

Samsøe, Denmark's Renewable Energy Island

- Goals, Status and Examples

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In 1997 Samsøe was chosen as "Denmark's Renewable Energy Island", and the objective is, that the total heating-, process- and electricity consumption can be covered by Renewable Energy (RE).

It's not possible to cover the transport energy by RE, but it's an objective, to save 20 % of the consumption. As a compensation it's an objective, to establish an off shore wind-farm in the year of 2002. In the long term it can be a possibility, to use electrical cars, hydrogen and bio-gas in the transport system. But we don't know yet, how to deal with the ferries and the heavy transport.

Status and possibilities

Heating:

The heating systems in 1996 was:

- 13 % District heating based on straw,
- 2 % Individual heating based on straw and wood,
- 85 % Individual heating based on oil and electricity.

The possibilities is:

To save 20 % and supply the rest by RE:

- 65 % District heating based on straw, wood-chips, bio-gas, solar-heating and surplus heat,
- 35 % Individual heating based on straw, wood, wood-pellets, solar-heating, heat-pumps and (wind)electricity.

Electricity:

The electricity supply in 1996 was:

- 5 % based on 8 small Windmills
- 95 % based on coal.

The possibilities is:

To save 25 % and supply the rest by RE:

- 75 % based on 13 large windmills (to be established in 2000) and 5 small existing windmills,
- 25 % based on combined heat- and power-plants (bio-gas).

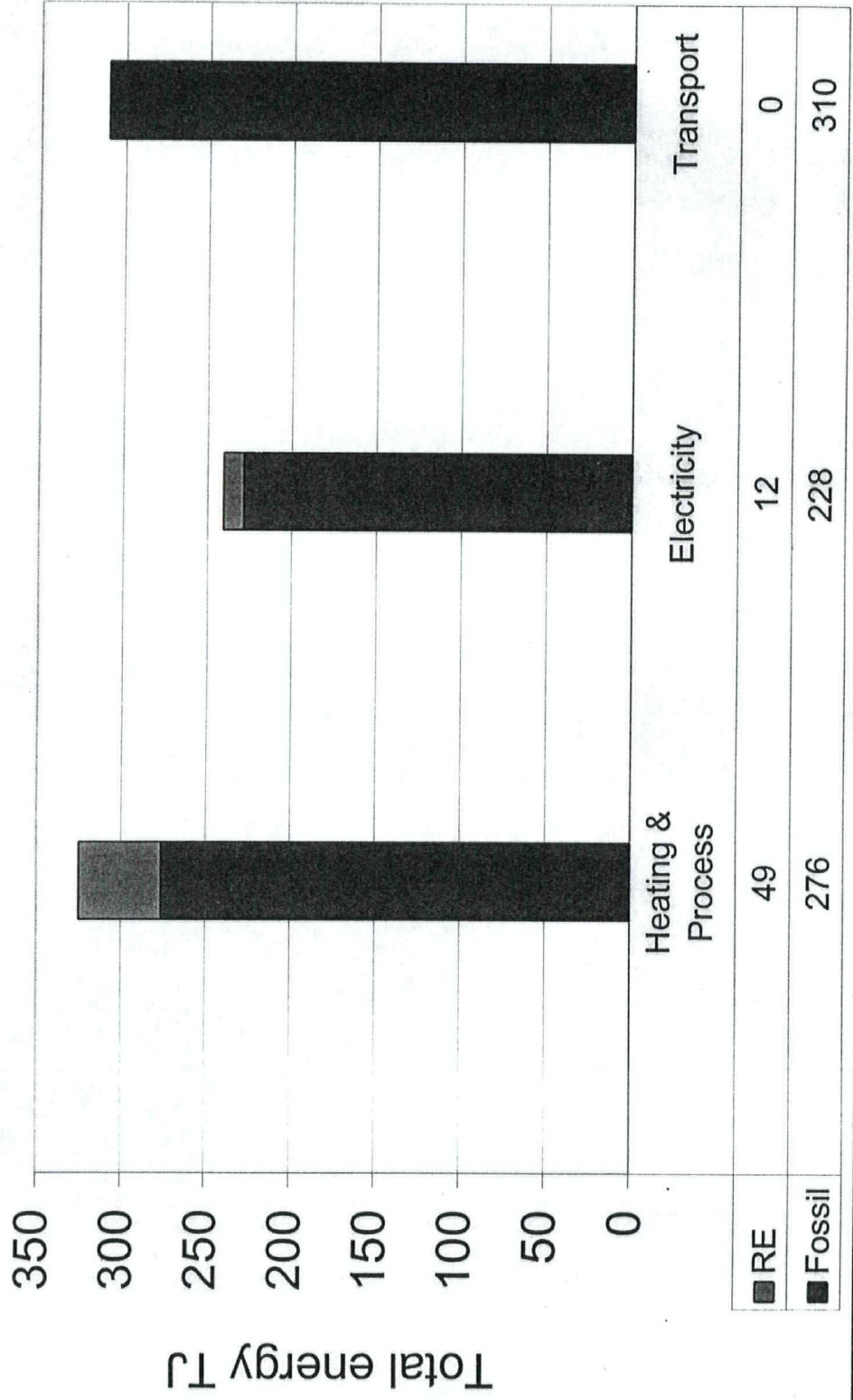
Activities and organisation

The overall project started up in the late summer '98. As mentioned we are planning to establish land-based and off-shore wind-farms in the period of year 2000 – 2002.

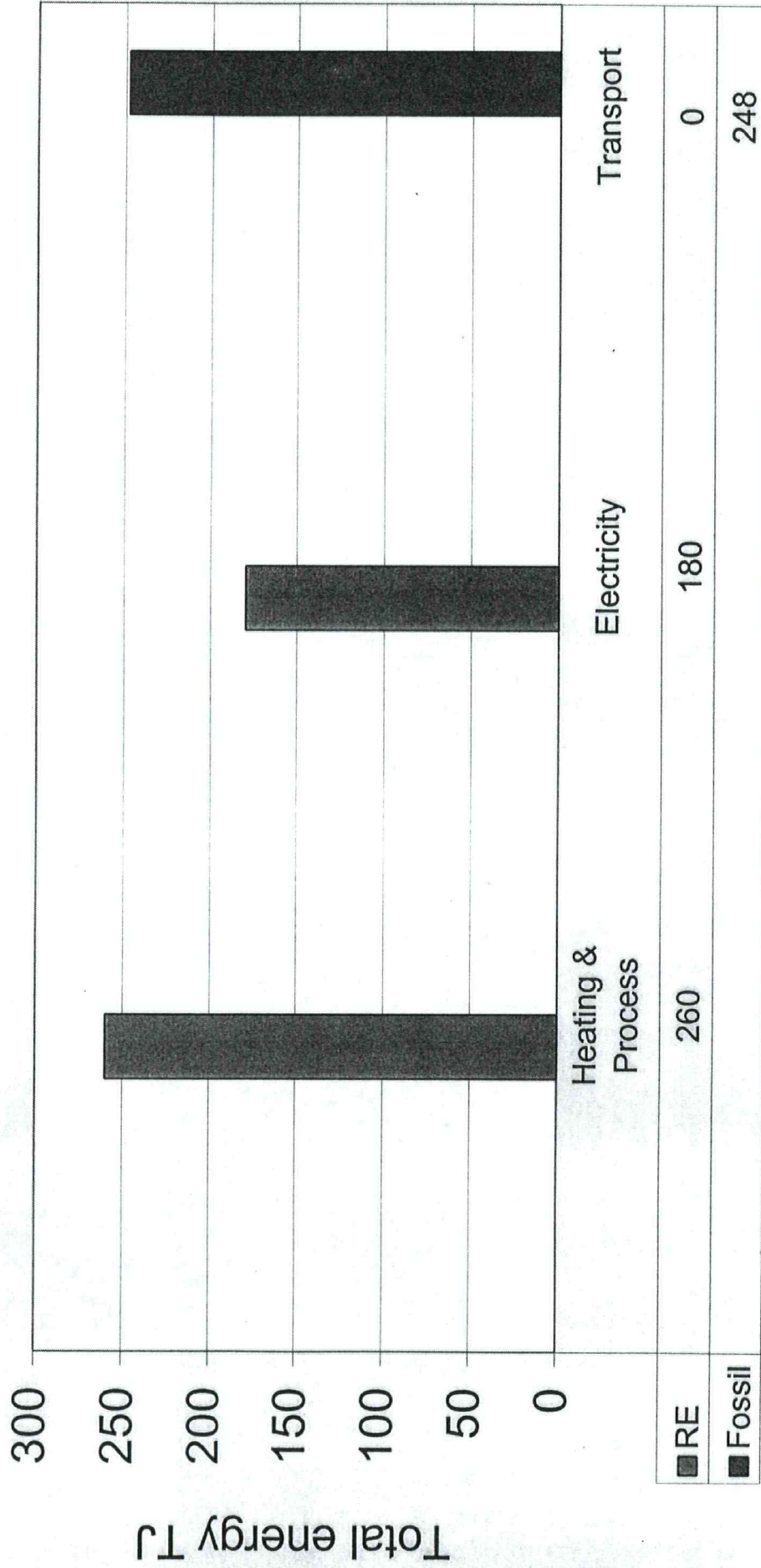
Just now we have an intensive planning, in co-operation with two groups of "consumers represents" and the regional utility company ARKE, to establish two new district heating systems. It's the plan, that the four villages ^{involved} shall be supplied from two wood-chip/solar-heating- and straw/bio-gas plants. The project shall begin in this autumn and the district heating supply shall start up in the year of 2001 and 2002. That means, that the district heating supply in the year of 2002 has increased from 13 % to approximately 27 %.

*it's the plan to supply the 4
villages involved from two plants,
one wood-chip/solar heated
and the other from straw/bio-gas.*

Status



Possibilities



We have made campaigns for individual solar heating systems with the islands blacksmiths. The results will be, that we in '98 and '99 have installed nearly fifty smaller solar plants. In the same period a lot of the islands buildings has been re-constructed with new thermal windows, insulation and so on.

Economy and jobs

To day is the situation, that we use round 50 million d.kr. pr. year importing fossil energy to Samsøe. Its an objective, that a great part of this money shall stay on the island to strengthen the local economy. In the same way its an objective to create up to 30 new jobs on the island.

Information

For more and further information, You could look at our Homepage

<http://www.samsø.com/ve/uk/>