

Title: Energy Conservation Programme 2003–2006. A Working Group Proposal.

Summary

The updating of the Energy Conservation Programme is closely related to the need to further intensify measures for promoting energy conservation that was highlighted in the debate in Parliament on the National Climate Strategy and building of a new nuclear power plant. The Working Group with responsibility for the preparation of the updating has made an assessment of the implementation and impact of the previous Energy Conservation Programme and sought to come up with new measures and ways of increasing the effect of the actions in the previous programme. The main instruments presented in the updated programme are developing new technologies, economic instruments, energy conservation agreements, laws and regulations and information and training.

The programme comprises proposals for increasing the budget for energy subsidies for companies and bodies and finding new formulas for the funding of energy saving investments. Further, the aid for the renovation of buildings is proposed to be enhanced. More effort is also needed as concerns disseminating information on energy saving. The development of new technologies requires that the funding from the National Technology Agency (Tekes) for energy efficiency is kept at least at the level of 1999. An implementation of the measures proposed would require a contribution from the state amounting to about € 80 million per year.

The system of Energy Conservation Agreements is proposed to be further extended and developed. The agreements could to a larger extent than before cover research and product development processes and processes for purchasing of goods and services. The Working Group proposes further examination of the possibility of imposing binding targets and applying sanctions.

Energy taxation is proposed to be developed further in order to promote energy saving and co-generation with the impact of the future Directive on emission allowance trading in mind. New research and development projects are proposed to be launched in order to promote energy saving in transport and energy efficiency in the community structure. The Working Group also proposes considering the possibility of further strengthening building regulations. For the improvement of the information on energy saving, the Working Group proposes drawing up of a communication plan for the programme period.

The programme proposed by the Working Group is estimated to save Finland the emission of some 4–6 million tonnes of CO₂, depending on the fuel to be replaced, in comparison with the basic scenario for 2010. The programme is estimated to result in a 4–6 percent reduction in the consumption of primary sources of energy in 2010 compared with a situation where no new actions were taken.

The Working Group proposes setting up of a monitoring group for the implementation and monitoring of the impact of the programme. The data obtained from monitoring will be published in connection with the monitoring of the implementation of the climate strategy. The Working Group considers that the measures proposed should be subjected to a new evaluation in connection with the national introduction of the EU scheme for emission allowance trading.

Key words:

Energy saving, climate change, working group, programme

Energy Strategies and Action plans in Finland

- The Finnish Energy Strategy (Gov.) 1992
- Action Plan for Energy Efficiency (Gov.) 1992
- Action Plan for Energy Efficiency (Gov.) 1995
- The Finnish Energy Strategy (Gov.) 1997
- Action Plan for Renewable Energy Sources (WG) 1999
- Action Plan for Energy Efficiency (WG) 2000
- National Climate Strategy (Gov.) 2001 (incl. APRE 1999 & APEE 2000)
- Action Plans for Energy Efficiency and Renewable Energy (WG) 2002
- Revised National Climate Strategy 2004 (incl. APEE 2002 & APRE 2002)

17.3.2003 / Erkki Eskola

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Objectives

- Energy efficiency measures will be intensified and the growth of energy consumption should be stopped in the long term.
- Renewable energy targets as defined in the Climate Strategy are still quite challenging but more specified targets shall be set to different forms of bio energy

Economic incentives

- Financing of new technology R & D at a level of today
- Subsidies for investments, priority areas are bioenergy and electricity saving
- New forms of financing are studied
- More subsidies for renovation of buildings
- Promotion of the production of forest chips

Energy efficiency & renewables WG - proposals, December 2002 (2)

Taxation

- Taxation will be developed to promote energy efficiency and renewables taking into account the coming EC-directive on emission trading
- Subsidies through taxation to green electricity will be developed further

Green electricity

- Green electricity certificates are considered and purchase obligations for grid operators are studied
- Regulations for entering to the grid and for the division of costs will be worked out for decentralised production

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Voluntary agreements

- Voluntary agreements will be developed – measures to make them more effective are considered
- Promotion of renewable energy will be integrated into the agreement system

Regulations

- Building codes are developed to make new buildings more energy efficient
- Proposal for Energy Efficiency Act will be prepared
- Obligations for energy utilities to inform the customers about energy efficiency measures

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Other measures

- Community planning is developed to increase energy efficiency
- Projects are carried out to increase energy efficiency in transportation
- Information and education activities are developed (Motiva)
- Development of follow-up activities

Renewable energy targets for 2010

<u>Energy source</u>	<u>2001 (PJ)</u>	<u>2010</u>
• Small scale wood (not forest chips)	45,8	1,2-times
• Forest chips	9,4	4-times
• Small scale hydro power	4,1	2- times
• Heat pumps	2,7	2,5- times
• REF (RES-part)	1,0	10- times
• Bio gas	0,75	6- times
• Wind power	0,25	16- times
• Solar energy	0,02	16- times
• Agribiomass, liquid biofuels	0	(5 PJ)
RENEWABLE ENERGY TOTAL	317 (7,6Mtoe)	1,3-times

Effects of energy efficiency measures

Sector	2001	2010 basic scenario	NCS+ESP 02 saving in 2010	NCS+ESP 02 saving in 2010 %
Electricity (TWh)	81,2	90,5	2,4-3,7	3 – 4 %
Fuels (PJ)	851	930	46-70	5 – 7 %
Primary energy (PJ)	1364	1510	63 - 96	4 – 6 %



Energy efficiency & renewables, WG-proposals for public financing

Form of financing	2001 M€	2003-2010 Climate strategy average M€/a	2003-2010 New proposals average M€/a
Financing of new technology R & D	35	48	48
Subsidies for investment & energy audits	21	44	59
Tax subsidies for renewable electricity	42	50	55
Subsidies for renovation of buildings	5	10	25
Subsidies for forest energy	2,7	(8)	8 (preliminary)
Information activities	2,5	3,4	5
Total	108,2	163,4	200

