



## Contribution from Tommerup



Dear participants of this conference,

I have been asked to say something about renewable energy.

For me it is a very interesting issue not because I have been working professionally with this subject or because it is a very interesting subject. No because it is a very important matter for the environment. How to produce energy which are greenhouse neutral. That means that it will not increase the concentration of greenhousegasses in the atmosphere.

I don't know why you picked Tommerup to speak about renewable energy, but I like to think it was because you know that we have a large industry turbine producers. As a matter of fact we use to say that we are one of the world leading producers.

Renewable energy can be more than Wind turbines it can be solar energy, biological materials and for example the energy of the waves. I will talk about wind turbines and solar energy.

But before I say something about that, I would like to tell you something about the importance of using renewable energy.

If we don't find alternative solutions for our energy needs, we will continue to increase the pollution with CO<sub>2</sub>.

In October 1990, the first Joint Energy Environment Council proposed to stabilise CO<sub>2</sub> emissions in the EU as a whole by the year 2000 on 1990 levels.

All though all the members of the EU agreed we can now see that since 1994, greenhouse gas emissions within the EU are increasing again. A reinforcement of measures will be necessary to generate a persistent downward trend towards the Kyoto commitment. Action must be taken in all sectors and at all levels if the EU is to comply with its commitment.

Perhaps I should say that if the EU shall succeed with the Kyoto commitment, the members have to bring order in their own houses. We have to deal with how we can reach the 8% reduction of greenhouse gas emission in the commitment period 2008-2012 compared to 1990 levels and be on track for further reductions after 2012.

The EU has always been very ambitious in the climate change negotiations. Ambition however, has to be completed by concrete action and tangible results. When assessing the current situation, the conclusions are not very positive. Emissions are again on an upward track. Therefore, more needs to be done in order to curb this trend.

Perhaps it is here that I can tell you something about renewable energy. We can all say, it is not my problem let other take responsibilities. But here we have a great opportunity to help the environment. We can as a small society for the dissemination of knowledge of for example wind energy.

In Denmark where we have a lot of wind turbines, compared to many other countries. It all began as a grassroots movement, and it began in the early seventies when we had the energy crises. At that time it was because the people in the movement wanted to find an alternative to oil and second because it had some environmental advantages.

The grassroots movement started to make experiments with alternative energy. One of the more successful ideas was the wind turbine or the windmill as it was called. It is now a great industry. As a matter of fact it's one of Denmark's largest export industries.

But my point is not to tell you that renewable energy can be a big industry but to say that renewable energy is a great opportunity to take responsibilities towards the environment.

In Denmark many private persons have their own wind turbine or a solar energy system. And I think the private initiative in the small societies on the countryside, can be a very important tribute to the developing of renewable energy.

I could imagine that more people went together in the investment of the example wind turbines. The occurrence of private initiative in the small societies can be an important factor in the developing of renewable energy on a higher level.

I can tell you that there is a lot to be done. Just look at these numbers. They show that Germany, Spain, UK and Denmark have capacity to produce almost all the wind energy in the EU.

If we in the villages can push to a developing for renewable energy perhaps we could have homogeneity in state or EU subsidies. I believe that Wind Turbines have great opportunities in the future as an energy resource and in our struggle for a lower CO<sub>2</sub> pollution.

Another opportunity and perhaps an easier one are the use of solar energy. A solar heating system is an easy and environmental friendly energy resource for heating water.

When you have a normal use in a family a 1-1,5m<sup>2</sup> solar collector per person in a family will be enough to cover the need for warm water in the summer and about 2/3 in the rest of the year. And mark you that are in the cold Danish climate. There must be great opportunities in a warmer climate.

Solar collectors still are so expensive to produce that it will take some years to earn the investment. But the environmental profit is great.

As a last comment, I will conclude that there are no other way to go than to give renewable energy a major place in the market of energy.

But we can't rely on others to do the framework we have to start in our own households.