

Preparing for Implementation, Construction and Public Support / the Added Value Programme – 14508

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ABSTRACT

Building trust and confidence for understanding, acceptance and durable local relations without loss of integrity for involved stakeholders is of greatest importance for waste management programmes and projects. Close cooperation between industry and municipalities might be a quite sensitive thing; this is by tradition the case in Sweden. It normally tends to generate suspicions and distrust. Potential consequences and societal aspects of the planned final disposal facilities have since the beginning been a great concern especially for nearby residents, the municipalities and their citizens. SKB has over the years tried to listen to and take care of this. Feasibility studies during the 1990's and especially the following 10 years of thorough site investigations included countless local contacts, meetings and activities of all kinds as well as a lot of presence from implementer SKB in the two main candidate municipalities of Östhammar and Oskarshamn. Ambitious socio economic studies and social science research was carried through in close dialogue with the municipalities and other stakeholders. The Swedish spent fuel final repository project is now after decades of research, planning and preparations going through licensing procedures to move on towards decisionmaking, construction and operation. The current phase of licensing procedures is time consuming and hard to forecast. Focus has partly moved from the local arenas and the municipalities to national forums.

Keeping and enhancing our presence, our relations, the trust and the confidence in SKB and the waste management programme that have been built up with lots of patience and efforts during many years is a necessity but also a demanding challenge. The Added Value Programme (AVP) is a crucial piece of the preparations for implementation and continued support. The municipalities came up with the concept and an agreement was signed with SKB and its owners in 2009. The AVP agreement comprises possible benefits of mutual interest, in addition to the direct establishment of the planned facilities. The purpose is to contribute to create good conditions for living, for running business and for a positive enterprise climate promoting new establishments and companies in the host municipalities Östhammar and Oskarshamn. This up to a potential maximum value of 2 billion SEK (300 million USD) with 20% available until the necessary licenses are granted and the remaining part afterwards. Allocation of resources between municipalities is supposed to be 25% for Östhammar where the final repository is planned and 75% for Oskarshamn where the encapsulation plant is planned to be built. Avoiding discussions about compensation, especially in early stages, is recommended. The stepwise approach from feasibility studies to site investigations, current licensing procedures and the AVP has proved to work and the AVP is so far prosperous and promising and seems to be able to meet expectations. From our point of view the AVP is today a functioning framework and platform which makes it possible to deal with these sensitive issues in a constructive dialogue without compromising or jeopardizing anyone's integrity.

INTRODUCTION AND BACKGROUND

The Swedish Nuclear Waste Management Programme

Nuclear waste management is a complex, controversial and challenging field of work. In addition to the obvious need for safe technologies and sites issues like acceptance, trust and confidence must also be treated seriously in transparency and with greatest care. SKB has in Sweden for more than 20 years been operating a final repository for shortlived radioactive waste in Forsmark (SFR) and a central interim storage for spent nuclear fuel in Oskarshamn (CLAB). In early 2011 SKB applied for the necessary licenses to establish a final repository in Forsmark and an encapsulation plant in Oskarshamn for spent nuclear fuel after more than 30 years of research, development and siting.

Historical and Cultural Settings and Earlier Efforts

Traditionally close cooperation between industry and municipalities, regions or The Government is a quite sensitive thing in Sweden. This is very evident when it comes to direct cooperation or financial support from large industries or utilities to small municipalities. It normally tends to generate suspicions and distrust and is out of that reason mostly carefully avoided. Comparable positive examples of relevance are few or non existent. For such complex and controversial projects as final disposal of any kind of radioactive waste there are good reasons to believe these experiences to be of utmost relevance. For SKB it is wise not to include any offers, expectations or promises that could risk the trust and confidence in the company, in the waste management programme or in a specific project. To make clear and to ensure the independence of other key stakeholders, like host municipalities and authorities, is also of utmost importance. Their integrity and credibility shouldn't be compromised or jeopardized at any time.

During feasibility studies, site investigations and pre licensing procedures for the final repository and the encapsulation plant for spent nuclear fuel in Sweden different societal aspects soon became a great concern for involved municipalities, regions, the public and various other stakeholders and consequently also for the Swedish implementer SKB. SKB addressed this by careful listening to expressed questions and worries. Independent experts were appointed by SKB to conduct a number of studies and investigations, in close dialogue with concerned municipalities and other stakeholders, on issues decided to be of particular concern for them and thus also for SKB [1, 2]. Within the framework of SKB's research, development and demonstration (RD&D) programme an ambitious scientific social science research programme was also carried through to complement the technology research and development [3]. Topics and conditions included in the above mentioned studies, investigations or research projects were for instance:

- Population, commercial life, infrastructure and communications.
- Migration and commutation.
- Effects on the real estate market and property values.
- Potential impact on visitors and tourism.
- Opinions, attitudes and acceptance.
- Effects on local and regional socio economy.
- Image, community and business development.

The aim of these activities was to provide precious information, improve knowledge, promote discussions and facilitate future decision making apart from and in parallel with the formal

consultations and licensing preparations. The spent fuel final repository project is now moving from research, planning and preparations towards decisionmaking, construction and operation. Keeping our relations, the trust and the confidence in our company and the waste management programme that have been built up with lots of patience and efforts during many years is both a challenge and an absolute necessity [4].

THE ADDED VALUE PROGRAMME

Agreement, Purpose and Organisation

The purpose of the AVP is to contribute to create good conditions for living, for running business and for a positive enterprise climate promoting new establishments and companies in the host municipalities Östhammar and Oskarshamn. The idea came from the municipalities. Together they approached SKB and its owners, the Swedish nuclear power reactor owners, for negotiations in the year of 2007 to try to settle an agreement before SKB's site selection and permit applications. This aiming to secure acknowledgement for both municipalities for their long participation in the process whatever the site selection would be. For SKB, as for all businesses, proper service and infrastructure around the facilities are of great importance. So is also being an attractive employer in attractive surroundings when it comes to recruiting and keeping competent employees and staff. Then the municipalities must be prepared to assist in offering and supplying services and values that meet the family needs including for example housing, child care, schools and jobs for husbands or wives. After almost one and a half year of negotiations this resulted in the agreement on the AVP [5]. The agreement was signed in 2009 before SKB's announcement of the site selection for the repository, Forsmark in the municipality of Östhammar.

The AVP promotes possible benefits of mutual interest, in addition to the direct establishment of the planned facilities. It shall contribute to create good conditions and to improve them in both municipalities. This up to a potential maximum value of 2 billion SEK (300 million USD) and depending on if relevant projects and ideas are launched and approved. 20% available for the period until the necessary licenses are granted (period 1) and the remaining part afterwards (period 2). It must be clearly underlined that everything is based on resources and support to calculated values. No money is handed out or distributed directly. Allocation between municipalities is supposed to be 25% for Östhammar where the final repository is planned and 75% for Oskarshamn where the encapsulation plant is planned to be built. This allocation between the selected and the other municipality was set up and decided before site selection to benefit both municipalities and secure significant investments in both whatever the site selection would be. It's stipulated that the municipalities Östhammar and Oskarshamn may each receive 1,5 and 2,5 million SEK (approximately 225,000 and 375,000 USD) annually to maintain organisations that work with the AVP. The AVP is financed directly by the power companies (Vattenfall, E.ON, Fortum and others) that own SKB, not by SKB itself or with resources from the Swedish Nuclear Waste Fund. The AVP organisation is illustrated in Fig. 1. A specific Steering Committee was founded to be in charge of the AVP. It's stipulated to consist of the following five members:

- The chairman of the board of SKB.
- The vice chairman of the board of SKB.
- The president/CEO of SKB.
- The mayor of the municipality of Östhammar.
- The mayor of the municipality of Oskarshamn.



Fig. 1. The Organisation of The Added Value Programme (AVP).

The Steering Committee decides about how to use the resources of the AVP. It approves or disapproves the projects that, after being raised by the municipalities as ideas or suggestions, have been investigated or studied in feasibility studies and presented for a final decision.

Values of initiated, approved and realized ideas, projects and jobs are calculated and set according to a specific transformation table and then decided and summed to the AVP. Illustrating some examples this means for:

- Ventures/projects: 1,1 (enumeration per SEK) during period 1 and 1,25 during period 2.
- An ordinary job: 0,8 million SEK, based on conclusions from two Swedish professors that the annual value is 75,000 SEK and that a job, as an average, exists somewhat longer than 10 years.
- An SKB job: 2,4 million SEK, such a job is supposed to exist for 30 years in average.
- Co funding: The value in SEK, no enumeration.

Current Status and Contents

At the time of SKB's site selection in 2009 and submission of permit applications in early 2011 SKB and the final disposal project for spent nuclear fuel had become a present, well known and widely accepted actor in the daily life of both municipalities. Since submission of the applications the project has entered a new phase. In parallel with the ongoing licensing procedures and continued facility and technology development the AVP is now a crucial part of SKB's preparations for implementation, construction and public support. Especially regarding current local SKB presence and activities in the municipalities the AVP has now, almost five years after the agreement was signed, become rather well known and a significant actor. A sample of areas, ventures, projects, issues and questions handled, or to be handled, within the framework of the AVP illustrates the main areas targeted as well as the variety.

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General and common projects and operations

- Education.
- Spin off /support for innovation.
- Business development.
- The Association Lift ("Föreningslyftet"), development of non commercial organisations.
- Infrastructure.
- Plant and facility visits.
- Broadening of the labour market.
- Special efforts in the energy sector.
- Head Quarter and office functions.
- Further development of SKB's laboratories.
- Canister manufacturing plant.
- Annual support to the AVP organisations of the municipalities.
- Feasibility studies on ideas/proposals of interest.

Projects and Operations in Östhammar

- Technology and energy college.
- Support to the business incubator (UIC) in Uppsala.
- Entrepreneurship education in elementary school.
- Feasibility study regarding a hotel in Östhammar, consulting services.
- Feasibility study Hargs harbour, consulting services.
- SKB Business Development Co (SKB NU AB), a daughter company that guarantees bank loans and supports business development for local companies.
- Advance to the Swedish Transport Administration for improvements and new construction on the main road connection between Östhammar and the regional center, the city of Uppsala, on condition that SKB gets the authorization to build the repository. The road will thus possibly be completed 5-10 years prior to existing plans.

Projects and Operations in Oskarshamn

- Oskarshamn Krearum Center (OK!-Center), school activities to stimulate creativity and entrepreneurship.
- Atrinova business incubator.
- Nova Research and Development (Nova FOU).
- Nova Nuclear Engineer Education.
- Energy, environment and nature education.
- Äspö hard rock laboratory (research).
- Attractive Oskarshamn (marketing).
- SKB Business Development Co (SKB NU AB), a daughter company that guarantees bank loans and supports business development for local companies.
- Harbour development studies.

Further information, in Swedish, about the AVP is available at the specific web page on the Internet for the programme [6].

Experiences

The agreement and the AVP are so far prosperous and promising and seem to be able to meet expectations. Some minor complications that appeared in the beginning were difficulties to

explain and understand the value, not direct money, concept and the programme limitations as for example the requirement for ideas, ventures and projects of mutual benefit. The allocation of resources, not focusing on the selected site and municipality, was initially found hard to understand and was rather questioned by many stakeholders, media and other external parties. Over time it has instead become a success factor. The more time consuming licensing procedures than expected resulting in later decisions and a longer period 1 of the AVP has led to a need for some adjustments of the conditions and the resource allocation between period 1 and 2 of the programme. This in order to avoid a situation, that was approaching, where available resources during period 1 tended to be finished a number of years before getting the necessary permits for the spent fuel final disposal project. The mentioned complications have needed proper attention but have all been possible to manage without any exceptional efforts or constraints.

CONCLUSIONS

The current licensing phase of the preparations for implementing a spent fuel final repository in Sweden requires new activities and ways of thinking and acting from SKB as implementer. Taking care of the during many years established relations with host municipalities in order to keep their interest, trust and confidence in the project means hard work and facing new challenges. The licensing phase is time consuming, hard to forecast and by nature means lower level of activities and presence from the implementer than in earlier and planned following future phases. Keeping and enhancing our presence, our relations, the trust and the confidence in SKB and in the waste management programme that have been built up with lots of patience and efforts during many years is an absolute necessity but also a demanding challenge. The AVP is a crucial component of the preparations for implementation, construction and continued public support.

The stepwise manner of approaching potential socio economic consequences, synergies with local businesses and other societal aspects in the municipalities and regions from feasibility studies to site investigations, current licensing procedures and the AVP has proved to work. Avoiding discussions about compensation, especially in early stages, is recommended. Such discussions, requirements, expectations or promises shouldn't be promoted too early because they tend to result in negative focus and forgetting the main subject and purpose. Admitting that compensation is necessary actually means an obvious risk to underline and enlarge perceived dangers and distrust. It simply implies or tends to give a picture that there will be only negative impacts and nothing else.

As mentioned close cooperation between industry and municipalities has always been a quite sensitive thing in Sweden. It normally tends to generate suspicions and distrust. Despite this the agreement and the AVP is so far prosperous and promising and seems to be able to meet expectations. Potential success factors behind this are the organisation of the programme, the allocation of resources between the municipalities and the value (not direct money transfer) concept and approach. All this has contributed to a functioning framework and platform which makes it possible for all involved parts to deal with these sensitive issues in a climate of positive dialogue and clear rules without compromising or jeopardizing anyone's integrity.

REFERENCES

1. SKB, *Kärnfrågor för Östhammars kommun (only available in Swedish, title translation "Core questions for the municipality of Östhammar")*, SKB publication, Stockholm, Sweden (2009).
2. SKB, *Kärnfrågor för Oskarshamns kommun (only available in Swedish, title translation "Core questions for the municipality of Oskarshamn")*, SKB publication, Stockholm, Sweden (2009).
3. B. Berner (Linköping University, Sweden), B.-M. Drott Sjöberg (Norwegian University of Science and Technology, Trondheim Norway) and E. Holm (Umeå University, Sweden), *Social Science Research 2004-2010 – Themes, results and reflections*, SKB publication, Stockholm, Sweden (2011).
4. OECD NEA, *Fostering a Durable Relationship between a Waste Management Facility and its Host Community*, NEA No 6176, Paris, France (2007).
5. SKB, SKB's owners and the municipalities of Oskarshamn and Östhammar, *Samarbetsavtal angående utvecklingsinsatser i Oskarshamns och Östhammars kommuner i anslutning till genomförandet av det svenska kärnavfallsprogrammet (only available in Swedish, title translation "Agreement for cooperation on development efforts in the municipalities of Oskarshamn and Östhammar in connection with the implementation of the Swedish Nuclear Waste Management Programme)*, Sweden (2009).
6. SKB, www.skbmervarden.se (specific web page on the Internet for the Added Value Programme with background, agreement and current information etc., only in Swedish).

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