



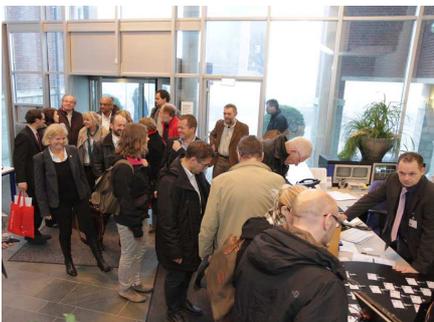
Topic 01: news from within the project

Final Conference of North Sea – SEP in Oldenburg (DE)	2
Sharing project results - regional meeting in Drenthe (NL)	2
Flexibility is crucial in the future Energy System (DK)	3
Leiedal (BE) appointed as Covenant of Mayors supporter	4
Successor for campaign „Solarstrom für Osterholz“ planned (DE)	4
Plan for bioenergy in Kronoberg (SE)	5
Large solar farm built in record time (DE)	6
Achievement of Aberdeen City (UK) through the North Sea – SEP project	7
Training program on Municipal Energy Management for caretaker of public buildings (DE)	8
EU Commissioner for Energy Günther H. Oettinger in Oldenburg (DE)	9

Topic 02: external research news

Relationships between energy consumption and economic growth investigated	9
Proposal for a new European Environment Action Programme to 2020	10

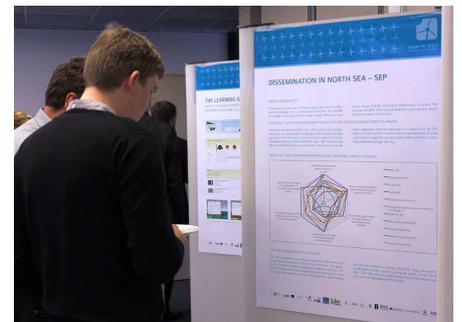
03 Imprint



Final Conference: Registration



Presentation of the GIS Tool



Poster Exhibition



01 news from within the project

Final Conference of North Sea – SEP in Oldenburg (DE)

The project comes definitely to an end. On November, 28th 2012 North Sea – SEP met for its final conference. Jade University of Applied Science as the lead partner hosted the event in Oldenburg, Germany. The European North Sea – SEP partners as well as an interested external audience had the opportunity to get information on the outcomes of the last three years of work.



Jesper Jönsson, representative of the North Sea Region Programme

In technical lectures, workshops and discussions the results of the overall project were represented. Highlight of the event was the

signing of the so called Oldenburg recommendations by all network partners.



North Sea – SEP partners are signing the recommendations

The experiences and results of the project's work have been summarized and concentrated in these recommendations to build the basis for a further transnational knowledge transfer.

Find the event's documentation at: <http://www.northseasep.eu>

Sharing project results - regional meeting in Drenthe (NL)

Now that the North Sea - SEP project is reaching its completion it is time to share results with our regional stakeholders. The Province of Drenthe and the Municipality of Tynaarlo host a meeting at Tynaarlo's Town Hall in Vries on February, 13rd 2013 to communicate local results and lessons learned from our Euro-pean partners over the past years, and to discuss future perspectives in terms of energy policies in Drenthe.



Tynaarlo presents its energy strategy for the coming years to local politicians and representatives from the municipalities, water



NEWSLETTER 01/2013

authorities, policy makers and others involved in regional sustainable energy initiatives. The Province of Drenthe also shares its considerations and perspectives regarding the development and implementation process of sustainable energy in the region.

'Roemer's Odyssey' – a short film produced by the Drenthe partners within the scope of North Sea - SEP – is screened during the

meeting. This film, shown regularly at a wide variety of gatherings, has been a great success and has proved to be a very useful tool for motivating and stimulating sustainable energy initiatives.

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Flexibility is crucial in the future Energy System (DK)

During the transition to a new energy regime, it is crucial that we think of flexibility. So far focus is on reducing the use of fossil fuel, reducing the emission of Greenhouse gases and introducing more renewable energy. But with more fluctuating energy sources like wind and sun, and with an increasing number of individual prosumers (consumers that also produce), it is important to address the flexibility factor.

During the North Sea - SEP project the Danish Partner has focused on a baseline inventory and local Energy Action Plans. The work carried out has focused on CO2 emissions, energy efficiency and local resources and introduction of renewable energy. The strategic aspect has only been handled by a municipal cross border approach that will support the national and EU goals for climate action, and by looking at a longer timeframe like 2050. The issue of fluctuating renewable energy sources is mostly handled by introducing the idea of Smart Grid.

But the North Sea - SEP project has in the Municipality of Vejle lead off to cooperation with the national Grid owner, EnergiNet DK, and INSERO Energy, a cluster company focusing on developing and disseminating future energy solutions based on renewable energy.

This new project aims at researching and introducing a new concept of flexibility and creating a model for measuring the amount of flexibility a certain action will introduce in the energy system. We foresee that this measure is very important when trying to prioritize between climate actions.

Figure: Three important criteria to reach an effective energy transition

Høj CO ₂ -reduktion	Høj Energi-effektivitet	Høj Fleksibilitet
Lav CO ₂ -reduktion	Lav Energi-effektivitet	Lav Fleksibilitet

Not only CO2 reduction should be considered, but also a high energy efficiency and high flexibility to integrate fluctuating energy sources.

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NEWSLETTER 01/2013



Leiedal (BE) appointed as Covenant of Mayors supporter

NORTH SEA PLANNING

Leiedal is assigned by the directorate general for energy of the European Commission as a coordinator of the Covenant of Mayors.

Leiedal is an association to support the socio-economic development of 13 cities and municipalities in the Kortrijk region (Belgium). Now these local governments will be guided and supported to develop local "sustainable energy action plans" (SEAP's), with their reporting, and with their carbon *emission monitoring*.



The Covenant of Mayors is a voluntary agreement between the EU and local governments that will support the EU energy and

climate policy (20/20/20 targets). Local governments are acknowledged in their role to integrate energy in several local policy fields. They are often forgotten key actors in the transition towards a sustainable energy system.

As a coordinator, Leiedal continues the role it took up with the development of the regional energy strategy for the Kortrijk region, a result of the North Sea - SEP project.

In addition, Leiedal also joined The Flemish network of Covenant of Mayors signatories. This network will exchange the experiences of cities, municipalities and regional networks within Flanders, and is directed by the Flemish Organisation of Cities and Municipalities. Find more information at:

<http://www.vvsg.be/Omgeving/Energie/burgemeestersconventant/Pages/vlaamsnetwerkburgemeestersconventant.aspx>

www.eumayors.eu

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Successor for campaign „Solarstrom für Osterholz“ planned (DE)

The opportunity to use photovoltaic produced electricity in one's own household ought to be strengthened.

By the name of „Solarstrom für Osterholz“, the „Energiewende 2030“ realised since 2010 its first campaign in the whole district of Osterholz. In this time a package of services

jointly offered by providers and installers of solar technology, energy suppliers, and banking houses, has facilitated many house owners the access to an own solar system.

Now, with a changing framework of public support of solar energy in Germany and the emergence of new electricity storage tech-





NEWSLETTER 01/2013

nologies, the interest in solutions to consume the self-manufactured energy in the own household rises.



Local supplier of solar power- and electricity storage modules in Ritterhude

The project bureau „Energiewende Osterholz 2030“ acts to the changing need – and strives for a follow-up project, that will make the people in the district to users of clean, self-manufactured energy.

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Plan for bioenergy in Kronoberg (SE)

The purpose of this action plan is to get a general picture of the potential and possibilities for using bioenergy. It will permit the decisions makers and others to select the best alternatives in this complex sector. The deeper purpose is to take us a step closer to the vision "Kronoberg - the greenest region of Europe".

Energikontor Sydost is elaborating this plan right now. The Climate Commission of Kronoberg has been discussing the content of the plan and it will be one important contribution to meet the vision "Kronoberg - the greenest region of Europe" in the long run. Bioenergy is the most important energy source in Kronoberg, most of all the use of bioenergy for industrial purposes and for heating but also for electricity generation and transportation. The availability of biomass is good in Kronoberg and forests are the main source. Although bioenergy is already widely used, there is a large untapped potential, both in the forest but also from agriculture, waste and industrial residues. On the user

side, it is mainly in the transport sector as the fossil fuels still dominate, but there is also much to do in the electricity sector and also on the heating side.



Meeting of developers of the action plan

The Regional Action Plan for bioenergy in Kronoberg is a tool to implement measures that can contribute to the continued development of the bioenergy sector in the region.

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Large solar farm built in record time (DE)

North Sea - SEP enabled energy transition dialog creates the preconditions for developing a 10 MWp solar farm from scratch within 6 month.

The energy transition dialog in the County of Osterholz, initiated by the North Sea - SEP project and the local brand "Energiewende Osterholz 2030", raised the awareness for the planning requirements of all stakeholders involved in the planning of a large solar farm.

Soon after developing the first plans the project developers REON AG and Sybac Solar AG asked the municipality of Hambergen, the County of Osterholz and the local utilities for a joint meeting. In this first meeting in February the requirements for the local communication in the municipality, the planning permission and the connection to the public grid have been fixed. The administration gave a service guarantee for processing a complete planning application. This was crucial to the success of the project, because an end of June deadline set by a major drop in the FiT-System had to be met by the developers.



PV-plant in Hambergen, County of Osterholz

To guarantee a maximum of public acceptance the project, the ecological and economical benefits for the region and climate as well as the impairments during construction have been presented at several public meetings of the municipal council and the building committee during spring. Handing in the planning application end of April 2012, a partial construction permit was issued early in June followed by the final permit just a week before the deadline. Finishing the required work at 29th of June 2012 meant meeting the deadline and a successful completion of the project. The solar farm will now deliver electricity for an equivalent demand of 2.250 households and save 5.000 tons of CO2 per year at least for the next 20 years.

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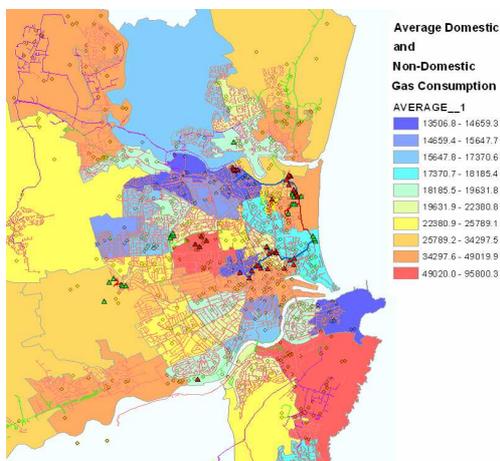


...you can follow
North Sea - SEP on Twitter: <http://twitter.com/northseasep>



Achievement of Aberdeen City (UK) through the North Sea – SEP project

For Aberdeen City Council, the main output of the North Sea - SEP project was the development of a robust GIS heat mapping tool for the Aberdeen City area which identifies areas with potential for decentralised heat generation and will assist in the future extension of the decentralised energy network in the City. The development of the GIS tool involved identifying and mapping the demands for heating, cooling and power, of buildings and different localities within the City, and initial identification of priority areas for further analysis. This was undertaken by consultants from Halcrow Ltd.



Source: Aberdeen Heat Mapping Study Report, July 2011

This piece of work led on to the development of the Alternative Energy Strategy for Council owned Public Buildings which promotes the use of renewable technologies and more efficient means of energy generation. To aid the implementation of this strategy several

strands of work have been facilitated by the North Sea - SEP project which include:

- Study for Potential Wind Energy Use in Aberdeen City – A Wind Energy Study undertaken by REON AG looked at the potential for electricity generation using wind power on Council owned land.
- Biomass feasibility study – an outline feasibility study was undertaken to assess the potential for a woodfuel processing centre at Hazlehead Park.
- Renewables mapping – A working group has been established with the aim to build a comprehensive map of installed Low / Zero carbon technologies (LZCT) as well as areas of potential across Aberdeen City, building on the studies we have already undertaken

Next Steps:

After the official end of the project Aberdeen City Council will continue to utilise the tools and roadmaps developed through North Sea - SEP to develop an own regional energy strategy. And the North Sea - SEP project continues to be represented through the LOWCAP cluster project which Aberdeen City Council is leading. For further information on LOWCAP go to <http://www.lowcap.eu/>

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Caretaker training as a contribution to energy efficiency (DE)

In 2012 the projects "Climate Change and communities" and North Sea - SEP, both located at the U.A.N., performed by the funding of the state of Lower Saxony a municipal energy management training for municipal staff who are working on climate protection. The training focused on non-and low-investment energy-saving measures in municipal properties. The central role of the caretaker in energy saving initiatives has been emphasized within the framework of this training.

In general, caretakers are responsible for the operation of technical building equipment. The tasks like heating the schools and providing lighting and cleanliness are some of the traditional functions of the caretaker. Each energy-saving initiative within the non- and low investment-sector is bound to fail in practice, when the key players are not involved. For this it is essential to communicate context and basic knowledge in the field of energy management. For example, the proper operation of a modern heating system requires special skills. It is the aim of caretaker training to lay the foundation for providing this special know how and raise the willingness to deal with it.

To get a sustainable energy management in municipalities there is a need for training not only for municipal energy manager but also for caretaker of public buildings. So it was decided to offer caretaker trainings for the municipalities of Lower Saxony. Basic knowledge about relations between municipal energy management and energy saving measures in the non- and low-investment area should be taught. Five caretaker trainings for the municipalities of Lower Saxony took place. Almost 400 caretakers throughout Lower Saxony attended the events.

The training sessions were



conducted by experienced engineering offices. The training content dealt with the issues of energy management in the heat and power sector and water saving measures.

Basic knowledge in the field of

- energy consumption and costs
- energy management in the heating sector
- energy management in the electricity sector
- water saving measures

were provided.



Energieeinsparung in Gebäuden –
Praktisches Anwenderwissen für
Hausmeister

The responses to all training courses were very positive. The events offered much practical everyday knowledge, which is creating a basis for the municipal energy management and thus the sustainable use of energy involving the caretakers.

In 2013 training on municipal energy management in communities will be continued to be offered.

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EU Commissioner for Energy Günther H. Oettinger in Oldenburg (DE)

On December 20th, 2012 Günther H. Oettinger, EU Commissioner for Energy visited Oldenburg and Jade Hochschule had the possibility to present results from North Sea - SEP directly on highest political level with a brief presentation in the Oldenburg scientific centre "Schlaues Haus".

The presentation focussed on the implementation of GIS tools in energy planning processes to accelerate these processes. By using state of the art GIS tools a comprehensive analysis of available and unused potentials of renewable energies and energy savings can be developed for public participation but also for decision makers on political and on commercial level to frame possible fields of action for sustainable energy planning processes.

The Commissioner was impressed from the presentation held by Prof. Manfred Weissensee (North Sea - SEP Project Director), so

that during the discussion a meeting with representatives from energy related institutions in Brussels was arranged to present the results from North Sea - SEP also in Brussels directly.



Commissioner Oettinger at the presentation of the GIS tool

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02 external research news

Relationships between energy consumption and economic growth investigated

According to a recent study which investigated the relationship between economic growth and energy consumption in Europe renewable energy plays an important role in economic development. Understanding the link between economic growth and energy consumption is key to energy policies.

In this study, the researchers explored the relationship between energy consumption and economic growth in the EU, using an average of all 27 Member States, plus Ro-

mania and Spain as examples of two individual Members States, for the period 1990 to 2010. The researchers tracked gross domestic product (GDP) per capita to represent economic growth. Energy consumption came from coal, oil, natural gas and renewable sources. Renewable sources included biomass, hydropower, geothermal energy, wind and solar energy.

Results from the analysis reveal that during this time, the share of renewable energies in



NEWSLETTER 01/2013

the energy mix has been steadily increasing in the whole EU. In the long-term energy consumption based on renewables and petroleum products are likely to stimulate economic development. Being aware of the marked influence of renewable energy on growth helps decision makers to define specific measures for developing the infrastructure needed to produce green energy. At the same time, decision makers are able to de-

sign aid schemes for promoting renewable energy and attracting investors.

Source: Pirlogea, C., Cicea, C. (2012) Econometric perspective of the energy consumption and economic growth relation in European Union. *Renewable and Sustainable Energy Reviews*. 16: 5718–5726. Doi.org/10.1016/j.rser.2012.06.010

Find details at:

<http://ec.europa.eu/environment/integration/research/newsalert/pdf/312na6.pdf>

Proposal for a new European Environment Action Programme to 2020

The European Commission has proposed a new Environment Action Programme for the EU. Entitled "Living well, within the limits of our planet", it will guide environment policy up to 2020. The proposal aims to enhance Europe's ecological resilience and transform the EU into an inclusive and sustainable green economy.

The proposed programme builds on the significant achievements of 40 years of EU environment policy, and draws on a number of recent strategic initiatives in the field of environment, including the Resource Efficiency Roadmap, the 2020 Biodiversity Strategy and the Low Carbon Economy Roadmap. It should secure the commitment of EU institutions,

Member States, regional and local administrations and other stakeholders to a common agenda for environment policy action up to 2020.

The Commission's proposal will be considered through the ordinary legislative procedure by the European Parliament and the Council of the European Union. Once agreed, the new EAP will become EU law within 2013. Find more information at:

<http://ec.europa.eu/environment/newprg/index.htm>

03 Imprint

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