

A) General Information

Acronym:

ITEM_GC SYSLAB - 20100930-02

Title of the User-Project:

Implementation and testing of a electrical model based on the Island of Grand Canarias in SYSLAB facility

TA Call:

2nd Call 2010-09-30

Host Research Infrastructure:

Risø DTU (Syslab)

Starting Date:

2011-03-14

End Date:

2011-03-25

Lead User :

Pablo Horstrand Andaluz - Universidad de Las Palmas de Gran Canaria

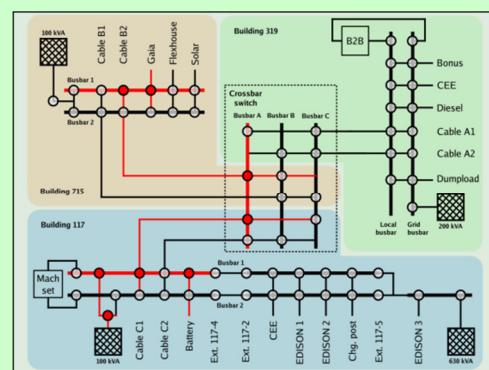
Additional Users:



B) Summary of the User-Project

Specific experiments with specific components were set up in SYSLAB:

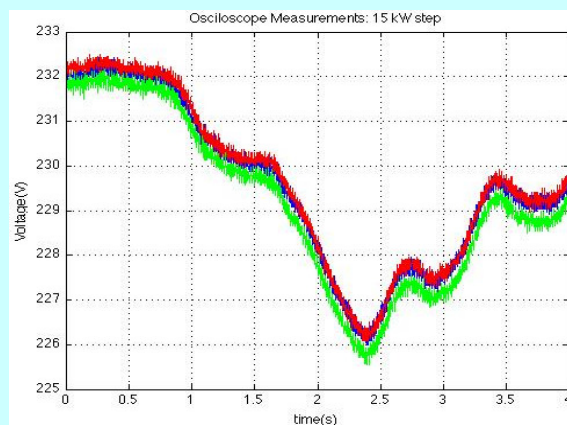
- Diesel generator and dump load – active power steps.
- Diesel generator and Vanadium battery – active and reactive power steps.
- Diesel generator and Vanadium battery – oscilloscope measurements.
- Frequency response.
- Power steady state analysis between the Gaia wind turbine, the diesel generator and the battery.



SYSLAB coupling scheme.

C) Main Achievements

Operation data were collected for steady state and dynamic operation. The experimental data have been used to evaluate and improve specific Power Factory sub-models to be used in the modelling of the Grand Canarias power system.



Diesel generator phase voltage responses to 15 kW step in active power.

D) Dissemination of the Results

E) Use of the Resources

Nr. of Users involved: 1
Access Days: 10
Stay Days: 13