery­Period[1..n]/Delivery­PeriodNotionalQuantity)
* Else, this field is set to “9999999999999999999999999”.

PHYS\_INX:* SUM((TradeConfirmation/TimeIntervalQuantities/TimeIntervalQuantity[1..n]/Delivery­End­Timestamp **-** TradeConfirmation/TimeInterval­Quantities/­TimeInterval­Quantity[p]/Delivery­Start­Timestamp) **\*** TradeConfirmation/TimeInterval­Quantities/­Time­Interval­Quantity[1..n]/­ContractCapacity **\*** TradeConfirmation/FloatPriceInformation[1]/­FormulaSpread­Price/Spread­Information/Spread­Amount)
* Else, if no ‘SpreadAmount’ is present, this field is set to “9999999999999999999999999”.

OPT\_PHYS\_INX:* SUM((TradeConfirmation/TimeIntervalQuantities/TimeInterval­Quantity[1..n]/Delivery­End­Timestamp **-** TradeConfirmation/TimeIntervalQuantities/­Time­IntervalQuantity[p]/­Delivery­Start­­Timestamp) **\*** TradeConfirmation/TimeInterval­­Quantities/­Time­Interval­Quantity[1..n]/­ContractCapacity **\*** TradeConfirmation/OptionDetails/StrikePrice)

**OTC IRS:**FXD\_SWP, FXD\_FXD\_SWP, FLT\_SWP, OPT\_FXD\_SWP, OPT\_FXD\_FXD\_SWP, OPT\_FLT\_SWP: * IRSTradeDetails/SwapStreams/SwapStream[1]/­CalculationPeriod­Amount/­Calculation/­Notional­Schedule/­NotionalStep­Schedule/InitialValue **+** SUM(IRSTradeDetails/SwapStreams/SwapStream[1]/­­CalculationPeriod­Amount/­Calculation/­Notional­Schedule/­­Steps/Step[1..n]/StepValue)

**ETDs:**OPT\*: * If ‘EProductID1’ = “CO”, then ETDTradeDetails/ClearingParameters/Lots **\*** ETDTradeDetails/ClearingParameters/Product/­OpenDetails/Strike­Price **\*** EURegulatory­Details/­ETD­Product­­Information/­PriceMultiplier
* If ‘EProductID1’ = “IR”, then ETDTradeDetails/ClearingParameters/Lots **\*** EURegulatory­Details/ETD­Product­Information/­Price­Multiplier­
* If ‘EProductID1’ = “FX”, then ETDTradeDetails/ClearingParameters/Lots **\*** EURegulatory­Details/ETD­Product­Information/­Price­Multiplier­

FUT:* If ‘EProductID1’ = “CO”, then ETDTradeDetails/ClearingParameters/Lots **\*** ETDTradeDetails/ClearingParameters/Unit­Price **\*** EURegulatory­Details/ETD­Product­Information/­Price­Multiplier­
* If ‘EProductID1’ = “IR”, then ETDTradeDetails/ClearingParameters/Lots **\*** EURegulatory­Details/ETD­Product­Information/­Price­Multiplier­
* If ‘EProductID1’ = “FX”, then ETDTradeDetails/ClearingParameters/Lots **\*** EURegulatory­Details/ETD­Product­Information/­Price­Multiplier­

**OTC FX:**FOR, FXD\_FXD\_SWP:* FXTradeDetails/FXSingleLeg[1]/Exchanged­Currency/PaymentAmount

OPT:* If ‘FXTradeDetails/FXOption/OptionType’ = “Call” OR “Capped\_Call”, then:
	+ If Counterparty1 = ‘OptionHolder’, then FXTradeDetails/FXOption/CallCurrencyAmount/Amount
	+ If Counterparty1 = ‘OptionWriter’, then FXTradeDetails/FXOption/PutCurrencyAmount/Amount
* If ‘FXTradeDetails/FXOption/OptionType’ = “Put” OR “Floored\_Put”, then:
	+ If Counterparty1 = ‘OptionHolder’, then FXTradeDetails/FXOption/PutCurrencyAmount/Amount
	+ If Counterparty1 = OptionWriter, then FXTradeDetails/FXOption/CallCurrencyAmount/Amount
* Else, if ‘FXTradeDetails/FXOption/OptionType’ = "Optional", this field is set to “9999999999999999999999999”.
 |
| NotionalAmountLeg2 |  | Gen | The value is generated as follows: **OTC commodities:**FXD\_SWP:* If ‘TradeConfirmation/FloatPriceInformation[1]/­Commodity­References/­Commodity­Reference[1]/­Calculation­Periods/Calculation­Period[1..n]/­CPNotionalQuantity’ is not an empty set, then SUM(TradeConfirmation/FloatPrice­Inform­ation[1]/­Commodity­References/­Commodity­Reference/­Spread­Information/­SpreadAmount **\*** TradeConfirmation/FloatPriceInformation[1]/­CommodityReferences/Commodity­Reference[1]/­CalculationPeriods/CalculationPeriod[1..n]/­CPNotionalQuantity)
* Else, SUM(TradeConfirmation/FloatPriceInform­ation[1]/CommodityReferences/Commodity­Reference[1]/SpreadInformation/­SpreadAmount **\*** TradeConfirmation/DeliveryPeriods/Delivery­Period[1..n]/DeliveryPeriodNotionalQuantity)
* Else, if no ‘SpreadAmount’ is present, then this field is omitted.

OPT\_FXD\_SWP:* If ‘TradeConfirmation/FloatPriceInformation[1]/­CommodityReferences/CommodityReference[1]/­CalculationPeriods/CalculationPeriod[1..n]/­CPNotionalQuantity’ is not an empty set, then SUM(TradeConfirmation/OptionDetails/Strike­Price **\*** TradeConfirmation/FloatPriceInformation[1]/­CommodityReferences/­CommodityReference[1]/CalculationPeriods/­CalculationPeriod[1..n]/CPNotionalQuantity)
* Else, this field is omitted.

OPT\_FIN\_INX:* If ‘TradeConfirmation/FloatPriceInformation[1]/­CommodityReferences/CommodityReference[1]/­CalculationPeriods/CalculationPeriod[1..n]/­CPNotionalQuantity’ is not an empty set, then SUM(TradeConfirmation/OptionDetails/Strike­Price **\*** TradeConfirmation/­FloatPrice­Information[1]/­Commodity­References/­Commodity­Reference[1]/­CalculationPeriods/­CalculationPeriod[1..n]/­CPNotionalQuantity)
* Else, this field is omitted.

FLT\_SWP:* If ‘TradeConfirmation/FloatPriceInformation[2]/­CommodityReferences/CommodityReference[1]/­CalculationPeriods/CalculationPeriod[1..n]/­CPNotionalQuantity’ is not an empty set, then SUM(TradeConfirmation/FloatPriceInformation[2]/CommodityReferences/CommodityReference[1]/SpreadInformation/SpreadAmount **\*** TradeConfirmation/FloatPriceInformation[2]/­CommodityReferences/CommodityReference[1]/­CalculationPeriods/CalculationPeriod[1..n]/­CPNotionalQuantity)
* Else, SUM(TradeConfirmation/FloatPriceInform­ation[2]/CommodityReferences/Commodity­Reference[1]/SpreadInformation/SpreadAmount **\*** TradeConfirmation/DeliveryPeriods/Delivery­Period[1..n]/DeliveryPeriodNotionalQuantity)
* Else, if no ‘SpreadAmount’ is present, then this field is omitted.

OPT\_FLT\_SWP:* If ‘TradeConfirmation/FloatPriceInformation[2]/­CommodityReferences/CommodityReference[1]/­CalculationPeriods/CalculationPeriod[1..n]/­CPNotionalQuantity’ is not an empty set, then SUM(TradeConfirmation/OptionDetails/Strike­Price **\*** TradeConfirmation/FloatPriceInformation[2]/­CommodityReferences/CommodityReference[1]/­CalculationPeriods/CalculationPeriod[1..n]/­CPNotionalQuantity)
* Else, this field is omitted.

FOR, OPT, PHYS\_INX, OPT\_PHYS\_INX:* This field is omitted.

**OTC commodity formula swaps:**FXD\_SWP:* SUM(TradeConfirmation/FloatPriceInformation[1]/FormulaSpreadInformation/SpreadAmount **\*** TradeConfirmation/DeliveryPeriods/Delivery­Period[1..n]/DeliveryPeriodNotionalQuantity)
* Else, if no ‘SpreadAmount’ is present, then this field is omitted.

OPT\_FIN\_INX:* This field is omitted.

FLT\_SWP, OPT\_FLT\_SWP:* SUM(TradeConfirmation/FloatPriceInformation[2]/CommodityReferences/CommodityReference[1]/SpreadInformation/SpreadAmount **\*** TradeConfirmation/DeliveryPeriods/Delivery­Period[1..n]/DeliveryPeriodNotionalQuantity)
* Else, if no ‘SpreadAmount’ is present, then this field is omitted.

FOR, OPT, PHYS\_INX, OPT\_PHYS\_INX:* This field is omitted.

**OTC IRS:**FXD\_SWP, FXD\_FXD\_SWP, FLT\_SWP, OPT\_FXD\_SWP, OPT\_FXD\_FXD\_SWP, OPT\_FLT\_SWP: * IRSTradeDetails/SwapStreams/SwapStream[2]/­CalculationPeriodAmount/Calculation/Notional­Schedule/NotionalStepSchedule/InitialValue **+**  SUM(IRSTradeDetails/SwapStreams/Swap­Stream[2]/CalculationPeriodAmount/Calculation/NotionalSchedule/Steps/Step[1..n]/StepValue)

**ETDs:*** This field is omitted.

**OTC FX:**OPT:* This field is omitted.

FXD\_FXD\_SWP:* FXTradeDetails/FXSingleLeg[2]/Exchanged­Currency/Payment­Amount
* Else, this field is omitted.
 |
| Early­Termination­Date |  | Gen | If ‘ActionType’ is set to “C”, then this field is enriched as follows:* DATE(EURegulatoryDetails/­Reporting­Timestamp)

**If ‘ActionType’ is set to “M” and ‘EventType’ = “ETRM”, then this field is enriched as follows:****Commodity trades (including formula trades)****FOR, OPT, PHYS\_INX, OPT\_PHYS\_INX:*** **‘TradeConfirmation/TimeIntervalQuantities/­Time­IntervalQuantity[n]/DeliveryEndDateAndTime’ or ‘DeliveryEndTimeStamp’**

**or*** **‘TradeConfirmation/EUATradeDetails/Emissions­DeliveryDate’**

**FXD\_SWP, OPT\_FXD\_SWP, FLT\_SWP, OPT\_FLT\_SWP, OPT\_FIN\_INX:*** **‘TradeConfirmation/TerminationDate’**

**Interest rate trades:*** **‘IRSTradeDetails/SwapStreams/SwapStream[1]/CalculationPeriodDates/TerminationDate’**

**FX trades:** * **If ‘FXTradeDetails/TransactionType’ = “OPT\*”, then set to ‘FXTradeDetails/­FXOption/­FXExercise­Date/ExpiryDate’.**
* **If ‘FXTradeDetails/TransactionType’ = “SPT” or “FOR”, then set to LATEST(‘FXTradeDetails/FXSingleLeg[1]/­ExchangedCurrency[1-2]/ValueDate’)**
* **Else, set to LATEST(‘FXTradeDetails/FXSingleLeg[2]/­ExchangedCurrency[1-2]/ValueDate’)**

**ETDs:** * Set to ‘EURegulatoryDetails/ETDProduct­Information/­MaturityDate’
 |
| DateOf­Settlement | SettlementDates | Gen | **OTC commodity:**OPT:* TradeConfirmation/OptionDetails/Premium­PaymentDate

OPT\_PHYS\_INX, OPT\_FXD\_SWP, OPT\_FLT\_SWP or OPT\_FIN:* Trade­Confirmation/Option­Details/­Premium­­Payments/PremiumPayment[1-n]/­Premium­PaymentDate

FXD\_SWP or FLT\_SW:* TradeConfirmation/­Delivery­Periods/Delivery­Period[1-n]/­Payment­Date

**OTC commodity formula swap:**OPT\_PHYS\_INX, OPT\_FXD\_SWP, OPT\_FLT\_SWP or OPT\_FIN:* TradeConfirmation/­Option­Details/­Premium­Payments/PremiumPayment[1-n]/­Premium­PaymentDate

FXD\_SWP or FLT\_SWP:* TradeConfirmation/­Delivery­­Periods/Delivery­Period[1-n]/Payment­Date

**OTC IRS:**OPT\_FXD\_SWP, OPT\_FXD\_FXD\_SWP or OPT\_FLT\_SWP:* IRSTradeDetails/­Option­Details/Premium­Payments/PremiumPayment[1-n]/Premium­Payment­Date

**OTC FX:**OPT:* FXTradeDetails/FXOption/­CashSettlement/­Settlement­Date, if present
* Else, FXTrade­Details/FXOption/­Premium­Pay­ments/­PremiumPayment[1-n]/­Premium­Payment­Date

SPT, FOR, FXD\_FXD\_SWP:* FXTradeDetails/­FXSingelLeg[1]/­Non­Deliverable­Settlement/Settlement­Date, if present
* Else, if ‘TransactionType’ = “SPT” or “FOR”, then this field is set to LATEST(FXTradeDetails/­FXSingleLeg[1]/ExchangedCurrency[1-2]/­ValueDate)
* Else, if ‘TransactionType’ = “FXD\_FXD\_SWP”, then this field is set to LATEST(FXTradeDetails/­FXSingleLeg[2]/ExchangedCurrency[1-2]/­ValueDate)
 |

#### EURegulatoryDetails/Commodity

This section is mandatory for commodities (including ETD traded commodities).

**Important:** Only the whole section can be enriched, not individual fields (where applicable, in some cases ‘SubProduct’ and ‘FurtherSubProduct’ are not applicable).

| Field name | Subsection | Enrich­ment | Conditions & Rules |
| --- | --- | --- | --- |
| BaseProduct |  | Gen/Lookup | **Non-ETDs:*** If not present in the incoming CpML document and ‘EProductID1’ is set to “CO”, then this value is looked up based on ‘TradeConfirmation/­Commodity’ or ‘TradeConfirmation/Float­Price­Information/­Commodity­References/­Commodity­Reference/­IndexCommodity’ or – if ‘Trade­Confirmation/­­FloatPrice­Information/­FormulaID’ is present – ‘EURegulatoryDetails/­Formula­Product­Information/IndexCommodity’.

See also “Appendix D. CpML to EMIR (Refit) Code Mappings”. * Value must be present if ‘TradeConfirmation/­Commodity’ is set to “Oil”.

**ETDs:*** If not present in the incoming CpML document and ‘ETDTradeDetails/PrimaryAssetClass’ is set to “Commodity”, then this value is looked up based on ‘CRAProductCode’.
 |
| SubProduct |  | Gen/Lookup | **Non-ETDs:*** If not present in the incoming CpML document and ‘EProductID1’ is set to “CO”, then this value is looked up based on ‘TradeConfirmation/­Commodity’ or ‘TradeConfirmation/Float­Price­Information/CommodityReferences/Commodity­Reference/IndexCommodity’ or – if ‘Trade­Confirmation/­FloatPrice­Information/­FormulaID’ is present – ‘EURegulatoryDetails/­Formula­Product­Information/IndexCommodity’.

See also “Appendix D. CpML to EMIR (Refit) Code Mappings”.* Value must be present if ‘TradeConfirmation/­Commodity’ is set to “Oil”.

**ETDs:*** If not present in the incoming CpML document and ‘ETDTradeDetails/PrimaryAssetClass’ is set to “Commodity”, then this value is looked up based on ‘CRAProductCode’.
 |
| Further­SubProduct |  | Gen/Lookup | **Non-ETDs:*** If not present in the incoming CpML document and ‘EProductID1’ is set to “CO”, then this value is looked up based on ‘TradeConfirmation/­Commodity’ or ‘TradeConfirmation/Float­Price­Information/CommodityReferences/Commodity­Reference/IndexCommodity’ or – if ‘Trade­Confirmation/­FloatPrice­Information/FormulaID’ is present – ‘EURegulatoryDetails/­Formula­Product­Information/­IndexCommodity’ and, additionally, for ‘SubProduct’ = “ELEC” based on ‘LoadType’ and for ‘SubProduct’ = “NGAS” based on ‘DeliveryPoint’.

See also “Appendix D. CpML to EMIR (Refit) Code Mappings”.* Value must be present if ‘TradeConfirmation/­Commodity’ is set to “Oil” and ‘EMIRReportMode’ = “Report” or “CmsReport”.

**ETDs:*** If not present in the incoming CpML document and ‘ETDTradeDetails/PrimaryAssetClass’ is set to “Commodity”, then this value is looked up based on ‘CRAProductCode’.
 |

#### EURegulatoryDetails/ETDProductInformation

The ‘ETDProductInformation’ section is mandatory in the output CpMLDocument. The values are looked up in the ETD database based on the value of the ‘CRAProductCode’ field in the ‘ETDTradeDetails/ClearingParameters/Product’ section. The ETD database must contain the information defined in the following table.

If nothing else is stated, the listed fields are mandatory in the output CpML. Optional or conditional fields are clearly described with the corresponding rules.

**Important:** Only the whole section can be enriched, not individual fields.

| Field name | Subsection | Enrich­ment | Conditions & Rules |
| --- | --- | --- | --- |
| Underlying­Code­Type |  | Lookup | Looked up based on ‘CRAProductCode’. |
| Underlying  |  | Lookup | * Lookup based on ‘CRAProductCode’ returned value must be an ISIN or blank.
 |
| Underlying­Indicator  |  | Lookup | Looked up based on ‘CRAProductCode’.* If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate” AND ‘UnderlyingCodeType’ = “X”, then the lookup of ‘CRAProductCode’ must return a value from the set of enumerated values defined under EMIR Refit.
* Else, this field must be omitted.
 |
| Underlying­Currency |  | Lookup | Looked up based on ‘CRAProductCode’.* If ‘EURegulatoryDetails/Commodity/SubProduct’ = “ELEC” or “NGAS”, then the lookup must return the currency of the price of the deliverable commodity.
* If ‘EURegulatoryDetails/ProductIdentifier/­EProduct/EProductID2’ = “OP” or “SP” AND ‘EURegulatoryDetails/Commodity/SubProduct’ = “ELEC” or “NGAS”, then the lookup must return the currency of the strike price.
* If ‘EURegulatoryDetails/ProductIdentifier/­EProduct/EProductID1’ = “FX” AND ‘EProductID2’ = “OP” or “SP”, then the lookup must return the currency pair of the option.
* Else, this field is omitted.
 |
| UnderlyingName |  | Lookup | Looked up based on ‘CRAProductCode’.* If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate” AND ‘UnderlyingCodeType’ = “X”, then the lookup of ‘CRAProductCode’ must return a string.
* Else, this field must be omitted.
 |
| Notional­Currency1 |  | Lookup | Looked up based on ‘CRAProductCode’. |
| Notional­Currency2 |  | Lookup | If the transaction is an interest-rate derivative contract, then this value is looked up based on ‘CRAProductCode’.**Note:** Lookup only relevant for UKMIR.  |
| Deliverable­Currency |  | Lookup | Looked up based on ‘CRAProductCode’. |
| PriceNotation |  | Lookup | Looked up based on ‘CRAProductCode’. |
| PriceMultiplier  |  | Lookup | Looked up based on ‘CRAProductCode’. |
| TotalVolume­Quantity­Unit |  | Lookup | Looked up based on ‘CRAProductCode’. |
| Delivery­Type  |  | Lookup | Looked up based on ‘CRAProductCode’ |
| Effective­Date  |  | Lookup | Looked up based on ‘CRAProductCode’.* If the lookup of ‘CRAProductCode’ does not produce a value, then this field is set to the date contained in ‘Reporting/Europe/EURegulatory­Details/­ExecutionTimestamp’
 |
| MaturityDate  |  | Lookup | Looked up based on ‘CRAProductCode’.* If the lookup of ‘CRAProductCode’ does not produce a value, then this field is set to the value of ‘ETDTradeDetails/ClearingParameters/­Product/­Delivery­Period/­Delivery­EndDate’.
 |
| Delivery­Point­OrZone |  | Lookup | * If ‘EURegulatoryDetails/­Commodity/SubProduct’ is set to “NGAS” or “ELEC”, then this information is looked up based on ‘CRAProductCode’.
 |
| Interconnection­Point |  | Lookup | * If ‘EURegulatoryDetails/­Commodity/SubProduct’ is set to “NGAS” or “ELEC”, then this information is looked up based on ‘CRAProductCode’.
 |
| LoadType |  | Lookup | * If ‘EURegulatoryDetails/­Commodity/SubProduct’ is set to “NGAS” or “ELEC”, then this information is looked up based on ‘CRAProductCode’.
 |
| Duration |  | Lookup | * If ‘EURegulatoryDetails/­Commodity/SubProduct’ is set to “NGAS” or “ELEC”, then this information is looked up based on ‘CRAProductCode’.
 |
| Load­Delivery­Interval | LoadDelivery­Schedule (repeatable section) | Lookup | Repeatable field. For each ‘LoadDelivery’ section, the ETD database must contain one field for each block or shape. * If ‘EURegulatoryDetails/­Commodity/­SubProduct’ is set to “NGAS” or “ELEC”, then this information is looked up based on ‘CRAProductCode’.
 |
| Days­Of­The­Week | LoadDeliverySchedule (repeatable section) | Lookup | For each ‘LoadDelivery’ section, the ETD database must contain one ‘DaysOfTheWeek’ field.* If ‘EURegulatoryDetails/­Commodity/­SubProduct’ is set to “NGAS” or “ELEC”, then this information is looked up based on ‘CRAProductCode’.
 |
| Contract­Capacity |  | Lookup | * If ‘EURegulatoryDetails/­Commodity/­SubProduct’ is set to “NGAS” or “ELEC”, then this information is looked up based on ‘CRAProductCode’.
 |
| EnergyQuantity­Unit |  | Lookup | * If ‘EURegulatoryDetails/­Commodity/SubProduct’ is set to “NGAS” or “ELEC”, then this information is looked up based on ‘CRAProductCode’.
 |
| Delivery­Start­Date |  | Lookup | * If ‘EURegulatoryDetails/­Commodity/SubProduct’ is set to “NGAS” or “ELEC”, then this information is looked up based on ‘CRAProductCode’.
 |
| Delivery­End­Date |  | Lookup | * If ‘EURegulatoryDetails/­Commodity/SubProduct’ is set to “NGAS” or “ELEC”, then this information is looked up based on ‘CRAProductCode’.
 |
| Currency2 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “ForeignExchange” and the cross currency differs from ‘DeliverableCurrency’, then this information is looked up based on ‘CRAProductCode’.
 |
| ExchangeRate1 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “ForeignExchange”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |
| Exchange­Rate­Basis |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “ForeignExchange”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.
 |
| FixedRate­OfLeg2 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |
| FixedRate­Day­CountLeg1 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |
| FixedRate­Day-Count­Leg2 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.
* **Note:** Lookup only relevant for UKMIR.
 |
| FixedLeg­Pay­ment­Frequency­Leg1 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |
| FixedLeg­Pay­ment­Frequency­Leg2 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |
| FloatingRatePay­mentFrequency-Leg1 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |
| FloatingRate­Pay­ment­Frequency­Leg2­ |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |
| FloatingRate­Reset­Frequency-Leg1 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |
| FloatingRate­Reset­Frequency­Leg2 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |
| Floating­RateOf­Leg1 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |
| FloatingRate­Reference­Period­Leg1­ |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |
| Floating­RateOf­Leg2 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |
| Floating­Rate­Reference­Period­Leg2 |  | Lookup | * If ‘ETDTradeDetails/PrimaryAssetClass’ is set to “InterestRate”, then this field is optional. If a value is present, it is looked up based on ‘CRAProductCode’.

**Note:** Lookup only relevant for UKMIR.  |

#### EURegulatoryDetails/FinancialDeliveryInformation

This section is mandatory for Financial Transactions of electricity or gas.

| Field name | Subsection | Enrich­ment | Conditions & Rules |
| --- | --- | --- | --- |
| Delivery­PointOr­Zone |  | Gen | * For each occurrence of ‘CommodityReferencePrice’ or – if ‘Trade­Confirmation/­FloatPrice­Information/­FormulaID’ is present – for ‘EURegulatoryDetails/­Formula­Product­Information/­Market’, one ‘DeliveryPointOrZone’ field per delivery point within this market is created in the output CpML message.
* If no delivery point or zone can be determined, then during outgoing document generation for EMIR reporting one ‘DeliveryPointOrZone’ field is created and filled with X’s for OTC commodity and ETD commodity trades where ‘SubProduct’ = “ELEC” or “NGAS”.

**REMIT only:** For REMIT, reporting a value of X’s results in a rejection. Therefore, to report a formula swap under REMIT, the ‘FinancialDelivery­Information’ section must be included in the input message. |
| Interconnection­Point |  | Gen | If not present in the incoming CpML document, then this field is enriched according to the following rules: * For EMIR reporting, one ‘InterconnectionPoint’ field is created and filled with X’s for OTC commodity and ETD commodity trades where ‘SubProduct’ = “ELEC” or “NGAS”.
 |
| Quantity­Volume |  | Gen | This value is calculated based on the values of ‘EURegulatoryDetails/LoadType’ and ‘TradeConfirmation/TotalVolumeUnit’. * If ‘TradeConfirmation/TotalVolumeUnit’ is “KWh”, “MWh” or “GWh”, then the average hourly delivery is calculated.
* Else, the average daily delivery is calculated.

**Daily delivery*** If ‘EURegulatoryDetails/LoadType’ is set to “BL”, “GD”, “BH”, “SH”, “OP” or “OT”, then ‘TradeConfirmation/TotalContractVolume’ is divided by the number of calendar days between delivery start and delivery end date (‘TradeConfirmation/DeliveryPeriods/Delivery­Period/DeliveryPeriodStartDate’ and ‘TradeConfirmation/DeliveryPeriods/Delivery­Period/DeliveryPeriodEndDate’).
* If ‘EURegulatoryDetails/LoadType’ is set to “PL”, then ‘TradeConfirmation/TotalContractVolume’ is divided by the number of working days between delivery start date and delivery end date.

**Hourly delivery*** If ‘EURegulatoryDetails/LoadType’ is set to “BL”, “GD”, “BH”, “SH” or “OT”, then ‘TradeConfirmation/TotalContractVolume’ is divided by the number of hours between delivery start date and delivery end date, taking daylight saving time switches into account.
* If ‘EURegulatoryDetails/LoadType’ is set to “PL”, then ‘TradeConfirmation/TotalContractVolume’ is divided by the number of working days between delivery start date and delivery end date times 12.
* If ‘EURegulatoryDetails/LoadType’ is set to “OP”, then ‘TradeConfirmation/TotalContractVolume’ is divided by the number of working days between delivery start date and delivery end date times 12, plus the number of weekend days between delivery start and delivery end date times the number of hours of that days (23, 24 or 25 hours).
 |
| Quantity­Volume­Unit |  | Gen | This value is derived from ‘TradeConfirmation/­TotalVolumeUnit’:Daily delivery:* “Therms” = “ThermPerDay”
* “KTherm” = “KThermPerDay”
* “MTherm” = “MThermPerDay”
* “GTherm” = “GThermPerDay”
* “M3” = “cmPerDay”
* “mcm” = “mcmPerDay"
* “BTU” = “BTUPerDay”
* “GJ” = “GJPerDay”
* “MJ” = “MJPerDay”
* “100MJ” = “100MJPerDay”
* “MMBTU” = “MMBTUPerDay”
* “MMJ” = “MMJPerDay”

Hourly delivery:* “KWh” = “KW”
* “MWh” = “MW”
* “GWh” = “GW”
 |
| Delivery­StartDate |  | Gen | The value is derived from the first ‘DeliveryPeriodStartDate’ field in the ‘TradeConfirmation/DeliveryPeriods’ section.  |
| Delivery­EndDate |  | Gen | The value is derived from the last ‘DeliveryPeriodEndDate’ field in the ‘TradeConfirmation/DeliveryPeriods’ section. |
| Duration |  | Gen | The duration from the ‘DeliveryStartDate’ to the ‘DeliveryEndDate’, allowing for non-delivery periods. |
| Load­Delivery­Interval | LoadDeliverySchedule | Gen | The value is derived from ‘EURegulatoryDetails/LoadType’:* If the value is “BL”, then ‘LoadDeliveryInterval’ has the following values (electricity only):
	+ “00:00”
* If the value is “PL”, then ‘LoadDeliveryInterval’ has the following values (electricity only):
	+ “08:00” and “20:00”
* If the value is “OP”, then there are two ‘LoadDeliverySchedule’ sections with the following ‘LoadDeliveryInterval’ values (electricity only):
	+ [1] “00:00”, “08:00”, “20:00” and “24:00” (weekdays)
	+ [2] “00:00” (weekends)
* If the value is “GD”, then ‘LoadDeliveryInterval’ is set to the start time of the Gas Day in the time zone of the delivery point.
	+ Example: “05:00” for the UK Gas Day
* If the value is “BH”, “SH” or “OT”, then the same ‘LoadDeliveryInterval’ as for “BL” is applied.**Note:** For these load types, the ‘FinancialDeliveryInformation’ section should be included in the input message because it is not possible to derive correct intervals.

See also “Appendix A. Definition of CpML Mappings to Shaped Deliveries (EMIR, MiFID II)”. |
| DaysOfThe­Week | LoadDeliverySchedule | Gen | The value is derived from ‘EURegulatoryDetails/LoadType’:* If the value is “BL”, “BH”, “SH” or “OT”, then ‘DaysOfTheWeek’ is set to “WD WN”.
* If the value is “PL” or “GD”, then ‘DaysOfTheWeek’ is set to “WD”.
* If the value is “OP”, then there are two ‘LoadDeliverySchedule’ sections with the following ‘DaysOfTheWeek’ values:
	+ [1] “WD” (weekdays)
	+ [2] “WN” (weekends)
 |

### ETDTradeDetails

The ‘ETDTradeDetails’ transaction details section in the CpMLDocument cannot be enriched, but some additional rules apply during eRR processing.

| Field name | Subsection | Enrich­ment | Conditions & Rules |
| --- | --- | --- | --- |
| DealID | Clearing­Parameters | -- | * If ‘Reporting/Europe/ProcessInformation/Position’ is set to “True”, then this field must contain the position ID associated with the UTI of the reported position.

**Note:** This value could be available from the clearing broker. Organisations should discuss with their clearing broker what code is to be used and how they can receive it. |
| Lots | Clearing­Parameters | -- | * If ‘Reporting/Europe/ProcessInformation/Position’ is set to “False”, then this field must not be 0.
* Else, this must be the sum of the lots netted across all transactions in the position being reported.
 |
| UnitPrice | Clearing­Parameters | -- | * If ‘Reporting/Europe/ProcessInformation/Position’ is set to “True”, then this must be the closing price of the exchange on the day of the report.
 |
| Delivery­Start­Date­ | Clearing­Parameters/­Product/DeliveryPeriod | -- | * If ‘Reporting/Europe/ProcessInformation/Position’ is set to “True”, then the position must represent one cleared product and the ‘DeliveryStartDate’ for the reported position must be identical to the ‘DeliveryStartDate’ for a reported transaction for the same product (and maturity).

**Example:** For the cleared product F1BY 1/1/15-31/12/15, the ‘DeliveryStartDate’ is set to “01/01/15”. |
| Delivery­End­Date | Clearing­Parameters/­Product/Delivery­Period | -- | * If ‘Reporting/Europe/ProcessInformation/Position’ is set to “True”, then the position must represent one cleared product and the ‘DeliveryEndDate’ for the reported position must be identical to the ‘DeliveryEndDate’ for a reported transaction for the same product (and maturity).

**Example:** For the cleared product F1BY 1/1/15-31/12/15, the ‘DeliveryEndDate’ is set to “2015-12-31”. |
| Type | Clearing­Parameters/­Product/OptionDetails | -- | * If ‘Reporting/Europe/ProcessInformation/Position’ is set to “True” and if the position can be split into a “Call” position and a “Put” position and if each position is reported separately, then this field should be set to the relevant value.

However, the correct reporting approach may vary. To avoid incompatible reporting, the approach must be agreed with the other counterparty, that is, the clearing broker or CCP. |
| StrikePrice | Clearing­Parameters/­Product/OptionDetails | -- | * If ‘Reporting/Europe/ProcessInformation/Position’ is set to “True” and if the option’s product position can be split into separate strikes and if each position is reported separately, then this field should be set to the relevant value.

However, the correct reporting approach may vary. To avoid incompatible reporting, the approach must be agreed with the other counterparty, that is, the clearing broker or CCP. |
| Execution­Timestamp | BuyerDetailsorSellerDetails | -- | * If ‘Reporting/Europe/ProcessInformation/Position’ is set to “True”, then this must be the execution time stamp of the first (position opening) transaction.
 |

## eRR Valuation Message

Valuation messages are used to transmit valuation information to the regulators.

**Note:** Valuation messages use fields from the CpML standard. If nothing else is stated, the fields in the valuation message have the same meaning and rules as in CpML.

### EU Regulatory Valuation Message

| Name | Usage | Type | Business Rule |
| --- | --- | --- | --- |
| RegulatoryValuation |
| DocumentID | M | Identification­Type | * If a party receives a document with an ID unknown to the receiver, then the receiver must treat this document as the initial version of a new document.
* Else, the receiver must treat this document as an amendment of an already sent document.
 |
| DocumentUsage | M | UsageType |  |
| SenderID  | M | PartyType |  |
| Repository | C | Repository­Type | * If this field is omitted in the input message, then the field must be present in the master data of the eRR service for the counterparty reporting this transaction or on whose behalf this transaction is being reported by an agent. The master data will be used to populate the output valuation message or the field will be set to the default value in the output valuation message.
 |
| Reporting­Timestamp | C | UTCTime­stampType | * If ‘Reporting­Timestamp’ is omitted from the input message, then the field will be generated and added to the output valuation message.
* Else, this ‘Reporting­Timestamp’ value from the input message is used.
 |
| Counterparty­ID | M | PartyType | The counterparty to the original transaction on whose behalf this valuation is submitted.This is the identity of the party from whose perspective the information is reported. If the counterparty reports on their own behalf, then this value is identical to the value of ‘SenderID’. |
| RegulatoryValuation/Valuation: mandatory, repeatable section (1-n) |
| Other­Counterparty­ID | M | PartyType | The other counterparty to the valuation relationship.  |
| Level | M | LevelType |  |
| UTI | M | EMIRUTIType | The unique trade identifier (UTI) of a previously submitted transaction for which the valuation is reported. |
| Valuation­Time­stamp | M | UTCTime­stampType | Date and time of the last mark-to-market valuation for this UTI or USI, respectively. |
| MtMValue | M | PriceType | Mark-to-market valuation of the contract or mark-to-model valuation where applicable under Article 11(2) of Regulation (EC) No 648/2012. |
| MtMCurrency | M | CurrencyCode­Type | The currency used for the mark-to-market valuation of the contract or mark-to-model valuation where applicable under Article 11(2) of Regulation (EC) No 48/2012.In the output valuation message: mapped to the ISO 4217 3 alpha code identifying the currency. |
| ValuationType | C | ValuationType­Type | * If not present in the input message, then this field will be set to the default value in the output valuation message.
* Else, this value is used to populate the output valuation message.

The following values are allowed:* M (default value)
* O
* C
 |
| Delta | C | Percentage­Type | The ratio of the absolute change in price of a derivative transaction to the change in price of the underlier.* If the valuation is for an option contract, then this field must be present.
* Else, this field must be omitted.
 |
| End of **Valuation** |
| End of **RegulatoryValuation** |

## eRR Collateral Message

Collateral messages contain information on the collateralisation of a transaction within the eRR context.

**Note:** Collateral message use fields from the CpML standard. If nothing else is stated, the fields in the valuation message have the same meaning and rules as in CpML.

| Name | Usage | Type | Business Rule |
| --- | --- | --- | --- |
| **RegulatoryCollateral** |
| DocumentID | M | Identification­Type | * If a party receives a document with an ID unknown to the receiver, then the receiver must treat this document as the initial version of a new document.
 |
| DocumentUsage | M | UsageType |  |
| SenderID  | M | PartyType |  |
| Repository | C | Repository­Type | * If this field is omitted in the input message, then the default value will be used, provided that a default value is present.
 |
| Reporting­Timestamp | C | UTCTime­stamp­­Type | * If ‘Reporting­Timestamp’ is omitted from the input message, then the field will be generated and added to the output collateralisation message.
* Else, this ‘Reporting­Timestamp’ value from the input message is used.
 |
| Counterparty­ID | M | PartyType | The counterparty to the original transaction on whose behalf this collateralisation is submitted.This is the identity of the party from whose perspective the information is reported. If the counterparty reports on their own behalf, then this value is identical to the value of ‘SenderID’. |
| Correction | O | TrueFalseType | Indicates if the submission is a correction to a previous submission or a new submission.The default value is “False”. |
| **RegulatoryCollateral**/CollateralUpdate: mandatory, repeatable section (1-n) |
| Entity­Responsible­For­Reporting | M | PartyType | EIC or LEI code of the party submitting the report. |
| Other­Counter­party­ID | M | PartyType | The other counterparty to the collateralisation relationship. |
| Level | M | LevelType |  |
| Collateral­isation | M | Collateralis­ationType | The following values are allowed: * UNCL – uncollateralised,
* PRC1 – Partially collateralised: Counterparty 1,
* PRC2 - Partially collateralised: Counterparty 2,
* PRCL - Partially collateralised,
* OWC1 - One-way collateralised: Counterparty 1 only,
* OWC2 – One-way collateralised: Counterparty 2 only,
* OWP1 – One-way/partially collateralised: Counterparty 1,
* OWP2 – One-way/partially collateralised: Counterparty 2,
* FLCL – Fully collateralised
 |
| Collateral­isation­Portfolio | M | TrueFalseType | Indicates if the collateral is reported per trade or at the level of the portfolio in which the trade has been reported to have been booked into. |
| **XSD choice**: mandatory section**Choices**:* If ‘CollateralisationPortfolio’ is set to ‘True’, then ‘CollateralisationPortfolioCode’ must be used.
* Else, ‘UTI” must be used.
 |
| Collateral­isat­ion­Portfolio­Code | M+CH | PortfolioCode­Type | Code of the portfolio for which the collateralisation is reported.**Values:*** This field must contain the same value as the field ‘Collateralisation­Portfolio­Code’ in a previously reported transaction.
 |
| UTI | M+CH | EMIRUTIType | The unique trade identifier (UTI) of a previously submitted transaction for which the collateral is reported.**Values:*** This field must contain the same value as the field ‘UTI’ in a previously reported transaction.
 |
| **End of XSD choice** |
| InitialMarginPosted: optional section |
| PreHairCut | M | PriceType | Collateral amount pre-haircut, if any |
| PostHairCut | M | PriceType | Collateral amount post-haircut, if any |
| Currency | M | Currency­Code­Type | Currency of collateral |
| **End of** InitialMarginPosted |
| VariationMarginPosted: optional section |
| PreHairCut | M | PriceType | Collateral amount pre-haircut, if any |
| PostHairCut | M | PriceType | Collateral amount post-haircut, if any |
| Currency | M | Currency­Code­Type | Currency of collateral |
| **End of** VariationMarginPosted |
| InitialMarginCollected: optional section |
| PreHairCut | M | PriceType | Collateral amount pre-haircut, if any |
| PostHairCut | M | PriceType | Collateral amount post-haircut, if any |
| Currency | M | Currency­Code­Type | Currency of collateral |
| **End of** InitialMarginCollected |
| VariationMarginCollected: optional section |
| PreHairCut | M | PriceType | Collateral amount pre-haircut, if any |
| PostHairCut | M | PriceType | Collateral amount post-haircut, if any |
| Currency | M | Currency­Code­Type | Currency of collateral |
| **End of** VariationMarginCollected |
| ExcessCollateralPosted: optional section |
| Amount | M | PriceType | Collateral amount |
| Currency | M | Currency­Code­Type | Currency of collateral |
| **End of** ExcessCollateralPosted |
| ExcessCollateralCollected: optional section |
| Amount | M | PriceType | Collateral amount |
| Currency | M | Currency­Code­Type | Currency of collateral |
| **End of** ExcessCollateralCollected |
| Collateral-Timestamp | M | UTC­Time­Stamp­Type | The timestamp of the collateral calculation. |
| End of Collateralisation |
| End of **RegulatoryCollateral** |

## Box Result Document (BRS)

**Note:** The box result schema contains sections that are outside the scope of the eRR Process, for example, CMSResult. They are included here for completeness but have no relevance to the eRR Process.

| Name | Usage | Type | Business Rule |
| --- | --- | --- | --- |
| ERRBoxResult |
| DocumentID | M | Identification­Type |  |
| Document­Version | O | VersionType |  |
| TimeStamp | M | UTCTime­Stamp­Type |  |
| Start of **XSD choice** |
| ERRBoxResult/CMSResult: mandatory section within choiceThis section is used for any box results that are sent to the process user before the process has determined which regime to apply to the input message.  |
| Action | M | s35 |  |
| Result | M | s35 |  |
| TradeID | O | TradeIDType |  |
| UTI | O | UTIType |  |
| CMSResult/Reason: optional, repeatable section (0-n) |
| ReasonCode | M | s255 |  |
| ErrorSource | O | s255 |  |
| Originator | O | s255 |  |
| ReasonText | O | s512 |  |
| End of **Reason** |
| End of **CMSResult** |
| ERRBoxResult/EuropeResult: mandatory, repeatable section within choice (1-16) |
| Action | M | s35 |  |
| Result | M | s35 |  |
| Counterparty­ID | C | PartyType | * If this field is present, then this section applies only to this counterparty ID.
* Else, this section applies to both counterparties to the reported transaction.
 |
| Regime | O | Europe­Regime­Type | Allowed values:* Remit
* Emir
* MiFID2
 |
| Repository | O | Repository­Type |  |
| EuropeResult/ReportingResult: optional section |
| TradeID | M | TradeID­Type |  |
| UTI | O | UTIType |  |
| ReportingResult/Reason: optional, repeatable section (0-n)  |
| ReasonCode | M | s255 |  |
| ErrorSource | O | s255 |  |
| Originator | O | s255 |  |
| ReasonText | O | s512 |  |
| End of **Reason** |
| End of **ReportingResult** |
| **EuropeResult/ValuationResult**: optional section |
| **ValuationResult/Valuation**: mandatory, repeatable section (1-n) |
| UTI | M | EMIRUTIType |  |
| Result | M | s255 |  |
| **Valuation/Reason**: optional, repeatable section (0-n) |
| ReasonCode | M | s255 |  |
| ErrorSource | O | s255 |  |
| Originator | O | s255 |  |
| ReasonText | O | s512 |  |
| End of **Reason** |
| End of **Valuation** |
| End of **ValuationResult** |
| **EuropeResult/CollateralResult**: optional section |
| **CollateralResult/Collateral**: mandatory, repeatable section (1-n) |
| UTI | O | EMIRUTIType |  |
| PortfolioCode | O | PortfolioCode­Type |  |
| Result | M | s255 |  |
| **Collateral/Reason**: optional, repeatable section (0-n) |
| ReasonCode | M | s255 |  |
| ErrorSource | O | s255 |  |
| Originator | O | s255 |  |
| ReasonText | O | s512 |  |
| End of **Reason** |
| End of **Collateral** |
| End of **CollateralResult** |
| End of **EuropeResult** |
| End of **XSD choice** |

# Transition Period for REMIT Users

Version 2 of the eRR Process has been updated to accommodate changes required by EMIR level 3. For this, it was necessary to introduce some changes to the XML schemas that are not backwards compatible with the XML schemas of the previous version.

All process users who report under EMIR, are required to update their backends to use the new schemas. However, for process users who only report under REMIT, there is no urgent need to update the schemas. Therefore, to avoid unnecessary backend changes, process users who only report under REMIT can still use the schemas of the previous version.

Until stated otherwise, the eRR Process will be able to process the schemas of the previous version as well. Some fields will be ignored and others are automatically mapped to new fields in the enriched CpML message, which will conform to the new schemas.

## Deprecated fields

The following fields from the ‘EURegulatoryDetails’ section are deprecated in the schema and will be ignored, but can still be filled by REMIT-only users:

* ActionDetail
* CPIDCodeType
* ReportingCounterpartyDetails
* ReportingOnBehalfOf/OtherCounterpartyDetails/ReportingCounterpartyDetails
* OtherCPEEA
* ReportingOnBehalfOf/OtherCounterpartyDetails/OtherCPEEA
* ProductIdentifier/Taxonomy
* ProductIdentifier/TaxonomyCodeType
* ProductIdentifier/EProduct/Product1CodeType
* ProductIdentifier/IProduct/Product1CodeType
* UnderlyingCodeType

The following fields are deprecated in the schema, but will be used to derive the values of the new fields described in the following table:

| **Parent section** | **Deprecated field** | **New field** | **Comment** |
| --- | --- | --- | --- |
| EURegulatoryDetails/­Product­Identifier | IProduct/IProductID1 | ProductIdentificationTypeANDProductIdentification | Both fields are filled based on the presence and value of the deprecated field. |
| EURegulatoryDetails/­Product­Identifier | IProduct/IProductID2  | ProductClassificationTypeANDProductClassification  | Both fields are filled based on the presence and value of the deprecated field. |
| EURegulatoryDetails/­ETD­Product­Information | DeliveryStartDate­AndTime | DeliveryStartDateANDDuration | The time portion from the deprecated field is ignored. The duration is calculated from the DeliveryStartDate to the DeliveryEndDate. |
| EURegulatoryDetails/­ETD­Product­Information | DeliveryEndDate­AndTime | DeliveryEndDateANDDuration |
| EURegulatoryDetails/­ETD­Product­Information | FixedRateDayCount | FixedRateDayCountLeg1 |  |
| EURegulatoryDetails/­ETD­Product­Information | FixedLegPayment­Frequency | FixedLegPayment­FrequencyLeg1 |  |
| EURegulatoryDetails/­ETD­Product­Information | FloatingRate­Payment­Frequency | FloatingRatePayment­FrequencyLeg1 |  |
| EURegulatoryDetails/­ETD­Product­Information | FloatingRate­Reset­Frequency | FloatingRateReset­FrequencyLeg1 |  |
| EURegulatoryDetails/­Financial­Delivery­Information | DeliveryStartDate­AndTime | DeliveryStartDateANDDuration | Only the time portion from the ‘Delivery­End­Date­And­Time’ field is evaluated: if set to mid­night, the ‘Delivery­End­Date’ is the previous day. The duration is calculated from the DeliveryStartDate to the DeliveryEndDate. |
| EURegulatoryDetails/­Financial­Delivery­Information | DeliveryEndDate­AndTime | DeliveryEndDateANDDuration |
| ETDTradeDetails/Clearing­Parameters/Product/­Delivery­Period | DeliveryStartDate­AndTime  | DeliveryStartDate | The time portion from the deprecated field is ignored.  |
| ETDTradeDetails/Clearing­Parameters/Product/­Delivery­Period | DeliveryEndDate­AndTime  | DeliveryEndDate | The time portion from the deprecated field is ignored.  |

## New fields

New fields that are not derived from deprecated fields are enriched as described in the enrichment rules. The following fields in the ‘EURegulatoryDetails’ section are derived from existing fields. Therefore, additional enrichment rules apply if the old schemas are used:

#### ‘ETDProductInformation/UnderlyingCodeType’

Set to “I” if ‘ETDProductInformation/Underlying’ is present and the value has a length of 12 characters.

Set to “X” if ‘ETDProductInformation/Underlying’ is present and the value has a length different from 12.

#### ‘ETDProductInformation/LoadDeliverySchedule’

The section is enriched based on ‘ETDProductInformation/­LoadType’, similar to the enrichment of ‘Financial­Delivery­Information/Load­Delivery­Schedule’.

#### ‘FinancialDeliveryInformation/LoadDeliverySchedule’

The section is enriched based on the ‘LoadType’ field as described in the enrichment of the ‘FinancialDeliveryInformation’ section with the following exception: For the load types “OP”, “PL” and “GD”, the delivery start and end times are used in the field ‘FinancialDeliveryInformation/LoadDeliverySchedule/LoadDeliveryInterval’ (for the weekdays in case of load types “OP” and “PL”).

## Fields with Changed Conditionality

#### ‘CPSector’

For EMIR reporting, the field is required for financial and non-financial users. For REMIT, the field is not required. The following additional business rules apply:

* If ‘EMIRReportMode’ is set to “NoReport”, then the field will not be validated and can be left blank.
* Else, the Standing Instructions must be updated according to the current rules, if used, or the field must be filled according to rules defined by the current schema.

**Note:** ‘CPSector’ is now also repeatable and wrapped in a ‘CPSectors’ section. This wrapper is added automatically during enrichment.

#### ‘EURegulatoryDetails/FormulaProductInformation/Underlying’

The ‘Underlying’ field is required for REMIT reporting and was changed to mandatory. With the new XML schema, the validation will fail if REMIT users do not provide a value. The following business rules therefore apply to process users who still use the old schema:

* If ‘REMITReportMode’ is set to ‘Report’ or ‘CMSReport’, then the input message must contain a value.
* If ‘REMITReportMode’ is set to ‘NoReport’ and the input message does not contain a value, then the default value “NA” is applied.
1. Definition of CpML Mappings to Shaped Deliveries (EMIR, MiFID II)

For natural gas and electricity trades ESMA requires the delivery profile to be reported. The EMIR fields 70 to 77 describe the delivery profile:

* Load delivery intervals
* Delivery start date and time
* Delivery end date and time
* Duration
* Days of the week
* Delivery capacity
* Quantity unit
* Price/time interval quantities

**Note:** The following description assumes that the field "Load delivery intervals" is repeatable inside the section to describe the start and end times of a delivery for a day.

Physical natural gas and electricity trades are separated into two categories:

* Shaped trades: trades where all deliveries have the same capacity and are based on the same price.
* Non-shaped trades: trades where either the capacity or the price or both may vary between deliveries. For shaped trades it is difficult to determine a pattern and derive an algorithm.

Shaped and non-shaped trades are mapped differently to the EMIR delivery fields.

CpML contains fields to describe the delivery profile of ETDs and financial OTC trades that can be mapped to the EMIR fields in a direct way (see the section ‘LoadDeliverySchedule’ in ‘ETDProductInformation’ and in ‘FinancialDeliveryInformation’ in the CpML specification). For physical OTC transactions, the section ‘TradeConfirmation/TimeIntervalQuantities’ has to be mapped to the ESMA fields. This is described in the following.

* 1. Mapping of Shaped Trades

For shaped physical OTC trades, each ‘TimeIntervalQuantity’ section within ‘TradeConfirmation/­Time­Interval­Quantities’ is mapped to a set of EMIR fields 70 to 77 according to the following table:

| **ESMA field** | **CpML**  | **Conversion** |
| --- | --- | --- |
| Load delivery intervals | If the start date and end date are the same or the end date and time is the start of the next day, then: The time described in ‘TimeIntervalQuantity/DeliveryStartDateAndTime’ and ‘TimeInterval­Quantity/DeliveryEndDateAndTime’ or‘TimeIntervalQuantity/DeliveryStartTimestamp’ and‘TimeIntervalQuantity/DeliveryEndTimestamp’, respectively.Else, 00:00Z and 24:00Z. | To UTC.**Note:** The end time 00:00Z is replaced by 24:00Z. |
| Delivery start date and time | ‘TimeIntervalQuantity/DeliveryStartDateAndTime’ or‘TimeIntervalQuantity/DeliveryStartTimestamp’ | To UTC |
| Delivery end date and time | ‘TimeIntervalQuantity/DeliveryEndDateAndTime’ or‘TimeIntervalQuantity/DeliveryEndTimestamp’ | To UTC. |
| Duration | The value for the longest duration fitting between the delivery start date and time and the delivery end date and time. |  |
| Days of the week | All days between delivery start and end date. If the delivery end time is 00:00Z, then the end date is not included. | “SA/SU” is replaced by “WN” and “MO/TU/WE/TH/FR” is replaced by “WD”. |
| Delivery capacity | ‘TimeIntervalQuantity/ContractCapacity’ |  |
| Quantity unit | ‘TradeConfirmation/CapacityUnit’ |  |
| Price/time interval quantities | ‘TimeIntervalQuantity/Price’ |  |

Example 1: Varying Quantity, Local Time

Shaped trade with varying quantity that uses local dates and times. The timezone is Europe/London.

|  |  |
| --- | --- |
| **CpML** | **ESMA** |
| <TimeIntervalQuantity> <DeliveryStartDateAndTime>2014-10-01T00:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2014-10-01T00:30:00 </DeliveryEndDateAndTime> <ContractCapacity>.66</ContractCapacity> <Price>50</Price></TimeIntervalQuantity><TimeIntervalQuantity> <DeliveryStartDateAndTime>2014-10-01T00:30:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2014-10-01T01:00:00 </DeliveryEndDateAndTime> <ContractCapacity>.48</ContractCapacity> <Price>50</Price></TimeIntervalQuantity><TimeIntervalQuantity> <DeliveryStartDateAndTime>2014-10-01T01:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2014-10-01T01:30:00 </DeliveryEndDateAndTime> <ContractCapacity>.46</ContractCapacity> <Price>50</Price></TimeIntervalQuantity>…<TimeIntervalQuantity> <DeliveryStartDateAndTime>2014-10-01T23:30:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2014-10-02T00:00:00 </DeliveryEndDateAndTime> <ContractCapacity>.59</ContractCapacity> <Price>50</Price></TimeIntervalQuantity> | Load delivery intervals: 23:00Z/23:30ZDelivery start date and time: 2014-09-30T23:00:00ZDelivery end date and time: 2014-09-30T23:30:00ZDuration: NDays of the week: TUDelivery capacity: 0.66Quantity unit: MWPrice/time interval quantities: 50Load delivery intervals: 23:30Z/24:00ZDelivery start date and time: 2014-09-30T23:30:00ZDelivery end date and time: 2014-10-01T00:00:00ZDuration: NDays of the week: TUDelivery capacity: 0.48Quantity unit: MWPrice/time interval quantities: 50Load delivery intervals: 00:00Z/00:30ZDelivery start date and time: 2014-10-01T00:00:00ZDelivery end date and time: 2014-10-01T00:30:00ZDuration: NDays of the week: WEDelivery capacity: 0.46Quantity unit: MWPrice/time interval quantities: 50....Load delivery intervals: 22:30Z/23:00ZDelivery start date and time: 2014-10-01T22:30:00ZDelivery end date and time: 2014-10-01T23:00:00ZDuration: NDays of the week: TUDelivery capacity: 0.59Quantity unit: MWPrice/time interval quantities: 50 |

Example 2: Varying Quantity, Timezone Offset

Shaped trade with varying quantity that uses UTC plus timezone offset.

|  |  |
| --- | --- |
| **CpML** | **ESMA** |
| <TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T00:00:00+02:00 </DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T00:30:00+02:00 </DeliveryEndTimestamp> <ContractCapacity>.66</ContractCapacity> <Price>50</Price></TimeIntervalQuantity><TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T01:30:00+03:00 </DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T03:00:00+04:00 </DeliveryEndTimestamp> <ContractCapacity>.48</ContractCapacity> <Price>50</Price></TimeIntervalQuantity><TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T01:00:00+02:00 </DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T01:30:00+02:00 </DeliveryEndTimestamp> <ContractCapacity>.46</ContractCapacity> <Price>50</Price></TimeIntervalQuantity><TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T01:30:00+02:00 </DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T02:00:00+02:00 </DeliveryEndTimestamp> <ContractCapacity>.09</ContractCapacity> <Price>50</Price></TimeIntervalQuantity><TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T02:00:00+02:00 </DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T02:30:00+02:00 </DeliveryEndTimestamp> <ContractCapacity>.23</ContractCapacity> <Price>50</Price></TimeIntervalQuantity>…<TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T23:30:00+01:00 </DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-31T00:00:00+01:00 </DeliveryEndTimestamp> <ContractCapacity>.59</ContractCapacity> <Price>50</Price></TimeIntervalQuantity> | Load delivery intervals: 22:00Z/22:30ZDelivery start date and time: 2016-10-29T22:00:00ZDelivery end date and time: 2016-10-29T22:30:00ZDuration: NDays of the week: SADelivery capacity: 0.66Quantity unit: MWPrice/time interval quantities: 50Load delivery intervals: 22:30Z/23:00ZDelivery start date and time: 2016-10-29T22:30:00ZDelivery end date and time: 2016-10-29T23:00:00ZDuration: NDays of the week: SADelivery capacity: 0.48Quantity unit: MWPrice/time interval quantities: 50Load delivery intervals: 23:00Z/23:30ZDelivery start date and time: 2016-10-29T23:00:00ZDelivery end date and time: 2016-10-29T23:30:00ZDuration: NDays of the week: SADelivery capacity: 0.46Quantity unit: MWPrice/time interval quantities: 50Load delivery intervals: 23:30Z/24:00ZDelivery start date and time: 2016-10-29T23:30:00ZDelivery end date and time: 2016-10-30T00:00:00ZDuration: NDays of the week: SADelivery capacity: 0.09Quantity unit: MWPrice/time interval quantities: 50Load delivery intervals: 00:00Z/00:30ZDelivery start date and time: 2016-10-30T00:00:00ZDelivery end date and time: 2016-10-30T00:30:00ZDuration: NDays of the week: SUDelivery capacity: 0.23Quantity unit: MWPrice/time interval quantities: 50...Load delivery intervals: 22:30Z/23:00ZDelivery start date and time: 2016-10-30T22:30:00ZDelivery end date and time: 2016-10-30T23:00:00ZDuration: NDays of the week: SUDelivery capacity: 0.59Quantity unit: MWPrice/time interval quantities: 50 |

* 1. Mapping of Non-shaped Trades

For non-shaped physical OTC trades, it is often possible to find patterns of daily delivery based on the delivery start and end date and times. These patterns can then be described concisely with the EMIR fields 70 to 77. The following algorithm tries to find a compact description of the delivery profile. The delivery start and end dates and times are converted to UTC plus timezone offset.

Definitions

The algorithm is based on the concepts of time interval sets and week profiles.

* **Time interval set**: A time interval set (TIS) contains a set of non-overlapping time intervals (only times, no dates). A time interval is defined by the start time (included) and the end time (excluded). The start of the day (00:00) is the earliest start time and the start of the next day (24:00) is the latest end time. A TIS does not contain any two time intervals where the end time of one time interval is the start time of another.
* **Week profile**: A week profile consists of:
	+ A TIS
	+ A start date
	+ An end date
	+ The list of weekdays for which the TIS is the delivery profile (whitelist)
	+ The list of weekdays for which the TIS is not the delivery profile (blacklist)

The algorithm maintains a list of active week profiles ordered by the start dates of the week profiles.

Calculating the Delivery Profile from the ‘TimeIntervalQuantities’ Section

The algorithm starts with an empty list of active week profiles. For each day between the first delivery start date and the last delivery end date of the ‘TimeIntervalQuantities’ section, it calculates a TIS. For days without delivery, the TIS is empty.

The algorithm processes the TIS in order of the date. For each TIS, it performs the following steps:

1. Compare the TIS to the active week profiles in the order of the start dates.
2. For each TIS, check if it matches the week profile: A match means that the week profile contains the same time intervals as the TIS and the weekday of the TIS is not in the blacklist of the week profile.
3. If the TIS matches the week profile, the weekday of the TIS is added to the whitelist of the week profile and the end date of the week profile is set to the date of the TIS. In all remaining week profiles, the weekday of the TIS is added to the blacklist
4. If the TIS does not match the week profile, then there are two cases:
	1. If the whitelist of the week profile contains the weekday of the TIS, complete the week profile, convert it to a set of EMIR fields and remove it from the list of active week profiles.
	2. Otherwise, add the weekday of the TIS to the blacklist of the week profile.
5. If the TIS is non-empty and does not match any active week profiles, add a new week profile to the list of active week profiles. It contains the following:
	1. The TIS
	2. The date for which the TIS is calculated as start and end date
	3. A whitelist only containing the weekday of the TIS
	4. An empty blacklist
6. If there is no remaining TIS, convert the active week profiles to a set of EMIR fields.

Calculating the Days of the Week

The field ‘Days of the week’ is calculated from a completed week profile using one of the following methods. The methods are sorted by the order in which the algorithm tries to apply them. The algorithm uses the first method that fits the week profile:

* If the number of days in the whitelist is 7, then the field is set to “WD/WN”.
* If the whitelist contains all the working days, then the field is set to “WD”. If the whitelist contains “SA” or “SU”, these values are added with “/” as separator.
* If the whitelist contains all weekend days, the field is set to “WN”. The values for the remaining days are added with “/” as separator.
* The field is set to the content of the whitelist with “/” as separator.

Example 1: Non-shaped with Base Load and Gap

Non-shaped trade that has a base load with one-day gap and uses local dates and times. The timezone is Europe/London.

|  |  |
| --- | --- |
| **CpML** | **ESMA** |
| <TimeIntervalQuantities> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2017-01-01T00:00:00</DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2017-05-01T00:00:00</DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2017-05-02T00:00:00</DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2018-01-01T00:00:00</DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity></TimeIntervalQuantities> | Load delivery intervals: 00:00Z/24:00ZDelivery start date and time: 2017-01-01T00:00:00ZDelivery end date and time: 2017-04-30T00:00:00ZDuration: QDays of the week: WD/WNDelivery capacity: 100Quantity unit: MWPrice/time interval quantities: 100Load delivery intervals: 00:00Z/23:00ZDelivery start date and time: 2017-04-30T00:00:00ZDelivery end date and time: 2017-04-30T23:00:00ZDuration: HDays of the week: SUDelivery capacity: 100Quantity unit: MWPrice/time interval quantities: 100Load delivery intervals: 23:00Z/24:00ZDelivery start date and time: 2017-05-01T23:00:00ZDelivery end date and time: 2017-05-02T00:00:00ZDuration: HDays of the week: MODelivery capacity: 100Quantity unit: MWPrice/time interval quantities: 100Load delivery intervals: 00:00Z/24:00ZDelivery start date and time: 2017-05-02T00:00:00ZDelivery end date and time: 2018-01-01T00:00:00ZDuration: SDays of the week: WD/WNDelivery capacity: 100Quantity unit: MWPrice/time interval quantities: 100 |

Example 2: Non-shaped Gas Day

Non-shaped trade that delivers on the Gas Day and uses local dates and times. The timezone is Europe/Berlin.

|  |  |
| --- | --- |
| **CpML** | **ESMA** |
| <TimeIntervalQuantities> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-01T06:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-03-01T06:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity></TimeIntervalQuantities> | Load delivery intervals: 05:00Z/24:00ZDelivery start date and time: 2016-02-01T05:00:00ZDelivery end date and time: 2016-02-02T00:00:00ZDuration: HDays of the week: MODelivery capacity: 100Quantity unit: MWPrice/time interval quantities: 100Load delivery intervals: 00:00Z/24:00ZDelivery start date and time: 2016-02-02T00:00:00ZDelivery end date and time: 2016-02-29T00:00:00ZDuration: WDays of the week: WD/WNDelivery capacity: 100Quantity unit: MWPrice/time interval quantities: 100Load delivery intervals: 00:00Z/05:00ZDelivery start date and time: 2016-03-01T00:00:00ZDelivery end date and time: 2016-03-01T05:00:00ZDuration: HDays of the week: MODelivery capacity: 100Quantity unit: MWPrice/time interval quantities: 100 |

Example 3: Non-shaped with Peak Load

Non-shaped trade that has a peak load and uses local dates and times. The timezone is Europe/Berlin.

|  |  |
| --- | --- |
| **CpML** | **ESMA** |
| <TimeIntervalQuantities> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-01T08:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-02-01T20:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-02T08:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-02-02T20:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price></TimeIntervalQuantity><TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-03T08:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-02-03T20:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price></TimeIntervalQuantity><TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-04T08:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-02-04T20:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price></TimeIntervalQuantity><TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-05T08:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-02-05T20:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price></TimeIntervalQuantity><TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-08T08:00:00 </DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-02-08T20:00:00 </DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price></TimeIntervalQuantity> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-09T08:00:00</DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-02-09T20:00:00</DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity>…<TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-26T08:00:00</DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-02-26T20:00:00</DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-29T08:00:00</DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-02-29T20:00:00</DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity></TimeIntervalQuantities>  | Load delivery intervals: 00:00Z/07:00Z/19:00Z/24:00ZDelivery start date and time: 2016-02-01T00:00:00ZDelivery end date and time: 2016-03-01T00:00:00ZDuration: MDays of the week: WDDelivery capacity: 100Quantity unit: MWPrice/time interval quantities: 100Load delivery intervals: 00:00Z/00:00ZDelivery start date and time: 2016-02-06T00:00:00ZDelivery end date and time: 2016-02-29T00:00:00ZDuration: WDays of the week: WNDelivery capacity: 100Quantity unit: MWPrice/time interval quantities: 100 |

1. Definition of CpML Mappings to Shaped Deliveries (REMIT)

Natural gas and electricity trades have to be reported under REMIT. In a CpMLDocument, the sections ‘TradeConfirmation’ and ‘ETDTradeDetails’ are used to describe commodity trades. The mapping of these sections to the corresponding ACER fields is defined in the REMIT cross-reference table. However, for trades with a shaped delivery, the cross-reference table does not contain a mapping of the CpML section ‘Trade­Confirmation/Time­Interval­Quantities’ to the REMITTable1 section ‘TradeReport/price­Interval­Quantity­Details’. Furthermore, the defined mapping of ‘TimeIntervalQuantities’ to a contract/delivery profile only works for products that are traded at exchanges or broker platforms with simple delivery profiles.

A trade is called shaped if the quantity or price varies during the delivery. Therefore, there must be at least two instances of the CpML section ‘TradeConfirmation/TimeInterval­Quan­tities/­Time­IntervalQuantity’ that differ in quantity or price. Shaped and non-shaped trades are mapped differently to REMITTable1.

**Important:** If the field ‘TimeIntervalQuantities/TimeIntervalQuantity/ContractCapacity’ has a value of 0, then it is ignored when distinguishing shaped and non-shaped deliveries and when calculating the fillings of the sections ‘deliveryProfile’ and ‘price­Interval­Quantity­Details’ in REMITTable1.

* 1. Mapping of Shaped Trades

For shaped trades, the REMITTable1 section ‘TradeReport/contractInfo/contract/delivery­Profile’ is filled like a base load from start to end date. The detailed delivery is described using the section ‘TradeReport/priceIntervalQuantityDetails’.

REMITTable1 Section ‘deliveryProfile’ for Shaped Trades

The delivery start date is the start date of the first ‘TimeIntervalQuantity’ section in CpML. The delivery end date is the end date of the last ‘TimeIntervalQuantity’ section unless the end time is 00:00. In this case, the delivery end date is the day before the end date of the last ‘TimeIntervalQuantity’ section. Only one ‘deliveryProfile’ section is generated with ‘loadDeliveryStartTime’ = 00:00 and ‘loadDeliveryEndTime’ = 00:00:

<deliveryProfile>

 <loadDeliveryStartTime>00:00:00</loadDeliveryStartTime>

 <loadDeliveryEndTime>24:00:00</loadDeliveryEndTime>

</deliveryProfile>

REMITTable1 Section ‘priceIntervalQuantityDetails’

If the price is always the same, it is reported using the REMITTable1 section ‘TradeReport/­priceDetails’. The section ‘TradeReport/priceInterval­QuantityDetails/price­Time­Interval­Quantity’ is not used. The same way, if the quantity is always the same, it is reported using the REMITTable1 section ‘TradeReport/quantity’. The fields ‘Trade­Report/price­Interval­Quantity­Details/quantity’ and ‘TradeReport/price­Interval­Quantity­Details/unit’ are not be used.

The CpML section ‘TradeConfirmation/TimeIntervalQuantities’ is mapped day by day to the REMITTable1 section ‘TradeReport/priceIntervalQuantityDetails’ without trying to find any patterns. For each day and for each combination of quantity and price during the day, a ‘TradeReport/priceIntervalQuantityDetails’ section is created as follows in REMITTable1:

* The current date as ‘intervalStartDate’ and ‘intervalEndDate’
* For each time interval of the day with the given quantity and price, one ‘intervalStartTime’ field and and one ‘intervalEndTime’ field
* One ‘quantity’ and one ‘unit’ field if the quantity varies over the delivery period
* If the price varies over the delivery period, a section ‘priceTimeIntervalQuantity’

The CpML section ‘TradeConfirmation/TimeIntervalQuantities’ supports delivery start and end to be given in local date and times or in date and times with an offset indicating the timezone. Local dates and times in CpML are mapped to local dates and times in the REMITTable1 section ‘TradeReport/priceIntervalQuantityDetails’. Dates and times with timezone offset in CpML are converted to the correct offset of the timezone of the delivery point or zone in REMITTable1 (the offset of a timezone can change due to daylight saving time). The REMITTable1 fields ‘TradeReport/priceIntervalQuantityDetails/intervalStartDate’ and ‘intervalEndDate’ are filled without timezone offset, the fields ‘intervalStartTime’ and ‘intervalEndTime’ are filled with the timezone offset of the converted time.

**Note:** In the following, you will find some shortened examples. More extensive examples and sample files in CpML and ACER XML are available from the eRR service team at request.

Example: Shaped / Varying Quantity / Dates and times with timezone offset

| **CpML: TimeIntervalQuantities** | **REMITTable1: PriceIntervalQuantityDetails** |
| --- | --- |
| …<TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T02:00:00+02:00</DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T02:30:00+02:00</DeliveryEndTimestamp> <ContractCapacity>.23</ContractCapacity> <Price>50</Price></TimeIntervalQuantity><TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T02:30:00+02:00</DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T02:00:00+01:00</DeliveryEndTimestamp> <ContractCapacity>.12</ContractCapacity> <Price>50</Price></TimeIntervalQuantity><TimeIntervalQuantity> <DeliveryStartTimestamp>2016-10-30T02:00:00+01:00</DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-10-30T02:30:00+01:00</DeliveryEndTimestamp> <ContractCapacity>.08</ContractCapacity> <Price>50</Price></TimeIntervalQuantity>… | …<priceIntervalQuantityDetails> <intervalStartDate>2014-10-01</intervalStartDate> <intervalEndDate>2014-10-01</intervalEndDate> <intervalStartTime>02:00:00+02:00</intervalStartTime> <intervalEndTime>02:30:00+02:00</intervalEndTime> <quantity>.23</quantity> <unit>MW</unit></priceIntervalQuantityDetails><priceIntervalQuantityDetails> <intervalStartDate>2014-10-01</intervalStartDate> <intervalEndDate>2014-10-01</intervalEndDate> <intervalStartTime>02:30:00+02:00</intervalStartTime> <intervalEndTime>02:00:00+01:00</intervalEndTime> <quantity>.12</quantity> <unit>MW</unit></priceIntervalQuantityDetails><priceIntervalQuantityDetails> <intervalStartDate>2014-10-01</intervalStartDate> <intervalEndDate>2014-10-01</intervalEndDate> <intervalStartTime>02:00:00+01:00</intervalStartTime> <intervalEndTime>02:30:00+01:00</intervalEndTime> <quantity>.08</quantity> <unit>MW</unit></priceIntervalQuantityDetails>… |

* 1. Mapping of Non-shaped Trades

In non-shaped trades, the quantity and price is the same during the delivery. Therefore, the quantity and price can be reported using the REMITTable1 sections ‘TradeReport/quantity’ and ‘TradeReport/priceDetails’, respectively. The section ‘TradeReport/priceInterval­Quantity­Details’ is not be used for non-shaped trades. The delivery profile has to be reported precisely using the REMITTable1 section ‘TradeReport/contractInfo/contract/­deliveryProfile’. The CpML section ‘TimeIntervalQuantities’ describes the delivery profile by giving exactly the time periods when the deliveries take place. On the other hand, the REMITTable1 section ‘deliveryProfile’ allows to describe the delivery profile using patterns of daily delivery.

**Note:** ACER demands a compact description of delivery profiles. Therefore, the algorithm attempts to find the best compact form with reasonable effort.

The algorithm distinguishes between the following cases in CpML:

1. The dates and times in the section ‘TradeConfirmation/TimeIntervalQuantities’ are given in local dates and times.
2. The dates and times in the section ‘TradeConfirmation/TimeIntervalQuantities’ are given with an offset indicating the timezone. All timestamps in the fields ‘DeliveryStartTimestamp’ and ‘DeliveryEndTimestamp’ can be expressed unambiguously as local dates and times in the timezone of the delivery point.
3. The dates and times in the section ‘TradeConfirmation/TimeIntervalQuantities’ are given with an offset indicating the timezone, but at least one timestamp in the fields ‘DeliveryStartTimestamp’ and ‘DeliveryEndTimestamp’ cannot be expressed unambiguously as a local date and time in the timezone of the delivery point.

Note: Ambiguous timestamps in local time can only occur if the start or end time of a delivery falls onto the day when the daylight saving time (DLS) starts or ends. In the corresponding night, the same local time occurs twice. Using an offset, these identical local times can be distinguished.

In the second case, the delivery start and end dates and times are converted to local dates and times in the timezone of the delivery point or zone before applying the algorithm in the same way as in the first case. In the third case, the delivery start and end dates are converted to local dates and the delivery start and end times are converted to times with an offset indicating the timezone of the delivery point or zone. The algorithm is applied to the resulting dates and times taking the offsets into account calculating the time interval sets.

Definitions

The algorithm is based on the concepts of time interval sets and week profiles. For a definition of these terms, see the section “Definitions” for shaped trades in Appendix A.

Calculating the Delivery Profile from the ‘TimeIntervalQuantities’ Section

The algorithm starts with an empty list of active week profiles. For each day between the first delivery start date and the last delivery end date of the ‘TimeIntervalQuantities’ section, it calculates a time interval set (TIS). For days without delivery, the TIS is empty.

The algorithm processes the TIS in order of the date. For each TIS, it performs the following steps:

1. Compare the TIS to the active week profiles in the order of the start dates.
2. For each TIS, check if it matches the week profile: A match means that the week profile contains the same time intervals as the TIS and the weekday of the TIS is not in the blacklist of the week profile.
3. If the TIS matches the week profile, the weekday of the TIS is added to the whitelist of the week profile and the end date of the week profile is set to the date of the TIS. In all remaining week profiles, the weekday of the TIS is added to the blacklist
4. If the TIS does not match the week profile, then there are two cases:
	1. If the whitelist of the week profile contains the weekday of the TIS, complete the week profile, convert it to a set of REMITTable1 fields and remove it from the list of active week profiles.
	2. Otherwise, add the weekday of the TIS to the blacklist of the week profile.
5. If the TIS is non-empty and does not match any active week profiles, add a new week profile to the list of active week profiles. It contains the following:
	1. The TIS
	2. The date for which the TIS is calculated as start and end date
	3. A whitelist only containing the weekday of the TIS
	4. An empty blacklist
6. If there is no remaining TIS, convert the active week profiles to a set of REMITTable1 fields.

Calculating the Days of the Week

The field ‘deliveryProfile/daysOfTheWeek’ is calculated from a completed week profile using the following rules:

1. If the blacklist is empty, the field ‘daysOfTheWeek’ is not used.
2. If the number of days in the whitelist (max. 7) equals the number of days in the week profile’s interval [startDate, endDate], the field ‘daysOfTheWeek’ is not used.
3. The whitelist is split into lists of consecutive days:
	1. If a list contains only one day, an instance of ‘daysOfTheWeek’ is created for that day.
	2. If a list consists of the working days of a week, an instance of ‘daysOfTheWeek’ is created with the content “WD”.
	3. If a list consists of Saturday and Sunday, an instance of ‘daysOfTheWeek’ is created with the content “WN”.
	4. Otherwise, an instance of ‘daysOfTheWeek’ is created with the content “<D1>to<D2>” where “<D1>” is the first day in the list and “<D2>” is the last day in the list.

**Note:** In the following, you will find some shortened examples. More extensive examples and sample files in CpML and ACER XML are available from the eRR service team at request.

Example 1: Non-shaped / Base load with one day gap / Local dates and times

| **CpML - TimeIntervalQuantities** | **REMITTable1 - DeliveryProfile** |
| --- | --- |
| <TimeIntervalQuantities> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2014-01-01T00:00:00</DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2014-05-01T00:00:00</DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2014-05-02T00:00:00</DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2015-01-01T00:00:00</DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity></TimeIntervalQuantities> | <deliveryProfile> <loadDeliveryStartDate>2014-01-01</loadDeliveryStartDate> <loadDeliveryEndDate>2014-04-30</loadDeliveryEndDate> <loadDeliveryStartTime>00:00:00</loadDeliveryStartTime> <loadDeliveryEndTime>00:00:00</loadDeliveryEndTime></deliveryProfile><deliveryProfile> <loadDeliveryStartDate>2014-05-02</loadDeliveryStartDate> <loadDeliveryEndDate>2014-12-31</loadDeliveryEndDate> <loadDeliveryStartTime>00:00:00</loadDeliveryStartTime> <loadDeliveryEndTime>00:00:00</loadDeliveryEndTime></deliveryProfile> |

Example 2: Non-shaped / Gas day / Local dates and times

| **CpML - TimeIntervalQuantities** | **REMITTable1 - DeliveryProfile** |
| --- | --- |
| <TimeIntervalQuantities> <TimeIntervalQuantity> <DeliveryStartDateAndTime>2016-02-01T06:00:00</DeliveryStartDateAndTime> <DeliveryEndDateAndTime>2016-03-01T06:00:00</DeliveryEndDateAndTime> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity></TimeIntervalQuantities> | <deliveryProfile> <loadDeliveryStartDate>2016-02-01</loadDeliveryStartDate> <loadDeliveryEndDate>2016-02-01</loadDeliveryEndDate> <loadDeliveryStartTime>06:00:00</loadDeliveryStartTime> <loadDeliveryEndTime>00:00:00</loadDeliveryEndTime></deliveryProfile><deliveryProfile> <loadDeliveryStartDate>2016-02-02</loadDeliveryStartDate> <loadDeliveryEndDate>2016-02-29</loadDeliveryEndDate> <loadDeliveryStartTime>00:00:00</loadDeliveryStartTime> <loadDeliveryEndTime>00:00:00</loadDeliveryEndTime></deliveryProfile><deliveryProfile> <loadDeliveryStartDate>2016-03-01</loadDeliveryStartDate> <loadDeliveryEndDate>2016-03-01</loadDeliveryEndDate> <loadDeliveryStartTime>00:00:00</loadDeliveryStartTime> <loadDeliveryEndTime>06:00:00</loadDeliveryEndTime></deliveryProfile> |

Example 3: Non-shaped / Gas day / Dates and times with timezone offset / Unambiguous

| **CpML - TimeIntervalQuantities** | **REMITTable1 - DeliveryProfile** |
| --- | --- |
| <TimeIntervalQuantities> <TimeIntervalQuantity> <DeliveryStartTimestamp>2016-03-01T06:00:00+01:00</DeliveryStartTimestamp> <DeliveryEndTimestamp>2016-04-01T06:00:00+02:00</DeliveryEndTimestamp> <ContractCapacity>100</ContractCapacity> <Price>100</Price> </TimeIntervalQuantity></TimeIntervalQuantities> | <deliveryProfile> <loadDeliveryStartDate>2016-03-01</loadDeliveryStartDate> <loadDeliveryEndDate>2016-03-01</loadDeliveryEndDate> <loadDeliveryStartTime>06:00:00</loadDeliveryStartTime> <loadDeliveryEndTime>00:00:00</loadDeliveryEndTime></deliveryProfile><deliveryProfile> <loadDeliveryStartDate>2016-03-02</loadDeliveryStartDate> <loadDeliveryEndDate>2016-03-31</loadDeliveryEndDate> <loadDeliveryStartTime>00:00:00</loadDeliveryStartTime> <loadDeliveryEndTime>00:00:00</loadDeliveryEndTime></deliveryProfile><deliveryProfile> <loadDeliveryStartDate>2016-04-01</loadDeliveryStartDate> <loadDeliveryEndDate>2016-04-01</loadDeliveryEndDate> <loadDeliveryStartTime>00:00:00</loadDeliveryStartTime> <loadDeliveryEndTime>06:00:00</loadDeliveryEndTime></deliveryProfile> |

1. Rules for CFI Generation

The CFI is generated according to the rules defined in ISO standard 10962:2015 “Securities and related financial instruments — Classification of financial instruments (CFI code)”.

The CFI code consists of six alphabetical characters describing separate aspects of a financial instrument. The meaning of a character is local and only valid within the context of its parent category or group. The characters “X” and “M” have special meaning and cannot be redefined:

* “X”: not applicable/undefined = If the information is unknown, not available or not applicable at the time of assignment, the character “X” is to be used for the respective element.
* “M”: others = Miscellaneous information.
	1. TradeConfirmation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Transaction type** | **1** | **2** | **3** | **4** | **5** | **6** |
| FOR, PHYS\_INX | J(Forwards) | T(Commodities) | Mapped from base product (see M1) | X | F(Forward price of underlying instrument) | P(Physical) |
| FXD\_SWP, FLT\_SWP | S(Swaps) | T(Commodities) | Mapped from base product (see M2) | T (Total return) | X | C(Cash) |
| OPT, OPT\_PHYS\_INX | H(Non-listed and complex listed options) | T(Commodities) | Mapped from base product (see M1) | Mapped from option type and style (see M3) | Mapped from option style (see M4) | P(Physical) |
| OPT\_FIN\_INX | H(Non-listed and complex listed options) | T(Commodities) | I(Index) | Mapped from option type and style (see M3) | Mapped from option style (see M4) | C(Cash) |
| OPT\_FXD\_SWP, OPT\_FLT\_SWP | H(Non-listed and complex listed options) | T(Commodities) | W(Swaps) | Mapped from option type and style (see M3) | Mapped from option style (see M4) | Mapped from ‘Trade­Confirmation/Option­Details/Cash­Settle­ment’ (see M5) |

* 1. FXTradeDetails

| **Transaction type** | **1** | **2** | **3** | **4** | **5** | **6** |
| --- | --- | --- | --- | --- | --- | --- |
| SPT | J(Forwards) | F(Foreign Exchange) | T(Spot) | X | F(Forward price of underlying instrument) | Mapped from ‘FXTrade­Details/­FXSingle­Leg/Non­Deliverable­Settle­ment/­Settle­ment­Currency’ (see M6) |
| OPT\_FXD\_FXD\_SWP | H(Non-listed and complex listed options) | F(Foreign Exchange) | M(Others) | Mapped from option type and style (see M3) | Mapped from option style (see M4) | Mapped from ‘FXTrade­Details/FX­Option/­Cash­Settle­ment/­Settle­ment­Currency’ (see M9) |
| OPT | H(Non-listed and complex listed options) | F(Foreign Exchange) | T(Spot) | Mapped from option type and style (see M3) | Mapped from option style (see M4) | Mapped from ‘FXTradeDetails/­FXOption/­Cash­Settle­ment/Settle­ment­Currency’ (see M9) |
| FXD\_FXD\_SWP | S(Swaps) | F(Foreign Exchange) | Mapped from date and trade date (see M7) | X | X | Mapped from ‘FXTradeDetails/­FXSingle­Leg/­Non­Deliverable­Settle­ment’ (see M8) |
| FOR | J(Forwards) | F(Foreign Exchange) | R(Forward) | X | F(Forward price of underlying instrument) | Mapped from ‘FXTradeDetails/­FXSingle­Leg/­Non­Deliverable­Settle­ment/­Settle­ment­Currency’ (see M6) |

* 1. IRSTradeDetails

| **Transaction type** | **1** | **2** | **3** | **4** | **5** | **6** |
| --- | --- | --- | --- | --- | --- | --- |
| FXD\_SWP | S(Swaps) | R(Rates) | C(Fixed-Floating) | Mapped from ‘IRSTradeDetails/­Swap­Streams/­Swap­Stream/Calcu­lation­­Period­Amount/­Calculation/­Notional­Schedule/Steps’ (see M10) | Mapped from ‘IRSTradeDetails/­Swap­Streams/­Swap­Stream/­Calcu­lation­Period­Amount/­Calculation/­Notional­Sched­ule/­Notional­Step­Sched­ule/­Currency’ (see M11) | C(Cash) |
| FXD\_FXD\_SWP | S(Swaps) | R(Rates) | D(Fixed-Fixed) | Mapped from ‘IRSTrade­Details/­Swap­Streams/­Swap­Stream/­Calculation­Period­Amount/­Calculation/­Notional­Schedule/Steps’ (see M10) | Mapped from ‘IRSTradeDetails/­Swap­Streams/­Swap­Stream/­Calcu­lation­Period­Amount/­Calculation/­Notional­Sched­ule/­Notional­Step­Sched­ule/­Currency’ (see M11) | C(Cash) |
| FLT\_SWP | S(Swaps) | R(Rates) | A(Basis swap, Float-Float) | Mapped from ‘IRSTrade­Details/­Swap­Streams/­Swap­Stream/­Calculation­Period­Amount/­Calculation/­Notional­Schedule/Steps’ (see M10) | Mapped from ‘IRSTradeDetails/­Swap­Streams/­Swap­Stream/­Calcu­lation­Period­Amount/­Calculation/­Notional­Sched­ule/­Notional­Step­Sched­ule/­Currency’ (see M11) | C(Cash) |
| OPT\_FXD\_SWP | H(Non-listed and complex listed options) | R(Rates) | C(Fixed-Floating) | Mapped from option type and style (see M3) | Mapped from option style (see M4) | C(Cash) |
| OPT\_FXD\_FXD\_SWP | H(Non-listed and complex listed options) | R(Rates) | D(Fixed-Fixed) | Mapped from option type and style (see M3) | Mapped from option style (see M4) | C(Cash) |
| OPT\_FLT\_SWP | H(Non-listed and complex listed options) | R(Rates) | A(Basis swap, Float-Float) | Mapped from option type and style (see M3) | Mapped from option style (see M4) | C(Cash) |

* 1. ETDTradeDetails

Commodities

| **Transaction type** | **1** | **2** | **3** | **4** | **5** | **6** |
| --- | --- | --- | --- | --- | --- | --- |
| FOR, PHYS\_INX, FUT | F(Futures) | C(Commodities futures) | Mapped from base product and sub product (see M12) | Mapped from ‘EURegulatoryDetails/­ETD­Product­Infor­ma­tion/­Delivery­Type’ (see M13) | S(Standardized) | X |
| FXD\_SWP, FXD\_FXD\_SWP, FTL\_SWP | S(Swaps) | T(Commodities) | Mapped from base product (see M2) | T(Total return) | X | C(Cash) |
| SPT | I(Spot) | T(Commodities) | Mapped from base product (see M14) | X | X | X |
| OPT, OPT\_PHYS\_INX, OPT\_FUT | O(Listed options) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­Option­Details/­­Type’ (see M15) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­Option­Details/­Option­Style’ (see M16) | F(Future) | Mapped from ‘EURegulatoryDetails/­ETDProduct­Informa­tion/­Delivery­Type’ (see M17) | S(Standardized) |
| OPT\_FXD\_SWP, OPT\_FXD\_FXD\_SWP, OPT\_FLT\_SWP | O(Listed options) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­Option­Details/­­Type’ (see M15) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­Option­Details/­Option­Style’ (see M16) | W(Swaps) | Mapped from ‘EURegulatoryDetails/­ETDProduct­Informa­tion/­Delivery­Type’ (see M17) | S(Standardized) |
| OPT\_FIN\_INX | O(Listed options) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­Option­Details/­­Type’ (see M15) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­Option­Details/­Option­Style’ (see M16) | I(Indices) | Mapped from ‘EURegulatoryDetails/­ETDProduct­Informa­tion/­Delivery­Type’ (see M17) | S(Standardized) |

Foreign exchange

| **Transaction type** | **1** | **2** | **3** | **4** | **5** | **6** |
| --- | --- | --- | --- | --- | --- | --- |
| FOR, PHYS\_INX, FUT | F(Futures) | F(Financial futures) | C(Currencies) | Mapped from ‘EURegulatoryDetails/­ETDProductInforma­tion/­DeliveryType’ (see M13) | S(Standardized) | X |
| FXD\_SWP, FXD\_FXD\_SWP, FTL\_SWP | S(Swaps) | F(Foreign Exchange) | Mapped from effective date and execution date (see M18) | X | X | Mapped from ‘EURegulatoryDetails/­ETDProductInforma­tion/­Currency2’ (see M19) |
| OPT, OPT\_PHYS\_INX, OPT\_FUT | O (Listed options) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­Option­De­tails/­Type’ (see M15) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­OptionDetails/­OptionStyle’ (see M16) | C(Currencies) | Mapped from ‘EURegulatoryDetails/­ETDProductInforma­tion/­DeliveryType’ (see M17) | S(Standardized) |
| OPT\_FIN\_INX | O (Listed options) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­Option­De­tails/­Type’ (see M15) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­OptionDetails/­OptionStyle’ (see M16) | I(Indices) | Mapped from ‘EURegulatoryDetails/­ETDProductInforma­tion/­DeliveryType’ (see M17) | S(Standardized) |
| OPT\_FXD\_SWP, OPT\_FXD\_FXD\_SWP, OPT\_FLT\_SWP | O (Listed options) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­Option­De­tails/­Type’ (see M15) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­OptionDetails/­OptionStyle’ (see M16) | W(Swaps) | Mapped from ‘EURegulatoryDetails/­ETDProductInforma­tion/­DeliveryType’ (see M17) | S(Standardized) |
| SPT | I(Spot) | F(Foreign Exchange) | X | X | X | P (Physical) |

Interest rates

| **Transaction type** | **1** | **2** | **3** | **4** | **5** | **6** |
| --- | --- | --- | --- | --- | --- | --- |
| FOR, PHYS\_INX, FUT, SPT | F(Futures) | F(Financial futures) | N(Interest rates) | Mapped from ‘EURegulatory­Details/­ETDProduct­Information/­Delivery­Type’ (see M13) | S(Standardized) | X |
| FLT\_SWP | S(Swaps) | R(Rates) | A(Basis swap, Float-Float) | C(Constant) | Mapped from ‘EURegulatoryDetails/­ETDProduct­Informa­tion/­Notional­Cur­rency1’ and ‘.../NotionalCurrency2’ (see M20) | C(Cash) |
| FXD\_FXD\_SWP | S(Swaps) | R(Rates) | D(Fixed-Fixed) | C(Constant) | Mapped from ‘EURegulatoryDetails/­ETDProduct­Informa­tion/­Notional­Cur­rency1’ and ‘.../NotionalCurrency2’ (see M20) | C(Cash) |
| FXD\_SWP | S(Swaps) | R(Rates) | C(Fixed-Floating) | C(Constant) | Mapped from ‘EURegulatoryDetails/­ETDProduct­Informa­tion/­Notional­Cur­rency1’ and ‘.../NotionalCurrency2’ (see M20) | C(Cash) |
| OPT, OPT\_PHYS\_INX, OPT\_FUT | O (Listed options) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­Option­Details/­Type’ (see M15) | Mapped from ‘ETDTradeDetails/Clearing­Parameters/­Product/­Option­Details/­Option­Style’ (see M16) | N(Interest rates) | Mapped from ‘EURegulatoryDetails/­ETDProduct­Information/­DeliveryType’ (see M17) | S(Standardized) |
| OPT\_FIN\_INX | O (Listed options) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­Option­Details/­Type’ (see M15) | Mapped from ‘ETDTradeDetails/Clearing­Parameters/­Product/­Option­Details/­Option­Style’ (see M16) | I(Indices) | Mapped from ‘EURegulatoryDetails/­ETDProduct­Information/­DeliveryType’ (see M17) | S(Standardized) |
| OPT\_FXD\_SWP, OPT\_FXD\_FXD\_SWP, OPT\_FLT\_SWP | O (Listed options) | Mapped from ‘ETDTradeDetails/­Clearing­Parameters/­Product/­Option­Details/­Type’ (see M15) | Mapped from ‘ETDTradeDetails/Clearing­Parameters/­Product/­Option­Details/­Option­Style’ (see M16) | W(Swaps) | Mapped from ‘EURegulatoryDetails/­ETDProduct­Information/­DeliveryType’ (see M17) | S(Standardized) |

* 1. CFI Character Mapping

M1

|  |  |
| --- | --- |
| **Base product** | **Code** |
| AGRI | A (Agriculture) |
| FRGT | G (Freight) |
| INFL, OEST | I (Index) |
| NRGY | J (Energy) |
| METL | K (Metals) |
| MCEX, OTHR**Note:** CpML does not support the following commodities, however for completeness these values will be mapped to M (Others): FRTL, INDP, PAPR, POLY, OTHC | M (Others) |
| ENVR | N (Environmental) |

M2

Like M1, but if multiple commodities are referenced, Q (Multi-commodity) is used.

M3

| **Option style** | **Option type** | **Code** |
| --- | --- | --- |
| European, Asian, Cap, Floor, Collar | Call, Capped\_Call | A (European-Call) |
| American | Call, Capped\_Call | B (American-Call) |
| Bermudan | Call, Capped\_Call | C (Bermudan-Call) |
| European, Asian, Cap, Floor, Collar | Put, Floored\_Put | D (European-Put) |
| American | Put, Floored\_Put | E (American-Put) |
| Bermudan | Put, Floored\_Put | F (Bermudan-Put) |
| European, Asian, Cap, Floor, Collar | Optional | G (European-Chooser) |
| American | Optional | H (American-Chooser) |
| Bermudan | Optional | I (Bermudan-Chooser) |

M4

| **Option style** | **Code** |
| --- | --- |
| Asian | A (Asian) |
| American, European, Cap, Floor, Collar, Bermudan | V (Vanilla) |

M5

| **CashSettlement** | **Code** |
| --- | --- |
| True | C (Cash) |
| otherwise | P (Physical) |

M6

| **Settlement currency** | **Code** |
| --- | --- |
| is one of the exchanged currencies | C (Cash) |
| not present | P (Physical) |
| otherwise | N (Non-deliverable) |

M7

| **Trade date** | **Code** |
| --- | --- |
| is equal to the earliest value date | A (Spot-Forward swap) |
| otherwise | C (Forward-Forward) |

M8

| **Section NonDeliverableSettlement** | **Code** |
| --- | --- |
| otherwise | P (Physical) |
| present in at least one leg | N (Non-deliverable) |

M9

| **Settlement currency** | **Code** |
| --- | --- |
| is equal to the call or put currency | C (Cash) |
| not present | P (Physical) |
| otherwise | N (Non-deliverable) |

M10

| **NotionalSchedule/Steps** | **Code** |
| --- | --- |
| not present in any SwapStream instance | C (Constant) |
| otherwise | Y (Custom) |
| Step/StepValue decreases ordered by ascending Step/StepDate in all instances of SwapStream with the same step values and dates | D (Amortizing) |
| Step/StepValue increases ordered by ascending Step/StepDate in all instances of SwapStream with the same step values and dates | I (Accreting) |

M11

| **NotionalStepSchedule/Currency** | **Code** |
| --- | --- |
| same in all legs | S (Single currency) |
| otherwise | C (Cross currency) |

M12

| **Base product** | **Sub product** | **Code** |
| --- | --- | --- |
| AGRI | all | A (Agriculture) |
| METL | all | E (Extraction resources) |
| NRGY | OILP, NGAS, COAL**Note:** CpML does not support the following commodities, however for completeness these values will be mapped to E (Extraction resources): RNNG, LGHT, DIST | E (Extraction resources) |
| NRGY | ELEC, INRG, OTHR | H (Generated resources) |
| MCEX, OTHR**Note:** CpML does not support the following commodities, however for completeness these values will be mapped to M (Others): INFL, OEST OTHC, FRTL, PAPR |  n/a | M (Others) |
| ENRV | all | N (Environmental) |
| FRGT | all | S (Services) |
| **Note:** CpML does not support the following commodities, however for completeness these values will be mapped: INDP | All | I Industrial products (construction, manufacturing) |
| **Note:** CpML does not support the following commodities, however for completeness these values will be mapped: POLY | all | P Polypropylene products (includes plastics) |

M13

| **Delivery type** | **Code** |
| --- | --- |
| P | P (Physical) |
| otherwise | C (Cash) |

M14

| **Base product** | **Code** |
| --- | --- |
| AGRI | A (Agriculture) |
| NRGY | J (Energy) |
| ENVR | N (Environmental) |
| FRGT, MCEX, OTHR, **Note:** CpML does not support the following commodities, however for completeness these values will be mapped to M (Others): INDP, INFL, OEST OTHC | M (Others) |
| METL | K (Metals) |
| **Note:** CpML does not support the following commodities, however for completeness these values will be mapped: FRTL | S (Fertiliser)  |
| **Note:** CpML does not support the following commodities, however for completeness these values will be mapped: PAPR | T (Paper) |
| **Note:** CpML does not support the following commodities, however for completeness these values will be mapped: POLY | P (Polypropylene Products) |

M15

| **Type** | **Code** |
| --- | --- |
| Call, Capped\_Call | C (Call options) |
| Put, Floored\_Put | P (Put options) |
| Optional | M (Other type of option) |

M16

| **Option style** | **Code** |
| --- | --- |
| A | A (American) |
| B | B (Bermudan) |
| E, S | E (European) |

M17

| **Delivery type** | **Code** |
| --- | --- |
| P | P (Physical) |
| C | C (Cash) |
| O | E (Elect at exercise) |

M18

| **Execution date** | **Code** |
| --- | --- |
| is equal to the effective date | A (Spot-Forward swap) |
| otherwise | C (Forward-Forward) |

M19

| **Currency 2** | **Code** |
| --- | --- |
| present | N (Non-deliverable) |
| otherwise | P (Physical) |

M20

| **Notional currency 2** | **Code** |
| --- | --- |
| is present and is different from notional currency 1 | C (Cross currency) |
| otherwise | S (Single currency) |

1. CpML to EMIR (Refit) Code Mappings

Please refer to mapping file EMIR\_Refit\_CpML\_to\_Refit\_Code\_Mappings.pdf.

1. Glossary of Terms

| **Term** | **Description** |
| --- | --- |
| Aii | Alternative Instrument Identifier |
| ARM | Approved Reporting Mechanism (MiFID II) |
| CCP | Central counterparty, a clearing house |
| CFI | ISO 10962: Classification of Financial Instruments |
| CRA | Clearing Registration Agent |
| eCM | Electronic Confirmation and/or Matching |
| EFET | European Federation of Energy Traders |
| EFET codes | Acceptable values (formats) for specific attributes of an object (e.g. counterparty, currency code, product code or delivery date). EFET codes are published by EFET as part of its EFET standard, see reference document [4]. |
| EIC | The Energy Identification Coding scheme is standardized and maintained by ENTSO-E. It provides a unique identification of the market participants and other entities active within the Energy Internal European Market. It is widely used in the Electronic Document Interchange, as well as EU regulations for transparency and integrity of the energy market. See also “EIC code”. |
| EIC code | Energy Identification Code published by ENTSO-E, see reference document [5].EIC allocates a unique code to the following object types:* Market Participants = X codes
* Areas = Y codes. Areas for inter-system operator data interchange
* Measuring points = Z codes. Energy Metering points
* Resource objects = W codes. Examples: production plants, consumption units.
* Tie-lines = T codes. International tie lines between areas
* Location = V codes. Physical or logical place where a market participant or IT system is located.
* Substations = A codes
 |
| EMIR | European Market Infrastructure Regulation, a European Union regulation designed to increase the stability of the over-the-counter (OTC) derivative markets throughout the EU states. |
| ENTSO-E | European Network of Transmission System Operators for Electricity |
| eRR | Electronic Regulatory Reporting |
| FC | Financial counterparty |
| Financial Transaction | Collective term for the following values of ‘TransactionType’:* FXD\_SWP: Fixed/float swap
* FLT\_SWP: Float/float swap
* OPT\_FXD\_SWP: Fixed/float swaption
* OPT\_FLT\_SWP: Float/float swaption
* OPT\_FIN\_INX: Option on an index
 |
| ISDA | International Swaps and Derivatives Association |
| ISIN | International Securities Identification Number, as defined by ISO 6166. |
| ISO code | Codes published by the International Organization for Standardization |
| LEI | Legal Entity Identifier. An LEI is a unique ID associated with a single corporate entity. Although no common entity ID convention exists in the market today, a range of regulatory initiatives are driving the creation of universal LEI standard for financial markets. |
| MP | Market participant |
| MIC | Market Identifier Code, as defined by ISO 10383  |
| MiFID | Markets in Financial Instruments Directive (Directive 2004/39/EC). The MiFID directive replaced the Investment Services Directive (ISD) adopted in 1993. MiFID was adopted in April 2004 and came into force in November 2007. Its aim is to improve the competitiveness of EU financial markets by creating a single market for investment services and activities, and ensuring a high degree of harmonised protection for investors in financial instruments, such as shares, bonds, derivatives and various structured products. |
| MiFID II | Revised MiFID directive. MiFID II aims to reinforce the current European rules on securities markets by ensuring that organised trading takes place on regulated platforms introducing rules on algorithmic and high frequency trading improving the transparency and oversight of financial markets – including derivatives markets - and addressing some shortcomings in commodity derivatives markets enhancing investor protection and improving conduct of business rules as well as conditions for competition in the trading and clearing of financial instruments. |
| MTF | Multilateral Trading Facility |
| NCA | National Competent Authority (MiFID II) |
| NFC | Non-financial counterparty |
| NFC+ | Non-financial counterparty above the clearing threshold |
| OMP | Organised Market Place (REMIT terminology) |
| Party code | Code used to identify the legal entity that is a party to the transaction being described, that is, the buyer, the seller and/or other agent. |
| REMIT | Regulation on Wholesale Energy Market Integrity and Transparency, EU Regulation No. 1227/2011.REMIT is designed to increase the transparency and stability of the European energy markets while combating insider trading and market manipulation. |
| Trade Confirmation | A legal document describing all the material terms of a trade. It often refers to a Master Agreement or other Agreement in place between both parties or contains some legal terms. |
| UTC | Coordinated Universal Time. Previously referred to as GMT or Z (Zulu time). |
| UTI | Unique Trade Identifier. A UTI is an identifier used to uniquely identify the report of a transaction (trade or order) eligible for reporting under one or more applicable regulatory regimes. |
| XML | eXtensible Markup Language |