4 February 2010

Government Decision on Energy Efficiency Measures

Background

International analysis show that improving energy efficiency is the most effective way of reducing greenhouse gas emissions, both globally and within Europe. Energy conservation measures are often cost-effective and economically viable.

The promotion of energy efficiency in Finland and the measures this requires are increasingly based on the common objectives set within the European Union. Efforts to achieve the EU's energy efficiency objectives are being made through, for example, regulations promoting energy services and the energy efficiency of equipment, buildings and vehicles. Trading in carbon dioxide emissions also provides incentives for improving energy efficiency. Furthermore, obligatory renewable energy targets and the target for reducing greenhouse gases outside emissions trading require substantial efficiency improvements in final energy consumption.

In November 2008, the Government approved the Long-Term Climate and Energy Strategy. In June 2009, Parliament issued its statement on the strategy. The strategy outlines the definitions, objectives and measures of the Finnish climate and energy policy.

The objective set for Finland in the Climate and Energy Strategy of the Government entails halting and reversing growth in energy end use. Compared to the projected position that would arise if no new measures to improve energy efficiency were taken, the goal is to enhance final energy consumption by approximately 37 TWh, i.e. around 11%, by 2020. Correspondingly, the efficiency of electricity consumption must be enhanced by some 5 TWh, representing approximately 5%. The longer-term vision entails a further decrease in final energy consumption by 2050 of at least one third of the 2020 level.

The foresight report approved by the Government in October 2009 deals with climate and energy policy in the longer term. This report sets the enhancement of energy efficiency and energy conservation as a priority in reducing emissions, with the goal of reducing greenhouse gases by 80 per cent from 1990 levels by the year 2050.

Preparation of energy efficiency measures

In the spring of 2008, the Ministry of Employment and Economy set up a broad-based committee to prepare new energy conservation and energy efficiency measures in accordance with the climate and energy strategy. The committee report, completed in June 2009, includes 125 measures for the period between 2009 and 2020.

Most measures will require further preparation prior to their implementation. The most appropriate implementation methods will be assessed during the course of further prepara-

tion. At the same time, alongside energy conservation and efficiency aspects, other impacts – including health-related ones – will also be taken into account. Cost-efficiency, viability and impact are key factors in the planning and implementation of such measures.

The Government's general outlines

On the basis of the committee's proposals, the Government decides the following policy lines and measures. In this way, the climate and energy strategy's objectives in pursuit of greater efficiency in energy use will be achieved.

Challenging objectives cannot be attained by implementing individual measures alone, but society as a whole must undergo fundamental change. A range of conditions and measures must be in place for the achievement of such goals. These conditions form the broad-based and far-reaching basis of all activities.

Although the impact of basic measures will be gradual, continuous effort must be invested in their implementation. Measures in support of such effort must be launched in every administrative sector. This is the only way to ensure that the basic prerequisites for energy efficiency are in place.

The basis for activities consists of the following cluster of issues:

- A learning and developing society, underpinned by values and strong will, making determined progress towards the targets.
- Basic structures of the society are creating a solid foundation for future well-being.
- Behaviour and the networks affecting it are of huge importance with a view to the action taken – establishing the social potential for energy efficiency.
- Lifecycle thinking and the avoidance of partial optimisation become a natural part of energy efficiency activity, in which cost-efficiency has a special emphasis.
- Maintaining expertise and developing it continuously by means of education, advice and communication, as an essential part of any such activity.
- The functioning of the science-research-development-innovation chain holds a key position in generating valuable new solutions.
- The attainment of results calls for determined and continued activity, systematic implementation and a clear division of responsibilities.
- Generally accepted concepts and benchmarks are needed in the systematic monitoring of measures.
- Foresight and identifying weak signals will assist in remaining on the path to success.

In practice, this basis will be built and maintained through individual measures. These issues must be taken into account in any decision-making, programmes and activities related to energy efficiency. In order to ensure systematic implementation and a clear division of responsibilities, the organisation of activities must also be developed on the basis of the committee's proposals.

Implementation programme for 2010-2020

The measures will be launched in stages, with the aim of launching most of them by the end of 2011.

Generally speaking, the above measures require cooperation between various administrative sectors. EU cooperation will form an integral part of the implementation of many measures. Finland will actively participate in such cooperation, while promoting the development of rational and resource-efficient Community legislation and its efficient implementation. In addition, other forms of international cooperation will underpin the planning of national measures and the adoption of good practices developed in other countries.

In the following section, the measures have been grouped by area of activity, with those listed in bold font likely to be implemented by the end of 2011. Measures not marked in bold are either continuing measures or ones that will be implemented after 2011, but whose preparation and maintenance will be attended to over the next few years. The ministry responsible for the measure is given in brackets. In addition to the Government's outlines and responsibilities, other actors in the sector have significant responsibility for the implementation of most measures.

The Ministerial Working Group on Climate and Energy Policy will monitor the realisation of the implementation programme and its impacts. The first progress report on the programme's realisation will be drawn up in the spring of 2011.

A. Cross-cutting areas of activity

Basis for activities

- **In 2011, an independent expert will evaluate the current status of this basis from the perspective of energy conservation and energy efficiency. (Ministry of Employment and the Economy)**
- **The organisation of energy efficiency promotion will be developed. (Ministry of Employment and the Economy)**
- Including energy efficiency in the education programmes of educational institutions at all levels, as part of education on climate change and the promotion of sustainable development. (Ministry of Education)
- Ensuring the operability of the science-research-development-innovation chain, in order to generate and commercialise new solutions. (Ministry of Employment and the Economy, Ministry of Education).
- Reinforcing multidisciplinary research in such a way that different fields of scientific research develop their capabilities and produce basic information on structures, activities, consumer behaviour and creation of well-being in a society with significantly lower energy requirements. (Ministry of Education, Ministry of Employment and the Economy)
- Developing indicators that measure the development of energy efficiency in various sectors. (Ministry of Employment and the Economy)
- Enhancing cooperation between various authorities in order to increase cohesion in community structures. (Ministry of the Environment, Ministry of Transport and Communications)

Development of research and innovations

- **Launching a network of various actors promoting energy efficiency innovation that seeks, screens and advances development ideas on energy efficiency. (Ministry of Employment and the Economy)**
- **Launching a research programme or project entity with a strong focus on energy efficiency. Behavioural research will be tied to research on energy ef-**

ficient technology and innovations. (Ministry of Employment and the Economy)

Communication, advisory services and education

- **A system for providing consumers with advice on energy-related matters will be introduced and a national coordination centre will be designated for it. (Ministry of Employment and the Economy)**
- **The advisory network for renovation construction, as well as overall communications related to renovation construction, will be developed, taking account of the perspective of energy efficiency in buildings. (Ministry of the Environment)**
- **Energy efficiency classifications for cars will be introduced in car retailing. (Ministry of Transport and Communications)**
- **Energy companies will be required to provide consumers with feedback information on their energy consumption. (Ministry of Employment and the Economy)**
- Ensuring the integration of energy efficiency and energy conservation skills in vocational additional and supplementary training in various fields. (Ministry of Employment and the Economy, Ministry of Education).
- Energy efficiency practices and model solutions from various fields will be gathered and distributed for implementation elsewhere. (Ministry of Employment and the Economy)

Public sector

- **The public sector will serve as a strong example to others in the promotion of energy efficiency. (Ministry of Employment and the Economy)**
- **A framework act and decrees on the energy efficiency of public sector will be enacted and implemented in a timely manner. (Ministry of Employment and the Economy)**
- **By the end of 2010, the Ministry of Employment and the Economy will devise a plan for energy efficiency, which will serve as a model for other state organisations and municipalities.** Plans for other administrative sectors will be completed during 2012. (Ministry of Employment and the Economy)
- In public procurements, energy efficiency will be introduced as a central criterion in accordance with the Government's decision on promoting sustainability in public procurements. (Ministry of Employment and the Economy)

B. Sectoral activities

Community structure

- **Alternative energy and community technology solutions will be promoted. (Ministry of the Environment)**
- **Drawing up regional climate and energy strategies and genuinely linking them to the steering of land use and the development of transport systems will be promoted. (Ministry of the Environment)**
- Assessment methods for evaluating the sustainability of the community structure, based on common concepts and indicators, will be developed to support decision-making. (Ministry of the Environment)
- Steering of the community structure will be made more effective. The necessary legislation and instruments for planning and implementation will be developed. (Ministry of the Environment)

- The steering of the community structure of large urban regions and the preconditions for the coordination of land use and transport will be improved through legislation, taking all zoning levels into account. (Ministry of the Environment)

Buildings

- **Stricter energy regulations for new building projects will be implemented in phases. (Ministry of the Environment)**
- **Renovation construction and, as part of this, the improvement of energy efficiency will be supported and encouraged through targeted economic steering and support measures. (Ministry of the Environment)**
- **Statutes will be used to steer the installation of apartment-specific water meters in new buildings. (Ministry of the Environment)**
- Requirements will extended to renovation construction on the basis of the directive under renewal on the energy performance of buildings. (Ministry of the Environment)
- Adoption of life-cycle based tools for building planning, use and maintenance will be promoted. (Ministry of the Environment)
- The development and implementation of operating models for the planning and customer-oriented realisation of renovation construction will be promoted, in cooperation with actors in the construction and real estate sector. (Ministry of the Environment)

Transport

- **Speeding up the renewal of existing car stock and promoting the adoption of new energy-efficient vehicle technology (incl. electric cars) introduced on the market. Central measures include developing taxation on cars, vehicles and fuel (Ministry of Finance), and introducing energy efficiency classifications for passenger cars (Ministry of Transport and Communications). These measures will be dimensioned so as not to stimulate an increase in the car stock.**
- Public transport will be promoted on the basis of the Public Transport Act that entered into effect in December 2009 and the public transport development programme for 2009-2015. Public transport structures, its scope and quality, and feeder traffic will be developed and road investments that support public transportation realised. (Ministry of Transport and Communications)
- Preconditions will be created for improving the energy efficiency of goods traffic. Trouble-free traffic connections to central logistics hubs will be developed by taking advantage of e.g. the opportunities offered by an intelligent transport system. (Ministry of Transport and Communications)
- Drawing up an action and financing programme for increasing the popularity of light traffic and introducing service centres for transportation. (Ministry of Transport and Communications)
- The need and impacts of road pricing will be studied. (Ministry of Transport and Communications, Ministry of Finance)

Households and agriculture

- **Regulations concerning energy-efficiency standards for equipment will be implemented. Efficient implementation will be ensured by sufficient communication. (Ministry of Employment and the Economy)**
- **An emphasis will be placed on promoting energy efficiency in outlining agricultural support systems. (Ministry of Agriculture and Forestry)**

- Promoting the introduction of energy efficient equipment in the market and investigating the adoption of even stronger economic incentives in order to increase energy efficiency measures. (Ministry of Employment and the Economy)
- Ensuring that households have access to reliable, up-to-date, unbiased information on energy conservation measures which are genuinely advisable and cost-effective in the context of our overall energy system. (Ministry of Employment and the Economy)
- Developing and introducing methods for metering and monitoring apartment-specific energy consumption. Consumers will be provided with comparable data on their energy consumption and on measures for improving its efficiency. (Ministry of Employment and the Economy)
- Ensuring the systematic implementation of energy programme on farms. (Ministry of Agriculture and Forestry)
- Energy efficiency requirements will be considered in regulations and stipulations concerning supported farm and rural building. (Ministry of Agriculture and Forestry)

Industry and services

- **Extensive implementation of the legislation concerning companies in the energy sector, which entered into force at the beginning of 2010 and ensuring energy efficiency services for energy users. (Ministry of Employment and the Economy)**
- **The scope of application of energy efficiency subsidies for companies and organisations will be extended and financing models and business concepts will be developed**. (Ministry of Employment and the Economy)
- Energy efficiency agreements will be made substantially more ambitious and extensive than before, and will be linked to research and innovation activities. Energy auditing procedures in support of the agreements will be further developed. (Ministry of Employment and the Economy)
- Devising models for including energy efficiency in various procurement processes and contracts. (Ministry of Employment and the Economy)
- Launching a survey on the cost-effectiveness criteria that might be used for the more effective comparison of new investments in energy production and investments in end use. (Ministry of Employment and the Economy)

Impacts

Energy and emission impacts

It is estimated that measures proposed by the Energy Efficiency Committee will suffice in achieving the objectives set under the climate and energy strategy. In addition, there are a number of measures for which no conservation figures can be calculated. Based on the average emission coefficient, the calculated energy conserved would be equivalent to a CO2 emission reduction of over 9 million tonnes in 2020. This would equal approximately 11% of all Finnish greenhouse gas emissions in 2007. It is estimated that the early phase implementation programme will amount to approximately one half of the estimated total impact by the end of 2011.

As a direct result of EC regulation, over a third of the energy conservation target and almost half of the electricity conservation target can be met. Purely national measures, or national measures that originate in EU targets, will form the basis of meeting the rest of the target. In the future, measures will be increasingly based on EU legislation. Directives

require constant reporting, which also involves the demonstration of the measures' impacts.

Impacts on the national economy

According to national economic estimates, energy conservation measures will entail costs at the beginning of this decade, but the costs will drop clearly once the impact of the measures begins to materialise. The Energy Efficiency Committee's analysis shows that the positive effects of energy efficiency measures will become apparent in the national economy much sooner than previously estimated.

Impacts on the public finances

The measures will be implemented within the limits set by the framework and budgets of the state economy, taking account of the objectives of the state administration's productivity action plan and the sustainability of public finances. If needed, the appropriations allocated to administrative sectors will be prioritised and reallocated, bearing the climate and energy policy goals in mind.

Since the current economic situation presents major challenges to the sustainability of state finances, viable measures cannot be based on tax relief and increases in expenditure. Public funding will be primarily allocated to research and development activities and enhancing competences. Tax solutions will focus on providing incentives for energy conservation by developing the level of energy taxation, while securing industry's operating conditions.