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# IEC TC57 WG16

# MAINTENANCE REQUEST

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## Maintenance notice:

This template needs to be completed and sent to: [WG16Part301@iectc57.org](mailto:WG16Part301@iectc57.org)

### 1 Rules

All participants in the IEC TC 57 WG16 may issue a Maintenance Request concerning IEC TC 57 WG16 documents, UML models or code components. This document defines the form that is to be used to submit such a request.

General guidelines for the Maintenance Request submission:

- The form is to be completed with all the necessary information.
- All associated documents required for the understanding of the Maintenance Request are to be provided.
- It is highly recommended to provide a presentation describing the use cases and why a change to an existing standard is necessary. Each use case must relate to an ongoing or upcoming project (American, European or National project). Valuable contextual information must be provided such as European regulations or directives, project specifications, and so on.
- If needed the requester can be invited to present their Maintenance Request to IEC TC57 WG16. Failing that an IEC TC57 WG16 member should champion the Maintenance Request so that any questions raised may be immediately resolved.

The IEC TC57 WG16 Convener will inform the submitter when the Maintenance Request is to be reviewed by the WG 16.

The Maintenance Request shall be provided to IEC TC57 WG16 Members and Corresponding Members at least one week prior to its presentation for approval.

The Maintenance Request will be debated within IEC TC57 WG 16 and its Members shall state:

- If the Maintenance Request is to be rejected and the reason of rejection.
- If the Maintenance Request is accepted.
- If the Maintenance Request is accepted with changes.

All decisions shall be obtained through consensus<sup>1</sup>.

In all cases, the requester shall be informed of the IEC TC57 WG 16 decision.

Accepted Maintenance Requests, before being implemented in the existing standards, shall be updated in a common excel sheet.

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<sup>1</sup> ISO definition of Consensus: “general agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments”.

## 2 General Information

|                             |   |
|-----------------------------|---|
| Date of submission:         | <i>Original date (version 1.0):</i> September 4 <sup>th</sup> , 2024<br><i>Update date (version 2.0):</i> April 3 <sup>rd</sup> , 2025  |
| Submitter Name:             | Jon-Egil Nordvik  |
| Organisation:               | Statnett on behalf of the Nordic TSOs (Energinet, Fingrid, Statnett and Svenska kraftnät)   |
| E-mail:                     | <a href="mailto:jon-egil.nordvik@statnett.no">jon-egil.nordvik@statnett.no</a>  |
| Maintenance Request ID      | NMEG 2024/217   |
| Maintenance Request Version | 2.0   |
| Maintenance Request title   | Addition of a category attribute to the <del>EnergyMarketTimeSeries</del> class in both CIM/Market and ESMP <u>and update of the enumeration CategoryTypeList to be valid for more than auctions.</u> |

## 3 Description of the issue (Business requirements, use cases...)

The Nordic RCC has started defining the CC (Capacity Calculation) processes related to the long-term (Y-1 and M-1). These long-term CC processes will be based on CGMs consisting of Peak and Valley scenarios (as per the CGMM). In these discussions we have also investigated the additional CC data exchange to facilitate the Flow Based calculation process.

Within our Day-ahead CCC (Coordinated Capacity Calculation) processes, we have utilized the following CIM documents to facilitate the needed additional data exchange. Similarly, in the LT (Long Term) CC processes we are expecting to continue using the same documents with further adjustments to the contents.

1. Capacity\_MarketDocument (used to exchange allocation constraints)
2. Schedule\_MarketDocument (used to exchange already allocated capacities)
3. GLSK\_MarketDocument (used to exchange GLSK strategies)
4. CRAC\_MarketDocument (used to exchange monitored elements, critical network elements and their constraints)

What we have now acknowledged is that these documents, in their current state, do not leave room within the same document to define data associated to these peak and valley scenarios (as it seems that this is quite a new concept to consider). This is because the TimeSeries -element used does not contain an attribute to specify whether the TimeSeries is to be associated to either of these types. Therefore, it would be beneficial from the LT CC processes point of view if a TimeSeries within these documents would have an additional element. This element would then define whether the content in the TimeSeries relates to Peak or Valley (or “Base” in case of day-ahead/intraday) scenario.

The suggested solution is to first add the category attribute to the TimeSeries classes in IEC62325 and in ESMP and in parallel investigate in which Market Documents there is a need to add the new attribute category.

The type of the attribute is suggested to be String in CIM/Market and of type Category\_String in ESMP. Category\_String has for instance the following codes: “A02 Peak” and “A03 Off peak” which could be used for “Peak scenario” and “Valley scenario”.

4 Possible impacts on profiles (ESMP or profiles based on ESMP)

This MR has impact on the ProfilesIEC62325/EuropeanStyleMarketProfile/IEC62325-351 Ed.3/ESMPClasses package.

5 Description of the update

5.1 This request applies an update of CIM Market-301 (If yes, please fill the points below)

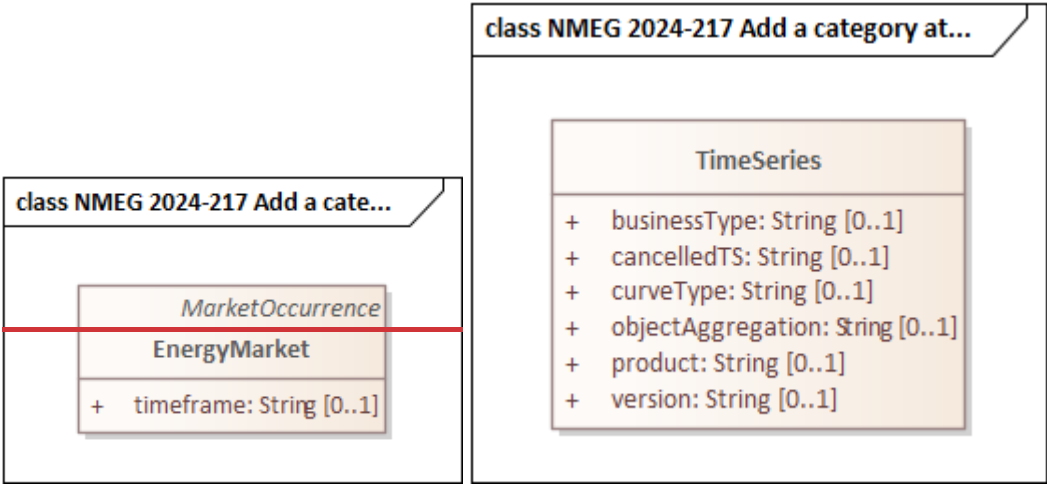
5.1.1.1 Description of the change/update

Add a category attribute to the ~~TimeSeries~~ ~~EnergyMarket~~ class in the ProfilesIEC62325/EuropeanStyleMarketProfile/IEC62325-351 Ed.3/ESMPClasses/ ~~TimeSeries~~ ~~EnergyMarket~~ class.

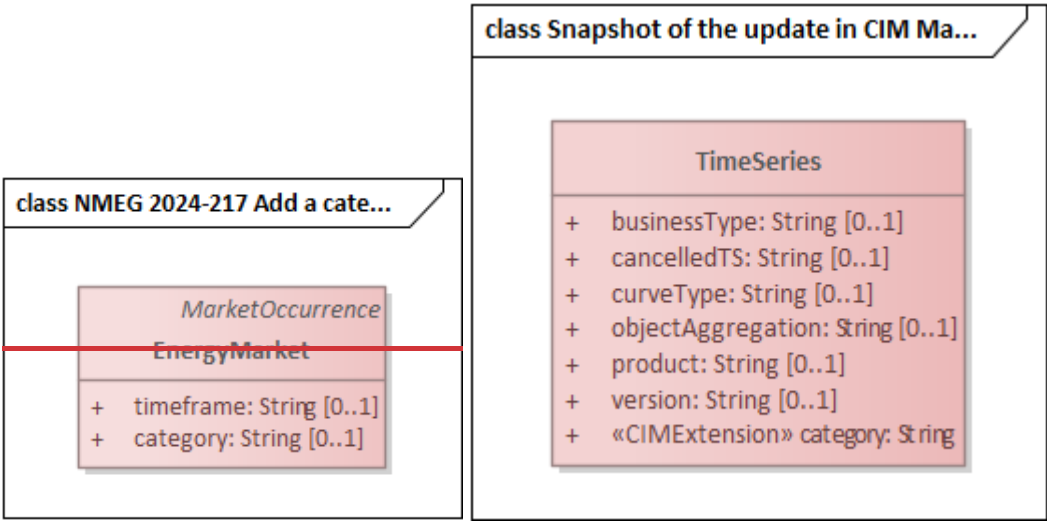
5.1.1.2 Reference to XMI (Optional)

None.

5.1.1.3 Snapshot of the update in CIM Market-301 before



5.1.1.4 Snapshot of the update in CIM Market-301 after



#### 5.1.1.5 Class and attributes descriptions

| Class-Name   | Class-Description  | Attribute-Name | Attribute-type | Attribute-Description   | Card. |
|--------------|--|----------------|----------------|---|-------|
| EnergyMarket | Energy and Ancillary Market (e.g. Energy, Spinning Reserve, Non-Spinning Reserve) with a description of the Market operation control parameters. | timeframe      | String         | A specified period of time in which something occurs or is planned to take place. | 0..1  |
|              |  | category       | String         | The category of a time series, such "Peak", "Valley" or "Base"                    | 0..1  |

We suggest the following definition of the Category attribute:

The category of a time series, such as "Peak", "Valley" or "Base".

### 5.2 Description of update of IEC CIM Market-351 (If yes, please fill the points below)

#### 5.2.1.1 Description of the change/update

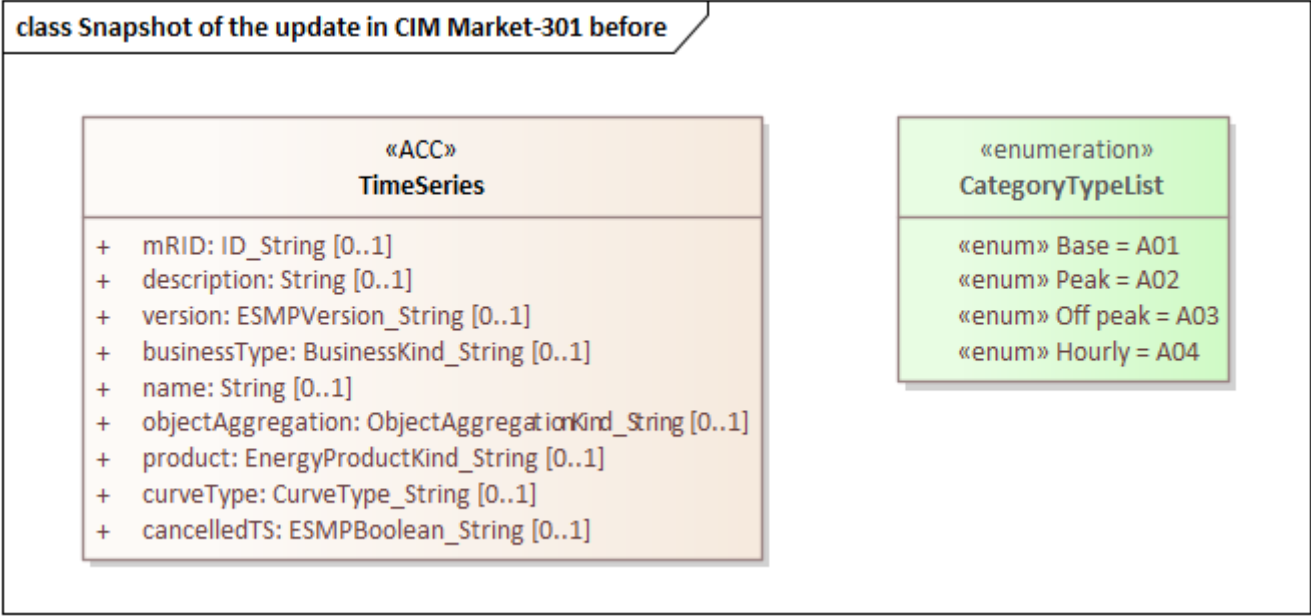
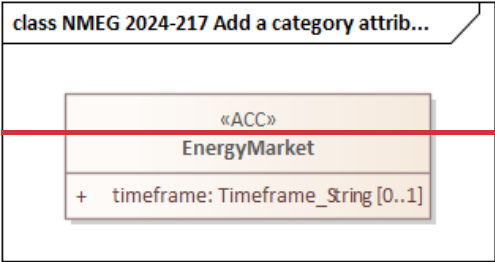
1) Add a category attribute to the ~~EnergyMarket-TimeSeries~~ class in the ~~CIM/Market/MarketCommon/EnergyMarket-classESMP~~.

1)2) Update the definitions of the enumeration literals in the CategoryTypeList to be valid for more than auctions, i.e. replace "auction" with the more general term "timeseries".

#### 5.2.1.2 Reference to XMI (Optional)

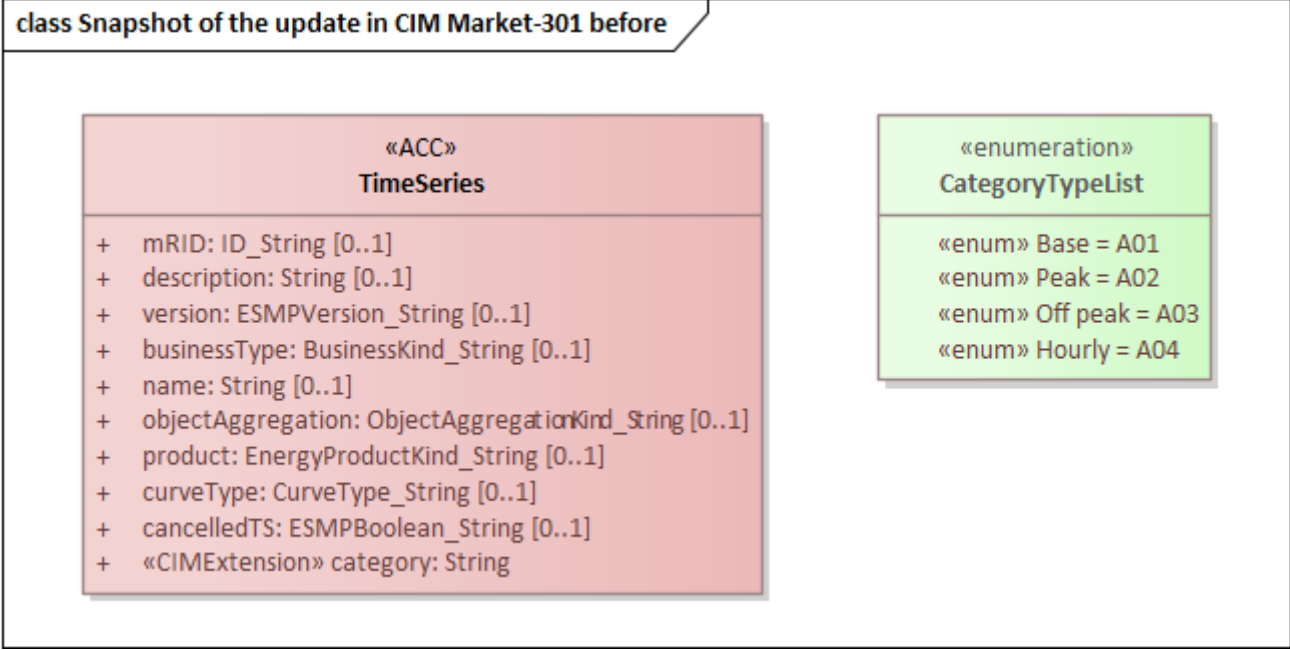
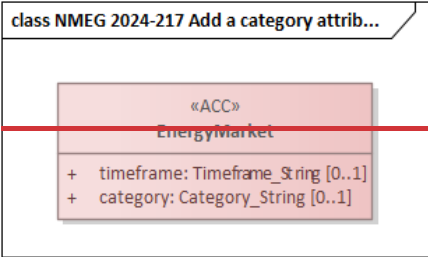
None.

5.2.1.3 Snapshot of the update in CIM Market-351 before



| <u>Code</u> | <u>Title</u>    | <u>Description</u>                           |
|-------------|-----------------|--|
| <u>A01</u>  | <u>Base</u>     | <u>The auction is for a base period.</u>     |
| <u>A02</u>  | <u>Peak</u>     | <u>The auction is for a peak period.</u>     |
| <u>A03</u>  | <u>Off peak</u> | <u>The auction is for a off peak period.</u> |
| <u>A04</u>  | <u>Hourly</u>   | <u>The auction is for a hourly period.</u>   |

5.2.1.4 Snapshot of the update in CIM Market-351 after



| <u>Code</u> | <u>Title</u>    | <u>Description</u>  |
|-------------|-----------------|---|
| <u>A01</u>  | <u>Base</u>     | <u>The <del>auction</del> timeseries is for a base period.</u>      |
| <u>A02</u>  | <u>Peak</u>     | <u>The <del>auction</del> timeseries is for a peak period.</u>      |
| <u>A03</u>  | <u>Off peak</u> | <u>The <del>auction</del> timeseries is for an off peak period.</u> |
| <u>A04</u>  | <u>Hourly</u>   | <u>The <del>auction</del> timeseries is for an hourly period.</u>   |

5.2.1.5 Class and attributes descriptions

We suggest keeping the definition of the category attribute from CIM/MarketEnergyMarket class and the category attribute as it is phrased in CIM Market-301:-

The category of a time series, such as “Peak”, “Valley” or “Base”.

| <del>Class Name</del> | <del>Class Description</del>   | <del>Attribute Name</del> | <del>Attribute type</del> | <del>Attribute Description</del>  | <del>Card.</del> |
|-----------------------|--|---------------------------|---------------------------|---|------------------|
| EnergyMarket          | Energy and Ancillary Market (e.g. Energy, Spinning Reserve, Non-Spinning Reserve) with a description of the Market operation control parameters. | timeframe                 | TimeFrame_String          | A specified period of time in which something occurs or is planned to take place. | 0..1             |
|                       |  | <i>category</i>           | <i>Category_String</i>    | <i>The category of a time series, such "Peak", "Valley" or "Base"</i>             | <i>0..1</i>      |

## 6 Final agreement

TBD.