

## **EFET XML Credit format - introduction**

This document is designed to provide a technical overview of the EFET XML credit standard.

The standard has been agreed with the EFET Credit Committee as a way to allow bilateral credit restrictions to be delivered to brokers in a format that will allow:

- Credit restrictions to be conveyed in a clear and unambiguous way
- Timely and accurate processing by the broker
- Processing automatically by a machine on the broker side directly into the trading platform
- One file to be able to be processed by all brokers no need for broker specific formats

The key advantage over the current manual workflow is that clients using this new format are able to send their credit information and have the list processed and inserted into the broker Trayport platforms automatically:

- Removing the current points of human error
- Removing possible different interpretations and ambiguities
- Removing delays caused by credit overload, where many clients send their updated lists at the same time.

# **EFET XML Credit format – Why XML?**

Although some early prototyping was done using Excel spreadsheets, Excel is not suitable for standardised data sharing.

XML was chosen as the format for the EFET credit standard because it offers significant benefits over other formats such as Excel or PDF.

- It is designed to transport data, so be created by a machine and be processed by a machine
- It is also human readable, so can be comprehended by non-IT users
- It is an open standard, well understood by IT staff and supported by all IT tools, but simple enough to be understood by non-specialists
- It allows the use of a "schema" which allows a technical validation that an XML file generated follows the rules to be a valid credit file, so removing many potential points of incompatibility



## **EFET XML Credit format – Immediate Benefits**

Provision of an EFET XML document can have immediate benefits, even before the work is complete as it allows both traders who generate the file and brokers who will receive it to get familiar with the process.

For example, it is possible (depending upon the brokers capability) to immediately start trade validation – where the XML credit file is used in read only mode – so to cross-check credit for every new live trade that your company executes and flag up any discrepancies between it and the new XML file. This allows:

- Confidence that your XML file generation matches the existing restrictions set in your existing manual list
- Identify potential errors in the current manual credit list processing so for example where a trade is incorrectly allowed by the manual list processing (due to human error in processing, or misinterpretation of the manual list) and corrective action to be immediately flagged to the broker

It is also possible to enter a "Parallel run" where your XML credit list can be loaded into a non-production Trayport system to further validate static data and mappings on both sides.



# **EFET XML Credit format – Sample files**

The EFET XML file allows counterparty credit restrictions, as well as any credit preferences to be simply conveyed. Supporting information is available in this FAQ document, along with:

- A supplementary FAQ if you have a more complex business where you send credit for multiple entities or are a DMA provider.
- An XSD file which is a technical (not intended to be human readable) file which describes the format of the XML in a way which computers understand. The XSD contains the "rules" of the content of the XML file, for example :
  - That each credit file must contain one header
  - The header must contain as a minimum the entity that is sending the data, and the generation time of the file (to allow the latest credit file to be unambiguously identified by the broker)
  - The header optionally contains contact information for the sender
  - After the header there are between 1 and unlimited credit records which detail credit restrictions or preferences
- Several sample XML files to give you an idea of what is possible

### **Standard Format - Guidelines**

- Credit files should be in XML format
- The file can be optionally ZIP compressed and will be typically sent by email to the broker
- Credit can be set against individual counterparties or groups of counterparties.
- Credit can be set against individual instruments or groups of instruments.
- Credit is set for specific dates. No rolling credit.
- There is the capability to specify "Preferred Sleeve" credit data as part of the XML file if required.
- Counterparties are identified by LEI (preferred), ACER code or EIC code
- Instruments are identified by EFET standard codes see Appendix 1 at the end
- EFET codes distinguish separately between Hi Cal and Lo Cal delivery points where these are relevant. If you wish to open credit at both points then you must specify both.

# Standard Format – Company identification

Counterparties in the XML file are identified by LEI (preferred), ACER or EIC code. Codes are used instead of names because codes are unambiguous and do not change, whereas names have many disadvantages which means that humans have to get involved, adding back in the point of potential errors that we are trying to remove. Typical differences in name handling are caused by:

- Names have no standard way of handling of special characters (like & and the word "and")
- Abbreviations (Co. and Company), company entity type designators (such as Limited or Ltd or Ltd. for UK companies, SPA or S.p.A. or S.p.A etc.) can be specified many different ways
- "Non-latin" characters can be removed or expanded out (i.e. Ørsted or Orsted)

Also codes do not change in event of an entity simply changing name, so remove any confusion.

It is also possible to use EIC code or ACER code but the LEI has much more universal coverage – and LEIs can also be looked up for free here: <a href="https://search.gleif.org/#/search/">https://search.gleif.org/#/search/</a>

Important: The "description" field in the XML is only used to aid human readability, it is not processed by the brokers IT systems.



# XML file guidelines – key points

- Always update the generation date in the XML file header
   This is key for us to know the latest version i.e. if multiple updates are sent, we need to know which is the most recent, in order to process it. We do not want to process messages out of order!
- An XML file must always be complete do not send just changes or partial files. This is to allow us to detect changes which will allow us to:
  - a) process the file more efficiently (only submitting positive changes);
  - b) identify if anything has been removed and allow us to remove the credit (for example a counterparty no longer in the list, or the removal of permission for a delivery point).
- Omission of any explicit credit instruction means no credit it does not mean leave it the same as it was before. (The XML file also allows for "-" to be specified for explicit "no credit" for a time period, but it is not necessary to use this)
- Send credit for all delivery points and trade types in one file rather than, for example, a separate Gas list
   and Power list
   Updated April 2022 : see next page

# XML file guidelines – sending multiple files

- If you can, it is best to send credit for all delivery points and trade types in one XML file rather than, for example, separate Gas list and Power credit lists. If this is the case, there is no need to use the optional instrumentGroupIdentifier field in the XML header.
- Alternatively, use the instrumentGroupIdentifier header field to identify distinct groups of
  instruments that you consistently send together, for example you can send one file with a group
  identifier of "Gas", one for "Central Europe Power" and one for "Eastern Europe Power". The
  categories are not fixed, you can use whatever categories you decide, i.e. "Gas" and "Power" or
  "UK" and "European"
  - Always send the same set of instruments in the file with the same group identifier.
  - The instruments that you send in a file with a group must not overlap with another group, i.e. do not send Slovak power in both Eastern and Central files it must only appear in one.

```
<creditDefinition>
  <header>
    <company codeType="lei" description="Your Company">YourLEI</company>
    <instrumentGroupIdentifier>Gas</ instrumentGroupIdentifier >
    <generationTime>2022-03-29T05:28:31.6471106Z</generationTime>
```



# XML file guidelines – General

There is no harm in specifying delivery points and counterparties that the broker does not offer – this allows the same XML file to be sent to every broker.

Unknown hubs and entities will be ignored by the broker

Start dates can be in the past, so in general today's date or any date in the past will be treated as starting from today.

The "ID" attribute on a credit record should start at 1 and then increment. Its intended use is to allow human discussion of a file in event of query – so referring to record ID 34 for example.

Any "description" fields are optional and can be used for any purpose to aid human readability, but their contents will not be checked or processed. For example, the description can be used to add the company name but it will be ignored and the provided LEI or other identifying code will be used.

Remember that any of the five special characters i.e: & < > " 'need special handling inside XML files , for example an & in a counterparty description needs to be replaced with &amp;

# XML file – complex scenarios (DMA and multiple entities)

### Multiple legal entities

If you send in credit for more than one counterparty i.e. you are responsible for credit lists:

- for many different branches
- or are a DMA provider
- or manage credit for parent/sister/child companies

then please see the additional FAQ document for DMA providers.



# XML file guidelines – start and end dates

Credit start and end dates are inclusive, so for example, if today is 10<sup>th</sup> Feb, for all markets:

If you wanted to allow just within day trading for a counterparty the dates should be Start 10<sup>th</sup> Feb, End 10<sup>th</sup> Feb.

If you wanted to allow within day and day ahead the dates should be Start 10<sup>th</sup> Feb, End 11<sup>th</sup> Feb.

If you wanted to allow from day ahead to end of month the dates should be Start 11<sup>th</sup> Feb, End 28<sup>th</sup> Feb.

The brokers will adjust the dates to be relevant to the market (such as gas markets where delivery ends at 06:00 on the following day or UK power where the underlying contract starts delivery at 23:00 the day before).

If you specify from 1<sup>st</sup> March to 31<sup>st</sup> March that will allow "March" trading on all contracts despite the fact that March gas contracts run 6 hours into April or UK power contracts start 1 hour before March.



# XML file guidelines - equivalents

These 6 lines, buy and sell for Jan, Feb and March:

They are the equivalent of this one line: Buy and Sell Q1

```
<credit action="BS" startDate="2023-01-01" endDate="2023-03-31" />
```

You can use either or any variant of them as long as time periods do not overlap or contradict.

Both variants will allow buying and selling of Q1 and any entirely contained contracts, i.e. the months of Jan, Feb and Mar plus any other contracts that start and end inside the Q1 time period.



# XML file guidelines - examples

### These example 3 lines:

- buy for Q1
- sell for January and March

```
<credit action="B" startDate="2023-01-01" endDate="2023-03-31" />
<credit action="S" startDate="2023-01-01" endDate="2023-01-31" />
<credit action="S" startDate="2023-03-01" endDate="2023-03-31" />
```

### This would result in you having credit set:

- being able to buy from the counterparty in Q1 (i.e. Jan, Feb, March and all other entirely contained time periods);
- but only able to sell to the counterparty in Jan and March and not sell Feb or Q1 (because if any part of a contract is not tradable, the whole contract is not tradable)

# XML file guidelines – specify multiple delivery points

If your credit for a counterparty is the same for multiple delivery points, it will be simpler to group everything together.

Here we show multiple gas delivery points with the same credit instruction (but different Buy and Sell end dates):

```
<creditRecord id="1">
<toCompanies>
   <toCompany codeType="lei" description="BP Gas Marketing Ltd.">549300LH9YXVHGYN6V32</toCompany>
  </toCompanies>
   <instruments>
   <instrument>FW AT VTP</instrument>
   <instrument>FW BE ZEE</instrument>
   <instrument>FW NL TTF BaseHi</instrument>
   <instrument>FW DE THE BaseHi</instrument>
   <instrument>FW DE THE BaseLo</instrument>
   <instrument>FW GB NBP</instrument>
  </instruments>
  <credits>
   <credit action="B" startDate="2022-02-01" endDate="2024-06-30" />
   <credit action="S" startDate="2022-02-01" endDate="2022-12-31" />
  </credits>
  </creditRecord>
```



# **Rolling Credit**

- The EFET standard does not allow for "rolling" or "abstract" credit for example where credit is desired to be open for example 36 months, or "day ahead"
- Historically rolling credit has been the cause of the vast majority of credit discrepancies, with multiple different interpretations as to what exactly, it means – coupled with different implementations by brokers and some limitations on the underlying platform.
- However rolling credit can be achieved rolling behaviour can be emulated to meet a participant's requirements by sending a new credit file with the desired absolute open and closed credit ranges included.
- This would have to be sent every day, to achieve daily rolling, or every month for monthly rolling.
- The new file would have to be sent in time for the changes to take effect so special care needs to be taken with any desired daily rolling so that the file is sent to brokers in good time before the start of business in order to take effect and open the credit for the day ahead.
- Alternatively, consider opening credit for 2 or more days so that a counterparty is not closed until the next file is received and processed.

# Rolling Credit -in event of missed or delayed file

Credit supplied by an XML file behaves in the same way as credit sent via the legacy manually process. Once credit is submitted into the trading platform, it remains in place until the next file has been received and processed – so credit will remain as set until it is positively changed.

The only notable point is that due to nature of absolute (i.e. non-rolling) credit, any time periods that are intended to be extended will not be until the file containing the new absolute time periods is received and processed.

As an example, if on 20<sup>th</sup> May you have set a counterparty to be Buy/Sell up to 21<sup>st</sup> May (today and tomorrow), and Sell only until the end of the year.

- If on the 21<sup>st</sup> May you do not send a new file, the end result will be Buy/Sell up to 21<sup>st</sup> May (today only) and Sell only until the end of the year.
- If again on the 22<sup>nd</sup> May you do not send a file, the end result will be Sell only until the end of the year because the Buy instruction to 21<sup>st</sup> May has expired.

So it is not necessary to send a file every day, however you do need to do so if you need to change the end date allowed for example to roll credit forwards.



## **Preferred Sleeve – introduction**

The EFET standard follows a strict set of credit restrictions, for example if Q1-23 is closed then Winter 22/23 and Cal-23 would also be closed, because they both contain a closed period.

One method to approach maximising trading ability whilst maintaining credit control would be to implement the process of sending "preferred sleeve" information on a routine basis, in advance of the point where credit constraints mean that a counterparty is restricted from trading.

Preferred sleeve information can be used in order to direct credit exposure into certain counterparties, tenors and delivery points — either across the board for a counterparty for all instruments - which can reduce credit risk exposure to that party (assuming appropriate netting agreements are in place), or specified for a counterparty and individual instruments in order to reduce M2M volatility by reducing the net position at a delivery point.

This is used for example if you have a large exposure where you have bought from party X in Q1-23, you can specify a preference that you want to sell to party X Q1-23, at either certain or all delivery points.

This information can be used by brokers so that when for example they are looking for a sleeve to sell to party X, priority is given to those that actively want to sell to them.



# Preferred Sleeve – example

This preference to sell in Q1-23 could be indicated in a credit record as for example:

Which indicates that you are able to buy and sell from the counterparty at the list of delivery points up until the end of Summer 2024, but you have a preference to sell to them in Q1-23.

So here, credit is open for both buy and sell - but your preference to sell is noted and may help target sell side trades in order to keep your exposure within limits.



# Preferred Sleeve – 2nd example

Multiple directional preferences can also be specified in a credit record as below:

```
<instruments>
          <instrument>FW NL TTF BaseHi</instrument>
          <instrument>FW NL TTF BaseLo</instrument>
          <instrument>FW DE THE BaseHi</instrument>
          <instrument>FW BE ZEE</instrument>
          <instrument>FW DE AMP</instrument>
          <instrument>FW NL TED</instrument>
</instruments>
<credits>
          <credit action="BS" startDate="2021-09-29" endDate="2024-09-30"/>
</credits>
cpreferredSleeves>
          cpreferredSleeve action="B" startDate="2022-01-01" endDate="2022-12-31"/>
          </preferredSleeves>
```

Which indicates that you are able to buy and sell from the counterparty at the list of delivery points up until the end of Summer 2024, but you have a preference to buy from them in Cal-22, Sell in Q1-23 and buy Q2-23 and Q3-23.

So here, credit is open for buy and sell but your preferences will be used to target both buy and sell side trades as appropriate in order to try and keep your exposure within limits.



# Preferred Sleeve – 3rd example

If exposure continues to build on the buy side on Q1-23 you could:

Here this has set Q1-23 to sell only, so the effective credit will allow

- Sell in all periods from today up until Q3-24
- Buying from now until end of Cal-22, and then from Q2-23 until Q3-24

The preference to Sell Q1-23 and buy other periods remains active as before so trades will be targeted at the preferences where possible.



## **Preferred Sleeve – Priorities**

Standard preference – denoted by either

- Action "S" I prefer to sell to
- Action "B" I prefer to buy from

Priority preference – denoted by either

- Action "PS" It is my priority to sell to
- Action "PB" It is my priority to buy from

Neutral / no information – denoted by either

- A record with an explicit "-" action (using action "-" is not strictly necessary)
- A gap in a preference timeline, or providing no preferredSleeve information at all

The difference between standard and priority is up to the customer to define. Priority simply means that this is more important than other information. All types can be combined as long as they do not overlap (and hence would contradict) such as:



## **Preferred Sleeve – General**

It is important to know that sleeve/credit preferences will not override the master credit list, so for example:

In this above, credit is closed in Q1-23 so the preference to sell to the counterparty cannot be actioned.

 Credit must be open in at least the desired direction in order for a preference to be effective, otherwise it will be ignored.

For clarity, it is valid to express a credit preference that contradicts or is not allowed by your counterparty credit, however in the event of conflict the master credit list will always win and preferences will be ignored if not allowed by the main credit list.



## **Preferred Sleeve – different instruments**

Credit preference information can be combined in a credit record where the counterparty and instruments are the same (see previous examples) or can be specified separately for an instrument or groups of instruments if required:

```
<creditRecord id="1">
                //toCompanies removed for briefness
        <instruments>
                 <instrument>FW NL TTF BaseHi</instrument>
        </instruments>
        cpreferredSleeves>
                 </preferredSleeves>
</creditRecord>
                 //toCompanies removed for briefness
<creditRecord id="2">
        <instruments>
                 <instrument>FW DE AMP</instrument>
                <instrument>FW NL TED</instrument>
        </instruments>
        dSleeves>
                 </preferredSleeves>
</creditRecord>
```

The example above shows

- a priority preference to sell to the counterparty at TTF from now until end of Cal-24
- A buy preference for German and Dutch power for Q4-23
- A sell preference for German and Dutch power Cal-23, Cal-24 and Cal-25

### Appendix 1 – Data Values

(Copied from the EFET Trade Surveillance Specification and reproduced here as a convenience)

#### Instrument Types:

These are the codes needed to identify Instrument Types

CODE	Transaction Instrument Type
FW	Forward (must be physically settled) – use of this includes physical options
SW	Fix for float swap (must be financially settled)

#### Country codes:

These are the country codes needed to identify the country location of the power grid or gas hub that credit is being set for. Note that codes can be added to this list if additional countries are added as locations

CODE	Country
AT	Austria
BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
DE	Germany
FI	Finland
FR	France
GB	United Kingdom
HU	Hungary
IT	Italy
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal

CODE	Country
RO	Romania
SE	Sweden
SK	Slovakia
SL	Slovenia
СН	Switzerland
ES	Spain



#### Market Area Codes:

Market Area Electricity (Control Areas) codes:

These are the codes that should be used to identify the market area electricity control areas for which credit can be set. When new areas are created, a new code will need to be agreed upon by the EFET and LEBA credit working group, added to the list, and communicated to the credit community.

	CODE	Market Area Electricity (Control Areas)		
	AMP	Amprion GmbH, Germany		
	APG	Austrian Power Grid AG, Austria		
TER RTE		Terna – Rete Elettrica Nazionale SpA, Italy		
		Reseau de Transport d'Electricitie S.A., France		
	ELE	ELES d.o.o., Slovenia		
	ELI	Elia Grid, Belgium		
	SWS	SwissGrid, Switzerland		
FIN CEZ OSL KRS BER TRH MOL TRM		Fingrid, Finland		
		Czech Republic Grid, Czech Republic		
		Oslo (Statnett), Norway		
		Kristiansand (Statnett), Norway		
		Bergen (Statnett), Norway		
		Trondheim (Statnett), Norway		
		Molde (Statnett), Norway		
		Tromso (Statnett), Norway		
	SE1	Lulea (SE1), Sweden		
	SE2	Sundsvall (SE2), Sweden		
	SE3	Stockholm (SE3), Sweden		
	SE4	Malmo (SE4), Sweden		
	DK1	Western Denmark, Denmark		
	DK2	Eastern Denmark, Denmark		
	MVM	Mavir Grid, Hungary		
	PSE	Polish Grid, Poland		
SEP		Slovakian Power Grid, Slovakia		
	NAT	UK Power National Grid, United Kingdom		
	REE	REE Grid, Spanish		
	TED	TenneT, Netherlands		
	PTE	MIBEL PTEL, Portugal		
<b>EFET</b>	ESO	Electricity System Operator, Bulgaria		

CODE	Market Area Electricity (Control Areas)
TRANSELECTRICA	Transelectrica, Romania

#### Market Area Natural Gas codes:

These are the codes that should be used to identify the market area natural gas hubs for which credit can be set. When new areas are created, a new code will need to be agreed upon by the EFET and LEBA credit working group, added to the list, and communicated to the credit community.

CODE	Market Area Natural Gas
PEG	Points d,Echange de Gaz, France
TTF_BaseHi	Title Transfer Facility, Netherlands
TTF_BaseLo	Title Transfer Facility (Lo Cal), Netherlands
THE_BaseHi	The Trading Hub, Germany
THE_BaseLo	The Trading Hub (Lo Cal), Germany
PSV	Punto do Scambio Virtuale, Italy
NBP	National Balancing Point, United Kingdom
ZEE	Zeebrugge, Belgium
VTP	Virtual Trading Point, Austria
ZTP_BaseHi	ZTP, Belgium
ZTP_BaseLo	ZTP (Lo Cal), Belgium
PVB	Punto Virtual de Balance, Spain
GTF	DK (GTF), Denmark
MGP	Hungarian Virtual Trading Point, Hungary
PGS	Polish Virtual Trading Point, Poland
CEG	CEGH, Czech Republic
SLO	Slovakia Virtual Point, Slovakia



### Instrument type code, country code and market area codes combinations:

The following are the accepted code combinations for identifying the instrument type, country and market area on which credit can be set. Any new combinations would need to be agreed with the EFET and LEBA credit working group.

Gas (Physical):	Power (Physical):		Financial Power Swaps:	
FW_NL_TTF_BaseHi FW_NL_TTF_BaseLo FW_DE_THE_BaseHi FW_DE_THE_BaseLo FW_IT_PSV FW_BE_ZEE FW_AT_VTP FW_ES_PVB FW_DK_GTF FW_HU_MGP FW_PL_PGS FW_CZ_CEG FW_SK_SLO FW_BE_ZTP_BaseHi FW_BE_ZTP_BaseLo FW_FR_PEG FW_GB_NBP	FW_DE_AMP FW_AT_APG FW_IT_TER FW_FR_RTE FW_SL_ELE FW_BE_ELI FW_CH_SWS FW_FI_FIN FW_CZ_CEZ FW_NO_OSL FW_NO_KRS FW_NO_BER FW_NO_TRH FW_NO_TRH FW_NO_TRM FW_SE_SE1 FW_SE_SE1 FW_SE_SE2 FW_SE_SE3 FW_SE_SE4 FW_DK_DK1 FW_DK_DK2	FW_HU_MVM FW_PL_PSE FW_SK_SEP FW_ES_REE FW_NL_TED FW_PT_PTE FW_BG_ESO FW_GB_NAT FW_RO_TRANSELECTRICA	SW_IT_TER SW_ES_REE	



### Appendix 2 – Change History

#### March 2022

Initial version. Author: steve.banks@griffinmarkets.com

### April 2022

- Added "Sending Multiple Files" instrumentGroupIdentifier information
- Added "Preferred Sleeve" information

### May 2022

- Add introduction and sample files pages
- Move DMA and multiple entity information into a separate FAQ document as this is not relevant to the majority of clients
- Added "Immediate Benefits" and "Why XML" and "Company Identification" and "Rolling Credit –in event of missed or delayed file" pages
- Text updates on many pages for clarity

#### December 2022

• Add Romanian Power to Appendix 1

