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20.06.2023 JAN FREDRIK HANSEN

Smart Maritime Network Meeting 2023

Hybrid Lab

Hybrid Lab

Original setup

MARINTEK Laboratory

Start of Testing: March 2014

Voltage Level: 540Vdc

Speed range: 900-1800rpm

Engines:
1 x Perkins GCD325A
1 x Perkins 2506C-E15TAG1

Generation:
1 x 400kVA UNIREC
1 x 230kVA UNIREC

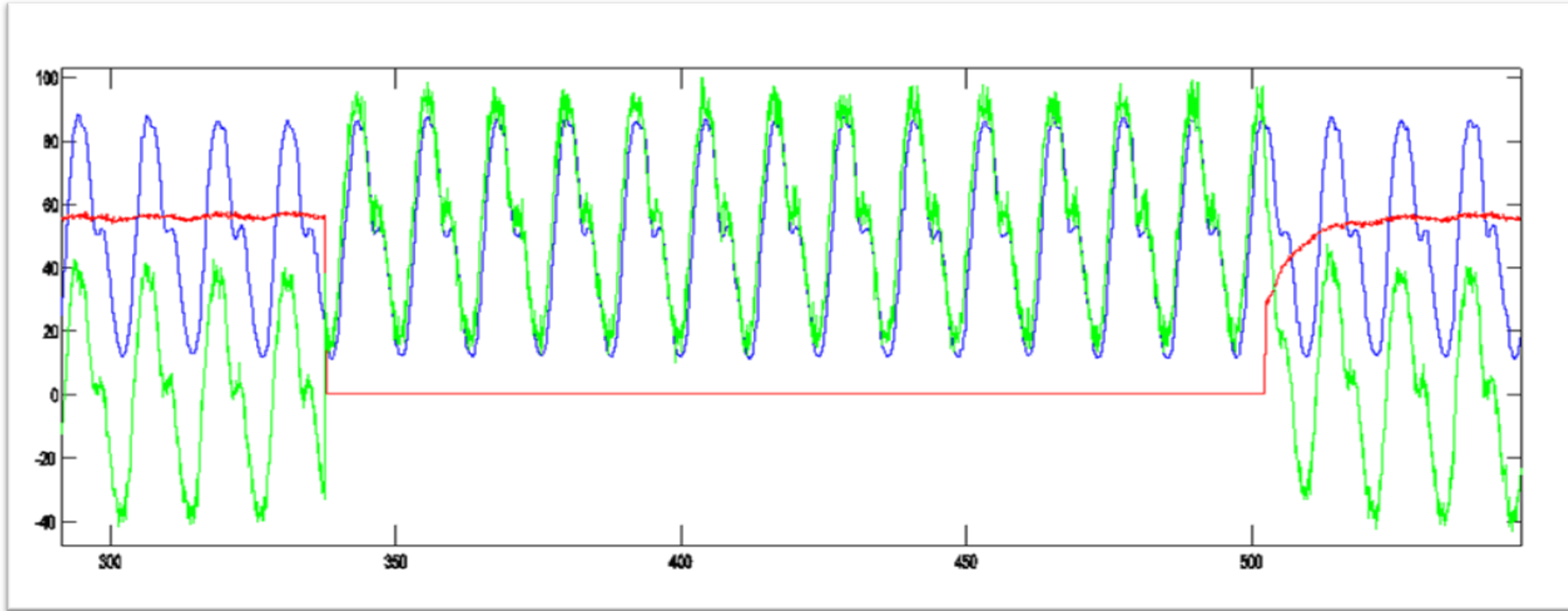
Loads: 2 x 160kW ACS800

Energy Storage:
1 x 55kWh Battery
1 x 1MWs Super Capacitor



Hybrid Lab

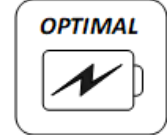
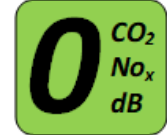
First tests



 *Generator Load*

 *Motor Load*

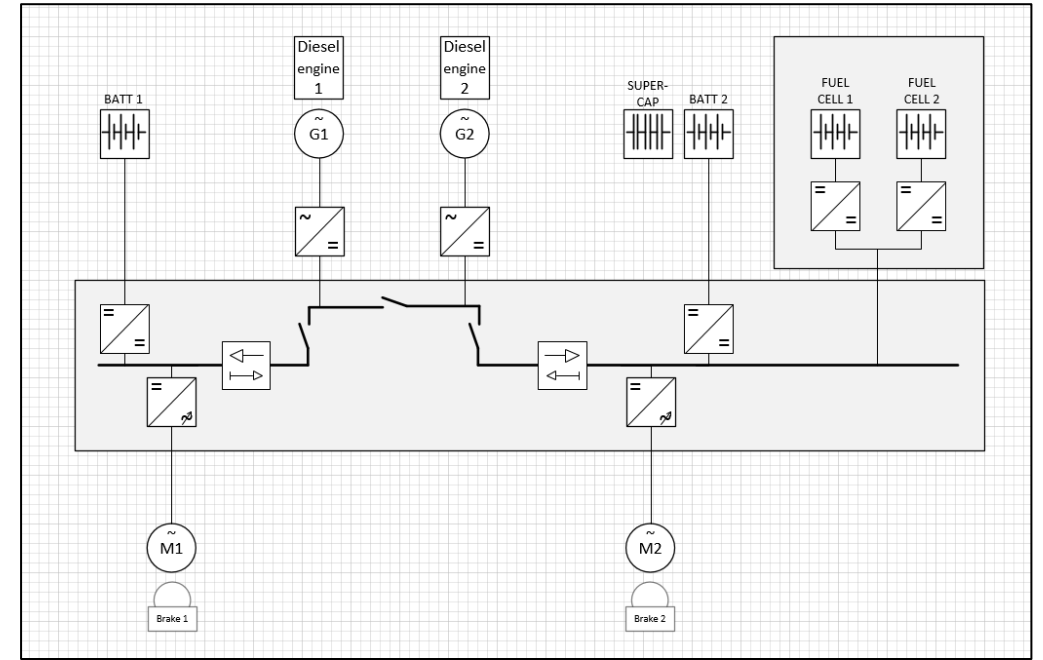
 *Battery Load*



Hybrid Lab

Extension with Fuel Cells

- 2 x 30kW Hydrogen Fuel Cell modules
- Integrated with existing hybrid lab
- Can run combinations of diesel engines, batteries and fuel cells.



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