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Description of the Trust's work

The Trust was established in 1997 with the purpose of promoting electricity savings in households and the public sector. The terms of reference for the Trust's work are regulated by the Electricity Saving Trust Bill and legislation on energy taxes. The Trust's finances can be divided into 2 sections:

- A categorical tax on electricity – the Special Electricity Savings Charge of DKK 0.006/kWh, which is payable by households and the public sector, with annual proceeds of approximately DKK 90 million (EUR 12 million).

- A funding system, where the Trust uses the proceeds to promote specific electricity savings initiatives, prioritised according to socio-economic and environmental considerations.

The remarks to the Electricity Saving Trust Bill indirectly state that the Trust's selective use of the funds is expected to produce energy savings which are considerably greater than the total raised by the Special Electricity Savings Charge.

The Trust's terms of reference

The Danish Electricity Saving Trust is led by a Board appointed by the Danish Ministry of Climate and Energy. The Board has established its own Secretariat in compliance with the legislation. The Electricity Saving Trust Bill gives the Board considerable freedom of choice of the methods at its disposal – subsidies, campaigns, information activities and other initiatives.

There are no formal requirements as to the savings achieved by the Trust's work, and the Trust can choose to carry out savings initiatives, irrespective of whether these prove difficult to evaluate. Conversely, the Trust is evaluated to assess the total effort.

The Trust's terms of reference differ in key areas from the energy supply companies (electricity, gas and district heating). Based on the political agreement on energy savings of 10 June 2005, each supply company has been allocated a specific annual energy saving requirement based on fixed calculation methods. The companies therefore have a direct financial incentive to book and approve the most savings possible so that expenditure in this area can be limited by the maximum amount possible.

The regulations governing the Trust should be seen in the context that the Trust cannot use its funds for any other purposes. Unlike the energy distribution companies, The Trust has no financial incentive to overvalue the savings outcome.

Expectations of the Trust

When the Trust was established it was emphasised that the Trust should develop and test new tools and initiatives, including:

- subsidy concepts (e.g. switching from electric heating), which would bring about considerable market changes and also limit undesirable price-related consequences
- promoting price reductions of energy efficient equipment via campaigns, market transparency and increased competition
- dealing with non-financial barriers in the market that actually limit the spread of energy efficient equipment – lack of knowledge and advice, doubts about quality, etc.

The Trust's strategy

The Trust's strategy is to influence both the supply side as well as consumers. Consumers are the ones who choose products, but producers and the retail trade determine possible choices and set prices.

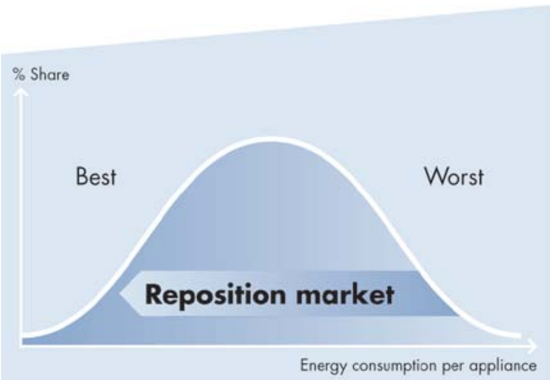
The retail trade has a huge influence on customer choice because they are in direct contact with customers at the point of sale. Close cooperation with the supply side will partly ensure impartial information for customers, and partly save the Trust the expenses incurred by the energy savings players locally. The Trust does not offer personal advice, but rather attempts to activate the players that interface with customers during the normal course of their commercial activities. This is also the reason why the Trust has not established a regional savings task force for advising customers and the public sector.

The Trust's push-pull strategy is based on the fact that the supply – or one section of it – has a direct financial incentive to move offers in the direction of more energy efficient products.

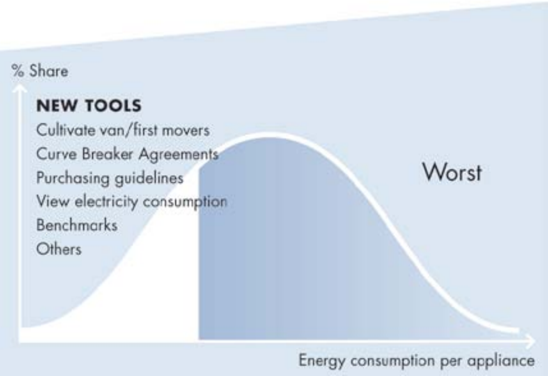
Activating the market

While traditional tools and initiatives focus on bans or belittle the financial aspects of the worst products, the Trust primarily works on promoting the development of market 'frontrunners' – the most efficient equipment. The strategy is that these products will dominate the market within the space of a few years, thereby displacing the more inferior products in energy terms.

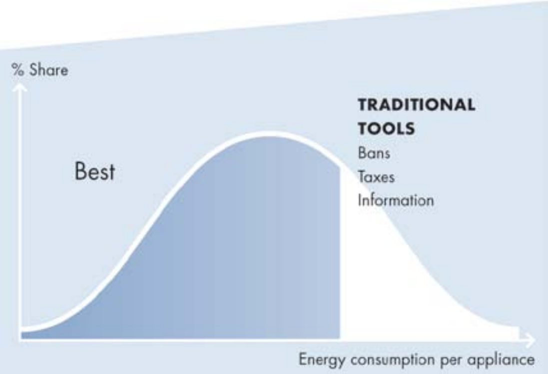
The Trust's strategy is to influence the market in the direction of more energy efficient products and solutions. The strategy is illustrated in the figure below:



'Frontrunners', the use of benchmarks, voluntary agreements, and other measures help to influence the market.



This strategy is the opposite of the traditional tools and initiatives such as legislation, bans, etc.



The Trust considers that while taxes, bans and information are the traditional tools for keeping the worst products off the market, the tools and initiatives for stimulating the best products are something completely different. The reason why a company takes the lead is often because it wants to signal responsibility and a green image, be a 'first mover', or simply poach market share from another supplier. The Trust's campaign activities attempt to capitalise on these wishes, with consumers also receiving impartial and non-commercial information.

The Trust differentiates itself from almost all equivalent institutions in other countries by working with, and setting out requirements for market players. There has been reluctance in other countries to enter direct partnerships with the market, let alone influence it, preferring instead to focus on consumer information and advice.

The Trust's strategy places considerable emphasise on the choice of tools and initiatives and electricity savings. In general terms, the Trust seeks to achieve a paradigm shift and lasting changes in the market and consumer behaviour. The Trust is equally reluctant to provide subsidies, especially fixed subsidies. These can hamper the natural development in prices and signal that something is not right on the financial front. Finally, it is important to prioritise activities and products which provide consumers with good experiences and sow the seeds for future initiatives.

The Trust has no means of coercion and can only appeal to consumers, the public sector and market players. This is why the awareness of, and confidence in the Trust by consumers and suppliers are absolutely vital. Although a high level of awareness and image capital are a necessity, these are not sufficient grounds for ensuring the success of the Trust's efforts to influence both consumers and the supply side in an environmental direction.

Purchasing situation and operation in relation to householders and the public sector

4 examples of tools and initiatives

- Electric heating conversions

  The Trust's subsidies to consumers who converted from electric heating to district heating were based on requirements that:
  - subsidies to consumers should fully benefit consumers and not be swallowed by price increases from tradesmen and installers, and materials, etc.
  - the size of the subsidies should be kept low.

  These two aspects took into consideration the fact that the subsidies to consumers were made on condition that the 2 market players that benefitted directly from the conversions should offer consumers a discount. This was because district heating power plants would acquire a new marginal customer, and local plumbing and installation firms would gain a large number of new customers.

  The Trust used an 'auction' process whereby the district heating power plants competed to determine the way in which the Trust's subsidy scheme would be implemented. Plants with the lowest connection charges were selected. Thereafter, fixed price agreements for plumbing and installation services were offered in the district heating areas selected.

  According to an evaluation undertaken by Carl Bros, the result of the concept was that connection charges fell by an average of DKK 15,000 (EUR 2,000), while the prices for plumbing installations also fell by around DKK 10,000 (EUR 1,350) per customer. Participating companies saw their turnovers quadruple as a result of the campaign.

  On this basis the Trust was able to fix the subsidy at an average of DKK 15,000 (EUR 2,000), which was half the figure allocated under a previous Danish government subsidy scheme.

  All in all, because they were motivated to carry out conversions as a sound financial investment, consumers benefitted financially from savings which were nearly 3 times the amount of the subsidy offered by the Trust.

- Campaign for cold appliances

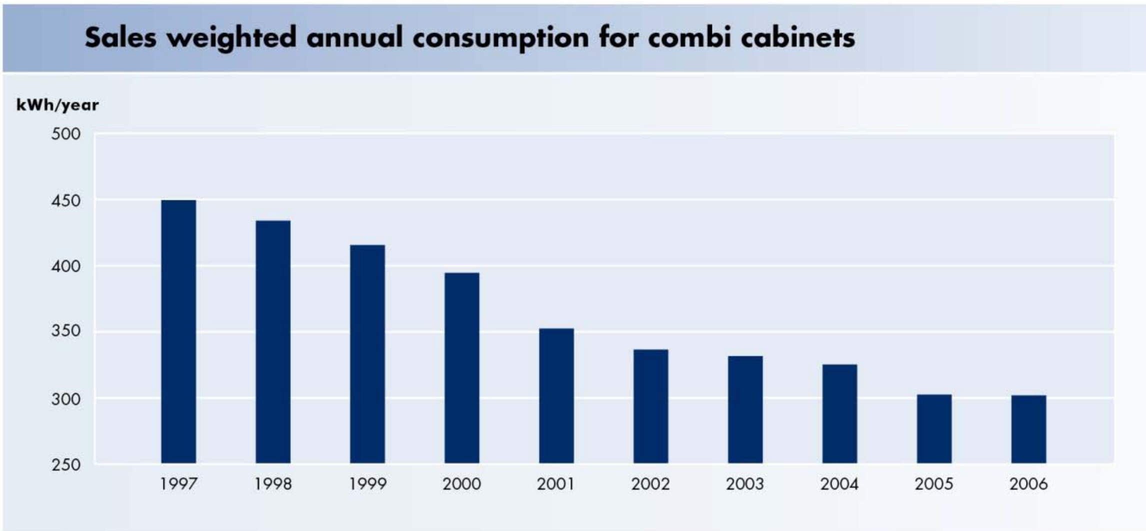
  In 1998, the newly established Trust and a number of electrical product buying groups worked on the introduction of a joint campaign for cold appliances. The focus was targeted at the most energy efficient A-rated products – with the aim of reducing the rather high prices of the most efficient fridge cabinets. At that time the market for A-rated cold appliances was just 10%.

  In order to focus on A-rated products, a kick-start campaign was launched in the media with a subsidy from the Trust of DKK 500 (EUR 65) over a short 13-week period. To encourage price competition on A-rated cabinets, one of the first price comparison portals was launched at www.hvidevarepriser.dk.

  Unfortunately, the Trust ended up running the campaign alone after the buying groups pulled out of the partnership. The reason for this was that because the market for A-rated products was rather small the buying groups did not want to antagonise the retail trade. At that time the retail trade was not in favour of the Trust's idea to make the market and prices transparent.

Over the following years, A-rated large appliances dominated the market and the price differences between A and B cabinets were virtually eliminated. In 2004, subsidy schemes were introduced for brief periods with the aim of encouraging consumers to buy A+ or A++ appliances. In 2007, 95% of all large appliances sold in Denmark were either A, A+ or A++, with A+ accounting for 40% of the total. A+ is expected to dominate the market within a few years.

The figure below show the sales weighted energy consumption of cold appliances in the period 1998-2007.



Denmark is a market leader in this area, and the marketing activities have also influenced sales in other Nordic countries. This is mostly because many of the Danish market players operate throughout the Nordic Region with more or less the same products in each individual country.

- Voluntary agreements and campaigns for circulator pumps
  Up to 2004, central heating circulator pumps with an energy efficiency equivalent to a D-rating dominated the market. Grundfos had introduced a C-rated pump a few years earlier, but despite active marketing it only achieved a 20% market share.

  In 2004, the Trust concluded a voluntary agreement with pump producers, wholesalers, and the plumbing and heating trades based on a 3-year campaign which was designed to increase the market share for energy saving circulator pumps (C-rated or better) from 20% to 70%.

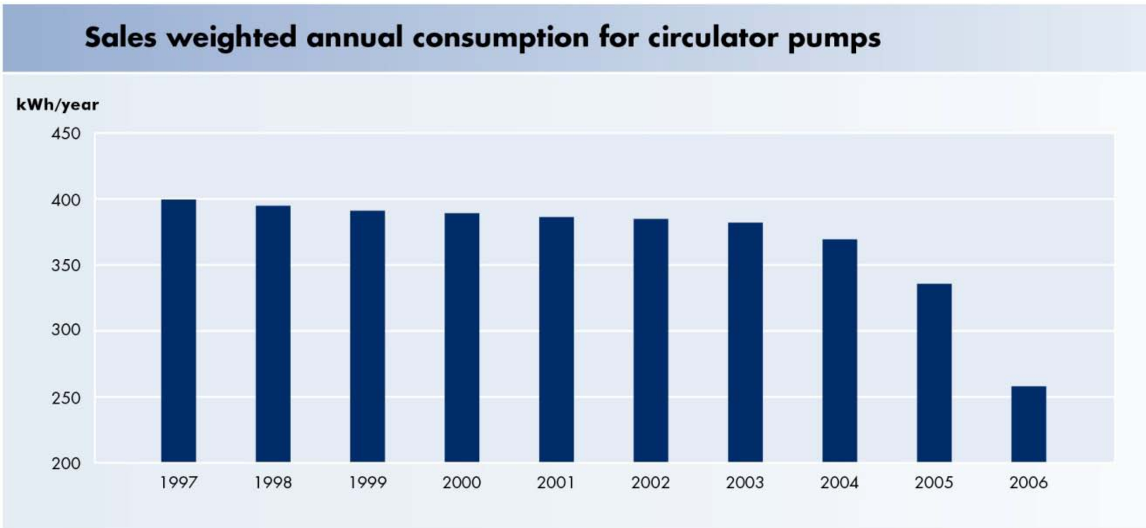
  The Trust did not offer any subsidies, but was active as a non-commercial player in communicating the message that the new pumps only used half as much electricity. The information efforts were supplemented by direct marketing to the plumbing and heating trades, and price offers from producers and wholesalers. The target was achieved after just 2 years, and today the market share stands at 95%.

In 2006, a new agreement was signed, this time on A-rated pumps which had been developed in the intervening years. A-rated pumps only use 1/6 of power compared with D-rated pumps, which dominated the market up to 2004.

The campaign content was the same as was used in the first campaign. By the middle of 2008, the market share for A-rated pumps had climbed to around 50%. This should be compared with the fact that A-rated pumps only have a 7% share of the market in Europe. Denmark is therefore considerably ahead of other European countries and according to the pump sector these campaign activities have influenced the spread of A-pumps in other countries. This year, Grundfos has announced that following the excellent results achieved to date by the campaigns, the firm will only market A-rated variable-speed circulator pumps in Denmark and the rest of Europe.

The outcome is that A-rated pumps will completely dominate the Danish market, and will also make headway in the rest of Europe.

The figure below shows the sales weighted energy consumption for circulator pumps in the period 1998-2997.



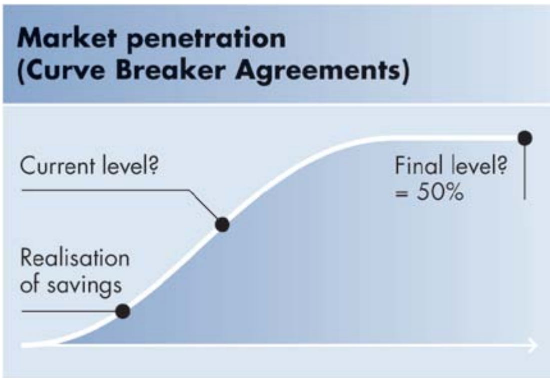
- Curve Breaker Agreements
  At the start of 2007, the Trust developed a new type of binding partnership agreement which was offered to government ministries, authorities, municipalities, regions, institutions and large consumers of electricity.

  The underlying philosophy of these binding partnership agreements was that the individual ministries, authorities, municipalities, regions and institutions could see the idea of being amongst organisations that were doing something about the climate, including working to 'break the rising electricity consumption curve'. These so-called Curve Breaker Agreements commit ministries, municipalities, regions and institutions to reduce their electricity consumption, which is then publicised on the Trust's website at www.se-elforbrug.dk, thereby making it possible to track whether the reduction target is being achieved.

By the end of December 2008, over 95 Curve Breaker agreements had been concluded with commitments to reductions of more than 30 GWh/year. Apart from around 33 municipalities and several leading ministries, a number of large commercial organisations have also signed agreements with the Trust to reduce their electricity consumption. There is clearly considerable interest in working with the Trust to break the rising electricity consumption curve.

The Trust produces a quarterly report covering the electricity consumption trend of Curve Breakers. The latest calculation shows a combined reduction by all Curve Breakers of around 2.1% for 2008 compared with 2007. Conversely, all other institutions and organisations registered on the 'Se Elforbrug' (View Electricity Consumption) website recorded a modest year-on-year increase of around 0.3%. Electricity consumption by Curve Breakers has therefore reduced when compared with organisations not covered by the agreements.

Based on the simple logic that the curve will be broken if enough agreements are concluded, the Trust aims to conclude a many of these so-called Curve Breaker Agreements as possible.



The Trust's latest initiatives

In 2007, the Trust decided to harmonise its activities in relation to households and the public sector into 2 groups.

The first involves purchasing recommendations for energy efficient products. In this connection, the Trust launched its Energy Saving Label which, by 2008, covered a wide selection of products. The label indicates that the product is one of the 20% most efficient on the market within its product group.

In relation to the public sector, purchasing recommendations have been combined in one set of Purchasing Guidelines, which were incorporated as purchasing requirements for government departments in 2005. Simultaneously, the guidelines became the de facto requirements in the framework agreements for government departments and the municipalities.

In recent years, a very large number of firms have been interested in concluding voluntary agreements with the Trust in connection with the Energy Saving Label and the Purchasing Guidelines. Specific targets covering market share for 'green' products have been set for several players. For example, the Nordic Region's largest IT wholesaler Ementor ASA, which has an annual turnover of around DKK 14 billion (EUR 1.86 billion), has concluded a voluntary agreement that commits the company to reposition its market share of 'green' products over the coming years.

The considerable and growing interest in cooperating with the Trust is mostly as a result of the Trust's extremely visible profile and the many campaigns in the media. A number of commercial players wish to tie their activities to the Trust. From the Trust's point of view this indicates that the Trust can count on a significant contribution from the supply side for a negligible effort by the Trust in resource terms.

The other element in the communication comprises day-to-day operation, and the need to be able to track electricity consumption and set a savings target.

The Trust has established 'Klub1000', which is a club for households wishing to receive ongoing guidance on how they can reduce their electricity consumption. As mentioned above, the public sector and the commercial sector are covered by Curve Breaker Agreements and View Electricity Consumption (www.elsparefonden.dk/se-elforbrug.dk).

In order to create an overall framework for advice on electricity, heating and the indoor environment in the home, the Trust has launched 'My Home – the Intelligent Home'.

My Home offers a common infrastructure for energy analysis, metering, monitoring and control, and flexible electricity consumption.

Analysis and advice concerning the consumption of electricity and heat in individual homes demand considerable resources, and these have traditionally been based on visits by consultants. My Home is a concept which allows consumers to analyse their own energy equipment as well as meter their energy consumption. Based on a standardised description of their homes, equipment and meter readings, users wishing to do so can choose to pass information to advisers and companies offering to supply them with goods and services.

Simultaneously, My Home is laying the foundations for monitoring and (remote) control of the indoor environment and energy systems. My home is the Trust's response to a number of projects that have a very narrow outlook, and established concepts which only focus on some of the problems such as electricity savings, flexibility, etc.

My Home was launched in October 2008 in both Danish and English with the idea that it can be used in many other countries. A central element of the concept is the close partnership with producers of metering and control devices, and with companies doing business in the home-related area (banks, insurance companies, property managers, Internet providers, etc.), all of whom wish to have access to My Home's description of the home, including data from Danish public registers, floorplans, photos, energy labelling reports, etc.

Cooperating with energy utilities

The Trust was established as a direct consequence of the electricity companies declining to take part in promoting conversions from electric heating to district heating and natural gas. This explained why, in the early years, there was little cooperation with the energy utilities.

As already mentioned, it turned out not to be possible to run a joint campaign for A-rated cold appliances in 1999. However, more recently, agreement has been reached on quality requirements for products such as A-rated energy saving bulbs.

In practical terms however, there has been limited cooperation as a result of the electricity companies using most of their resources locally instead of on nationwide campaigns.

The demands by the energy utilities that documented energy savings should be delivered currently present significant barriers for cooperation. This means that they need to estimated on the basis of the net result and, additionally, they have to be shared with the Trust when running a campaign. In areas not covered by general campaigns, the distribution companies have the right to factor in gross savings, irrespective of whether the activity simply means that a product is transferred from one sales channel to another.

Evaluation of the Trust

There have been 2 types of evaluations of the Trust: Evaluations based on factual data relating to sales figures for different types of appliances; and evaluations which focus on the attitude by consumers and the supply side to the Trust's work.

Evaluations based on sales figures

Savings in kWh are calculated on the basis of data on the changes in the sales of circulator pumps, fridges and freezers, etc. These are statistical calculations covering the sales of different types of appliances, which are converted to electricity savings. These sales figures therefore provide a true assessment of the actual electricity savings.

In 2004, Rambøll Denmark carried out this type of evaluation of the Trust's overall work. In the interests of impartiality, an expert panel of 4 persons was set up to ensure the professionalism and impartiality of the evaluation.

Rambøll Denmark concluded that the Trust's work over 10 years had contributed to annual electricity savings of 1,000 GWh. It particular it was emphasised that consumers had received financial benefits which were 10 times greater than the proceeds collected by the Special Electricity Savings Charge. Read the report in full at Evaluation of the Danish Electricity Saving Trust, October 2004.

Evaluation of the Trust's work

The second type of evaluation focuses on how consumers and the supply side see the Trust's campaigns and agreements. The focus here is on awareness and confidence because these are extremely important for a player which influences other players without the use of subsidies and coercion.

A number of evaluations have been carried out which describe how consumers and the supply side see the Trust. The Trust cannot force savings through, but appeals to market players via campaigns while also working to remove a number of non-commercial barriers to energy efficient purchasing and behaviour.

2008 evaluation by Genius (only in Danish): 'Elsparefondens indsats over for private husholdninger, Evalueringsrapport af Elsparefondens Offentlig sektor kampagne og Elsparefondens indsats på udbudssiden.' (The Trust's efforts in respect of private households, evaluation report of the Trust's public sector campaign and the Trust's efforts on the supply side.)

A third area for possible evaluation would be a survey which assesses the energy savings outcome of the Trust's general information and publicity activities, but where the evaluation of the outcome cannot be linked to specific sales statistics such as changes in consumer behaviour.

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