

DIPLOMA WORK at E2C and CorPower Ocean AB

Title: “Practical Integration and Control of Electrical Wave Power System”

Time: January 2013 – June 2013

Examiner: Hans Peter Nee, KTH E2C

Industrial Supervisor: Torbjörn Lembke, 20%

Place: KTH: Lab at Teknikringen 33

CorPower: Office at Osquars Backe (Above the library)

Project Description:

The project is suited for 1 – 2 students.

The purpose of the project is to build an electromechanical model of the CorPower wave power converter. The project includes the following steps:

- a. Power system build (Generators, inverters, filters, PLC)
- b. Control system setup & configuration
- c. Application specific control system programming
 - i. Phase 1: Stand-alone electronics system setup (Motor & Generator control modes)
 - ii. Phase 2: Integration of electronics system on Wave-Energy-Converter. (Generator control mode)
- d. System commissioning
- e. Functional tests & performance measurements
 - i. Phase 1: Stand-alone
 - ii. Phase 2: Integrated on WEC.
- f. Analysis and conclusions

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