

USE CASE 16 - PROTECTION ENGINEER PLANS WIDE-AREA PROTECTION SCHEMES BASED ON SYSTEM MODEL

Use Case Title

Protection Engineer Plans Wide-Area Protection Schemes Based On System Model

Use Case Summary

Special Protection Systems or Remedial Action Schemes play a very important role in the prevention of wide spread power system disturbances. Different phases of their engineering, configuration and maintenance are based on the availability of a CIM system model. It is used to run dynamic system simulations, change the action of the SPS to adapt to changing system conditions or analyze the operation in case of a system event. At the same time SPS needs to receive real-time power flow, frequency, load, generation and other measurements and status information from multiple locations in the system. It will also send signals for breaker tripping or load/generation shedding to substations included in the SPS. SPS will also need to be modeled in IEC 61850 (no such model exists today).

Use Case Detailed Narrative

Business Rules and Assumptions