

Energy efficiency in Sweden

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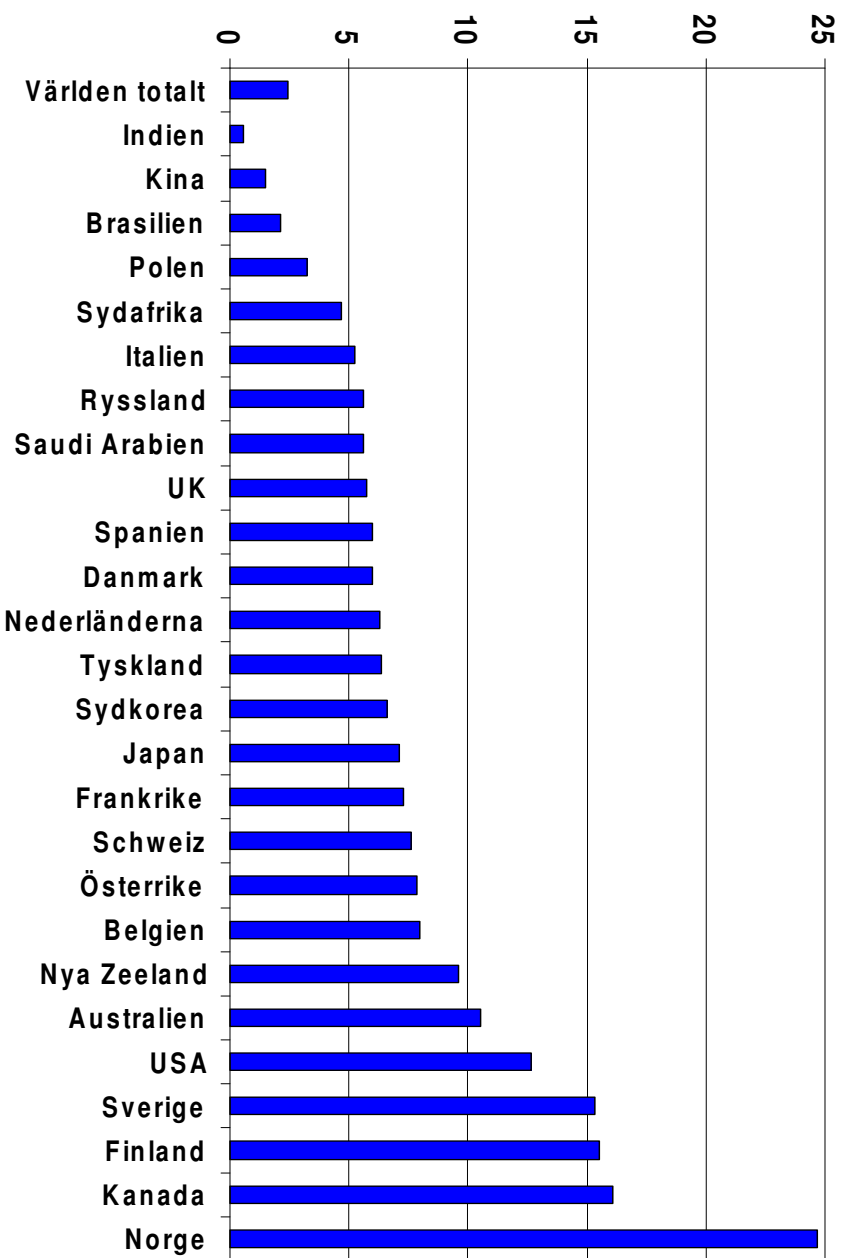
Chairman of SEROs energy efficiency
department



Sweden can save 50 TWh electric energy

- Sweden has lowered its consumption from 150 TWh 2001 to now 142 TWh/year
- A Swede consumes twice as much as a Dane, German or British citizen.
Thus the potential for energy savings in Sweden is favourable

Electric consumption/capita



Savings of 50 TWh/year electricity in Sweden

10-15 TWh electric heating

15-20 TWh in industry

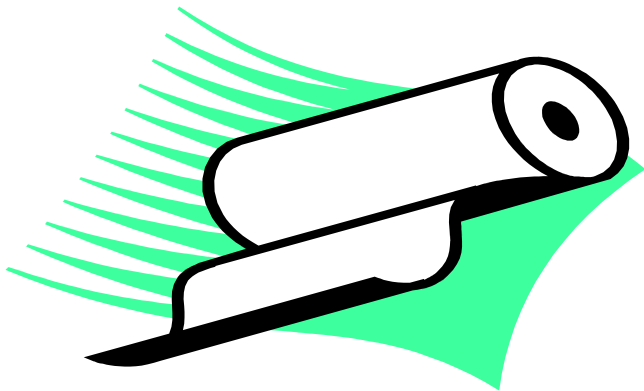
9 TWh in lighting

6 TWh in white goods

5 TWh in office equipment

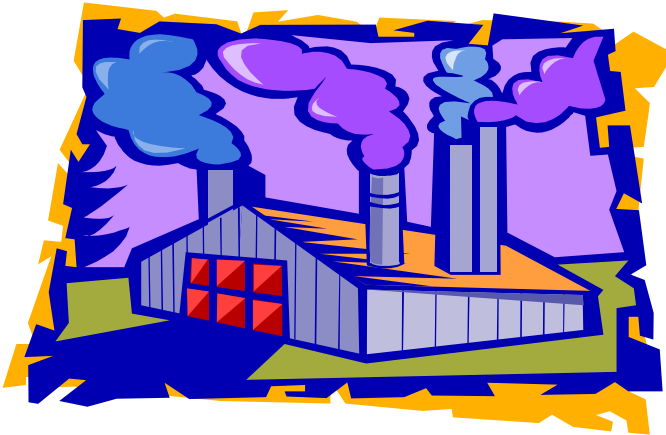
Savings in the paper industry

Efficient mechanical pulping	3 TWh
• Efficient pumping	2,5 TWh
• Efficient fans	1 TWh
• Efficient motors	0,5 TWh
• Others	<u>>0,5 TWh</u>
Sum	>7,5 TWh/year



Industrial savings

- **Pulp and paper** >7 TWh
 - **Mining, Steel, Chemicals** 3-4 TWh
 - **Other industry** 5 -8 TWh
- Sum** **15-20 TWh/year**



Lighting



- Light Emitting Diodes, LED,
 - will soon deliver
- Compact fluorescent lights
Incandescent bulbs

200 lm/Watt

60 lm/W

10 lm/W

Lighting controls, e g occupancy detectors

Potential savings in Sweden 9TWh/year

White goods



Today's white goods and other appliances consume only half of the energy of those from 1990

- Potential savings according to Chalmers 2005, incl. washing machines, 6 TWh/year

Offices

- Office equipment
 - < 0,5 -1 watt in standby in future
 - . New computers etc only consume < 50 % of those today
 - . Monitored heating and ventilation

Sum: > 5 TWh/year

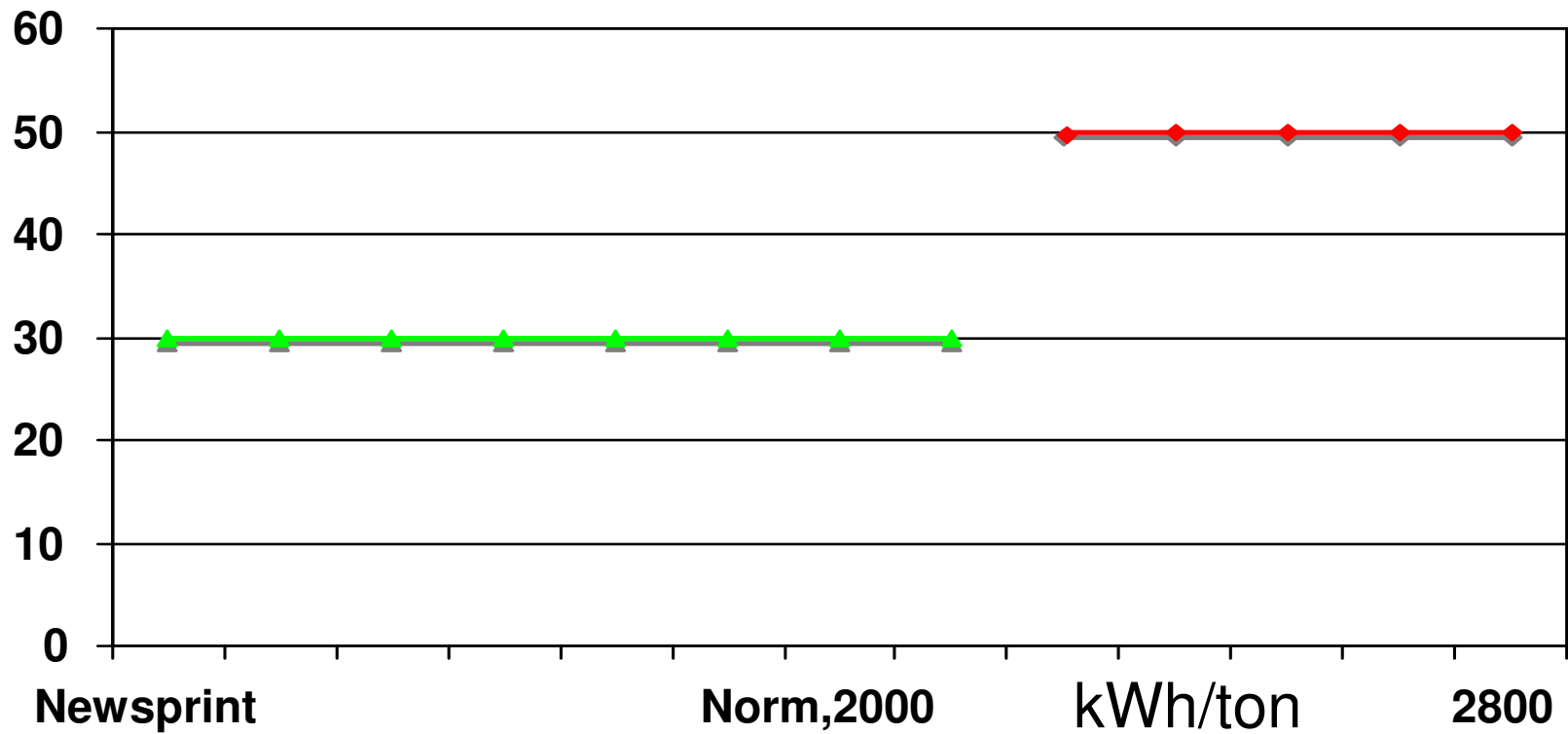


How to achieve the savings ?

- Progressive taxes on consumption based on energy standards and norms
- Flexible transmission charges
- Public sector shows the way
- Technology procurement

Progressive "taxes"

- Price/kWh



Conclusion

Sweden can 2020 rely on only renewable energy for its electric consumption

