

An energy-efficiency policy - Problems, barriers and possibilities

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1. SYNOPSIS

There are a lot of problems and barriers connected to implementation of a strong energy-efficiency policy, which is needed if we are to succeed in meeting the Kyoto target.

2. ABSTRACT

The paper discusses the problems, barriers and possibilities in relation to implementation of the necessary measures and a combination of these as part of a cost-effective energy-saving¹ policy. The paper is based on the experience from developing a new comprehensive energy-saving policy in Denmark².

It is necessary to strengthen the energy-saving policy if the development of energy consumption shall be sustainable, and energy savings or energy efficiency is today on the agenda in many countries. But it is normally very difficult to implement an effective energy-saving strategy.

The politician talks about energy efficiency. Lots of reports and investigations are made, but when it comes to implementation there are different kinds of problems and very often the necessary measures are not taken. Normally the problems are different kinds of political problems. Energy policy is still focussed on energy supply and renewable energy. Energy efficiency has a low priority. The different ministries have their own understanding of the barriers and of cost-effective strategies and it is difficult to reach a common understanding of the need for stronger economic incentives to promote energy saving. It is also very difficult to engage the local authorities and the relation to the EU is both a barrier and an opportunity.

Based on the discussion of the different barriers and problems, the paper discusses the possibilities of implementation of a strong energy-saving policy. This will include a discussion of the combination of common EU actions and actions at the national level.

3. INTRODUCTION

In March 1999 it was decided - as part of the political agreement about liberalisation of the electricity market - that the Danish government should put forward a new Energy Saving Act. It should be the first step in strengthening energy-saving initiatives, which are necessary to reach long-term energy and environmental policy targets. The new Act was passed by the Danish Parliament in May 2000. Afterwards the Danish Minister for Environment and Energy presented the first annual energy-saving report with suggestions for energy-saving targets within the various sectors and for new initiatives. There is now a political discussion about an action plan to promote energy savings.

This process has shown that it is very difficult to implement new strong initiatives. The paper discusses the background for this and tries to analyse what can be done to overcome the barriers.

4. THE DEVELOPMENT OF FINAL CONSUMPTION

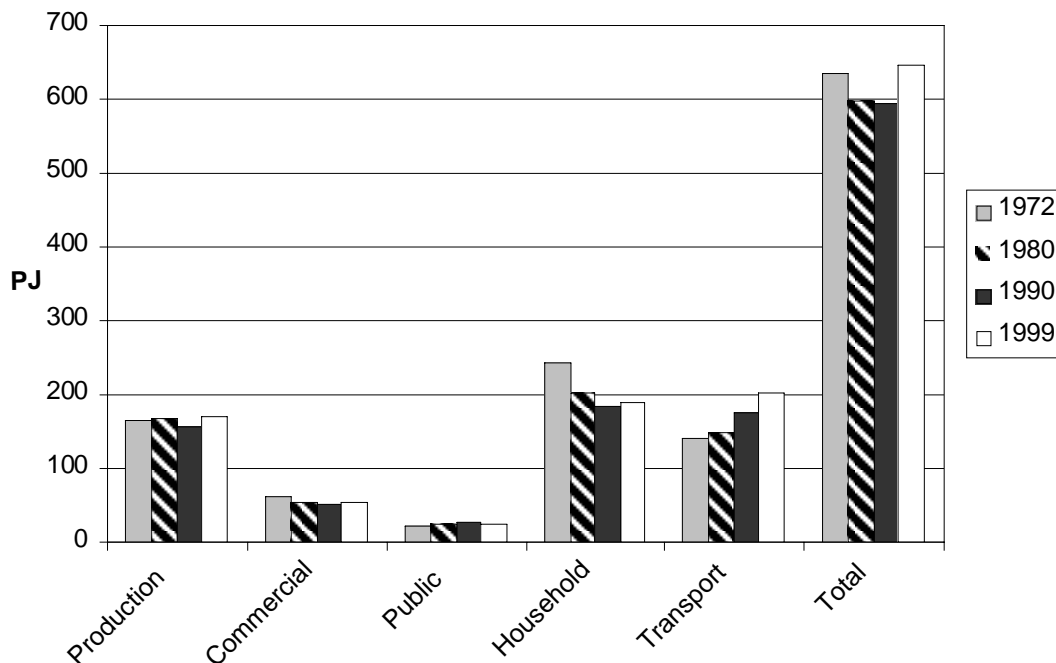
Promoting energy efficiency has been a part of Danish energy policy since 1976. There have been lots of initiatives over time. Especially there was a strong focus on heat saving after the second oil crisis. During the last ten years the main focus has been on electricity savings. Without these activities the actual consumption would have been higher than it is today.

The most important energy-saving measures, which are in force today, are:

- Energy taxes and CO₂ taxes on energy used in households and in the public sector.
- CO₂ taxes on energy used in the industry and the commercial sectors.
- Energy labelling of buildings.
- Energy labelling of appliances and minimum efficiency standards. This is both mandatory EU labelling and voluntary labelling (GEA etc.). The minimum efficiency standards are based on EU regulation.
- Agreements about energy efficiency in industries.
- Subsidy schemes to promote energy efficiency.
- The Electricity Saving Trust.
- Procurement of energy-efficient products in the public sector.
- The energy-saving activities carried out by the electricity distribution companies.

Except from labelling and minimum efficiency standards the initiatives are taken at the national level. The Danish energy-saving policy is well developed and quite strong compared with the policy in many other countries. In most sectors energy consumption was stable or even decreased from 1972 to 1990. Only the transport sector saw a continued growth in consumption. But since 1990, final energy consumption has increased in all sectors (see figure 1).

Figure 1. Development in final energy consumption in Denmark, 1972-99



This change in the development of energy consumption should be seen in relation to the increase in GDP. From 1972 to 1990 the economic growth in Denmark averaged 1.6% p.a. Since 1990 the growth has been around 2.3% p.a. The energy-saving activities in the 1990s have not been strong enough to keep the consumption constant with this increase in the activities in the society.

Due to an increase in the efficiency in the supply system (production of electricity and heat for the district heating system), primary energy consumption has been almost constant since 1990. This increase in efficiency is primarily a consequence of the increased use of CHP. CO₂ emissions have decreased by 9% since 1988 because of a shift from coal and oil to natural gas and renewables.

The latest forecast of final energy consumption in the different sectors shows that the total final consumption will be higher in 2005 as well as in 2010 than forecasted in the latest Danish Energy Plan - *Energy 21*³ from 1996. The energy consumption used in the transport sector will be much higher than in the Energy Plan. For the other sectors, the new forecast shows almost the same consumption in 2005 in the Energy Plan forecast, but a higher consumption in 2010. Because of the growth in the energy used for transport, it will be necessary to reduce the energy consumption in the other sectors more than in the Energy Plan.

It may be possible to meet the national target of a 20% reduction of the CO₂ emission in 2005 compared with 1988 by means of initiatives on the supply side. There is a rapid growth in electricity production from wind turbines and an increased use of biomass and natural gas. But it is necessary to strengthen the energy-saving activities if the Kyoto target of a 21% reduction of the six greenhouse gases by 2008-12 is to be met.

5. DEVELOPMENT OF THE NEW ENERGY-SAVING ACT – THE PROCESS

A strong policy to promote energy efficiency has to be a combination of different measures. There is no single measure that alone can give the necessary reduction in consumption. But from my point of view economic instruments and normative instruments (for example minimum efficiency standards) are in general the most effective and the most cost-efficient measures. These instruments must form part of a long-term energy-saving policy.

The main purpose of developing a new Energy-Saving Act was to strengthen the energy-saving activities and to make sure that the energy-saving activities are cost-efficient. As mentioned before there are already different energy-saving measures in force and there is different legislation connected to these measures. There are acts about labelling of buildings, labelling of appliances, standards, different subsidy schemes, etc. But there has never been an overall energy-saving act, which sets up an overall framework for the energy-saving activities including a regime for planning and priority of the activities.

The development of the new Energy-Saving Act was planned as an open process. In the first phase there were meetings with all interested groups. At these meetings a lot of ideas and suggestions were presented. At the same time, Energimiljørådet (Council for Sustainable Energy) ran a public competition for ideas to promote energy savings. More than 25 papers with ideas were submitted. The council selected four winners who all received a prize⁴.

The next step was the publishing of a discussion paper⁵. This was prepared by the Danish Energy Agency and includes many of the ideas that were presented in the first phase. The paper includes some general chapters about the potential for energy savings, different types of measures, etc. There was also a discussion about setting targets for energy savings in the different sectors and a large number of proposals for new measures were presented. There were ideas about new economic measures (mostly different types of taxes) and ideas about new legislation, information, etc. The paper was presented and discussed at a seminar with all relevant partners.

After the seminar, the first internal proposal for the Energy-Saving Act was drafted. It was decided that the Act was not to include all the existing legislation about energy saving. It should set up the overall framework and it should include new measures and new areas for action. But at that time it was very difficult to suggest new measures and action. The existing funding to promote energy saving decreased rapidly over the next 2-3 years and no new funding was available. There was no real interest from the political level and the ministries for finance and for taxation were opposed to all new ideas that included taxes or subsidies. And some other ideas of new initiatives could not be implemented because they would be in conflict with EU regulation or policy.

This was the background for the draft that was presented for public hearing. This draft was weak without any new important instruments. All the comments from the hearing were very negative.

After the hearing the Energy-Saving Act was negotiated between the political parties who had agreed on liberalisation of the electricity sector. The result of these negotiations was a political agreement about different energy-policy issues⁶. The agreement defines the main points to be included in the Energy-Saving Act.

The Act that resulted from this agreement was passed by the Parliament in May 2000. It was still very general with few concrete new measures, but it defined a process with an annual energy-saving report to the Parliament. The first report was to be delivered to the Parliament in September 2000. The intention was that the Act should specify the general rules and come up with targets for energy saving within the different sectors. It was also part of the agreement that a working group with representatives from different ministries should investigate the possibilities of implementing new economic incentives to invest in energy saving.

The Minister for Environment and Energy sent the first energy-saving report to the Parliament's energy committee at the end of September 2000. In fact it consisted of two reports, one from the Danish Energy Agency⁷ about promoting energy savings and one from the working group about new economic incentives⁸. There were no political commitments in these reports and no concrete suggestions for new measures, nor new taxes, subsidies or other kinds of legislation.

In a letter to the committee under the Parliament the Minister announced that on the basis of these reports political discussions about an action plan to promote energy savings were to be carried on. The Minister and representatives from the political parties have discussed this action plan since January 2001, and in all probability they will reach an agreement before summer.

6. MAIN ELEMENTS IN THE NEW ENERGY-SAVING ACT

The objective of the Energy-Saving Act⁹ is "to promote energy savings by consumers in accordance with environmental and economic considerations with a view to contributing to the fulfilment of Denmark's international environmental commitments". Within this objective in particular the Act is to

1. Ensure that energy-saving activities are prioritised.
2. Promote co-operation and co-ordination of the implementation of the activities.
3. Ensure that consumers receive efficient and user-friendly advice concerning energy savings.

The Act is to be applicable for enhancing efficiency and reducing the use of energy in products, installations, processes and buildings, including installations for the buildings' own supply of energy. It is also to apply to consumer information concerning energy-conscious behaviour. It covers in principle final energy consumption in all sectors.

The main elements in the Act are:

- *Planning and priorities of all energy-saving activities.* The Minister for the Environment and Energy is to implement overall planning of energy-saving activities in relation to all sectors of society and covering all actors and measures. The planning is to ensure that energy-saving activities are prioritised, co-ordinated and implemented. This means that the energy-saving activities carried out by the electricity, natural gas and district heating companies are also part of this planning. Furthermore, every year in September the Minister has to produce a report about energy savings before the Parliament's energy committee containing a status report on all energy-saving activities and suggesting new initiatives. The report shall also include targets for the energy savings in the different sectors.
- *The establishment of local energy-saving committees.* The purpose of these committees is to discuss initiatives to promote local energy savings. The committees are to negotiate the co-ordination of energy-saving activities between public energy-supply undertakings as well as between these, the municipalities and participants in local Agenda 21 activities. Public energy-supply undertakings are to participate in the establishment and operation of energy-saving committees. They shall take care of or pay for the secretariat functions. The municipalities are expected to follow the work of the committees with a view to ensuring a connection

with local Agenda 21 activities. Upon request business, consumer and environmental organisations can become members of the committees. The committees do not have their own budgets, but they can decide on common activities. They can also decide to establish a local energy-saving centre where the different organisations work together and where consumers can get advice on all kinds of energy savings. Over the last few years such centres have been established in co-operation with electricity, natural gas and district heating companies, and green organisations in different places in the country.

- *Energy savings in public institutions.* The Act is to ensure that the public institutions display good energy behaviour and take the lead within energy savings. Thus the public institutions may influence the development and set a good example. The Minister can conduct negotiations with the public institutions or organisations representing these institutions concerning energy-saving activities and the establishment of objectives for implementing energy savings in buildings, installations, equipment and the like which the institutions own or rent. The Minister can also lay down rules to the effect that the public institutions etc. are to carry out the following energy-saving activities for buildings, installations, equipment and the like owned or rented by the public institutions.
 - Draw up green energy accounts containing a mapping of energy consumption, documentation of energy savings that have been carried out, and action plans for energy savings.
 - Draw up calculations and plans for implementing energy savings.
 - Promote energy savings in connection with procurement, projecting and maintenance.
 - Implement energy-saving activities when the costs involved in the activities are expected to correspond to operational savings within a short period of time.
- *Rules about labelling etc. concerning consumption of energy.* This is a strengthening of the existing rules about energy labelling. The new Act permits the labelling of more products and offers better opportunities to control that the labelling is correct.
- *Distribution of costs for electricity, natural gas and district heating.* The Minister for the Environment and Energy may lay down rules to the effect that when specified public energy supply undertakings determine their prices, they are to distribute their costs between fixed and variable tariffs with a view to promoting energy savings. This will be used to lower the fixed tariffs.

7. THE SUPPLY COMPANIES' INVOLVEMENT IN ENERGY SAVING

For almost 10 years the electricity distribution companies have worked with energy savings. Today they spend around 0.44 øre/kWh on these activities. The total amount of money used amounts to around DKK140 million p.a. It was part of the liberalisation reform for the electricity sector that these activities should be continued and further developed. In accordance with the reform the distribution companies were split up and separate local grid companies were established. These companies, where the consumers should have the majority on the board, own and operate the local grids. They are not allowed to sell electricity. The energy-saving obligation was put on these grid companies.

An Executive Order on energy-saving activities in public electricity-supply undertakings¹⁰ was developed in parallel with the development of the Energy-Saving Act. Under this order the grid companies are, free of charge, to place the following categories of energy-saving activities at the disposal of the consumers in the supply area:

1. General information for consumers on energy savings (e.g. distribution of information material, information campaigns, teaching and other information activity).
2. Individual energy consultancy for households (e.g. consultant services, communication of information on energy consumption in appliances).
3. Extension of energy consultancy to commercial undertakings, institutions and the like, the purpose of which is to advise the recipient concerning efficient energy utilisation and to identify energy-saving potential.

Another consequence of the executive order is that the grid companies are to send out informative electricity bills to all their customers. The bills shall compare the electricity consumption of the individual consumer with

the consumption in previous years and, as far as possible, with the average consumption of a corresponding consumer category.

The grid companies are to draw up plans for the implementation of energy-saving activities in their supply areas in a specified period. The plans are to cover mapping and prognosis of electricity consumption, by consumer categories and applications, planning of the network undertakings' energy-saving activities, and the status of on-going and completed energy-saving activities together with an evaluation of their impact. All the activities shall be non-commercial.

The new act for the natural gas sector and the new heat supply act say that the natural gas and district heating companies in the future shall promote energy-saving in the same way as the electricity grid companies. Executive orders for these activities will be sent out in 2001.

This shows that in the future the electricity grid companies, the natural gas companies and the district heating companies are going to play a central part in the energy-saving activities. They are expected to spend a considerable amount of money on these activities. It will be important to ensure that the activities turn out to be efficient.

8. BARRIERS FOR IMPLEMENTATION OF NEW INITIATIVES

In the following I will focus on the main barriers for implementing a comprehensive energy-saving policy with strong measures. It will of course be based on my experience from the developing of the Energy-Saving Act, but I will try to generalize and not only look at the actual experience. As far as I see there are some general barriers to implementing new energy-saving measures and I think that the same barriers can be found in many countries.

The first - and probably the main barrier - is that energy savings or energy efficiency are not given high priority in the energy-policy debate. Only a few politicians or political parties are really interested in this issue. And there are – at least in Denmark – no saving companies, strong interest groups or lobby groups who focus on energy savings. There is much more focus on renewable energy and other options on the supply side in the energy-policy debate. Here are the big supply companies and strong interest groups. For example, today it is possible to raise money for promoting solar panels although this is the most expensive way to reduce CO₂ emission.

There are several reasons for this low priority as far as energy saving is concerned. In general “saving” is not a positive word. All political parties are talking about the need for economic growth and higher production and consumption. In the last 10 years most people in Denmark have had a big increase in their net income. In this context it is difficult to “sell” the energy-saving message to the majority of the population. Several surveys show that many people support energy savings in principle, but when it comes to the point they fail. For most people it has much lower priority in real life to reduce energy consumption than investing in a bigger house, a bigger car, a smart refrigerator, new types of appliances, more travelling, etc. Even politicians with a green profile are very often closely linked to the old thinking about growth, and it is very difficult for them to combine this with promoting energy savings. It is easier for them to combine their thinking with the development of renewable energy resources. One of the consequences of the low status of energy saving is that some politicians are afraid of how the voters will react if they suggest new measures as for instance higher taxes or other economic instruments.

It is also a problem that as they are not visible, energy savings do not attract political interest. There are no good pictures to be shown on TV or in the newspapers. It is much more interesting to show new wind parks and other supply options.

Some people think that “energy efficiency” is a more positive term, but the use of this wording has not unfortunately solved the problem.

The voters and the politicians have a completely different attitude towards serious environmental problems. Climate change is high on the political agenda in Denmark and I think many people find that this is a very serious problem. People are linking climate change with wind turbines as an alternative to coal, but in general people are not linking the climate change problem with energy savings.

The developing of the Energy-Saving Act and the process afterwards show clearly the low interests for this issue. The political discussion has been very limited and there have been very few lobby groups pushing the process.

The second problem I will focus on is the economy in relation to energy savings. Many people - and especially many economists – do not understand or believe that there is an economic potential for energy savings. To their thinking the market will ensure that all cost-effective savings will be implemented if and when the prices are right. Many economists do not accept or understand that there are market barriers and market imperfections and that the consequence of this is that there is a lot of cheap savings that are not implemented by the market. Also they often think that consumers are acting in an economically rational way. If they do not buy the energy-efficient products, it is because they are not cost-effective for the consumers and consequently not attractive for the society as a whole.

There are lots of good examples, which show that consumers are not buying energy-efficient products by themselves even if the pay-back time is short. Today the economists' answer to this is that there must be a welfare loss if the consumers are forced to buy efficient products.

In Denmark the taxes on energy used in households and in the public sector are quite high, but there is still a big potential for energy savings. The strong measures to increase energy savings are bigger economic incentives (higher taxes, progressive taxes, taxes on products based on energy-efficiency rating, subsidies, etc.), and minimum efficiency standards. It has not been possible to increase economic incentives and it is not possible for Denmark to introduce minimum efficiency standards. These should be implemented at the EU level.

Within industry and the commercial sector taxes are much lower, but it is very difficult to get support of higher taxes at the national level. Competition is always used as the main argument against higher taxes in the private sector, even though this is only relevant for a very small number of companies. Generally the argument about competition does not apply to the commercial sector, but admittedly there is a very low tax on this sector's electricity consumption.

The work with the Energy-Saving Act and the report from the working group about new economic incentives show very clearly that the economic ministries do not take energy saving very seriously.

Until now it has been difficult in general to involve the public institutions in energy-saving activities. In the first draft of the Energy-Saving Act it was stated that the municipalities should be members of and chairmen for the local energy-saving committees. The National Association of Local Authorities in Denmark strongly opposed to this in the hearing process. They were against the local energy-saving committees as such as well as the suggested involvement of the municipalities in the committees.

In general, the Danish State shall compensate the local authorities if the Parliament or the Ministry forces the authorities to carry out new activities. This is the case although the energy-saving activities have a short pay-back time. This compensation will be taken from the funding that is available for promoting energy savings or renewable energy. This makes it very difficult to decide on new obligations for the local authorities. In relation to the implementation of the Act compensation has been paid just because the municipalities are obliged to follow the work of the energy-saving committees.

The compensation problem has an impact on the strategy for promoting energy savings in the municipalities. The Energy-Saving Act states that the Minister may lay down different kinds of rules, but if he does compensation is to be paid. Instead the strategy is to try to negotiate a voluntary agreement with the municipalities or their organisation. It can be very difficult to reach a strong agreement if there are no sanctions or no economic incentives.

The relation between EU and the Member States is also a barrier. On one side the EU has been very passive or slow and the Union has only implemented a few and weak instruments to promote energy savings. The labelling system is not very dynamic. It takes years to make an update of the labelling targets for one appliance. EU has worked with minimum efficiency standards for more than 10 years, but only two standards have been implemented and both are weak and not dynamic. On the other side the Member States are not allowed to implement measures that will be in conflict with the rules for the internal market or the rules for state aid. The Member States are not allowed to implement for example minimum efficiency standards, obligatory labelling, etc. at a

national level. In the early 1990s Denmark tried to implement a minimum efficiency standard for washing machines, but the Commission said that we were not allowed to do so.

9. FUTURE POSSIBILITIES

Perhaps the description of the problems and barriers may not seem very optimistic, but I see, however, some possibilities in the future. My overall point is that a combination of reducing energy consumption and an increased use of renewable energy is the only way if the Western World is to reduce its CO₂ emission by 60-80% in the next 30-50 years. So far I have not seen any serious scenario where renewables alone can produce this reduction. At least the total end-use consumption should be stable or maybe even decrease¹¹.

I also find that the new discussion of security of energy supply¹² can be a strong support for improving energy saving and energy efficiency. Reducing energy consumption is the best option to reduce the Western World's dependency on imported oil and gas in an environmental way. Energy efficiency is the number one energy "source"¹³.

This means that energy savings or energy efficiency will be on the agenda in the coming years and I think that there has been some improvement within this field at the international level during the last few years. I am aware that several countries are taking new actions in this field of activity. Denmark may be said to have been in the lead until now, but I'm not sure that we will be able to stay there.

I also see some possibilities as a result of the new Danish Energy-Saving Act. In itself the development of the Act is a sign of more focus on energy savings and it will form a good background for the current political discussions about new initiatives. The rules in the Act about overall planning and priority of energy-saving activities can be used to strengthen energy-saving activities. A better documentation and development of the activities with a view to making them more efficient is an important step. And the submission of an annual energy-saving report to the Parliament including a status report on the activities and suggestions for energy-saving targets for different sectors might be an instrument to give energy savings a stronger place in the energy policy debate.

The local energy-saving committees are going to ensure a better co-ordination of and a stronger base for local energy-saving activities. I think this is of great importance. They may encourage a lot of local activities and be an instrument to give energy-saving activities a stronger position in the local Agenda 21 work. And possibly the building-up of local interest groups on energy savings in a number of years may be an instrument to help changing the political interest for energy savings.

The focus on energy savings in the public sector brings about some interesting possibilities. If the public sector is going to walk in front and to set a good example it can be very important. The public sector makes large-scale purchases of office equipment and is a large user of buildings of different types. If the public sector really focuses on energy efficiency and energy savings, it can change the whole market. This will especially be the case if there is a common EU focus on the public sector, including public procurement.

I am more optimistic than I have been before in relation to common EU initiatives to promote energy efficiency. Energy efficiency is one of the most important instruments to meet the targets of the Kyoto protocol and energy efficiency is one of the central fields in the European Climate Change Programme. Today energy efficiency is not only an issue for the energy people in the European Commission and in the individual member countries, but also an issue for the environment people. I think this is an important change.

The Commissions Action Plan to Improve Energy Efficiency in the European Community¹⁴ and the Council's conclusion in December 2000 on this issue can in combination with the coming report from working group 3 under the European Climate Change Program (ECCP) and the "Call for an Energy Intelligent Europe" (see note 13) be a strong basis for implementing a package of initiatives to promote energy savings in the Union.

The EU's possibilities of developing new common initiatives of course depend on the attitude of the different member countries. I can see some signs of change in the attitude of some of the big member states.

I hope that the European Union in the next 2-3 years will implement

- A new building directive.
- An initiative focusing on the public sector (a public procurement directive).
- A directive on energy service and demand-side management.
- An updated and more dynamic labelling scheme which includes more appliances and products.
- A dynamic minimum efficiency standards (or agreements) for a broad range of products.
- A common minimum level for taxes on energy and other kind of economic instruments. One possibility is a tax on products related to the energy-efficiency of the product or a variation of the VAT. Just now we are in Denmark looking at taxes on products related to their energy efficiency.

If the EU does not implement such initiatives it should be made possible for a group of member countries to take the lead. They should be allowed to implement new common initiatives without having problems with EU regulation. A group of countries could for instance implement a dynamic concept for minimum efficiency standards and mandatory labelling of more products.

10. ENDNOTES

¹ I use the term "energy saving(s)" instead of "energy efficiency". As I see it "energy saving(s)" is a more radical term than "energy efficiency". An increase in energy efficiency is not the same as a reduction of the energy consumption. To meet the CO₂ targets is it necessary to reduce the consumption of energy through energy savings.

² I have been the project leader of the work with the new Energy-Saving Act. This means that I am not an independent viewer of what has happened.

³ "*Energy 21 The Danish Government's Action Plan for Energy*", Miljø- og Energiministeriet 1996.

⁴ The four winning papers are available in Danish at the council's homepage – www.energimiljoeraadet.dk.

⁵ "*Den ny energisparelovgivning, Et debatoplæg*", Energistyrelsen, Oktober 1999 (in Danish). Is available on www.ens.dk.

⁶ Aftale om reformopfølgning af 22. marts 2000.

⁷ "*Fremme af energibesparelser*", Energistyrelsen, September 2000 (in Danish). Is available on www.ens.dk.

⁸ "*Økonomiske incitamentter til fremme af energibesparelser, Rapport fra arbejdsgruppe*", Energistyrelsen, September 2000 (in Danish). Is available on www.ens.dk.

⁹ "Act No. 450 of 31 May 2000 on the promotion of savings in energy consumption". The Energy-Saving Act. is available in an English translation at the Danish Energy Agency homepage – www.ens.dk.

¹⁰ Executive order No. 350 of 3 May 2000 on energy-saving activities in public electricity supply undertakings.

¹¹ See for example the report "*Energy – The Changing Climate*", Summary by The Royal Commission on Environmental Pollution's Report, 2000. This can be downloaded from www.rcep.org.uk.

¹² See the green paper "*Towards a European strategy for the security of energy supply*", Commission of the European Communities, COM(2000) 769.

¹³ I have taken this term from "*Call for an Energy Intelligent Europe (EI-Europe)*". It is a cross-party and cross-nation initiative to make Europe's economy the most energy intelligent in the world. Members of the European Parliament have taken the initiative and members from the different parties and from the different member countries have signed the paper. The paper is available at ECEEE's homepages.

¹⁴ "*Action Plan to Improve Energy Efficiency in the European Community*", Commission of the European Communities, COM(2000) 247 final.