COMPENDIUM

Tour to Sweden and Denmark

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Organised by INFORSE-Europe and AirClim Secretariat, www.inforse.org/europe and www.airclim.se
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INFORSE-EUROPE
International Network for Sustainable Energy

Skaane Energy Information office in Malmoe

Skåne Energy Agency is one of the 13 regional energy agencies in Sweden. The Agency is a unit within the Association of Local Authorities in Skåne with the purpose to work for efficient use of energy and the increased use of renewable energy in the region of Skåne (Scania). The work of the Energy Agency is directed towards all the inhabitants and all the organisations of the region, from the heaviest industrial companies to the private citizen. The agency is independent and often takes the role of being initiators and instigators – always with the goal of decreasing the environmental stress.

The Energy Advisers of Skåne is a network to which 20 municipal energy advisers in the region are connected. The advisors in the network represent all 33 municipalities of Skåne. The municipal advisory service is directed towards the general public, smaller businesses and organisations, and provides consumer information in the energy, environmental and indoor climate areas. The network activities are lead by Skåne Energy Agency.

An important part in all the regional energy agencies' work is to bring out information. Creating contacts is a natural part of the work and through this work the energy agencies play a co-ordinating role in their respective region. Today this is a role no other actor is willing to bear considering the present makeover of the Swedish energy system and the power supply market. The energy agencies hereby form a powerful link between companies, organisations and authorities.

Passive-houses in Helsingborg (36 houses)

Passive houses in Helsingborg is new housing project under construction with the social housing associations "Helsingborgshem" (homes of the town Helsingborg). It is in the Ödåkra, a suburb of Helsingborg, and there will be a total of 36 flats. The inhabitants started to move in May 2010.

The houses are built of concrete and insulated with plastfoam. Ventilation is mechanical and all heating is provided with the ventilation air. The heat sources are solar heating (mainly for hot water) and district heating.
It is one of the projects meeting the Swedish passive house standard that includes the whole passive house construction concept regarding airtightness, insulation, requirements for constituent building elements and efficient heat recovery.
Helsingborgshem also participates in the Eco-City project with EU Concerto support.
Links: http://www.ncc.se/sv/Byggnader/Referensprojekt/Energieffektivt-boende-Odakra/
www.helsingborgshem

Ekocentrum

Ekocentrum is a non-governmental organisation, NGO, with its roots in the Swedish environmental movement. Founded in 1993, Ekocentrum has made a journey from the suburbs of Göteborg into the centre of town, at the Chalmers Technical University area. The self-financed institution lives up to business standards and offers competitive services to the customers. Cooperation and collaboration with different partners is part of the daily practice. The NGO's guideline is promoting a sustainable society.

Air Pollution and Climate Secretariat (AirClim)

Air Pollution and Climate Secretariat is a joint organisation between four Swedish environmental organizations with the main purpose of promoting awareness of the problems associated with air pollution and climate change, and thus, in part as a result of public pressure, to bring about the required reduction in the emissions of air pollutants, including greenhouse gases.

The secretariat was formed in 1982 with a board now comprising one representative from each of the following organizations: Friends of the Earth Sweden, Nature and Youth Sweden, Swedish Society for Nature Conservation and World Wide Fund for Nature Sweden.

The eventual aim is to have those emissions brought down to levels, the so-called critical loads that the environment can tolerate without suffering damage.

In furtherance of these aims, the secretariat operates as follows:

- Continuously monitoring political trends and scientific developments.
- Acting as an information centre, primarily for European environmentalist organizations, but also for the media, authorities, and researchers.
- Publishing a magazine, Acid News, which is issued four times a year and is distributed free of charge to some 4000 selected recipients.
- Producing and distributing information material.
- Supporting environmentalist bodies in other countries in their work towards common ends.
- Participating in the lobbying and campaigning activities of European environmentalist organizations concerning European policy relating to air quality and climate change, as well as in meetings of the Convention on Long-range Transboundary Air Pollution and the UN Framework Convention on Climate Change.

The work of the secretariat is largely directed on the one hand towards Eastern Europe, and on the other towards the European Union and its member countries.

As regards the eastern European countries, activity mostly takes the form of supporting and cooperating with the local environmentalist movements. Since 1988, for instance, financial support has been given towards maintaining information centres on energy, transport, and air pollution. All are run by local environmentalist organizations.

Gothenborg Energy Company

Gothenborg Energy Company is the Western Sweden's leading energy company. They provide customers with energy services, broadband, district heating, cooling, natural gas and the electricity supply network. One of the company's aims is to create energy solutions that are sustainable in the long term. Efficient energy provision is one of the most important building blocks of a well functioning society. To achieve them goal, they have developed into a versatile energy company. They offer services and products that make life easier for both companies and private individuals.

Fordonsgas

Fordonsgas is building and runing CNG-gas filling stations in Sweden but it is also working towards more vehicle owners choosing CNG-gas to run their vehicles instead of petrol or diesel. This is partly because CNG-gas is a cheaper fuel, but most importantly it is because the environmental effects are only a fraction of those caused by normal fuels. Fordonsgas currently operates 33 CNG-gas filling stations in the west of Sweden.

Swedish NGO Office for Nuclear Waste Review (MKG)

The Swedish NGO Office for Nuclear Waste Review (MKG) is an organisation established in 2004 by the Swedish environmental movement. Within the coming years an application for the construction of a Swedish geologic repository for spent nuclear fuel will be made by the nuclear industry. MKG is participating in the consultation process as a critical voice. The goal of the organisation is to assure that the method and location for the disposition of Swedish nuclear waste meets the highest long-term standards for health and environment.

The Swedish name of the organisation is Miljöorganisationernas kärnavfallsgranskning (MKG) and the largest member organisation is the Swedish Society for Nature Conservation. MKG receives funding from the Board of the Swedish Nuclear Waste Fund.

One of the most important current MKG issues is nuclear waste disposal is one of the major environmental issues of our time. High-level nuclear waste in the form of spent nuclear fuel from nuclear reactors is extremely dangerous and needs to be kept from the environment and human beings more than 100,000 years. The Swedish nuclear power industry wants to bury this nuclear waste 500 m underground in bedrock containing upwardly mobile groundwater. Future generations must be protected against the waste and its radioactivity. The repository will also have to withstand at least one ice age. The nuclear industry is willing to build a final repository and have focused their attention on two sites on the Baltic Sea coast, adjacent to nuclear power plants at Forsmark and Oskarshamn.

MKG presently primarily addresses the following issues:

- Does the nuclear industry's current program for nuclear management satisfy the requirements and objectives set out in modern environmental legislation and Sweden's international environmental obligations?
- Is the method for final storage of nuclear waste proposed industry the best method from the point of view of long- security? Can it withstand an ice age? MKG wants the industry explore the alternative of disposal in very deep boreholes, to be environmentally safer in the long term.

Is a coastal site for a final repository a good choice from environmental point of view? Assuming that the nuclear industry's current method is chosen, MKG wants the industry to consider sitting the repository inland site having a downward groundwater drainage pattern may prove environmentally safer in the longer term.

Frederikshavn - A Danish Energy City - 100% RE

Within a few years, the project 'Energy City Frederikshavn' will prove that it is possible to supply an entire city with energy without making use of fossil and polluting energy sources - coal, oil and natural gas.
The goal is both ambitious and simple. By the end of 2015, Energy City Frederikshavn will be 100 percent supplied by renewable energy in terms of electricity, heat and transportation.
The plan is not just possible on paper. With existing technology, and strong political power, we can build the future already today.

The idea for the creation of a Danish Energy City was born in 2006 at the so-called Energy Camp, where some of the country's leading energy experts were assembled. They argued that, with the creation of a Danish Energy City as a demonstration project, energy technologies could be developed, tested and produced at the scale of 1:1.
The experts identified Frederikshavn as a possible location for the project, due to Frederikshavn's size, wind and sun conditions and its access to marine and agricultural areas. Moreover, Frederikshavn Municipality has a long tradition for following new paths - even when the path is unsafe and challenging. These arguments were decisive for the election of Frederikshavn as a Danish Energy City development and growth

The experts emphasised the area's special qualities:

* is a self-contained city with its own regional catchment area;
* is of a size that allows for testing energy-industrial solutions;
* has the right location near agricultural and port areas, where many technologies can be involved;
* already has plants for electricity and heat production, which is a good starting point;
* already has an offshore wind farm research project, with more on the way; and
* has great willingness and not least the drive to carry out ambitious plans.

100% renewable energy by 2015

Frederikshavn City Council adopted the energy experts' idea and decided in the spring that Frederikshavn City, Strandby and Elling will use 100% renewable energy for electricity, heat and transport. The unique characteristic of Energy City Frederikshavn is that it is not dependent on a single technology or particular field of activity, but is rather developing a coherent renewable energy system. Frederikshavn will be among the first "fossil cities" in the modern world to switch over to an exclusively renewable energy supply.

Model city

Frederikshavn will be a "demonstratorium" where Denmark's leading energy technology will be developed, tested and demonstrated in full-scale. Energy City Frederikshavn will be an exhibition area for Danish energy technology to show that the right combination of energy technologies can supply the world's cities with exclusively renewable energy.
The goal of the government's new energy plan is to double, or more, the share of renewable energy in Denmark by 2025. As a model city, Frederikshavn can play a decisive role in attaining that ambition.

Five advantages

Energy City Frederikshavn offers advantages in five areas:

- Environment – improved climate development; no use of fossil resources
- Business – new enterprises in the energy sector
- Residence – an attractive city to live in and visit
- Education – cooperation with universities and technical institutes
- Image – Frederikshavn to be known, and can market itself, as a green city.

This vision will require investments in the billions. Public and private companies must invest in new plants and technologies. These investments must be able to pay for themselves – both environmentally and financially. This also means that the vision must be realised with respect to market conditions.
Link: http://www.energycity.dk/en/energycityfrederikshavn/

AiH - Co-operative Society in Hjortshøj *"Andelssamfundet i Hjortshøj"*

Association: AiH is an association, which is open to membership to everybody.
Membership fee: 300 DKK/ year
Members: About 130 adults. Most of them are living or plan to live at the Co-house groups of AiH.

Contact Address: Gammel Kirkevej 82, 8530 Hjortshoj, Denmark.
Location: North of Aarhus, 15 km from the main central train station. (3rd zone of Aarhus)
Transport: Local train or bus No. 58 (both from Aarhus main train station).
Established: 1986. **Area size:** 22 hectares

Co-house Groups: **There are 5 Co-House Groups. 3 more are planned presently:**
Co-house Group 1: 10 families in twin houses
Co-house Group 2: 20 families in row houses
Co-house Group 3: 11 families in single houses and one twin house
Co-house Group 4: 26 families in row houses
Co-house Group 5: 17 families in row houses
Co-house Group 7-8: 12+12 families in single houses (under construction)
Co-house Group 6: 16 houses in row houses, handicapped people in between 18-30 (under planning).

Common Buildings: There are 4 Common Buildings and an Exhibition & Office Building
Common Buildings:
Common Building for Group 1 and 2: *"Snail House"* (presently used by Group 3 also)
Common Building for Group 3: *"Oval House"* (under construction in 2000-07)
Common Building for Group 4: "Solhuset"; Common Building for Group 5
Exhibition & Office Building: *"Petersborg"*. *O*ffices include*:*

- Økotech Building Company, Rehearsal room for musicians in Aih
- OVE-Europe (Danish Organization for Renewable Energy).
- INFORSE-Europe (International Network for Sustainable Energy)

Residents: about 100 families: about 400 adults and children.

Lifestyle: AiH aims to be an example of a holistic way of living with sustainability as a keyword in respect ecological, economical and social aspects of life. This approach is visible in many ways in our daily life, examples are:

- Houses are built with an aim to be environmentally sustainable (e.g., rammed clay, earth blocks, wood, paper insulation, solar collectors, ovens, paint from linen oil etc)
- Using compost or separation toilets
- Collected rainwater is used in the common washing machines
- Collected urine is to be irrigated to the willows after 9 months of storage
- Collected faeces is composted and used to fertilize energy-willow plantation
- Collected grey water is evaporated in a energy-willow plantation
- Organic farming, with animals like chicken, cows, and goats
- Optional joining of organic vegetable-growing group
- Optional joining of a car-sharing Association (two cars)
- Optional common dinner three days a week
- Fewer people have cars and more people use bicycles and bicycle trailers
- Building company (Økotech) for environmentally sustainable construction
- Energy Association providing hot water from a wood-pellet and a wood chip burning boiler (Cogeneration of Heat & Power with a sterling motor, installed in 2007-2009)
- Common social events and arrangements (New Year, harvest celebration, art workshops etc.)
- Cultural evenings and days with music, dance, story telling both for adults and children
- Michels's Eco-green shop, organic ice cream The shop is open two times a week.
- Biodiversity care: Re-establishment of a lake in August 2001.
- Gymnastic for different age groups, dancing for children, yoga.

www.andelssamfundet.dk, (Danish), www.ecovillage.dk (English)

Sense of Community - We have an aim for a balance between personal freedom and the needs of feeling to live in a community. We try to develop conditions, which enhance a sense of community among people of all ages and from different backgrounds. There are engineers, school and kindergarten teachers, biologists specialized in dry lands, edible mushrooms and rain forest, carpenters, social workers, two professional circus clowns and an actress of a child theatre.

There are a lot of children living in AiH. They participate in the social events, and are playing a lot with each other. They can freely run and play around in the car-free areas. Moreover, they enjoy to help taking care of animals, picking up eggs, cutting grass, planting, weeding and harvesting. The children often invite their friends from the local kindergarten and the school.

AiH has a size, which makes it easy to recognize how shared responsibility and mutual participation in the work is a necessity for the well being of the community. It integrates many types of work, and internally manages as many functions of daily life, as it is able to. Common houses provide space for common activities such as celebrations, meetings, discussions and common dinners. Most activities operate on a partially shared economy as a step towards recognizing all work as being of equal value. Businesses within the AiH are co-owned and/or managed by employees.

Ecology - In support of ecological awareness, within and outside the AiH, our production and consumption are adjusted in all areas - by taking into account of work methods, choice of tools, resource consumption, waste production, and by buying organic food products, if there is a choice. In Denmark, including the local super market, there is a big selection of organic food products like milk and milk products, bread, greens, fruits, meat, and even beer and vine.

Resident Democracy - AiH is an association, which aims to achieve its goals through the principles of democracy and of co-operational organization. AiH has a board, a chairperson, annual and monthly meetings, where the decisions are made. The structure is based on principles of a "resident democracy". The members are linked to a co-housing group, and to the established associations e.g. car sharing, energy, vegetable farming and other activity groups. All the linked associations also have separate boards, chairpersons, annual and monthly meetings where decisions are made.

Current Structures - A total of 22 hectares (ha.), owned by Aarhus town municipality, is available for this project. We have leased 0.2 ha. for our building company (Økotech) and 0.5 ha. was bought for the 1st co-housing group of 10 families. The 1st group built their twin houses in 1991-1996. The 2nd co-housing group of 20 families rent the houses from a Social Housing Association (Lejerbo) who bought 0.7 ha. These row houses were built in 1995-1996. There are 11 families in the 3rd co-housing group who bought 0.5 ha. and started to build their houses in 1998. By 2004, some ten of them are ready. The 4th co- housing group built 26 row houses for renting, which are owned by a Social Housing Association (Ringgaarden) who bought 0.7 ha. The houses were ready in the beginning of 2002. The 5th co-housing groups' row houses were ready in the beginning of 2004 (Andelsbolig).

Many of the activities in AiH are organized as co-owned associations or co-activity groups. Among others are:

- Organic farming with animals,
- Energy forests of willows (2 ha.),
- Organic vegetable growing group for own use,
- Separate organic gardens,
- Building company, (Økotech) doing paper insulation, making unburned clay bricks, importing separation and compost toilets, and offering lectures, workshops, and consultancy,
- Energy Association providing hot water to the houses from a wood-pillet boiler. There is a plan of building a co-generation plant using sterling motor.
- Car-sharing Association (20 persons share two cars)
- Several working days throughout the year when we are building common facilities (e.g. playground, common houses) or taking care of the common areas.
- Steering groups where people can organize e.g. cultural events, common eating etc.
- Each co-housing group is structured as a separate unit with their own association, activities etc.

Clay Walls - The 1st co-housing was fascinated by clay and its possibilities in house building. They traveled to France and learned the method of rammed earth walls (50cm thick) using scaffolding system. The clay had to be rammed every 6-8 cm. Unfortunately, this method was not legally standardized in Denmark, so they had to build a 2-floor house (present office building) to prove the safety of this construction method. After the approval of the authorities, three twin houses were built from clay, using this method.

Later on, a Dutch company (Oskam) offered its machine to make hydraulically compressed earth-bricks. Afterwards, these bricks were used to make dividing walls inside the houses. The keeping outer walls were then made from wood and gypsum plates.

All clay used is of local origin from AiH's area. The brick-making machine was placed in AiH and mixed the clay with sand. Some of the bricks used at bathrooms are also mixed with cement. The most popular method is painting water based cellulose glue on the surface. Some people mixed it with color, some like the clay surface natural color. The use of unburned clay means a large reduction in energy consumption for house building, and since unburned clay dissolves easily, this technique will also improve recycling. The clay gives a good indoor climate. The clay walls regulate the humidity in the house and good for storing heat.

Insulation – The insulation in the walls (20-25cm) and at the ceiling (30-35cm) are using alternatives to rockwool.

In the co-housing group 1, 2 and in many houses of group 3, the insulation comes from granulated recycled paper, proofed with boron salt to protect it from fire hazards, dry rot, fungi and vermin.

At the rammed-earth walls, the walls got a wood net from outside and the granulated paper was sprayed onto the surface mixed with sprayed water, thereby giving it a paper mashie consistency. The insulation was covered with waterproofed paper with holes.

At the houses with wood structures, the granulated paper insulation was sprayed in between two gypsum plates through holes of about 8 cm of diameter and in the ceiling as well. In the beginning, the granulated paper insulation "paper wool" was imported. Today, there are two companies in Denmark, which produce it.

In co-housing group 4 and some houses of group 3, flax is used as insulation. This is more expensive than paper insulation, but group 4 got support for the price difference because they also participate in a research project on flax as insulation.

In all houses, after the insulation comes an air gap which is covered by wood. If the wood is thuja it does not need painting, whereas pinewood needs treatment with linenoil to make it all weather proof.

The foundations were generally made of light concrete blocks. For floor insulation, flamingo plates were used in most places. New features uses seashells, which is a byproduct and therefore it has only the cost to transport.

Paint - The wooden outer walls are either painted with paint cooked by ourselves or paint based on linenoil bought in town. The homemade paint is a so-called "porridge" paint, which is based on an old recipe with linenoil, resin, rye flour, and whole milk.

Eco-Toilets - To help minimize wastewater, all households have either a separation, vacuum or compost toilet. The basic idea is to collect the waste and re-cycle it as compost as an alternative of building up and maintaining huge sewage cleaning systems and pipes.

All three types of toilets separate the urine from the faeces. The urine is collected and kept in an underground tank for 9 months. Then it is used to fertilize the willow plantation or the willow evaporation basins.

The faeces are treated differently for each type of toilet: The separation toilet mixes the faeces with water that goes to the communal sewage system. The vacuum toilet collects the faeces in an underground tank, which is emptied by the town council on a regular basis. The aim is to be able to treat and compost the faeces within AiH in a few years. The compost toilet collects the faeces in an in-house container, which is normally located in a cellar. The container may have different size. Some has to be emptied every third month, some has three chambers and is rotated and only emptied annually. A ventilator in the toilet secures an odorless process.

These toilets are imported from Sweden and Finland by Økotech.

Waste Water - Rainwater is collected in underground tanks and used for washing clothes as well as for watering the gardens.The grey water of the 3rd group is evaporated in 3 willow evaporation basins (2 of them are closed, and 1 is open, altogether 4 ha.). In the bottom of the closed basins there is a membrane stopping the water to leak away. The willows is cut gradually every fourth year and used as fuel. This concept requires that people only use biodegradable soap, washing powder etc.

Kitchen and House Waste - We compost our kitchen waste at each house and at the common houses as well. The resulting compost is used in the gardens. The chickens eat the remains from cooked food.

Also, we sort and collect papers, and glasses in containers provided by Aarhus town council. There are also recycling locations in the town to place bigger waste, hazardous waste, furniture and clothes.

Biomass - A 180-kW wood-pellet fuelled boiler supplies the central heating for almost all houses. The boiler has an automatic alarm system, which calls in six houses. In addition, many houses in the first and third co-housing group have also wood-burning stoves. In 2003, an additional wood-chip fuelled boiler was installed, which will work as co-generation plant with a 35-kW Sterling motor, producing both heat and electricity. The Sterling motor installation is prepared since 2003, and it has been installed in 2007-2011. The investment is financed 50% by a loan, and 50% by a support from the Danish Energy Agency.

Solar Energy - In the houses of the 1st and 3rd co-housing group, the solar-collectors on the top of the roofs provide 15-20 % of the heating of the houses. On the top of the office house and on another house there are roof integrated solar systems using Aidt Miljø type black plastic tubes, normal water and extension tank. The 4th co-housing group has an ARCON type 80-m^2 solar collector on the top of their common house. The 2nd and the 5th co-housing group have similarly big ARCON type solar collectors on the top of the row houses.

The houses are "zone" oriented, meaning that there are less openings to the north, and rooms which don't particularly need heating, such as toilet, bedroom, and scullery are facing north. Facing south are rooms that require heating, like the living room, kitchen, etc. The windows have energy glazing ensuring a high degree of natural solar heating to maintain room temperature. The principle of the passive solar heating is utilized in the glass-covered balconies.

A PV installation provides electricity for the fences for the cows and other animals.

Agriculture -Our organic farming is legally recognized by the Danish Organic Farming Association, and hence, all our products carry the Ø-tag, The farm supplies us with meat (chicken, goats and cows) and eggs.
In addition, the optional organic vegetable farming group, presently joined by approximately 35 households, supplies us with basic vegetables such as potato, onion, carrot, cabbage, leaks etc. Meat and eggs are paid for per kg or per egg, whereas it costs 1,250 DKK/person/year and 15 hours work of planting and weeding to join the optional organic vegetable farming group and in return one may harvest all needed vegetables for free.
Around the lake, there are apple trees, a small half-open woodshed, and a row of small gardens, where families grow their own “kitchen-garden”, like spices, strawberries, fruit bushes etc.
In 2007, there are plans to make the farm area nicer with small roads, signs and trees. The 2.0 ha. energy-willow forest area was decreased by 0.5 ha, and a so called “forest-kindergarten” is established where children can play, learn about nature.

Economics - The houses built in Co-house Group 1 and 3 have been financed by the peoples' own resources with loans from the mortgage institution Realkredit Denmark, and/or the Academics' Pension Fund, Gaia Trust and the Merkur Bank, which is specialised in investing in environmentally friendly projects. These institutes are generally financing 60-80% of the value of the houses. Even though many people do a lot of work themselves on their houses, building in an environmentally friendly manner is loaded with financial hardship in Denmark. The houses built in Co-house Goup 2 and 4 have been financed by bigger Housing Associations, which wanted to build houses in an environmentally friendly way. Co-housing Group 5 has a cooperative financing structure. The environmentally friendly solutions were also more expensive at these houses than it is an average house.

Future Plans - AiH is a community, which aims to be an example of an environmentally sustainable lifestyle. Our future plan is to instigate people all over Denmark to be inspired by the methods we use in house building, in gardening etc. Therefore, we plan to go much more public with our activities, we want to be more visible in the media, in politics etc. In 2010, there are about 400 people (including children), who live in the 100 houses and row houses. In 2009-10, new co-housing groups (6, 7, 8) are under development. The first houses have been built in Group 8 and 7 in 2009-2010. We have discussed, developed, and formulated our "Vision" of how we imagine the future of AiH. We want to develop the land in the northern part for houses, and we will keep the land in the south for the agriculture, gardens, and recreation. This "Vision" has been presented to the local politicians to influence the Local Plan of Aarhus County for the next two decades. We have tried to influence the decision-making processes by participating in different democratic forums, like hearings for Local Plans and participating in the arrangements of the "Association Against the Highway".

OVE, The Danish Organisation for Renewable Energy

OVE is a non-governmental, non-profit association of 3,000 Danish individual and institutional members. OVE was founded in 1975.

Objectives:
OVE has a strong engagement:
- to influence the development of the Danish and European Energy Policy to be more resource- and environment-conscious especially by facilitating the use of renewable energy.
- to get the people informed of their possibilities to make their own action by installing renewable energy systems in their own homes or institutions in Denmark.

OVE's Activities in Denmark:

Political Lobbying:
- Seeking to be represented in the energy related law and regulation formulating processes through hearings and committees. OVE has been preparing Energy Visions with 100 % renewable energy by 2030, and tries to influence politicians to follow this path
- Evaluating and producing policy and campaign papers on renewable energy issues.

Information Dissemination:
- Publishing a Danish bi-monthly magazine "Renewable Energy and Environment" in Danish for the members.
- Offering a homepage with keys to literature, demonstration plants, companies and other relevant sites on the internet (http://www.ove.org www.ve.dk)
- Participating in exhibitions, organising seminars, courses and teach-ins though the Local Energy and Environmental Adviser Offices www.energitjenesten.dk.
- Promoting information campaigns and services
- Involved in the Energy Forum of Schools aiming to implement more and better education on energy and environmental matters. (http//www.sef.dk).
- Organising meetings at which technicians and users share knowledge and experiences. The main topics discussed are windpower, solar energy, biogas, energy efficiency, and renewable energy in green cities, along with integration of renewable energy in to energy systems such as those for local cogeneration of heat and power.
- Providing expertise to promote environmentally benign uses of alternative energy sources and related technologies.

Co-operation in Denmark:
OVE has gone into co-operation with many other organisations interested in energy in Denmark. This includes environmental organisations, trade unions, the Council of Small and Medium Sized Companies, the Danish Folkecenter for Renewable Energy (http:// www.folkecentre.dk/), and urban ecology groups. OVE is member of the Danish NGO 92-group (www.92grp.dk)

OVE's Activities in Europe (OVE-Europe):
International Networking: OVE plays a significant role in international networking among NGOs. OVE is member of:
CNE, Climate Network Europe, a NGO Network with a Secretariat based in Brussels, Belgium. (http://www.climatenetwork.org/
INFORSE, International Network for Sustainable Energy, a NGO network with its International Secretariat based in Denmark and with 7 Regional Co-ordinators in different continents. (http://www.inforse.org/)

Developing Countries: OVE has had several projects in Africa and Asia

INFORSE-Europe

INFORSE- Europe is one of the 7 regions of the International Network for Sustainable Energy (INFORSE), which is a worldwide NGO network formed at the Global Forum in Rio in 1992.

INFORSE has more than 145 member organisations worldwide and works for implementation of sustainable energy solutions by exchange of information, awareness creation, formulation and implementation of strategies, and lobbying of international forums.

INFORSE-Europe has more than 80 members from 35 countries, which are detailed in our online membership list. Since 2002, INFORSE-Europe has been operating as a separate economic entity. The Bylaws were adopted in 1994 and revised in 2005.

INFORSE is a meeting place for NGOs working on grassroots level as well as on national, regional and international levels, all united on a common strategy for a long- term sustainable development with phasing out of nuclear and fossil energy use.

INFORSE lobbies to promote sustainable energy solutions - renewable energy and energy efficiency which utilise decentralised approaches. All activities seek to protect the environment, and to achieve development.

The structure of INFORSE is based on the member organisations and the Regional Coordinator(s) organize regional meetings and initiatives including conferences, workshops, campaigns, and research projects. The regional meetings are the foundation of the network's democratic structure, with discussions of regional action plans and initiatives. The Coordinators work on regional action plans, secure regional focal-points of INFORSE and coordinate the INFORSE regions. The Coordinators also incorporate the views and initiatives of each region in the planning of the network's global activities.

INFORSE-Europe Activities:
- **Sustainable Energy News** a quarterly newsletter published since 1992.
- **Contact List** - Online Database: 1000 contacts of NGOs, and, research, and educational institutes and decision makers. The database is updated annually since 1992. Searchable according to members, contacts, name of organisation and country.
- **DIERET-** Distance Internet Education Opportunity to study renewable energy via an email course in English on a post graduate level. The course is targeting mainly to increase the knowledge of people active in European NGOs. Started in 2001. The study material is also available on CD. Translated to Russian and Slovakian.
- **Seminars**: INFORSE-Europe has organised NGO seminars since 1992. The seminars are once or twice a year.
- **Energy & Climate in Schools:** Online resource database developed in 2004-06. Cooperation with SPARE. Educational material used in Russia, former CIS countries, Poland, and Romania.
- **Cooperation Projects**: Members are cooperating in projects making mobile exhibition, publications, study visits, campaigns, etc., in Baltic countries and Russia, Romania, Ukraine, Hungary, etc.
- V**ision 2050 - 100%** Renewables INFORSE assists its members with preparing national visions and strategies for transition to sustainable energy systems, following the excel-sheet based model. Models developed for EU, Denmark, Lithuania, Ukraine, Slovakia, Belarus, and Romania.
- Follow EU Policy: INFORSE-Europe follows EU energy and climate policies and comments on relevant parts based on inputs from the members. Updates and INFORSE-Europe positions are available in the Sustainable Energy News and on the web site. Among the EU policies are structural funds, renewable-energy and energy-efficiency directives.

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