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SO Nomination and Matching

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Model Documentation

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The European message format for the gas market

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8   *Version 6.1*

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19   *Document Version: 3*
20   *Schema Version: 1*
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1 Model Detail

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2 Document usage decision tables

2.1 Delivery order document

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

DELIVERY ORDER DOCUMENT	Callup notice	Forwarded Single-sided nomination
identification	Mandatory	Mandatory For DELORD type ANC a new and unique identification must be present for every new DELORD type ANC message.
version	Mandatory	Mandatory. Should always be version 1.
documentCode	26G = Callup notice	ANC = Single-sided nomination.
creationDateTime	Mandatory	
validityPeriod	Mandatory	Mandatory DELORD type ANC is valid for only one gas day.
applicationContext	May be used. Deprecated attribute which will be removed in the next version of Edig@s.	
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	ZSO = System Operator.	
singleSidedSource_Document.identification	Not used	Mandatory. Identification of the single sided nomination A DELORD ANC message should contain only data from one NOMINT message.
singleSidedSource_Document.version	Not used	Mandatory. Version of the single sided nomination. A DELORD ANC message should contain only data from one NOMINT message.
singleSidedSource_Document.documentCode	Not used	Mandatory. Document code of the single sided nomination A DELORD ANC message should contain only data from one NOMINT message.
singleSidedSource_Document.brpOriginator_MarketParticipant.identification	Not used	Mandatory. Identification of the BRP that originated the single sided nomination A DELORD ANC message should contain only data from one NOMINT message.

DELIVERY ORDER DOCUMENT	Callup notice	Forwarded Single-sided nomination
ConnectionPoint.identification	Mandatory; codingScheme = 305 (EIC Measurement Point Z or Y code) or ZSO.	
ConnectionPoint.measureUnit.unitOfMeasureCode	KW1 = Kilowatt-hour per hour (kWh/h) KW2 = Kilowatt-hour per day (kWh/d).	
InternalAccount.internalAccount	Mandatory; codingScheme = 305 (EIC Account Y code) or ZSO	
InternalAccount.internalAccountTso	Used if the account identification is ambiguous codingScheme = 305 (EIC Party X code)	
ExternalAccount.externalAccount	Mandatory; codingScheme = 305 (EIC Account Y code) or ZSO.	
ExternalAccount.externalAccountTso	Used if the account identification is ambiguous; codingScheme = 305 (EIC Party X code)	
InformationOrigin_TimeSeries.businessCode	Mandatory, all of the following codes should be provided 12G = Accepted by System Operator 14G = Processed by System Operator (Issuer System Operator side of the connection point);	12G = Accepted by System Operator.
InformationOrigin_TimeSeries.timeStamp_DateTime.dateTime	Not used	Date and time expressed in UTC that the single-sided nomination was received
Period.timeInterval	Mandatory	
Period.direction.gasDirectionCode	Z02 = Input quantity. Z03 = Output quantity.	
total_Quantity.amount	Mandatory.	

85

86 2.2 Delivery response document

87 The following decision table provides a summary of the Delivery Response Document message requirements depending on the type of message:

DELIVERY RESPONSE DOCUMENT	Callup response
identification	Mandatory
version	Mandatory
documentCode	27G = Callup response.
creationDateTime	Mandatory
validityPeriod	Mandatory
applicationContext	May be used. Deprecated attribute which will be removed in the next version of Edig@s.
issuer_MarketParticipant.identification	Mandatory; codingScheme = 305 (EIC Party X code)
issuer_MarketParticipant.marketRole.roleCode	ZSO = System Operator (Refer to Edig@s RoleCodeTypeCodeList for the list of valid codes).
recipient_MarketParticipant.identification	Mandatory; codingScheme = 305 (EIC Party X code)
recipient_MarketParticipant.marketRole.roleCode	ZSO = System Operator
DeliveryOrder_Document.identification	Mandatory with the callup notice identification. If the Initiating System Operator did not submit this identification should be the text "MISSING".
DeliveryOrder_Document.version	Mandatory with the callup notice version. If the identification is the word "MISSING" this shall always have the value 1.
ConnectionPoint.identification	Mandatory; codingScheme = 305 (EIC Measurement Point Z or Y code) or ZSO
ConnectionPoint.measureUnit.unitOfMeasureCode	KW1 = Kilowatt-hour per hour (kWh/h) KW2 = Kilowatt-hour per day (kWh/d)
Internal_Account.internalAccount	Mandatory; codingScheme = 305 (EIC Account Y code) or ZSO
Internal_Account.internalAccountTso	Used if the account identification is ambiguous; codingScheme = 305 (EIC Party X code)
External_Account.externalAccount	Mandatory; codingScheme = 305 (EIC Account Y code) or ZSO
External_Account.externalAccountTso	Used if the account identification is ambiguous; codingScheme = 305 (EIC Party X code)

DELIVERY RESPONSE DOCUMENT	Callup response
InformationOrigin_TimeSeries.businessCode	Mandatory, all of the following codes should be provided. 12G = Accepted by System Operator 14G = Processed by System Operator (Issuer System Operator side of the connection point) 16G = Confirmed
Period.direction.gasDirectionCode	Z02 = Input quantity. Z03 = Output quantity.
Period.total_Quantity.amount	Mandatory.
Status.statusCode	06G = Mismatch. 07G = Interrupted. 08G = Interrupted firm. 09G = Quality deficient. 10G = Reduced capacity. 35G = Counter party prevailed. 36G = No match counter party prevailed. 56G = Increased nominated capacity.
Status.complementaryText.text	May be used to qualify a status with additional information

88

3 SO Nomination and Matching

3.1 Business processes

3.1.1 SO to SO nomination Use Case

The SO to SO nomination process concerns 4 use cases.

1. The collection and compilation by the System Operators on each side of the IP of the nominations sent by the Balance Responsible Parties up to a given time. This includes local validation of the nominations. Any errors identified are sent back to the Balance Responsible Parties.

2. The submission of the processed nominations by the Initiating System Operator to the Matching System Operator.

3. The matching of all nominations concerning a given IP.

4. The transmission of the results of the matching, and any actions taken by the Matching System Operator, to the Initiating System Operator.
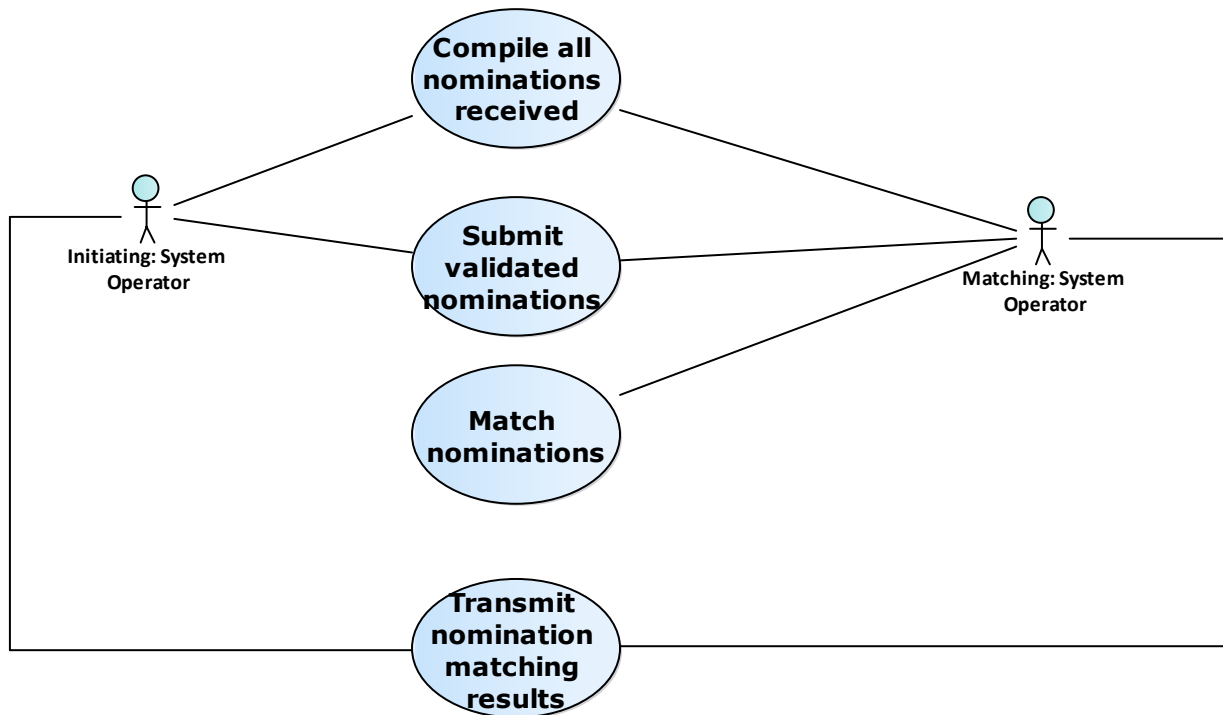

Figure: 1 **SO to SO nomination Use Case**

104   3.1.2 SO to SO sequence

105   After local validation, the Initiating System Operator assembles the nominations for a given period. Each System
106   Operator sends single-sided nominations (see Nomination ENTSOG Business Requirements Specification for
107   explanation) to their respective counterpart, in cases where they have been received.
108   At an agreed cutoff time, the Initiating System Operator sends to the Matching System Operator a DELORD message
109   containing all the processed quantities concerning an IP between both operators.
110
111   This flow contains two time series:
112   1.   The accepted Balance Responsible Party nomination that was submitted to the System Operator (Business Code
113   = 12G).
114   2.   The processed nomination by the local System Operator (Business Code = 14G);
115
116   The Matching System Operator then matches the nominations and after any necessary rectification sends a DELRES
117   message confirming the nominations received in the DELORD message.
118
119   This flow contains three time series:
120   1.   The accepted Balance Responsible Party nomination that was submitted to the System Operator (Business
121   Code = 12G).
122   2.   The processed nomination by the local System Operator (Business Code = 14G);
123   3.   The confirmed nomination of the Balance Responsible Party (Business Code = 16G);
124
125   In the case where a DELORD message has been received and contains 12G values for an account pair of a known
126   BRP and the BRP did not nominate to System Operator the corresponding account pair, the DELRES message must
127   contain for 12G zero (0) values for this account pair.
128

Initiating: System Operator

Matching: System Operator

Assembles
nominations
received()

Assembles
nominations
received()

Single sided nominations received (DELORD)

Note: Only the Active System Operator for single sided nominations
transmits this information.

{XoR -
Mutually
exclusive}

Single sided nominations received (DELORD)

Callup notice for Nominations received (DELORD)

Match
nominations()

Callup Response with Matching results (DELRES)

129
130   Figure: 2 **SO to SO sequence**

131   3.1.3 SO to SO Workflow

132
133   Unless agreed otherwise by the involved System Operators, the Initiating System Operator forwards any single-sided
134   nominations received to the Matching System Operator as soon as technically possible and feasible but no later than
135   15 minutes after the (re-)nomination deadline(s). (**Note:** To facilitate reading of the document it is assumed that the
136   Initiating System Operator is the only party to receive single-sided nominations. In reality either System Operator or
137   only the Matching System Operator may receive single-sided nominations when bilaterally agreed.).

138   The Matching System Operator must validate the information received and inform the Initiating System Operator of
139   any discrepancies. In the case of errors the Initiating System Operator may send a new acknowledgement and transmits
140   it to the Balance Responsible Party with the notified errors.
141   Both System Operators then process all the nominations per adjacent System Operator.
142   The Initiating System Operator submits the processed quantities to the Matching System Operator.
143   The following matching steps are carried out:
144   1.   The processed quantities are matched by the Matching System Operator.
145   2.   The finalised results are submitted to the Initiating System Operator in a Callup Response.
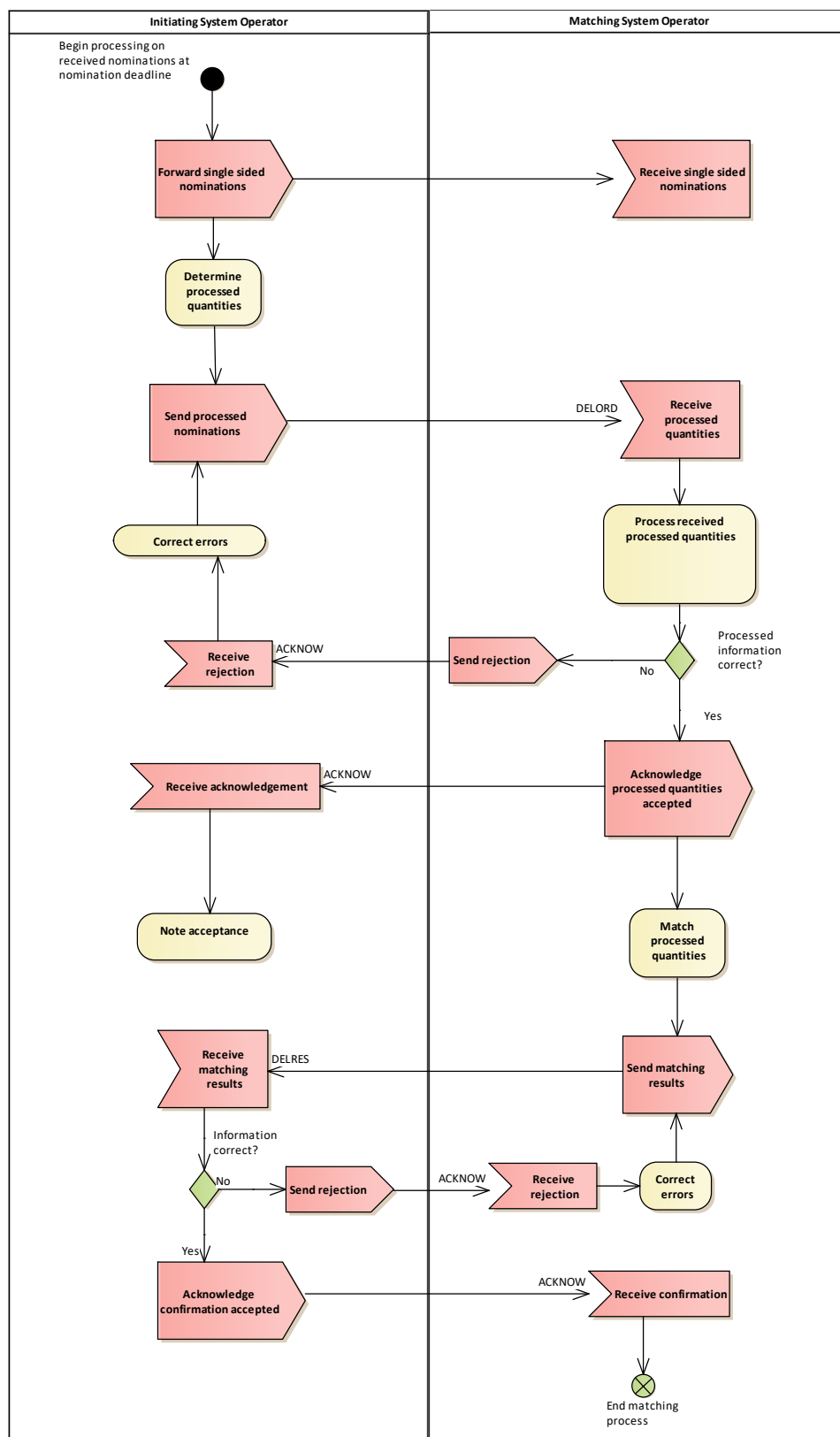
Figure: 3 **SO to SO Workflow**

148 3.2 Delivery Order Document (DELORD)

149 A Delivery Order Document is used by coordinating System Operators to exchange Balance Responsible Party
150 nomination information.
151 A Delivery Order Document may be used in two contexts:
152 1. To transmit any single sided nominations to the adjacent System Operator. This may be transmitted by the
153   Initiating System Operator as well as the Matching System Operator, depending on which System Operator is
154   playing the role of Active System Operator. The role of Active System Operator is agreed per connection point
155   between both System Operators. At any point in time for a connection point, only one of the Initiating or
156   Matching System Operators may be an active System Operator for single sided transmission.
157 2. To transmit the complete set of nominations that are related to the Matching System Operators border area.
158   Consequently, the Delivery Order message can contain one connection point and for each connection point all
159   internal accounts and for each account all external accounts related to it.

160 3.2.1 Delivery Order Document Contextual Model

161
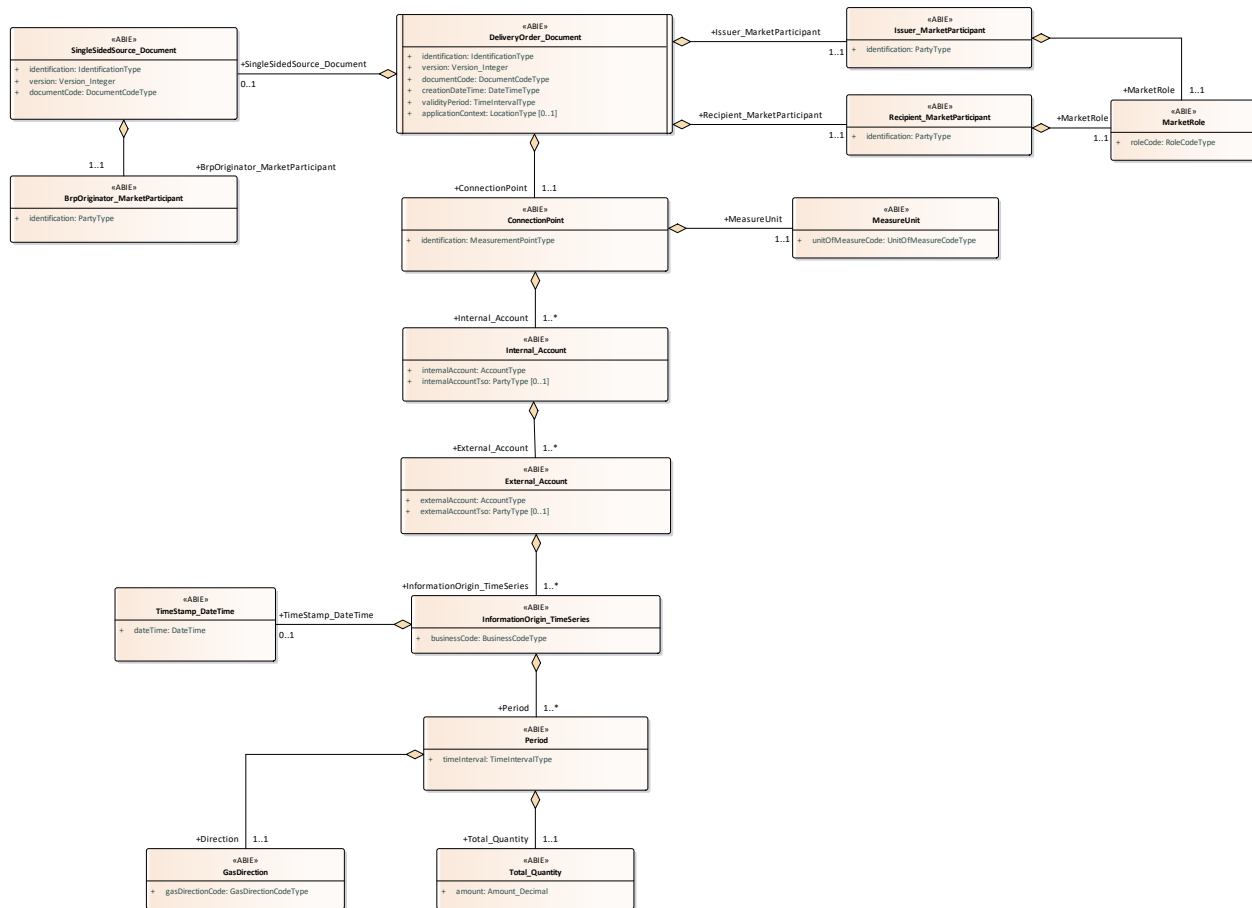
162
163   Figure: 4 **Delivery Order Document Contextual Model**
164

165   ## 3.2.2 Delivery Order Document Assembly Model

166

«MBIE»
DeliveryOrder_Document

+   identification: IdentificationType
+   version: Version_Integer
+   documentCode: DocumentCodeType
+   creationDateTime: DateTimeType
+   validityPeriod: TimeIntervalType
+   applicationContext: LocationType [0..1]
+   issuer_MarketParticipant.identification: PartyType
+   issuer_MarketParticipant.marketRole.roleCode: RoleCodeType
+   recipient_MarketParticipant.identification: PartyType
+   recipient_MarketParticipant.marketRole.roleCode: RoleCodeType
+   singleSidedSource_Document.identification: IdentificationType [0..1]
+   singleSidedSource_Document.version: Version_Integer [0..1]
+   singleSidedSource_Document.documentCode: DocumentCodeType [0..1]
+   singleSidedSource_Document.brpOriginator_MarketParticipant.identification: PartyType [0..1]

+ConnectionPoint   1..1

«MBIE»
ConnectionPoint

+   identification: MeasurementPointType
+   measureUnit.unitOfMeasureCode: UnitOfMeasureCodeType

+Internal_Account   1..*

«MBIE»
Internal_Account

+   internalAccount: AccountType
+   internalAccountTso: PartyType [0..1]

+External_Account   1..*

«MBIE»
External_Account

+   externalAccount: AccountType
+   externalAccountTso: PartyType [0..1]

+InformationOrigin_TimeSeries   1..*

«MBIE»
InformationOrigin_TimeSeries

+   businessCode: BusinessCodeType
+   timeStamp_DateTime.dateTime: DateTime [0..1]

+Period   1..*

«MBIE»
Period

+   timeInterval: TimeIntervalType
+   direction.gasDirectionCode: GasDirectionCodeType
+   total_Quantity.amount: Amount_Decimal

167
168   Figure: 5 **Delivery Order Document Assembly Model**

169 ## 3.2.2.1 DeliveryOrder_Document

170 This class provides the basic information needed to describe most electronic documents.
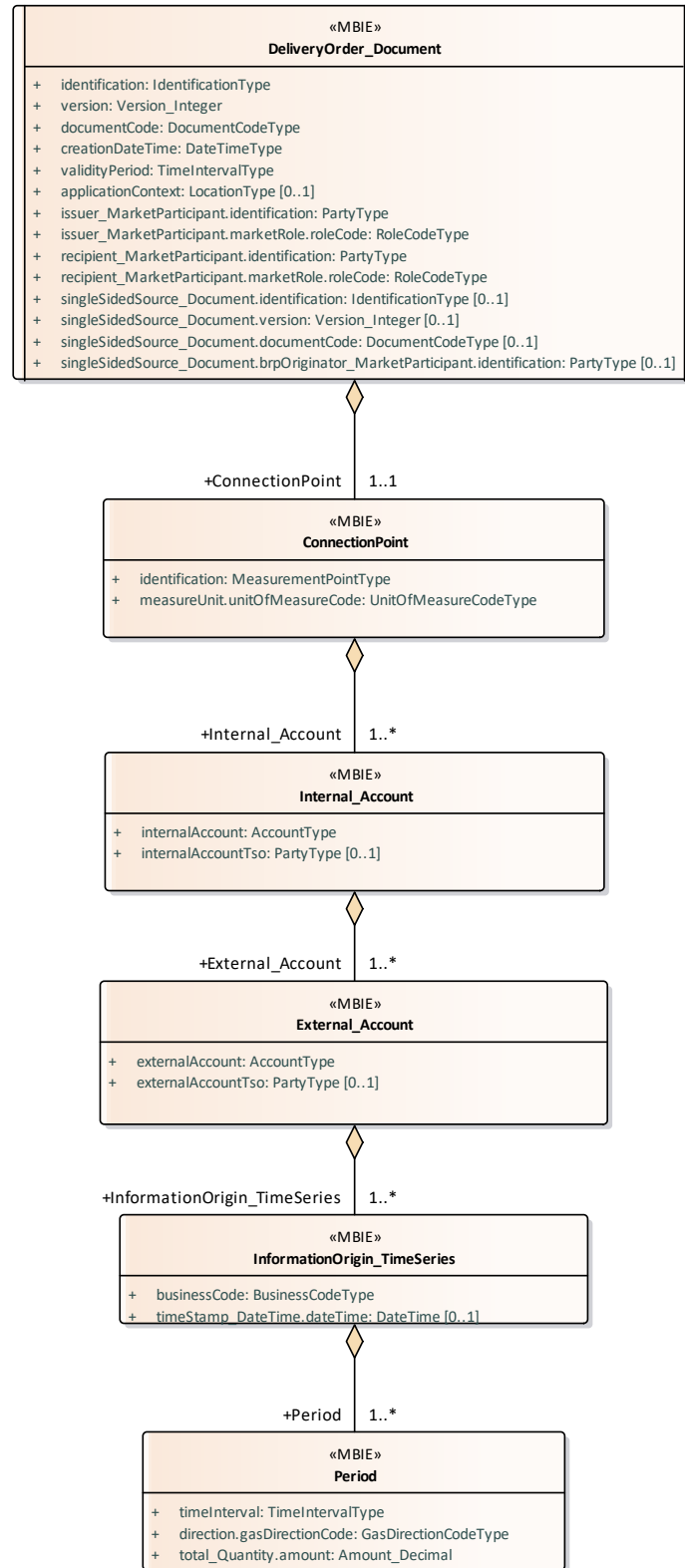171 The document provides the information concerning all the nominations related to a border managed by an adjacent
172 System Operator who is acting as the Matching System Operator.
173 It may also be used to transmit the information related to a single sided nomination in the case where the System
174 Operator is acting the role of an active System Operator for single sided nominations.

175 ### 3.2.2.1.1 Attributes

Attribute	Description	Multiplicity
identification	A unique identification of a document that is assigned by the issuer.	
version	Version of the document being sent.	
documentCode	Coded representation of the type of the electronic document. (Refer to Edig@s DocumentCodeTypeCodeList for the list of valid codes).	
creationDateTime	Date and time of the creation of the current document expressed in UTC.	
validityPeriod	The start and end date and time expressed in UTC of the period of validity covered in the document.	
applicationContext	The application context is used to identify a particular context (a location identification, an application identification, etc.) that is relevant to the recipient of the document.	[0..1]
issuer_MarketParticipant.identification	The identification of the party participating in the market. --- The EIC identification of the Issuer of the document.	
issuer_MarketParticipant.marketRole.roleCode	A code identifying the role played by a market participant in the market. (Refer to Edig@s RoleCodeTypeCodeList for the list of valid codes). --- The EIC identification of the Issuer of the document. --- The role of the Issuer.	
recipient_MarketParticipant.identification	The identification of the party participating in the market. --- The EIC identification of the Recipient of the document.	
recipient_MarketParticipant.marketRole.roleCode	A code identifying the role played by a market participant in the market. (Refer to Edig@s RoleCodeTypeCodeList for the list of valid codes). --- The EIC identification of the Recipient of the document. --- The role of the Recipient.	
singleSidedSource_Document.identification	A unique identification of a document that is assigned by the issuer. This identifies the document being reported.	[0..1]
singleSidedSource_Document.version	Version of the document being sent.	[0..1]
singleSidedSource_Document.documentCode	Coded representation of the type of the electronic document. (Refer to the Edig@s DocumentCodeTypeCodeList for the list of valid codes).	[0..1]
singleSidedSource_Document.brpOriginator_MarketParticipant.identification	The identification of the party participating in the market.	[0..1]

176

177 ## 3.2.2.2 ConnectionPoint

178 An interconnection point, whether it is physical or virtual, between two or more Member States as well as
179 interconnections between adjacent entry-exit-systems within the same Member States.

180 ### 3.2.2.2.1 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. (Refer to Edig@s UnitOfMeasureCodeTypeCodeList for the list of valid codes).	

181 ## 3.2.2.3 Internal_Account

182 The account or accounts used in a transaction.

183 ### 3.2.2.3.1 Attributes

Attribute	Description	Multiplicity
internalAccount	The identification of an account for a local TSO	
internalAccountTso	The identification of the TSO that assigned the internal account	[0..1]

184 ## 3.2.2.4 External_Account

185 The account or accounts used in a transaction.

186 ### 3.2.2.4.1 Attributes

Attribute	Description	Multiplicity
externalAccount	The identification of the counterpart account that operates in another TSO area.	
externalAccountTso	The identification of the TSO that assigned the External Account.	[0..1]

187 ## 3.2.2.5 InformationOrigin_TimeSeries

188 A set of time-ordered quantities being exchanged in relation to a product.

189 ### 3.2.2.5.1 Attributes

Attribute	Description	Multiplicity
businessCode	The business type of a time series. (Refer to Edig@s BusinessCodeTypeCodeList for the list of valid codes).	
timeStamp_DateTime.dateTime	The date and time of an event expressed as "YYYY-MM-DDThh:mm:ss.sssZ", which conforms with the ISO 8601 UTC time zone **Note:** The time within Edig@s is always expressed in UTC. --- The date and time that a single-sided nomination was received from the Active Balance Responsible Party.	[0..1]

190

191 ### 3.2.2.6 Period

192 The period that the dependent information is for.

193 #### 3.2.2.6.1 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. (Refer to Edig@s GasDirectionCodeTypeCodeList for the list of valid codes).	
total_Quantity.amount	The amount of a quantity. --- This information defines the total quantity for the connection point within the time interval period.	

194

3.3   Delivery Response Document (DELRES)
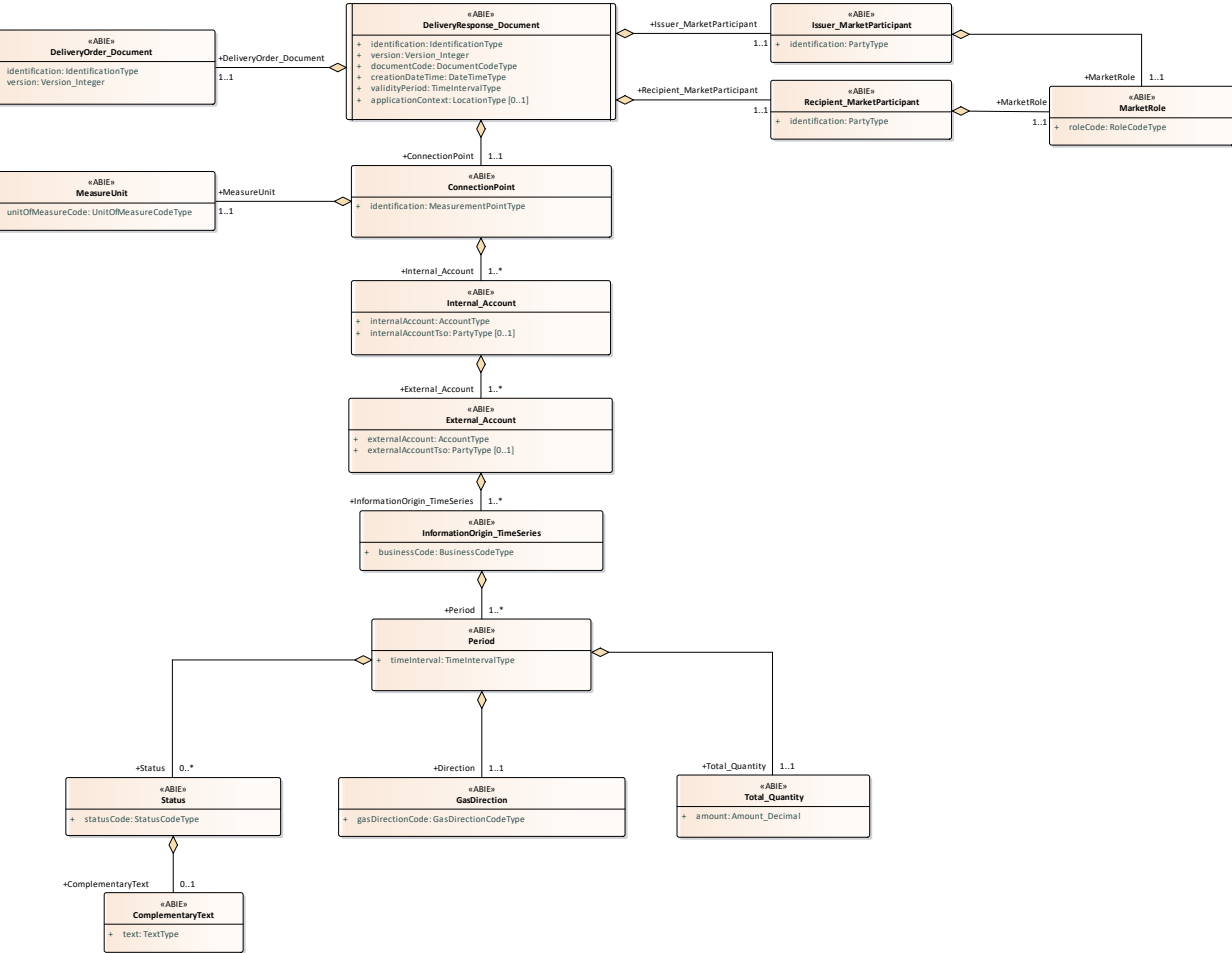
3.3.1 Delivery Response Document Contextual Model

Figure: 6 **Delivery Response Document Contextual Model**
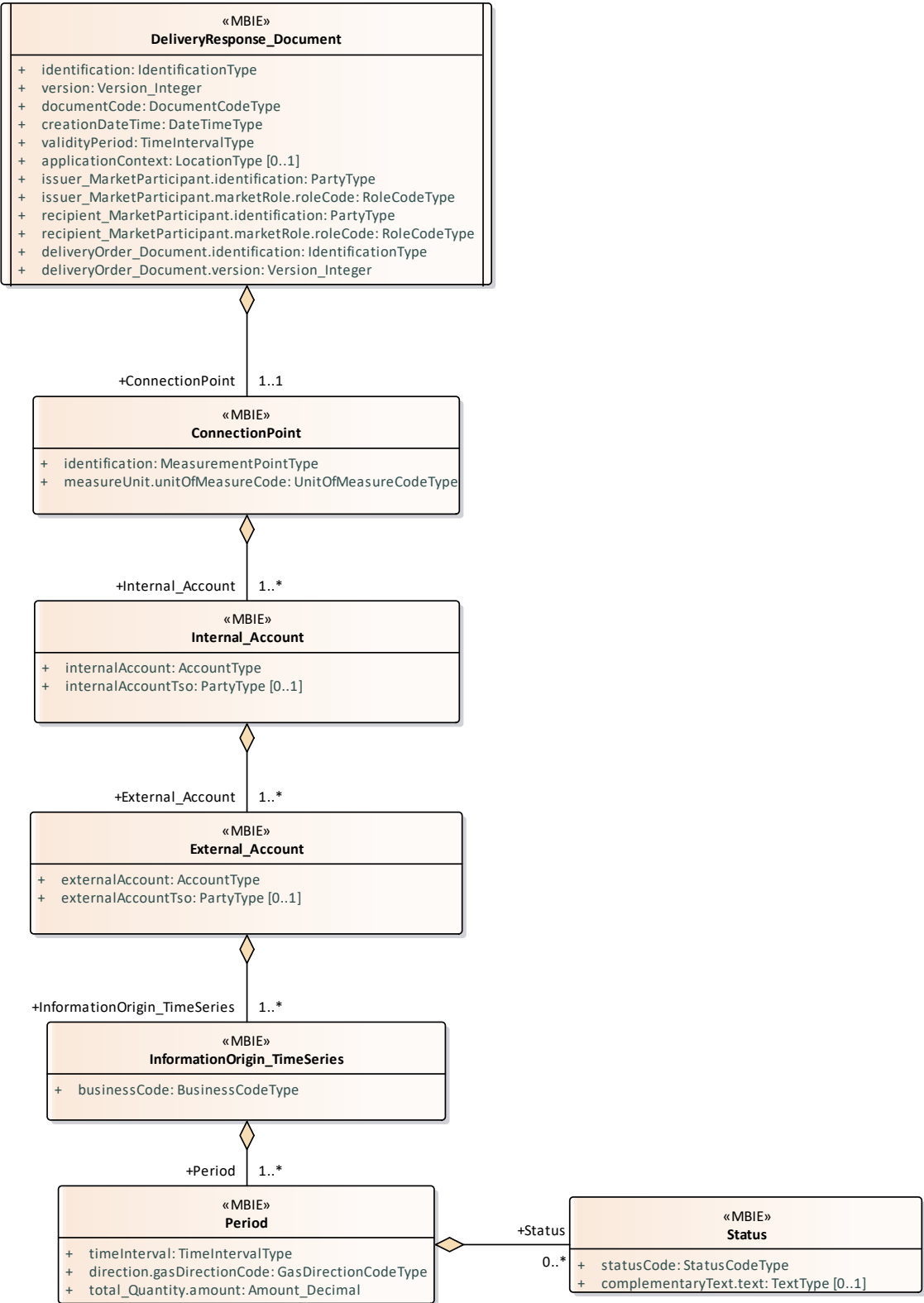
202 ## 3.3.2 Delivery Response Document Assembly Model

203

«MBIE»
DeliveryResponse_Document

+ identification: IdentificationType
+ version: Version_Integer
+ documentCode: DocumentCodeType
+ creationDateTime: DateTimeType
+ validityPeriod: TimeIntervalType
+ applicationContext: LocationType [0..1]
+ issuer_MarketParticipant.identification: PartyType
+ issuer_MarketParticipant.marketRole.roleCode: RoleCodeType
+ recipient_MarketParticipant.identification: PartyType
+ recipient_MarketParticipant.marketRole.roleCode: RoleCodeType
+ deliveryOrder_Document.identification: IdentificationType
+ deliveryOrder_Document.version: Version_Integer

+ConnectionPoint   1..1

«MBIE»
ConnectionPoint

+ identification: MeasurementPointType
+ measureUnit.unitOfMeasureCode: UnitOfMeasureCodeType

+Internal_Account   1..*

«MBIE»
Internal_Account

+ internalAccount: AccountType
+ internalAccountTso: PartyType [0..1]

+External_Account   1..*

«MBIE»
External_Account

+ externalAccount: AccountType
+ externalAccountTso: PartyType [0..1]

+InformationOrigin_TimeSeries   1..*

«MBIE»
InformationOrigin_TimeSeries

+ businessCode: BusinessCodeType

+Period   1..*

«MBIE»
Period

+ timeInterval: TimeIntervalType
+ direction.gasDirectionCode: GasDirectionCodeType
+ total_Quantity.amount: Amount_Decimal

+Status

0..*

«MBIE»
Status

+ statusCode: StatusCodeType
+ complementaryText.text: TextType [0..1]

204
205   Figure: 7 **Delivery Response Document Assembly Model**

206 ## 3.3.2.1 DeliveryResponse_Document

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

208 The Delivery Response Document provides the results of the matching process carried out by the Matching System
209 Operator.

210 ### 3.3.2.1.1 Attributes

Attribute	Description	Multiplicity
identification	A unique identification of a document that is assigned by the issuer.	
version	Version of the document being sent.	
documentCode	Coded representation of the type of the electronic document. (Refer to Edig@s DocumentCodeTypeCodeList for the list of valid codes).	
creationDateTime	Date and time of the creation of the current document expressed in UTC.	
validityPeriod	The start and end date and time expressed in UTC of the period of validity covered in the document.	
applicationContext	The application context is used to identify a particular context (a location identification, an application identification, etc.) that is relevant to the recipient of the document.	[0..1]
issuer_MarketParticipant.identification	The identification of the party participating in the market. --- The EIC identification of the Issuer of the document.	
issuer_MarketParticipant.marketRole.roleCode	A code identifying the role played by a market participant in the market. (Refer to Edig@s RoleCodeTypeCodeList for the list of valid codes). --- The EIC identification of the Issuer of the document. --- The role of the Issuer.	
recipient_MarketParticipant.identification	The identification of the party participating in the market. --- The EIC identification of the Recipient of the document.	
recipient_MarketParticipant.marketRole.roleCode	A code identifying the role played by a market participant in the market. (Refer to Edig@s RoleCodeTypeCodeList for the list of valid codes). --- The EIC identification of the Recipient of the document. --- The role of the Recipient.	
deliveryOrder_Document.identification	A unique identification of a document that is assigned by the issuer.	
deliveryOrder_Document.version	Version of the document being sent.	

211 ## 3.3.2.2 ConnectionPoint

212 An interconnection point, whether it is physical or virtual, between two or more Member States as well as
213 interconnections between adjacent entry-exit-systems within the same Member States.

214 ### 3.3.2.2.1 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. (Refer to Edig@s UnitOfMeasureCodeTypeCodeList for the list of valid codes).	

215

216 ### 3.3.2.3 Internal_Account

217 An account used in a transaction.

218 #### 3.3.2.3.1 Attributes

Attribute	Description	Multiplicity
internalAccount	The identification of an account for a local TSO.	
internalAccountTso	The identification of the TSO that has assigned the internal account.	[0..1]

219 ### 3.3.2.4 External_Account

220 An account used in a transaction.

221 #### 3.3.2.4.1 Attributes

Attribute	Description	Multiplicity
externalAccount	The identification of the counterpart account that operates in another TSO area.	
externalAccountTso	The identification of the TSO that has assigned the external account.	[0..1]

222 ### 3.3.2.5 InformationOrigin_TimeSeries

223 A set of time-ordered quantities being exchanged in relation to a product.

224 #### 3.3.2.5.1 Attributes

Attribute	Description	Multiplicity
businessCode	The business type of a time series. (Refer to Edig@s BusinessCodeTypeCodeList for the list of valid codes).	

225 ### 3.3.2.6 Period

226 The period that the dependent information is for.

227 #### 3.3.2.6.1 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. (Refer to Edig@s GasDirectionCodeTypeCodeList for the list of valid codes).	
total_Quantity.amount	The amount of a quantity. --- This information defines the total quantity for the connection point within the time interval period.	

228 ### 3.3.2.7 Status

229 The status of an object.

230 #### 3.3.2.7.1 Attributes

Attribute	Description	Multiplicity
statusCode	A code providing the status of an object. (Refer to Edig@s StatusCodeTypeCodeList for the list of valid codes).	
complementaryText.text	Complementary information provided in textual form.	[0..1]

231

232 # 4 Document Change Log

233 ## 4.1 Version

234 ### 4.1.1 Attributes

Attribute	Description	Multiplicity
Version 1 2020-06-29	Initial release.	
Version 2 2021-07-05	Release 6.1	
Version 3 2023-07-15	Added more description on the process of forwarding single sided nominations Added text in the decision table on usage of the attributes for DELORD ANC messages. 18G replaced with 12G for DELORD/DELRES messages	

235