Solar energy

Annual General Meeting 27 April 2006 Executive Vice President Speciality Materials, Ole Enger



Solar energy at Orkla

- Silicon is the most suitable material for converting solar power directly into electric power
- Solar cell technology largely comes from the electronics/computer industry, to which Elkem has been the world's biggest supplier of silicon
- Elkem has been working on the development of solar cells for 20 years







Why use solar energy as a power source?

- Renewable and non-polluting
- Production is highest when consumption is highest, needs many hours of sunshine
- Production can take place where the consumer is located, avoids the cost of transmission through the power grid
- Long life and little maintenance (no moveable parts)
- But: at present the costs are twice as high as for other energy sources



Today's consumption is based on incentives, but the costs are becoming competitive





Solar energy is becoming an important industry based on high historical growth and high expectations

Historical growth and probable future growth GWp installed capacity per year



Market value of selected solar energy companies As of 24 April 2006

- Suntech Power: USD 5.6 billion 10 22 times
- SolarWorld: EUR 3.6 billion
- turnover in
 - Q-Cells: EUR 2.9 billion²⁰⁰⁵
- REC (post issue): NOK 34.1 43.5 billion



Orkla's starting point in solar energy two industrial options





Further development of solar energy at Orkla

- The solar cell industry is one of the most rapidly growing industries in the world
- Solar energy can be an important source of electricity in countries with plenty of sunshine
- Silicon-based technology is dominant today and is expected to remain so for the next ten years
- The industry is currently subsidised. In the longer term, solar energy must be competitive without subsidies if it is to be an attractive industry. We consider this to be feasible
- Through Elkem and REC, Orkla has good positions and considerable expertise throughout the value chain. That is why Orkla is investing in solar energy



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