**1 Description of the Use Case**

**1.1 Name of Use Case**

|  |  |  |
| --- | --- | --- |
| ***Use Case Identification*** | | |
| ***ID*** | ***Domain(s)/ Zone(s)*** | ***Name of Use Case*** |
| OpenNES\_UC\_ECO01 | Distribution/DER,  Operation | Power set point concurrency management |

**1.2 Version Management**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***Version Management*** | | | | |
| ***Version No.*** | ***Date*** | ***Name of Author(s)*** | ***Changes*** | ***Approval Status*** |
| 1.0 | 29.04.2015 | Christian Kasberger |  |  |
|  |  |  |  |  |

**1.3 Scope and Objectives of Use Case**

|  |  |
| --- | --- |
| ***Scope and Objectives of Use Case*** | |
| ***Scope*** | Energy network operator |
| ***Objective(s)*** | Concurrency management of power set points adjusted from two or more independent parties |
| ***Related business case(s)*** |  |

**1.4 Narrative of Use Case**

|  |
| --- |
| ***Narrative of Use Case*** |
| ***Short description*** |
| Power plant systems has to provide power set point adjustment capabilities. Set points can be adjusted from several parties. Lowes requested set point has to be adjusted. |
| ***Complete description*** |
| Operators/owners of large power plants, which are composed of DER devices will be forced in the future to trade their energy on the stock market. Therefor it is required that the direct trader (can be the owner or any 3rd party who provides such service) and the network operator, where the power plant is connected to, get equal hierarchical access to the power plant controller to adjust the power set point. The different set points must be compared whereas the lowest value has to be set. The set points are frequently updated to achieve keep alive mechanism. |

**1.5 General Remarks**

|  |
| --- |
| ***General Remarks*** |
| The described function must be provided in Germany for DER power plants larger than 100kWp starting with 01.01.2016 |

**2 Diagrams of Use Case**

|  |
| --- |
| ***Diagram(s) of Use Case*** |
|  |

**3 Technical Details**

**3.1 Actors**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Actors*** | | | |
| ***Grouping*** *(e.g. domains, zones)* | | ***Group Description*** | |
| market | |  | |
| ***Actor Name***  *see Actor List* | ***Actor Type***  *see Actor List* | ***Actor Description***  *see Actor List* | ***Further information specific to this Use Case*** |
| Distribution Network Operator (DNO) |  |  |  |
| Demand Side Response Active Power Control  (DSR APC) |  |  |  |

**3.2 Triggering Event, Preconditions, Assumptions**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Use Case Conditions*** | | | |
| ***Actor/System/Information/Contract*** | ***Triggering Event*** | ***Pre-conditions*** | ***Assumption*** |
|  |  |  |  |
|  |  |  |  |

**3.3 References**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***References*** | | | | | | |
| ***No.*** | ***References Type*** | ***Reference*** | ***Status*** | ***Impact on Use Case*** | ***Originator / Organisation*** | ***Link*** |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**3.4 Further Information to the Use Case for Classification / Mapping**

|  |
| --- |
| ***Classification Information*** |
| ***Relation to Other Use Cases*** |
|  |
| ***Level of Depth*** |
|  |
| ***Prioritisation*** |
|  |
| ***Generic, Regional or National Relation*** |
|  |
| ***Viewpoint*** |
|  |
| ***Further Keywords for Classification*** |
|  |

**4 Step by Step Analysis of Use Case**

**4.1 Steps – Scenario Name**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Scenario Conditions** | | | | | |
| **No.** | **Scenario Name** | **Primary Actor** | **Triggering Event** | **Pre-Condition** | **Post-Condition** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**4.2 Steps – Scenarios**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Scenario*** | | | | | | | | |
| ***Scenario Name :*** | | ***No. 1 - …*** | | | | | | |
| ***Step No.*** | ***Event*** | ***Name of Process/ Activity*** | ***Description of Process/ Activity*** | ***Service*** | ***Information Producer (Actor)*** | ***Information Receiver (Actor)*** | ***Information*** | ***Requirements , R-ID*** |
| ***Exchanged*** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

**5 Information Exchanged**

|  |  |  |
| --- | --- | --- |
| ***Information Exchanged*** | | |
| ***Name of Information (ID)*** | ***Description of Information Exchanged*** | ***Requirements to information data*** |
|  |  |  |
|  |  |  |

**6 Requirements (optional)**

|  |  |
| --- | --- |
| **Requirements (optional)** | |
| **Categories for Requirements** | **Category Description** |
|  |  |
| **Requirement ID** | **Requirement Description** |
|  |  |
|  |  |

**7 Common Terms and Definitions**

|  |  |
| --- | --- |
| **Common Terms and Definitions** | |
| **Term** | **Definition** |
|  |  |

**8 Custom Information (optional)**

|  |  |  |
| --- | --- | --- |
| ***Custom Information (optional)*** | | |
| ***Key*** | ***Value*** | ***Refers to Section*** |
|  |  |  |
|  |  |  |