# "Help, I Need Somebody..." – Consequences of a reregulated competitive electricity market from the customer perspective

Anna Ketola and Peter Matsson, Energy Economics and Planning, Department of Heat and Power Engineering, Lund University

# 1. SYNOPSIS

This paper is intended to reflect on the prevailing course of events within the Swedish re-regulated electricity market from the customer's point of view.

# 2. ABSTRACT

In 1996, the Swedish electricity market was re-regulated and if private customers wanted to change their supplier they were forced to invest in a new electricity meter with hourly metering. The cost of such a device was typically around 900 EURO. Very few customers changed their supplier at this stage. On November 1<sup>st</sup>, 1999, this requirement was abolished and replaced with load profiling allowing the private customers to change their supplier without any cost to themselves.

Since then, the customers has been both subjectively and objectively bombarded with information and advertising from various electricity suppliers and other actors on the market in the form of: personally formulated letters, newsprint advertisements, media headlines as well as counselling and society based programs on television.

This article is performed from an interdisciplinary perspective, with a customer focus. What consequences follow from re-regulation, for private customers? How do they handle their selection possibilities? Do they experience increased freedom and satisfaction, or do they feel confusion, insecurity and necessity to change electricity supplier?

The article and the discussion are viewed from both a socio-cultural and technological viewpoint. It is interesting to gain insight into how the customer reacts and handles the consequences of the re-regulated competitive electricity market.

# 3. INTRODUCTION

"Dangerous connections or lasting relations?" is the opening slogan that the Swedish electricity company, Mälar Energi AB, uses in its advertising campaign aimed at Swedish households. In the advertisement, the company promises a good electricity price. They refer to their long lasting "business relations" experience and emphasise that they are sensitive, reliable, and competent and that they are always available. They claim to have a specified environmental policy and to always be working with some new exciting project involving modern efficient technology (Aftonbladet advertisement, 2000).

This particular campaign is just one of many that have appeared since the re-regulation of the Swedish electricity market. Swedish households are very aware that the electricity market is re-regulated. They have become an attractive and exclusive target group for electricity companies after previously being considered as anonymous loads on the electricity grid. Companies are now afraid that their customers will abandon them in favour of competitors on the market.

Before re-regulation, electricity took a hidden place in everyday life in Sweden. We enjoyed the appeal and advantages of electronic appliances, lights and space heating without paying closer attention to where the energy came from or who supplied it. In this paper, the branches viewpoint is replaced with the users' and the consumers' perspective. The paper is also intended to both reflect on and discuss the prevailing course of events within the Swedish re-regulated electricity market from an interdisciplinary perspective. What consequences follow from re-regulation for private customers? How do they handle their selection possibilities? Do they experience increased freedom and satisfaction, or do they feel confusion, insecurity and necessity to change electricity supplier?

The article and the discussion are formulated from both a social-cultural and technological viewpoint. The background-material mainly comes from two Swedish investigations (Swedish Consumer Agency, 2000 and the Swedish National Audit Office, 2000) and the authors' collected experience and knowledge in the field.

## 4. BACKGROUND

In 1994, the Swedish Parliament decided that a new legislation for the electricity market would come into force, namely the so-called "Electricity Market Reform". The aim of this restructuring was to increase the competition on the electricity market and thus make sure that customers' need for electricity would be secured in a cost efficient way to a reasonable and stable level. The re-regulation came into force on January 1<sup>st</sup>, 1996.

#### **Description of development following re-regulation**

The re-regulation initiated fundamental changes on the electricity market. The production and trade of electricity became exposed to competition. The Grid Enterprise remained a 'natural' monopoly that was, and still is, supervised and regulated by the Swedish National Energy Administration (STEM).

Initially, if you wanted to change your supplier, there was a requirement to install measuring equipment that registered the electricity usage every hour. The combined cost of a meter and the installation was at the beginning of 1996 approximately 900 EURO (Swedish Competition Authority, 1996). *You* had to pay for this investment yourself, therefore, this requirement constituted a significant obstacle for you to change your electricity supplier. There are even indications that the meter requirement resulted in higher electricity prices for customers with low energy use (Swedish Competition Authority, 1996). The recognition of this as an obstacle brought along regulation change which stated that the meter price should not exceed 280 EURO, effective from the 1<sup>st</sup> of July 1997 (Svenska Kraftnät, 2000). For the typical apartment owner it was still not profitable to invest in a new meter. The Swedish Competition Authority made the judgement that the meter requirement, in spite of the lowered price limit was still an obstacle to competition. The price limit did not sufficiently stimulate households to change supplier (Swedish Competition Authority, 1998).

From November 1<sup>st</sup>, 1999, the meter requirement was abolished and the hourly metering demand was replaced by Load Profiling. Now 99.5% of all Swedish electricity customers had access to the free market (Sweden's Electricity Suppliers, 2000). Those who had already invested in a meter, did not receive any compensation for the purchase. Furthermore, the installed meter did not belong to them but to the grid company (www.elbyte.nu 2001). The cost of the meter, previously purchased, was regarded as an 'admission ticket' into the 'free market'.

## 5. "DOI HAVE TO PAY MY ELECTRICITY TWICE?!"

A woman says: "Suddenly there were two electricity bills! One from my old electricity company and one from someone I had never heard of. Do I have to pay my electricity twice?! I phoned the new one and asked why they sent me this bill – I don't buy my electricity from you! I got embarrassed when the receptionist told me that everything was in order. One bill was for something called the 'grid service' and the other one was for the 'energy'. Now I remember that I heard something about this before, but when or where... I don't know..." This is a very common customer reaction. Before the re-regulation we just paid one electricity company, now we pay two.

The re-regulation has, among other things, led to an increased number of market actors. The Electricity Producer produces the electricity and feeds it to the power grid. The Grid Operator handles the 'physical' transport of the electricity from the producer to you as an electricity customer. You cannot change the Grid Operator since this enterprise is still a monopoly. Households have contracts with the Grid Company, as well as with an Electricity Trade Company (the supplier) from whom they purchase the actual electrical energy. Other actors are for instance Svenska Kraftnät, responsible for maintaining the power balance between production and demand, and also for ensuring that the electricity system is reliable. (Svenska Kraftnät, 2000).

#### The electricity price

Since the re-regulation came into force, a large variety of electricity contracts have become available. The 'pricepicture' to which you have continuously been exposed through advertising, is still unresolved and difficult to grasp.

You have to pay both fixed and variable fees for your electricity. The cost of electricity can be divided into the following parts:

Grid Fee:	A fixed fee constitutes one part of the Grid Service. You can not influence this cost. The amount is dependent on the size of your usage and main fuse. The remaining portion is a variable fee that you pay per kWh.
Electricity Fee:	This fee contains both fixed and variable parts. The fixed part is a subscription fee. The variable portion you pay is based on a fee paid per kWh, and this part of the electricity bill can be influenced by changing supplier or by negotiating with your present supplier. There is an abundance of different types of contracts. The fee is dependent on the contract negotiated between you and the supplier.

These components are then subject to the following taxes: Energy Tax per kWh. The fee is fixed and independent of your electricity usage or the origin of the electricity; Value-Added Tax (VAT) of 25 % is added onto the total sum of the above-mentioned fees, including the Energy Tax.

#### What has happened with our electricity price?

If you are a typical Swedish apartment customer you paid, before the re-regulation, a total price of about 0,102 EURO/kWh. With the same supplier and an non-negotiated contract you paid 0,109 EURO/kWh in year 2000. If you negotiate with your current supplier or change to a new one it is possible to cut the price to approximately 0,100 EURO/kWh. The corresponding values if you live in a villa are 0,083 EURO/kWh (1996); 0,085 EURO/kWh with the same supplier and a non-negotiated contract (2000); and 0,075 EURO/kWh with a new or re-negotiated contract.

The new competitive electricity market has cut the energy part in the total price, especially for those customers that have negotiated new contracts. From this perspective the re-regulation into competition has worked very well. End customers, however, still pay approximately the same price per kWh, compared to prices before 1996. The explanation for this is that the energy tax has increased with approximately the same amount as the electric energy price has decreased. The Swedish government is responsible for this tax increase – the same government that legislated the re-regulation with the argument: make sure that customers' needs for electricity will be secured in a cost efficient way to a reasonable and stable level (Sweden's Electricity Suppliers, 1998).

## 6. THE ANONYMOUS USER BECOMES VISIBLE SUDDENLY SOMEONE SEES ME!

With re-regulation, new playing-rules arose for the electricity companies. They fought with the problem to transform the previously standardised, anonymous and, for the most parts "uninteresting", technology into something more attractive and meaningful. The need to reformulate this 'everyday right' into something you can perceive and not something you take for granted, demands increased profiling and for many companies within

the branch a new or more precise identity. It has been necessary for electricity companies to formulate a clearer and more interesting identity in order to stimulate us – the prospective consumers. The common strategy has been to cultivate products and services. Likewise, the branch has investigated and used what they think identifies you from other groups of consumers. This is obvious in the information campaigns and marketing strategies that are directed at specific customer groups. We - the end-users - have been put more in focus and have become more important.

Prior to re-regulation the end-users was more or less anonymous in the eyes of electricity companies. You were known simply as a "load on the grid", which was both dehumanising and objectifying. Many electricity companies had the position of the producer as well as the supplier of electricity and as long as the bill was paid on time, the electricity supplier was not particularly interested in your wishes, needs or interests. Likewise many of us, as customers, had a similar feeling towards the companies, we were mainly interested in getting our electricity trouble-free. Electricity was, and still is, considered to be a right, a natural part in a well-oiled modern society – the hair-dryer would blow and the light would glow when they were turned on.

After re-regulation, it was difficult for companies to market their product – electricity – as it is considered by the customers to be trivial and ordinary to such a degree that it almost never attracts a second glance. The new play-rules also made it clear that we, the customers, could not be packed together into a homogeneous group. The previously monopolised market with standardised measurements, where everything was similar and categorised, metamorphosed into a competitive re-regulated market where customers' differences are of interest.

One of the consequences of the re-regulation was that it enabled segmenting, appraising and distinguishing the households through the consideration of their expected value for the electricity company. Some of us have been given 'promotions' such as offers of subsidised services and improved security – the best fruit were picked – while others were identified and defined as insufficiently valuable, resulting in them receiving 'demotions' such as increased charges. One example - if you live in an apartment your grid fee will be raised because your low electricity use results in low profits for the electricity company. New customer categories are created, based on our standard and electricity use.

Electricity companies have also tried matching electrons to users, in order to create different kinds of electricity according to different consumers 'needs'. Products and services are constructed for certain groups and are defined based on the branch's assumptions regarding the groups needs, interests and appreciation. Many electricity companies offer "Green Electricity" produced by renewable sources. You can sometimes choose even more specifically, e.g. hydro power and wind power. Environmentally friendly electricity is matched with environmentally friendly consumers. It can also be the case that non-environmentally classified sources, like nuclear power and natural gas-produced electricity can be chosen. You are offered the possibility to indicate an opinion which not only has to do with power production but also an apprehension of wider meaning. The choice of specified electricity, almost always results in a higher price. The earlier tradition of having a universal service that give the same possibilities to all of us, has now changed to a situation where there are many differences and contrasts between and within different products, services and consumer groups.

An evening paper supplement (Kvällsposten, 06/01/01), featured an article about a Swedish family with children, living in their own house in northern Sweden. Long and cold winters result in high electricity bills. The household had not changed their electricity supplier even though they knew that it would result in lower bills. The family had not switched because of an agreement they had with their old supplier, which also included a security insurance up to the time when the company will install district heating in their housing area. However, the man in the family said that if it were not for the insurance he would not hesitate to change supplier. The electric furnace in the house is old and currently requires a lot of service and maintenance, which the electricity supplier maintains until district heating is installed. The family feels that they will reduce their electricity costs in the long run. Many suppliers work to make us, the customers, more dependent of them and thus tying us harder to their company. 'The liberty to choose' can involve deeper dependence and stronger binding to your electricity supplier.

Prior to the re-regulation, the principle contact between you and your electricity company was the electricity bill and when the 'meter reader' came. The supply of electricity was a rather uncomplicated matter. Re-regulation, however, brought along new 'rules', as now several million households had more than a hundred supply companies to actively choose from. Geographic distances no longer matter or create boundaries. You, the anonymous end-user, suddenly ended up in the limelight and your individual choice was suddenly meaningful.

# 7. WHO HAS CHANGED SUPPLIER AND WHY?

#### *C*: - *Is it worth to change electricity supplier*?

*R*: - *No, I don't think so. The electricity prices are quite low and with your small electricity consumption it is not worth bothering..."* (This is part of a conversation between a customer and representative for an electricity supplier.)

In December 1998, approximately 2% of residential customers had installed hourly meters, of which the vast majority were one-family houses. The majority of these residential customers had actually had their electricity company 'pick up the tab' for the cost of the meter and its installation. At this time about 1% of all residential customers in Sweden had changed their electricity supplier (Sweden's Electricity Suppliers, 1999). In a survey, conducted during February and March 2000 by the Swedish National Audit Office (2000), it was shown that 6% of residential customers had changed their electricity supplier before November 1<sup>st</sup>, 1999, when the meter constraint was abolished.

By August 2000, 10% of the country's residential households had changed their electricity supplier and 18% had re-negotiated their contract with their supplier. In both cases, customers have received a lower electricity price (ERA, 2000). It can therefore be assumed that by this date 28% percent of Swedish households had exploited the electricity market's possibilities for lower prices (Swedish National Energy Administration, 2000).

The Swedish Consumer Agency (2000) investigated consumer attitudes to various services, including electricity. The investigation was conducted in the beginning of 2000 and it was found that 30% answered "yes" to the question: "Have you thought about changing your electricity supplier?".

Many enquires have shown that people with higher levels of education and income have changed their electricity supplier more often than any other group. Furthermore, self-contained house owners are shown to be considerably more inclined to change their supplier than apartment owners. Studies have also found that customers in sparsely populated areas and in colder regions of Sweden are more active in changing their supplier (Kraftordet, 2000). The majority of investigations have also shown that more men than women change their supplier. This fact was contradicted by one survey (Swedish Consumer Agency, 2000).

The most usual answer (80-90% of those surveyed) regarding why customers had changed their supplier was the cost of electricity (Sweden's Electricity Supplier, 1999 and The Swedish National Audit Office, 2000). Approximately 6% have been unhappy with their previous supplier and that motivated them to change (The Swedish National Audit Office, 2000 and Kraftordet, 2000).

# 8. THE INFORMATION INVASION

"Please, no more information. If I want some I'll ask for it myself!" (A comment from a man during a discussion regarding information needs.)

In Sweden you can make decisions about variables such as which supplier and what kind of produced electricity you want and even what price you are willing to pay. Through branch information campaigns and public interest we get informed that we should be aware of our possibility to choose our electricity supplier. The presented picture is that we, for our own good, should change our supplier – there are more profitable alternatives than you have today. 10 % have of now changed their supplier. Does this mean that we, in Sweden, are unaware of our possibility to choose or are we simply conservative concerning this question? In an investigation, 79% of the households claimed that they were pleased with their present supplier and therefore did not intend to change (Swedish Consumer Agency, 2000). This does not necessarily signify that we are not selecting, as not to choose can be an active choice.

Many investigations have alluded to a conclusion that there is a sluggishness in making choices, despite the new found freedom to choose. The essence of the decision-situation is that you are standing in front of alternatives - a crossroad where one or several options of varying clarity are represented. Guidance in this decision-situation is

provided by ingredients such as our knowledge, experience and also our feelings, tinted by personal, cultural and social contexts. The information flow after re-regulation indicates that the branch and the public service assume that we, as consumers, have a lack of knowledge about the present alternatives in choosing supplier.

A Swedish study investigating how two Swedish electricity suppliers promote their products and services was completed by the University of Linköping. Also it examined how the two companies regarded their electricity users (Lindstedt and Mårdsjö, 2000). The view of the authors was that household information, presented by the companies, is partly grounded on the opinion that users are a group who hunger for facts and have a willingness to learn and to make their purchases based on facts about the products. At the same time, suppliers appeared to be convinced that customers search for reassurance. Suppliers were also convinced that we, as users, are sensitive to costs, price conscious and above all interested in making choices. Of interest in this case is that other studies have shown that 90% of Swedish households are aware of their possibility to choose, but only 10% have actually exercised this by choosing their electricity supplier (Swedish National Audit Office, 2000). In spite of massive information campaigns - eg. personally signed advertisements in letterboxes, advertisements and articles in newspapers and magazines, TV commercials and information programs from the public interest on TV etc - 46% of us thought that it is difficult to compare the prices between the suppliers and 38% had not even tried to weigh up prices and offers from different companies (Swedish National Audit Office, 2000).

It is possible to find vast quantities of information about the re-regulated markets on the Internet but to date, very few of us have used this medium (Swedish National Audit Office, 2000). It is therefore obvious that the Internet is currently not a sufficient medium to inform all consumers. Furthermore, customers express the opinion that their bills are complicated to understand and they experience difficulties in assessing the benefits of choosing a new supplier (Swedish National Audit Office, 2000). This indicates that, despite of the vast information flow, we (as consumers) have not received the 'right' information about what we really are interested in.

# 9. POSSIBILITY OR COMPULSION

How do I get the most economical, the most environmentally friendly, the smartest, the most thought-through, the most foresighted, the most uncomplicated - simply the best - electricity?!

Electricity companies are currently competing for our attention with many other re-regulated markets that were once monopolies. Various services that were previously overlooked are today demanding our time, engagement and activity. Banks, insurance companies and tele-communication companies represent only a few of the markets that are also demanding more and more attention. In an article that deals with the possibility to change electricity supplier, in a Swedish evening-paper, one can read: "By choosing right you can save money" (Kvällsposten, 2001).

This new information downpour, about previously unseen possibilities, has started reactions such as "Soon you must even choose air. Why choose electricity? It will still come tomorrow" (Kvällsposten, 2001). The decision of which electricity supplier to choose is considerably more complex than the branch typically anticipates. Reregulation demands that we, as private consumers, engage ourselves and improve our knowledge in order to make decisions that may influence our standard of life.

It seems excessive for most people today to put time and energy into decision making, concerning something considered as a traditional right and an 'infrastructural duty'. Today we 'search' for solutions that will 'save' time and effort in our everyday lives. However, this runs counter the level of time and engagement that the we are expected to consume when searching for the best supplier for our home. Re-regulation seems to collide with some trends and wishes in modern society, as it demands more time, energy and specified knowledge.

A consequence that follows from market re-regulation as well as from a changing society is that we can see new business activities testing their wings in newly materialised circumstances. One business model has been based on the fact that households are brought face to face with an increasing number of often new and inexperienced decision making situations. This particular case is highlighted by the Internet company "MamaOnTheNet" (www.mamaonthenet.com). On this site various 'mothering-based' solutions are introduced to relieve this decision making pressure. Such reduction mechanisms can help find the lowest electricity prices, food or telecommunication company based on the characteristics of your household. The company maintains that

changing electricity supplier can be easy - "We have got the lowest oil prices for your household". 'Mum' is able to compare electricity, tele-communication and oil companies and make agreements with those that have the most appropriate alternatives. The consumer is therefore offered "time and money savings". The company can be perceived as a saviour for those households that find it difficult to understand the routines involved in changing an electricity supplier, therefore providing "fast and easy ways to reducing costs".

### **10. CONCLUSION AND DISCUSSION**

Does this article visualise how Swedish households experience individual possibilities to choose in the reregulated Swedish electricity market, as the title of this article "Help, I Need Somebody" hopefully suggests? Do we, as Swedes, feel that we have received this possibility or are we compelled to make a decision about our situation? If we, as consumers, look at our total electricity cost per kWh we can declare that the fee has not changed appreciably during the period following re-regulation. However, we use more electricity in our homes today, which results in a small but increased amount in the household budget. The fact that taxes and other charges today constitute a major part of the total electricity price is nothing that we, as consumers, primarily reflect upon as long as it does not show in our wallets.

The cost of electricity use in our households has not called for our attention, but nevertheless the information flow from the branch and from the public interest has. We are exposed to information regarding our possibility to choose supplier or to negotiate: regarding the electricity price, what 'type' of electricity we want and what 'services' we need. We obtain information concerning why it is good for us to negotiate our electricity contract. At the same time, the growing pile of information, leaflets and articles, signals to us that we should be interested and therefore inform ourselves about the subject. The problem, however, is that the issue under discussion is something that we commonly think should be taken for granted, something that should run by itself and something that should not demand our attention at all. In order to find the optimal solution for our household economy, new or improved knowledge is needed. You have to acquaint yourself with the different alternatives that exist on the market and what advantages these exclusively can give you and your housing.

The message in the information flow is that you really **should** use your possibility to choose. From the individual perspective this (possibility) does not necessarily represent a 'freedom'. The feeling and experience that 'I should engage myself' has, among other things, stimulated new business ideas. New services are formed and new products are introduced. An example of this is MamaOnTheNet that offers a 'relief' in the situation of indifference and decision anguish. By taking over the responsibility for time consuming and energy demanding decision-making, the company helps the individual with all of the felt compulsions – charging a fee, of course. The actual response of such business is relatively low but the emergence and variety of similar business ideas indicates the individual's need for simplified and time-saving solutions.

This paper is intended to be a contribution to the discussion regarding the re-regulated electricity market in Sweden and it is partly a result of a present cross disciplinary project 'Effekthushållning i byggnader' (Load Management in Buildings) conducted at the Department of Heat and Power Engineering at Lund University. Peter Matsson is a PhD-student and an engineer in energy technology. Anna Ketola is an ethnologist and PhD-student within the same project.

## 11. ACKNOWLEDGEMENTS

This study was carried out with financial support from the Swedish Council for Building Research, grant No. 19970426 and the Swedish Electrical Utilities R & D Company - Elforsk, grant No. 4083, to the Lund Institute of Technology, Dept. of Heat and Power Engineering, Div. of Energy Economics and Planning, Sweden.

#### 12. REFERENCES

Aftonbladet, 15/10/2000; *Elval*, Advertising Supplement. (Article in Swedish)

ERA, 2000; Två av tre konsumenter har fått lägre elpris, nr 9. (Article in Swedish)

Kraftordet, 2000; Många vinnare på nya elmarknaden, No. 3. (Report in Swedish)

Kvällsposten, 06/01/2001; Dina Pengar, Advertising Supplement. (Article in Swedish)

Lindstedt, I., Mårdsjö, K., 2000; *Köpa El och Byta Spis – en studie i argumentationen*, Arbetsnotat nr. 225 Dec. 2000 vid Tema Teknik och Social förändring, Linköping University. ISSN 1101-1289. (Report in Swedish)

Official State Investigation SOU 1994:44, 1999; Öppen elmarknad, Delbetänkande av LEKO-utredningen. (Report in Swedish)

Svenska Kraftnät, 2000; Den svenska elmarknaden och Svenska Kraftnäts roll. (Report in Swedish)

Swedish Competition Authority, 1996; Fungerar elmarknaden?, 1996:3. ISSN 1401-84308. (Report in Swedish)

Swedish Competition Authority, 1998; *Avreglerade marknader i Sverige – en uppföljning*, 1998:3, ISSN 1401-8438. (Report in Swedish)

Swedish Consumer Agency (Konsumentverket), 2000; *Tjänste bra?*, *Marknad*, *kvalitet och klagomål – konsumenter om nio tjänstebranscher*, Report 2000:20. (Report in Swedish)

Sweden's Electricity Suppliers (Sveriges Elleverantörer), 1998; *Strukturförändringar på den svenska elmarknaden*, ISBN 91-7622-138-5. (Report in Swedish)

Sweden's Electricity Suppliers (Sveriges Elleverantörer), 1999; Vad tycker elkunden om timmätare och elpris, ISBN 91-7622-143-1. (Report in Swedish)

Sweden's Electricity Suppliers (Sveriges Elleverantörer), 2000; *Marknads- och strukturrapport 1999*, ISBN 91-7622-157-1. (Report in Swedish)

Swedish National Audit Office (Riksrevisionsverket), 2000; *Kunden är lös! – konsumenternas agerande på de omreglerade el- och telemarknaderna*, Stockholm Riksrevisionsverket: 68. ISBN 91-7498-425-X. (Report in Swedish)

Swedish National Energy Administration, 2000; *Utvecklingen på elmarknaden 2000:III, Schablonberäkning*. (Report in Swedish)

http://www.mamaonthenet.com (16/01/2001)

http://www.elbyte.nu (12/01/2001)