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General - Factoring Transmission

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Model Documentation

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8   *Version 6.1*
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19   *Document Version: 2*
20   *Schema Version: 1*
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1 Model Detail

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56 **2 Document usage decision table**

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

Factoring Transmission Document	Factor
identification	Mandatory.
version	Mandatory.
documentCode	ATG = Factor
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	ZSH = Balance Responsible Party.
ResourceObject.identification	Mandatory; codingScheme = 305 (EIC Resource Object W code) or ZSO.
ResourceObject.resourceTypeCode	A01 = Offshore pipeline. A03 = Storage. A06 = Gas treatment plant. A07 = Regasification plant. A08 = Compressor plant. A09 = Gas production field.
Row_AttributeInstance.attributeName	Name defined for a value on a peer to peer basis. For example: GCV Gasplant
Row_AttributeInstance.attributeValue	Used to identify the value for the row that is associated with the Row_AttributeInstance.attributeName. For example :May identify GCV value or pipeline depending on matrix.
Column_AttributeInstance.attributeName	Name of the column defined on a peer to peer basis. For example GCV
Column_AttributeInstance.attributeValue	Value of the column name. For example GCV…. value

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3 Factoring Transmission Process

The factor document can be used by parties to exchange factors where conversions between volume and energy or other conversions (for example LNG) are needed. Factors are also needed in processing plants to calculate usage of different services (for example CO_2 and H_2S reduction).
A gas field's availability, maximum and minimum lifting is given in volume to convert the volume to energy a GCV factor (gross calorific value) is needed. Since these can change from time to time a factor document is needed to be able to exchange such factors safely.

3.1 Business Process

3.1.1 Sequence diagram

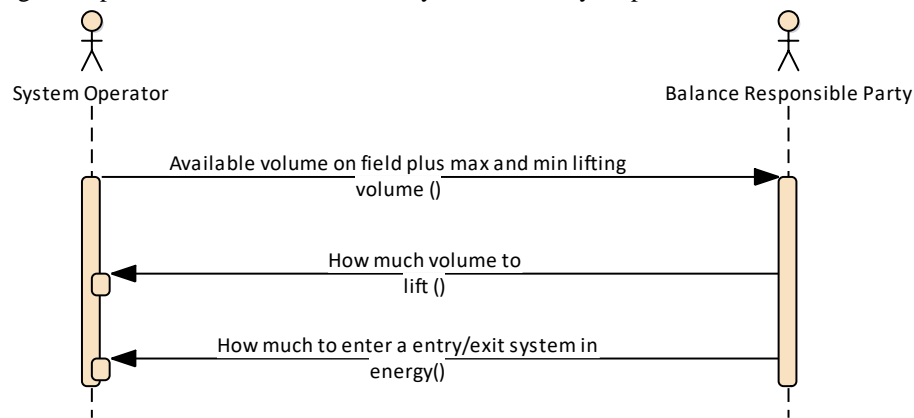The sequence diagram represents one scenario but many scenarios may be provided.

Figure: 1 **Sequence diagram**

75   3.2   Factoring Transmission Document (FACTOR)

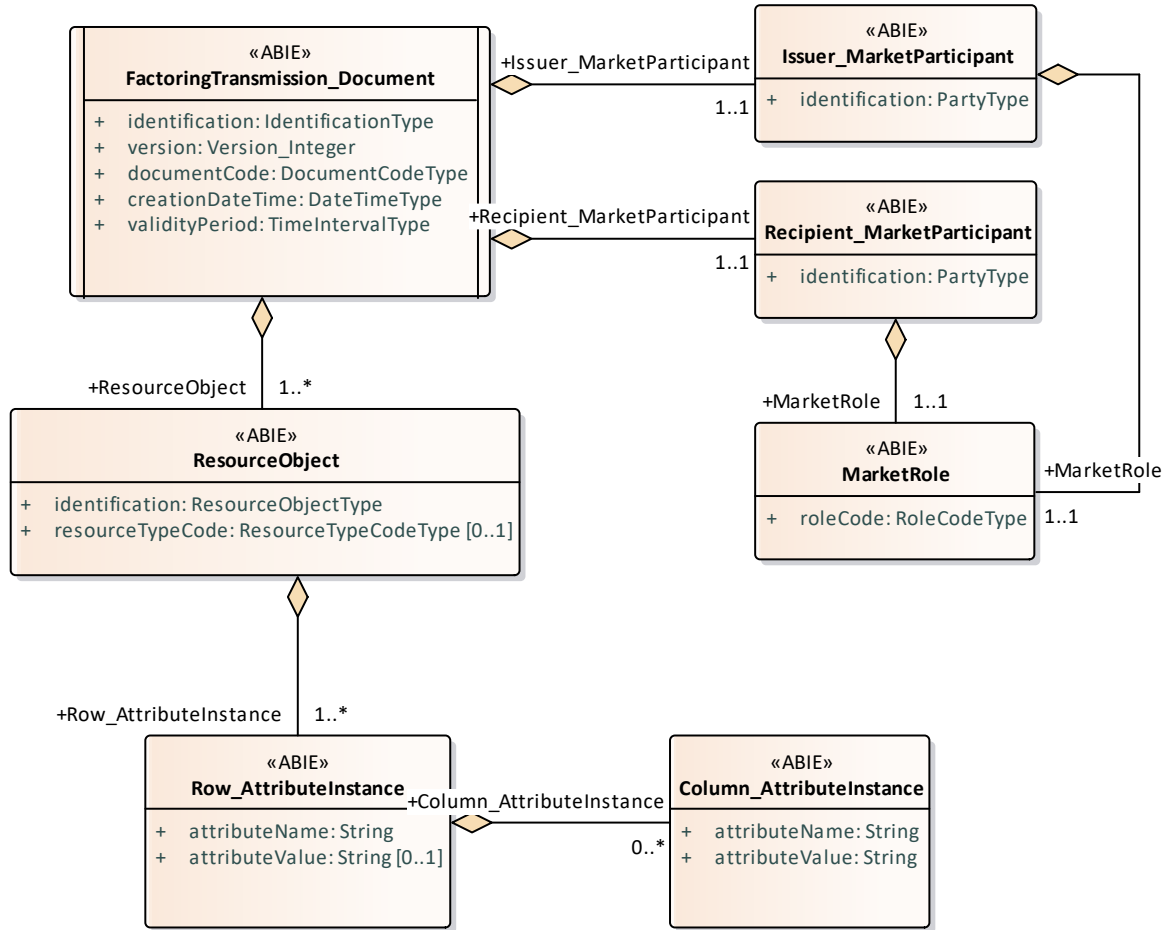## 76   3.2.1 Factoring Transmission Document Contextual Model

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<p align="center">Figure: 2 Factoring Transmission Document Contextual Model</p>

82 ## 3.2.2 Factoring Transmission Document Assembly Model

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«MBIE»
FactoringTransmission_Document

+ identification: IdentificationType
+ version: Version_Integer
+ documentCode: DocumentCodeType
+ creationDateTime: DateTimeType
+ validityPeriod: TimeIntervalType
+ issuer_MarketParticipant.identification: PartyType
+ issuer_MarketParticipant.marketRole.roleCode: RoleCodeType
+ recipient_MarketParticipant.identification: PartyType
+ recipient_MarketParticipant.marketRole.roleCode: RoleCodeType

+ResourceObject   1..*

«MBIE»
ResourceObject

+ identification: ResourceObjectType
+ resourceTypeCode: ResourceTypeCodeType [0..1]

+Row_AttributeInstance   1..*

«MBIE»
Row_AttributeInstance

+ attributeName: String
+ attributeValue: String [0..1]

+Column_AttributeInstance   0..*

«MBIE»
Column_AttributeInstance

+ attributeName: String
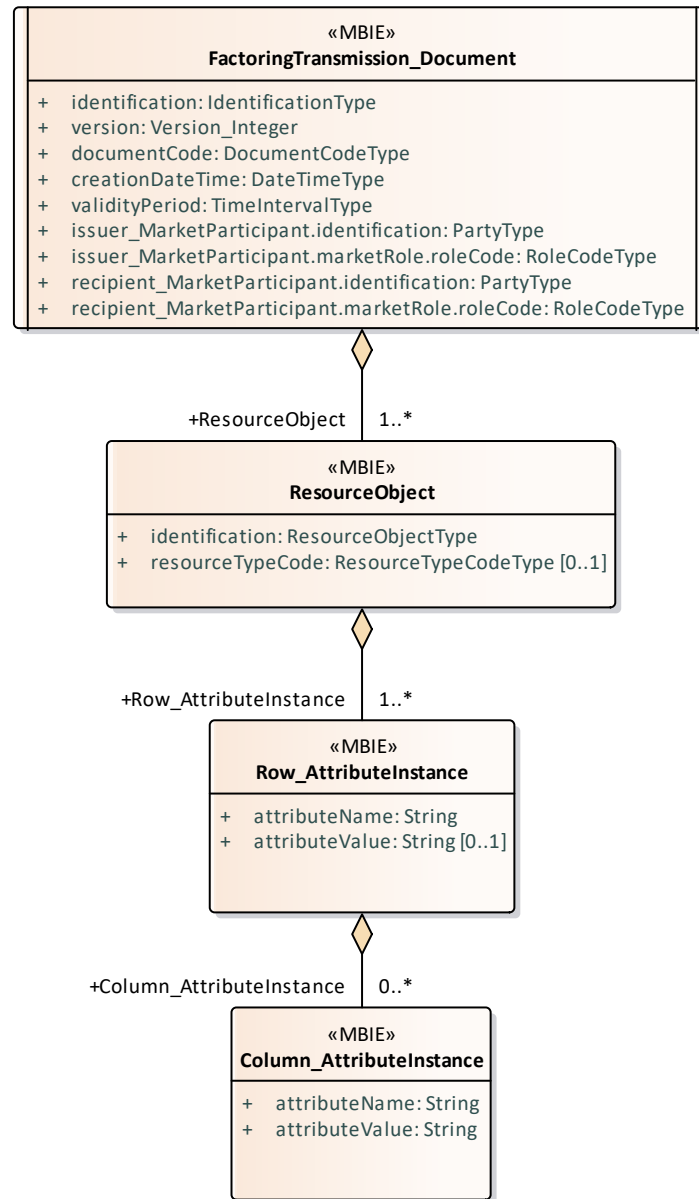+ attributeValue: String

84
85   Figure: 3 **Factoring Transmission Document Assembly Model**
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87 ## 3.2.2.1 FactoringTransmission_Document

88 The factoring transmission document enables the transmission of factors that should be applied for different
89 attributes. Each attribute is identified in the AttributeInstance class.
90 Two AttributeInstance classes are available:
91 1. A Row_AttributeInstance class that describes the characteristic if a given line in a matrix.
92 2. A Culumn_AttributeInstance, which is optional and describes the number of columns in a given line.
93 In the case where there are no columns the Row_AttributeInstance class represents a line which has a single
94 Characteristic and value.
95 In the case where there are columns related to the row it represents for the line a number of columns each having a
96 single characteristic and value. In this case the Row_AttributeInstance.attributeValue may be used for example to
97 describe a gas plant. If there is no value then there is normally only one line.
98 ### 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. 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 a market participant.	
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 a market participant.	

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100 ## 3.2.2.2 ResourceObject

101 The identification of a resource object.

102 ### 3.2.2.2.1 Attributes

Attribute	Description	Multiplicity
identification	The identification of a resource object.	
resourceTypeCode	The coded identification of the type of a resource object.	[0..1]

103 ## 3.2.2.3 Row_AttributeInstance

104 A class describing an instance of an attribute.

105 ### 3.2.2.3.1 Attributes

Attribute	Description	Multiplicity
attributeName	The name of a document attribute in lower camelcase. A name is a single word name that is formally agreed by the communication parties.	
attributeValue	The value of a named attribute. A value that depends on the characteristics of the of the attribute name. It may be a decimal, date, or string value.	[0..1]

106 ## 3.2.2.4 Column_AttributeInstance

107 A class describing an instance of an attribute describing a factor.
108 For example to identify the following factors
109
110 Dry gas per field = 10,806
111 Shrinkage factor = 1,145
112 CO_2 Factor = "1,567"
113
114 The Class Attribute instance would appear as follows:
115
116 <AttributeInstance><attributeName>dryGasPerField</attributeName><attributeValue>10,806</attributeValue></A
117 ttributeInstance>
118 <AttributeInstance><attributeName>shrinkingFactor</attributeName><attributeValue>1,145</attributeValue></Att
119 ributeInstance>
120 <AttributeInstance><attributeName>cO2Factor</attributeName><attributeValue>1,567</attributeValue></Attribut
121 eInstance>
122

123 ### 3.2.2.4.1 Attributes

Attribute	Description	Multiplicity
attributeName	The name of a document attribute in lower camelcase. A name is a single word name that is formally agreed by the communication parties.	
attributeValue	The value of a named attribute. A value that depends on the characteristics of the of the attribute name. It may be a decimal, date, or string value.	

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126 # 4 Document Change Log

127 ## 4.1 Version

128 ### 4.1.1 Attributes

Attribute	Description	Multiplicity
Version 1 2020-06-29	Initial release	
Version 2 2021-03-23	Release 6.1 Corrected validation of ResourceObject to maxLength(16)	

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