

Sustainable Energy Vision 2050:

Vision2050 is INFORSE's campaign for a global transition to renewable energy by 2050. Possible? Realistic? Historical Change in the Industry?

Sounds good ! Is it realistic? Yes it is ! How is it possible to achieve it ?

! - By 2050, the fossil-fuel resources will be seriously **depleted**, and consequently will become gradually more and more expensive, which will make the renewable-energy technologies more competitive.

! - By 2050, the **renewable-energy technologies** will be **cheaper and cheaper** as their mass production increases.

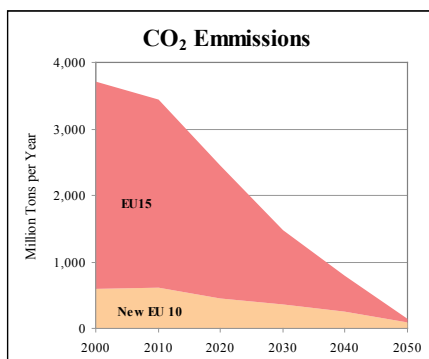
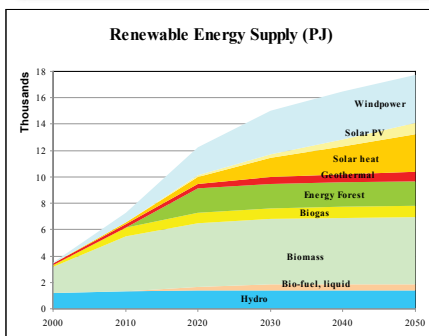
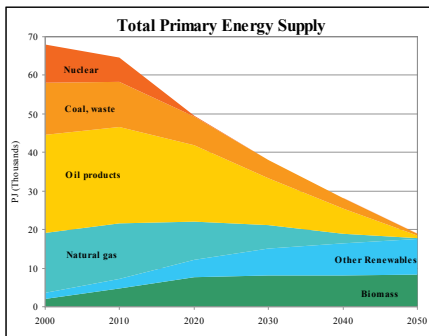
! - By 2050, the **amount of energy** to be supplied can be only **one fourth** of the present, in spite of growing population and increasing consumption in the poorer parts of the world. This can be realised if best available technology is used for energy efficiency.

! - By 2050, there will be **no new nuclear power** plants built, and the present reactors will be closed. This will be the result if states face the costs of handling of the nuclear waste, other costs to meet higher standards of radiation protection, and the liability of nuclear installations. Currently there is no insurance company that will pay in case of nuclear accidents.

Political Will and the Civil Society's Responsibility

We need to make politicians aware of the opportunities for sustainable-energy development. Moreover, we need them to give priority to this aim; they must come to realize that it is cheaper in the long term to invest in renewable-energy production and research than to hang on traditional fuels as supplies decline to the extent that scarcity starts to cause wars, which are even more expensive for a state. Unfortunately, politicians are short-sighted and influenced by large industrial lobbies, which fight to protect their huge incomes. NGOs, as representatives of civil society, have a big responsibility to push the politicians onto the sustainable-energy path.

Industry also has to face the need for change in the face of an emerging trend toward renewable energy technologies combined with energy efficiency. It would not be the first such change in industrial history; see, e.g., the abandonment of coal mines and coal plants in many places of the world.



Graphs of the Vision 2050 for EU-25. The excel-based model of the INFORSE Vision 2050 is a tool to demonstrate that the shift is technologically and economically possible if there is sufficient political will.



More information: <http://www.inforse.org/europe/Vision2050.htm>

Global Scenario

INFORSE started its work with visions in 2000 based on scientific studies on how to supply the world with 100% renewable energy by 2050, in particular the Global Renewable Energy Scenario by prof. Bent Sørensen of Roskilde University and others. It finds that with a world population of 9.4 billion in 2050, all basic energy and food needs can be met with renewable energy and with efficiency increased by a factor of 4 to 8.

INFORSE presented its global vision in 2001 at CSD9 and later at a number of other events.

Vision to the EU Countries

INFORSE-Europe members have worked on sustainable energy visions for several years, such as the Danish Organisation for Sustainable Energy's vision from 1998 for phase-out of fossil fuels by 2030. In 2002, INFORSE-Europe started the development of a sustainable energy vision for the 15 EU countries, showing decade-by-decade the transition to sustainable energy with 100% renewable energy use in 2050. In the work we used INFORSE studies such as the "Wind Power for Western Europe", and guidelines for estimation of renewable energy potentials in Europe. In 2003, INFORSE-Europe started to develop national sustainable energy visions, starting in Slovakia, Ukraine and Romania, followed by Belarus in 2004, Denmark in 2005, Lithuania in 2006, and Latvia in 2007. In parallel, the EU vision was expanded to include 25 countries in 2004 and is now expanded again to include Romania and Bulgaria.

The visions combine realistic growth of renewable energy, high priority for cost-effective efficiency, and sustainable transport. Their targets include:

- 25% renewable energy by 2020 in EU;
- 40% and over 95% respective shares of renewable energy in 2030 and in 2050;
- emphasis on wind-power and biomass in the first decades, and later in the period, predominant growth in solar technologies.

End-use efficiency would be expected to increase by a factor of four by 2050, except for houses, for which the increase is limited to 57%.