

DIPLOMA WORK at E2C and CorPower Ocean AB

Title: “Comparison of grid connection architecture for wave power farms”

Time: January 1, 2013 – June 30, 2013

Examiner: Hans Peter Nee, KTH E2c

Industrial Supervisor: Torbjörn Lembke

Place: KTH: Lab at Teknikringen 33

CorPower: Office at Osquars Backe (Above the library)

Project Description:

The project is suited for 1 student.

The purpose of the project is to compare different grid connection alternatives for wave power farms. The project includes the following steps:

- a. Literature study of wave power farm architectures
- b. Summary of Functional & performance requirements
- c. Description of three architectures for comparison
- d. Technical and economical comparison of 3 selected architectures
 - i. Component costs, installation, maintenance intervals, lifetime data, sourcing, long term availability.
 - ii. Losses & efficiency
 - iii. Levelized cost of energy calculations - LCOE
- e. Analysis and conclusions

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