

Sustainable

Regions

In Action



Platform where regional and local actors exchange and learn from each other

December 2015





FEDARENE - THE FEDERATION

SINCE 6TH JUNE 1990...

In the early 1990s, regional actors, encouraged by the European Commission, wanted to assert their role and see their importance in the energy field recognised. Thus FEDARENE - European Federation of Agencies and Regions for Energy and the Environment - was created on 6th June 1990 by 6 regional authorities — Rhône-Alpes, Provence-Alpes-Côte-d'Azur, Wallonia, Basque Country, Aquitaine and Nord-Pas de Calais — who shared an ambition to adopt pro-active regional policies and actions for sustainable energy. EU programmes helped kick-start many regional and local energy agencies across Europe, which act as facilitators, some of which became members of FEDARENE. Since 2008, FEDARENE is part of the consortium of European networks which forms the Secretariat/Office of the renowned European initiative: the Covenant of Mayors.

FEDARENE is now the premier European network of regional and local organisations which facilitate or implement sustainable energy policies and measures at the regional and local levels. As a non-profit organisation, the network counts today around 70 members from 20 EU and EEA countries. These members are mostly regions and regional or local energy agencies. These levels of governance offer high possibilities for targeted and adapted sustainable energy measures through:

- a greater flexibility than national governments;
- the responsibility for many policy areas relating to energy: buildings, transport, industry;
- a more thorough knowledge of the territories covered;
- the proximity to citizens.

OBJECTIVES

- Represent, promote and lobby for the regional dimension in EU energy policy towards the EU Institutions;
- Facilitate the development of inter-regional partnerships and EU projects;
- Serve as a platform for the exchange of best practices to foster replication.

ACTIVITIES

- Provide an ongoing information service in particular on EU policy developments and funding programmes - to our members;
- Promote our members' activities and disseminate information on their behalf;
- Keep an up-to-date online database of best practices to encourage replication;
- Facilitate the forming of project partnerships for Calls for proposals;
- Prepare position papers on European legislation and programmes;
- Participate in consultations to represent regions' voice.



18 EU and EEA countries currently covered by FEDARENE



Austria	Greece
Belgium	Ireland
Bulgaria	Italy
Croatia	Norway
Cyprus	Portugal
Czech Republic	Romania
Denmark	Slovenia
Finland	Spain
France	Sweden
Germany	United Kingdom



STRUCTURE

The federation's most important decisions are voted during an annual **General Assembly**. This meeting also represents the occasion for the members to meet face-to-face and exchange experiences and ideas from their different regions throughout Europe.

In 2015, the General Assembly will be organised in Paris, in December, in parallel to the UNFCCC's "COP 21".

Board of Administration 2013-2016

The **Board of Administration** is composed of 16 members of which a President, a Secretary General, a Treasurer and 13 Vice-Presidents. The Board's members are representatives of the following Regions/Provinces: North West Croatia (HR), Provence-Alpes-Côte-d'Azur (FR), Berlin (DE), Rhône-Alpes (FR), Oberösterreich (AT), Nord-Pas de Calais (FR), Abruzzo (IT), Ile-de-France Region (FR), Ploesti Prahova (RO), Comunidad Valenciana (ES), Central Finland (FI), Severn Wye (UK), Liguria (IT), Southeast Sweden (SE), Wallonia (BE).



"European regions are often the brightest examples of how to use energy sustainably at the global scale. They bring EU policy alive by providing practical, local examples of how European policies and programmes relate to citizens in their own regions."

Julije DOMAC, President of FEDARENE and Managing Director of REGEA (North West Croatia Energy Agency)

"For more than 25 years now, FEDARENE has proved a truly European forum allowing exchange on sustainable energy issues between politics, business and civil society from a regional perspective. To pool ideas and make known good practices is our contribution to Europe's energy future."







" All regions and agencies face the same challenges as regards implementing the energy transition: social acceptance of renewable energies, behavioural changes towards more energy "sobriety", introduction of intermittent renewable sources in production facilities... The FEDARENE network enables calling upon the collective intelligence, the sharing of experiences. We are thus more equipped to make the energy transition a concrete reality."

Dominique SIMON, Treasurer of FEDARENE and General Inspector of the Energy and Sustainable Building Department of the Walloon Region

"Energy efficiency and renewable energy sources are mostly seen as a means to combat climate change and generate green growth. However, the scope of their benefits reaches much further. They can also play a crucial role in lessening energy dependence and, thus, increasing energy security."

Christiane EGGER & Gerhard DELL, Vice-Presidents for Renewable Energy of FEDARENE and Directors of OÖ Energiesparverband (Upper Austria Energy Agency)



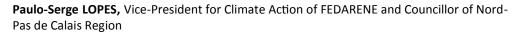




"Fedarene gathers within its own network, regional public authorities and energy agencies that are strongly committed towards climate protection and sustainable development. This European network brings a unique opportunity to be part of a forward thinking process and hence facilitate the design and implementation of collaborative approaches in the fight against climate changes at local level."

Serge NOCODIE, Vice-President for Climate Action of FEDARENE and President of Rhônal-pénergie-Environnement (Regional Energy and Environment Agency in Rhône-Alpes)

"Whereas COP 21 is an opportunity to gather strengths in a global action for climate, European Regions already implement new development models and foster citizens' involvement. Regional climate actions are today's demonstrators for ongoing challenges and tomorrow's solutions."







"A sustainable utilization of forest bioenergy increases energy security and has positive impacts on local economies. It also contributes to climate change mitigation."

Rolf NYLHOM, Vice-President for Renewable Energies of FEDARENE and Chairperson of the Regional Board of Central Finland

"Recurrent exchanges with other European regions considerably enriched our sustainable environment action plan. Moreover, we took stock on successful practices to engage in ambitious pilot projects (e.g. photovoltaic electrification in rural, poorly-connected areas), and we are confident that other regions used our own experience in the same way. Local action, through local energy agencies, is the most efficient way to incentivize citizens to take an active part in energy transition, and make it a reality."



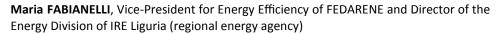
Annick DELHAYE, Vice-President for Energy Efficiency / Behaviour of FEDARENE and Vice -President of the Provence-Alpes-Côte-d'Azur Region



"With national funds stretched, the call for action goes direct to the communities. Never has the need for networks offering experience and knowledge exchange been greater and never has there been a better reflection of the diversity of challenges and solutions than that offered by today's Europe."

Mike Brain (tbc), Vice-President for Energy Efficiency of Buildings and Head of Business Services of the Severn Wye Energy Agency

"Joint collaboration is the best way to reach sustainable energy and IRE Liguria works hard to stimulate and transfer good practices at local and European levels."







"Fighting climate change and promoting the energy transition are our daily challenges. We are working diligently to facilitate the development of relevant territorial projects by promoting the best practices at national and European levels."

Marc LIPINSKI, Vice-President for Energy Transition of FEDARENE and President of ARENE (Ile-de-France region energy and environment agency)



"Regions and municipalities in Europe are the drivers of change in the field of energy efficiency, renewable energy sources, sustainable mobility and climate protection. Supporting regions and municipalities in these fields means transforming strategy into action."

Thekla HEINEL, Vice-President for Climate Protection in municipalities and regions of FEDARENE, Head of Department at B.&S.U. Beratungs— und Service-Gesellschaft Umwelt mbH (Berlin)





"The citizens' participation in EU decision making process allows local actors' vision to be taken into high consideration."

Iris Flacco, for the Vice-President for Renewable Energy of FEDARENE and Coordinator of the Energy Division at ARAEN (Abruzzo region energy agency)

"The Fedarene network is making it possible also for a relatively small energy agency to accomplish great things, thus contributing to a sustainable society."

Ulf HANSSON, Vice-President for Mobility and Transport of FEDARENE and Manager of Energikontor Sydost (South-East Sweden Energy Agency)

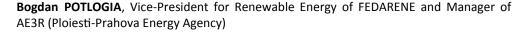




"The current energy model requires an urgent transition. We are working towards a more sustainable model based on energy efficiency and renewable energy sources."

Júlia Company Sanu, Vice-President for Energy Efficiency of FEDARENE and General Manager of IVACE (Valencian Institute of Business Competitiveness)

"Only with FEDARENE can we reach the European Commission's 20-20-20 targets. I am honored by the position that I hold within the FEDARENE's Board of Administration, which is the voice of European energy agencies."







"Territories are changing. Citizens, who are one of their main assets, invest themselves more and more in a direct financial way through the participatory financing of renewable energy projects. Regional energy and environment agencies accompany this evolution of society that is in the framework of EU, national and regional energy and climate policies. FEDARENE offers an ideal setting for exchanges between agencies and regions on these issues."

With the support of Christian LABIE, Deputy Secretary General of FEDARENE and Director of Rhônalpénergie-Environnement (Rhône-Alpes Region Energy and Environment Agency)





COVENANT OF MAYORS



Since 2008 FEDARENE is running the Covenant of Mayors Office together with 4 other European networks of local and regional authorities: Energy Cities (leader), Climate Alliance, EUROCITIES and CEMR.

FEDARENE is in charge of the work with Covenant Territorial Coordinators and Local and Regional Energy Agencies. Drawing on its extensive network of contacts and its 25-year experience in the field, FEDARENE was tasked with engaging energy agencies, groupings of local authorities, provinces and regions in the Covenant of Mayors initiative. Their role is to provide strategic guidance, financial and technical support to signatory municipalities, which often lack the necessary skills and/or resources to fulfil their requirements.

With now close to 250 decentralised authorities and energy agencies driving the energy transition on their territories, the Covenant of Mayors has fostered the emergence of wide -ranging cooperation platforms at local, regional and European levels, and gave a substantial boost to multi-level governance.

FEDARENE participates in defining the strategy driving the initiative and has been actively involved in mobilising regions and energy agencies around Europe, through promotion of the initiative, a continuous helpdesk, capacity-building events and seminars, conferences and exchange of best practices.

Provinces, regions and other Covenant Coordinators and Energy agencies are key to the success of the initiative, notably in terms of:

- the promotion they do of the Covenant in their territory
- increasing the Covenant of Mayors Office capacities by providing decentralised support on the ground and ensuring tailored interaction with thousands of signatories.
- the support provided to signatories including technical assistance for example through the organisation of dedicated workshops, or the development of SEAP-related tools and methodologies.
- mobilising other stakeholders such as associations, private companies and universities -which can bring customized expertise to local authorities.

Signatories' access to funding sources is also facilitated by Coordinators. Provinces and regions often earmark funds to implement energy efficiency projects in signatory municipalities, or they bundle small projects to help municipalities reach the threshold required by investors. Regions often act as Managing Authorities of EU Structural Funds and can thus decide to allocate EU funding to Covenant related activities.

In 2015, this ever evolving initiative needed a renewed challenge as the 2020 horizon is getting close. The New Integrated Covenant of Mayors for Climate and Energy has been launched this autumn. Signatory cities will pledge action to support implementation of the new 2030 EU targets, a joint approach to tackling mitigation and adaptation to climate change, and the extension of the initiative to a more global scope.





25th Anniversary in 2015

A few words from Dr. Julije DOMAC, president of FEDARENE since October 2013 and Managing Director of REGEA (North-West Croatia Energy Agency):

"I see regions as the building blocks of a grassroots Europe, co-operating with one another across national boundaries, implementing joint projects and identifying common solutions to shared problems. Regions often make that critical step to disseminate European information to the citizens, municipalities and cities, translating it into a language that citizens understand. They bring European policy alive by providing concrete, local examples of how policies, programmes and initiatives relate to our stakeholders on the ground.

When I think about FEDARENE, I think also about friendship and partnership — an important word for all countries of the European Union, especially in the challenging times of the 21st century. The achievement and experience of European regions, proves to me that through hard work, persistence, political courage and determination, sustainable energy vision is within reach. This is where I see FEDARENE — as a strong partner and representative of European regions and energy agencies. Sustainable energy is today, an area where we should work together hand in hand, European regions with our partners — the European Commission, other European institutions and our national governments.

This is why FEDARENE, supported by our regions and energy agencies as a pioneer, demonstrating that the future of Europe as a whole lies in the delivery of sustainable energy has a bright future – in which I strongly believe. And we must and can work together as partners!"

First edition and ceremony of the Roger Léron Award

The Roger Léron Award has been created to celebrate outstanding contributions to the transition towards sustainable energy at the *regional and local levels* across the EU.

The Award is named in memory of Roger Léron, a pioneer of regional sustainable energy in Europe and one of the FEDARENE founders who also served as its President for over a decade (1995-2007). Deeply rooted in local and regional development, he had a far-reaching vision for greater sustainability in Europe.





The first ceremony was held in June 2015 in Brussels. The trophy was awarded to Herbert Stava (Austria) for his continuous engagement for energy efficiency, renewable energy and sustainability over the past 30 years. He founded Energiepark Bruck/Leitha, an innovation and development centre (NGO), to transition his hometown towards a 100% renewable energy city and, in a second step, to develop the whole region towards 100% energy independence.

The next ceremony will be held in June 2016. The applications for this edition will be open in February 2016.



POLICY RECOMMANDATIONS

Innovative Financing Schemes in Local and Regional Energy Efficiency Policies

Members of FEDARENE - European regions supported with their regional and local energy agencies give the following recommendations to European Commission:

1. Easier access and smarter use of ESI Funds

Even though most Member States can be considered as experienced with the use of EU Structural Funds project developers often face barriers in form of complex set of rules and legal framework imposed by Member States themselves which results in difficulties in spending (absorbing) these funds. Simplification of administrative procedures and a more open dialogue with project developers on this matter must be considered. ESI Funds must be used for initiating projects and leveraging involvement from the private sector. In this regard, off the shelf financing models offer an effective blend of European, public and private funds that maximizes the impact of energy efficiency policies. The European Commission should continue promoting the inclusion of European funds in this type of schemes. Highly specific requirements for this type of blending are barriers that should be removed and further guidance on how to design such blends must be provided.

2. A more energy efficiency – considerate interpretation of public debt rules

Public accounting rules do not take into account the benefits of energy efficiency investments, only their cost. The European methodology on national debts (EUROSTAT) includes energy efficiency projects in the calculations for public debts. The interpretation of public debt rules should not be an additional obstacle for regional and local authorities. There should be a distinct and specific category for this type of projects, especially when they serve goals enshrined in the Sustainable Energy Action Plans. An exemption from applicable debt caps would alleviate the regional and local authorities' missions.

3. An improved and multiplied offer of Project Development Assistance

In order to tackle the regulatory and financial requirements in the shortest time frame and in a systematic manner, support and guidance in the form of legal advice and/or technical financial advice is needed for market-based financing schemes. In-house capabilities of local authorities are limited when it comes to setting-up new "finance related" instruments. The European Commission should continue promoting initiatives such as ELENA and multiply its offer of Project Development Assistance. PDA is crucial in organising market facilitation and aggregation initiatives. The possibility of launching a facility where municipalities receive support in developing feasibility studies for financing without a payback obligation for unrealised projects should also be explored. Such a structure could become an incubator for further innovative solutions.



4. Energy prices needs to be transparent and predictable within completed and regulated EU internal energy market

Energy price rises are a major political concern and a significant driver for energy efficiency. However, if energy prices are not transparent (or subsidied) this may become also a significant barrier for energy efficiency projects e.g. in street lighting or industry. The European Commission should make all EU countries implement relevant EU legislation in order to **complete the internal energy market and maintain energy price fully transparent**. European Commission should also ensure that retail prices of energy converge across Europe. This is still not the case because of differences in network distribution systems, uncoordinated national energy and climate policies, taxes, levies and network tariff regulations which is all fragmenting the internal market.

5. Maximizing the use of the European Fund for Strategic Investments

The decision to initiate the European Fund for Strategic Investments in order to be able to capture risk-ier projects and engage in activities that are of greater strategic interest is a welcome move towards attracting private sector investors. In order to maximize the use of and access to the EFSI, the European Commission should encourage and support the creation of regional platforms aiming at aggregating small energy efficiency projects (of the same type) in order to reach the €25 M eligibility cap. These platforms could enable public authorities to present their projects and entice private sector entities to participate as investors. Reducing the eligibility cap would also be an effective measure in maximising the use of this fund for energy efficiency investments.

6. Creation of a unified European legal framework for crowd-investing

European level policy action in the field of citizen inclusion is needed to enable easier participation of small investors and address the risks associated with this type of project financing. New rules could offer a harmonised and functioning framework for crowd-investing, tackling issues such as obligation to disclose investment risks or right to refund. Such regulation could catalyse more and larger investments. European legislative initiative is therefore needed in order to protect this type of investors but also provide easier access to finance for business start-ups. Additionally public authorities should be allowed to use the peer -to-peer lending model that enables citizens to directly invest in projects within their community.

7. Raised awareness at the decision making level

Strong political support is a fundamental success factor for effective financing of energy efficiency projects. The lack of awareness at the decision making level of the benefits of and opportunities for energy efficiency projects is hindering the success and multiplication of these initiatives. **The European Commission should henceforth develop a more active promotion of these concepts and the need for support during meetings and summits of decision makers on different levels. Such fora could become an opportunity to ignite willingness to lead in this domain.**



8. Dissemination of successful projects to support replication

The share of successful methods of innovatively financed projects is determinant for replication of tested and proven implementation models leading to improvement of financing mechanisms. The creation of helpdesks assembling experts on these schemes could be an effective way of centralizing access to information and utilizing feedback from successful projects. This measure could better serve the dissemination of proof of concept but also promote standardized products, thus lowering transaction costs. Successful projects that blended European Structural and Investment Funds with innovative schemes and/or contracts should be prioritised. The European Commission should continue investing in and supporting initiatives that aim at sharing good practices whilst promoting standardized procedures and practices crucial for project success.

9. Capacity building and standardization in Energy Efficiency innovative financing

Given the complexity of alternative financing schemes and their method of deployment, both public and private sector are in need of capacity building and better understanding of risk management. Energy agencies and regional and local public organisations would benefit from improvement of financial and legal skills, managing authorities need guidance on how to blend ESIF with innovative schemes and experts in financial institutions should be trained on financing energy efficiency investments in order to properly advise clients. Standardization of procedures would have a positive effect on the implementation of innovative financing schemes especially since many resources have already been developed under various EU initiatives. The European Commission should renew and multiply its offer of capacity building on innovative finance models in both public and private sector focusing on the effective use of financing opportunities whilst promoting standardization.

10. Encouraging adaptation of public procurement procedures

Rules on public procurement present considerable hurdles for the implementation of energy efficiency projects. The high costs of tender processes are barriers to investments. **The European Commission should encourage an adaptation of public procurement procedures to Energy Efficiency policies**.



OUR MEMBERS



Regional/local energy agencies Regional/local councils

The regional and local energy agencies, and the energy department of regional councils, drive the energy and environmental policies of their regions. As autonomous entities, they elaborate and manage their own plans, acquire experience and knowledge, whilst engaging with local stakeholders. In particular, these entities intervene in the demand and supply side of energy management, development of renewable energy sources, waste management, mobility, air quality and urban development.

FORMS OF ACTION

- Advising regional decision makers in defining regional energy and/or environmental policy
- Supporting regional council in implementing regional energy and/or environmental policy
- Taking part in innovative EU projects (demonstration)
- Supporting the setting up of projects (community based)
- Providing technical assistance to municipalities
- Promoting the development of local SMEs (eco-clusters,...)
- Anticipating the implementation of European legislation
- Facilitating financing of projects (promoting the subsidies from the Regional Councils, initiating regional zero rate loans, or ESCO)
- Leading awareness-raising campaigns
- Participating in European and national networks
- Etc.



TABLE DES MATIERES

Moı	nitoring of Local Energy and GHG Emissions Data15
n	LEA – Agenția Locală a Energiei Alba [Alba Local Energy Agency], ROMANIA – ALEA enhances local Cove- ant of Mayors (CoM) signatories' capacity to access regional energy data by setting up the first Regional inergy Observatory in Romania - ANERGO15
	AZK – Energetická agentura Zlínského kraje [Energy Agency of the Zlín Region], CZECH REPUBLIC – <i>Crea-</i> ion of the Zlín Region Energy Monitoring Centre15
R	legional Council of Provence-Alpes-Côte d'Azur, FRANCE - Call for projects: Together toward the COP2116
	NERGAP – Energetska agencija za Podravje [Energy Agency of Podravje], SLOVENIA – <i>Energy monitoring</i> n <i>Podravje Region in Slovenia</i> 16
	AEE – Rhônalpénergie-Environnement, FRANCE – Regional observatory of the effects of climate change ORECC Rhône-Alpes)
	RE Liguria – Infrastrutture Recupero edilizio Energia, agenzia regionale ligure, ITALY – <i>Online register for</i> eating, ventilation and air conditioning17
	AP - Енергийна агенция — Пловдив [Energy Agency of Plovdiv], BULGARIA — Innovative Research Centre or Integrated Management of the Air Quality18
Dev	veloping Innovative Financing Schemes
A	EGEA – Regionalna Energetska Agencija Sjeverozapadne Hrvatske [North-West Croatia Regional Energy agency], CROATIA – <i>Reconstruction and modernization of public lighting in Zagreb County and Krapina-</i> agorje County
	RENE Île-de-France – Agence Régionale de l'Environnement et des Nouvelles Energies en Île-de-France, RANCE – Accelerate the development of renewable energies through participatory citizen projects19
C	Conseil Régional du Nord-Pas de Calais, FRANCE – Third Industrial Revolution in Nord-Pas de Calais20
Mul	lti-level Governance
	ALESA – Agenzia Locale per l'Energia e lo Sviluppo Ambientale, ITALY – Territorial Coordinator in the Cove- lant of Mayors
in	REEN, APEA, AGENBUR - SPAIN — Castilla y León regional strategy for energy optimisation in public build- ngs, extended to municipalities thanks to multi-level governance collaboration among EREN and provicin- ial energy agencies
Lon	g Term Territorial Planning22
	a.&S.U. – Beratungs- und Service-Gesellschaft Umwelt mbH Berlin, GERMANY – European Energy Award Beea) for municipalities
R	AEE – Rhônalpénergie-Environnement, FRANCE – Joint Spatial and Sustainable Energy Planning22
	égion Wallonne, BELGIUM – POLLEC (POLitique Locale Energie Climat): Supporting Walloon local authori- ies in their energy transition23
	IEA — ENEPГЕІАКО ГРАФЕІО IOY-AIГАІОҮ [los-Aegean Energy Agency], GREECE — Identification of RES slants sitting potential in Aegean Islands23



AEEPM - Agenţia pentru Eficienţă Energetică şi Protecţia Mediului Bucureşti [Agency for Energy Efficience and Environment Protection Bucharest], ROMANIA – Supporting Bucharest District 1
Capacity-building activities2
AE3r - Agentia pentru Eficienta Energetica si Energii Regenerabile Ploiesti-Prahova, ROMANIA - EnP INTRANS: Capacity Building on Energy Performance Contracting in European Markets in Transition2
Energikontor Norr [Energy Agency North], SWEDEN — Climate Smart = Business Smart2
Region Örebro län [Region Örebro County Energy Agency], SWEDEN – E-learning tool for energy efficiens supermarkets
AEMVA – Agencia Energética Municipal de Valladolid, SPAIN – Workshops for technicians and citizens2
Implementing Energy Efficiency Measures2
ICAEN – Institut Català d'Energia, SPAIN – Action Plan for Energy Efficiency in Industry in Catalonia2
KCC – Kent County Council, UNITED KINGDOM – New lighting in Kent schools2
REA Sjever - Regionalna energetska agencija Sjever [Regional Energy Agency North], CROATIA — Energy retrofitting project of the general county hospital Koprivnica
Energikontoret Skåne [Skåne Energy Agency], SWEDEN – Energy Efficiency in Business Parks: entrance the Energy Smart Society
IVACE-AVEN – Agencia Valenciana de la Energía, SPAIN – Energy Management Plan for Public Buildings 2
AMEMM - Agenția de Management Energetic Maramures, ROMANIA – Detailed planning for rehabilit tion of public buildings2
AREAM - Agência Regional da Energia e Ambiente da Região Autónoma da Madeira, PORTUGAL — Energia Efficiency on Street Lighting in Madeira2
Conseil Régional de Picardie, FRANCE – Picardie Pass Renovation
BEA – Berliner Energieagentur, GERMANY – Berliner Energieagentur puts Berlin's 1.000 th CHP unit in operation3
AAE - Agencia Andaluza de la Energia, SPAIN — PICSA: Programme to Promote Sustainable Construction and Rehabilitation in Andalusia
Developing Renewable Energy Sources
Keski-Suomen Liitto [Regional Council of Central Finland], FINLAND – Central Finland has a strong focus of bioenergy
Energikontoret Östra Götaland, SWEDEN – The Project "Fossil Free Agriculture"3
EVE - Ente Vasco de la Energía [Basque Country Energy Agency], SPAIN – Innovative ocean energy pil project
FAEN - Fundación Asturiana de la Energía, SPAIN – FAEN experience on NZEB3
AGIRE - Agenzia per la Gestione Intelligente delle Risorse Energetiche, ITALY — Bio-Revaluation of the Chemical District of Mantova by planning non-food Biomass Supplu Chain and its upgrading to Biomacts (BioMan)
CKEA – Carlow Kilkenny Energy Agency, IRELAND – Ireland's largest Solar Photovoltaic project – CKE Solar Electric and O'Sheas Farm Piltown Co Kilkenny



	he Usti Region], CZECH REPUBLIC – Discovering the potential of geo35
	rjedalen [Energy Agency of Jämtland Härjedalen Region], SWEDEN soon are we there?35
	de Management Energetic [Harghita County Council – Energy Mancollector built from beer cans36
OÖ ESV – Oberösterreich Energiespa	rverband, AUSTRIA – PV goes to 400 schools36
TEA – Tipperary County Council, IREI	AND – Ireland's largest Solar Photovoltaic project37
-	в [Energy Agency of Plovdiv], BULGARIA – Establishment of a Modern energy and environment37
	gency for Southeast Sweden], SWEDEN – <i>The first small scale gasifier</i> 38
Engaging various local stakeholder	s 39
	per l'Energia, ITALY – World Wide Views on Climate and Energy: the
Energikontoret I Mälardalen [Mälard	alen Energy Agency], SWEDEN – Earth Hour City Challenge39
SWEA – Severn Wye Energy Agency,	UNITED KINGDOM – Energy savings to reduce crime!40
Promoting Eco-mobility	41
	gy, IRELAND – The REPUTE "Guide to Energy and Publicly-Accessible 41
Education and Communication	42
	ν Πολιτών [Cyprus Energy Agency], CYPRUS – Behavioural changes on of kids and citizens42
	Podravje [Energy Agency of Podravje], SLOVENIA – <i>Every small step</i>
Energiråd Innlandet [Inland Norway	Energy Agency], NORWAY – Inspiring Youth to Climate Action43
	Niederösterreich, AUSTRIA – <i>Power Demand and Renewable Power</i> t live!43
	work, DENMARK – Promoting GPP practice in municipalities in Regior 44
	a egencija Kvarner [Regional Energy Agency Kvarner], CROATIA – <i>En</i> @ Rijeka. Zadar & Pula44



MONITORING OF LOCAL ENERGY AND GHG EMISSIONS DATA

ALEA - Agenția Locală a Energiei Alba [Alba Local Energy Agency], ROMANIA - ALEA enhances local Covenant of Mayors (CoM) signatories' capacity to access regional energy data by setting up the first Regional Energy Observatory in Romania - ANERGO



As main promoter of sustainable energy policies in Alba County, ALEA has supported LAs in elaborating and implementing sustainable energy strategies. Within the Covenant of Mayors (CoM) initiative, ALEA has offered assistance in the elaboration and implementation of the SEAPs for more than 10 CoM signatories.

The process of elaborating such an action plan often faces difficulties due to the lack of reliable energy data. Thus, the existence of a data sharing platform to facilitate LAs in accessing energy data is a strong necessity. In July 2015 ALEA launched ANERGO, the first Regional Energy Observatory in Romania, to fill this gap in energy data sharing. It was developed in the framework of the DATA4ACTION project, in which ALEA is the national partner. The Observatory aims to become an essential tool for CoM signatories in elaborating their SEAPs. ANERGO has become a successful collaboration example in data sharing having 12 LAs and 4 energy data providers as collaborating members. It is envisaged that other collaborations will follow, thus the observatory will generate quality baseline inventories of energy consumptions and CO₂ emissions.

www.alea.ro

EAZK - Energetická agentura Zlínského kraje [Energy Agency of the Zlín Region], CZECH REPUBLIC - *Creation of the Energy Monitoring Centre in the Zlín Region*



The Regional Energy Observatory in the Zlín Region was established by the Council of the Zlín Region on 13th July 2015 as the **Zlín Region Energy Monitoring Centre**.

The monitoring centre was created as a part of the IEE project DATA4CTION and will be operated as a part of the Energy Agency of the Zlín Region (EAZK). Institutionalization of the monitoring centre and defining its structure, long term goals and specific targets will lead to the improvement and development of energy management of towns and municipalities within the Zlín Region. The monitoring centre will become the official tool through

which it will be possible to monitor and more effectively implement the Energy Concept of the Zlín Region, regional SEAP and SEAPs of particular municipalities. The monitoring centre will also become the part of the European network of Observatories ENERGee-Watch.

The Energy Group of the Zlín Region discussing the creation of the Energy Monitoring Centre in the Zlín Region on its meeting 19.08.2015

http://data4action.eu/cs/
http://www.eazk.cz/rubrika/data4action/



Regional Council of Provence-Alpes-Côte d'Azur, FRANCE - Call for projects: Together towards the COP21

In order to develop citizens' involvement in the much awaited COP21 in December 2015 (Paris), the Regional Council of Provence-Alpes-Côte d'Azur has launched a call for ideas from associations. Almost forty projects have been received and twenty have been supported by the Council. All these projects have the ambition to promote and explain the COP21 to citizens. They are impacting a lot of different themes such as transports, buildings, consumption,... Together, they represent 600 000 Euros worth of action in our territory and almost 10 000 citizens con-



cerned. Finally, most of them have the ambition to organize or participate in some events in Paris in order to present their results and lessons to add their contribution to climate action.

www.regionpaca.fr

ENERGAP - Energetska agencija za Podravje [Energy Agency of Podravje], SLOVENIA - *Energy monitoring in Podravje Region in Slovenia*



Portal of energy monitoring system

For more than eight years, Energy Agency of Podravje has been a leading expert in the development and implementation of energy monitoring for public buildings in Slovenia; to monitor energy use, money spent and CO_2 produced. Until now, there are 400 buildings involved in the energy monitoring system. On its basis, action plans for renovation are prepared and implementation of measures followed on yearly basis.

In the year 2010 the Energy Agency of Podravje was nominated by Managenergy as one of the best practice for local-oriented activities; for the project "Establishment of a central energy management in schools and kindergartens in the municipality". The Agency works and cooperates with a wide network of partners, associates and customers to achieve the objectives of the climate and energy package, which commits us to reduced energy consumption and increased use of renewable energy sources.

www.energap.si



RAEE - Rhônalpénergie-Environnement, FRANCE - Regional observatory on the effects of climate change (ORECC Rhône-Alpes)

Launched in November 2013 by DREAL (Regional Directorate for Environment, Planning and Housing), Rhône-Alpes Region and ADEME (French Environment and Energy Management Agency), the objectives of ORECC are to:

- > Develop and disseminate knowledge about climate change and its effects
- > Foster the development and implementation of policies by the actors of the adaptation strategies
- > Constitute a mechanism for an exchange and dialogue about climate change issue

The operational implementation is headed by Rhônalpénergie-Environnement (RAEE) and Cerema (Centre for studies and expertise on risks, environment, mobility and planning).

Productions:

- Identification and updating of the relevant indicators (climate, tourism, agriculture, forestry...) to analyze the impacts of climate change on Rhône-Alpes' territory
- States of art of thematic knowledge (climate change impacts on tourism, agriculture-forestry, health fields) and experience feedback for adaptation actions
- A biannual newsletter



orecc.rhonealpes.fr www.raee.org

IRE Liguria - Infrastrutture Recupero edilizio Energia, agenzia regionale ligure, ITALY - Online register for heating, ventilation and air conditioning



IRE Liguria is offering its technical support to the Regional Government in organising informative meetings for the implementation of DPR 74/2013, that defines the general criteria for the operation, maintenance and inspection of thermal systems.

These dissemination events have been organised throughout Liguria and serve to inform the workers on the use of the new online Regional Register of heating, ventilation, and air conditioning (CAITEL).

The use of an online Register will give the chance to compare the data from thermal plants with other data already present in the regional data base.

This will allow us to incorporate the data from thermal plants that have never been registered which will, in turn, lead to increased public safety and improvement in the air quality throughout the region of Liguria.

Liguria is one of the first regions that have transposed DPR 74/2013 and that have created an online register.

www.ireliguria.it



EAP - Енергийна агенция – Пловдив [Energy Agency of Plovdiv], BULGARIA - Innovative Research Centre for Integrated Management of the Air Quality

EAP in partnership with Association of Bulgarian Energy Agencies created a Centre for integrated management of the air quality- research and innovation in the field of air quality monitoring and measurement, inventory of emissions, dispersion modelling, inventory of GHG emissions, meteorological and climate research, development and update of municipal programs and action plans for air quality, RES, biofuels and energy efficiency.

The Centre has a mobile laboratory for air quality monitoring and measurement, with the sampler and monitor for PM2.5 and PM10, NO, NO2, NOX analyser, sensors for meteorological components.

For the dispersion modelling the Centre use web based system for Air Quality Management – Airviro, which integrated 13 dispersion modules (including American US/EPA AEROMOD and German Austal 2000) and provides effective assistance in all vital functions of air quality management: air quality monitoring, data analysis, emission inventory, dispersion simulation etc.

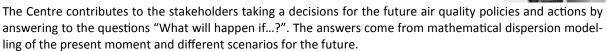


Photo: credits Energy Agency of Plovdiv

www.eap-save.eu



DEVELOPING INNOVATIVE FINANCING SCHEMES

REGEA – Regionalna Energetska Agencija Sjeverozapadne Hrvatske [North-West Croatia Regional Energy Agency], CROATIA - Reconstruction and modernization of public lighting in Zagreb County and Krapina-Zagorje County



In August 2015, the European Commission approved NEWLIGHT, the first Croatian project financed by the ELENA facility for the reconstruction and modernization of public lighting in our two counties — Zagreb and Krapina-Zagorje. Investments are planned in 15 cities and 47 municipalities which have officially joined the project in a process successfully facilitated by REGEA. The project has been prepared for years, as is the case with large-scale substantial projects, but the results show that it is worth it. The total estimated investment of this project will run at over EUR 20 million (a total of 34. 000,00 lighting

points), ELENA / EIB approved the overall technical assistance in the amount of € 790.000,00, out of which 711.000,00 will be provided by ELENA (90 %), and 79.000,00 will be co-financed by County applicants (10%). ELENA is a technical assistance program of the European Commission supporting regions and cities in the preparation of major investment projects, and the programme is operationally maintained by the European Investment Bank - EIB on behalf of the European Commission. It is a pioneering project for Croatia – 62 political entities participate together with the help of 2 regions (counties) through 1 regional energy agency!

www.regea.org

ARENE Île-de-France - Agence Régionale de l'Environnement et des Nouvelles Energies en Île-de-France, FRANCE - Accelerate the development of renewable energies through participatory citizens projects

The emergence of citizens projects, notably alongside public authorities and businesses, is a key factor for a successful energy transition.

Faced with the growing need for the financing of the energy transition, participatory schemes are an interesting approach to mobilize private investments and orientate towards local projects. ARENE launched a study to identify the conditions to the development of participatory citizen renewable en-

ergy projects in Île-de-France. The study looked at the two main approaches which this can take:

- Mobilization of citizens as part of a territorial project led by public bodies to co-build the project and lean on the mobilization of participatory financing,
- Led by a group of autonomous citizens.

The study should provide local actors, among which public local authorities, elements to inform their decision-making, with recommendations and points to look out for in the use of these two types of approaches. Different fields of analysis will have to be taken into account, in particular of a legal, regulatory, financial, sociological and governance nature.



Copyright ARENE/ C. Bertolin

www.areneidf.org



Conseil regional du Nord-Pas de Calais, FRANCE - Third Industrial Revolution in Nord-Pas de Calais



Initiated in late 2012 the "Third Industrial Revolution in Nord-Pas de Calais" is now fully operational. Significant financial resources are dedicated to support "Third Industrial Revolution" -TRI- projects and stimulate new initiatives. In addition to local authorities' fundings (in the field of economic development or regional planning) and EU structural funds for energy transition, specific financial tools have been created. A special 50 million € TRI fund supported by Region Nord Pas de Calais, ERDF, the European Investment Bank, the Caisse des Dépôts and the Credit Agricole, brings capital and equity loans to companies. The mobilization of popular savings is also successful with crowdfunding platforms (including KissKissBankBank, hellomerci, CowFunding, Kiosk to invest ...) and the creation of a saving book "Third industrial revolution "by Crédit coopératif, which has already collected € 8.5 million for almost 1,000 openings booklets in a few months.

http://rev3.fr www.nordpasdecalais.fr



MULTI-LEVEL GOVERNANCE

ALESA - Agenzia Locale per l'Energia e lo Sviluppo Ambientale, ITALY - Territorial Coordinator in the Covenant of Mayors

The work of the Chieti energy agency has led to investments of over EUR 90 million in energy efficiency in this rural region. Through a series of energy efficiency, energy management and transport upgrades, the Province of Chieti now aims at achieving a 25 % reduction in CO2 emissions by 2020. Located in the Abruzzo region, the Province of Chieti has signed into the Covenant of Mayors as a Territorial Coordinator, where it commits to assisting signatory cities within its territory to design and implement their Sustainable Energy Action Plan (SEAP). For this, the local energy agency ALESA has stepped in, designing and developing over 100 SEAPs for municipalities in the province. Thanking its skills ALESA has coordinated an important project, DACO project, funded by CE, with two partners in Central ASIA (Kazakhastan, Tajikistan) and one partner in East Europe (Belarus). It has had the main purpose to bring those three partners to join the Covenant of mayors, designing their SEAPs and realizing one pilot project per country.



www.alesachieti.it

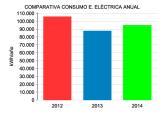
Pilot project in Tajikistan: Before/After

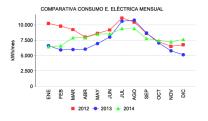
EREN, APEA, AGENBUR - SPAIN - Castilla y León regional strategy for energy optimisation in public buildings, extended to municipalities thanks to multi-level governance collaboration among EREN and provincial energy agencies

The provincial energy agencies in Castilla y León, APEA (Agencia Provincial De La Energía de Ávila) and AGENBUR (Agencia Provincial de la Energía de Burgos) have established a multi-level governance structure for supporting energy management in municipalities with EREN (Ente Regional de la Energía de Castilla y León).

They are giving support to Small and Medium Municipalities (SMMs) through an online tool to inventory all the energy contracts and consumptions in their public buildings (offices, schools, health, sport, social centres) in a first step baseline, before optimizing and managing energy consumption in a second step and finally promote energy efficiency investments in a third step.

These energy agencies agreements will reach 17% of SMMs in Spain and 11.100 electrical supplies will be optimized. 70 municipalities are already using the optimizing-energy-tool which will serve them as a starting point for supporting their SEAPs and a launch for SMMs to the Covenant of Mayors.





www.energia.jcyl.es www.apea.com.es www.agenbur.com



LONG TERM TERRITORIAL PLANNING

B.&S.U. - Beratungs- und Service-Gesellschaft Umwelt GmbH Berlin, GERMANY - European Energy Award (eea) for municipalities

The European Energy Award (EEA) is a quality management and certification scheme aimed at municipalities committed to sustainable energy, climate protection and transport policies. From spatial planning to energy supply, mobility to communication – the EEA comprises all the tested and proven energy and climate protection measures, which municipalities can undertake on a local level.

It not only takes into account the characteristics of individual regions and countries, but also enables benchmarking between municipalities at national and European level. The EEA is therefore the most comprehensive quality management system for municipalities in the field of energy efficiency.

The EEA can be implemented in connection with other energy efficiency and climate protection initiatives at the municipal level, such as the Covenant of Mayors or Smart City project. Participation in the EEA in conjunction with a CO2 balance (eg. developed with the ECORegion tool) is the ideal condition for joining the Covenant of Mayors.

The European Energy Award translates into 25 years of experience, more than 1.300 participating municipalities and regions in eleven countries, involving around 40 million inhabitants.

www.european-energy-award.org www.bsu-berlin.de

RAEE - Rhônalpénergie-Environnement, FRANCE - Joint Spatial and Sustainable Energy Planning



The Rhône-Alpes energy agency is supporting public authorities in the development of climate-friendly spatial planning documents at regional and local levels. The agency has developed a set of tools to facilitate dialogue between spatial and energy planning stake-holders and is accompanying public authorities in their effort to develop more integrated planning approaches contributing to the implementation of more ambitious local SEAPs. Bridging the gap: the agency has developed partnerships with urban planning agencies and other local energy agencies in order to jointly identify potential roadblocks for integrated planning. It has developed multi-stakeholder and multi-level dialogue tools such as regional spatial-energy info days, analysis tools in order to facilitate the

identification of inconsistencies and opportunities in the spatial and sustainable energy planning documents, training materials and case studies. The agency is accompanying several territories such as Valence Romans Sud Rhône-Alpes in order to ensure the development of coherent and integrated planning approaches.

www.raee.org



Région Wallonne, BELGIUM - POLLEC (POLitique Locale Energie Climat): Supporting Walloon local authorities in their energy transition

A new campaign named "POLLEC2" was launched in March 2015 at the initiative of Paul Furlan, Walloon Minister for Local Authorities, Energy and Housing. This initiative aims to assist Walloon municipalities, urban communities and provinces to set up and carry out a local energy and climate policy in the framework of the Covenant of Mayors, as well as implement local renewable energy projects and innovative financing schemes for local energy production.



The municipalities selected under the call for projects will benefit from financial support for the use of external expertise for the design of their Sustainable Energy Action Plan as part of their adhesion to the Covenant of Mayors

(CoM). Financial support is also provided to municipalities which already have a SEAP, for the setting up of alternative funding mechanisms for investments in renewable energy production.

In total, 114 municipalities are participating in the call for projects, amongst which 91 have not yet joined the CoM. By the end of 2016, 119 municipalities will have joined the Covenant of Mayors and developed a sustainable energy action plan, representing 45% of all Walloon municipalities.

www.apere.org/pollec energie.wallonie.be

AEA - ENEPΓΕΙΑΚΟ ΓΡΑΦΕΙΟ ΙΟΥ-ΑΙΓΑΙΟΥ [los-Aegean Energy Agency], GREECE - Identification of RES plants sitting potential in Aegean islands



Local and regional authorities in Greece are involved in the licensing process of RES plants in Greece either by simply providing their opinion about a project or issuing the license. Aegean islands, rich in wind and solar potential, with special landscapes and ecosystems, intense tourism development and limited land, are often confronted with the dilemma of where RES plants could or should by sited.

The purpose of this project was to provide to the authorities a GIS based decision making tool which they can use to decide whether a RES project is compatible with the rest of the island's land uses. In parallel the tool is expected to contribute to the productive dialogue among different stakeholders regarding the islands' energy future.

The tool integrates the different geospatial information coming from existing local or regional spatial plans, legislative frameworks, natural site restrictions and additional considerations coming from the local authorities that should be taken into account while planning for onshore wind and PV installations.

www.aegean-energy.gr



AEEPM - Agenția pentru Eficiență Energetică și Protecția Mediului București [Agency for Energy Efficiency and Environment Protection Bucharest], ROMANIA - Supporting Bucharest District 1



Starting as a supporting organisation for Bucharest District 1 municipality, as Energy Agency, AEEPM helps Romanian Municipalities Association (108 municipalities members) to define and promote strategies, action plans and policies regarding energy and sustainable development.

AEEPM supports also AMR in designing policy positions on every matter related to energy and sustainability. We support municipalities to design, implement and monitoring SEAPs.

AEEPM helped Bucharest District 1 to design and implement its SEAP, the largest and most ambitious energy efficiency project in Romania. We coordinated the implementation of large scale thermal insulation in buildings. 800 multi storey block of privately owned apartments (more than 60,000 individual apartments) were thermally insulated during 2008-2014 with the financial support of Bucharest District 1 municipality.

This project, which costed over 300 million euros, is the first step of the most ambitious SEAP in Romania.

www.managenergy.ro



CAPACITY-BUILDING ACTIVITIES

AE3R - Agentia pentru Eficienta Energetica si Energii Regenerabile Ploiesti-Prahova, ROMANIA - EnPC-INTRANS: Capacity Building on Energy Performance Contracting in European Markets in Transition



Since March 2015, "AE3R Ploiesti – Prahova" has been involved in EnPC-INTRANS - Capacity Building on Energy Performance Contracting in European Markets in Transition - a project developed by the partners on the basis of international, interdisciplinary and inter-sectorial cooperation and exchange of concepts, ideas and experience. The resulting training concepts and tools will be implemented and demonstrated in the partner countries of Croatia, Germany, Greece, Latvia, Romania, Serbia, Slovakia, Slovenia and Ukraine, and presented for further dissemination and replication to experts and stakeholders in all EU28 Member States.

EnPC-INTRANS is expected to have an optimum large-scale impact on sustainable capacity development of the demand side for the development and use of EnPC/ESCO models for the financing of EE investments in public buildings and services in Europe.

EnPC-INTRANS receives funding from the Horizon 2020 European Union Research and Innovation Programme under Grant Agreement No 649639.

www.enpc-intrans.eu www.ae3r-ploiesti.ro

Energikontor Norr [Energy Agency North], SWEDEN - Climate Smart = Business Smart

The project, which lasted nearly two years, has engaged SMEs in Norrbotten. The companies have received expert help to develop their business models and their communication in connection with their energy and climate work. In an initial phase the project contacted over 240 companies. Among these, 61 companies were selected to participate in a second phase, which involved in-depth interviews and analyses. The response from the interviews have been used for calculations and analyzes and for preparation of background material for action plans for sustainable business. The background material has been developed by the project's business developers in close collaboration with experts in communication, energy and climate. An initial assessment shows that the participating companies with a few simple actions can reduce energy consumption by over 45 million kWh per year, equivalent to 15 per cent. The project's energy experts estimate that many of the companies with additional measures can reduce energy consumption by 30-50 percent.



The project group of KlimatSmart at the final workshop (missing Theresa Palo)

www.energikontornorr.se



Region Örebro län [Region Örebro County Energy Agency], SWEDEN - E-learning tool for energy efficient supermarkets



Supermarkets have a high energy consumption. However, they have great potential to save energy. Experience show that only electricity consumption can be reduced by 30 percent through smart energy measures.

To educate supermarkets on how to save energy, Region Örebro County Energy Agency together with the network Belivs (stakeholders in the food premises and professional kitchens) have developed a customized online e-learning tool for this particular group.

The advantage of an online tool is that it makes it easy for store personnel to do the training when they have the time. The tool consists of attractive films and information from which stores get solid advice about, for example, refrigera-

tors and freezers, lighting and ventilation.

For those supermarkets which want to start an energy efficiency work after they have gone through the elearning tool the project mediates contacts with the municipal energy and climate advisor who are available in all Swedish municipalities.

"Energy advice in supermarket", Region Örebro County Energy Agency

www.regionorebrolan.se

AEMVA - Agencia Energética Municipal de Valladolid, SPAIN - Workshops for technicians and citizens

AEMVA actions intended to promote energy savings and efficiency to achieve a rational use of energy: to involve the municipality in this energy saving, to promote renewable energy, and to inform, advise and sensitize citizens in the planning and control of their energy projects.

The Valladolid City Council has signed the Covenant of Mayors, and AEMVA has been supporting it with its new commitments: fitting in



energy efficient light bulbs, installation of biomass boilers in buildings with electric air conditioning, installation of photovoltaic systems in municipal buildings (schools, civic centres, offices). Moreover, workshops have been held to inform both technicians and citizens on the energy saving measures they can undertake. Valladolid notably hosted the Ceremony of the National EnerAgen Awards 2013 (EnerAgen is the Spanish Network of Energy Agencies). These Awards honour best energy efficiency and renewable energy actions and has become the annual meeting point for Spanish energy agencies.

www.valladolid.es



IMPLEMENTING ENERGY EFFICIENCY MEASURES

ICAEN - Institut Català d'Energia, SPAIN - Action Plan for Energy Efficiency in Industry in Catalonia

ICAEN is the body of the Catalan Government in charge of the development of the Action Plan for Energy Efficiency in Industry in Catalonia.

The main objective of the Action Plan is the acquisition of knowledge and the immediate action on specific lines, the implementation of energy efficiency and saving policies in the industrial sector. Specifically the objective is to reduce by 4.7% the energy intensity of the industrial sector during 2011-2020.

The action of ICAEN will be based on the following principles:

- The knowledge of industries energy consumption, energy technologies currently used by the Catalan industry, new energy technologies and their future potential, as well as business expectations.
- It should concentrate on a continuous and permanent dialogue with industry.
- It must be flexible, adapting to environments changing over time, and must overcome the real problems of the Catalan industry in all areas of energy.

More information: Action Plan of Energy Efficiency in Industry in Catalonia

www.icaen.net

KCC - Kent County Council, UNITED KINGDOM - New lighting in Kent schools

Kent County Council has been helping Kent schools become more energy efficient and save money by installing light emitting diode (LED) lighting to replace traditional lamps. One of the first schools to complete a lighting upgrade was the Churchill School (see case study attached). This school's electricity costs were reduced by £1200 a year and more teaching space is available, including transforming some dark cloakrooms into reading rooms. Since 2013, 22 schools have made the change to LED lighting, which ensures more of the school's money is available to invest in pupils education. The total invested in all these projects is £683,000 with expected lifetime savings to be £2.8 million. Funding for these projects is from the UK Government's energy efficiency funds administered by Salix Finance, available for public sector buildings and schools. This is 0% finance with the money invested repaid from the savings, usually over 5-7 years.

www.kent.gov.uk



Before and after the LED installation in the Churchill Primary School



REA Sjever - Regionalna energetska agencija Sjever [Regional Energy Agency North], CROATIA - Energy retrofitting project of the general county hospital Koprivnica



Hospitals are large consumers of energy because they operate 24 hours a day, and energy inefficient hospitals are monstrously large consumers. REA North started in 2014 the long-term energy retrofitting of the General County hospital Koprivnica into an energy efficient hospital. The hospital was built in the late seventies and has never been renovated. It still uses the heating and lighting technology from that era, causing huge energy losses. REA North initiated the simultaneous implementation of both RES and EE measures, together with technical documentation preparation. This year the solar thermal collec-

tor plant began operating and partial envelope energy retrofitting took place. The plan for next year includes complete reconstruction of heating system with expected savings of 30%. By the end of year 2020 all major reconstruction and retrofitting activities are planned. In parallel the Agency is supporting the Hospital in finding proper funding instruments for the retrofitting.

www.rea-sjever.hr

Energikontoret Skåne [Skåne Energy Agency], SWEDEN - Energy efficiency in Business Parks: entrance to the Energy Smart Society

Through systematic Energy Management and collaboration in Business parks, companies are able to increase efficient use of energy and reduce CO_2 emission. This is one of the conclusions made in the project Go Eco . In the region of Skane, Sweden, it's been revealed that half of the energy used in industries is not recovered. The situation is similar to the rest of EU countries, indicating an enormous potential from use of recovered energy. At Industry Park of Sweden (IPOS), energy recovered from Kemira is sold to several companies located within the industrial park, eliminating their need for extra fuel for production of steam and hot water. An interesting application is



also the heating of basins for eel breeding. This concept of "Industrial Symbiosis" has been developed in close collaboration with Helsingborg city, utilizing waste heat for local district heating.

<u>www.go-eco.info</u> www.energikontoretskane.se

IVACE-AVEN - Agencia Valenciana de la Energía, SPAIN - Energy Management Plan for Public Buildings



A Valencian Hospital which is part of the public building plans © Generalitat Valenciana. Conselleria de Sanitat.

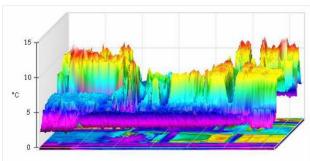
IVACE-Energy has developed a plan for the development of a monitoring and management system for the buildings belonging to the Regional Government (Generalitat Valenciana). This system is based on the control and monitoring of the energy consumption of the buildings by means of a network of "energy managers". This management is facilitating the introduction of low cost efficiency measures, the introduction of internal procedures (such as the limitation of working periods, temperature levels, presence detectors...), and also the implementation of energy efficiency criteria to be applied in public procurement processes, in the management of the buildings and in the acquisition of the different equipments. Energy audits are also carried out as part of the Plan.



1.510 buildings participate in the Plan, 320 of which have an energy consumption greater than 200 MWh/year. The plan was launched in 2012, and up to now (end of 2014), an energy saving of 54,300 MWh (meaning an 11,3% energy saving) and an economic saving of 13.1 M€ have been achieved.

www.ivace.es

AMEMM - Agenția de Management Energetic Maramures, ROMANIA - Detailed planning for rehabilitation of public buildings



As part of the Regions4GreenGrowth Project, AMEMM coordinated the development of a detailed inventory of the building stock in the ownership of the Maramures County Council in view of their retrofitting. The inventory provides information on the status of the buildings (detailed description of the technical condition, destination, number of inhabitants, legal status, energy consumption during the last 2 years, energy performance etc.) and a list of measures to be applied in order to increase the energy performance of the building. The measures are

based on business models which assess several cost-benefit scenarios. The study allows for the identification of a list of priorities with the buildings requiring urgent rehabilitation and will be the basis for funding applications submitted under the structural funds, i.e. the Regional Operational Programme. Modern techniques were applied for a selected number of buildings which included thermo-vision inspection and 3D laser scanning.

www.regions4greengrowth.eu www.amemm.ro

AREAM - Agência Regional da Energia e Ambiente da Região Autónoma da Madeira, PORTUGAL - Energy Efficiency on Street Lighting in Madeira

Started in 2014, the action aims to enhance the energy efficiency in street lighting in Madeira and Porto Santo Islands, including: guides and regulation; data collection; inventory database upgrading; analysis of lighting needs; control systems; and efficient luminaries and drivers.

In this action, AREAM's role is to prepare guides and regulation, study the solutions and economic feasibility, plan the implementation procedure, monitor the results and identify financing tools. The role of EEM (public utility) is to provide the initial investment, carry out implementation and maintenance. The municipalities are represented by IPM (association for street lighting).

The amount of savings estimated by the first phase of action is twice the total energy consumption for street lighting in the smallest municipality in Madeira. Within 5 years, it is expected that the energy savings on street lighting will be 50%, or more, in Madeira and Porto Santo Islands.



Led luminaries in Ponta do Sol, Madeira By Gorete Soares, AEAM

www.aream.pt



Conseil Régional de Picardie, FRANCE - Picardie Pass Renovation

Picardie Region has been committed since one year in a project supported by the European Investment Bank ELENA facility, to renovate 10.000 housing units per year from 2018. The pilot phase of the project, which runs from 2014 to 2019, aims at renovating 2.000 private dwellings on 16 pilot territories, and at leading to the creation of 650 jobs in the construction sector. The first results are extremely encouraging and the stakes are



A construction site of Picardie Pass Renovation always begins with the thermal insulation of the oustide!

very high in terms of energy efficiency, research and innovation, local employment, training skills upgrading and overall the convincing strategies to attract private households into this virtuous innovative financial circle. The implementation of a Public Office for Energy Efficiency, employing 33 people at the regional and local levels, reflects a strong political ambition and is the major means to answer to the ELENA objectives. The economic model aims to adopt a neutral budget scheme for private households, reimbursing their loan for energy renovation works through the energy savings.

www.pass-renovation.picardie.fr www.picardie.fr

BEA - Berliner Energieagentur, GERMANY - Berliner Energieagentur puts Berlin's 1.000th CHP unit into operation

In a ceremony in June 2015, Berlin's Senator for Urban Development and the Environment Andreas Geisel inaugurated Berlin's 1,000th combined heat and power (CHP) unit. In an urban district in Berlin-Lichtenberg, it will generate power and heat for over 300 residential units.

The CHP unit (207 kWth, 140 kWel) was financed, planned and built in cooperation between Berliner Energiea-

gentur (BEA) and the municipal housing company HOWOGE, with BEA being responsible for the unit's smooth operation in the next 15 years. The power produced can be purchased on easy terms by the tenants. Furthermore, the unit helps save about 500 tons of CO2 per year.

Senator Geisel: "Decentralized CHP has a key role in Berlin's energy transition and is an important component of the Berlin Senate's climate protection strategy. I welcome that Berlin's public companies continue to be pioneers of this technology and use it to the benefit of the city's tenants." With 72 CHP units in residential and service buildings and around 3,500 power customers, BEA is currently the biggest CHP unit operator in Berlin.



Senator for Urban Development and the Environment Andreas Geisel and BEA CEO Michael Geissler in front of Berlin's

1,000th CHP unit.

www.berliner-e-agentur.de



AAE - Agencia Andaluza de la Energia, SPAIN - PICSA: Programme to Promote Sustainable Construction and Rehabilitation in Andalusia



The PICSA project is an innovative programme led by the Andalusian Regional Government and managed by the Andalusian Energy Agency boosting energy rehabilitation, promoting ecoefficiency in the energy sector, and therefore favouring low carbon economies, stimulating local employment and contributing to the sustainability of the environment, through incentive schemes and revolving funds, financed by the European Regional Development Fund (ERDF) and regional funds.

One of the most innovative features of the incentive programme is the public-private collaboration between the Andalusian Energy Agency and the 8,000 partner companies, mostly

SMEs - which facilitates the administrative procedures for end-users in requesting subsidies by using an online system on the Agency's Web Page.

Related to the incentives, the energy saving and /or diversification achieved amounts more than 35,800 tonnes of oil equivalent per year and the CO2 emissions reduction has been more than 84,800 tonnes of oil equivalent per year, equivalent of more than 7 million trees.

Near 40,000 actions have been developed up to now, addressed to neighbouring communities, enterprises, citizens, and other entities, which generated more than 258 million Euros of investment, counting on more than 8,000 collaborating companies, generating more than 20,000 direct jobs.

The PICSA project has been awarded with the Regio Star Award 2015 as better initiative addressed to citizens.

Photo: Award Ceremony RegioStar October 2015 (Corina Cretu, Regional Policy Commissioner, José Sánchez Maldonado Regional Ministry of Employment, Enterprise and Commerce, Andalusian Government, Natalia González Hereza, Managing Director Agencia Andaluza de la Energía)

www.agenciaandaluzadelaenergia.es



DEVELOPING RENEWABLE ENERGY SOURCES

Keski-Suomen Liitto [Regional Council of Central Finland], FINLAND - Central Finland has a strong focus on bioenergy

Central Finland has over the past years successfully developed local renewable energy sources, in particular forest bioenergy. In 2012, renewable energy sources accounted for 68% of the region's energy production and 44% of total energy consumption (including traffic). Central Finland has a strong focus and knowledge of forest based sustainable bioeconomy. The region works in close cooperation with the local universities, research



institutes and companies. The ambitious goal is to increase the share of renewable energy (total consumption) to 60 % by 2020. Central Finland works hard in creating new business opportunities in bioeconomy. The goal is to create new bio-based products and services to global markets.

Äänekoski municipal is a very good example in RE; the share of RE of total energy consumption equals to 77 % (2014). High share of RE is due to forest industry and their cooperation with the municipal energy company, CHP of the municipals center is 100% renewable. In the future, with new investments in forest industry, this will create a positive problem, the production of the RE will increase.

The region has actively shared its knowledge notably through several EU funded projects, e.g. BalticClimate (Baltic Sea Region Programme); BIOCLUS (FP7) and BERST (FP7).

www.keskisuomi.fi

Energikontoret Östra Götaland, SWEDEN - The Project "Fossil Free Agriculture"



The project Fossil Free Acriculture was financed by the European Agricultural Fund for Rural Development with a total budget of 300 000 €. Project duration was 2013-01 to 2014-09. The project gathered the experiences from three Swedish farms producing grains and oilseeds, which have converted from fossil fuels to using renewable energy throughout their full business. Agriculture can manage efficient production with 100 % renewable energy and existing technique. The farmers goal was to reach the minimum possible of the direct and indirect dependence of fossil fuels. The project goal was to develop a

model for how fossil fuels in a farming business can be replaced with renewable energy.

Results:

- 425 farmers have been educated
- A handbook has been produced featuring this three farms experiences.
- 60 agricultural companies have confirmed that they are planning to convert their farms to fossilfree production
- Creation of new business models by demonstrating the ability to commercialize products developed with these methods.

Description of the farms conversion:

- 57,000 liters of diesel replaced by biodiesel in existing machines
- Petrol in smaller machines replaced with ethanol
- 25,000 liters of heating oil replaced with solid biofuels
- Requirements for renewable fuels in external transports
- Mineral fertilizer according to Best Available technique
- 100% renewable electricity
- → Representing a saving of 430 tonnes CO2-eq/year

www.energiost.se

EVE - Ente Vasco de la Energía [Basque Country Energy Agency], SPAIN - Innovative ocean energy pilot project

Biscay Marine Energy Platform (bimep) is an infrastructure for testing marine energy converters, located just off the coast of Armintza. With a grid connection capacity of 20 MW, purpose built substation and offices, the platform offers technology centers the opportunity to demonstrate their latest devices in test-friendly wave conditions. Along with a sister installation at Mutriku (Mutriku Wave Power Plant) bimep is able to provide a wide range of services at all TRL levels. These services include:

- Occupancy: hiring of the testing facilities;
- Information: historical and geophysical data as well as real time data on oceanographic parameters and power generation;



CC by « Ente Vasco de la Energía »

- Safety procedures;
- Power generation;
- Verification: checking the quality of measurements, estimating performance in wave conditions different from those measured
- Outsourcing work at sea
- Technology: advanced data analysis
- Research, Development and Innovation

bimep.com www.eve.es

FAEN - Fundación Asturiana de la Energía, SPAIN - FAEN experience on NZEB



The project consists in designing and constructing a building of nearly zero energy consumption testing different strategies.

FAEN began taking measurements to determine the potential of existing renewable energy resources (sun and wind). Starting from there were designed bioclimatic strategies suitable for the environment and weather conditions to minimize energy demand, included equipment and efficient systems and was raised to produce electric energy from different photovoltaic systems as well as using hydro-

gen as an energy storage element. Once the building is finished, FAEN will perform an energy audit to check the actual operation and if the carried out forecasts were met. Furthermore, dissemination actions of the results will be developed to provide real information enabling to make decisions in the energy field to developers on new and retrofitting buildings.

www.faen.es



AGIRE - Agenzia per la Gestione Intelligente delle Risorse Energetiche, ITALY - Bio-Revaluation of the Chemical District of Mantova by planning non-food Biomass Supply Chain and its upgrading to Bio-Products (BioMan)

BioMAN project was born in the Chemical District of Mantua where the oil refinery closed in 2013 with heavy job losses and potential environmental impact. Switching to a biorefinery industrial model requires a stable biomass supply, avoiding to create competition for soils between feed, food and non-food productions.

The aim of the project is the development of a procurement plan of the available seasonal biomass in the Mantua area as a feedstock for a 2nd generation biorefinery, with a new biotechnological conversion process to bioethanol, xylitol and bio-products.

The innovative idea refers to the adoption of a new fermentation process, based on the selection of microorganisms able to work at higher temperatures than existing processes.

Moreover, the lignin originated from the downstream processing will be evaluated for the production of green particle boards and for new products (biochar) and the biorefinery effluents for fertilizer production.

Furthermore, the overall energy assessment of the integrated biosystem (biomass production, harvesting, transportation and industrial conversion) will be applied. The Plan will be used as a base for new investors for the transformation of the old refinery.



www.agirenet.it

CKEA - Carlow Kilkenny Energy Agency, IRELAND - *Irelands largest Solar Photovoltaic project - CKEA, Solar Electric and O'Sheas Farm Piltown Co Kilkenny*



The Carlow Kilkenny Energy Agency, O'Shea Farms in Piltown and Solar Electric are working on installing the largest Solar PV installation in the Republic of Ireland. O'Shea Farms have a year round electricity demand from refrigerated cold storage. They supply fresh products to supermarkets across the country all year around. They plan to meet this base load demand with the installation of 250kWp, covering 1,569m² of roof area on and meeting 11% of the total site electricity demand. This project will set O'Shea Farms as the leaders in solar power generation in Ireland. O'Shea Farms are currently in the construction phase of the project. Solar Electric Ireland have already delivered an order of 160kW worth of solar panels on site and construction is to start on 1st October.

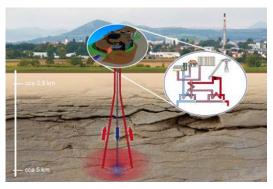
The installation and commissioning of the project is expected to be completed by the end of October 2015.

www.ckea.ie



Ústecký kraj [Regional Authority of the Usti Region], CZECH REPUBLIC - Discovering the potential of geothermal energy in municipalities

Litoměřice, Děčín and other municipalities in Ústí region (Northern Bohemia) are planning exploratory drilling to analyse the potential of geothermal energy. Czech Republic has only one fully commercially operating geothermal (hydrothermal) heating plant located in Děčín so far, which uses the groundwater of an aquifer that is located some 550 metres underground. Litoměřice is the first town in the country that has been preparing a project consisting of 5-6 km deep exploratory boreholes intended for heat production in the later stage of the project. Nonetheless, experts have already identified about 60 other locations that could be potentially suitable for generating heat using so-called enhanced



geothermal systems (EGS). The total heat production might reach up to 2,000 MWh and some 200 MWe. The Municipality of Litoměřice has been very actively engaged in actions for improving its environmental conditions for the last two decades. Due to relatively little knowledge about the geological conditions in the depth of 5-6 km, uncertainty concerning the temperature, related investment risks, as well as the newness of the proposed EGS method, a preparatory scientific exploration phase is necessary. The estimated capacity of the final output oscillates between 10-30 MWh. It will be used for heat production and co-generation of electricity, too.

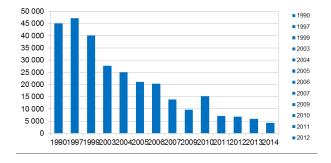
www.kr-ustecky.cz

Energikontoret Region Jämtlands Härjedalen [Energy Agency of Jämtland Härjedalen Region], SWEDEN - Zero Oil: a region without heating oil - soon are we there?

Use of fuel oil in Jamtland County has decreased by 90% from 1990 to 2014. This is a result of investments that have replaced more than 1.000 oil boilers, large and small, with district heating, heat pump, biomass, etc. It has contributed to reduce carbon footprint, lower energy costs and regional development.

In November 2015 we sent this newsletter to those who participate in "Zerooil - a region without heating oil", which, co-financed by Region Jamtland Harjedalen, aims to accelerate this development. In 2015, we have focused on helping companies to design a plan to replace fossil oil with liquid biofuels.

We will continue working, to straighten out the title question mark. We are driven by the vision of Jamtland County as a fossil fuel free region and the conviction that we can become "BEST IN THE WORLD" regarding renewable energy.



www.energikontoret.z.se



Consilul Judeţean Harghita - Agenţia de Management Energetic [Harghita County Council - Energy Management Agency], ROMANIA - Solar collector built from beer cans



Energy Management Agency – Harghita County Council has built a small solar collector out of beer cans and thus, shared and demonstrated the idea with the public: that of building a heating and evaporator system out of waste material. The solar collector works as follows: the air absorbed from the room by a ventilator is directed to the solar collector. The air gets warmed up in the columns made up of beer cans and the warm air is then directed back into the room. The solar collector can be installed vertically on the outside wall of the house or on the roof as well. It can be used for heating in the transitory seasons; however, it is not sufficient in the winter. The solar collector was exhibited in different fairs in the region (Miercurea Ciuc, Odorheiu Secuiesc), where visitors showed big interest in it.

www.spme.ro

OÖ ESV - Oberösterreich Energiesparverband, AUSTRIA - PV goes to 400 schools

The regional programme "PV goes to schools" supported schools in Upper Austria in implementing 3 kW PV systems on their buildings and in integrating green electricity and electricity savings in the curriculum. More than 40% of all Upper Austrian primary and secondary schools are participating in the programme (400 schools with in total more than 50,000 students), more than 1.2 MW PV were already installed. In the past four years, more than 350 teachers participated in a one-day dedicated training course, allowing the knowledge to be carried within the establishment from year to year. Through the project, more than 230 municipalities became involved in PV-projects. In autumn 2015, the suc-



cessor programme for kindergartens started - more than 200 kindergartens can become "solar kindergartens". This programme is managed by the OÖ Energiesparverband, the regional energy agency of Upper Austria, and financially supported by the regional government.

www.esv.or.at



TEA - Tipperary County Council, IRELAND - Ireland's largest Solar Photovoltaic project



Photo: Joe MacGrath Chief Executive of Tipperary County Council stands in front of 180 solar photovoltaic panels on the Civic Offices in Nenagh

This project involved the installation of solar photovoltaic (PV) panels on 9 Tipperary Local Authority buildings to provide clean renewable electricity and reduce demand from the grid by 171,000 kWh annually. A range of Local Authority buildings were chosen based on suitability and economic viability including 3 Civic Offices, 2 Fire Stations, 2 Libraries, a Machinery Yard and a Leisure Centre. The role of Tipperary Energy Agency was from initial feasibility studies and project creation, through to procurement and project management. Tipperary Energy Agency worked closely with the contractors and Tipperary County Council to ensure the project was delivered to a very high standard. All PV arrays began generating power in early November 2014. PV panels have an expected life in excess of 25 years. There are no moving parts involved in PV systems, so

very little maintenance is required. The power produced from these panels will equate to an average annual reduction in electricity demand of approximately 11% across the 9 buildings, making a significant impact on energy bills over the life time of the systems. This was the largest project of its kind in Ireland and saw the country's total PV capacity being increased by 44%.

www.tea.ie

EAP - Енергийна агенция — Пловдив [Energy Agency of Plovdiv], BULGARIA - Establishment of a Modern Research and Innovation Centre for energy and environment



The Bioenergy Research and Innovation Centre is established in order to contribute to the future economic growth of Bulgaria and to decrease the structural disparities on the European Research and Innovation landscape through supporting solid biofuels producers, biomass heating systems producers, local and regional authorities, universities and other research centres and providing market oriented and sustainable research and core-expertise and core-competence in the bioenergy field.

EAP developed research infrastructure including accredited Analytical Laboratory for Testing of Solid Biomass and Biogenic Waste. The Laboratory provides market-oriented research and innovation in the field of bioenergy in order to stimulate production activities using modern in-

novative technologies, and to exchange knowledge about solid biofuels and combustions installations quality between relevant national and international stakeholders and to transfer practice-oriented output to the relevant target groups.

Photo: credits Energy Agency of Plovdiv

www.eap-save.eu



ESS - Energikontor Sydost [Energy Agency for Southeast Sweden], SWEDEN - The first small scale gasifier in Sweden!

Since the middle of October the first small scale gasifier running on wood chips is up and running in Sweden. So far, over 1 MWh of electricity has been produced. The gasifier has been installed at a small local dairy, Emåmejeriet, in the county of Kalmar. The old oil boiler has been replaced and the heat produced from the gasifier will cover most of the heat demand in the dairy process. In addition the dairy will get around 20 % of its electricity demand from the gasifier.

The dairy is part of a project within the EU programme Life+, which is coordinated by the Energy Agency for



Southeast Sweden and partly financed by the Swedish energy agency. The project will demonstrate different small scale technologies for electricity generation. By these demonstrations we aim to pave the way for a broader installation of small scale technologies for electricity generation based on biomass.

http://energikontorsydost.se/smallscaleCHPLife www.energikontorsydost.se



ENGAGING VARIOUS LOCAL STAKEHOLDERS

ARAEN Abruzzo - Agenzia Regionale per l'Energia, ITALY - World Wide Views on Climate and Energy: the largest ever global citizen consultation



Abruzzo Region represented Italy at the 2015 World Wide Views on Climate and Energy which is a global citizen consultation, held six months prior to COP21, providing unique information about how far citizens around the world are willing to go, in order to deal with climate change and to bring forward an energy transition.

The consultation has been held on 6th June 2015: 120 citizens from the Abruzzo territory, selected to reflect the demographic diversity in their region, have met to discuss about Climate and Energy and proposing solutions to the world politicians. Citizens have expressed their views on an identical set of questions, designed to reflect policy controversies at the COP negoti-

ations and political discussions about climate and energy in general. The five thematic sessions are: importance of tackling climate change; tools to tackle climate change; UN negotiations and national commitments; fairness and distribution of efforts; making and keeping climate promises.

The initiative is important because dealing successfully with climate change and energy transition requires public support. This information could and should be used actively by politicians in the public debate, the media, and the COP21 negotiations.

<u>climateandenergy.wwviews.org</u> <u>www.regione.abruzzo.it/energia/araen</u>

Energikontoret I Mälardalen [Mälardalen Energy Agency], SWEDEN - Earth Hour City Challenge

Mälardalen Energy Agency collaborated with WWF Sweden in 2013-2015 on a project to develop WWF's Earth Hour City Challenge (EHCC). The challenge was initiated by WWF Sweden in 2010 to mobilize action and support from cities in the global transition towards a climate friendly one-planet future.

The EHCC cities report their commitments and climate actions into ICLEI's carbon Climate Registry. The Agency's expertise in sustainable energy and knowledge of the local and regional needs and processes has been valuable for the project objectives; to give the Swedish participants support and feedback on their reporting, to develop communication activities and to disseminate the project experiences.



As a result, the cities have amplified their capacity to report inventories, commitments and actions which led to praise from the global jury on the quality of their reporting. There is thus potential to transfer methods for quality improvements and increased participation of other countries.

www.energikontor.se



SWEA - Severn Wye Energy Agency, UNITED KINGDOM - Energy savings to reduce crime!

Prisons are a central feature of the lives of thousands of people. For many, the reasons they are linked to a prison are also the reasons they are experiencing, or at risk of fuel poverty; for example, social deprivation, unemployment, debt etc. Energy efficiency issues and fuel poverty are inextricably linked in both cause and solution, as are poverty and crime. For these reasons Severn Wye saw a potential in working with prisons on energy issues as a means of supporting improved efficiencies in a stretched public sector, improving overall sustainability and quality of lives and, supporting efforts to reduce reoffending. In 2011 Severn Wye led a European consortium to pilot an international award scheme for sustainable energy. The European Sustainable

Energy Award for Prisons (E-seaP) acknowledges that people based solutions are valuable for a contribution to reduced consumption through behaviour and also, for embedding systems and processes. These can underlie a lasting change in approach to assimilating energy issues into all aspects of prison activity that has a benefit to the wider community of the prison, in particular, families of staff and prisoners.



www.severnwye.org.uk



PROMOTING ECO-MOBILITY

LIT - Limerick Institute of Technology, IRELAND - The REPUTE "Guide to Energy and Publicly-Accessible Transport in Rural Areas"



The REPUTE projects' guide to energy and publicly-accessible transport was compiled by Professor Allan Hutchinson and Professor Denise Morrey – both of Oxford Brookes University - using inputs from REPUTE's Atlantic Area partners. The guide sets out the unique sets of public transport related challenges faced by the peripheral communities of the Atlantic Area and provides recommendations on how to address them.

Sustainable transport requires a radical shift in investment towards providing fast and efficient public transport systems. However people in rural areas typically travel 50% further than their counterparts in urban areas and most of these journeys are undertaken by bus or car. It is not economically viable to serve diffuse rural communities with a regular public transport network. New business models are therefore required to provide **total transport solutions.**

The Guide provides the context and motivation for catalysing transport changes. The regions associated with the project partners are described, and analysed in terms of energy and transport. Key options for change such as community engagement, fund-raising at a local level, local energy initiatives and policies as well as the introduction of cost-effective, energy-saving technologies are discussed and demonstrated. Check out the guide here (1)

www.reputeproject.eu

www.reputeproject.eu/reports/the-repute-guide-to-energy-and-publicly-accessible-transport-in-rural-areas/



EDUCATION AND COMMUNICATION

CEA - Ενεργειακό Γραφείο Κυπρίων Πολιτών [Cyprus Energy Agency], CYPRUS - Behavioural changes through the education and information of kids and citizens

The Cyprus Energy Agency gives particular attention on the education and training of all target groups, but also on the training of pupils and university students. So far, the Cyprus Energy Agency has visited more than 250 schools of all education levels, informed more than 32.000 students and 2.400 teachers. The Cyprus Energy Agency in cooperation with the Pedagogical Institute of the Ministry of Education and Culture has created the

"Energy Box" which consists in educational activities and material for elementary school students. The "Energy Box" will be distributed for free to 350 schools in Cyprus.

The Cyprus Energy Agency is also very close to its citizens, advising them and informing them about energy issues in the best possible way. Several presentations have taken place in municipalities and communities of Cyprus and have been prepared and distributed to interested citizens including technical handbooks, videos and brochures. More than 14.000 citizens have attended the educational seminars organised by the Cyprus Energy Agency. Targeted presentations were also given to local authorities' staff.



Copyright Cyprus Energy Agency

www.cea.org.cy

ENERGAP - Energetska agencija za Podravje [Energy Agency of Podravje], SLOVENIA - Every small step counts! - Campaign 1 ton of CO2

Energy Agency of Podravje organized a campaign; called **1 TONE OF CO₂** in the city of Maribor. The main object of the campaign was 8.22 m high cube representing the volume of 1 tone CO₂ placed at one of the main city



Visualization of the CO2 - A cube of 1 ton of CO2 placed in the main city square in Martibor

square. The purpose of the campaign was visualization of the CO_2 connected to the energy use and at the same time highlight the possibilities to reduce emissions. With the visualization Energap wanted to illustrate the impact of the consumerist way of life related to energy use - 90 million tonnes of CO_2 in the atmosphere every day in the world. Energap's goal was to help people understand the fact that we are changing the atmosphere of our planet and to change their way of thinking "what I cannot see, smell or hear does not exist." With this campaign more than 100.000 people were reached and a lot of them was actively involved in specific activities.

www.energap.si



Energiråd Innlandet [Inland Norway Energy Agency], NORWAY - Inspiring Youth to Climate Action



Photo from one of the workshops, showing participants making their own energy efficient « smart houses » with renewable energy sources. Copyright Eidsiva Vekst

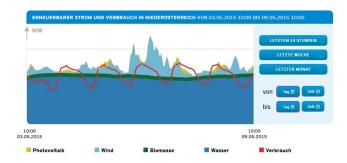
Engaging youth in the climate challenge, and inspiring long-lasting action, is an important task in order to achieve the long-term targets against climate change. Ung@miljø (Youth@environment) is a two days conference for youth aged 15-18 in the Inland Norway region, with all costs covered for the participants. This year the conference gathered 215 engaged youngster, as well as 18 teachers participating at a seminar held in parallel. The program was varied, and opened by the leader of the Norwegian Center Party. During the conference, the participants could hear about the science behind climate change, ongoing global political processes, and why psychological factors make us act in dissonance with our knowledge. The academic contributors were national and regional organizations well renowned within their fields. The youngsters also participated in practical workshops, and in social activities throughout the two days. And naturally, being a climate seminar, all food served was vegetarian.

www.energirad-innlandet.no

eNu - Energie- und Umweltagentur Niederösterreich, AUSTRIA - Power Demand and Renewable Power-Production in Lower Austria: Watch it live!

In order to generate public attention for the possibilities of renewable energy sources, the Energy- and Environmental Agency of Lower Austria developed the so called "Energy-Live-Ticker" – an online tool that shows the power consumption and power production out of renewables in Lower Austria in real time. Furthermore the renewable power production is divided into different energy-sources: Hydro-, Wind-, Biomass- and Solar-Power. Users of the Online-Tool are also able to choose the time period in which they want to view the data. The "Energy-Live-Ticker" was published on www.energiebewegung.at – a grassroots online-campaign where people can describe and publish their energy-projects – and brought a 30 percent increase in terms of page visitors.

The challenge for developing the Online-Tool was most of all finding online-sources that provide the desired data in real time. The solution was to base the tool on different sources and to evaluate the accurateness of the background calculations by comparing them with historical statistical data.



www.enu.at

Screenshot of Energy-Live-Ticket: NÖ Energie- und Umweltagentur Betriebs-GmbH



EC Network - Energy Consulting Network, DENMARK - Promoting GPP practice in municipalities in Region Zealand



Together with Energy Cluster Zealand and Holbaek Municipality as lead partner, EC Network is working on promoting Green Public Procurement (GPP) practice among the 17 municipalities in Region Zealand. This ranges from conventional GPP like procurement of energy efficient washing machines to building retrofit, street lighting and electrical vehicles.

One of the ongoing interventions concerns the Brorfelde Observatory in Holbaek Municipality. This site consists of 7 protected historical buildings, where the existing heating system faces considerable losses. The exploration of a GPP approach has led to selection of a geothermal heating system. This approach entails that the level of CO2

emissions is reduced with more than 50% compared to a standard solution in form of an oil furnace.

A driver in the process has been the local energy utility, SEAS NVE, that is required to promote energy savings in accordance with EU's Energy Efficiency Directive. Further the intervention forms part of Holbaek Municipality's energy and climate efforts.

PRIMES work with such type of interventions in 6 EU regions and the project will be active until November 2016.

http://primes-eu.net www.ecnetwork.dk

REA Kvarner - Regionalna energetska egencija Kvarner [Regional Energy Agency Kvarner], CROATIA - Energy Help Desks for Croatian citizens @ Rijeka, Zadar & Pula

Since May this year, Croatian cities of Rijeka, Pula and Zadar have new central information spots for energy efficiency. Launched under the CIP IEE project FIESTA, and with the support of Regional Energy Agency Kvarner, Energy Help Desks (EHDs) located in the central city locations are available to citizens (and primarily

to families with children as a main focus group) five days a week, offering guidance and information, but also free-of-charge, door-to-door assistance. EHDs' energy advisors are ready to help families understand how much energy they use, assess whether their energy consumption level is excessive and find new ways to get a better control of their energy use. Initial interest and feedback of EHD's visitors fully confirm the need for these kinds of services that have the potential of lowering the residential energy consumption and that will hopefully soon be replicated also in other Croatian cities.



Copyright: Grad Rijeka (www.rijeka.hr)

www.reakvarner.hr



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