EBO

Model for information exchange

STRUCTURE
DISTRIBUTE MASTER DATA
- **Distribute master data Metering Point**

Version 1.0

October 2004

Status: for verification

The Netherlands,
EBO work group "Structure"
2004-10-22
update: E, 2006-05-15

Table of contents:

Introduction

This Model describes the processes of distribution of master data for a metering point in the liberalized energy market in The Netherlands.
The Model has been developed to support the electronic exchange of information.

This Model is developed and published by EBO (responsible for the Dutch national standards for information exchange in the energy sector). The ebIX model for this purpose has not yet been developed.

This model has been developed using the ebIX methodology that is being developed at the moment just for such purposes. Since this methodology is still in development, this model will most likely be subject to changes over time. EBO has however made all efforts to make this version of the model as stable as possible under these circumstances.
However, especially the Class Diagrams are expected to change over time because of:

- The adoption of the recently published UN/CEFACT "Naming and Design Rules" for classes, attributes and enumerations;

Electricity and gas

This Model has been developed for use in the electricity and in the gas sector.

Background

The set of master data for a metering point to be distributed has increased steadily since the first implementations for the change of balance supplier started in 2001. The sets of master data for a metering point as specified in this model are supposed to be up to date with respect to the following processes:

- Change of balance supplier (including end of supply);
- Move (including change of consumer);
- Change of Metered Data Responsible;
- Change of Balance Responsible Party (electricity only);
- Change of Transport Responsible Party (gas only);
- Change of metering point attributes:
    - Grid billing model;
    - Metering method.

Remarks

None.

Versions and updates

		old	New	clarification	date
Version 1.0					
1.	Role model			updated	2005-01-12
2.	UseCase Structure			updated	2005-01-12
3.	CD E07, 23, reason, role, 9			Reason (E48) added	2005-01-12
4.	CD E07, 27, reason, role, 9			Reason (E48) added	2005-01-12
Version 1.0, update A					
5.	All Class Diagrams			Mapping included in CD's as tagged values, cardinality adapted as required by UN/Cefact, structure updated according to ebIX rules, message header removed (see annex 1)	2005-01-27
6.	Error report			Error report for request master data MP has been added	2005-01-27
7.	Annex 1			Updated	2005-01-27
Version 1.0, update B					
8.	Class Diagrams			QDT for validity start has been corrected into DateTime	2005-03-07
9.	Class Diagrams			Qualifier for Annual volume is corrected: no status contracted	2005-03-07
10.	Code for pressure			Code for pressure is E10 (and not E12)	2005-03-07
11.	Reference to original document set			Consistently mapped to RFF within document data (SG5 in UTILMD)	2005-03-07
Version 1.0, update C					
12.	DocumentSet header + Despatch header			Moved to separate document	2005-06-06
13.	Class Diagram for E07, 23			Class "Consumption" removed in order to avoid the use of XOR	2005-06-06
14.	Class Diagram for E07, 23			Remarks added	2005-06-06

15.	Class Diagram for E07, 27			Class “Consumption” removed in order to avoid the use of XOR	2005-06-06
16.	Class Diagram for E07, 27			Pressure defined as required (instead of 0..1)	2005-06-06
17.	Class Diagram for E07, 27			Remarks added	2005-06-06
Version 1.0, update D					
18.	Class Diagram for E07, 23	Cardinality Class MP-Party was 1	Cardinality Class MP-Party becomes 0..1	Master data may be distributed before the set is completed.	2006-05-15
19.	Class Diagram for E07, 23		Added attribute TypeofMeteringPoint in Class MeteringPointCharacteristics	Metering Points are differentiated for Production, Consumption or Combined. Indication for Exchange MP is not included.	2006-05-15
20.	Class Diagram for E07, 23	Class Product	Class EnergyProduct	Name changed for more clarity	2006-05-15
21.	Class Diagram for E07, 23	Cardinality Class Product was 1..*	Cardinality Class Product becomes 0..*	Because Production MP has no Standard Annual Volume, the Class becomes dependent on attribute Typeof MeteringPoint in Class MeteringPointCharacteristics (only in case of Consumption or Combined)	2006-05-15
22.	Class Diagram for E07, 23		Added attribute TypeofMeteringPoint in Class EstimatedPeriodicConsumptionVolume	Standard annual volume is explicitly defined as Consumption	2006-05-15
23.	Class Diagram for E07, 23		Added attribute AdministrativeStatus to Class	Master data may be distributed before the set is completed.	2006-05-15

			MeteringPointCharacteristics		
24.	Class Diagram for E07, 27	Cardinality Class MP-Party was 1	Cardinality Class MP-Party becomes 0..1	Master data may be distributed before the set is completed.	2006-05-15
25.	Class Diagram for E07, 27, role, reason, 9		Added attribute TypeofMeteringPoint in Class MeteringPointCharacteristics	Metering Points are differentiated for Production, Consumption or Combined. Indication for Exchange MP is not included.	2006-05-15
26.	Class Diagram for E07, 27, role, reason, 9	Class Product	Class EnergyProduct	Name changed for more clarity	2006-05-15
27.	Class Diagram for E07, 27, reason, role, 9	Cardinality Class Product was 1	Cardinality Class Product becomes 0..1	Because Production MP has no Standard Annual Volume, the Class becomes dependent on attribute Typeof MeteringPoint in Class MeteringPointCharacteristics (only in case of Consumption or Combined)	2006-05-15
28.	Class Diagram for E07, 27, reason, role, 9		Added attribute TypeofMeteringPoint in Class EstimatedPeriodicConsumptionVolume	Standard annual volume is explicitly defined as Consumption	2006-05-15
29.	Class Diagram for E07, 27		Added attribute AdministrativeStatus to Class MeteringPointCharacteristics	Master data may be distributed before the set is completed.	2006-05-15
30.	Class Diagram for ERR REQ			Number of reasons for rejection request for Master data MP have	2006-05-15

	MD, sector, reason, role, 9			been restricted to unknown MP-ID only.	
Version 1.0, update E					

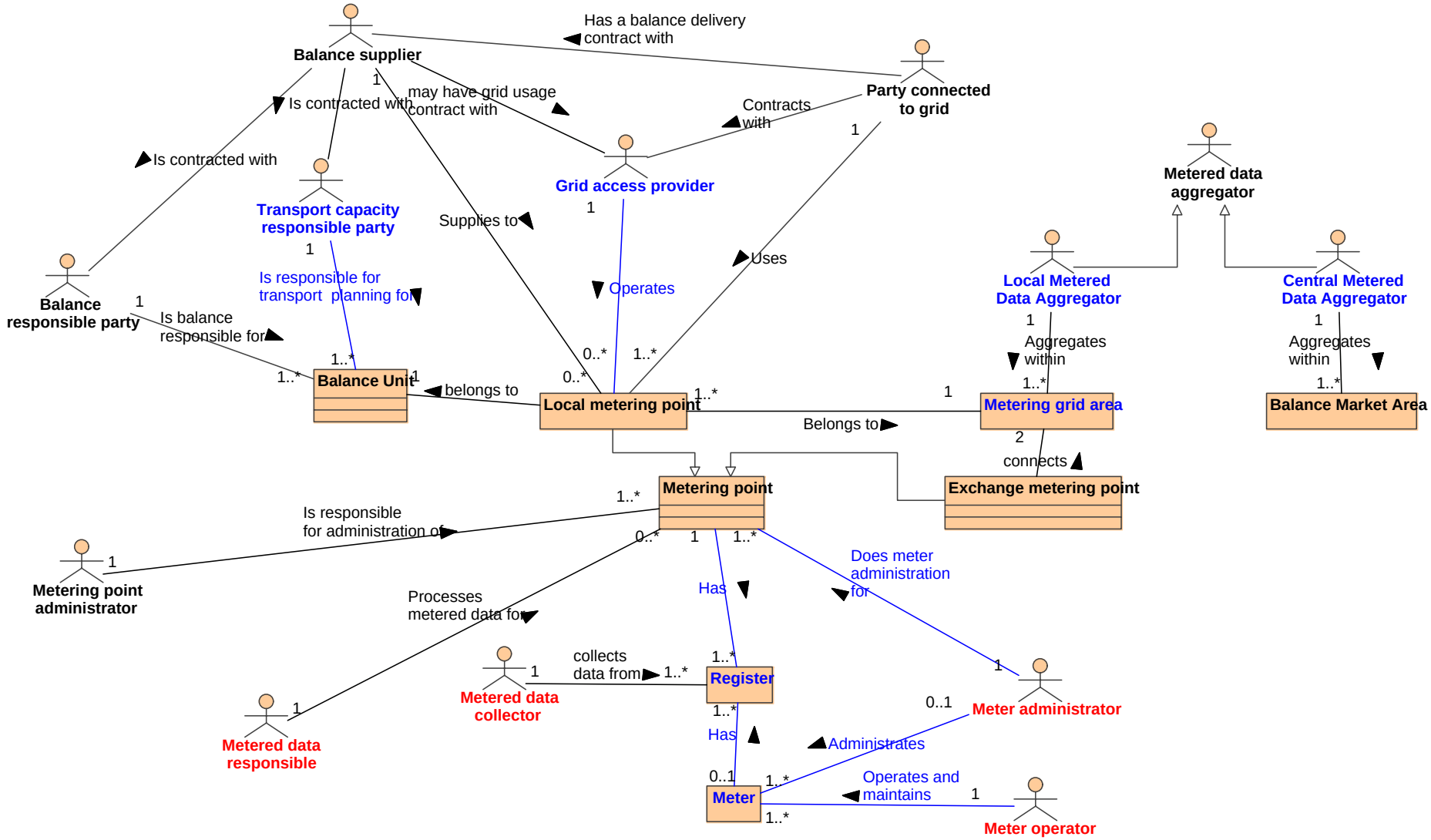
Model

In the new version of the Diagram for the “Roles and domains for the downstream energy market” an overview is presented of the core elements in the model of the energy market are presented as either roles (“responsibilities”), domains (administrative objects for responsibility) or installation (physical objects at a domain).

The picture below *(next page)* describes the new relations between roles and domains.

The complete role model is available at the ebIX website (www.ebix.org).

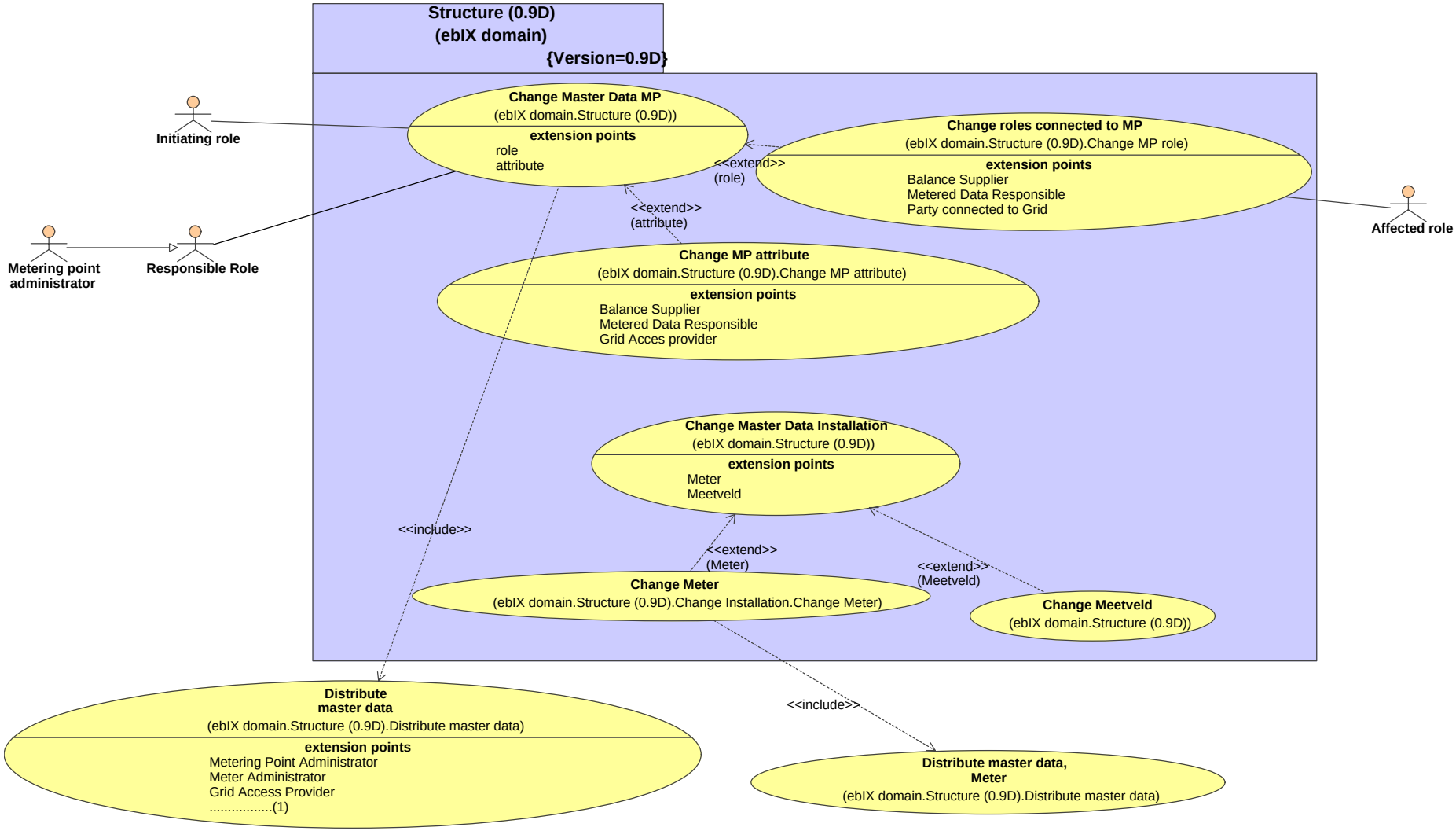
Roles and domains for the energy market as agreed between ebIX and ETSO



Switching

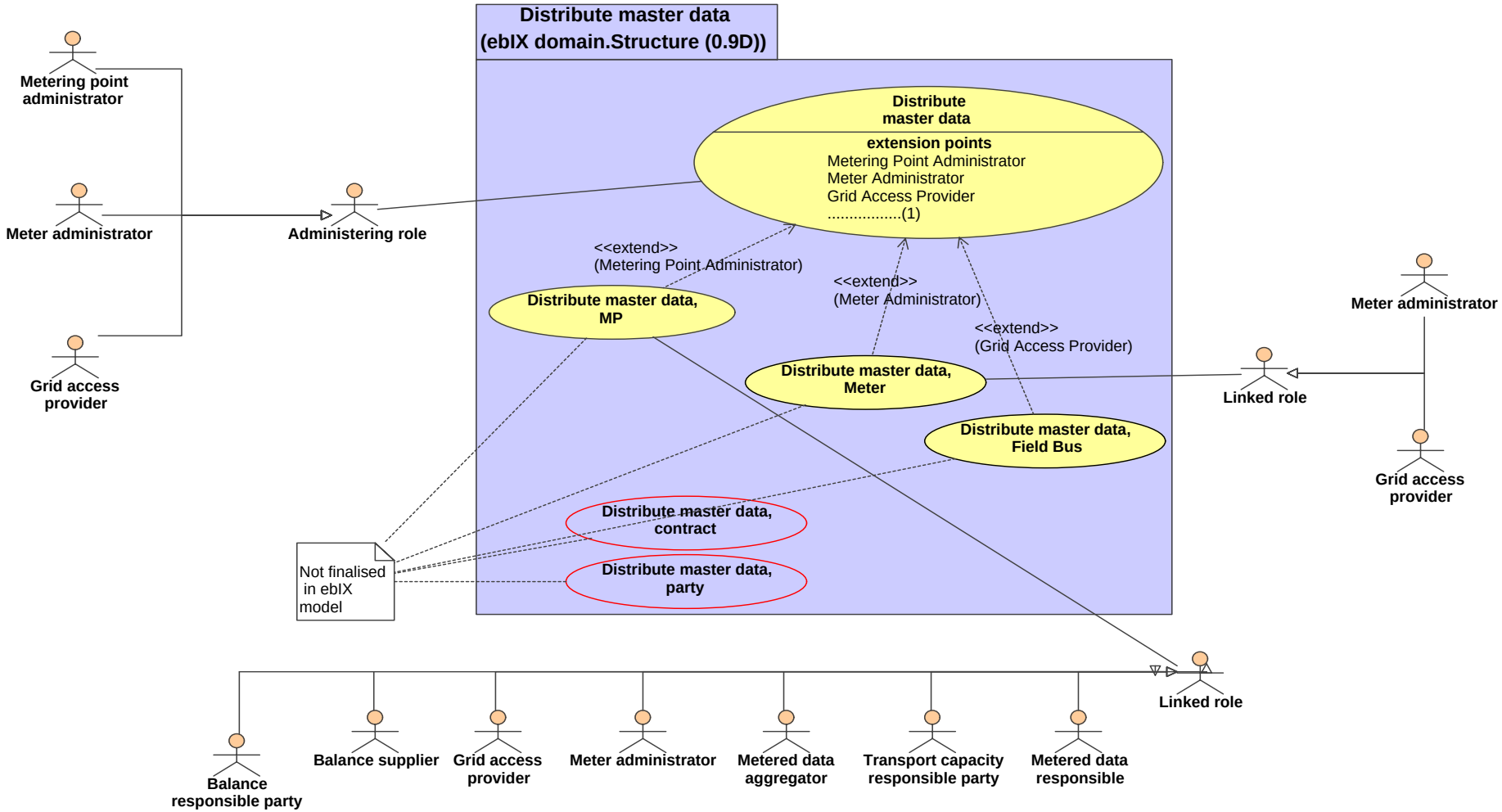
This model for the information exchange with regard to switching PV-ers and shippers in the liberalised energy market in The Netherlands is made using the recently published ebIX Methodology and the ebIX model for Customer Switching also recently published. These documents are available at the ebIX website (www.ebix.org).

UseCase for Structure

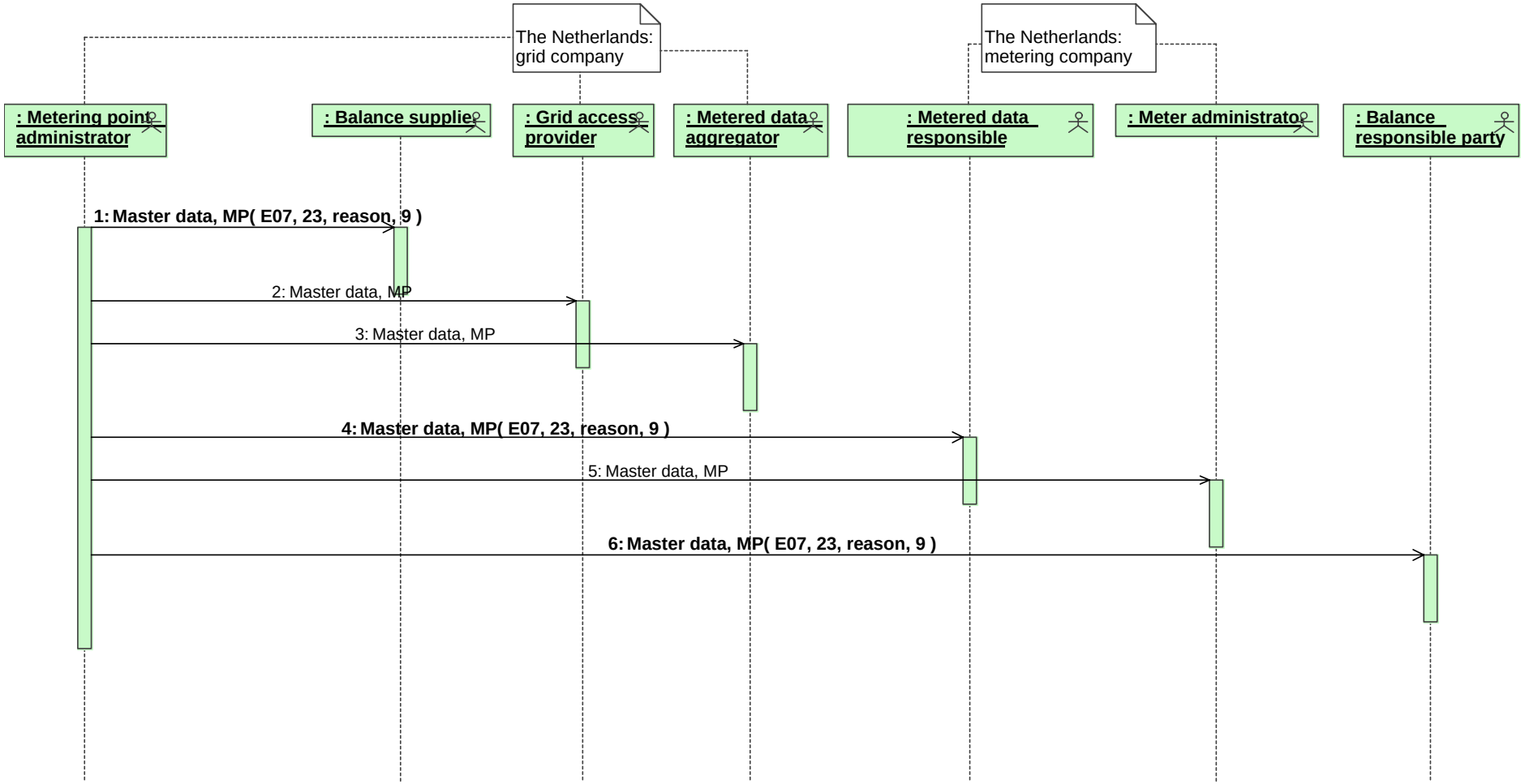


Master Data

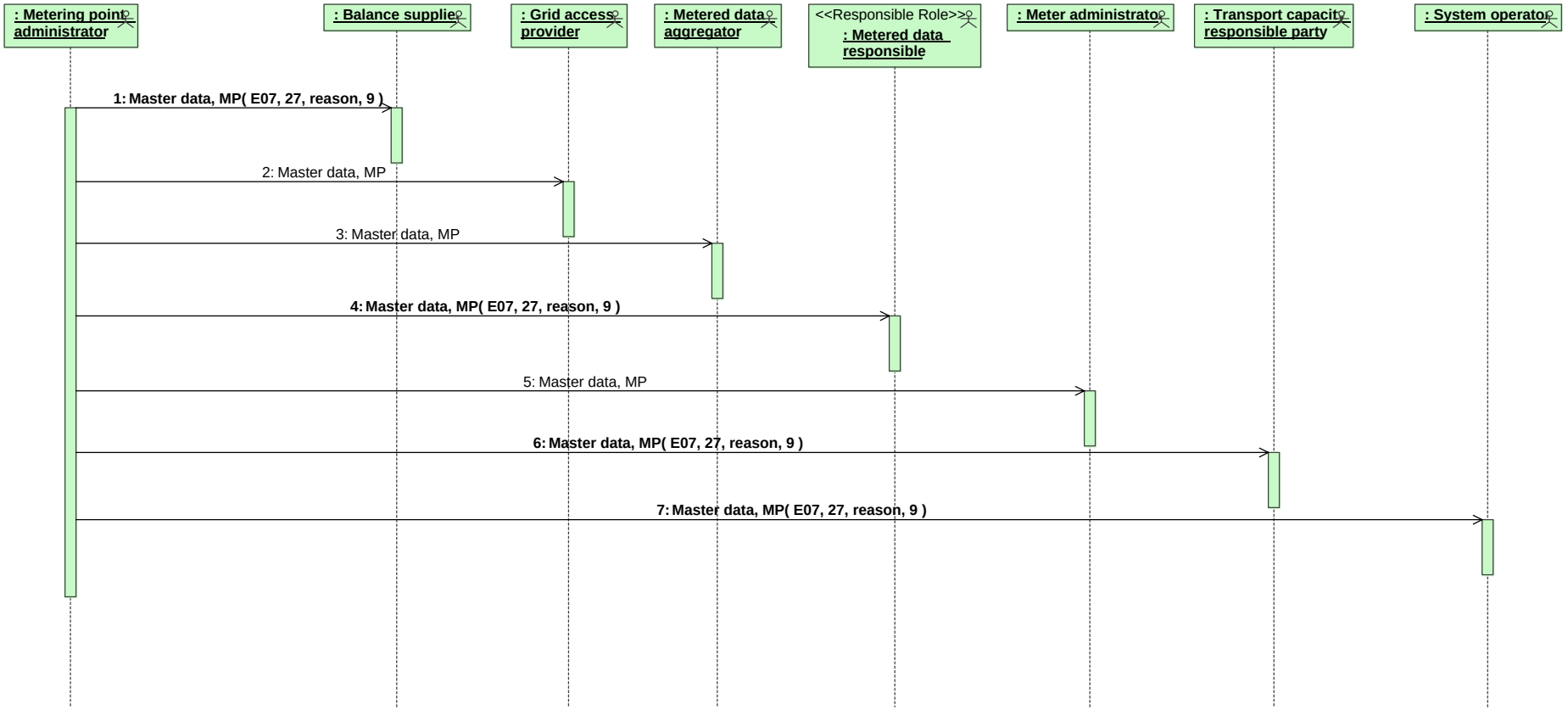
UseCase Distribute Master Data



Sequence diagram Exchange Master Data MP electricity



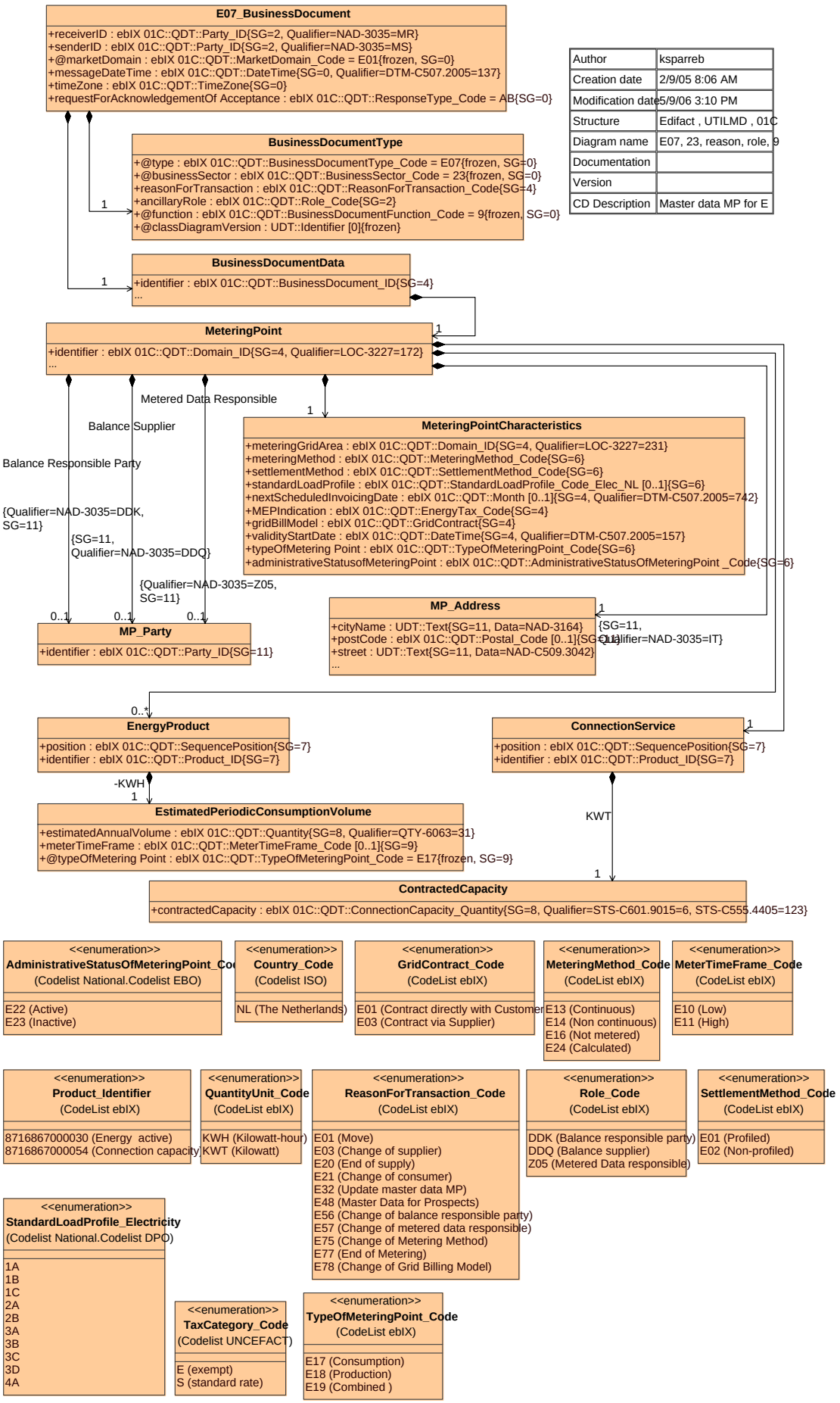
Sequence diagram Exchange Master Data MP gas



Class Diagram Distribute Master Data MP

E07, 23, reason, role, 9 (master data MP electricity)

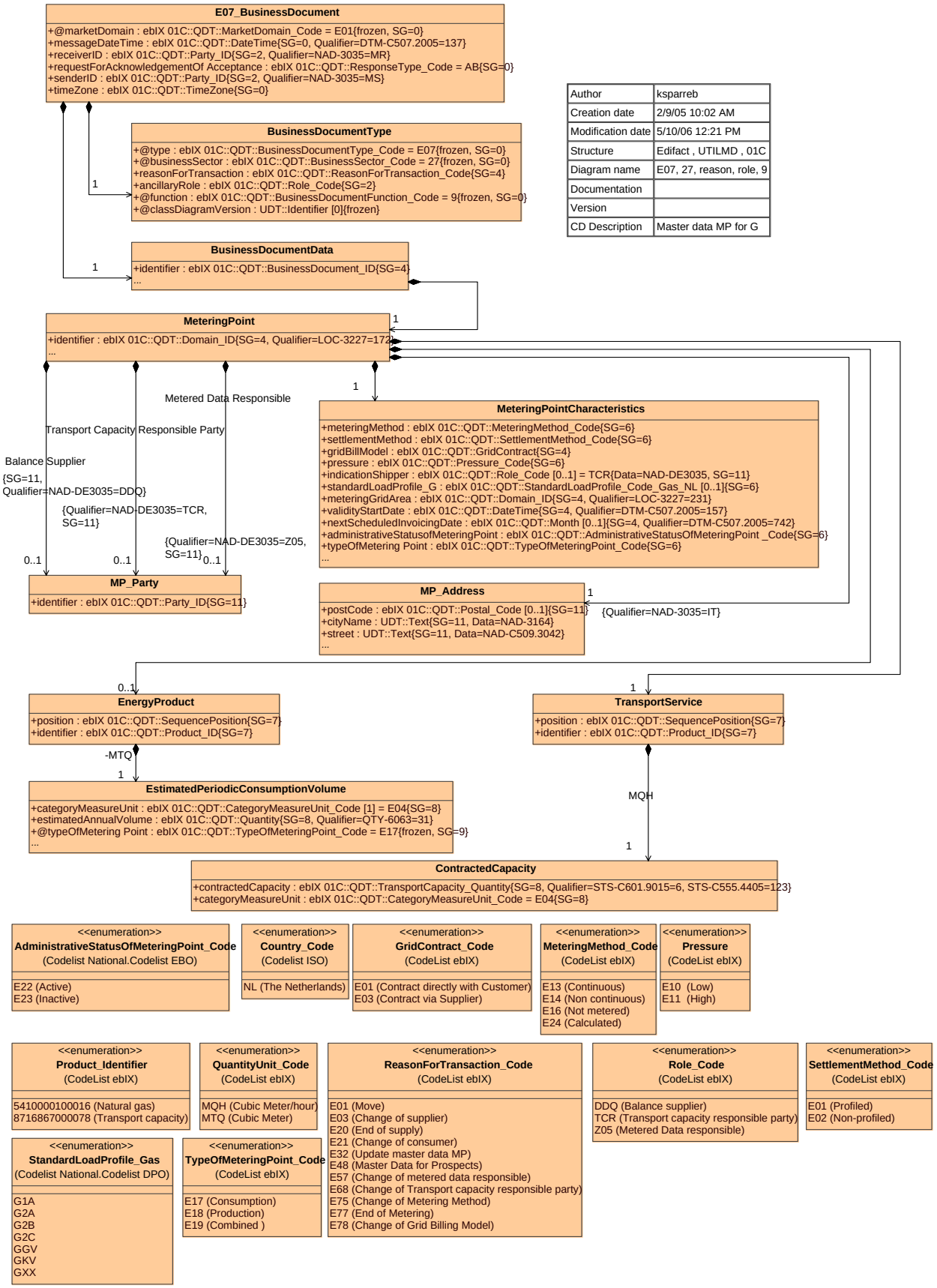
See next page


E07_BusinessDocument
+receiverID : eblX 01C::QDT::Party_ID{SG=2, Qualifier=NAD-3035=MR}
+senderID : eblX 01C::QDT::Party_ID{SG=2, Qualifier=NAD-3035=MS}
+@marketDomain : eblX 01C::QDT::MarketDomain_Code = E01{frozen, SG=0}
+messageDateTime : eblX 01C::QDT::DateTime{SG=0, Qualifier=DTM-C507.2005=137}
+timeZone : eblX 01C::QDT::TimeZone{SG=0}
+requestForAcknowledgementOf Acceptance : eblX 01C::QDT::ResponseType_Code = AB{SG=0}
Author
ksparreb
Creation date
2/9/05 8:06 AM
Modification date
5/9/06 3:10 PM
Structure
Edifact , UTILMD , 01C
Diagram name
E07, 23, reason, role, 9
Documentation
Version
CD Description
Master data MP for E
BusinessDocumentType
+@type : eblX 01C::QDT::BusinessDocumentType_Code = E07{frozen, SG=0}
+@businessSector : eblX 01C::QDT::BusinessSector_Code = 23{frozen, SG=0}
+reasonForTransaction : eblX 01C::QDT::ReasonForTransaction_Code{SG=4}
+ancillaryRole : eblX 01C::QDT::Role_Code{SG=2}
+@function : eblX 01C::QDT::BusinessDocumentFunction_Code = 9{frozen, SG=0}
+@classDiagramVersion : UDT::Identifier [0]{frozen}
1
BusinessDocumentData
+identifier : eblX 01C::QDT::BusinessDocument_ID{SG=4}
...
1
MeteringPoint
+identifier : eblX 01C::QDT::Domain_ID{SG=4, Qualifier=LOC-3227=172}
...
1
Metered Data Responsible
1
Balance Supplier
MeteringPointCharacteristics
+meteringGridArea : eblX 01C::QDT::Domain_ID{SG=4, Qualifier=LOC-3227=231}
+meteringMethod : eblX 01C::QDT::MeteringMethod_Code{SG=6}
+settlementMethod : eblX 01C::QDT::SettlementMethod_Code{SG=6}
+standardLoadProfile : eblX 01C::QDT::StandardLoadProfile_Code_Elec_NL [0..1]{SG=6}
+nextScheduledInvoicingDate : eblX 01C::QDT::Month [0..1]{SG=4, Qualifier=DTM-C507.2005=742}
+MEPIndication : eblX 01C::QDT::EnergyTax_Code{SG=4}
+gridBillModel : eblX 01C::QDT::GridContract{SG=4}
+validityStartDate : eblX 01C::QDT::DateTime{SG=4, Qualifier=DTM-C507.2005=157}
+typeOfMetering Point : eblX 01C::QDT::TypeOfMeteringPoint_Code{SG=6}
+administrativeStatusofMeteringPoint : eblX 01C::QDT::AdministrativeStatusOfMeteringPoint _Code{SG=6}
Balance Responsible Party
{Qualifier=NAD-3035=DDK, SG=11}
{SG=11, Qualifier=NAD-3035=DDQ}
{Qualifier=NAD-3035=Z05, SG=11}
0..1
0..1
0..1
MP_Party
+identifier : eblX 01C::QDT::Party_ID{SG=11}
MP_Address
+cityName : UDT::Text{SG=11, Data=NAD-3164}
+postCode : eblX 01C::QDT::Postal_Code [0..1]{SG=11}
+street : UDT::Text{SG=11, Data=NAD-C509.3042}
...
1
{SG=11, Qualifier=NAD-3035=IT}
0..*
EnergyProduct
+position : eblX 01C::QDT::SequencePosition{SG=7}
+identifier : eblX 01C::QDT::Product_ID{SG=7}
-KWH
1
EstimatedPeriodicConsumptionVolume
+estimatedAnnualVolume : eblX 01C::QDT::Quantity{SG=8, Qualifier=QTY-6063=31}
+meterTimeFrame : eblX 01C::QDT::MeterTimeFrame_Code [0..1]{SG=9}
+@typeOfMetering Point : eblX 01C::QDT::TypeOfMeteringPoint_Code = E17{frozen, SG=9}
ConnectionService
+position : eblX 01C::QDT::SequencePosition{SG=7}
+identifier : eblX 01C::QDT::Product_ID{SG=7}
1
KWT
1
ContractedCapacity
+contractedCapacity : eblX 01C::QDT::ConnectionCapacity_Quantity{SG=8, Qualifier=STS-C601.9015=6, STS-C555.4405=123}
<<enumeration>>
AdministrativeStatusOfMeteringPoint_Co
(Codelist National.Codelist EBO)
E22 (Active)
E23 (Inactive)
<<enumeration>>
Country_Code
(Codelist ISO)
NL (The Netherlands)
<<enumeration>>
GridContract_Code
(CodeList eblX)
E01 (Contract directly with Customer
E03 (Contract via Supplier)
<<enumeration>>
MeteringMethod_Code
(CodeList eblX)
E13 (Continuous)
E14 (Non continuous)
E16 (Not metered)
E24 (Calculated)
<<enumeration>>
MeterTimeFrame_Code
(CodeList eblX)
E10 (Low)
E11 (High)
<<enumeration>>
Product_Identifier
(CodeList eblX)
8716867000030 (Energy active)
8716867000054 (Connection capacity)
<<enumeration>>
QuantityUnit_Code
(CodeList eblX)
KWH (Kilowatt-hour)
KWT (Kilowatt)
<<enumeration>>
ReasonForTransaction_Code
(CodeList eblX)
E01 (Move)
E03 (Change of supplier)
E20 (End of supply)
E21 (Change of consumer)
E32 (Update master data MP)
E48 (Master Data for Prospects)
E56 (Change of balance responsible party)
E57 (Change of metered data responsible)
E75 (Change of Metering Method)
E77 (End of Metering)
E78 (Change of Grid Billing Model)
<<enumeration>>
Role_Code
(CodeList eblX)
DDK (Balance responsible party)
DDQ (Balance supplier)
Z05 (Metered Data responsible)
<<enumeration>>
SettlementMethod_Code
(CodeList eblX)
E01 (Profiled)
E02 (Non-profiled)
<<enumeration>>
StandardLoadProfile_Electricity
(Codelist National.Codelist DPC)
1A
1B
1C
2A
2B
3A
3B
3C
3D
4A
<<enumeration>>
TaxCategory_Code
(Codelist UNCEFACT)
E (exempt)
S (standard rate)
<<enumeration>>
TypeOfMeteringPoint_Code
(CodeList eblX)
E17 (Consumption)
E18 (Production)
E19 (Combined)

Remarks:

- StandardLoadProfile only to be used in case of SettlementMethod = profiled (E01)
- MeterTimeFrame only to be used in case of differentiation of the EstimatedPeriodicVolume over different meter time frames.

E07, 27, reason, role, 9 (master data MP gas)

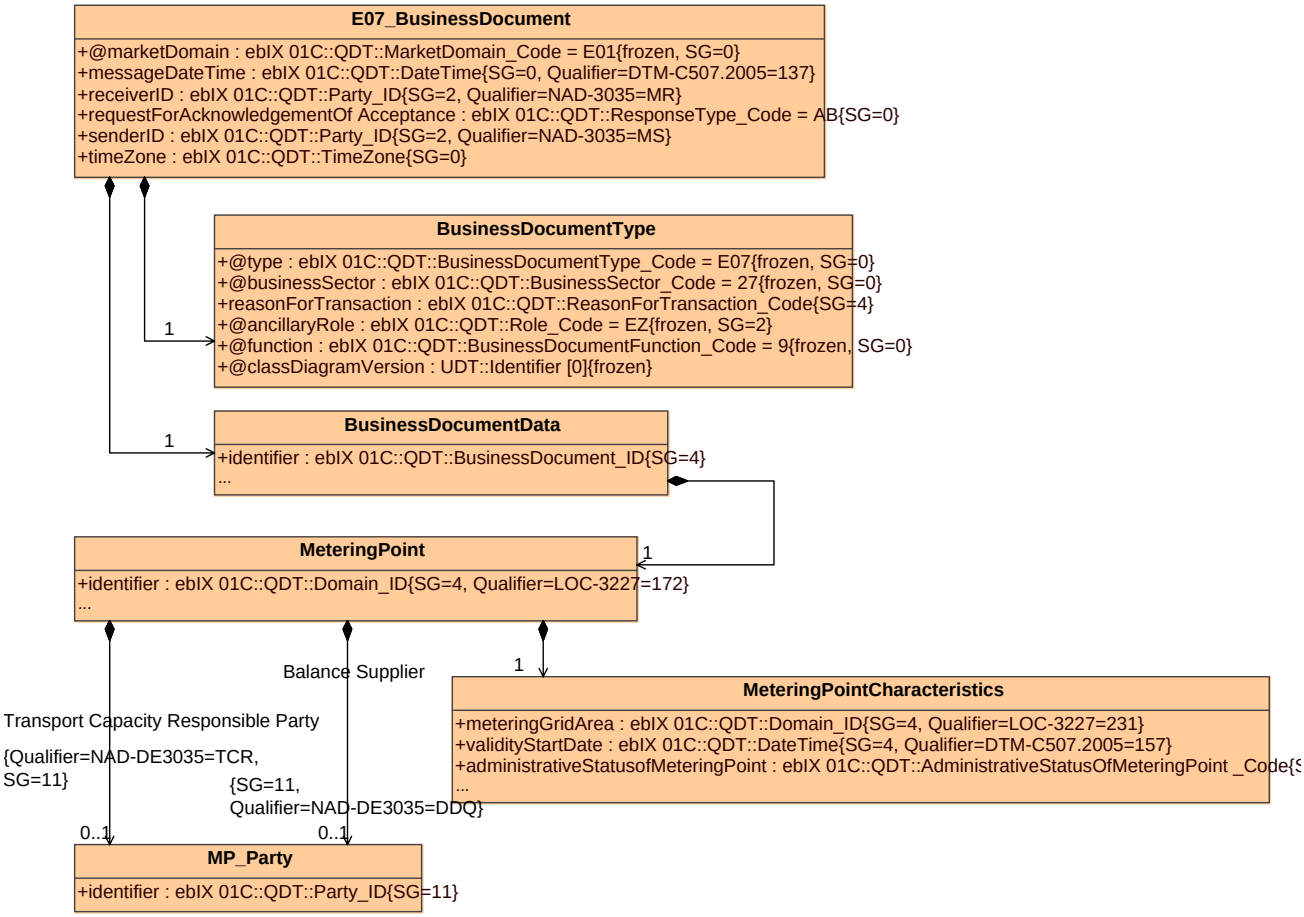


Author	ksparreb
Creation date	2/9/05 10:02 AM
Modification date	5/10/06 12:21 PM
Structure	Edifact , UTILMD , 01C
Diagram name	E07, 27, reason, role, 9
Documentation	
Version	
CD Description	Master data MP for G

Remarks:

- StandardLoadProfile only to be used in case of SettlementMethod = profiled (E01)

E07, 27, reason, EZ, 9 (master data MP gas sent to GtS, mapped to Edifact UTILMD version 01C)



Author	ksparreb
Creation date	2/9/05 11:07 AM
Modification date	5/9/06 3:10 PM
Structure	
Diagram name	E07, 27, reason, EZ, 9
Documentation	
Version	
CD Description	Master data MP for G, to GtS

<<enumeration>>
AdministrativeStatusOfMeteringPoint_Code
(Codelist National.Codelist EBO)

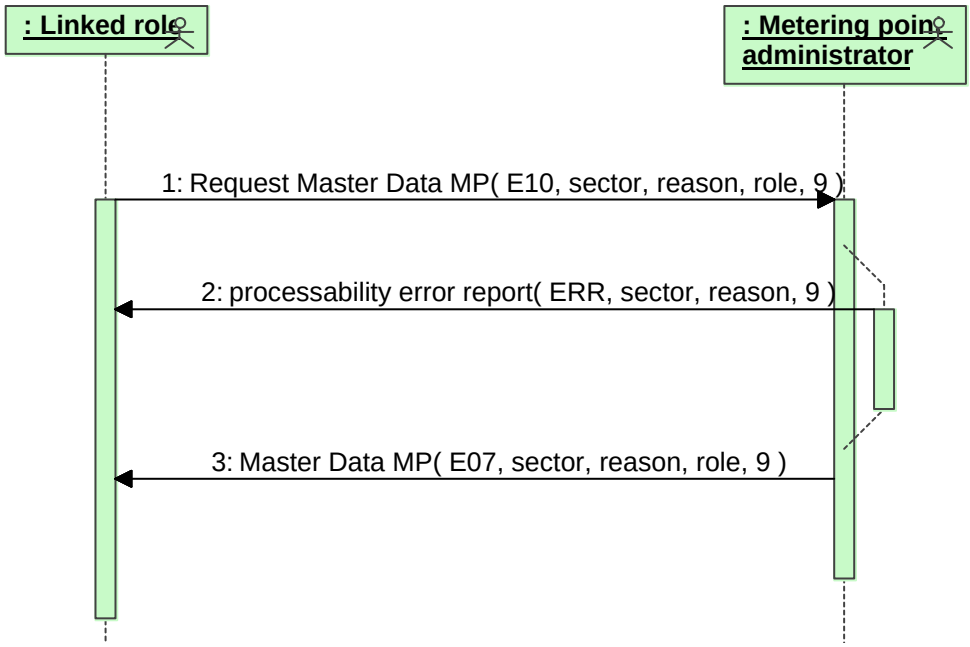
E22 (Active)
E23 (Inactive)

<<enumeration>>
ReasonForTransaction_Code
(CodeList ebIX)

E01 (Move)
E03 (Change of supplier)
E20 (End of supply)
E21 (Change of consumer)
E32 (Update master data MP)
E68 (Change of Transport capacity responsible party)

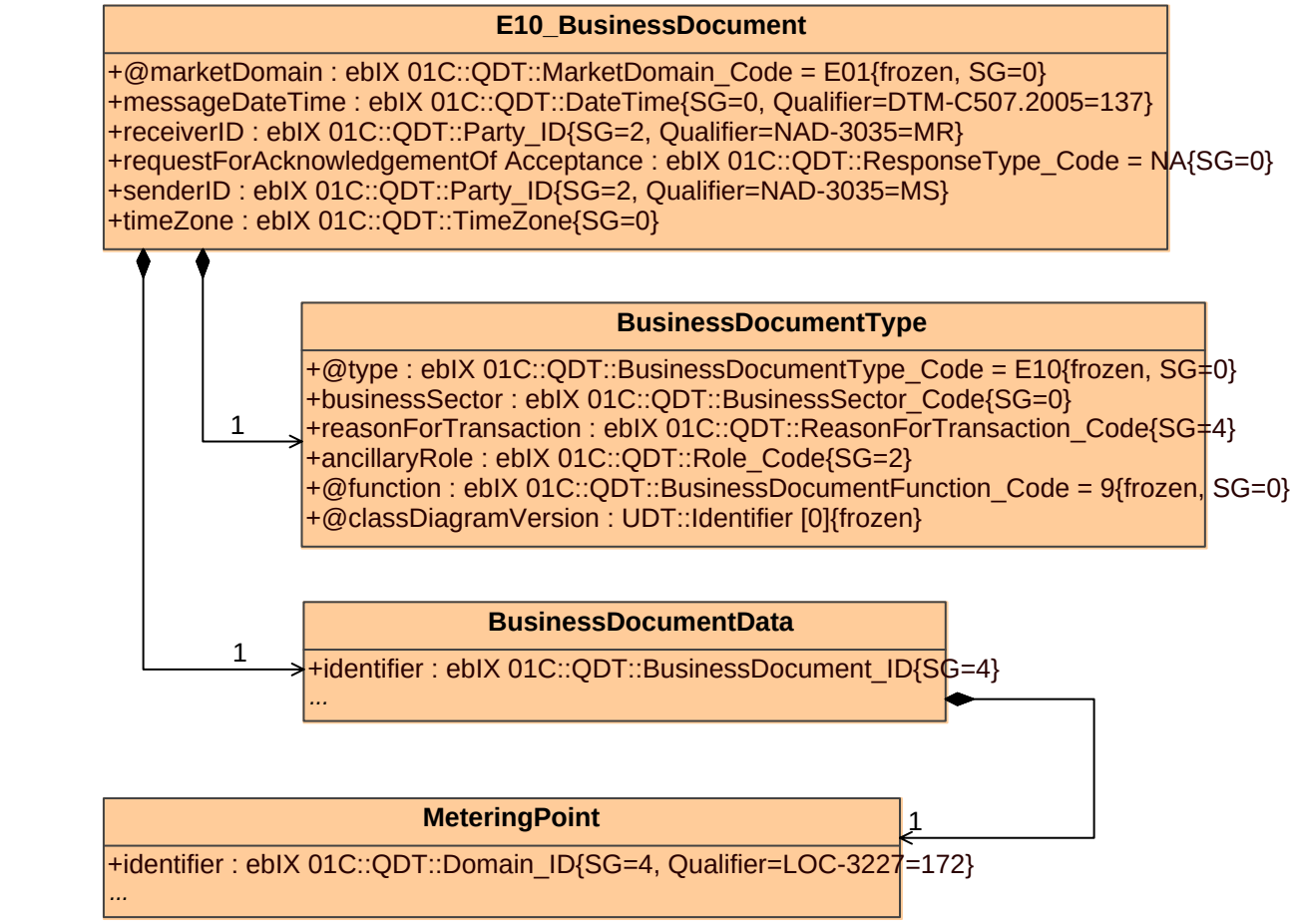
Note: the receiving role for GtS used to be the Grid Access Provider (DDM). Based on the remarks received from the gas sector, the role has been changed now into System Operator (EZ).

Sequence diagram Request Master Data MP

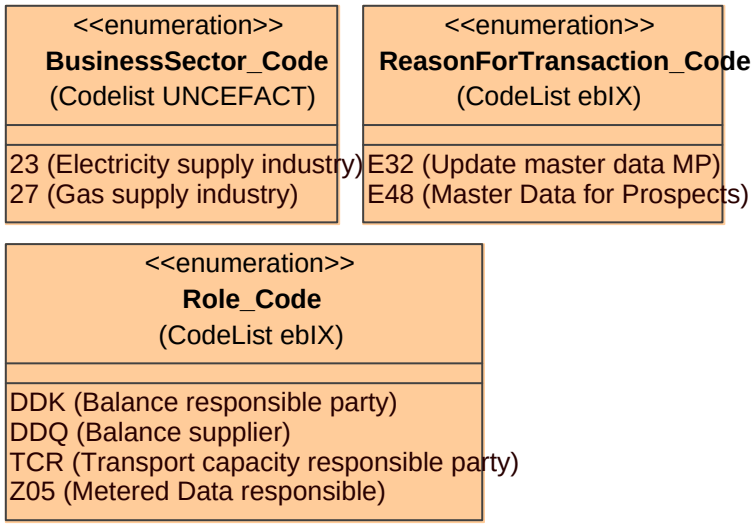


Class Diagram Request Master Data MP

E10, sector, reason, role, 9 (request for master data MP, mapped to Edifact UTILMD version 01C)



Author	ksparreb
Creation date	2/9/05 11:21 AM
Modification date	2/9/05 4:12 PM
Structure	Edifact , UTILMD , 01C
Diagram name	E10, sector, reason, role, 9
Documentation	
CD Description	Request Master data MP



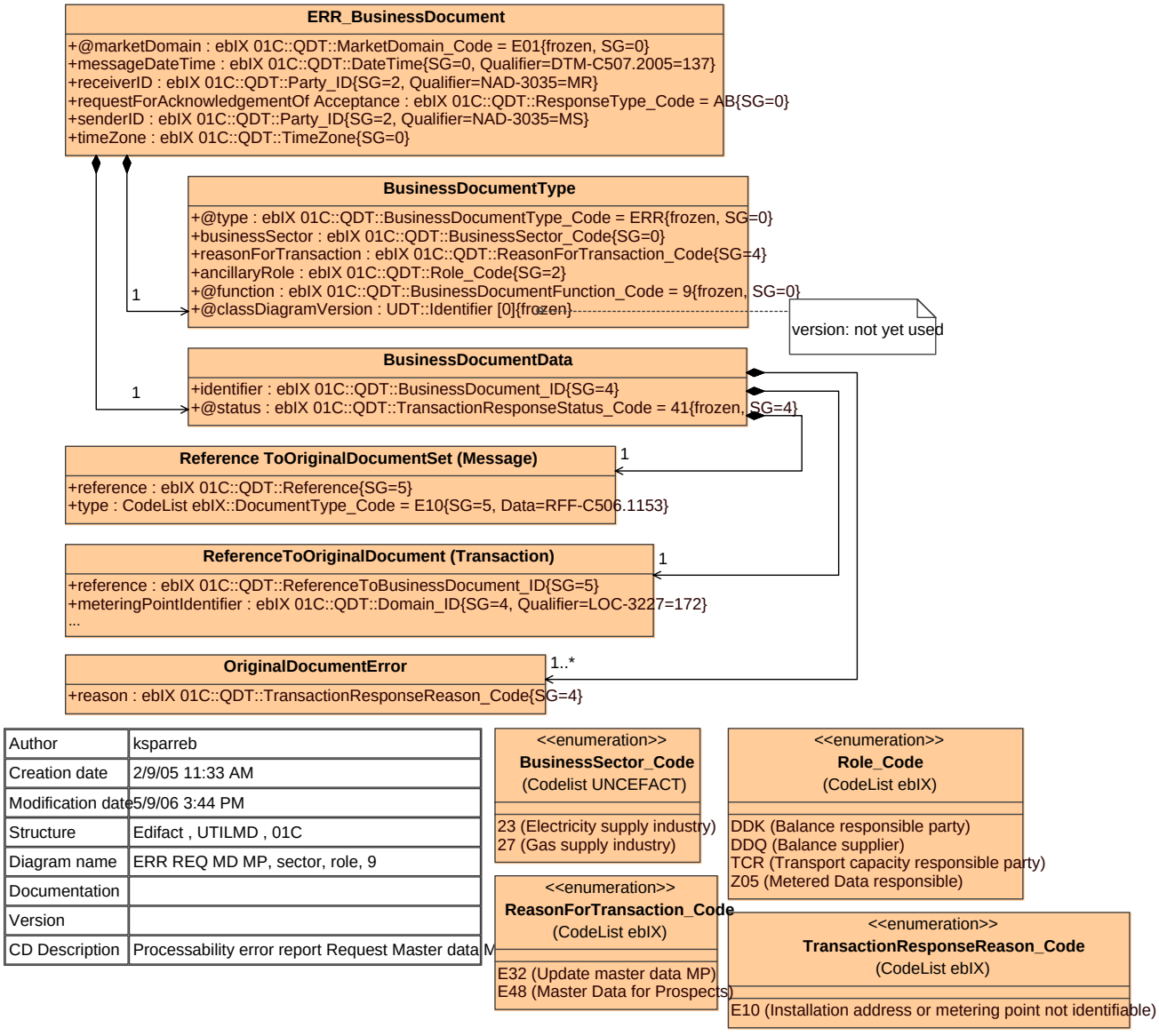
For the Class diagrams of the master data MP to be distributed in reply to the request, see previous paragraphs.

Acknowledgement and error report

The use of all acknowledgements and error reports is described in the EDINE Functional Description version 1.02, except for the functional error report which is specified in this model.

Note: this class diagram is based on the processability error report as described in the recently published ebIX model for acknowledgement and error report.

ERR REQ MD, sector, reason, role, 9 (processability error report for documents regarding request of master data MP)



Author	ksparreb
Creation date	2/9/05 11:33 AM
Modification date	5/9/06 3:44 PM
Structure	Edifact , UTILMD , 01C
Diagram name	ERR REQ MD MP, sector, role, 9
Documentation	
Version	
CD Description	Processability error report Request Master data M

<<enumeration>>
BusinessSector_Code
(Codelist UNCEFACT)

23 (Electricity supply industry)
27 (Gas supply industry)

<<enumeration>>
Role_Code
(CodeList ebIX)

DDK (Balance responsible party)
DDQ (Balance supplier)
TCR (Transport capacity responsible party)
Z05 (Metered Data responsible)

<<enumeration>>
ReasonForTransaction_Code
(CodeList ebIX)

E32 (Update master data MP)
E48 (Master Data for Prospects)

<<enumeration>>
TransactionResponseReason_Code
(CodeList ebIX)

E10 (Installation address or metering point not identifiable)