



Making Sweden an

OIL FREE

Society



The Association of Swedish Energy Advisers

- Non-profit and non-governmental organisation
- Founded in 1982
- Purpose: information and promotion on energy efficiency and renewables
- 500 personal members
- 20 companies

Det är vi
som driver
utvecklingen
framåt!



SIEMENS



E.S.S.

Energi Spar System HB



Retermia

Värmeåtervinning



Regelab

ECiS



BEKAERT

Brunata



*Energi
Effektiviserings
Företagen*

**Energy
Efficiency
Watch!**



Commission on Oil Independence

Chairman:

Prime minister **Göran Persson**

Delegates:

Professor **Christian Azar**, Chalmers University of Technology

Lars Andersson, government investigator on bioenergy

Lotta Bångens, Chairman of Sweden's Energy Advisers

Birgitta Johansson-Hedberg, CEO, Lantmännen

Leif Johansson, CEO, AB Volvo

Göran Johnsson, former chairman of the Swedish Metalworkers Union

Christer Segersteen, Chairman of the Federation of Swedish Forest Owners

Lisa Sennerby-Forsse, Secretary-General, Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning

Staff:

Stefan Edman, biologist, writer

Anders Nylander, architect, expert on energy

The commission was requested
to

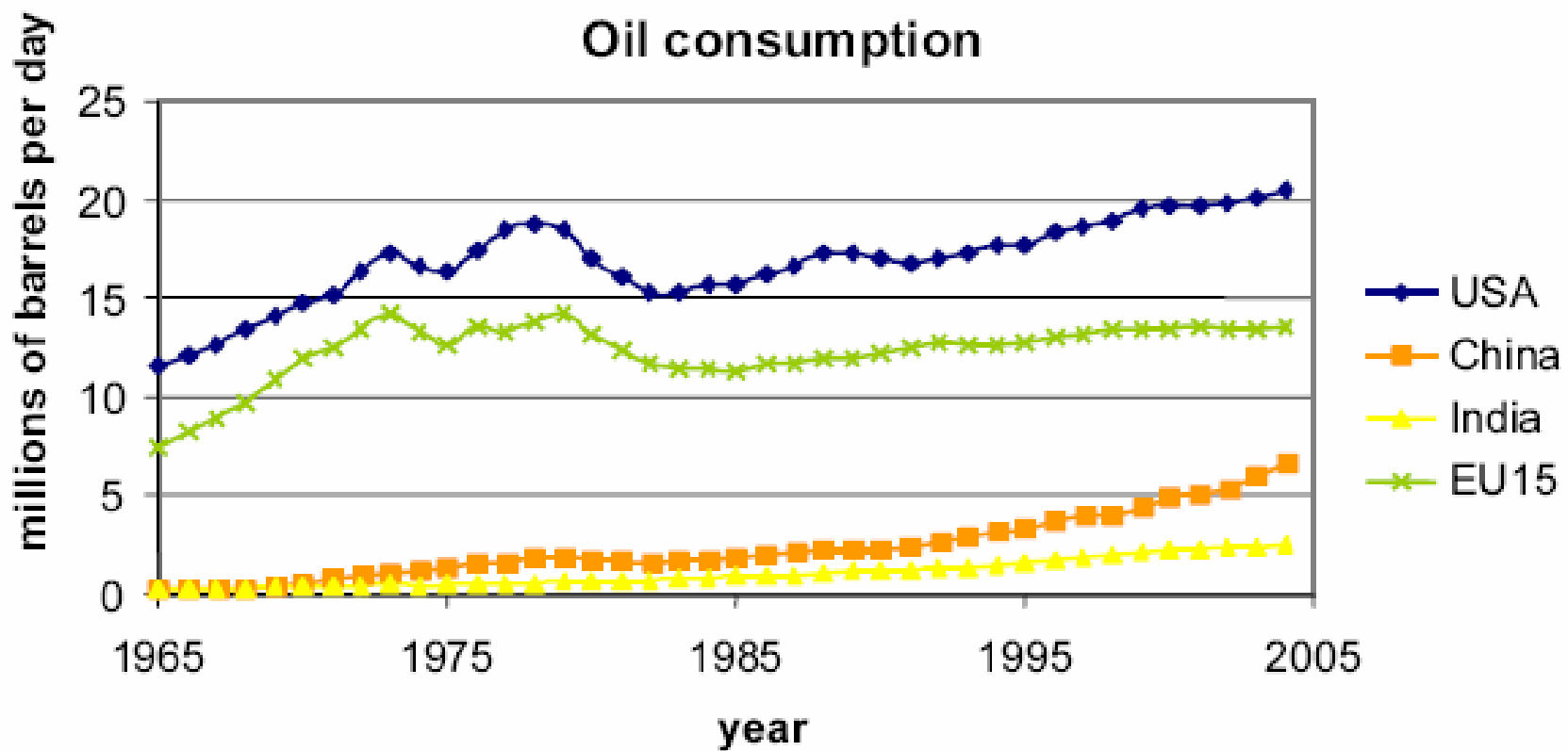
**“ find the best strategies for reducing
dependence on oil and actual use of oil in
Sweden by the year 2020”**

Five national objectives for reduced oil dependence

1. We will reduce Sweden's climate impact
2. We will secure Sweden's supply of energy in the long term
3. We can become a leading nation in the development of new technology for sustainable use of energy
4. We will strengthen our international economic competitiveness
5. We will use and develop the energy resources from forests and fields, "Sweden's green gold"

Goals

- Swedish society as a whole should be able to make 20 per cent more efficient use of energy by 2020
- By 2020 in principle no oil should be used for heating in residential and commercial buildings
- Road transport should reduce use of petrol and diesel by 40-50 per cent by 2020
- Industry should reduce its use of oil by 25-40 per cent by 2020



Oil consumption in some major countries. Source: BP World Energy Statistics

Use of Oil , 2004, by sector

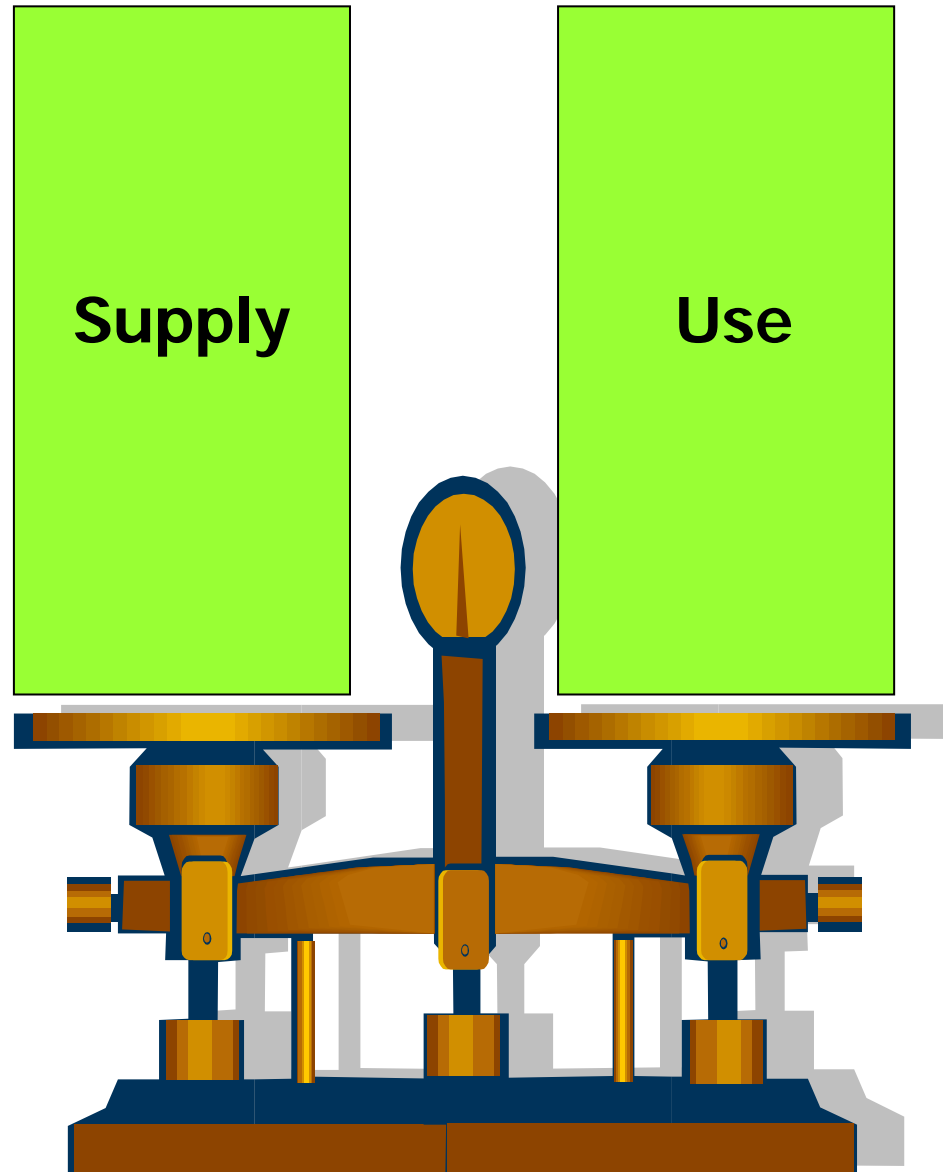
Sector	Oil use	
	Transport	97 %
Agriculture, forestry, fisheries	70 %	7 TWh
Building sector	67 %	
Residential and commercial buildings	11 %	
Industry	11 %	
Production of District heating	8 %	
Service sector	6 %	
Production of Electricity	1 %	3 TWh

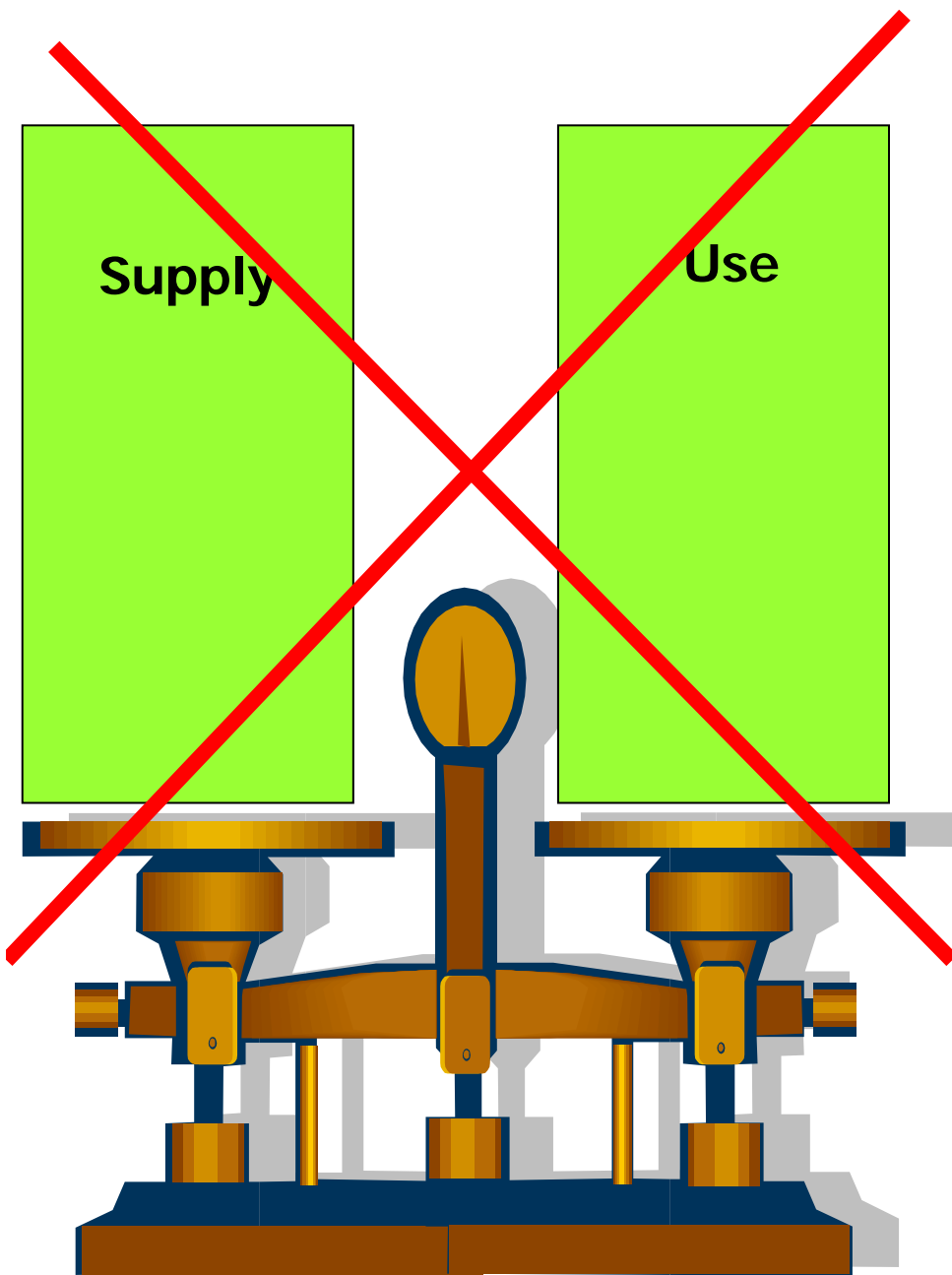
Bio energy potential (increase)

År	2020	2050
TWh	46	120

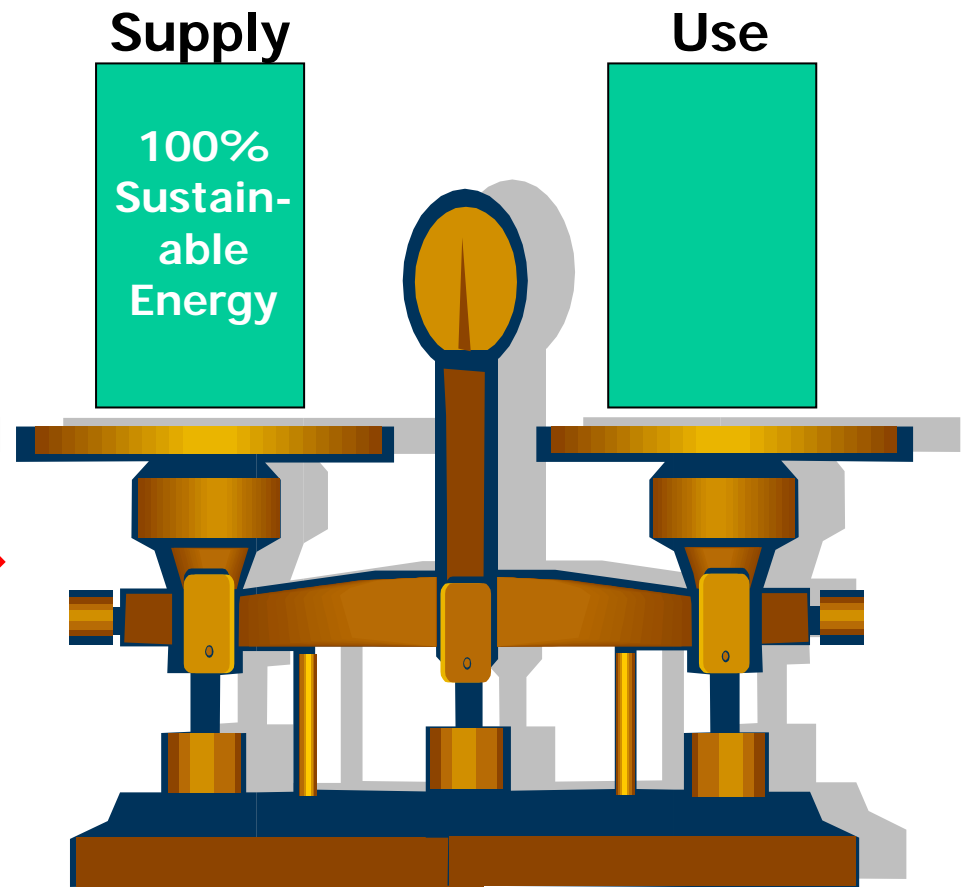
TOTAL 142 TWh

Sustainable Energy System?





Sustainable Balance



The Five Strategies:

- Radically more effective use of energy by the whole of society
- Historic investment in forest fuels and energy crops
- Electricity for a sustainable supply of energy
- The role of energy gases
- Control instruments at EU level

Effective use of Energy

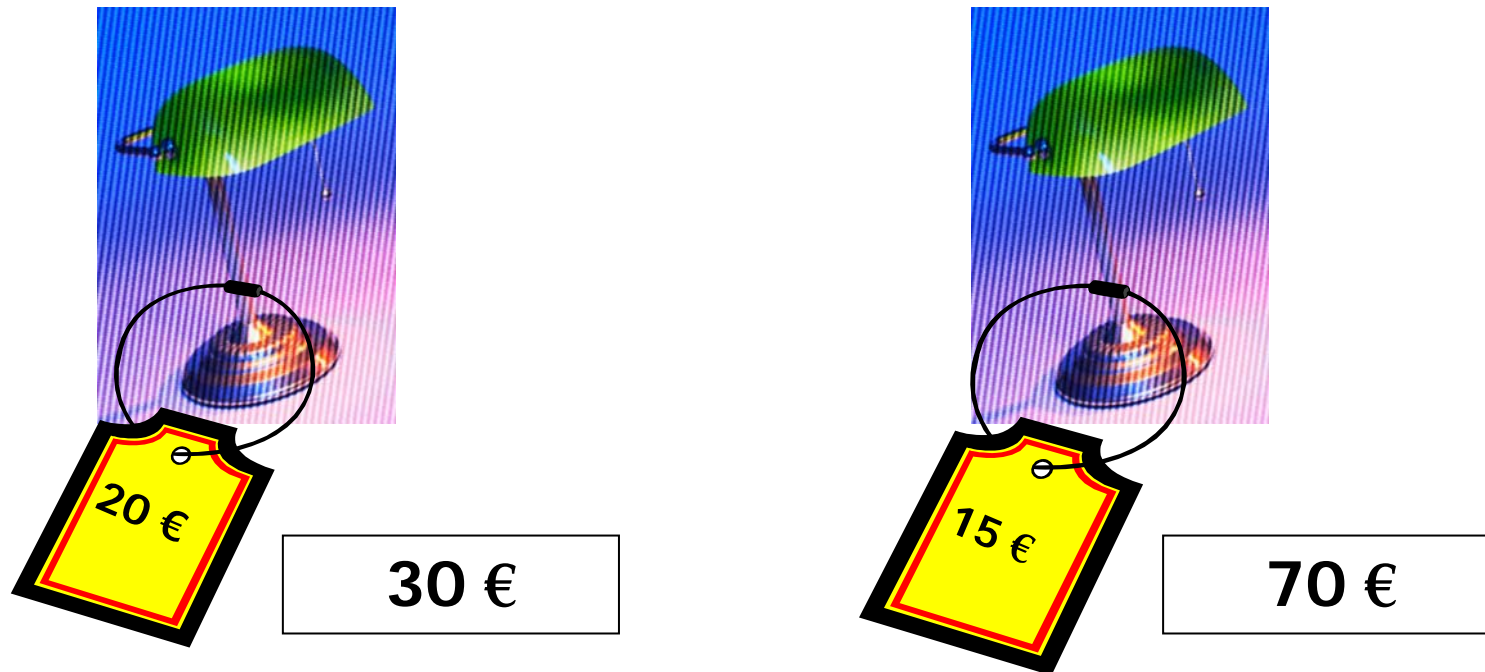
- **"Energy Efficiency Center"**
- **Swedish society as a whole should improve energy efficiency by 20 per cent by 2020**

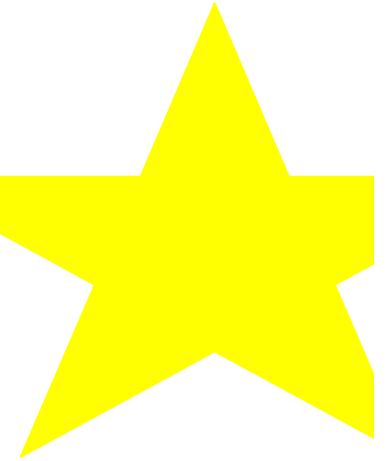
This implies an average annual 1.5 per cent increase in energy efficiency



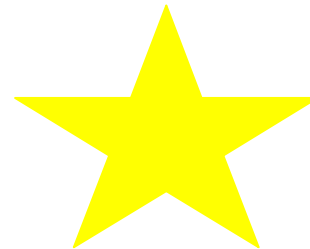
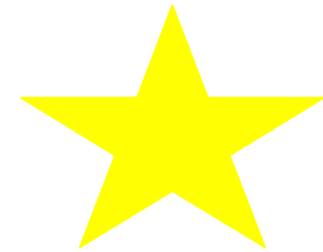
Energy Efficiency is invisible!

- ... but shows in your wallet





**Increased production of
electricity by
25 TWh**



Residential and Commercial Buildings

- New Buildings
 - 75 % low energy houses by 2020
 - Tightened building regulations
 - Energy-related deductions on real estate tax
- Reconstruction
 - Requirements for improvement of energy efficiency

Residential and commercial buildings

- Electricity for heating
- Voluntary agreement for building owners
 - Reduction in taxes when implementing measures (directive on energy performance of buildings)
- Public sector as shining examples
 - Procurement & purchasing
 - Measures (from the directive on energy performance of buildings) mandatory

Historic investment in forest fuels and energy crops

- Forest growth be increased in the long term by 15-20 per cent
- Energy crops and energy broad-leaf trees to be cultivated on arable land and disused, nonafforested farmland on a scale of 300 000 – 500 000 hectares
- The Government invest funds to stimulate procurement of technology as well as production facilities for the manufacture of fuels

Electricity for a sustainable supply of energy

- Energy efficiency in industry
- Increased production of domestic renewable electricity
 - Wind power
 - CHP
- Reduced consumption of electricity for heating buildings

Energy gases

- The Commission proposes that the Government does not actively commit itself to increased use of natural gas in Sweden in the future
- The Government should support local and regional infrastructures for bio gas

Control instruments at EU level

- The Commission proposes that Sweden contributes to a gradual tightening of the EU emission trading system.
- Objective - total emissions in the trading sector will be 25 per cent lower in 2020 compared with 1990

Transport

- Encourage a more energy efficient fleet of private cars!
- More efficient legislation
 - CO₂-based tax
 - taxation of company cars should promote efficient cars
 - Energy- and CO₂-tax on fuel
- A higher proportion of modern diesel vehicles
- More hybrid vehicles
- Fuel efficiency should be included as an essential requirement in connection with environmental classification of cars
- Improve the efficiency of goods traffic
- Make public transport cheaper and more attractive!
- Strengthen the role of the train!



What happens
now?



Energi
Rådgivarna
FÖRENINGEN AV SVENSKES ENERGI RÅDGIVARE



Tack så mycket!



Energi
Rådgivarna
FÖRENINGEN AV SVENSKES ENERGI RÅDGIVARE