Memo: **Consequences of closure of ebIX®** **From:** ebIX® **To:** Those it may concern	European forum for energy Business Information eXchange
Date: November 24th, 2023	**Status:** Approved by ebIX® Forum

1 Introduction

ebIX® Forum has formally decided, at its meeting May 30th, to close down ebIX® by the end of 2023:

> *"ebIX® forum agrees to initiate all actions for the close down of ebIX® by the end of 2023"*.

The reasons being:

1. When in the last decade of the previous century and the first decade of this century the energy markets were liberalised, it became clear that a well-functioning market had to be based not only on law and market rules but also on electronic information exchange. Soon ETSO (predecessor of ENTSO-E) was founded taking care of this for TSO's in Europe. But this made it even more evident that for the customer side of the market such an organisation was dearly missing. An initiative by representatives from the by then liberalised national markets lead to the founding of ebIX® in 2002, just to fill this gap with focus on the electronic information exchange and its requirements for as long as the ebIX® presence was going to be needed. However, ebIX® never became a formally accepted body from the EU side.
2. With the start of EU DSO Entity, ebIX® holds the position that this gap is finally filled in a more formal way with an EU mandate. Thereby making it possible for ebIX® (conform its early intentions) to close down and handover its results achieved over the years to the formal body representing the European downstream energy market.
3. Having two bodies representing the European downstream energy market related to data exchange standardisation would be inefficient and member states may have problems finding enough resources and focus. Having two bodies may also result in contra-productive competition.

The ebIX® Forum wishes to hand over the ebIX® work and knowledge to the EU DSO Entity and the Joint working group between the EU DSO Entity and ENTSO-E for further development and maintenance. This includes the ebIX® reference model[1], ebIX® BRSs etc.

This document summarises practical consequences of the close down of ebIX®, the work and the knowledge.

[1] The ebIX® MagicDraw UML (UMM) model for the European Energy Market [5], which again is based on the UN/CEFACT's Modelling Methodology (UMM) [1] and [3].

CONTENT

1.1 References

[1] http://www.unece.org/tradewelcome/un-centre-for-trade-facilitation-and-e-business-uncefact/outputs/technical-specifications/uncefact-modelling-methodology-umm.html

[2] http://www.unece.org/tradewelcome/un-centre-for-trade-facilitation-and-e-business-uncefact/outputs/technical-specifications/uncefact-modelling-methodology-umm.html

[3] UML Profile for UN/CEFACT's Modelling Methodology (UMM), Foundation Module, 2.0.

[4] The Harmonised Role Model (for the Electricity Market) by ebIX®, ENTSO-E, and EFET (www.ebix.org).

[5] Introduction to ebIX® Business Requirements and Business Information Models (www.ebix.org).

[6] Recommended Identification Schemes for the European Energy Market (www.ebix.org).

[7] ebIX® code lists (www.ebix.org).

[8] ebIX® BRSs (www.ebix.org).

1.2 Abbreviations

BRS	Business Requirements Specification
CIM	Common Information Model
DSO	Distribution System Operator
EA	Enterprise Architect
EBG	ebIX® Business Group
ebIX®	European forum for energy Business Information eXchange
EFET	European Federation of Energy Traders
ENTSO-E	European network of transmission system operators for electricity
ESDMP	European Style Downstream Market Profile
ESMP	European Style Market Profile
ETC	ebIX Technical Committee
EU	European Union
HEMRM	Harmonised Electricity Market Role Model
HG	Harmonisation Group between ebIX®, EFET and ENTSO-E
HGRM	Harmonised Gas Role Model
IEC	International Electrotechnical Commission
MR	Maintenance Requests
TSO	Transmission System Operator
UML	Unified Modelling Language
UMM	UN/CEFACT Modelling Methodology

2 Consequences of closing down ebIX®

#	Consequence	With proper handover	Without proper handover
1)	Maintenance of ebIX® UML model of the European downstream energy market.	Will be maintained by a new body.	Will be lost.
2)	ebIX® knowledge of modelling methodology (UMM).	May be preserved.	Will be lost.
3)	Maintenance of ebIX® BRSs.	Will be maintained by a new body.	Will not be maintained.
4)	ebIX® knowledge for making the BRSs.	May be preserved.	Will be lost.
5)	Alignment of ebIX® BRSs with IEC/CIM.	Continues.	The alignment with IEC/CIM will stop.
6)	ebIX® knowledge of usage of IEC/CIM in the European downstream energy market.	May be preserved.	Will be lost.
7)	Maintenance of the Harmonised Electricity Market Role Model.	May continue.	May stop.
8)	Maintenance of the ebIX® code lists.	Continues.	Will stop.
9)	Publication of the ebIX® deliverables.	Continues.	Will stop when the web site is closed down.

2.1 Maintenance of ebIX® UML model of the European downstream energy market

ebIX® has since its foundation in 2002 developed and maintained an extensive model of the European downstream energy market. The UML model is made using the MagicDraw tool and is based on the UN/CEFACT Modelling Methodology (UMM).

This model is the basis for making the ebIX® BRSs and for generation of electronic messages.

The last decade, ebIX® has been working to make the IEC/CIM model compliant with the ebIX® model.

ebIX® hopes to hand the ebIX® UML model, preferably in EA format, over to the EU DSO Entity. If the EU DSO Entity, or another body, is not prepared and ready to take over the ebIX® model, the ebIX® model with all the knowledge in it will be lost. For a proper hand over we see a period of knowledge transfer as eminent.

2.2 ebIX® knowledge of modelling methodology (UMM)

UN/CEFACT Modelling Methodology (UMM) is a standardised approach for modelling business processes and information exchanges. It enables organisations to achieve interoperability and seamless integration by providing guidelines, semantics, and modelling techniques, see Appendix B.

ebIX® has used UMM as its methodology, with its focus on standardisation and compatibility, for making BRSs for more than two decades.

Transfer of the UMM knowledge from ebIX® to a new body will require some time. Unless another body is willing to spend time and resources on learning UMM in the ebIX® way of working, the ebIX® knowledge of UN/CEFACT Modelling Methodology (UMM) will be lost. With it, it will be hard to maintain the BRSs and the message definitions.

2.3 Maintenance of ebIX® BRSs

The ebIX® Business Requirements Specifications (BRSs) is a set of internationally recognised guidelines and best practices for the exchange of business information in well guided processes between the players in the energy market, as energy suppliers, DSO's and other stakeholders. The BRSs describe processes and exchange for nearly all down-stream processes from energy supplier switch to change of grid company to exchange of measured data to consent administration.

The BRSs are drafted and maintained in projects with members from the ebIX® Business Group (EBG) and experts from the European energy industry, see www.ebix.org.

Among others, the ebIX® BRSs have been utilised in the specification of data exchange processes in all countries participating in ebIX® and in countries not participating. It also was used as basis for the specification of data hubs, among others in Belgium, Denmark, Finland, Norway, the Netherlands, Poland, Slovenia and Sweden.

The ebIX® BRSs have been and will continue to be used as input for the specifications made by the EU SGTF EG1 work groups making Implementing Acts and Regulations.

ebIX® suggest handing over the ebIX® BRSs to the joint working group between the EU DSO Entity and ENTSO-E that will be established in mid-2023. The joint workgroup will be a body where the downstream and upstream European energy actors (TSOs, DSOs and their stakeholders) meet each other and agree common positions related to processes and data exchange.

Unless the responsibility for the ebIX® BRSs is transferred to another body when ebIX® closes, the maintenance will stop.

2.4 ebIX® knowledge for making the BRSs

The ebIX® Business Requirements Specifications (BRSs) is a set of internationally recognised guidelines and best practices for the exchange of business information in well guided processes between the players in the energy market, as energy suppliers, DSO's and other stakeholders. The BRSs describe processes and exchange for nearly all down-stream processes from energy supplier switch to change of grid company to exchange of measured data to consent administration.

ebIX® has been working on the 38 published BRSs for more than 20 years and there is a massive knowledge within ebIX® of European downstream energy market business processes related to date exchange.

The methodology used when making ebIX® BRSs is the UN/CEFACT Modelling Methodology (UMM), see Appendix B.

Unless another body takes over the BRSs, the ebIX® knowledge related to making BRSs based on UMM will be lost. It would be wise to have a period for knowledge transfer to the new responsible body.

2.5 Alignment of ebIX® BRSs with IEC/CIM

ebIX® has been working on the alignment between the ebIX® BRSs and the IEC/CIM model for around 10 years. The intention has been to make sure that all the data elements (attributes) found in the ebIX® BRS also can be found in IEC/CIM. Since 2019 ebIX® has drafted close to 100 maintenance requests (MRs) for additions or updates to the IEC/CIM.

The process for making MRs and getting these approved is a time-consuming job. First the MR must be drafted by ebIX® and the reason for the addition or update to IEC/CIM must be specified in detail. Thereafter the MR is submitted to the "ENTSO-E CIM for retail market work group" for assessment and agreement on a European level. Finally, when (if) agreed in Europe, the MR is submitted to one of the IEC work groups[2] for final assessment and agreement.

ebIX® maintains an EA model, which includes, in addition to the IEC/CIM reference model and the European Style Market Profile (ESMP), the following modules:

- European Style Downstream Market Profile (ESDMP)
- Maintenance Requests to IEC (MRs)
- National CIM based profiles

If the EU DSO Entity doesn't take over the EA models by the end of 2023, ebIX® members will have to handle the MRs for the IEC/CIM themselves after January 1st, 2024. This may lead to a more diffuse CIM model since there will be no harmonisation of new requirements from the European downstream energy market.

2.6 ebIX® knowledge of usage of IEC/CIM in the European downstream energy market

The IEC Common Information Model (IEC/CIM) is a standardised information model maintained and further developed by the International Electrotechnical Commission (IEC) for the power industry. It provides a common framework for modelling and exchanging information, enabling interoperability and integration between different systems and applications. There is a special profile within IEC/CIM; ESMP (European Style Market Profile), which contains the part of IEC/CIM that is used for exchange of data for European electricity market purposes.

ebIX® has, as mentioned above, worked on the alignment of IEC/CIM with the ebIX® BRSs for around ten years. The alignment work is done in close cooperation with ENTSO-E.

Unless another body takes over this work, the ebIX® knowledge related to tuning IEC/CIM to the European downstream energy market will be lost. Of course to do this work requires an extensive handover of knowledge.

2.7 Maintenance of the Harmonised Electricity Market Role Model

The ebIX®, EFET and ENTSO-E Harmonisation Group (HG) is maintaining the European Electricity Market Role Model (HEMRM). The HG consists of four active ENTSO-E members, four active ebIX® members and one (not so active) member from EFET. This means that unless the EU DSO Entity joins, after the closure of ebIX®, the HG may cease to exist or at least changes into an upstream driven body.

There is also ongoing work of harmonising the Harmonised Gas Role Model (HGRM) and HEMRM that probably will be closed when ebIX® ends.

[2] WG13, WG14 or WG16, dependent on the part of IEC/CIM the MR belongs to.

ebIX® has tried to convince the EU DSO Entity to join the HG, however so far without success. Currently there is one EU DSO Entity member that receives minutes from the HG.

2.8 Maintenance of the ebIX® code lists

ebIX® is maintaining a code list library with around 50 code lists, containing close to 1.000 codes. Codes from the ebIX® code list are used by all countries that use the ebIX® model, BRSs and message definitions. The code lists are published at the ebIX® web site.

If not taken over by the EU DSO Entity, the maintenance will stop. The consequence will be that all using countries will have to maintain their own codes and the divergence between countries will grow.

2.9 Publication of the ebIX® deliverables

At the ebIX® web site, all the ebIX® deliverables are published, such as:

- ebIX® UML model of the European energy market
- ebIX® BRSs (around 38)
- ebIX® code lists (around 50)
- ebIX® surveys
- etc.

However, the ebIX® web site will sooner or later be ended.

Appendix A Introduction to ebIX®

A.1 Who is ebIX®

ebIX®, European forum for energy Business Information eXchange, is a non-profit organisation aiming to advance, develop and standardise electronic information exchange in the European energy industry for gas and electricity. ebIX® is an independent organisation that works together with relevant organisations and will promote the use of the ebIX® standards.

ebIX® focusses on the interchange of administrative data for the internal European markets for electricity and gas and on the harmonisation of data exchange for electricity and gas between the various roles in the liberalised European energy markets.

ebIX® pursues this goal by using international and open standards for the creation of a technology independent model representing common generic data exchange processes, based on best practices and suitable for implementation in energy data management software. ebIX® deals with processes between market parties handling business and administrative data. ebIX® will cover the needs for the retail market (downstream) and the interface to the wholesale market (upstream). ebIX® will follow the rules of the European Union where applicable.

A.2 A short history

It all started in 1993 when the Norwegian power exchange, Statnett Marked (today Nord Pool Spot) made standardised implementation guides based on the international EDIFACT standard from UN/CEFACT. The implementation guides described message exchange for bidding information, bid and sales report between the actors and the power exchange.

This standard was thereafter extended to include exchange of measured data between the actors in the Nordic energy market, which led to the creation of the Ediel Nordic Forum (ENF) in 1995.

Other European countries recognised the importance of this work and joined the ENF as observers. They implemented messages based on the Ediel-standards as the versatility of these messages allows for national adaptations. The ENF-members and observers wished that this extended forum would evolve into a European-wide initiative, hence in 2002 ebIX® was established as a pan-European organisation.

A.3 ebIX® member countries

Currently ebIX® has the following member countries: Austria, Belgium, Finland, Germany, the Netherlands, Norway, Poland, Slovenia and Sweden.

A.4 ebIX® organisation

The ebIX® organisation consists of the ebIX® Forum, the elected Chairperson, the Secretariat, the ebIX® Technical Committee (ETC) and the ebIX® Business Group (EBG). ebIX® is open for organisations from all European countries that share the objectives of ebIX®. New member-organisations are admitted by the ebIX® Forum and a country participates in ebIX® when a member is assigned.

There can be two member-organisations per country: the national ebIX® organisation if this exists, or the Transmission System Operator(s) (TSO) or an organised body thereof, or the national energy association. These member organisations officially appoint two persons per country to represent them in the ebIX® Forum. In addition, each country is expected to have participants in the ebIX® working groups ETC and EBG.

Appendix B Short introduction to UN/CEFACT Modelling Methodology (UMM)

UMM, which stands for UN/CEFACT Modelling Methodology, is a comprehensive and widely adopted methodology for modelling business processes and information exchanges in the context of electronic business. It is developed and maintained by the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT).

The primary goal of UMM is to enable the analysis, design, and implementation of interoperable business processes and information exchanges between organisations. It provides a standardised approach to capture, describe, and model business requirements and interactions, ensuring seamless integration and collaboration between different entities in various domains and industries.

UMM follows a top-down approach, starting with the identification and modelling of high-level business processes and gradually refining them into more detailed processes and information exchanges. The methodology emphasises the use of standard business process modelling techniques, such as activity diagrams, and UML (Unified Modelling Language) diagrams, to represent the different aspects of business interactions.

One of the key strengths of UMM is its ability to facilitate semantic interoperability. It defines a common set of business semantics, based on UN/CEFACT Core Components, which serve as building blocks for modelling business documents and data elements. These core components ensure consistency and understanding of the information exchanged between different systems and organisations.

UMM also provides guidelines for incorporating existing standards, such as UN/EDIFACT (Electronic Data Interchange for Administration, Commerce, and Transport) and ebXML (Electronic Business using eXtensible Markup Language), into the modelling process. This helps organisations leverage established standards and frameworks while ensuring compatibility and interoperability.

By adopting UMM, organisations can achieve a higher level of automation, efficiency, and accuracy in their business processes. It promotes the seamless exchange of information, reduces ambiguity, and enables better integration of disparate systems and technologies. UMM has been widely embraced by government agencies, industry consortia, and organisations worldwide as a trusted methodology for electronic business modelling.

In summary, UMM (UN/CEFACT Modelling Methodology) is a standardised approach for modelling business processes and information exchanges. It enables organisations to achieve interoperability and seamless integration by providing guidelines, semantics, and modelling techniques. With its focus on standardisation and compatibility, UMM helps organisations enhance their electronic business capabilities and drive efficiency in global trade and commerce.

Appendix C Short introduction to the IEC Common Information Model (IEC/CIM)

The IEC Common Information Model, often referred to as IEC/CIM, is a standardised information model maintained and further developed by the International Electrotechnical Commission (IEC). It provides a common framework for modelling and exchanging information in the field of electrical power systems and energy management.

The primary objective of the IEC/CIM is to enable interoperability and integration between different software systems used in the energy industry. It achieves this by defining a common set of data models and conventions that facilitate the exchange of information between various applications, devices, and stakeholders involved in energy system management.

The IEC/CIM covers the following domains within the power industry:

61970 Energy Management System including SCADA
61968 Interoperability with customer information system (CIS)
62325 Deregulated Market Communications

The information model defined by the IEC/CIM is based on the principles of object-oriented modelling and utilises a standardised language called the Unified Modelling Language (UML). UML provides a graphical notation for representing the different entities, relationships, and attributes of the power system domain.

By adopting the IEC/CIM, organisations in the energy industry can achieve numerous benefits. It promotes interoperability and seamless integration between diverse systems and applications, allowing for efficient data exchange and collaboration. The standardised data models ensure consistency and accuracy of information across the entire energy system lifecycle, from design and planning to operation and maintenance.

Moreover, the IEC/CIM facilitates advanced functionalities and applications, such as network analysis, energy management systems, and smart grid technologies. It supports the development of intelligent energy systems that can optimise energy generation, distribution, and consumption, leading to increased efficiency and reliability.

The IEC/CIM is continuously maintained and updated by the IEC Technical Committee 57 (TC 57), which focuses on power system management and associated information exchange standards. The committee collaborates with industry experts, grid companies and other stakeholders to ensure that the IEC/CIM remains relevant and aligned with emerging technologies and industry requirements.

ESMP (European Style Market Profile) is an IEC/CIM profile that contains the part of IEC/CIM that is used for exchange of data for European electricity market purposes.

By adopting the IEC/CIM, organisations can enhance their power system management capabilities, promote efficient data exchange, and leverage advanced technologies for a smarter and more reliable electrical grid.