

# REENERGY

## Regional Strategies for Energy Conscious Communities

### Overview

Funded by the European Union's Regional Development fund, REENERGY brings together energy conscious public authorities and research institutions from across Europe. The project aims to tackle climate change through close interregional cooperation.

It will give partners the opportunity to share ideas and resources, adding an integral local dimension to the pursuit of national and European green targets.


The project is about more than reducing carbon emissions. Building on the three thematic pillars of; community involvement, policy-making, job creation/business growth, it will use case studies and "Energy Labs"\* to learn and develop comprehensive strategies, intended to transform the budding European green economy from the ground up.


**Total Budget: EUR 2,210,186**  
**78% ERDF funded**


### Participants


The partnership consists of 12 partners from 10 countries, including 8 Local Authorities.


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Province of Potenza, Italy (Lead Partner) - [www.provincia.potenza.it](http://www.provincia.potenza.it)
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National Research Council of Italy CNR-IMAA, Italy - [www.ima.cnr.it](http://www.ima.cnr.it)
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City of Tulln, Austria - [www.tulln.at](http://www.tulln.at)
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INTELI – Intelligence in Innovation, Portugal - [www.inteli.pt](http://www.inteli.pt)
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City of Worms, Germany - [www.worms.de](http://www.worms.de)
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Durham County Council, UK - [www.durham.gov.uk](http://www.durham.gov.uk)
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The Association of Municipalities Polish Network "Energie Cités" (PNEC), Poland - [www.pnec.org.pl](http://www.pnec.org.pl)
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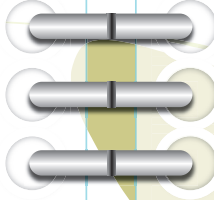
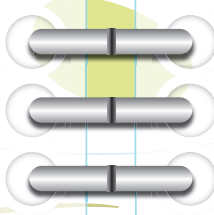
KTU - Kaunas University of Technology, Lithuania - [www.ktu.lt](http://www.ktu.lt), [www.apini.lt](http://www.apini.lt)
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Municipality of Avrig, Romania - [www.primaria-avrig.ro](http://www.primaria-avrig.ro)
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Municipality of Slagelse, Denmark - [www.slagelse.dk](http://www.slagelse.dk)
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Municipality of Szentes, Hungary - [www.szentes.hu](http://www.szentes.hu)
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Building for the Future Ltd, UK - [www.bfff-ltd.com](http://www.bfff-ltd.com)



# REENERGY Newsletter

Issue 4 September 13

### REENERGY Message from Lead Partner

The protection, preservation and enhancement of environmental resources are widely recognised priorities, mentioned in almost all public, national and international programs.

Starting from the 90s, and especially in recent times, greater awareness of the risk factors associated with an uncontrolled and indiscriminate use of the environment has risen. This is basically due to the realisation of industrial and intensification of the exploitation of all resources. The generalised depletion of natural resources is due to the swirling intensification of human activities and the gradual increase in urban centers and industrial establishments, together with increasingly indiscriminate use of chemicals and pollutants, triggered by more than a century of serious environmental process degradation..

It's the local field where formulating initiatives geared towards sustainability and promoting sustainable processes of territory development can happen. It's only real citizens' awareness and social actors' participation that make it possible to identify effective solutions to govern environmental issues.

Environmental issues, together with the conservation of the natural heritage and the protection of biodiversity, represent a point of increasing interest and absolute convergence in which it is possible to recognise social components, trade associations, economic forces and trade unions.

To ensure a balance between the health of available environmental resources and industrial development, the European Community and the various Partner States have produced, in recent years, significant environmental legislation with the aim of promoting a policy aimed at the preservation, protection and rehabilitation of environmental resources and territory. This realises the increasingly urgent need to initiate a comprehensive strategy to achieve a true model of sustainable development in relation to a heritage that must be of all and for all people.



The strategy adopted by UNEP- (United Nations Environment Programme) for the period 2010-2013 has identified six priority areas on which to intervene focusing their efforts on:

- Climate change
- Disasters and conflicts
- Ecosystem management
- Environmental governance
- Harmful substances and hazardous waste
- Sustainable production and of resources consumption

Noting the thematic priorities, it is easy to understand how today more than ever, environmental protection does not limit its function to the preservation of the planet's resources but has turned into a real tool to combat poverty. The consequences of climate change, in fact, have long since begun to feel its effects on the planet firstly affecting the people of the southern hemisphere, equipped with fewer resources to deal with the consequences of global warming such as droughts or floods, and more dependent on agriculture.

It is not a coincidence, therefore, that the seventh of the eight Millennium Development Goals, to be achieved by 2015, is dedicated just to ensure environmental sustainability.

Enjoy the reading!

Dr. Alessandro Attolico  
REENERGY Project Management Coordinator

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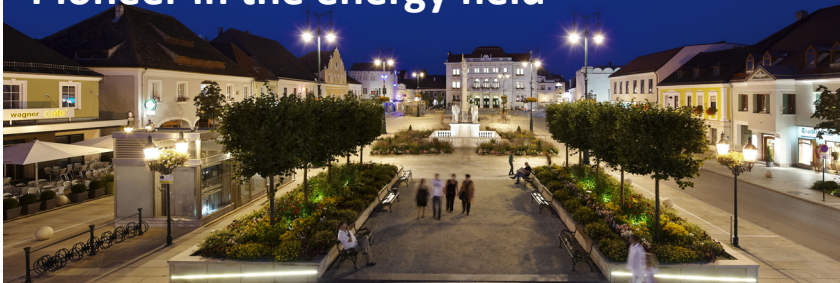
### \*Energy Labs

Energy labs, an innovation of the REENERGY project, are new platforms designed to encourage local improvement by ensuring close cooperation between energy experts, producers/suppliers and local authorities. [www.reenergyproject.eu](http://www.reenergyproject.eu)

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## Introducing the City of Tulln: Pioneer in the energy field



Tulln on the Danube lies in the largest province of Austria and therefore in the heart of Europe. As the county capital, it's a pivotal location for the region as a vital economic, cultural and leisure centre with a well-developed infrastructure. Tulln has a balance of everything; town and countryside, architecture and open land, culture and nature.

The small city atmosphere, the town's green spaces and the ecological way of living guarantee a high quality of living, life and location, in harmony with the environment and nature. In the 7,221 hectare sized community, there are approximately 16,000 people (6,970 households) living in the midst of diverse nature. The town lies directly on one of the longest rivers in Europe, the Danube, and is interlaced with large green areas.

The town council, economics and population have a common goal: To preserve the ecological surroundings, develop them, and to make them useable for everyone. Through this concept, unique projects have been developed which optimally combine the natural and cultural variety of the town.

Due to the development towards a Sustainable Energy City and the target to achieve a 100 per cent renewable energy supply, Tulln is leading the way in the region of Lower Austria and will act as a multiplier for suitable and feasible technologies, as well as for new management and financing concepts in the field of renewable energy use and energy savings.

The Austrian Government has defined national targets for reducing CO<sub>2</sub> emissions according to the Kyoto-Protocol. The climate and energy package stipulates that Austria must reduce its emissions by 16 per cent by 2020 (without emissions trading, calculated from the benchmark level of 2005). Tulln has been a member of the Climate Association since 1999 and has already reached its target to reduce its CO<sub>2</sub> emissions by 50 per cent.

The City of Tulln committed itself to an environmental policy based on the principles of service for the citizens, responsibility towards the society and employee satisfaction. The city is a member of the Climate Alliance as well as the European Land and Soil Alliance. Due to its partnership in the Sustainable Energy Management Systems (SEMS) project the city is also one of the many CONCERTO communities. Therefore, all activities are geared to the defined overall goals, objectives, specifications and strategies of these networks.

Tulln is a partner in several EU projects in the field of energy efficiency (EE), renewable energy sources (RES) and waste management, and has gained a lot of experience. As one of the 12 partners in the RENERGY project, Tulln is the Case Study Leader of the RES uptake pillar. Good practice examples shall be identified and knowledge, how such projects can be implemented, shall be provided to the partners. At the case study exchange visit in Tulln in June, climate friendly initiatives were presented and concrete projects were shown to the partners, with the objective that one or the other will be replicated in other regions.



### UPCOMING EVENTS OF INTEREST FOR THE RENERGY PROJECT



**Renergy Mid Term Conference and 4<sup>th</sup> Steering Group Meeting**  
9-11 October 2013, Worms, Germany  
<http://www.renergyproject.eu>



**Concerto Conference - Energy Solutions for Smart Cities and Communities.**  
22-23 October 2013, Brussels, Belgium.  
<http://www.amiando.com>

## Building for the Future Limited

Building for the Future is a "not for profit" company formed by a number of public and private bodies in and around Sheffield (including locally based multinational technology and engineering companies, two universities within Sheffield, Sheffield City Council and a number of professional advisory firms and trade organisations).

The partners are proactively addressing the current obstacles to the creation of an economic, social and environmental model of modern development. This approach will strengthen local communities and enhance local authority health and other services, and ultimately deliver sustainable communities and growth.

As such, Building for the Future provides an effective forum to instigate change across a wide range of stakeholders. This collaboration between private industry, higher education and research institutions and local and regional government allows the partners to collaborate in the design, building and operation of projects and developments. This will be done in a way that brings together a wide range of research, technology and know-how.

Building for the Future and its project partners are now involved in some of the most exciting innovations and developments across the world, involving the development of sustainable technologies, creating sustainable communities, advising on green transport and building materials and researching sustainable energy solutions.



## SNAPSHOTS of Recent Activity

### Potenza

On 27-28 June 2013 the Potenza Case study visit exchange took place, incorporating the European Sustainable Energy week 2013. 7 project partners attended with the objective of improving, through interregional cooperation, the effectiveness and approach of local/regional sustainable energy policies, as well as maximising knowledge transfer from good practices. The first day was dedicated to the explanation of good practices and case studies while the second focused the attention on site visits.

### Worms:

#### Energy Lab 2:

On 21 June 2013, the second Energy Lab took place in Worms. The topic was energy concepts in urban districts. Two experts introduced and presented challenges for urban planning such as possibilities and chances for the future. The energy lab had about 30 participants from the region.



### BFF:

Building For The Future are preparing a local case study brochure that details specific local sites and successes. In order to promote the RENERGY project, the organisation recently held a stand at the NAPIT EXPO on 6 June and at the Eco Technology Show in Brighton on 14-15 June.

### Tulln:

From 5-7 June, the City of Tulln invited the RENERGY partners to a case study exchange visit. Selected good practice examples were presented during a field trip. The partners saw how Tulln implemented these projects and operators gave answers to any questions.

### Durham:

Members of the Durham community project, *Sustainable Oakenshaw*, who recently attended a Case Study Exchange in Slagelse, Denmark, will be transferring their renewable energy solutions and energy efficiency experiences to the rest of the community at a summer event in the village on 25 August 2013.

### Slagelse: Kindergarten Flakkehaven learns about saving energy and RE

The Kindergarten Flakkehaven participated in Earth Hour 2013 in order to focus local ideas to save energy. The ideas will be tested by the kindergarten in Autumn 2013. The children had fun learning about renewable energy by playing with solar cell cars and windmills.



### CNR-IMAA:

RENERGY has contributed to the Consultation on Green Paper 2030. CNR-IMAA and INTELI elaborated the document sent to the Commission harmonising the partners' inputs. Good practices have been selected and the Good Practices Guide has been finalised, including the 25 most significant and replicable examples from the partner countries.

### PNEC:

Jaslo, a RENERGY project beneficiary, received a positive reply from the National Fund for Environmental Protection and Water Management on the application for funding energy-efficient street lighting. Moreover, local authorities are involved in consultations with PGE S.A., a local main supplier of electricity, about lower energy prices for public buildings.

## Other relevant INDUSTRY NEWS

### Worms:

#### Energy Fair 2013:

On 21 and 22 September 2013 the Energy Fair 2013 will take place in Worms. About 40 exhibitors will present information in all forms to visitors. One of the main topics this year will be e-mobility. The municipality is the host of the fair and expects about 1500 visitors as in previous years.



### BFF:

China not taking anti-dumping settlement talks seriously: [www.solarpowerportal.co.uk/news/china\\_not\\_taking\\_anti\\_dumping\\_settlement\\_talks\\_seriously\\_says\\_234](http://www.solarpowerportal.co.uk/news/china_not_taking_anti_dumping_settlement_talks_seriously_says_234)

Brits reveal overwhelming support for renewables: [www.businessgreen.com/hg/news/2282518/poll-brits-reveal-overwhelming-support-for-renewables](http://www.businessgreen.com/hg/news/2282518/poll-brits-reveal-overwhelming-support-for-renewables)

### Tulln:

#### Second photovoltaic plant in Tulln is connected to the grid

Since 5 July, a photovoltaic plant on a car park roof is now producing electricity that is fed directly into the grid. Generating about 50 kWp per year, the plant will supply 12 households with electricity. This is a further step towards energy autarky in Tulln, with further installations planned.

### Durham:

#### EBAC announce their new range of Heat Pumps

30 years after developing their first domestic heat pump, County Durham engineering manufacturer, EBAC, have announced their new Heat Pump range.

Designed to minimise carbon emissions, heat pumps are both cost effective and environmentally friendly and produce around three times the heat energy of traditional gas or oil central heating per Kw of fuel used.

### Slagelse:

#### Danish businesses from fossil fuel to RE

The Danish Government has recently adopted a scheme called RE to process.

This is targeted at businesses that want to convert the energy used for process into renewable energy (RE) or district heating. €33,500 is available for 2013, and from 2014 until 2020 there is €67,000 per year available.

The reduction of fossil fuel will be approximately 16 pJ per year, an increase in renewable energy share of approximately 1.1 per cent and a reduction of CO<sub>2</sub> emissions at approximately 1.5 per cent or 1 million tons CO<sub>2</sub> per year.

### KTU:

The mayor of Vilnius, Lithuania's capital, has marked the start of Lithuania's EU presidency by making two important commitments in the city's fight against climate change. Artūras Zuokas signed both the Covenant of Mayors and the Green Digital Charter in the presence of Jan Panek, Head of Unit at DG Energy.

Vilnius is the 24th EU capital to join nearly 5,000 Covenant of Mayors signatories and the 37th city to sign the Green Digital Charter. Source: [www.menupaktas.eu/news\\_it.html?id\\_news=478](http://www.menupaktas.eu/news_it.html?id_news=478)

### INTELI:

#### Torres Vedras could become self-sustainable by 2015

More than half of the electricity consumed by the 80,000 inhabitants of Torres Vedras is produced from renewable energy sources. Torres Vedras could become self-sustainable by 2015, due the municipality measures, private investments and the endogenous favorable conditions for the production of energy.

According to the data of the Portuguese General Directorate of Energy and Geology, the renewable sources in the municipality have already contributed to the production of 250 gigawatts. This contributes heavily to the Torres Vedras' annual energy consumption demand of about 336 gigawatts.

### CNR-IMAA:

RENERGY has joined as a 'fellow- project' the *South East Europe (SEE) Capitalisation strategy Thematic Pole 4 'Low carbon communities'* led by RE-SEtEtiEs, in which CNR-IMAA is a partner. This partnership can help RENERGY contribute to energy efficiency (EE) and renewable energy solutions (RES) on a Europe- wide level, maximising the transfer of knowledge between the two projects.

### PNEC:

The Installation of renewable energy systems on public buildings and households in the municipalities belonging to the Union of Municipalities of the River Basin Wisłoka in Jasto project has begun includes the purchase and installation of solar systems. Representatives of local authorities and project engineers will verify that the chosen buildings meet relevant requirements and advise residents.

## PREVIEW: Mid-Term Conference in Worms



The City of Worms is pleased to welcome all project partners to the Mid-Term Conference and the 4<sup>th</sup> Steering Group Meeting of the RENERGY Project on 10-11 October 2013 in Worms. Besides the project partners, political representatives and interested citizens are also invited.

Worms' Lord-Mayor Michael Kissel will welcome guests on the first day of the Mid-Term Conference to the new culture and conference centre called Wormser.

The conference has several important items on the agenda:

First, the Self-Assessment Synthesis Report will be presented by INTELI. It summarises and interprets a large quantity of information about energy efficiency and renewable energies from all partners. Afterwards, the results of the three case study exchange workshops in Potenza (Policy Making), Tulln (Renewable Energy Sources Uptake) and Slagelse (Community Involvement) will be shown. These visits took place in May and June 2013.

There will be a press conference in the afternoon of the first day, as well as a poster exhibition of partners' best practices and on-site visits to projects in Worms. How the best practices can be transferred to other regions and countries will be worked out in implementation plans. The project partners from Durham will give an outline on implementation plans on the second day of the conference.

Also on the second day, the political representatives will have the chance to exchange experiences at a meeting. In three working groups, the project partners will discuss certain topics divided by responsibilities of the projects:

- 1<sup>st</sup> group: financial management and reporting
- 2<sup>nd</sup> group: communication activities
- 3<sup>rd</sup> group: content implementation

We politely ask all partners to send an email to [renergy@worms.de](mailto:renergy@worms.de) as soon as possible to let us know how many people will be attending the Mid-Term Conference/ Steering Group Meeting.

### Information on the City of Worms:

The City of Worms is a local authority in the south west of Germany on the west bank of the Rhine River.

The City of Worms is one of Germany's oldest cities, established by the Celts, who originally called it Borbetomagus. The city consists of 13 urban districts plus the city centre and is part of the region Rhein-Neckar. Within the city area (about 10,000 ha) there is a population of 83,000 inhabitants. Service businesses, logistic companies and chemical industries characterise economics in Worms.

The city is famous as one of the main locations for the *Nibelungenlied*, an epic tragic poem depicting the German hero Siegfried and his wife, Kriemhild. A multimedia museum called the Nibelungenmuseum was opened in 2001 and an annual festival are both dedicated to pre-Christian Worms.

Its Romanesque cathedral, the Cathedral of St. Peter, otherwise known as the Cathedral of Worms, is another attraction to the city, as well as its important role in the protestant reformation by Martin Luther. Today, Worms is a cultural centre with theatres, festivals and museums.

We are looking forward to welcoming you to Worms soon and have a constructive and enriching exchange.

The RENERGY Partner team in Worms

## CNR-IMAA Case Study:

### The Potenza Province Case Study *ABITARE BASILICATA* from coordinated sustainable policies to sustainable integrated actions.

The Province of Potenza joined the Covenant of Mayors in 2010 and since has looked at developing a coordination policy towards the activities realised by the municipality signatories of the Covenant of Mayors including policy making processes, stakeholders' involvement and territorial promotion of the Covenant of Mayors issues.

On 1 February 2013, 31 municipalities joined the Covenant of Mayors and 11 municipalities delivered their Sustainable Energy Action Plans (SEAPs).

The overall objective promoted by the Province of Potenza in the *ABITARE BASILICATA* case study is to implement an integrated energy policy on a provincial scale through coordinating measures aimed at providing a strategic guidance and technical support to Covenant of Mayors signatories.

The key issues focused by the case study are to:

- Implement renewable energy solutions (RES) and energy efficiency (EE) solutions into the province high schools and public buildings
- Spread the culture of energy savings and improving behaviour to increase environmental protection
- Promote environmental management systems to the provincial territory



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The case study by the Province of Potenza is built up on the following experiences:

- The *Safe Ecological Schools* Project is financed by €70 Million, awarded at a national level as a good policy concerning public building renovation and EE with particular reference to public schools. It constitutes the foundations of *ABITARE BASILICATA* being focused on a strategic view of increasing security and energy efficiency of one of the most emblematic places for local communities: the schools.



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- The *FUTUREENERGY: save, walk, cycle, respect* Project intends to promote a responsible behavior in the community aimed at fostering the respect for the environment and at increasing energy saving, energy efficiency and the use of renewables, resulting in a net reduction of CO<sub>2</sub> emissions.
- *FUTUREENERGY* strongly contributes to community involvement (in particular students, headmasters and teaching staff of the Provincial high schools) through sporting and cultural dissemination initiatives. The project achieves significant results with little money resources. The initiative was awarded by the Presidency of the Council of Ministers-Department of Youth-Union of Italian Provinces and has been selected for the international prize "Energy Bar Camp" that will be assigned in November 2013 in the USA.
- EMAS: Governance and sustainability in territorial planning – Principles and applications: The experience of the "Battagliani" technical high school in Venosa.

The Province of Potenza is going to finalise the Provincial Territorial Master Plan that defines the principles and the strategic objectives for the territorial assets and their development over future decades. In this complex procedure, sustainability principles, including environmental certifications, are considered a driving opportunity at territorial level. In this framework, the experience of the Battagliani high school in Venosa, awarded with the EMAS label, constitutes a good example of successful collaborative relationship between different public institutions aimed at fostering an environment respectful behaviour.

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## PNEC Case Study:

### Association of Municipalities Polish Network Energie Cités



Both images on this page are accredited to Ms Bernadeta Sitek

### The Network of energy saving schools – EURONET 50/50

To reduce CO<sub>2</sub> emissions, schools created a 50/50 NETWORK around Europe with the aim to save energy. The Association of Municipalities Polish Network Energie Cités (PNEC) is one of the nine partners of the EURONET 50/50 project.

The project is aimed at applying the German 50/50 methodology to 58 educational centers in order to contribute to the fight against climate change. Within the frameworks of the project a European network of schools was created and energy efficiency measures were implemented in chosen school buildings.

The 50/50 concept assumes that, thanks to action taken, energy savings of 2.5 per cent will be achieved and the money saved will be divided between schools (50 per cent) and municipalities (50 per cent). Schools were chosen to take part as they are a perfect place to promote energy sustainability, ensuring that future generations consume energy responsibly and influence their families to do the same.

58 schools from 9 countries were involved in the 50/50 methodology implementation along with respective local authorities. 11 primary schools from 8 municipalities in Poland participated in the project.

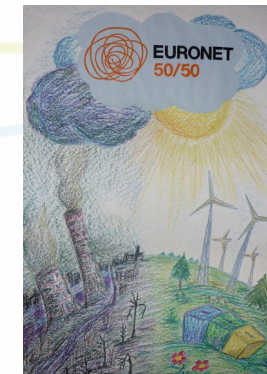
As part of the EURONET 50/50 project in Poland, a series of workshops for teachers were organised, educational materials (e-packs) were prepared and energy audits were conducted in schools to find out the schools' energy baselines and energy savings potential. Schools involved in EURONET 50/50 implementation received 3 sets of measuring instruments (digital thermometer, luxmeter and energy consumption meter) for pupils to inspect the energy characteristics of their schools.

Every school has created an Energy Team to coordinate and monitor the 50/50 methodology implementation. Moreover, energy reviews of school buildings were organised, as well as measuring of temperature, light intensity and energy consumption. Information and promotion campaigns were organised in order to promote the idea of 50/50 and encourage whole school communities to energy saving.

The implementation of EURONET 50/50 methodology has given good results and proved that it can be successfully applied everywhere. The consumption of energy in public buildings was reduced, which resulted in lower energy bills. The result of 50/50 implementation methodology was also a change of behavior, supporting sustainable development and raising students' awareness in the field of energy efficiency. Students, as well as their parents, generally pay more attention to the energy efficiency of household appliances. Everyone can be satisfied with the results; schools improve their energy efficiency and sanitary conditions, local authorities pay less for energy and society gets the cleaner environment.

The new edition of the project, called EURONET 50/50 MAX started in April 2013 and will last 36 months. PNEC has to engage at least 100 schools and 10 public buildings in the 50/50 methodology.

The EURONET 50/50 project won the European Sustainable Energy Award 2013, in the Learning category. The awards ceremony was held in Brussels on 24 June within the framework of the European Sustainable Energy Week.



# Avrig (P9) Smart Cities, Smart Communities, Smart Habit

## A definition of a Smart city

A smart city is a city which aims to achieve environmental, economic and social sustainability, through the systematic integration of planning, design, operations and management. This covers everything from managing the assets and operation of the city to better provision of services and information to the inhabitants.

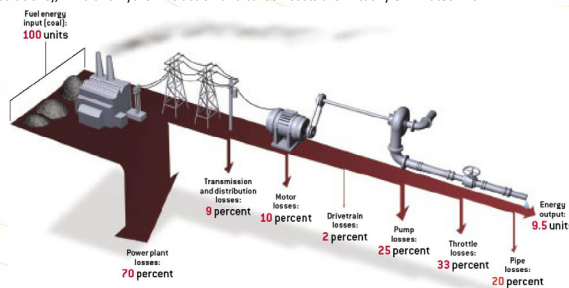
The definition of the term smart city is about using advances in transportation, technology, infrastructure, renewable energy, sustainability and governance to improve the quality of urban life. But smart cities don't need the latest and greatest technology. Being smart is about redefining processes and engaging citizens. By restoring important habitats such as wetland, and by substantially expanding forested areas, we capture carbon and provide wood products for buildings and infrastructure, have a positive impact on our economy and the health and wellbeing of individuals and society.

## Decentralised solution for a decentralised problem

Avrig will be the first all renewable energy and smart town in Romania and Eastern Europe. With Smart Grid technologies that modernise and revolutionise the electricity grid, we have the opportunity to convert our energy supplies from brute force extraction methods such as mountaintop removals, cooking tar sands, drilling a mile deep into ocean floors and hydraulic fracturing of geologic formations. We can convert our energy supplies for electricity with much more benign energy harvesting methods focused on clean local renewable sources like solar, biogas, biomass, hydrogen (from renewable energy solutions), wind and hydro. Extraction and carbon costs are virtually eliminated with renewable energy sources (RES).

Avrig can provide a reliable zero carbon energy supply without negatively impacting on quality of life. Smart demand management with biomass, biogas, solar and wind means that we can meet our entire energy demand without imports. Ultimately, smart grids are about optimising power delivery to ensure customer satisfaction.

Some energy generated at a power plant is lost as it travels through the transmission and distribution system to the customer. As shown in the graphic to the right, more than 90 per cent of primary energy input into a power plant is lost before it reaches the end use.



## Microgrid – islands of power and self-sufficiency

Electricity has become the lifeblood of modern society, displacing steam and mechanical systems. The spider web of electricity infrastructure now powers our lives as we evolve to what many describe as the digital economy, an array of devices – computers, cellphones and appliances – all requiring electrical power.

What is a micro-grid? In layman's terms, it is a network of diverse power sources, often featuring a mixture of renewable energy and batteries that can operate as a unified system for a network of consumers. If the larger utility grid goes down, these micro-grids can create a little island of power, making sure the most vital operations for a business, utility or community stay powered up during major storms or other power outages.

Avrig aims to be carbon-neutral and energy self-sufficient by 2020, through technological innovation and by promoting and providing incentives for social change. Clean energy is definitely a great thing for the average consumer. Avrig benefits from some of the best natural resources in the Romania, with great solar, wind, hydro and biomass/biogas potential from local forests/agricultural residue, and locally grown energy crops.



Every new solar panel installed on European rooftops chips away at power utilities' centralised production model, unless they re-invent themselves soon; these giants risk becoming the dinosaurs of the energy market. In the long term, competitive, non-subsidised renewables could be a big win for communities and a big loss for utilities.

# TULLN Case Study Exchange: Durham Report from Case Study Exchange Meeting in Tulln



The second Case Study Exchange visit focussing upon Market Uptake, was hosted by Tulln, Austria where best practice examples of community based renewable energy schemes were demonstrated.

Of particular interest were two schemes providing district heating to small communities and electricity to the grid, the first from biomass combustion using steam generation for thermal conversion to electricity, the second producing Biogas from the anaerobic digestion of farm slurry and local energy crops.



Other schemes including a community owned micro hydro turbine, solar thermal at a sports club, photovoltaics on public buildings and a small private biomass heat network were also visited.

The region around Tulln is rural in nature and the partners spent time in a technical / agricultural school where students are provided with integrated education linking modern agricultural practice to the production of energy from renewable local resources.

Delegates from RENERGY also had the opportunity to meet and discuss common issues with delegates from VIS NOVA, a European Regional Development Fund Project investigating 'clean energy from rural regions'.

In terms of transferability, the technologies in place in the biomass / steam scheme and the biogas scheme are applicable to County Durham. Both have received national and local subsidies during their development and rely upon feed-in tariffs, in addition to payment from heat consumers to maintain economic viability. Therefore the development of a business in the present economic climate would present challenges.



In both cases the scheme operators were keen to point out that, in addition to the environmental benefits (reduced CO<sub>2</sub> emissions), there are social benefits in that consumers receive heat at good rates. This is of great interest in Durham where fuel poverty is a growing issue.

Local economic benefits are also accrued, as was pointed out by both operators, in that the revenues generated by the schemes are received entirely by the local supply chain, effectively retaining money in the local economy.

Possibly the most impressive aspect of the schemes visited was the extent of local cooperation and support from suppliers and consumers. There was an apparent will within communities to make schemes happen and an understanding of the longer term environmental, economic and social benefits. Our partners in Tulln are realistic in their appreciation of the fact that the majority of citizens are still not fully engaged. Nevertheless, there is a real feeling of momentum in those communities where schemes are in operation.

Our case study communities in Durham; Oakenshaw, Chilton and the BEEP community can take encouragement from this.