Sustainable Regions and Territories in Action

Platform where regional and local actors exchange and learn from each other.
WELCOME TO 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 European 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.
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“European regions and energy agencies should play a key role in planning, developing and implementing sustainable energy projects at all levels. Sustainable energy is an area where we should work together, understanding each other as partners.”

“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.”

“The FEDARENE network allows us to share experiences and thus better achieve the energy targets in regions. We work together towards our joint vision of Europe’s energy future.”

“Local and regional public action will play a key role in the transition to a new clean energy system, that will place the citizen at the centre of all policies.”
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 2016, the General Assembly has been organised in Pescara (Italy), in September.

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), Ile-de-France (FR), Berlin (DE), Rhône-Alpes (FR), Upper Austria (AT), Abruzzo (IT), Alba (RO), Podravje (SI), Catalonia (ES), Central Finland (FI), Aegean Islands (GR), Severn Wye (UK), Castile and León (ES), Tipperary (IR), Liguria (IT), Southeast Sweden (SE), Wallonia (BE).

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With the support of Christian LABIE, Deputy Secretary General.
20 European countries currently covered by Fedarene:

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Norway, Portugal, Republic of Moldova, Romania, Slovenia, Spain, Sweden, United Kingdom.
This position paper is based on consultation with the members of FEDARENE, the European Federation of Agencies and Regions for Energy and the Environment, and is in response to the proposals for the Energy Efficiency and Energy Performance of Buildings Directives, as set out in the ‘Energy Efficiency Directive’ released on November 30th 2016.

### SUMMARY OF RECOMMENDATIONS

- To raise the energy saving target proposed in the Energy Efficiency Directive to 40% by 2030;
- To specifically require that efficiency be considered before supply, and that this principle is consistently applied;
- To provide a clearer statement of the process to ensure that national contributions add up to the EU total targets, and that these national contributions are binding on Member States;
- To embed multi-level governance throughout the Clean Energy for all Europeans proposals;
- To provide a more detailed requirement to enable and facilitate the participation of citizens, industry and civil society in the development and delivery of National Climate and Energy Plans, clarifying that participation is more than just consultation;
- To amend Article 7 to ensure additionality, for example as regards new buildings, the replacement of measures that reach the end of their useful life, and the leverage of other sources of finance;
- To include a specific and quantifiable requirement to address energy poverty, relative to the proportion of customers considered to be at risk, within Article 7;
- To require monitoring of the real impact of measures undertaken under Article 7, and publication of the results;
- To move the requirement for energy renovation of public buildings from EED Article 5 to the EPBD, and extend it to cover all public buildings, together with clear plans for supporting finance and within the limitations provided for under Article 4 regarding historic buildings etc.;
- That the ‘decarbonisation of the building stock’ be defined, and that clear targets be set out in national renovation strategies, not only for 2030, 2040 and 2050, but also for interim phases;
- That the definition of decarbonisation of the building stock includes a specific requirement to avoid the reintroduction of fossil-fuel based heating systems post major renovation, unless all other alternatives can be shown to be technically inadequate, together with clear plans for supporting finance where there is significant additional cost – and similarly that no new buildings should contain fossil-fuel-based heating systems;
- To strengthen the EPBD and the requirement for long term national building renovation strategies by requiring Member States to:
  - Support and ensure the establishment of regional or local funding programmes for building (energy) renovation;
Require the inclusion of energy efficiency improvements and renewable technologies in all repair and renovation work, where technically and economically feasible;

Ensure that energy efficiency and renewable energy knowledge and skills are integrated into the standard (mainstream) training for all building trades and professionals.

To set out (for example in Article 20 of the Energy Performance of Buildings Directive), a clear requirement for effective energy advice (and not just information) to support building owners throughout the process of deep renovation.

GENERAL COMMENTS

The proposals for the EED and EPBD must be seen in the context of the broader winter package. We have made some general comments here with reference to the Communication COM (2016) Clean Energy for All Europeans and the proposals for Governance of the Energy Union, on aspects of these documents which directly impact on the EED and EPBD.

The importance of the efficiency first principle

FEDARENE notes that COM (2016) Clean Energy for All Europeans describes the 3 main goals of the tabled package as:

• putting energy efficiency first
• achieving global leadership in renewable energies
• providing a fair deal for consumers

We welcome these goals, but remain unconvinced as to the extent to which the energy efficiency first principle is carried through within the proposed legislation and regulations. There is a lack of a clear definition of the goals and what they mean in practice - for example ‘putting energy efficiency first...means making sure that energy efficiency is taken into account throughout the energy system’ (on page 4 of the Communication) does not specify precisely that energy efficiency must be put ‘first’ above investment in supply – even where it is more cost-effective.

FEDARENE calls for the ‘energy efficiency first’ principle to be more clearly defined and explained, and recommends that the whole package be reviewed against this principle, to ensure that it is carried through consistently.

Setting national targets

We note that Member States are to set indicative national energy efficiency contributions, and that the proposed Governance arrangements allow for assessment and dialogue with the Commission as to the level of ambition (Articles 4,5,6,7 and 12) – however there remains some degree of uncertainty as to whether these proposals will ensure that the contributions from Member States add up to the total EU targets for carbon, renewables and energy efficiency, and whether or how the Commission will take effective action to ensure this.

FEDARENE calls for a clearer statement of the process to ensure that national contributions add up to the EU total targets, and that these national contributions are binding on Member States.

Regional and local action and multi-level governance

FEDARENE welcomes the new requirement for integrated National Energy and Climate Plans (NECPs) in Article 3 of the proposals for Governance of the Energy Union, and the opportunity this presents for a more coherent and streamlined approach. We are however concerned at the lack of any mention of regional or local government, or of any requirement to build upon the extensive existing regional and local activity. Many local and regional governments are already at the forefront of action to mitigate and adapt to climate change, and have developed strategies, action plans and monitoring procedures, for example within the framework of the Covenant of Mayors or similar initiatives. The Covenant of Mayors already accounts for over 5,000 Sustainable Energy Action Plans.

The importance of local and regional action is acknowledged in COM (2016) Clean Energy for All Europeans, which states that ‘The clean energy transition will not happen without multi-stakeholder action from civil society and regional and local level.
Cities, regions, business, social partners and other stakeholders need to get actively involved in the discussions on energy transition, in particular in the context of the Integrated Energy and Climate Plans, so that these respond adequately to the needs of different territories – but this does not appear to be carried through within the Governance proposals.

This is a serious omission, as local and regional government provides strategic leadership at the level closest to the consumer for climate change adaptation and mitigation, as well as being in a position to make effective links to policy for housing, fuel poverty, transport, economic development and land use planning.

For all key actors within government, industry, and civil society to fully understand their role and to be able to participate effectively in achieving targets, it is necessary that the new National Energy and Climate Plans are not only broken down by sector but also clearly linked to contributions at regional level. Article 10 (Public Consultation) of the Governance proposals states, with reference to the integrated National Energy and Climate Plans, that Member States ‘shall ensure that the public is given early and effective opportunities to participate in the preparation of draft plans’. This should be extended to require Member States to report regularly to citizens (and not just to the Commission) on progress, enabling full accountability both to industry and to their citizens, and participation in achieving targets. This transparency and visibility of action on climate change with their own citizens (and voters) will help to ensure that it is given sufficient priority by Member States, and avoid the risk of reporting becoming just a paper exercise, where failing to reach targets might be conveniently disregarded.

There is a lack of clarity in the proposed text regarding the difference between consultation and participation, which should be corrected. Consultation could mean nothing more than feedback on a proposal which has already been fully developed, and with a minimal range of options – while participation (or even co-design) implies a role in the development and delivery of such proposals. People are more likely to cooperate in action for which they feel a sense of ownership – and given the need for all parts of society to take an active role in mitigating climate change, their full engagement is crucially important.

FEDARENE calls for multi-level governance to be firmly embedded within the Governance proposals, and for a more detailed requirement for public engagement and participation, clarifying that participation is more than just consultation.

To support this recommendation, Member States might be referred to supporting material, which already exists, including a framework for multi-level governance1/2.

Addressing energy poverty

Reference is made to energy poverty in relation to national long-term building renovation strategies (EPBD Article 2a) and energy efficiency obligations (EED, Article 7). The Energy Poverty Observatory that is being established will help to monitor activity – however, the legislation lacks any clear definition of this problem, and the Governance proposals make specific reference to energy poverty only in the context of the internal energy market. It is essential that the National Energy and Climate Plans include clear strategies for addressing energy poverty – in relation in particular to building energy performance AND electricity and other energy markets (where some tariff structures can disadvantage already vulnerable households).

ENERGY EFFICIENCY DIRECTIVE (EED)

Energy Efficiency Targets

It is proposed that a binding energy efficiency target should be set at the EU level of 30% by 2030, but previous analysis has indicated that the cost-effective potential is higher than this, and indeed the European Parliament has itself called for a target of 40%. It weakens the purpose of the Directive significantly if it does not show ambition, and the higher target would be beneficial both environmentally and economically.

FEDARENE agrees that the energy efficiency target should be binding, but calls for a more ambitious target of 40% savings.

Energy Efficiency Obligation – EED Article 7

We welcome the extension of the energy efficiency obligation beyond 2020 to 2030 and for subsequent 10 year periods. The proposals do, however, leave open the risk of delayed action towards the end of the 10 year period, which might be avoided by a requirement to show 1.5% average annual saving within each 2 year period as part of the NECPs biennial reporting.

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Care must be taken to ensure the addionality of the energy efficiency obligation. For example, some measures may reach the end of their useful life within the period under consideration. An additional clause should be inserted to require that such measures must be replaced in order for them to continue to count as savings, and that this replacement cannot be counted as new savings.

It should also be specified that measures to bring new buildings to building code standards to comply with the EPBD cannot be counted as savings under Article 7.

Enabling obligated parties to count measures through other bodies is welcome, as it allows for the development of effective local, regional and cross-sectoral partnerships for delivery (Article 7a, point 5b). As regards measures for which other finance is involved, however, there is a risk of double counting. It should be made clear that only the savings which can be proportionally allocated specifically to energy efficiency obligation finance can be counted.

**FEDARENE calls for amendments to Article 7 to ensure addionality, for example as regards new buildings, the replacement of measures that reach the end of their useful life, and the leverage of other sources of finance.**

The requirement to include ‘requirements with a social aim, by requiring a share of energy efficiency measures to be implemented as a priority in households affected by energy poverty and in social housing’ is welcomed – however this is stated in too weak and generalised terms to be effective. Some degree of quantification should be required: for example, an assessment of the numbers of households at risk of fuel poverty and the proportional allocation of funds to this sector. Failure to address this could result in lower income and potentially vulnerable households (who pay energy bills and may live in energy inefficient housing, with relatively little ability to make improvements without financial assistance) actually subsidising better-off households with the wherewithal to pay for partially subsidised measures under obligation schemes. It should also be pointed out that the potential for energy suppliers to help lower income households is significant, in that they have contact with every home, as well as data on energy usage and bill payments.

**FEDARENE calls for a specific and quantifiable requirement to address energy poverty, relative to the proportion of customers considered to be at risk, within Article 7.**

It is crucial that the energy savings under Article 7 are effectively monitored – both to ensure that measures have been applied and that they realise the savings anticipated. It is understood that savings are generally reported on the basis of ‘deemed’ savings calculated through standardised building typologies or (at best) a basic building energy assessment – not actual savings. This ignores issues such as the potential performance gap (between design and practice), inaccuracies in modelling and the rebound effect. With the roll out of smart meters it should become more feasible to monitor the real impact in practice. In the short term at least a sample should be monitored.

**FEDARENE calls for monitoring of the real impact of measures undertaken under Article 7, and publication of the results.**

With regard to the monitoring of savings, a further consideration is to ensure that tenants are protected from rent increases that are higher than justified by the energy bill savings resulting from improvements. This not only disadvantages tenants, but also risks creating a negative view of energy improvements as something that can lead in practice to higher costs. Similarly, there is a risk that building improvements are followed by displacement of the existing tenants, and form part of a ‘gentrification’ effect in renovated areas, as indicated by a German study⁴, and highlighted in a study of urban retrofitting for sustainability⁵. The need to take steps to avoid this risk is noted here, and involves making effective links between energy and housing strategy.

**National Renovation Strategies – EED Article 4**

It is proposed that this requirement is moved to the Energy Performance of Buildings Directive, and we consider that this will improve clarity and consistency.

**Exemplary role of public bodies’ buildings – EED Article 5**

No changes have been proposed to this Article – however, in view of the intention to integrate and streamline, this might also be moved to the EPBD. The limitation of this requirement to buildings owned and occupied by central government should be extended to cover all public buildings, together with a clear plan to support this with appropriate finance, given the significant potential implications for municipalities. In the long term the savings in energy costs will bring financial benefits, but support will be needed in order to provide the necessary capital to implement improvements (such as through Energy Performance Contracting).

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⁴ [http://www.berliner-mieterverein.de/magazin/online/mm1216/tu-untersuchung-pankow-energetische-modernisierung-als-verdraengungsmotor-121622.htm](http://www.berliner-mieterverein.de/magazin/online/mm1216/tu-untersuchung-pankow-energetische-modernisierung-als-verdraengungsmotor-121622.htm)

FEDARENE recommends that the requirement for energy renovation of public buildings be moved from EED Article 5 to the EPBD, and be extended to cover all public buildings, together with clear plans for supporting finance.

ENERGY PERFORMANCE OF BUILDINGS DIRECTIVE (EPBD)

National long term renovation strategies – EPBD Article 2a

The inclusion of the national renovation strategy in the new NCEP is sensible and fits with the stated aim of the proposals to make planning and reporting more streamlined and integrated.

We welcome the requirement on Member States to include a ‘roadmap’ with clear milestones and measures to deliver on the long-term goal to decarbonise their national building stock with specific milestones for 2030. In view of the urgent need to take action on building renovation and the complexity of this task, it is crucially important, however, that the goal of decarbonisation is more precisely defined, and that interim milestones and targets are also included for the renovation plans – for example to fit in with the two yearly NECP report. There is otherwise a risk that 2030 (and even 2050) is reached and it is found (too late) that the required improvements have not been achieved.

FEDARENE recommends that the ‘decarbonisation of the building stock’ be defined, and that clear targets be set out in national renovation strategies, not only for 2030, 2040 and 2050, but also for interim phases.

Of particular concern is the risk that a weak interpretation of what is meant by ‘decarbonisation’ may leave the way open to a continued and unnecessary dependence on the use of fossil fuels.

FEDARENE recommends that the definition of decarbonisation of the building stock includes a specific requirement to avoid the reintroduction of fossil-fuel based heating systems post major renovation, unless all other alternatives can be shown to be technically inadequate, together with clear plans for supporting finance where there is significant additional cost – and similarly that no new buildings should contain fossil-fuel based heating systems.

It is disappointing to find that the proposed revisions to the EPBD do not rectify a primary weakness in the current Directive, which is to ensure that there are adequate provisions to both drive and enable deep energy renovation of the building stock, much of which may be staged over time.

The requirement on Member States to introduce mechanisms to guide and support investment decisions through the aggregation and de-risking of energy efficiency projects is necessary to support the development of financing programme, and the need to use public funding to leverage private investment is pragmatic. However, this will not be enough on its own to drive action – nor is it the only enabling action required. It will need to be accompanied by effective advisory services to support individual building owners to take action - this is expanded upon with reference to Article 20 below.

Member States should be required to enable the creation of regional or local funding schemes – for example within structural funds. Common rules for crowdfunding at EU level would support this.

FEDARENE calls for a requirement for Member States to support and ensure the establishment of regional or local funding programmes for building renovation.

To be effective and practically deliverable, renovation strategies require full engagement with the energy efficiency and wider building industry, and to contain a coherent set of actions that address all aspects of the supply chain and key actors, from building owners and users through to installers and building trades enterprises, and including suppliers of energy efficiency products and materials, building inspectors, architects, surveyors, housing providers and developers, and finance providers.

More attention is needed to integrating energy efficiency and renewable energy knowledge into the standard (mainstream) training for all building trades and professionals, including both those aspects of energy efficiency and renewable energy that relate to each specialism, and a better understanding of the need for integrated design and how this affects overall building energy performance.

FEDARENE calls for a requirement on Member States to ensure that energy efficiency and renewable energy knowledge and skills are integrated into the standard (mainstream) training for all building trades and professionals.

Existing Buildings – EPBD Article 7

Article 7 (for which no changes are proposed) is critically important with respect to ensuring that there are drivers to action on the energy renovation to existing buildings. There is a massive opportunity to include improvements in energy performance in
general building repair, maintenance, renovation and improvement work that is currently being missed.

Rather than create limits to taking this opportunity by allowing Member States to set weak definitions of what is ‘major’, it would be more effective to stipulate that all renovation work should include energy efficiency improvements and renewable energy technologies wherever possible. While this may meet initial resistance, the technologies concerned and skills required would soon become the norm, and the market for these technologies would expand rapidly. To achieve this requires the application of building codes and minimum energy performance requirements to the renovation of a wide variety of building elements and services. Detailed work needs to be done to develop the most effective ways to do this in practice. In addition to energy efficiency, targets will not be met without a wider deployment of renewable energy supply technologies at all opportunities, including on and near site for specific buildings.

**FEDARENE calls for Article 7 to be strengthened to require the inclusion of energy efficiency improvements and renewable technologies in all repair and renovation work.**

Energy improvements could also be better integrated into regeneration strategy at district or urban quarter level, to optimise complex packages of refurbishment measures, and build in the most efficient use of local and renewable energy sources, and district heating and cooling.

### Technical building systems – EPBD Article 8

The introduction of **mobility features** such as electric charging points is welcomed. It is important, however, that these are fast recharging points. A more comprehensive approach to sustainable mobility would be preferable, and in line with the new integrated approach - including for example a requirement for bicycle parking and changing facilities.

The introduction of the smartness indicator could be useful if well-defined and communicated, but risks being an additional piece of bureaucracy that has limited relevance to the majority of people unless it is effectively followed through.

### Financial incentives – EPBD Article 10

Regional and local sustainable energy planning requires strong multi-stakeholder engagement in order to actively contribute to the implementation of these plans; as of today, access to aggregated territorial energy data is limited and should be accessible to the general public.

**FEDARENE strongly supports the inclusion of the proposed new paragraph 6b ensuring that the aggregated data sets are provided to public authorities.**

The replacement of the cost-optimality requirement by one that requires finance to be linked to potential energy savings is welcomed. The requirement for an **Energy Performance Certificate** for this purpose, however, is unnecessarily limiting – as the **Energy Performance Certificate** has typically evolved as a fairly basic tool for assessment. It would be more practical to require an effective energy assessment approach without limiting this to an Energy Performance Certificate. The drive to reduce the costs of producing EPCs has typically resulted in simplified processes and data collection, so limiting their accuracy, particularly with regard to older buildings with complexities and additions.

### Inspection of heating and air conditioning systems – EPBD Articles 14 and 15

The changes to the requirements for the inspection of boiler and air conditioning systems raises concerns about the lack of any control on the efficiency of smaller systems – and the loss of the trigger point for recommending improvements provided by these inspections.

The alternative option of controls and automated systems makes sense in the case of buildings with energy management arrangements – but a requirement for taking action on any loss of efficiency detected should be included, rather than assumed.

### Information – EPBD Article 20

This **article** is poorly defined. It should be revised to set out a clear requirement for expert, commercially independent energy advisory services that support consumers to achieve deep renovation, supporting the consumer through from awareness to implementation and adjustment of user behaviour following renovation.³

The use of the terms ‘information’ and ‘advice’ might be better defined, with information being generic (such as leaflets and information on a website) while advice is specific to a particular consumer and building, and implying a two-way dialogue⁴. Links might also be made to ensure consistency with **Articles 17 and 18 of the Energy Efficiency Directive**.

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The regional or local level (depending on the region and the sector) is the most important for this as they are closest to citizens, and are generally also the level that deals with planning and building permits. This is an important ‘trigger-point’ for providing specific advice on maximising the energy efficiency of a new building or renovation, and to apply incentives to encourage building owners to achieve higher standards. It is also an appropriate level to ensure that designers and builders have access to information, products and training in their application, to enable them to achieve these standards.

The advisory services needed should include an effective energy assessment process, but are by no means limited to this – it is just one tool in the toolbox. It should also be noted that an Energy Performance Certificate is not generally an adequate tool for this purpose. In addition to the limitations described in relation to Article 10 above, the use of recommendations on Energy Performance Certificates for existing buildings is not well regulated, and may be (mis)used in practice to promote different individual measures. It is also often not well defined or explained – and together with a simplified methodology, this means that the Energy Performance Certificates are not generally an effective advice tool for retrofit (as opposed to being simply an asset rating with fairly limited information added). For example, a building may have been extended and altered over time, and assessment processes need to allow for the entry of sufficiently detailed data to cover this, for example different wall and roof constructions.

The use of an energy assessment is in any case not enough to make renovation happen, and needs to be part of a coherent package that includes information and advice, and financing possibilities. An effective advice tool for retrofit needs to reflect the practical realities for home owners and take advantage of opportunities afforded by home repairs and improvements, to be supported by an expert advisory service, and designed to support and enable step by step improvements as well as the (possibly less common) whole house refurbishment opportunities.

The concept of the Building Energy Passport is a useful one in this respect, and should be further explored as a more appropriate tool than the EPC to support deep retrofit.

FEDARENE calls for Article 20 to be revised to consist of a clear requirement for effective energy advice (and not just information) to support building owners throughout the process of deep renovation.

**EPBD ANNEX 1**

The introduction of the new numeric indicator for primary energy in kWh/m²/year is welcomed. A second indicator for final energy should be added, reflecting actual building energy efficiency.

**FEDARENE BACKGROUND**

FEDARENE is the premier European network of regional and local organisations which implement, co-ordinate and facilitate sustainable energy and environment policies. Regional and local agencies, ministries and departments working in these fields are represented in FEDARENE.

FEDARENE was created on 6th June 1990 by 6 regional authorities – Rhône-Alpes, Provence-Alpes-Côte-d’Azur, Wallonia, País Vasco, Aquitaine and Nord-Pas-de-Calais. Encouraged by different programs of the European Commission, these authorities wanted to make the voice of the regions heard in the debate on energy and environment policies at the European level. The Brussels Office was created in November 1991 and, now FEDARENE counts more than 71 members in 20 EU MS countries. Since 2008, FEDARENE is part of the consortium of European networks (with CEMR, Climate Alliance, Energy Cities, Eurocities, Iclei) which forms the Secretariat of the renowned European initiative - the Covenant of Mayors for Climate and Energy.

Local and regional governments play an essential role in the implementation of energy efficiency policies and in achieving the Europe 2030 objectives. They embody the relevant decision making level in sectors such as transportation, urban planning, buildings and welfare, which makes them the most appropriate level for coordinated actions in energy efficiency. As public funds alone are deemed as insufficient for delivering ambitious EU energy targets a different approach relying more on the use of market-based solutions is needed.

Since 2008 FEDARENE has been running the Covenant of Mayors Office in a consortium which includes 4 other European networks of local and regional authorities: Energy Cities, Climate Alliance, EUROCITIES and CEMR.

FEDARENE manages the work with Covenant Territorial Coordinators and Local and Regional Energy Agencies. Drawing on its extensive network of contacts and its 27-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 has given 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 through for example, 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.

The New Integrated Covenant of Mayors for Climate and Energy has been launched on 15 October 2015 by the European Commission. The strengthened Covenant has two pillars – mitigation and adaptation. New signatories now pledge to reduce CO2 emissions by at least 40% by 2030 and to adopt an integrated approach to tackling mitigation and adaptation to climate change. Not only did the initiative introduce a first-of-its-kind bottom-up approach to energy and climate action, but its success quickly went beyond expectations. By capitalizing on the experience gained over the past eight years in Europe and beyond, the Covenant will go global on January 1st, 2017.
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 second edition of the Roger Léron Award was launched on February the 22nd 2016. The trophy was handed over during a EU High Level Ceremony on 15th of June 2016 in Brussels - the European Sustainable Energy Week (EUSEW) - at the magnificent “Palais des Académies”. The evening began with inspiring speeches from several experts in the domain of sustainable energy policies:

- Julije DOMAC, President of FEDARENE
- Mary DONNELLY, Director, European Commission, - DG Energy
- Mercedes BRESSO, Member of the European Parliament
- Adrian JOYCE, Secretary General of EuroACE & Campaign Director of the Renovate Europe Campaign
- Michel LEBRUN, Committee of the Regions
- Christiane EGGER, Deputy Director of O.Ö Energiesparverband
- Serge NOCODIE, Président of Rhônalpénergie-Environnement

The jury had to make a tough call, but in the end, it bestowed Wolfgang Jilek (Austria). Mr. Jilek is a good example of why and how technical and political aspects are linked when we talk about energy. His involvement on a variety of levels has allowed him to be very influential in Styria and elsewhere. After several years of being one of the Managers of the Styrian Energy Agency, M. Jilek became Energy Commissioner of Styria until he retired last summer. Even after retirement, M. Jilek kept working for an association for the “Training of Energy Consultants”, of which he was elected chairperson and asked to stay. He is also still active in the Concerted Action on the Energy Performance of Buildings.
The evening also celebrated **the outstanding contributions of the 3 other nominees**:

- **Hans Gulliksson** (Sweden) created the regional Energy Agency for Southeast Sweden where he worked as senior adviser. He also created and managed the organisations of Miljoresurs Linne (non-profit organisation for sustainable development) and Bioenergigruppen (organisation for R&D in biofuel heating plants, emission reduction), supporting public authorities and politicians towards a sustainable development, from very technical projects to awareness-raising of citizens.

- **The Regional Natural Park of Luberon** (France) works on energy efficiency and the development of renewable energy, assisting local authorities on these subjects. Its main achievement is to have developed, since 2009, a team of energy technicians, who are sharing their time between 40 municipalities of Luberon, following public energy consumptions and expenses, tracking potential savings, and proposing measures to save energy.

- **Late Marc Théry** (France) worked as a consultant on the energy issues of businesses and territories. He became the architect of the energy approach taken by the Municipality “Le Mené”, small territory in Brittany, France, which targets energy autonomy by mobilizing all of its potential resources in RES. Unfortunately, Mr. Théry passed away last March. He will be deeply regretted for his human as well as for his professional qualities.

That is why the jury decided that Mr. Théry **deserved a special Jury award**, which was accepted by his lovely widow Jacqueline, and Mr. Aignel, Mayor of the Municipality of Le Mené.

The next edition of the **Roger Léron Award**

Applications will open in **March 2017**, with the expectation of having the same success of the past editions.
OUR MEMBERS
REGIONAL/LOCAL ENERGY AGENCIES
REGIONAL/LOCAL COUNCILS

The regional and local energy agencies, and the energy departments 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.

You will now enter in the world of FEDARENE and find out what our members have done in the last year.. turn the page and learn about our projects!
IRE Liguria – Infrastrutture Recupero edilizio Energia, agenzia regionale ligure, ITALY – Implementation of the regional database of energy performance certificates

IRE supported Liguria Region in the adaptation of regional law n. 22/2007 aimed at implementing Ministerial Decree no. 26/06/2015 and the national technical norms concerning the energy performance of buildings. Thanks to this update, Liguria Region has completed the adoption of EU Directive 2010/31/CE, strengthening and integrating the existing tools aimed at reducing consumption in the building stock of Liguria. One tool of particular importance is the regional database of energy performance certificates (SIAPEL), which has made it possible to collect relevant information on the energy needs of the regional building stock, focusing on heating and hot sanitary water production. During the course of 2016, IRE gave its technical support for the update and implementation of SIAPEL, in order to make it possible to have a new format of energy performance certificate which would also include data concerning cooling, lighting and transportation. In order to guarantee the interoperability between database systems and the reliability of collected information, IRE is currently supporting the Region in the definition of criteria and parameters that will have to be taken into account for the planning and implementation of connections between the SIAPEL database and the database of heating systems (CAITEL). The quality and completeness of the information collected will make it possible to integrate existing studies assessing the energy behaviour of the regional building stock and to evaluate its efficiency potential for energy planning and the allocation of relevant funding.

EAP - Енергийна агенция – Пловдив [Energy Agency of Plovdiv], BULGARIA - The Analytical Laboratory for Testing of Solid Biofuels

The Bioenergy Research and Innovation Centre at the Energy Agency of Plovdiv provides leading research and innovation activities, as well as core-expertise and core-competence in the fields of bioenergy and bioeconomy. The Centre contributes to future economic growth through generating and transferring new knowledge and technologies, and creating added value for the Bulgarian and European regions. The research infrastructure of the centre includes the Analytical Laboratory for Testing of Solid Biofuels, Compost and Bio-waste accredited according to ISO 17025. The Laboratory provides market-oriented research and innovation in the field of bioenergy to support innovation for resource efficiency, to encourage production activities using modern innovative technologies, to exchange knowledge about biomass utilization between relevant national and international stakeholders, and to transfer practice-oriented output to the relevant target groups.
AMET - Asociatia pentru Managementul Energiei Timis [Timisoara Energy Agency], ROMANIA - Recas, Public Lighting Project

AMET has started a project last year regarding the consumption management and monitoring system for Recas public lighting, pilot project which aims to reduce the costs of electricity consumed for public street lighting by 40% compared with the current situation. Nowadays, street lighting is among the most expensive assets of the City Hall. The solution is part from the concept of smart city, and due to the modular construction, other specific requirements of modern cities can easily further improved by adding new functionalities (environmental temperature, intensity of light, rainfall, traffic density, smart traffic command aerial monitoring, fire prevention, etc). The actual system allows remote control of each fixture individually. Depending on requirements, the control can be expanded from individual (lighting poles) at group level (streets, neighbourhoods, etc.). A software application (running in web browser or smartphone) is used to achieve this control / monitoring, providing real time.

Energikontoret Skåne [Skåne Energy Agency], SWEDEN – BioGas2020 – Sustainable platform for future development of biogas

Skåne Energy Agency is, together with 34 organisations, part of building a sustainable platform for future development of biogas in the Oresund/Kattegatt/Skagerrak area (southwest Sweden – Denmark – Norway). Biogas2020, as the platform is called, aims to create a green economy, bio-based development and sustainable growth across national borders. The project wants develop cooperation in the biogas industry and encourage massive investment in the sector. The initiative to create a biogas platform will result in a large number of partnerships, tools and pilots and tests which will have a major impact in the region. The platform are working with development of production areas such as substrate, household waste, optimal digestion, bio fertiliser and upgrading of biogas to fuel. Another important area where development work is carried out are transports. The development work for transports mainly focuses on biogas use in heavy vehicles such as trucks and busses.
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. The Centre expanded its research activities and services to:

- **Public, residential and commercial building inspections** through a drone-mounted thermal imaging camera to identify air leakage and thermal bridges and to support energy auditing of any type of buildings and installations. The thermal imaging camera is used for detection and visualization of air infiltration and exfiltration, as well as inspection tools to reveal missing insulation, HVAC air flow and equipment issues, radiant heating malfunctions, compromised roofing, and much more.

- **Emissions measurement** of stationary source-heating and industrial installations using a portable emissions analyser (gas analyser for engines, turbines, boilers, furnaces, and more) and a mobile gravimetric system for dust concentration.


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.

http://www.ivace.es/
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 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
MULTI-LEVEL GOVERNANCE

ARENE Île-de-France – Agence Régionale de l’Environnement et des Nouvelles Energies en Île-de-France, FRANCE – Accompany the communities to the realization of pre-diagnostics of the precariousness of energy

Drawing on its expertise in terms of energy data exploitation, ARENE develops two offers for local authorities wishing to integrate social and economic issues related to energy:

• The regional and territorial energy bill:
In addition to the energy data resulting from the work of the regional observatory, ARENE provides an innovative tool in terms of communication and awareness-raising among Île-de-France mission managers and elected officials, to understand the energy problem through an economic approach: invoices in Euros. This tool makes it possible to assess the weight of each consumer sector in the territorial bill and also the energy costs borne by the inhabitants and businesses of a territory.

• Precaution / energy poverty mapping: since 2013, ARENE has accompanied local authorities to the extent of the phenomenon of territorial precariousness. These predictions enable communities to identify and target policies to combat energy insecurity on the basis of cartographic indicators and databases enabling the identification of households in a situation of fuel poverty on the scale of one City and its neighbourhoods.
After a first successful experiment on the city of Les Mureaux in 2013, ARENE continued the process in 2015 and 2016 with two new cities of Île-de-France: Montfermeil and Arcueil.
The agency makes available a document enabling the local authorities to better understand the stakes and methods associated with these pre-diagnostics and to clarify their choices among many tools available on the national territory.

http://www.areneidf.org/projet/

SPL ENERGIES RÉUNION - Île de La Réunion - FRANCE - The fight against fuel poverty in Reunion Island with the project called SLIME (Local Scheme for Energy Efficiency)

The stakeholder, combating fuel poverty in Reunion Island, has been developing since 2014 the national project SLIME (Local Scheme for Energy Efficiency). Energies Réunion (the energy agency in Reunion Island) is in charge of implementing and animating it, with EDF (the electricity supplier), with support of the Regional Council.
The program SLIME aims to find solutions for the fuel poor households. The different steps are:
• Locate the fuel poor families,
• Lead a diagnosis and find solutions,
• Assist and guide families toward these measures to reduce energy usage at home.
The SLIME project allows local authorities to provide concrete solutions about the issues of fuel poverty, to reduce the energy demand from the grid and finally, to decrease the greenhouse gases emissions.
Up to now, 4 500 households in Reunion Island have been benefitting of a diagnosis and more than 6 500 energy efficient equipment were delivered which permitted to avoid 2 GWh per year.

http://energies-reunion.com/
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 (Kazakhstan, 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.

Pilot project in Tajikistan: Before/After

www.alesachieti.it
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. Therefore, the EEA is the most comprehensive quality management system for municipalities in the field of energy efficiency.

The European Energy Award encompasses 15 years of experience, with more than 1,300 participating municipalities and regions in eleven countries, involving around 40 million inhabitants.

Since March 2016, the Energy Efficiency and Renewable Energy Agency “AE3R Ploiesti-Prahova” is participating in the EmBuild project. EmBuild (Empower public authorities to establish a long-term strategy for mobilizing investment in the energy efficient renovation of the building stock) is designed to empower public authorities at local, regional and national level, to formulate renovation strategies for the building sector that foster deep renovation and facilitate the acceleration of the renovation.

EmBuild will put particular emphasis on the multiple benefits of energy efficiency measures. Various studies show that the benefits of safe, efficient and healthy buildings go beyond a reduction of energy consumption.

EmBuild will concentrate its capacity-building actions in specific regions in each of the participating countries. The lessons learnt by these regions and their constituencies will be introduced into national-level processes, most importantly into the formulation of the second renovation strategy. The project thus will foster a close cooperation between local, regional and national levels.
Région Wallonne, BELGIUM – POLLEC3 (Politique Locale Energie Climat): The Walloon municipalities at the heart of the energy transition

In November 2016, the third “POLLEC” campaign has been launched. The initiative aims at assisting Walloon municipalities, urban communities and provinces to set up and implement a local energy and climate policy in the framework of the Covenant of Mayors. The municipalities selected under this call for projects will profit from financial support for the drawing up of their Sustainable Energy Action Plan as part of their adhesion to the Covenant of Mayors (CoM). This kind of support is also provided to municipalities which already have a SEAP and wish to be included in the new Emission Reduction objective of 40% by 2030. Moreover, in order to allow municipalities to capitalize on the results obtained during the previous POLLEC campaigns, a methodological and administrative support will be provided. As a result of the two previous campaigns, 129 municipalities will have signed the Covenant of Mayors in the second half of 2017. Participating territories wishing to do so will be able to join the Belgian network of Energie Positive through which they can benefit from exchange of experiences, visibility and recognition at European level.

energie.wallonie.be;
www.tepos.be

AREAM - Agência Regional da Energia e Ambiente da Região Autónoma da Madeira, PORTUGAL – Porto Santo – Smart Fossil Free Island

The Regional Government of Madeira, with the support of AREAM (regional agency for energy and environment of Madeira), EEM (electricity public utility of Madeira) and other stakeholders, launched an initiative to make Porto Santo Island a smart fossil free island in the medium-long term, based on new sustainable energy technologies, namely energy efficiency in street lighting and buildings, renewable energy sources for hot water and electricity, electric mobility, energy storage, smart grids and a submarine power cable. The initiative also comprises an integrated approach to promote historical and cultural identity, conservation of environment and natural resources, innovation in local economy, and sustainable tourism.

This initiative aims to reduce the island’s external dependence on energy and on other goods and services, build a sustainable community based on the natural assets of the island, and promote durable employment and improve quality of life.

www.aream.pt

©Filipe Oliveira
EREN, APEA, AGENBUR, AEMVA, SPAIN - A regional heating and cooling support tool for public planning

EREN, the regional energy agency of Castilla y León, has developed a method for estimating thermal energy demand, based on consumption of residential and tertiary sectors including public administrative buildings, hospitals and schools. This methodology has made it possible to configure a data based with more than 7000 thermal energy consumption units in the region. In a first phase the different types of buildings have been defined and, in a second phase, energy, economics, environmental and employment parameters have been assigned to every building, getting a starting point for future H&C strategies.

The method has been discussed and agreed with regional, local and national stakeholders from the heating and cooling sector from public, and private entities and, other energy agencies in the region, APEA, AGENBUR and AEMVA, through the creation of Committee Governance groups of experts working together in a participatory level.

The result of this works is the ‘Thermal Renewable regional Strategy in Castilla y León’ that establishes different measures on regulation, manufacturing support, R&D innovation, consumer protection, demonstration projects, capacity building, funding and communication.

The method followed can be replicated and serve as basis for other regions and cities interested in the NEW Global Covenant of Mayors.

http://www.energia.jcyl.es/web/jcyl/Energia/es/Plantilla100/1284345361060/_/_/_/

AAE - Agencia Andaluza de la Energía, SPAIN – Adoption of the 2016 - 2017 Action Plan within the framework of the Andalusian Energy Strategy 2020


This biannual Plan contains 117 action lines as for building and sustainable urban development, mobility and efficient transport, promotion and financing in the energy sector, actions at regional energy infrastructure and quality of the energy supply, actions aimed at energy management in the administration at regional and local levels, as well as actions aimed at citizens, to be implemented by the regional and local administration.

The elaboration of the Action’s Plan is based on the principle of governance counting on with an Evaluation and Participatory Body made up of representatives of all Andalusian Regional Ministries, economic and social agents, consumers and users associations, local authorities and independent experts, whose main purpose is to propose, know, and evaluate the actions lines proposed at the Action Plan.

www.agenciandaluzadelanergia.es
In early 2016 the Aegean Energy Agency put forward a Master Plan to transform Kythnos into a Smart Island, in close collaboration with the local DSO, academia, the island Municipality, local stakeholders and entrepreneurs. The Plan provides the state of play of local infrastructures and proposes the introduction of smart, innovative technologies and processes to maximize synergies among energy, waste, water and transport infrastructures and thus make the island’s economic development more sustainable.

Central in the Plan is the provision of a hybrid power plant (wind, solar, storage, control unit etc.) for the maximisation of RES penetration in the non-interconnected island electrical system making use of innovative business models for the financing and ownership of the project.

Furthermore, the Plan foresees the establishment of a Renewable Energy Sources Exhibition Centre presenting the history and future of sustainable energy development in Kythnos and the Aegean Islands and a Smart Training Lab hosting environmental education courses and summer schools. Lastly, the recently approved H2020 LCE-02-2016 project WiseGRID, where AEA is a partner, will pave the way for the Master Plan, since Kythnos is one of the 5 demo sites where the set-up of a state-of-the-art flexible and integrated electricity system is foreseen, including EV procurement and accompanying charging infrastructure, energy storage applications for public buildings and the increase of RES in the local energy mix etc.

Agency for Energy Efficiency and Environmental Protection (AEEPM) is an independent legal entity, founded in 2007 by Local Council of Sector 1 of Bucharest, co-financed by the European Commission through the Intelligent Energy Europe Programme, organized as NGOs.

The project developed with the Municipality of Sector 1 Bucharest will help Romania meeting its commitments related to the improvement of energy efficiency to reach the EU 2020 target. The project is expected to reduce the buildings’ energy consumption by around 50% and the total energy saved will amount to approximately 190 GWh per year once the programme is fully implemented. This project, endorsed politically and accepted by communities, represents the most ambitious SEAP in Romania, envisaging actions at very large scale. The plan include studies for energy consumption, heating and cooling demand, potential for utilization of RES sources and financing sources with clear targets and objectives. The AEEPM is responsible for the monitoring and implementation of the Plan.
Central Finland has high-level competence in sustainable utilization of the forest biomass. Regional Council of Central Finland is renewing regional land use plan, and bioeconomy is the core of this updating process. Aim is to visualize biomass potential on regional land use plan, and thus increase the possibilities in the sustainable utilization of the biomass. This work goes hand-in-hand with the Interreg Baltic Sea Region projects BEA-APP (Baltic Energy Areas – A Planning Perspective). The aim in the project is to increase the social acceptance of various renewable energy (wind, solar, geothermal, biomass) and to bring new instruments for land use planners to steer the sustainable energy production.

www.balticenergyareas.eu
http://www.keskisuomi.fi/maakuntaavantarkistus (in Finnish)
http://www.keskisuomi.fi/
Energikontoret Region Jämtland Härjedalen [Energy Agency of Jämtland Härjedalen Region], SWEDEN – Klimatklivet, support for local and regional climate initiatives

The Energy Agency has helped a company called Fors Industrier, situated in Bispgården, about 110 km from Östersund in the Region Jämtland Härjedalen getting financial support from the Klimatklivet programme. Through this programme, the Environmental Protection Agency - Swedish Government -, in collaboration with other central agencies and county administrative boards, provides support to local investments aiming at reducing greenhouse gas emissions. The investment targeted the installation of biofuels instead of heating oil. During autumn 2016 the company has also installed 360 new, and much more energy efficient, lightning armatures. Totally they have reduced the annual use of fossil fuels with about 100 m³ and emissions of carbon dioxide with about 300 tons annually.

http://www.naturvardsverket.se/klimatklivet
http://www.energikontoret.z.se/

RAEE – Rhônalpénergie-Environnement, FRANCE – The Green Procurement in action - An eco-responsible approach for our public policies

Create jobs, strengthen local businesses while protecting the environment for the better consideration of sustainable development is possible today through public procurement. In Auvergne-Rhône-Alpes, some public bodies have already committed concretely. RAEE, regional agency for energy and environment in Auvergne-Rhone-Alpes, promotes these best practices through a film, directed by the European Union for the RREDD (Green Public Procurement Regional Network in France led by RAEE). Clean vehicles, "green" gas, unemployed people, clean construction site, energy savings, biodiversity, healthy materials in construction, low energy consumption schools, green supplies and many others illustrate the great diversity of possible actions.


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 has worked on promoting Green Public Procurement (GPP) practice among the 17 municipalities in Region Zealand. This ranged from conventional GPP like procurement of energy efficient washing machines to building retrofit, street lighting and electrical vehicles. One of the interventions concerned 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 formed part of Holbaek Municipality’s energy and climate efforts. PRIMES worked with such type of interventions in 6 EU regions and the project has been active until November 2016.

http://primes-eu.net
www.ecnetwork.dk
Bračak Manor is historic and cultural heritage building (built in 1889) near Zagreb. Established as a residence of a noble family Kulmer, the building served as a county hospital from 1947 to 2007. In 2011 REGEA and Krapina-Zagorje County started reconstruction project aimed to establish the Energy Center Bračak which will be operated for the next 20 years by REGEA. The building has been renovated as a flagship example of energy excellence and combination of modern technical solutions and preservation of cultural heritage. This includes thermal insulation with active vapor barrier, highly energy-efficient doors and windows, pellet heating boiler, high efficiency VRV system for cooling, high efficiency ventilation with heat recovery, micro-CHP plant on natural gas, central monitoring and control system for GHVK system and lighting, high efficiency internal lighting (LED), electric cars filling station and collecting rainwater for toilets flushing. The Energy Centre Bračak is equipped and will serve as educational center for Croatia and wider Sout-East Europe region. Its intention is to encourage entrepreneurship in sustainable energy use and promote the best practices for various target groups.

http://www.regea.org/

IMPLEMENTING ENERGY EFFICIENCY MEASURES

REGEA – Regionalna Energetska Agencija Sjeverozapadne Hrvatske [North-West Croatia Regional Energy Agency], CROATIA - Energy Center Bračak

Bračak Manor is historic and cultural heritage building (built in 1889) near Zagreb. Established as a residence of a noble family Kulmer, the building served as a county hospital from 1947 to 2007. In 2011 REGEA and Krapina-Zagorje County started reconstruction project aimed to establish the Energy Center Bračak which will be operated for the next 20 years by REGEA. The building has been renovated as a flagship example of energy excellence and combination of modern technical solutions and preservation of cultural heritage. This includes thermal insulation with active vapor barrier, highly energy-efficient doors and windows, pellet heating boiler, high efficiency VRV system for cooling, high efficiency ventilation with heat recovery, micro-CHP plant on natural gas, central monitoring and control system for GHVK system and lighting, high-efficiency internal lighting (LED), electric cars filling station and collecting rainwater for toilets flushing. The Energy Centre Bračak is equipped and will serve as educational center for Croatia and wider Sout-East Europe region. Its intention is to encourage entrepreneurship in sustainable energy use and promote the best practices for various target groups.

http://www.regea.org/

Tipperary Energy Agency - IRELAND, SuperHomes Ireland

SuperHomes Ireland is a ground breaking project designed to help homeowners to upgrade their homes to an A3 BER. The nationwide scheme, developed and administered by Tipperary Energy Agency and funded by SEAI, was piloted on 10 homes in 2015, with feedback from participating homeowners influencing the 2016 scheme design.

The scheme offers grant funding to cover up to 35% of the cost of upgrading pre-2006 homes to an A3 BER, with the maximum eligible cost before discounts totalling €26,000 excluding VAT. Homeowners have the option of spreading the remaining cost over five years via a loan.

Although an A3 BER is the upgrade target, SuperHomes also includes several mandatory measures that homeowners must complete to avail of financial support. The primary heating system must be renewable – and specifically an air source heat pump or pellet boiler. Advanced ventilation systems must be installed, such as demand controlled mechanical extract ventilation or heat recovery ventilation. Finally, the building’s air tightness must be improved. Other non-mandatory measures, such as insulation, window and door upgrades, biomass stoves and solar PV arrays may be incorporated.

The scheme has seen huge numbers applying in 2016.

www.superhomes.ie
http://www.tea.ie
Alona and Polistipos Communities have combined forces in the upgrading of 100% of their street lighting with new energy efficient LED lighting. This will lead into important energy savings for the two Communities, as well as upgrading of the lighting quality of the streets. More specifically, the Community of Alona will reduce its energy demands for street lighting by 50.9%, reducing its CO\(_2\) emissions by 18,004 KgCO\(_2\)/a and the Community of Polystipos by 53%, reducing its CO\(_2\) emissions by 19,256 KgCO\(_2\)/a.

The lighting upgrading is considered a good practice in Europe for the implementation of Green Public Procurement regarding energy saving and reduction of the carbon footprint in street lighting at the level of Local Authorities. The project is technically supported by the Cyprus Energy Agency through the European GreenS project (www.greensproject.eu) which promotes the support for implementing Green Public Procurements through innovative methodologies and procedures. The two Communities were awarded the first price in the Cyprus Green Public Procurement Awards 2016.

AGIRE - Agenzia per la Gestione Intelligente delle Risorse Energetiche, ITALY – Life DIADEME A smart, sustainable and cost-efficient Distributed Lighting Management System

AGIRE is acting as partner of Life-DIADEME project, co-financed by EU Life Programme and coordinated by Reverberi Enetec, a pioneering company experienced in smart lighting through innovative energy saving solutions. Diademe aims at establishing a really smart and cost-efficient public lighting management system that substantially reduces energy consumption, CO\(_2\) emissions and maintenance costs by 30% compared to actual dimming systems. A new “Adaptive Street Lighting” concept, introduced by latest edition of CEN-13201, will be installed, tested and validated over 1,000 new lighting points in the Municipality of Rome, within “EUR” business and residential district. Installation is providing innovative sensors modulating public lighting levels, based on both detection and monitoring of noise, traffic and air pollution, ready to evolve in future seamless smart city scenarios. Project outcomes are generating a significant socio-economic and environmental impact locally, while increasing EU and global level dissemination. Diademe is also contributing to an update of Climate Mitigation and Adaptation policies following stricter emissions limits.
EVE - Ente Vasco de la Energía [Basque Country Energy Agency], SPAIN - “Proyecto Calor”: Geothermal Exchange and Heat Pumps the response to industrial waste energy harnessing

In industrial processes loses around 50% of the heat generated are common. Efficient reuse of such wasted energy impacts on competitiveness, efficient use of resources and the environment. In addition it is becoming an opportunity for the design of "Cities of the Future". To respond to this challenge, the Project “Calor” (Heat) was born, a project promoted by the Basque Energy Agency (EVE) and the Basque Government. EVE / TELUR’s response to this challenge is the use of Heat Pump Technology and Geothermal Exchange (GE) as key elements for: Capture, Storage, Management and Efficient utilization of residual heat. TELUR, a EVE Group company, applies know-how acquired in various areas (GE and EE) to provide an integral solution to the use of waste heat and to provide inexpensive thermal energy both to the industry itself and to district heating systems. The experiences achieved by EVE and TELUR show savings of 20% of the energy consumption of the plant itself, with a recovery of 70% of the residual heat available in the plant, also considering the possibility of using the energy used in DH.

Energikontor Sydost [Energy Agency for Southeast Sweden], SWEDEN - Timers on soda fridges generates substantial energy savings in grocery stores

Today cooled beverages are stored in open and closed fridges in grocery stores, gas stations and other public areas. These plug-in fridges are running 24/7 and consumes a lot of electricity. In a study performed by Energy Agency for Southeast Sweden, the fridges were switched off at night with timers while the internal temperature was measured. It showed that the temperature only rose by about 7 degrees, and as the fridges keep a very low temperature during the day, the drinks were still cold in the morning. The study showed a potential of 1000-1600 kWh/year savings per fridge. A grocery store in Karlshamn saved 14 600 kWh/year by using plug-in timers on the fridges, turning them off during closing hours. The study was performed within the Night Hawks project (IEE 2013-2015). Not only did the project generate direct energy savings, it created new activities like Insatsprojekt Drickakyl in Southeast Sweden, an energy council network in Germany started working towards commercial centers and Latvia are investigating mandatory energy audits in malls and shopping centers.

CKEA - Carlow Kilkenny Energy Agency, IRELAND - Courtown Adventure & Leisure Centre

In 2016, Courtown Adventure & Leisure Centre, with the support of the Department of Transport, Tourism & Sport Local Authority Swimming Pool Programme implemented a range of energy efficiency measures. In 2015, the building consumed 581,069kWh electrical energy and 1,614,857kWh of thermal energy. It is estimated that the upgrades will reduce the energy consumption by 43% and 15% respectively. Five pool pumps were replaced with the addition of variable speed drives. All internal lighting is now LED. 56kW of solar photovoltaic panels are installed on the roof space generating 52,938kWh p/annum. The air handling units have been recommissioned and variable speed drives have been installed on all motors operating them. The biomass boiler, previously pellet burning, was upgraded to operate on woodchip with a reduced operating cost. Pool filter media is now glass media, improving water quality. A building energy management system (BMS) links and operates all mechanical parts within the building.
Kent County Council reduced its corporate CO2 emissions by 19% and 8750 tonnes between 2010 and 2015 through street lighting, energy efficiency improvements and business travel; that’s equivalent to the energy used by 2500 medium-sized homes. This project is part of a programme of energy projects funded through the Salix revolving loan fund for energy efficiency. Since 2005, we have invested £4.5 million through the fund in energy efficiency projects with expected lifetime savings of £12.2 million.

Through the fund, we have also been able to support local schools including Simon Langton Boys School in Canterbury. Using the fund, the school installed 70kWp of Solar PV with a saving and Feed-In Tariff income of £11,921 a year.

Medjimurje energy agency Ltd. MENEA is implementing a pilot project through which a part of old public lighting in the town of Čakovec will be replaced with new LED dynamic lighting. Testing in the pilot location is currently being conducted after which technical guidelines on how the public lighting should be modernised will be created. Once the guidelines will be available, the development of a modernisation project will begin on which the replacement of the old lamps with LED ones and installation of the sensors and the light control system will be based. Beside the modernisation itself, the project demonstrates how-to-do of a whole process of how a city can get an energy efficient lighting, starting from the idea, analysis, GIS data mining, strategy development, financial models, procurement rules, implementation and evaluation. The core idea is that the technical aspect of lighting needs to be better connected to urban planning aspects in order to adapt it to technological possibilities.

Nowadays, this is the most innovative project in our district. It provides the construction of a kindergarten building based on the passive house concept. The building walls will be insulated. It will have also the high quality windows, that do not allow heat loss, geothermal heat pumps and solar photovoltaic panels for water heating. The maintenance costs will be small in comparison to an ordinary building and will not exceed the 15 kw/h of energy per square meter per year. The capacity of this kindergarten is 100 children. The project is ongoing and will be completed in spring 2017.
RAEE – Rhônalpénérige-Environnement, FRANCE – Creation of a wood energy strategy committee in Auvergne-Rhône-Alpes

RAEE (regional agency for energy and environment in Auvergne-Rhone-Alpes) and FIBRA received regularly requests or alerts from the players of the energy wood supply or those in charge of operating wood heating plants as these players did not have any place for dialogue and exchange. It is in this context that was created in 2015, the wood energy strategy committee (CSBE), composed of all stakeholders in the sector, from root to ashes...

Jointly run by FIBRA and RAEE and, with the support of the Auvergne-Rhône-Alpes Region, ADEME and DRAAF, the CSBE is a space for exchanges, sharing, work and co-construction for all these professional players to help them meet the goals of the energy transition. The CSBE includes more than 70 members across the Auvergne-Rhône-Alpes region. Topics discussed during plenary sessions and working groups range from wood supply to contracting (purchase/sale) and are linked to the recognition of this new profession of wood energy producer. Proposals from these meetings aim to be recommended and used by all.

OÖ Energiesparverband, AUSTRIA - Solar battery programme in Upper Austria

In order to kick-start market development of solar batteries and support product and service innovation, the region of Upper Austria launched a solar battery programme in September 2014. More than 600 systems have been installed so far. In total, over 800 homeowners will participate in the programme.

Within this programme, households with an existing PV system apply for a subsidy and install a battery storage system with the aim of increasing the share of solar electricity used on-site. The programme supports only lithium-ion batteries due to their high storage capacity, high efficiency and long service life. The financial support helps decrease the comparatively higher investment costs. In order to encourage system and operation quality - which is especially important in early markets - a battery guarantee of 7 years must be given by the company installing the battery system.

The average installed capacity is about 7 kWh. The financial support decreased from 800 Euro/kWh (September 2014) to 400 Euro/kWh (since 2015). A monitoring programme is assessing the performance of the systems and solar coverage for each participant.
The Berlin Energy Agency (BEA) is operating a newly installed photovoltaic (PV) system on a new residential building of the housing cooperative ‘Charlottenburger Baugenossenschaft’ in the Berlin district of Adlershof. The tenants living in the ‘Charlotte on the Campus’ complex with 121 apartments can choose to be directly supplied with the electricity produced on the roofs of their residential buildings.

The PV system with 270 polycrystalline modules on a grass-covered roof and a total capacity of 69 kWp is part of a particularly environmentally friendly energy concept for the building completed in early 2016. Heat supply is covered by a combined heat and power (CHP) system running on biomass, resulting in an overall very low primary energy demand.

BEA, which is a German market leader in supplying tenants with power from decentralized energy systems (61 micro-CHP projects and 3 PV projects with approx. 4,000 customers) is seeking to further promote this model in cooperation with housing companies and cooperatives in Berlin.

http://www.berliner-e-agentur.de/strom-waerme/charlotte-am-campus-adlershof

Energikontor Norr [Energy Agency North], SWEDEN – Simulation and measurement of solar collectors in North Sweden

During 2014 - 2015, Energikontor Norr measured the function of five solar installations in Norrbotten and commissioned a researcher to do simulations for the installations. The facilities were spread across the county and had different applications. The main aim of the project was to measure whether solar heat works in Norrbotten or not. Small-scale solar heat is primarily a technique for summer usage, even if the solar panels can provide some warmth also during the winter. For a house with a given heat load the solar heat exchange in Kiruna, a city located north of the Arctic circle, is less than 10 percent lower than in Stockholm which is more than a thousand kilometers south of Kiruna. The exchange of the villa located in Lulea is just 2.5 percent less than for the villa in Stockholm.

http://energikontornorr.se/projekt/simulering-och-matning-av-solvarmeanlagningar-i-norrbotten/
http://www.energikontornorr.se
SMAP is a pilot project which aims at optimizing the development of renewable electricity sources in rural areas. The project is led by ENEDIS (national DSO) and RAEE (regional agency for energy and environment in Auvergne-Rhone-Alpes) and gathers 8 other partners (public bodies, industrial companies, university, NGOs). It is considered as the first smart-grid project focused on rural electric grids in France. SMAP bases its experiments in a small village, Les Haies (located in the natural regional Park of Pilat), where several PV plants are already operated by a local citizen-owned company. The project is divided into 3 main parts.

- The first action is focused on **technical aspects and experimentation**: innovative solutions will be tested on the village grid, such as piloting the PV converters, testing a transformer with load regulation, etc. These tests are enabled by the deployment of smart meters in consumers’ home.

- The second aspect of the project deals with **citizen participation and community involvement**: inhabitants will be sensitized to energy stakes and various experiments will be made together with them so as to balance their consumption with local production, in real time. Shifting evening consumptions to midday hours or fostering the development of electric vehicles are solutions that will be particularly considered.

- The last part of the project concerns **planning**. Prospective scenarios on production and consumption of electricity will be drawn at different scales, starting from the town and going to the whole territory around. The scenarios will run till 2050 and will be integrated into grid dynamic simulations, so as to find which constraints occur on the grid when we try to meet the development goals set out by energy action plans.

FAEN - Fundación Asturiana de la Energía, SPAIN – Development of micro hydraulic generation turbine systems (HIDROTOR)

With the objective to search for solutions related to energy use on hydraulic infrastructures in operation, the Asturias Energy Foundation (FAEN) is involved in several initiatives about promotion and technological demonstrations. The year 2016 ended with success in one of them, called HIDROTOR, in which, in collaboration with the University of Oviedo and the companies Talleres Zitron and AST Ingeniería, it was developed a hydraulic micro-turbine destined to the use of flow circulating by channels and pipes at atmospheric pressure. To get to the final design, it had been necessary the manufacture of a pilot to scale 1:10, already installed in a channel that was directed to an old mill in a rural hotel. The micro-turbine is already commercial and it has started in Asturias those procedures for the installation of ten units in different locations within the region.
Energikontor Norra Småland [Energy Agency of Northern Småland ], SWEDEN - Kraftsamling Biogas II - regional collaboration for increased use of biogas (bio methane) as a renewable fuel in transport

Since 2015, the Energy Agency of Northern Småland leads the project Kraftsamling Biogas II - regional collaboration for increased use of biogas (bio methane) as a renewable fuel in transport. The goal is to increase the amount of biogas in the transport sector in Jönköping County and to contribute to a fossil free vehicle fleet by 2030. The project will strengthen three areas:

- Increasing market demand for biogas;
- Improved infrastructure and distribution of biogas;
- Improved conditions for cost effective production of biogas.

The joined forces and interaction between regional stakeholders, such as the public sector and the business community, is the platform used to increase the market for biogas. And thereby create possibilities for expanded gas refueling infrastructure, and to improve conditions for the production of biogas.

The project runs from autumn 2015 until summer 2018 and is partly financed by the European Regional Development Fund.

http://www.rjl.se/energikontoret
http://www.rjl.se/energikontoret/pagaende-projekt/kraftsamling-biogas-ii/

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. The 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 the heat production and co-generation of electricity, too.

www.kr-ustecky.cz
The project "The future solar power" aims at increasing the use of solar power in small and medium sized enterprises. The main tool to fulfill this aim is competence development and dissemination of best practice, not only to the enterprises, but also to all other relevant stakeholders that in some respect can have an influence on this matter.

The activities also consist of different tasks such as elaboration of business models, elaboration of the advising provided to enterprises, supporting innovations, influencing the financing system to elaborate green bank loans etc.

One important task in the project is to visualize how solar power can be used in marketing activities and brand management in order to give the entrepreneur a more broad perspective in how the investment could be used.

[fhttp://energiost.se/
ramtidenssolel.se]
ENGAGING VARIOUS LOCAL STAKEHOLDERS

REA Kvarner - Regionalna energetska egencija Kvarner [Regional Energy Agency Kvarner], CROATIA – FIESTA Energy Help Desks turn families into virtuous energy savers

European consumers need to be supported to adopt more sustainable consumption behaviour in their daily life. European project FIESTA, funded by the Intelligent Energy Europe Programme, aims to lead families with children to save energy at home, acting both on their energy consumption behaviour and on their purchasing decisions. 14 Energy Help Desks (EHDs) were established, providing support and door to door energy audits for families, and conducting a set specific actions towards schools, social housing residents, heating and cooling retailers and installers. A total of 2.100 home energy audits (150 energy audits per city) are foreseen by Sept 2017, leading to 328 toe/year in (primary) domestic energy savings, and sending a clear message to municipal decision-makers: Join the FIESTA municipalities in Italy, Spain, Bulgaria, Croatia, Cyprus - start an Energy Help Desk in your municipality, and help your citizens save energy (and money)! Contact us for more information and a comprehensive package of tools essential for the Energy Help Desk’s performance.

http://www.reakvarner.hr/

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
Regione Abruzzo, Italy, is working at its Plan for Adaptation to Climate Change which has been launched through the Decree of the Regional Executive no. 308 of 29 April 2015.

The objectives of the plan are to develop an innovative information system on climate change and its effects at local scale; to define pilot actions that involve both public and private sectors; raising citizens and stakeholders awareness about the risks and vulnerabilities connected to climate change; to integrate Regione Abruzzo in the network of European Regions involved in climate change adaptation policies.

The first step towards the realization of the plan, is the definition of the regional climate profile and evaluation of climate change risks and vulnerabilities. This activity is currently ongoing along with a huge information and awareness campaign as well as the performing of participatory meetings with stakeholders and citizens.

http://www.regione.abruzzo.it/xAmbiente/index.asp?modello=climateChange&servizio=xList&stileDiv=mono&template=default&b=climatec
http://www.regione.abruzzo.it/xAmbiente/index.asp?modello=PAAC&servizio=xList&stileDiv=mono&template=default&b=paacresi

Regional Council of Central Finland, FINLAND - Biogas production and consumption activation in Central Finland

Transport sector plays a significant role in climate change mitigation. Regional Council of Central Finland, together with City of Jyväskylä, region’s development companies and Centre for Economic Development, Transport and the Environment has jointly created projects, events and promotion campaigns in utilizing the potential in biogas. This work is of great importance, since region does not have a gas grid, and thus the availability in biogas is challenging. Work done together with the stakeholders includes campaigns for citizens, a roadmap for City of Jyväskylä policy for biogas and activation on municipal public procurements. One aim in this activation is to show the benefits of locally produced biogas on regional economy and to reveal the possibilities in circular economy.

https://www.youtube.com/watch?v=lxCBR6MyAJA
https://www.facebook.com/biokaasuks/ (In Finnish)
http://www.keskisuomi.fi/
Region Örebro län [Region Örebro County Energy Agency], SWEDEN – Working together and fighting climate change

In 2012 the regional council for Örebro County decided upon the vision “nearly Zero greenhouse gas emissions 2050”. At the same time targets for energy and climate mitigation until 2020 where set for the region (geographical area);

- 25 % reduction of green house gas emissions (2005)
- 60 % renewable energy
- 20 % lower energy intensity (2008)

In 2014 we have reached 27% reduction of green house gases, 60 % renewable energy and 16 % lower energy intensity.

During 2016 and 2017 we are revising our program in broad collaboration with municipalities and other stakeholders, setting even more ambitious goals to lead the way to decrease our impact on the climate. During this process municipalities, politicians and companies from the county are invited to discuss how to reach our goals in a way that is not only good for the climate but also cost effective. “It can be important to understand the value of marketing your environmental work”, said one of the speakers during this year’s meeting.

Looking at new 2030 targets, this is what we are presenting for the regional council to decide upon: - 60 % reduction of green house gases and 80% renewables.

The way forward is through dedication, cooperation and dialog.


http://www.regionorebrolan.se/energikontoret
Municipalities are drivers for the implementation of new and sustainable transport concepts. Therefore the EMOBILITY WORKS approach, funded by the Intelligent Energy Europe program and developed by 12 partners from 10 European countries, focused especially on supporting small and medium sized municipalities. It consists of five steps, which include the commitment of decision makers, the involvement of important stakeholders, the analysis of the initial situation, the formulation of the action plan and the implementation of measures. The e-mobility action plan follows a holistic approach. It is based on the status quo analysis of the respective municipality and includes visions, goals and concrete measures which have been developed with a team of relevant local stakeholders. In total, 34 municipalities were consulted in the course of EMOBILITY WORKS and 30 of them finalised an e-mobility action plan, on which they will base their future activities regarding e-mobility in an integrated and sustainable way.

ICAEN – Institut Català d’Energia, SPAIN – Plan for the deployment of electrical vehicle charging infrastructure in Catalonia

In June 2016, the Catalan Government approved the Plan for the Deployment of Electrical Vehicle Charging Infrastructure for the period 2016-2019, with the aim of turning Catalonia into an attractive region for the electro-mobility by ensuring the energy supply to the electrical vehicles (EV) that travel around the Catalan road network. The Plan is aligned with the Directive 2014/94/EU on the deployment of alternative fuels infrastructure and has a budget of 5.8 million Euros to overcome the barriers that today hinder that Catalonia reaches the level of EV implementation existing in other European countries.

The Plan will facilitate the cooperation between the different public and private agents in order to reach the following specific goals:

- 100 open fast EV charging points (power >45 kW).
- 400 open semi-fast EV charging points (power >7.5 kW).
- 25,000 charging points associated to private EV.
- Put in place an interoperable identification and payment system for all the fast and semi-fast EV charging points and compatible with the European systems.
- Promote regulatory changes to achieve electro-mobility technical and economic viability.

More information: Plan for the Deployment of Electrical Vehicle Charging Infrastructure

http://www20.gencat.cat/portal/site/icaen
In the framework of the IEE project EMOBILITY WORKS, ALEA offered specialized advice and supported the municipalities of Alba Iulia, Bistrita, Ploiesti and Baia Mare in elaborating the first e-mobility action plans in Romania, each municipality concentrating on measures adapted to overall goals and tailored to specific needs. Alba Iulia more interested in rolling out tourism-related actions, set up an e-bike sharing network as well as implemented a collective transport (electric mini bus) system for touristic purposes inside the touristic area “Alba Carolina Fortress”. On other hand, local institutions having responded positively to the information and awareness raising campaigns regarding e-mobility organized by ALEA together with the municipality, lead to further results. For instance, the local police force, purchased e-bikes for their fleet being highly interested in adding several more e-scooters in the future. Furthermore, Alba Iulia set the goal to build several charging stations, which, connected to photovoltaic systems already installed on several municipality-owned buildings, would power e-vehicles using 100% renewable energy from local production.
In the year 2016 Energap has given a lot of attention to the energy education and training of teachers and other employers at schools and kindergartens in the City of Maribor. Energap have had events in more than 28 primary schools and kindergartens and trained more than 1,360 teachers and other employees. The content of the educations were related to energy saving and efficiency, how to achieve a rational use of energy, water and efficient lighting, proper and efficient heating and ventilation, energy efficient handling in the schools and kindergartens kitchens and how to maintain the systems. Part of the activities was dedicated to the curriculums and how to incorporate the sustainable energy issues to be well understood and used by the children. Energap is also a regional energy information point for citizens, advising and informing them about energy issues, how to plan and control their own energy projects, where and how to get some subsides for building and heating systems renovation, building the new low energy or passive houses. It organizes many workshops for the citizens and prepares the leaflets and brochures on specific topics to raise awareness about climate changes and sustainable energy.

www.energap.si

eNu - Energie- und Umweltagentur Niederösterreich, AUSTRIA – ENERGY FUTURE TOURS – Exploring sustainable energy solutions in European regions

In July and August 2016, eNu - Energy and Environment Agency of Lower Austria conducted two multi-day excursions with around 30 participants - students and young professionals - from nine European countries. According to the engagement of eNu in European networks, the excursion destinations were in the European region Danube-Vltava and in the Austrian member regions of the Working Community of the Danube Regions.

The participants had the unique opportunity to visit innovative companies and research institutions and to explore different renewable and efficient energy technologies in practice, e.g. a huge hydro power plant at the river Danube, a wind park, a research center showing a great variety of solar energy modules, a zero energy building combined with different storage systems, an e-car-trip etc.

At the excursions they were guided by regional energy experts, who shared their knowledge and experience with the young people and discussed solutions for a sustainable energy future with them.

www.enu.at/energy-future-tour
Energiråd Innlandet (Inland Norway Energy Agency), NORWAY - Inspiring Youth to Climate Action

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 one day conference for youth aged 16-19 in Inland Norway region, with all costs covered for the participants. This year the conference gathered over 400 engaged youngster, as well as 34 teachers. The program was varied. During the conference, the participants could hear about the science behind climate change, global political processes and the importance of using their votes to influence politics, how western life style affects the climate, and especially what actions the youth can take in everyday life to reduce their personal climate footprint. The academic contributors were organizations well renowned within their fields. The youngsters also participated in climate quizzes; testing both general climate knowledge and what they had learned during the conference. And naturally, all food served was vegetarian.

http://www.ung-miljo.no/
http://energirad-innlandet.no/nyhetsarkiv/4-barn-og-unge/544-programmet-for-ung-miljo-2016-er-klart

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
Across Europe young people’s pursuit of the study of sciences, technology, engineering and maths is evidenced to be declining. At the same time the potential of the low carbon economy is on the up! With low level knowledge amongst students of a range of jobs and, the level of challenge schools have to accommodate careers education within their tight schedules, it is no wonder that the widening skills gap for the next generation of business and industry is a hot political concern.

Your Green Future (YGF) is an event introducing students to the real business issues and opportunities of their local economies through workshops and exhibitions delivered in collaboration with local professionals. It has engaged with nearly 2000 young people from more than 90 schools across SW England with the support of businesses such Jaguar Land Rover and EDFenergy.

“YGF is the most impressive event I have attended in convincing young people that a technical career can be challenging, rewarding and worthwhile. You (businesses) will learn as much as the students!” - Tata Motors representative.

www.severnwy.org.uk

The project “Energy and Climate Protection in Schools”, initiated by Berlin’s Senate Department for Urban Development and the Environment and carried out by Berlin Energy Agency (BEA) and SWiM Bildung, has entered its third year of implementation with 20 new lighthouse schools.

In the two previous school years, 45 schools in Berlin with around 3,600 pupils participated in the project, putting climate protection into practice and organizing project days on energy saving, for example. The pupils’ activities covered a wide range of issues: from the visit of a power station to waste projects and school gardening to posters, theatrical and musical activities.

In an award ceremony in July, the 25 lighthouse schools of the past school year received acknowledgement for their commitment to climate protection.

This school year, 80 workshops will help illustrate the link between one’s own everyday use of energy and the protection of the climate and the environment. Relevant materials, such as worksheets, manuals or timetables, are available to all schools on the project website for free download. In order to strengthen the project’s practical relevance, energy tours through each school building will be carried out, focusing on user-driven energy saving potential (overheated classrooms, open windows next to a warm radiator, computers permanently switched on in the teacher’s room, all-day corridor lighting, constantly running taps, etc.).

http://www.berliner-e-agentur.de
The new executive team of Provence-Alpes-Côte d’Azur, elected in December 2015, wanted to know the main priorities in environmental sectors (including energy) for the inhabitants of the region.

To do that, the Region has organized a great congress from June to November where every people living in the Region were invited to give ideas and advices. Five workshops has also been created on main subjects: Energy, Sea, Water, Health and Waste. Each of them met two times and worked on concrete projects which can be included in a regional road-book for the duration of the mandate.

More than 250 propositions has been received from associations, citizens, enterprises etc presented in a plenary meeting the 9th of November 2016.

As part of the SEED Project (Sustainable Energy Education and Demonstration Center), which aims to promote energy efficiency and renewable energy sources through education and demonstration in a dedicated low-energy model building, AMEMM developed an energy educational video to be used as educational tool for the students trained in the SEED Center and also disseminated to the larger public via youtube (https://www.youtube.com/watch?v=YnWN4DWGb6Y). The video illustrates in an accessible and humorous manner the most common and simple measures to save energy. However, when cumulated these measures can lead to a significant overall decrease of energy consumption and costs. The training programmes provided by AMEMM in the SEED Center include a theoretical – interactive part whereby the students are presented with key information on the fossil and energy renewable sources, the impact on the environment of the energy production and consumption and the importance of using the energy in rational manner. The video disseminated at the end of the theoretical lesson highlights the most important actions which can be easily taken by both children and adults who are thus encouraged to contribute to the greening of our Planet.
In March 2007, the European Council set a series of challenging and aspirational climate and energy targets for the EU to meet by 2020, known as the “20-20-20” targets:

- Ensure 20% of EU energy consumption comes from renewable resources;
- Improve energy efficiency by 20%;
- Achieve a reduction in EU greenhouse gas emissions by 20%, compared to 1990 levels.

In March 2009, binding legislation was adopted through a climate and energy package, to implement the 20-20-20 targets. This legislative package establishes specific policies to reach these goals and distributes them to the members’ states (which may adopt more restrictive emission regulations if they wish).

To reach these targets, regions and local authorities play an important role, especially as the EU is encouraging regions to develop and implement climate change mitigation strategies, such as Covenant of Mayors initiative.

Furthermore, current national data for GHG emissions is not of the sufficiency and accuracy to help European regions define and monitor local strategies; and there are already many local monitoring systems in place dealing with environmental issues (such as energy and GHG emissions, air quality, climate change, etc).

For these reasons we decided to create the European Network ENERGee-watch, with the aim of standardising data at a European Level, enabling comparisons across European territories to be made and for European-wide methodologies to be established. Membership is free of charge.

**MISSIONS**

To date, many observatories in Europe are built on air quality observation, with the structures governed by a local consortium and financially supported by public authorities. Furthermore, the methodologies used to observe GHG emissions are based on International standards (IPCC and Corinair) and national methodologies, rather than European-wide methods. The observatories identified through the Energee-Watch network so far have expressed the need for further standardisation amongst observatories, in order to enable comparisons between territories and European methodologies to be established.

The creation of a European Network will therefore provide members with the opportunity to achieve this standardisation and to share experiences and to improve together.

Energee-Watch has three main missions:

1) **To share experiences between regional/local public authorities** in the field of energy and GHG inventory;

2) **To share experiences amongst GHG monitoring organisations**. For example by:
   - Sharing how to set up a local observatory and involve local stakeholders;
   - Comparing existing monitoring methodologies and processes;
   - Comparing existing partnership agreements for data collection and diffusion;
   - Comparing and evaluating existing tools (GIS,...etc);
   - Complying with European directives (Inspire: exchange of environmental data etc).

3) **Involve and work with European organisations** to:
   - Define methodologies suited to local needs (bottom up approaches,..);
   - Define common guidelines in order to be able to compare the performance of territories;
   - Improve national and international observation methodologies based on feedback from regional approaches (bottom-up);
   - Evaluate the European energy policies (CoM).
MEMBERS

Organisations + Observatories

4 ALEA - Alba Local Energy Agency - ANERGO
5 ARENE Île-de-France - ROSE Île-de-France Regional Observatory
6 Auvergne Rhône-Alpes Region - OREGES Rhône-Alpes Regional Observatory
7 Barcelona Metropolitan Area - METROBIS - Metropolitan Climate Change Observatory
8 Carlow Kilkenny Energy Agency - Energyhub.ie
9 EAP - ROECC Observatory for Energy, Environment and Climate
10 EAZK - Energy Agency of the Zlin Region
11 Energikontor Nørre - Energiluppen
12 EVE - Basque Country Energy Agency - Udaisarea21
13 IRE Liguria - Banche Dati Ambienta In Liguria
14 Kent County Council - Environment Department
15 Metropolitan City of Turin - Osservatorio Energia Città Metropolitana di Torino
16 Provence-Alpes-Côte d’Azur Region - ORECA
17 Région Centre-Val de Loire - LIG’AIR
18 Région Centre-Val de Loire - OREGES Centre-Val de Loire
19 Region Bourgogne Franche Comté - OPTEER, Franche-Comté Regional Observatory
20 Region Bourgogne Franche Comté - ALTERRE
21 Region Hautes de France - Observatoire Climat Nord Pas de Calais
22 Réunion Island Observatory - SPL Energie Résunion
23 Technical Chamber of Greece Energy Observatory

Other Organisations

24 AEEPMA Bucharest Energy and Environment Agency
25 AMEMM - Maramures Energy Agency
26 Cyprus Energy Agency
27 EREIN - Castilla y Leon Region, Energy Department
28 BSREC - Black Sea Research Energy Centre
29 CODEMA - City of Dublin Energy Management Agency
30 Diputación de Barcelona
31 Energy Agency Malaralen
32 ESLPA - Infrastructure Lombardia- Energy Agency of Lombardia Region
33 Medway Council
34 Province of Savona
35 Province of Treviso
36 Regional Council of Corsica

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