

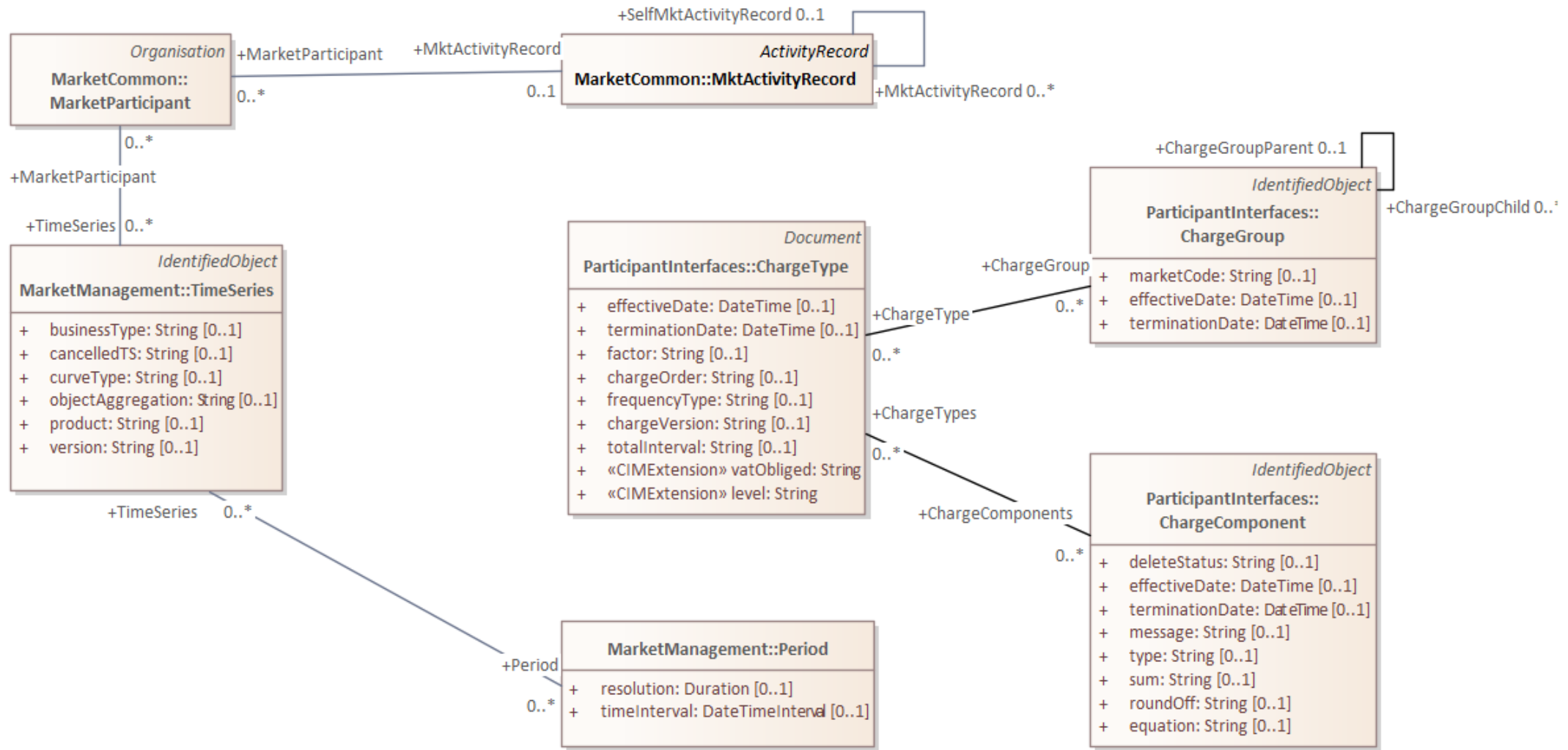
# Suggested updates around ChargeType, ChargeGroup and ChargeComponent



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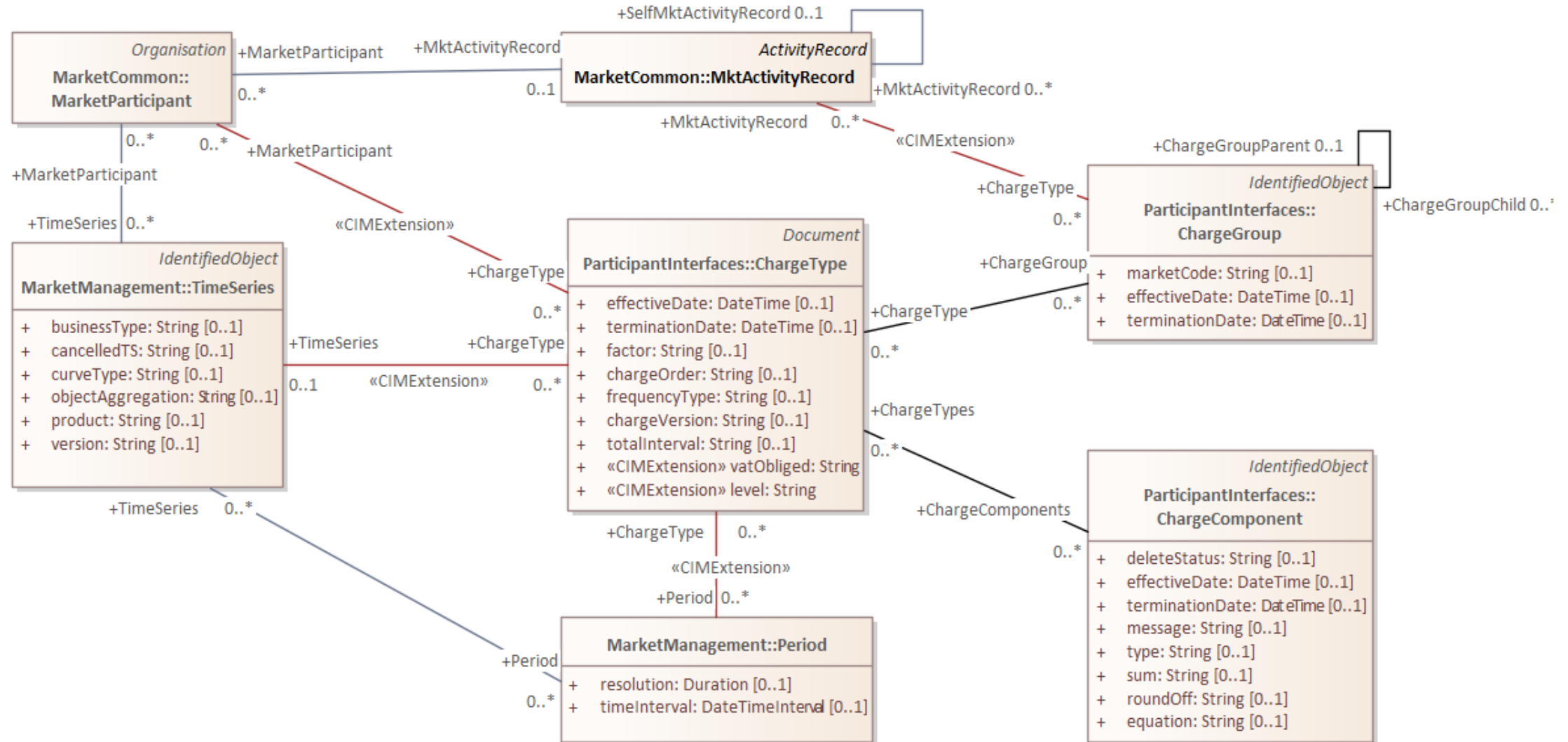
# Snapshot of the update in IEC 62325-301 before

class Snapshot of the update in IEC 62325-301 before small



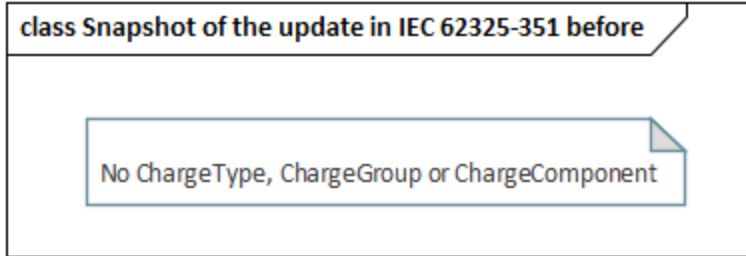
# Snapshot of the update in IEC 62325-301 after

class Snapshot of the update in IEC 62325-301 after



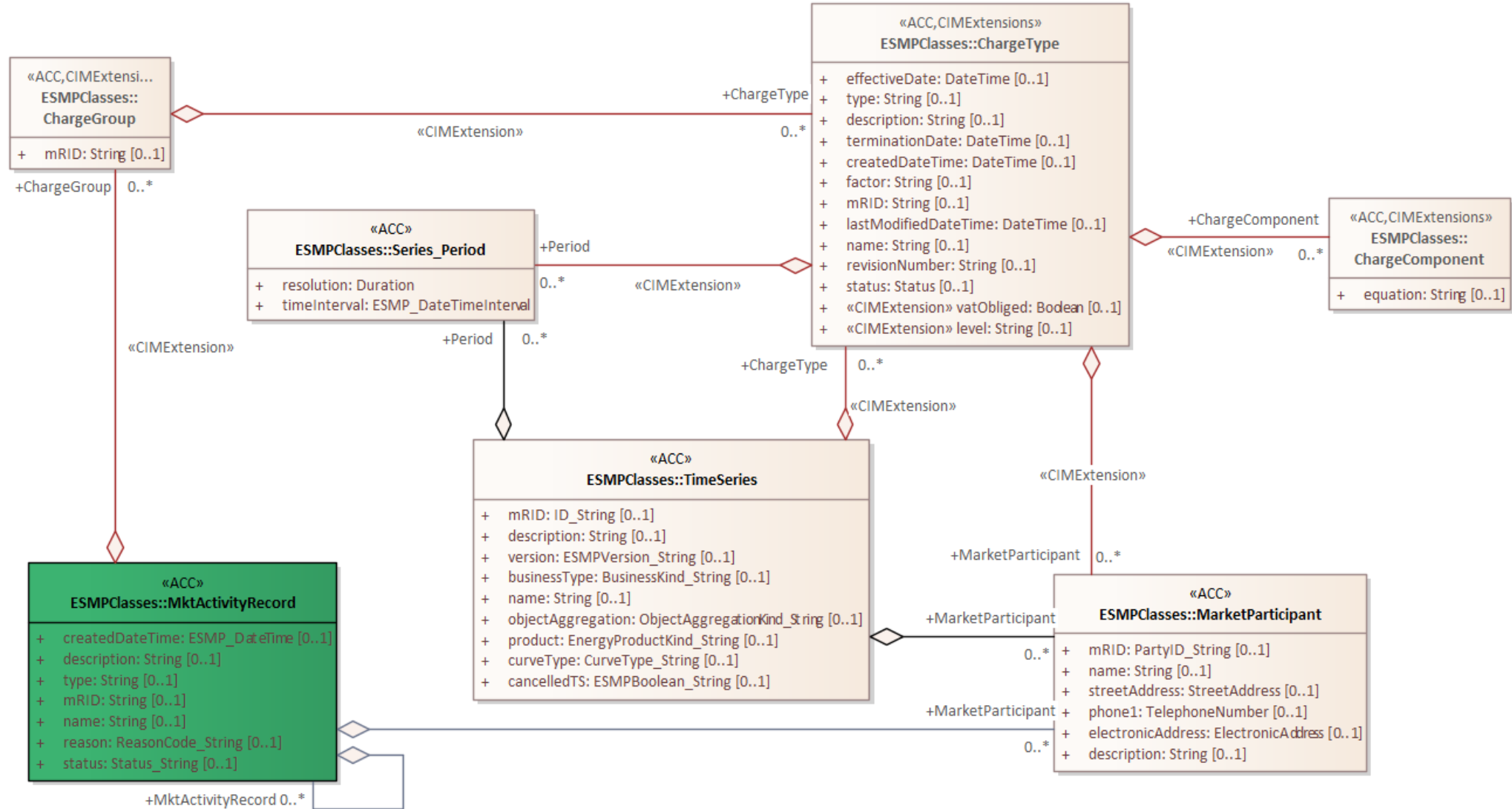


# Snapshot of the update in IEC 62325-351 before



# Snapshot of the update in IEC 62325-351 after

class Snapshot of the update in IEC 62325-351 after



# ebIX® MR 2022/024, Redmine 6665: Add ChargeGroup, incl. mRID, and association from ChargeGroup to ChargeType in ESMP

- When sending MGA billing characteristics (grid billing master data), e.g. to the Energy Supplier, there may be a need to group charges with common characteristics, e.g. group all household charges into one Charge group
- See also [ebIX® BRS for Combined grid and supply billing](#)
- See issue in Redmine <https://redmine.ucaiug.org/issues/6665>

# ebIX® MR 2022/020, Redmine 6533: Add the «ACC» ChargeType to ESMP

- When exchanging information related to a common grid and supplier billing process between the Grid Company and the Energy Supplier, a central information element is the ChargeType class. The class contains master data needed to calculate the grid fee by the Energy Supplier. The following attributes, already present in 62325-301 are proposed added to the «ACC» ChargeType in ESMP:
  - 1) effectiveDate: DateTime [0..1]
  - 2) terminationDate: DateTime [0..1]
  - 3) factor: String [0..1]
  - 4) type: String [0..1]
  - 5) createdDateTime: DateTime [0..1]
  - 6) lastModifiedDateTime: DateTime [0..1]
  - 7) revisionNumber: String [0..1]
  - 8) status: Status [0..1]
  - 9) description: String [0..1]
  - 10) mRID: String [0..1]
  - 11) name: String [0..1]
- See also [ebIX® BRS for Combined grid and supply billing](#)
- See issue in Redmine <https://redmine.ucaiug.org/issues/6533>



# ebIX<sup>®</sup> MR 2022/021, Redmine 6535: Add ChargeComponent, equation attribute and association to ChargeType to ESMP

- When exchanging information related to a common grid and supply billing process between a Grid Company and the Energy Supplier, it may be a need to specify the “Charge algorithm” (equation) used for calculating the amount for this charge
- Hence, there is a need for adding the «ACC» ChargeComponent with the attribute equation and addition of an association to ChargeType to ESMP
- See also [ebIX<sup>®</sup> BRS for Combined grid and supply billing](#)
- See issue in Redmine <https://redmine.ucaiug.org/issues/6535>

## ebIX® MR 2022/014, Redmine 6664: Add association from MktActivityRecord to ChargeGroup in CIM and ESMP

- Having access to grid billing master data for Accounting Points and/or a Metering Grid Areas (MGA) are crucial for the Energy Suppliers when grid fees are billed together with the energy cost by the Energy Supplier. The root element for the grid billing master data is the ChargeGroup with its ChargeType(s)
- It is an alternative to associate the MktActivityRecord directly to ChargeType(s), but often charge types are grouped into charge groups. Hence, we think, for master data exchanges for Accounting Points and MGAs, the best solution is associating the MktActivityRecord to the ChargeGroup (as opposed to time series, which normally only is associated to one single ChargeType)
- See also [ebIX® BRS for Combined grid and supply billing](#)
- See issue in Redmine <https://redmine.ucaiug.org/issues/6664>

# ebIX® MR 2022/022, Redmine 6534: Add association from TimeSeries to ChargeType CIM and ESMP

- When sending aggregated grid billing data (time series) from a Billing Calculator to the Grid Company and/or the Energy Supplier, the “Charge ID” and related “**Charge type**” (e.g. fee, subscription or tariff) and “Charge type owner” are essential information elements
- See also [ebIX® BRS for Combined grid and supply billing](#)
- See issue in Redmine <https://redmine.ucaiug.org/issues/6534>
- **Note:**
  - *From a message point of view, a [0..1] cardinality at the TimeSeries side is fine, but from a database point of view a many-to-many relationship would be more flexible. E.g., making statistics for total consumption for one charge type.*
  - *Hence, a suggestion would be to change the cardinality at the TimeSeries side in the CIM Market package to [0..\*]*

# ebIX® MR 2022/023, Redmine 6536: Add association from ChargeType to MarketParticipant in CIM and ESMP

- When sending aggregated grid billing data (time series) from a Billing Calculator to the Grid Company and/or the Energy Supplier, the “Charge ID” and related “Charge type” (e.g. fee, subscription or tariff) and “Charge type owner” are essential information elements
- See also [ebIX® BRS for Combined grid and supply billing](#)
- See issue in Redmine <https://redmine.ucaiug.org/issues/6536>

## ebIX® MR 2022/025, Redmine 6667: Add association from ChargeType to Period (Series\_Period ) in CIM and ESMP

- When sending MGA billing characteristics (grid billing master data), e.g. to the Energy Supplier, there is a need to send different prices for different periods, similar to the structure of a timeseries, i.e.: the ChargeType has one or more Series\_Period classes (resolution and timeInterval), which has one or more Point classes (position...), which has one or more Price classes (amount...)
- See also [ebIX® BRS for Combined grid and supply billing](#)
- See issue in Redmine <https://redmine.ucaiug.org/issues/6667>

## ebIX® MR 2022/026, Redmine 6668: Add the VATObligated (Boolean) to ChargeType in CIM and ESMP

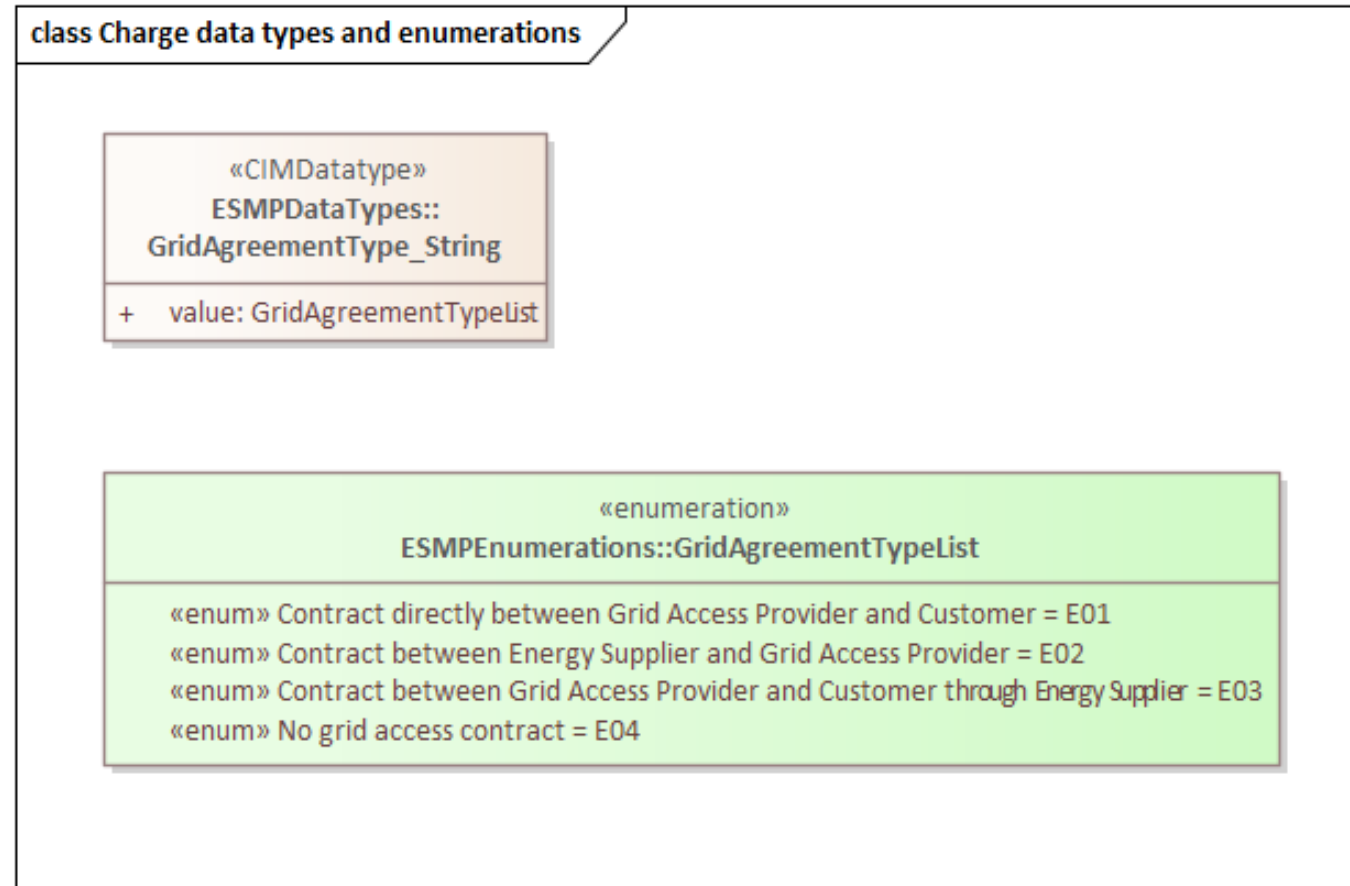
- In the downstream energy market, the Energy Supplier may need to know if an Accounting Point is VAT obliged or not, since APs can be exempt VAT in some areas of a country. Hence, this MR suggests addition of the attribute VATObligated (Boolean) to ChargeType in basic CIM and ESMP
- See also [ebIX® BRS for Combined grid and supply billing](#)
- See issue in Redmine <https://redmine.ucaiug.org/issues/6668>

# ebIX<sup>®</sup> MR 2022/030: Add the datatype GridAgreementType\_String and the enumeration GridAgreementTypeList to ESMP

- The attribute GridAgreementType of type String is already added to the AccountingPoint class in ESMP, however there is not yet added a datatype and a related enumeration
- There is a need for four codes in the GridAgreementTypeList enumeration, which all are in use in European countries:
  - E01** Contract directly between Grid Access Provider and Customer
  - E02** Contract between Energy Supplier and Grid Access Provider
  - E03** Contract between Grid Access Provider and Customer through Energy Supplier
  - E04** No grid access contract
- The code **E03** is for instance needed in the Netherlands:

Based on applicable Dutch laws and regulations, the Energy Supplier closes the connection and transport agreement (ATO) with the Party Connected to the Grid, on behalf of the Grid Access Provider. The Energy Supplier, on behalf of the Grid Access Provider, charges the Party Connected to the Grid for the periodic fees as specified in the ATO

# ebIX® MR 2022/030: Add the datatype GridAgreementType\_String and the enumeration GridAgreementTypeList to ESMP [2]





# ebIX® MR 2022/035, Redmine 6669: Add the VATLevel to the ChargeType in CIM and ESMP

- In some European countries there may be a lowered VAT level for some Customers or products, such as for green houses and the Energy Supplier needs this information to bill its Customers correctly
- See also [ebIX® BRS for Combined grid and supply billing](#)
- See issue in Redmine <https://redmine.ucaiug.org/issues/6669>
- **Note:**
  - *NMEG suggest using the “type” attribute in combination with a new “level” attribute instead of adding a VATLevel*
  - *This is more a more flexible solution, since it can be used all kind of charge/tax, such as “energy tax level” and “VAT tax level”*
  - *It requires a new ESMP enumeration*

# ebIX<sup>®</sup> MR 2022/035, Redmine 6669: Add the VATLevel to the ChargeType in CIM and ESMP [2]

