

CHAPTER VI – DATA EXCHANGE

6.1. General Requirements

6.1.1. General Provisions

This section of the Network Code aims to provide for the appropriate degree of harmonization of Data Exchange to support the completion and functioning of the European internal gas market, security of supply and appropriate access to the relevant information.

The common Data Exchange Solution shall cover all electronic data exchanges of data arising from the European Network Codes and Guidelines in accordance with regulation EC 715/2009. ENTSOG shall coordinate and facilitate the implementation of the common Data Exchange solutions and Data Formats for the concerned business processes.

6.1.2. Types of Data Exchange:

- (i) Document based Data Exchange: Data will be exchanged wrapped into a file and automatically exchanged between the IT systems of the two communication parties.
- (ii) Integrated Data Exchange: Data are exchanged between two applications directly on the IT systems of both parties.
- (iii) Interactive Data Exchange: Data are exchanged interactively between a user and a web application of the counterparty via a browser.

6.2. Data Network

The Internet shall be used as network for all common data exchange as specified in point Common Data Exchange solutions

6.3. Data Exchange solutions

6.3.1. Document based Data Exchange:

- (i) Protocol: AS4 shall be used as common data exchange protocol for document based data exchanges.
- (ii) Data Content Format: Edig@s-XML – The data content specifications are defined in the corresponding Business Process Network Codes.

6.3.2. Integrated Data Exchange:

- (i) Protocol: HTTP/S-SOAP will be used as common data exchange protocol for integrated data exchanges.
- (ii) Data Content Format: Edig@s-XML - The data content specifications are defined in the corresponding Business Process Network Codes.

6.3.3. Interactive Data Exchange:

- (i) Protocol: HTTP/S will be used as common data exchange protocol for interactive data exchanges.
- (ii) Data Content Format: The data content specifications are defined in the corresponding Business Process Network Codes.

6.3.4. Technological evolutions

ENTSOG shall monitor the evolutions in IT technology. When a need appears, ENTSOG shall organise a public consultation with all stakeholders. ENTSOG shall evaluate new technologies and make a cost benefit analysis of the change for all stakeholders. Where future amendments are deemed necessary, they shall follow the procedure foreseen in Article 7 of the Gas Regulation.

6.4. Requirements for Data Exchange systems

6.4.1. Security – requirements and responsibilities

- (i) Each party shall comply with the recommendations from European Network and Information Security Agency (ENISA); Technical Guideline for Minimum Security Measures - Guidance on the security measures Article 13a.
- (ii) Each party is responsible for implementing appropriate security measures to prevent unauthorised access of their IT infrastructure.
- (iii) As soon as a party becomes aware that (notwithstanding paragraph 6.4.1 **Error! eference source not found.**) any unauthorised access has or may have occurred, it shall promptly notify all concerned parties.

6.4.2. Availability

- (i) TSOs shall take appropriate measures to prevent that a single point of failure will cause an unavailability of the Data Exchange system. This requirement also applies up to the network connection(s) with the Internet Service Provider(s).
- (ii) TSOs shall take all reasonable endeavours to obtain the appropriate services and support from their Internet Service Provider(s).
- (iii) TSOs shall take all reasonable endeavours to keep the downtime, as a consequence of planned IT maintenance, to a minimum. TSOs will inform their counter parties in a reasonable time prior to the planned unavailability.

6.5. Implementation Schedule

- (i) TSOs shall make the common Data Exchange solutions available within 12 month after adoption of this Network Code.
- (ii) For Data Exchanges between local counterparties and TSOs, a different implementation schedule for network and protocol can be agreed according to the

local regulations or, with approval of the local NRA, as long as the existing communication solution is compatible with the business requirements of the new network codes.

- (iii) TSOs shall implement the necessary data formats according to the schedules imposed by the different Network Codes for which Data Exchanges are required.

6.6. Procedure for managing Business Process and Data Format developments

Communication requirements for future network codes and changes to existing network codes, as well as for the follow up of technical developments, will be managed and controlled by ENTSOG. This process shall be transparent and participative and shall involve the establishment of a committee tasked with advising on how to adapt the Data Exchange Rules to such evolutions. ENTSOG will notify relevant communicating parties of any proposal, setting out in outline the nature and purpose of the modification and an indicative timetable for its implementation. ENTSOG may revise their proposal in the light of any comments made by the relevant parties. ENTSOG shall then prepare the implementation plan of its proposal or revised proposal, setting out in reasonable detail the nature of the proposal and the steps for its implementation. ENTSOG will publish all relevant information for Data Exchange on its website.

The following rules will be applied for the development of new communication requirements:

- (i) Based on the (new or changed) Network Code, a Business Requirements Specification will be made that consist of the following elements:
 - i. Business Process Model (Use Case Diagram)
 - ii. Business Requirements (Text Document)
 - iii. Functional Specification (Sequence Diagram and Workflow)
 - iv. Implementation Guidelines (Information Model)
 - v. Technical Specification (Text Document)

The Business Requirements Specifications shall contain the supported Data Formats for the different Network codes. A detailed change history log will be included mentioning change date, reference of the section in the document that has been changed and the reason for the change.

- (ii) TSOs and concerned counterparties shall define during the development of the Network Code which Data Exchange solutions shall be used to support the business process.
- (iii) ENTSOG shall be responsible for the management and publication of all required documents according to the timelines defined in the Network Code of the concerned business process.

(iv) Data Format release management shall be supported by ENTSOG.

- i. New major Data Format releases shall be subjected to public consultation before becoming adopted. Changes will be announced and published on the ENTSOG website. Major changes may have an impact on the existing business processes and require a change in the IT systems.
- ii. On adoption, the new major Data Format release shall become the official version with the previous official version becoming the supported Data Format version. All TSOs shall support these two versions, if required.
- iii. Correction or errors and changes to existing code lists are considered as minor changes.