

The Construction of the Energy System

The Political Debate in Sweden

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Abstract

In the last time environment issues, and especially climate issues, have been given a lot of attention in the debate and the political conversation, both nationally and internationally. It has also been a big issue at European Union level. On February the 20th 2007 all the EU ministers of energy agreed to reduce greenhouse gas emissions. The agreement is seen as a succession to the Kyoto protocol and by the year 2020 emissions will have been reduced by 20 per cent. The aim for the EU, according to the protocol, is to reduce energy consumption, improve competitiveness, reduce dependence on the rest of the world, be a role model in the climate issue and to be the first in line to develop techniques that reduce carbon monoxide discharge. The aim to create a valid energy system, with renewable energy sources in a central role, is a goal that also goes back 27 years in Swedish politics. This goal is the result of Sweden's fourth referendum, which took place in March 1980, where the Swedish population had their say on nuclear power. The referendum resulted in a decision to phase out the Swedish nuclear power by the year 2010. This study focuses on the political debate concerning the new direction of the energy system with the decision made in 1980 as its starting point. With help from an analysis of political documents an image is given of the conceptions and the debate that has taken place ever since the decision that renewable energy sources will replace nuclear power.

Introduction

Over the last year environment issues, and especially climate issues, have been given a lot of space in the debate and the political conversation, witch also has been a contributing factor to energy as a main topic. It has also been a big issue at European Union level. On February 20th 2007 all the EU ministers of energy agreed to reduce greenhouse gas emissions. The agreement is seen as a succession to the Kyoto protocol and by the year 2020 emissions will have been reduced by 20 per cent. The aim for the EU, according to the protocol, is to reduce energy consumption, improve competitiveness, reduce dependence on the rest of the world, be a role model in the climate issue and to be the first in line to develop techniques that reduce carbon monoxide discharge. In the agreement, the importance of using renewable energy to reduce greenhouse gas emissions is highlighted. It is not, however a question of reducing energy

consumption, but rather to find alternative solutions, both from an economic aspect, as well as an environmental.

Aware of the growing global demand for energy, the increase in energy-related emissions and the likelihood of rising energy prices; IS CONFIDENT that stimulating substantial improvement of energy efficiency on both the supply and demand side and expansion of renewable energies will enhance energy security and reduce greenhouse gas emissions; (Council of the European union press release, 2007))

Even if the issues have been at the board before, this decision is a sign of breakthrough for the energy- and environmental issues in the EU.

The aim to create a valid energy system, with renewable energy sources in a central role, is a goal that also goes back 27 years in Swedish politics. This goal is the result of Sweden's fourth referendum, which took place in March 1980, where the Swedish population had their say on nuclear power. The referendum resulted in a decision to phase out the Swedish nuclear power by the year 2010. (government bill 1979/80: 170) Sweden is a very interesting example, not just because of the early decision to phase out nuclear power and transforming the energy system, but also because Sweden is often seen as a forerunner in environmental and ecological policy.

This study focuses on the political debate concerning the new direction of the energy system with the decision made in 1980 as its starting point. The study is based on policy documents and will give an overview, in order to underlie a deeper survey in a later study. The results should therefore be seen as tentative. The empirical material is mainly made up of three government inquiries from 1984, 1995 and 2003. (SOU 1984:61, 1995:139 & 2003: 80) During the periods of the inquiries the Social Democrats have been in power. To contextualize the material, relevant literature was used. During the main time of the period studied the Social Democrats have been in power and the Liberals has been in opposition. It is also the Social Democrats who have been in the government at the time of the different inquiries that are being analysed.

Politics can be studied in many different ways and in this case policy documents are used to create an image of the energy policy and how it has been articulated and constructed during this period. Critical discourse analysis in the study works as both methodological tool and a way of understanding the process of change that has taken place during the period. With the political documents as starting point, along with the tools of discourse analysis it is possible to identify the goal conflicts and controversies that have characterized the Swedish political debate.

Through the analysis the conceptions concerning the energy transition are understood, and also which view is supplied through the texts. It is conducted by analysing texts and focuses on formal features of the text, such as context, choice of words and grammar, how the language is used, what words and expressions are used and what symbolism can be found in the text et cetera. (Fairclough 2003)

The Referendum

In March 1980 the referendum concerning nuclear power and which direction the Swedish energy system was going to take in the future was held. There were three alternatives to choose from and all of them involved a phasing out of the nuclear power and a development of the renewable energy sources. What separated the different alternatives was first of all when the phasing out was going to take place. In alternative 1 and 2 the reactors that already had been planned would still be built and used during its “technical and economical term of life”.

What separated alternative 1 from alternative 2 was that alternative 1 suggested that the electricity production would be owned by the government, something that the advocates of alternative 2 could not agree on and this resulted in two alternatives. The third alternative suggested a phasing out of nuclear power within a ten year period. The results of the referendum showed that alternative 1 got 18.5 per cent of the votes, alternative 2 got 39.3 per cent and finally alternative 3 got 38.6 per cent. (Lewin 2001) The result of the referendum is often described in terms of a decision of phasing out nuclear power, which of course it was, but it can also be viewed as a decision of development with the renewable energy sources in focus. What is remarkable is that all three alternatives suggest a phasing out of nuclear power, and a transition to renewable energy sources. The debate prior to the referendum had been straggling and the different alternatives had a bigger spread than what was possible to formulate. The phasing out discourse was so strong that even the pro-nuclear fractions were forced to a formulation in favour of phasing out nuclear power.

In post-war Sweden nuclear power had been described as the solution to all problems of society and utopian terms were used to describe atom technology as the technology of the future. The economic growth and the boom led to increased welfare and thereby an increased need of energy and dependence on imported oil. For Sweden, it was of great importance to be self-sufficient in the energy department. Swedish energy politics had been pervaded by the thought of an increased energy production being a fundamental condition to be able to build the welfare society. Nuclear power was the obvious solution, and remained so until the early seventies. (Lindqvist, 1997) During the second half of the sixties, the environment movement began to grow and environment became a prioritized political area. Nuclear power was still described as the future, and was highlighted as the environmentally friendly alternative. In the early seventies, reports suggested that there were risks involved in nuclear power and environment groups in the US started to organise an opposition in the wake of the environment movement that started to gain power during the second half of the sixties. There had been a radicalization of the debate climate in Sweden, as well as the rest of the west, something that affected the Swedish energy debate. This led to already well established environment organisations in Sweden becoming opposed to nuclear power (Anshelm 2000). It was also during this period of time, 1970 -1971, that all of the political parties in the parliament agreed on building eleven nuclear reactors.

During the seventies the idea of growth, which had characterized post-war Sweden, was doubted and the ecological rhetorics had a bigger impact in the debate (Lindqvist 1997). The criticism pierced through the Swedish public and was not only represented by radical environment groups. The utopian visions of atom

technology that previously had characterized the debate had lost its shimmer and instead alternative utopias were given some impact. (Anshelm 2000) The ideals of modernity, where technology, development, science and economical growth had prominent roles, were now not that obvious. Foremost technical arguments against the safety of nuclear power were highlighted, but also the argument that it was dangerous for man. In the footsteps of this, there were criticism from a wider perspective and nuclear power issues were also related to issues of terrorism, nuclear threats, pollution, international solidarity and the industrial-capitalistical society's opinion of nature.

In the criticism, a vision was then developed about a different kind of society, which can be seen as a contrasting picture to the previously dominating picture (Anshelm 2000). Ideas were brought forward of a society where the ideals of modernity were abandoned. The question expanded into not just concern the technical solutions and what energy system was the most optimal, technically and economically. It also became a discussion about what kind of society one wanted to achieve, what the future would look like and how people wanted to live. The critics opposed to the increased energy consumption and the exploitation of nature resources. They said that it would take a complete change of society to avoid an ecological disaster. The prominent thoughts were that energy production and energy consumption has to be adapted to nature's resources. It was clear that it had been a ideological change in the debate and the questions were moved from the technical level to concerning something more human. (Anshelm 2000) The visions of a different society gained a lot of support in the Swedish energy debate and it was something that everyone had to relate to, even if they had a different point of view. As an alternative to growth society the low energy society was introduced. This was a society that would reduce energy use but it was first and foremost a reaction to what was described as the high energy society.

In the late seventies, the debate changed more and more and once again it was the radical environment movement that stood alone with its ideas of an alternative society. Focus was once again on technology and the wider issues of society were out of the limelight. The energy supply problem was to be solved with better and more advanced technology. The environmental issues were still important, but not in the same way as they had been before. What made the circumstances change again was the Three Mile Island-accident in Harrisburg in 1979. Political parties changed their attitude and the proposal that the Swedish population should be allowed to have their say in the nuclear issue, in a democratic point of view, was raised. (Anshelm 2000)

The result of the referendum was set and all parties, with one exception, had committed to follow the result. The decision would be the foundation of future energy politics and that the future energy system would be built on enduring and preferably renewable and domestic energy sources. It was also important that the system was built in such a way that it is easy to adjust to changes in Sweden and the rest of the world. To reach a lasting energy system an effective energy housekeeping was pointed out. (Proposition 1979/80: 170)

From Facts to Visions

The time after the referendum can be characterized with compact silence compared to the prior debate that was so intense. After the referendum the lively discussions about a new kind of society vanished. Also, the debate about the transition of the energy system, that had had such impact on the debate during large periods of the seventies seemed to have become weaker. Still the final year, 2010, was so far ahead that in reality it meant nothing to the real politics. Also, there were installations that were still under construction, close to being finished. The debate that yet was held concerned above all how the result of the referendum should be interpreted (Anshelm 2000). For obvious reasons the connection to the referendum is clear in the first big government inquiry that was made after the referendum and in the descriptions concerning the transition of the energy system, first and foremost it is the phasing out of nuclear power that is intended. Fossil fuel is highlighted as a replacement to nuclear power, not the renewable energy sources. The risks of a nuclear accident are mentioned but are immediately followed by a statement that if nuclear power is replaced by fossil fuels the discharge of carbon dioxide will increase. According to the inquiry the risks of nuclear accidents *may* decrease if reactors are closed. However, it is pointed out that the risks concerning the environment and health are still there because of nuclear power still being used in the countries around Sweden. A phasing out of nuclear power might also benefit the nuclear power of other countries (1984:61). The negative effects of nuclear power are directly related to something that could be seen as more than negative. The gist of such reasoning leads to a decreased faith in the prior outcome of the referendum and is set for opportunities of a reassessment of it. The renewable energy sources are described in accordance with the decision of the referendum as desirable but they are given small possibilities to, in the near future, be the solution of the energy supply on a wider scale. They are described as too small-scale to be trustworthy. The trustworthiness of the outcome of the referendum is also something that is being questioned in the inquiry. It is not a question of *when* the phasing out is taking place, but of *if* it will ever take place. The reasons for this are in the first place economical. A phasing out of nuclear power demands large investments and would probably lead to big economical sacrifices. It is also the economical arguments that, together with the technical descriptions, are reflected in the text. The lack of visions and a new kind of society is obvious. The two oil crises in the seventies were still in fresh memory. The development is about Sweden, and security is a big priority. The uncertain energy market leads to demands of stability within the country and the energy is there to secure the development of welfare and supply cheap energy for the industry. (1984:61).

Afterwards there was a gradual change and the focus on nuclear power became smaller and the phasing out was no longer the central issue. The feedback to the referendum became weaker and the transition was instead discussed in wider terms. The energy system was also put in bigger perspective and visions were given bigger space. In the government inquiry from the nineties that is analysed, the increased internationalisation and changes in the surrounding world are reflected. The nation is not raised in the same clear way as it was during the eighties. Even if Sweden still is at centre stage, bigger importance is attached to being a part of the rest of the world. The membership of the European Union is one such factor and in the text one can see the international environment work that is conducted in for example the Brundtland report and the Rio conference. However, the economical arguments are still at centre stage (1995:139). This is a development that became even more clear in the 21st century. The whole community is now included in a different way than before and ecological, economical and social factors are

highlighted. There is a whole apparatus of conception that the inquiry relates to and energy is described in terms of a socio-technological system. This leads to focus being on painting visions of the energy system of the future. Great importance is attached to the economical factors, but it is still rather focus on opportunities and driving forces rather than obstacles. Something that helps give the text that feel is that the inquiry is allowed to move boundaries more than the other inquiries did. It also has a longer time perspective and takes the international perspective into bigger consideration (2003:80). It is also a fact that the way of thinking that pervaded Swedish environmental politics during the last years also affected energy politics.

The Role of the Environment

Since the referendum in 1980 a lot has happened in the environmental area in Sweden and internationally, which to certain degrees also has affected the energy area. In the government inquiry from 1984, focus is mainly on the local environmental issues and especially pollution and health effects. The municipality is highlighted as an important actor and it is considered important to adjust energy housekeeping to the changing local conditions. It is rather the importance of the energy system mainly being based on domestic fuels that is prioritized ahead of their renewability. Sweden's role in the international context is brought up, something that will be even more important in the later inquiries. In 1987 the Brundtland report came out, and it gave attention to the global environmental issues. This put the climate issue and especially the greenhouse effect on the agenda in Sweden, as well as in many other countries (Vedung & Brandel 2001). The two main problems that were brought to attention in the Brundtland report, nuclear power and fossil fuel, were both pressing issues in Sweden. In 1988 Sweden had a general election that later has been described as the environmental election and the environmental issue was described as the individually most important political issue. These factors, together with among other things the agreements reached in Rio in 1992, made the environmental issues more important, something that was also reflected in the government inquiries. In the inquiries from the nineties an increased internationalization is shown, along with a bigger awareness of the global environmental issues and especially the climate issue. It is discussed in association with discharge of carbon dioxide and thus also in relation to the energy politics. It is also pointed out that the decisions made are made in agreement with the undertakings Sweden made with the climate convention of the UN. In the assignment of the commission is also to analyse the social-economical, environmental and energy political consequences of shutting down one or more reactors in the nineties. It is also important that this inquiry and analysis is made in the light of the climate changes and the importance of limiting these to a lasting level, both from a social and an environmental point of view. Even though big importance is attached to international issues and the global environment problems, it is still the economy that is the focus of interest and the Swedish efforts against climate changes has to be weighed against international competitiveness and welfare and employment. (1995:139) During the nineties it is obvious that the changes of the world around has affected the way the energy system is described. The Energy System is also described in wider terms than before. This is a development that became even more obvious in the 21st century. This leads to focus being on painting visions of the energy system of the future. Here, the more visionary trains of thought are given larger room, and thereby also the renewable energy sources. The energy system of the future is described as one of sun and hydrogen. Large attention is attached to the economical factors but still it is rather focus on opportunities and driving force rather than obstacles. (2003:80)

The Green Welfare State and Increased Commercialization

In the mid-nineties environment politics changed and the change intensified when Göran Persson was elected new prime minister. In March 1996 he read his keynote speech where he attached great importance to environmental issues. Göran Persson presented the vision of the green welfare state. The foundation was to create an environmentally lasting society side by side with new technology and economic growth. (Protocol 1995/96:74 3-4) Sweden would become a role model and concentration on the ecologically lasting was touted as a competitive strength that would promote economic growth. The earlier opposition between economic growth on one hand, and respect for the environment on the other was no longer a problem. The strive for the ecological society had gone from being an obstacle to having become a driving force for both the technical and the economical development. The environment was an area that was in focus of the political debate. In the business world it became important to market companies as environmentally friendly. “Green technology”, “green production” and “green jobs” became expressions that were heard more and more and in consumption it became more usual with environmentally labelled products. (Linderström 2001). After the launch of the conception of the green welfare state, the ideological direction of Swedish environment politics changed too. With the green welfare state a vision for the future was also created. It was made possible because ecological respect does not mean forgoing economic growth, increased employment and technological development (Anshelm 2000). The conduct can also be described in terms of ecological modernisation, which can be seen as both a political programme and a research theoretical tool to understand society. (Hajer 1995). The change towards ecological modernisation started in the late eighties and continued into the nineties. The environment would be integrated in the present politics and it was brought forward as an alternative that gains everyone, a win-win situation. Because of the ecological modernisation it also became hard for the environment movement to maintain their earlier critical attitude with the erased antagonism. (Anshelm 2000)

The green welfare state and the development towards ecological modernisation is also reflected in inquiries from the late nineties and early 21st century. It is obvious that there is a strive towards projecting a positive picture of the energy transition. It will become a common project and all actors will be included, nationally as well as internationally. Great importance is attached to the actors of the business world. (1995:139 & 2003:80). The inquiries make an impression of a great confidence in research and development contributing to the energy system transition, even though the inquiry from 2003 has shown that it has not happened to the extent one had hoped for. A sweeping transition of the energy system will, according to the inquiry, mean a great cost. Despite this the text shows a great faith in the will of the business world to help run the development, and shows that the view of the transition is more optimistic than it was before. (2003:80)

Conclusions

We are now not far off from the goal (2010) that was set up in relation to the referendum in 1980. By the year 2010 nuclear power was supposed to be phased out and replaced by domestic renewable energy

sources. Big changes have been made in the political debate during this period of time and the opinions about what is the best solution have varied. So has the conduct towards the decision that was made as a result of the referendum. Sweden was one of the first countries to decide in favour of phasing out nuclear power and rearrange the energy system. The debate prior to the referendum was one of the most intense in Swedish political history. The question triggered a lot of emotions and was to concern so much more than just what energy solution would be the most suitable – it became a discussion about how society would be constructed. After the referendum the debate about the “to be or not to be“ regarding nuclear power subsided and the debate that took place mainly concerned how the result should be interpreted. In the first major government inquiry in the energy area the phasing out of nuclear power was given a lot of room, but it was mainly the problems of a phasing out that were highlighted. Great importance was attached to the phasing out of nuclear power being conducted slowly and phased out step by step by regular follow ups in the parliament to decide the more detailed guidelines. When it comes to the transition of the energy system the importance of flexibility and adaptation, in order to adjust to the needs of the future, is pointed out in every single one of the inquiries. It is obvious that they are open to the possibility of not following the decision of the referendum. The argumentation prepares for a redefinition of the decision made in the parliament, but also of the problem. During certain periods the transition of the energy system has solely been about a phasing out of nuclear power regardless what it is replaced by, and during other periods it has rather been about creating visions for a future lasting energy system where focus is on respect for the environment.

In the first inquiry the descriptions of the energy sources are more concentrated on facts, while in the inquiry from 2003 they are put into a wider perspective, which also paves way for visions. The development and the change that has taken place in the energy and environment area is also reflected in the inquiries. In the inquiry from 1984 focus is mainly on the national supply safety and the individual energy sources. During the nineties it is obvious that the changes in the world around have affected also how the energy system is described. In the late eighties the Brundtland report was released and conceptions such as ecological durability and respect for the environment affected the debate and the politics. This is a development that became even more obvious as we moved in to the 21st century. There is a whole new apparatus of conception to relate to and energy is now starting to be described as a socio-technological system. With the launch of the green welfare state and a development and strive towards ecological modernisation, comes also the disappearance of the opposition between growth and respect for the environment, which also has contributed in changing the conditions of energy politics. It is also in this spirit that Sweden is being promoted, both nationally and internationally as a role model in the environment area, this with help from research and new technology.

The nuclear power issue has been somewhat neglected in recent years and with the recent discussions about climate changes nuclear power is by many described as a necessity. The new liberal government declared already at their keynote speech that no decisions will be made regarding nuclear power at all during the whole term of office (2006-2010). Neither will they authorise renewed permission to start the two reactors that have already been closed. (The Government Home page) The energy transition is such an area where long term thinking is an absolute necessity, something that is constantly pointed out in the political debate. That is also what is causing frustration and a feeling that nothing ever happens. Most

people, of course, had hoped that the Swedish energy transition would not have reached any further, but at the same time it is not as easy as just saying that the goals that were set out have not been reached. A lot has happened in the energy area and the development of the renewable energy sources has progressed, but at the same time the use of energy is increasing. By studying the Swedish example and how the political discussions regarding the energy transition has changed, possibilities are created to increase understanding of the political goals and specifically for the transition of the energy system in a wider perspective.

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