

Question B3 PS3.5: What are your expected benefits of using digital substation concepts and how to measure if the benefits can be realized?

### **Digital substation brings the IT into the OT**

- The digital substation makes the energy management systems integrated into the IT of the enterprise:
  - All data available from the substation can be consolidated in a BigData framework
  - The condition monitoring will be based on all data from the overall system
  - Asset management of the enterprise will manage IT elements but also primary devices, relays and edge devices
  - New system management process could be inspired by IT process to automatically update devices without human interaction
- New kind of device and replacement of wiring:
  - Digital substation bring also new communication protocols and technics, reducing drastically the required wiring
  - New kind of small wireless devices coming from the IoT reduce the needs to have specific devices with less flexibility

### **The impacts for the projects**

- Integration with the IT will:
  - Reduce the cost of deployment and maintenance with a global infrastructure
  - Improve the overall quality with a global process improving traceability of all pieces and with reducing human interaction and risk of human errors
- The new kind of device and communication technics will:
  - Reduce the global foot print and cost of connection infrastructure
  - Improve maintainability of devices which can be easily replaced

