General - Gas Requirements Management Process

Model Documentation

Version 6.1

Document Version: 2
Schema Version: 1

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1 Model Detail

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2 Gas Requirements Declaration Document usage decision table

The following decision table provides a summary of the message requirements depending on the type of message:

Gas Requirements Declaration Document	Gas Requirements Declaration
identification	Mandatory.
version	Mandatory.
documentCode	AL1 = Gas requirements declaration document.
creationDateTime	Mandatory.
validityPeriod	Mandatory.
issuer_MarketParticipant.identification	Mandatory; codingScheme (EIC Party X code).
issuer_MarketParticipant.marketRole.roleCode	UD = Final Customer.
recipient_MarketParticipant.identification	Mandatory; codingScheme = 305 (EIC Party X code).
recipient_MarketParticipant.marketRole.roleCode	ZSO = System Operator.
contract_Reference.identification	Mandatory.
ConnectionPoint.identification	Mandatory; codingScheme (EIC Measurement Point Z or Y code) or ZSO.
ConnectionPoint. measureUnit.unitOfMeasureCode	KW1 = Kilowatt-hour per hour (kWh/h)
Period.timeInterval	Mandatory.
Period.direction.gasDirectionCode	Z02 = Input. Z03 = Output.
Period.quantity.amount	Mandatory.
Period.minimum_Quantity.amount	May be used.
Period.maximum_Quantity.amount	May be used.
Reason.reasonCode	22G= Planned maintenance. 23G= Unplanned. 89G= System Operator request.
Reason.text	May be used.

3 Gas Requirements Confirmation Document usage decision table

The following decision table provides a summary of the message requirements depending on the type of message:

Gas Requirements Confirmation Document	Gas Requirements Confirmation
identification	Mandatory.
version	Mandatory.
documentCode	AL2 = Gas Requirements Confirmation document.
creationDateTime	Mandatory.
validityPeriod	Mandatory.
issuer_MarketParticipant.identification	Mandatory; codingScheme = 305 (EIC Party X code).
issuer_MarketParticipant.marketRole.roleCode	ZSO = System Operator.
recipient_MarketParticipant.identification	Mandatory; codingScheme = 305 (EIC Party X code).
recipient_MarketParticipant.marketRole.roleCode	UD = Final Customer.
contract_Reference.identification	Mandatory.
gasRequirementsDeclaration_Document.identification	Mandatory.
gasRequirementsDeclaration_Document.version	Mandatory.
ConnectionPoint.identification	Mandatory; codingScheme = 305 (EIC Measurement Point Z or Y code) or ZSO
ConnectionPoint.measureUnit.unitOfMeasureCode	KW1 = Kilowatt-hour per hour (kWh/h).
Period.timeInterval	May be used
Period.direction.gasDirectionCode	Mandatory if timeInterval. Z02 = Input. Z03 = Output.
quantity.amount	Mandatory if timeInterval.
ModificationLeadTime_Duration.time	May be used.
ModificationLeadTime_Duration.minimum_Quantity.amount	Mandatory if time.
ModificationLeadTime_Duration.maximum_Quantity.amount	Mandatory if time.
Reason.reasonCode	May be used. 85G= Network not congested. 86G= Network congested. 87G= Network risk of congestion. 88G = Quantity reduced. valid codes).

Gas Requirements Confirmation Document	Gas Requirements Confirmation
text	May be used
ReductionCriteria_Period.timeInterval	May be used
ReductionCriteria_Period.reductionRate_Quantity.amount	Used if timeInterval.

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4 Gas Requirements Management Process

4.1 Business Processes

4.1.1 Gas Requirements Management Sequence

The detailed gas requirements are provided to a System Operator whenever the consumption is dependent on the specific consumption constraints that a Final Customer has to satisfy in order to meet his business objectives.

In an initial phase the System Operator acknowledges their reception and waits for the adjacent System Operator to provide the aggregated nominations for the regions managed.

Once the two information flows have been exchanged, the System Operator can determine whether or not the gas requirements can be satisfied. He informs the Final Customer of the results of this calculation and provides information enabling the Final Customer to modify his gas requirements during the course of the day.

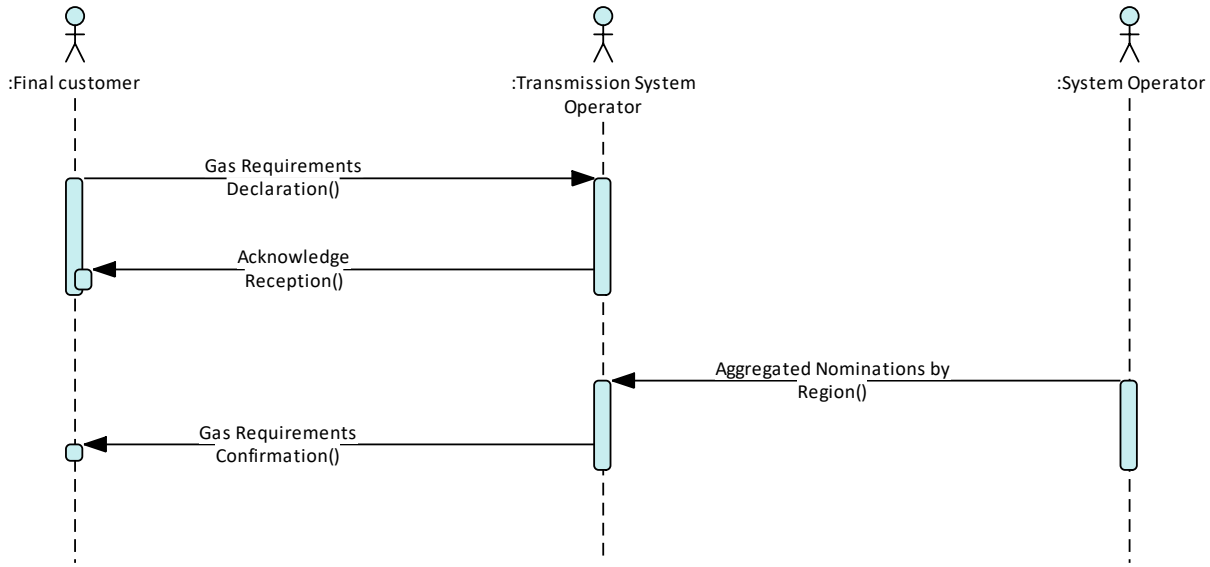

Figure: 1 **Gas Requirements Management Sequence**

4.1.2 Gas Requirements Management Workflow

The gas requirements declaration process begins, generally on a daily basis for the following day, when a Final Customer (e.g. electricity provider) transmits to a System Operator the detailed gas requirements for the day in question.

On reception, the System Operator acknowledges reception of the electronic document and then waits for the aggregated nomination information for the regions in question to be provided by adjacent the System Operator.

Once the aggregated nomination information is received, the System Operator calculates the constraints for the network impacting the Final Customer. This analysis also identifies the margins available during the different periods of the detailed gas requirements schedule.

The System Operator then sends a confirmation to the Final Customer providing the conditions under which the gas requirements can be accepted and the conditions in which changes to the schedule are accepted.

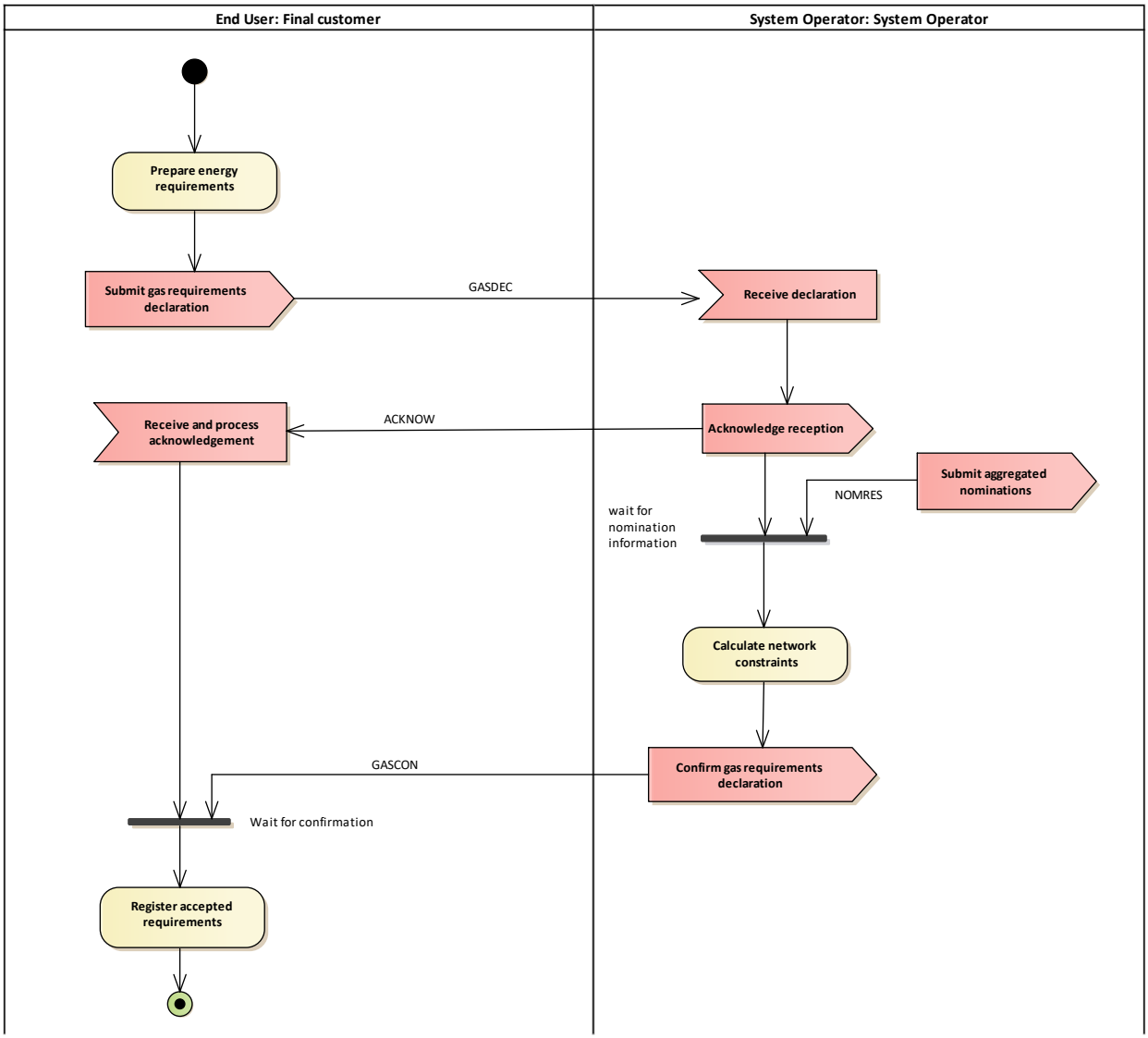

Figure: 2 **Gas Requirements Management Workflow**

4.2 Gas Requirements Declaration Document (GASDEC)

4.2.1 Gas Requirements Declaration Document Contextual Model

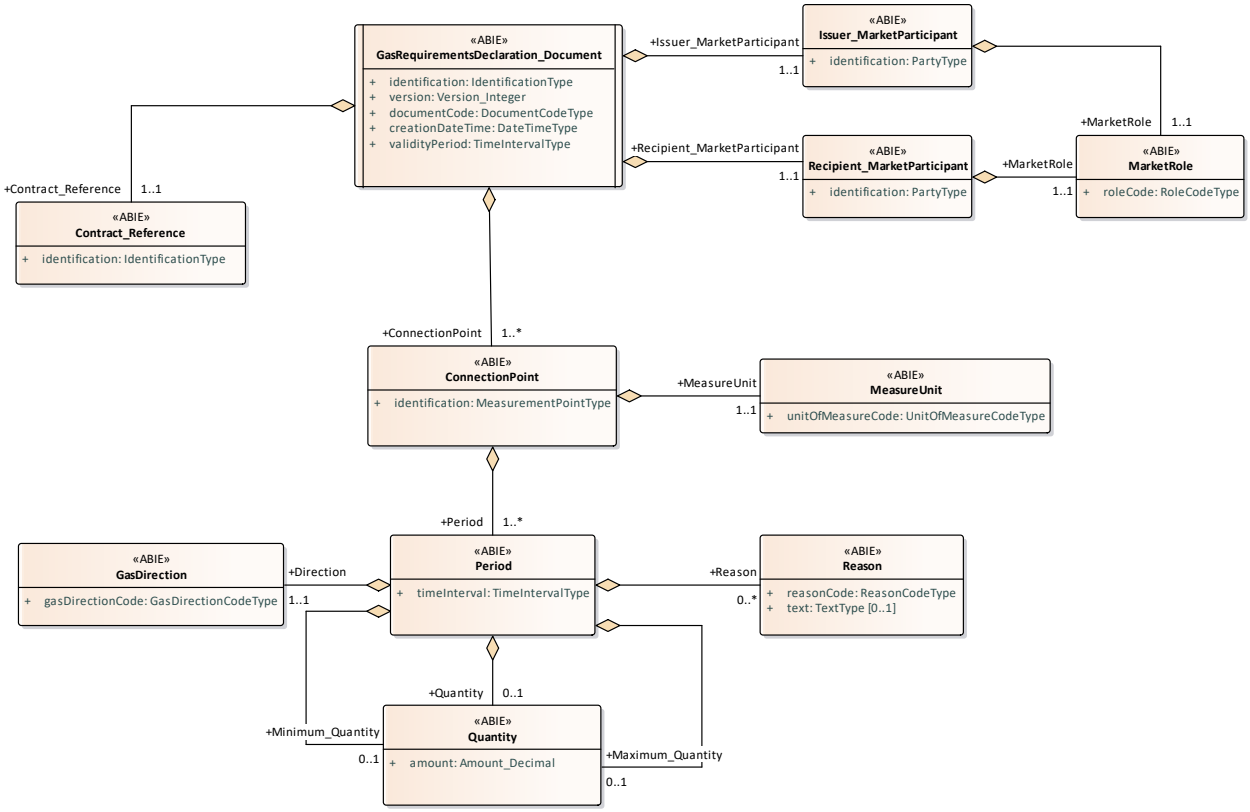

Figure: 3 **Gas Requirements Declaration Document Contextual Model**

4.2.2 Gas Requirements Declaration Assembly Model

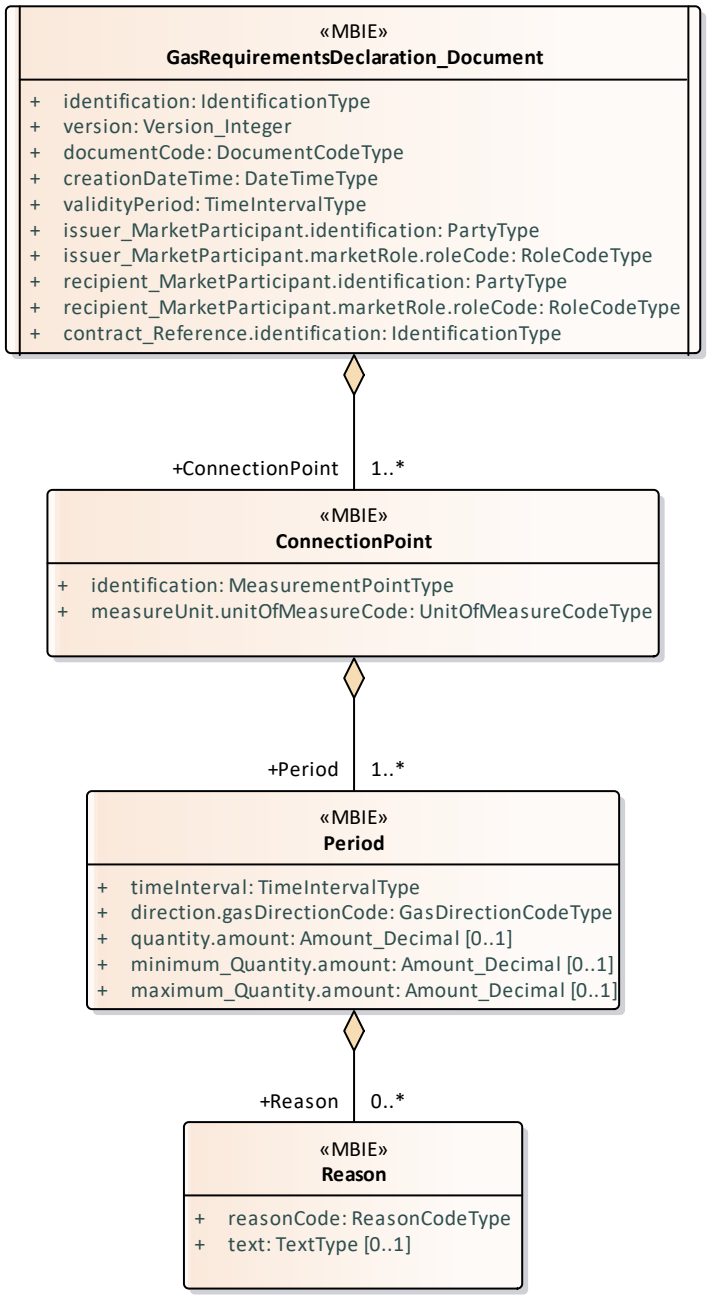

Figure: 4 **Gas Requirements Declaration Assembly Model**

4.2.2.1 GasRequirementsDeclaration_Document

This class provides the basic information needed to describe most electronic documents.

4.2.2.1.1 Attributes

Attribute	Description	Multiplicity
identification	A unique identification of a document that is assigned by the issuer. This identifies the document being reported.	
version	Version of the document being sent. The first version number for a given document identification shall normally be 1. The document version number must be incremented for each retransmission of a document that contains changes to the previous version. The receiving system shall only accept a document with a version number which is greater than the previous version number of the same document.	
documentCode	Coded representation of the type of the electronic document.	
creationDateTime	Date and time of the creation of the current document expressed in UTC.	
validityPeriod	The start and end date and time of the period of validity covered in the document.	
issuer_MarketParticipant.identification	The identification of the party participating in the market. --- The identification of the issuer of the document.	
issuer_MarketParticipant.marketRole.roleCode	A code identifying the role played by a market participant in the market. --- The identification of the issuer of the document. --- The identification of the role of the document issuer.	
recipient_MarketParticipant.identification	The identification of the party participating in the market. --- The identification of the recipient of the document.	
recipient_MarketParticipant.marketRole.roleCode	A code identifying the role played by a market participant in the market. --- The identification of the recipient of the document. --- The identification of the role of the document recipient.	
contract_Reference.identification	The coded identification of a reference.	

4.2.2.2 ConnectionPoint

A cross-border interconnection point, whether it is physical or virtual, between two or more member states as well as interconnection between adjacent entry-exit-systems within the same member states. It may be used on the internal market.

The Connection Point class is provided to identify the connection points that are associated with the End User.

4.2.2.2.1 Attributes

Attribute	Description	Multiplicity
identification	The identification of a connection point.	
measureUnit.unitOfMeasureCode	The coded representation of a unit of measure using the UN/CEFACT Recommendation 20 common codes.	

4.2.2.3 Period

The period that the dependent information is for.
The Period class is present at the Connection Point level to identify the detailed time interval information concerning gas requirements.

4.2.2.3.1 Attributes

Attribute	Description	Multiplicity
timeInterval	The start and end date and time for the period. The time is expressed in UTC.	
direction.gasDirectionCode	A code identifying the direction of a gas flow.	
quantity.amount	The amount of a quantity. --- The quantity required for the period.	[0..1]
minimum_Quantity.amount	The amount of a quantity. --- The technical minimum debit quantity for the period.	[0..1]
maximum_Quantity.amount	The amount of a quantity. --- The technical maximum debit quantity for the period.	[0..1]

4.2.2.4 Reason

The motivation of an act.
The Reason class shall be used to provide information concerning maintenance, an incident or a System Operator constraint.

4.2.2.4.1 Attributes

Attribute	Description	Multiplicity
reasonCode	The motivation of an act in coded form.	
text	The textual explanation corresponding to the reason code.	[0..1]

4.3 Gas Requirements Confirmation Document (GASCON)

4.3.1 Gas Requirements Confirmation Document Contextual Model

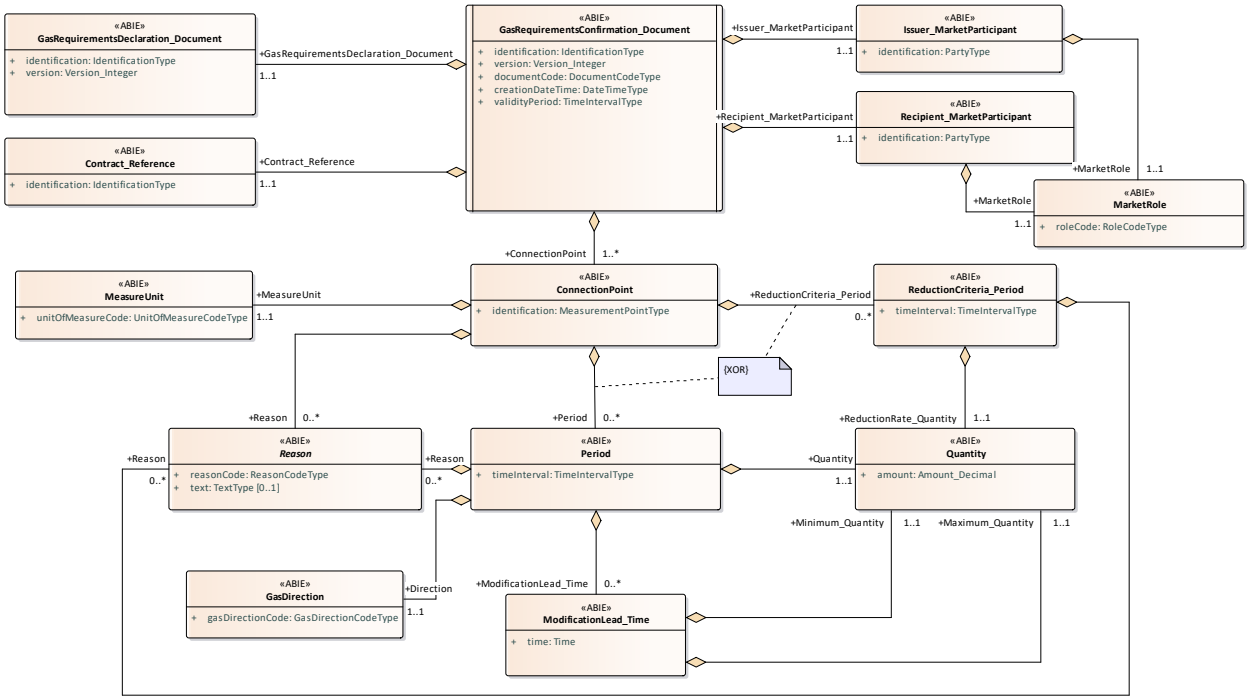

Figure: 5 **Gas Requirements Confirmation Document Contextual Model**

4.3.2 Gas Requirements Confirmation Document Assembly Model

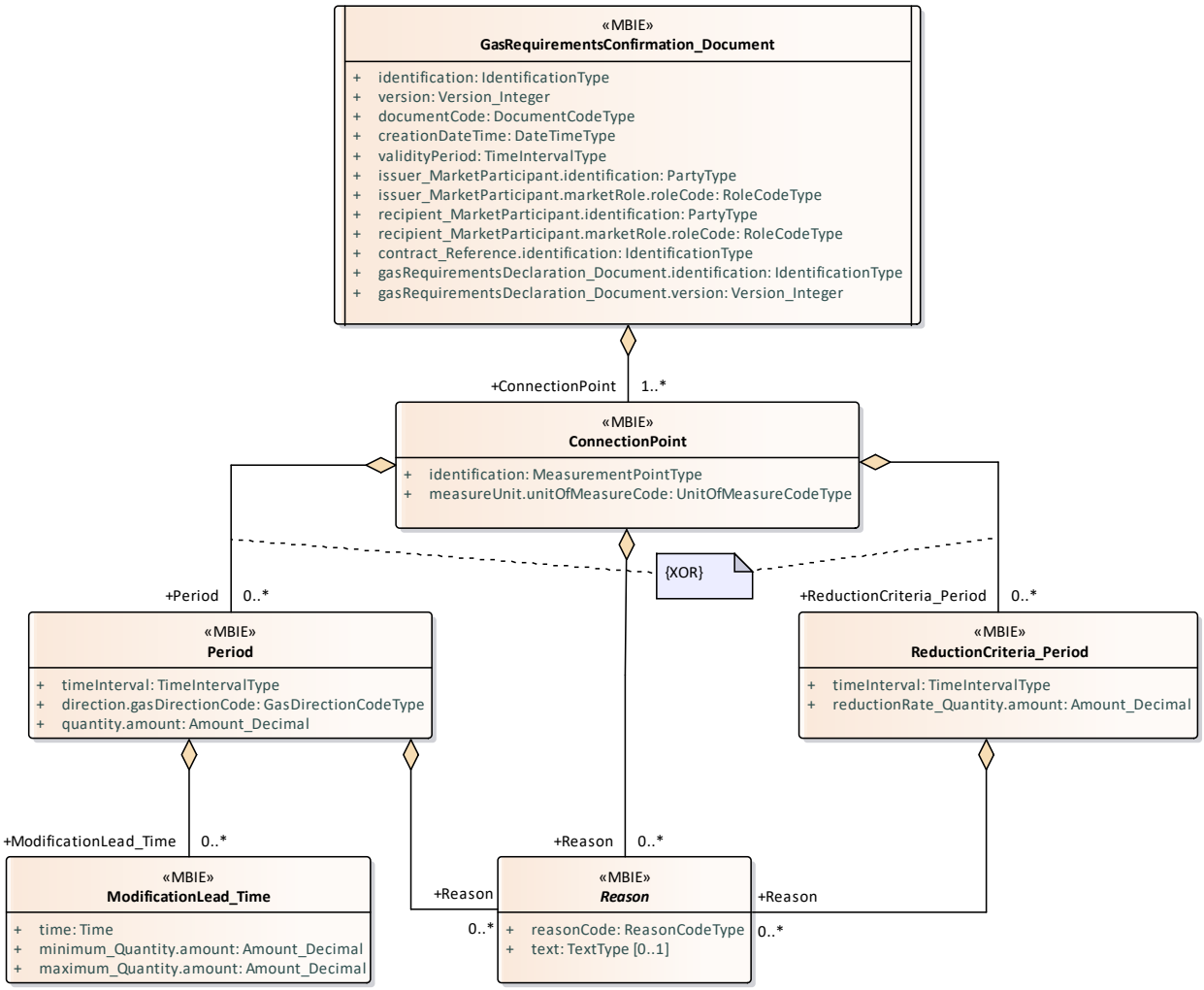

Figure: 6 **Gas Requirements Confirmation Document Assembly Model**

157 ### 4.3.2.1 GasRequirementsConfirmation_Document

158 This class provides the basic information needed to describe most electronic documents.

159 #### 4.3.2.1.1 Attributes

Attribute	Description	Multiplicity
identification	A unique identification of a document that is assigned by the issuer. This identifies the document being reported.	
version	Version of the document being sent. The first version number for a given document identification shall normally be 1. The document version number must be incremented for each retransmission of a document that contains changes to the previous version. The receiving system shall only accept a document with a version number which is greater than the previous version number of the same document.	
documentCode	Coded representation of the type of the electronic document.	
creationDateTime	Date and time of the creation of the current document expressed in UTC.	
validityPeriod	The start and end date and time of the period of validity covered in the document.	
issuer_MarketParticipant.identification	The identification of the party participating in the market. --- The issuer of the document.	
issuer_MarketParticipant.marketRole.roleCode	A code identifying the role played by a market participant in the market. --- The issuer of the document. --- The role of the issuer of the document.	
recipient_MarketParticipant.identification	The identification of the party participating in the market. --- The recipient of the document	
recipient_MarketParticipant.marketRole.roleCode	A code identifying the role played by a market participant in the market. --- The recipient of the document --- The role of the recipient of the document;	
contract_Reference.identification	The coded identification of a reference. --- The identification of the contract that is regulating the information exchange.	
gasRequirementsDeclaration_Document.identification	A unique identification of a document that is assigned by the issuer. This identifies the document being reported. --- The identification of the requirements declaration document being confirmed.	
gasRequirementsDeclaration_Document.version	Version of the document being sent. The first version number for a given document identification shall normally be 1. The document version number must be incremented for each retransmission of a document that contains changes to the previous version. The receiving system shall only accept a document with a version number which is greater than the previous version number of the same document. --- The identification of the requirements declaration document being confirmed.	

4.3.2.2 ConnectionPoint

A cross-border interconnection point, whether it is physical or virtual, between two or more member states as well as interconnection between adjacent entry-exit-systems within the same member states. It may be used on the internal market.
The connection point class is provided to identify the connection points that are associated with the End User.

4.3.2.2.1 Attributes

Attribute	Description	Multiplicity
identification	The identification of a connection point.	
measureUnit.unitOfMeasureCode	The coded representation of a unit of measure using the UN/CEFACT Recommendation 20 common codes.	

4.3.2.3 Period

The period that the dependent information is for.
The Period class is present at the connection point level to identify the detailed time interval information concerning gas requirements that have been confirmed.

4.3.2.3.1 Attributes

Attribute	Description	Multiplicity
timeInterval	The start and end date and time for the period. The time is expressed in UTC.	
direction.gasDirectionCode	A code identifying the direction of a gas flow.	
quantity.amount	The amount of a quantity.	

4.3.2.4 ReductionCriteria_Period

The period that the dependent information is for.
The class provides information concerning reduction criteria that may be applicable.

4.3.2.4.1 Attributes

Attribute	Description	Multiplicity
timeInterval	The start and end date and time for the period. The time is expressed in UTC.	
reductionRate_Quantity.amount	The amount of a quantity.	

4.3.2.5 ModificationLead_Time

A period of time which may exceed 24 hours.
The Modification Lead Time class provides the information at the period level indicating the lead time in which it is possible to provide modifications to the Period in question. It also provides the minimum and maximum quantities that can be changed

4.3.2.5.1 Attributes

Attribute	Description	Multiplicity
time	The time respecting the ISO 8601 format.	
minimum_Quantity.amount	The amount of a quantity. --- This represents the minimum quantity for the lead time in question.	
maximum_Quantity.amount	The amount of a quantity. --- This represents the maximum quantity for the lead time in question.	

4.3.2.6 Reason

The motivation of an act.
The Reason class shall be used to provide:

1. At the connection point level, the status of the network (e.g. not congested, congested, risk of congestion,..).
2. At the Period level to indicate if anything has been changed with the quantities (e.g. quantity reduced).
3. At the reduction criteria level to indicate the justification for the application of a rate of reduction.

4.3.2.6.1 Attributes

Attribute	Description	Multiplicity
reasonCode	The motivation of an act in coded form.	
text	The textual explanation corresponding to the reason code.	[0..1]

5 Document Change Log

5.1 Version

5.1.1 Attributes

Attribute	Description	Multiplicity
Version 1 2020-06-29	Initial release.	
Version 2 2021-06-28	Release 6.1 Corrected sequence diagram, removed service provider and updated the text to match the diagrams.	