

## **Minutes from CEESA WP2 Meeting**

**Date:** 23 November 2007

**Place:** AAU

### **Present:**

Henrik Lund, AAU

Brian Vad Mathiesen, AAU

Mads Pagh Nielsen, AAU

Niclas Scott Bentsen, KU-KVL (Tlf: 35 33 17 14)

### **Discussion and decisions**

At the CEESA August 2007 seminar at GI.Vrå it was decided to define mile-stones from each of the WPs and for the project in general. Input from WP2 were discussed and decided.

Two papers were distributed on e-mails before the meeting and presented at the meeting:

- Potential technologies for 100% renewable energy scenarios (BVM and MPN)
- Identification of potential energy crops (NSB)

It was decided to proceed by making scenarios in the following way:

- starting point is the six general categories of the BVM/MPN paper (i – vi on p. 2-3)
- such categories is to be divided into “short-distance” and “long-distance” demands
- based on each of the categories proper 100% RES transport technologies are to identified in the three following stages: “Today-possible-technologies”, “Ideal solutions if all technologies prove to be reliable” and “likely technologies”.

Moreover “overall biomass for energy” scenarios will be made.

The following time-schedule were decided:

Mads and Brian will make a first draft on the “transportation-technology-system” for the above categories to be presented and discussed at the next WP2-meeting.

Niclas will proceed on the design of “overall biomass for energy” scenarios.

Next phone status meeting: Friday 11 January at 10. Mads, Henrik and Brian call Niclas.

Date reserved for meeting at AAU: Thursday 13 March at AAU.

Appendix: A small calculation was made at the meeting:

Based on a surface solar radiation of 168 W/m<sup>2</sup>

- Crops can convert approximately ½-2 percent into biomass energy. i.e. 1-3 W/m<sup>2</sup>
- Photo voltaic can convert app. 10%. E.g. 7 m<sup>2</sup> of PV can produce 800-1000 kWh/year, i.e. equal to 13-16 W/m<sup>2</sup>.
- A 10 m<sup>2</sup> solar thermal can produce app. 5000 kWh/year equal to 50-60 W/m<sup>2</sup>.
- A 150 kW wind turbine takes up between 20 and 200 m<sup>2</sup> and produce 300.000 kWh pr. Year equal to 200 - 1500 W/m<sup>2</sup>

