

WG13 Issues - CIM Issues #4043

HydroPump Cardinality

A HydroPowerPlant must include at least one HydroPump

09/14/2021 03:43 PM - Herbert Falk

Status: Closed	
Priority: Normal	
Target version:	
Author/Contact Info: ENTSO-E	Standard(s):
Base Release: 61970cim15v12	Version:
Solution to be Applied To: 61970cim16v10	Clause:
Solution Version: CIM16	Sub-Clause:
Solution Applied By: KLH	Paragraph:
Completion Date: 06/20/2012	Table:
CIM Keywords:	Originally Closed in Version: CIM16
Breaking Change: No	Origination Date: 05/22/2012
Breaking Change Description:	Origination ID: 13_109
CIM Impacted Groups: WG13	Originally Assigned To:
Requestor:	
Description HydroPump Cardinality A HydroPowerPlant must include at least one HydroPump. As you can see in the picture below, this is stated by cardinality 1.* on the highlighted association end near to HydroPump class. But we think that there are real situations where a hydro plant doesn't contain any hydro pump. So the cardinality should be 0.*. On the other end of association our question is similar. In fact, we think that a hydro pump can exist only inside a hydro power plant. So the relationship 0..1 should be changed to 1.1. (Additional information 4-June2-2012) Statnett has HydroPowerPlants that consist only of HydroPumps. The current CIM model requires a HydroPowerPlant to have 1.* HydroGeneratingUnits. This needs to be 0.* to work with Statnett's case.	
Proposed Solution Change cardinality between HydroPowerPlant and HydroPump to be 0.* at the HydroPump and 1 at the HydroPowerPlant.	
Decision 2012-5-30 - Agreed to change cardinality at HydroPump to 0.*. Didn't discuss cardinality at HydroPowerPlant. 2013-6-13 - Agreed to leave the cardinality between HydroPowerPlant and HydroPump as it is (0..1) because it is more flexible and can always be restricted in a particular profile. Agreed to change the cardinality between HydroPowerPlant and HydroGeneratingUnit to 0.* at the HydroGeneratingUnit side and also to change the cardinality at the HydroPowerPlant side from 1 to 0..1. With these changes the cardinality matches the cardinality for HydroPump.	