




Intelligent Energy  Europe

***Action Plan for the
province of
Ávila (SPAIN)***



VISION

The present Strategy or Action Plan intends to influence three of the sectors with greatest consumption of the province of Ávila by means of a series of measures. The three chosen sectors belong to the rural zone as well as the city of Ávila, being the following ones:

- **Municipalities of the Province of Ávila** → The province of Ávila, with 248 municipalities and 168.000 inhabitants, is a rural zone where the domestic and agriculture sectors are the main energy consumers. However, the Action Plan will especially address to the Town Halls for getting more immediate results in the reduction of energy consumption and in the implementation of renewable energies. It is known the inefficient street lighting in most of the villages of the province of Ávila that should be renovated as far as possible. This aspect next to the use of RES in public building will be the aspects to consider in the activities to carry out in the region. Moreover, the actions developed in municipalities are taken as example by the inhabitants, so acting on municipalities is very important to multiply our efforts.
- **Rural Tourism Housing** → There are around 300 Rural Tourism Housing in the province of Ávila, being one of the Spanish regions with major number of houses of this type. It is expected a growing in rural tourism in the next years, being nowadays a strong point of the economy of Ávila, what makes necessary to include measures of saving and energy efficiency in the rural houses. These measures will direct to owners houses as well as to users for a best protection of environment.
- **National Police Academy** → Located in the city of Ávila, the National Police Academy is the biggest Police Academy of Europe. With more than 5.000 people, the Academy is a huge energy consumer where there is no RES system installed in the buildings. It could be interested to promote measures of saving and energy efficiency and information about RES in order to reduce the energy consumption of the whole region.

AIM

The main objective of the Action Plan for the region of Avila is the reduction of energy consumption and greenhouses gases towards sustainable levels by means of formation and divulgation activities about RES and saving and energy efficiency in order to address province of Ávila towards the sustainability and the fulfilment of Kyoto Protocol.

OBJECTIVES

Saving and Energy Efficiency measures and promotion of renewable energies systems will be undertaken to accomplish the general objective of greenhouses gases reduction, but also the next points:

- A public knowledge about energy problem and the emergency to take save and Energy Efficiency measures and renewable energy sources.
- More environmental respect.
- Raising the awareness in alternative managements for residues from the agriculture, the forest and the agro - food and wood industry.

For finally, getting the following objectives by means of the Action Plan:

- An energy use of autochthonous resources that allows a decrease in the fossil fuels dependence.
- An improvement in the energy situation of the province.
- A suitable management of the forests and the agricultural lands that diminish the propagation of plagues and fires and stop erosion.
- The development of rural zones with new activities and jobs that avoids the movement of the population.
- New investment possibilities in the municipalities thanks to a bill reduction.
- Competitiveness improvement of rural tourism companies.

BASELINE AND TARGETS

The Action Plan, based on the energy analysis of the region of Ávila, intends to accomplish:

- Energy consumption reduction.
- CO₂ emissions reduction.
- A large number of RES installations.
- Several activities in Saving and Energy Efficiency matters.
- Several activities in renewable energy sources.
- An economic save for the implementation of Saving and Efficiency measures.

ORGANISATIONAL STRUCTURE FOR THE PLAN AS A WHOLE

The Action Plan for the province of Ávila is supported by the European Project Innovative Thinking financed by the European Commission through the Intelligent Energy for Europe Programme.

The City Council of Ávila, through the Energy Agency of the Province of Ávila, will coordinate, together with the Technological Center CARTIF, located in Boecillo (Valladolid), the whole of measures considered in the present Action Plan.

COMMUNICATION STRATEGY

The communication strategy will be specified according to each of the parts implied in the project.

- In relation to the City Councils, there will be two types of communication: On the one hand, the town council managers (politicians and municipal technicians) will be informed and formed on the economic saving, renewable systems and energy saving measures to apply in municipal projects; on the other hand the citizens will be informed through the managers or through the Innovative Thinking Project web www.innovativethinking.es on the measures to adopt.
- Both owners and users of Rural Houses will be informed about the non conventional energies and about the measures of saving and energy efficiency. On the one hand, with the aim of using energy aspects in the design of rural houses to improve the quality of rural tourism, the owners of rural houses will be formed about these issues, receiving also information about the economic aid. On the other hand, the users of these houses will be sensitized in the rational use of the energy during the stay in rural houses.
- Finally, the communication with the National Police Academy will be established via the managers of the centre, playing special attention to the economic and emissions reduction that will be achieved after implementation of the measures of saving and efficiency energy. The contact will be maintained to inform of the new financial possibilities.

ACTIONS

The actions promoted by the Action Plan in order to achieve a better energy efficiency and an energy saving in the province of Ávila are described for each objective group immediately after:

Municipalities of the province of Ávila

Energy efficiency is quite low in most of the town hall buildings of the province, including reduced efficiency levels in lighting, insulating, heating systems/refrigerating... In addition to this, energy consumption represents a high economic cost for the town halls that are capable of reducing their energy bills and the environmental impact of their activities.

It is sought that town councils know and install Saving and Energy Efficiency measures in the outbuildings managed by each municipality, such as public schools, town halls, medical consultancies, library, sport areas...as well as street lighting and public transport. Therefore, given the unknown about these aspects, formation and information will be provided to town council technicians and their superiors so that they are familiar with the possibilities technology offers in this field.

The formation activities are training courses and seminars addressed specifically to municipal technicals while the dissemination activities are composed of guides about energy efficiency in the lighting for Council Towns and brochures about energy grants.

The training courses will focus on biomass for being a very common resource in the province of Ávila that can be a large opportunity of development for many municipalities if it is used with energy purpose.

The activities to be carried out are:

- A seminar about save and energy efficiency in the municipalities, focussed on actions in public buildings and public lighting.
- A course about the possibilities of the biomass to the municipalities, regarding to the thermic and electric use of biomass, the use as fuel in transport and the exploitation of biomass to obtain raw material.

- Interchange of experiences between stakeholders of several European regions. At least two meetings will be carried out in Sweden and Spain for being attended by Politicians and important decisors, with the aim of visiting Energy Efficiency installations and RES systems and having arguments about the better experiences in the achievement of energy sustainable regions.

The material of formation activities, delivered in courses, seminars and interchanges, will be available in the web www.innovativethinking.es .

Furthermore, the information activities will focus on the promulgation of energy efficiency and save and RES by means of:

- Guides about Energy Efficiency in the Lighting for Council Towns. The most efficient technologies and systems of lighting, the present state of lighting in public building and street and the different alternatives to improve this aspect will be compiled in this guides, that will be distributed to the municipalities of Ávila and they will also be available in the web www.innovativethinking.es.
- Brochures about grants for the Saving and the Efficiency Energy and the RES Installations are going to be designed and printed. They will resume the possibilities of financing energy projects and the aids for the R&D+i in energy issues. The brochures will be distributed to all the town halls of the province after having noticed that grants are not known, being the main cause of the delay in the implementation of RES and efficiency measures. In addition, copies will be delivered in fairs and conferences attended by APEA and CARTIF apart of being consulted in the web of the project Innovative Thinking.
- Assessment Report: Some of the most promising investment possibilities will be assessed and used as demonstration projects for implanting in other regions. These reports will analyse the technological alternatives and the steps to develop in the implementation of two projects based on energy efficiency and on biomass resources as well as the improvements in the environment with the reduction of carbon emissions and in the economy of the zone with the creation of jobs. Finally, benefits about energy costs will be considered and the reports will be available on project web.

Once the Saving and Energy Efficiency criteria have been developed, the need emerges for generating energy out of non-conventional sources to reduce the export of conventional sources as well as to generate energy out of sources that are non-polluting, renewable and that reduce the emission of greenhouse gases to the atmosphere. The town councils and their public plots that consume energy could be constituted into energy generators out of renewable energy resources as aerogenerators, solar panels, biomass equipments as well as being planted with energy crops.

Rural Tourism Houses

Rural Tourism is probably the most important economical activity in the province of Ávila. There are more of 300 houses distributed around the province, situated in rural areas where there are good environmental values in. The enterprise activity of rural tourism originates great energy consumption, both in lighting and acclimatising of buildings that also generates important cost. Thus the influence area is wide, is possible to reduce the emissions of greenhouse gases if energy criteria are considered. In addition, rural houses have normally the necessary characteristics to allow the installation of renewable energy equipments, since they have an important consumption of warm sanitary water, heating and swimming pool acclimatising in some cases; thus solar thermal energy and biomass are two interesting possibilities.

The measures for saving and efficiency energy are focussed on two aspects of the activity: the construction of the house and the use of the house with environmental respect and energy saving by the users. In relation to this, it is sought to consider control and automatic systems for lighting, heating/acclimatising, etc as well as insulation and sustainable building criteria in the design of rural houses. These measures will generate important energy saving that are profitable in a short term.

Thus it is sought that the promoters of rural tourism houses are familiar with the possibilities renewable energies offer for their houses and the measures for the saving and efficiency of energy by means of the organisation of training courses and seminars.

The rural houses owners will be informed about the grants to finance Renewable Energies and Energy Efficiency Projects compiled in brochures, information that will be more detailed in the specific training courses for the rural tourism sector. On the other hand, it is

intended to change bad habits of users with useful advices about rational use of the energy on posters.

In short, several formation and information activities will be carried out in the rural tourism sector:

FORMATION (to the owners of the tourism rural houses)

- A course about the possibilities of biomass in these houses.
- A seminar about energy efficiency and saving in the construction and the use of these houses.

INFORMATION

- A brochure with grants information is going to be distributed to the owners of tourism rural houses.
- Posters with practical advices about rational energy use in lighting, climatization, use of electrodomestics, etc will be shown.

Police National Academy

The National Police Academy of Ávila is the biggest Police Academy in Europe. Over 5.000 people are formed in the Academy every year, so this is a very important consumption that can be assimilated as a service and domestic consumption, because the new polices live in the Academy during a year, and their activities are done in it. These activities are like services activities as classes, restaurants, offices... Moreover there are a Olympic swimming pool and a gym.

Saving and Energy Efficiency measures amount to important savings: the bigger the consumption, the bigger the savings. Due to the size of the National Police Academy of Ávila, the energy consumption is very high and thus any saving accomplished will greatly reduce emissions.

Furthermore, the extended surface of the Academy and the large consumption makes the installation of renewable energy systems possible, especially for the generation of warm sanitary water through solar energy or biomass.

To achieve the installations of saving systems and renewable energy sources, a brochure will be delivered to the responsible staff and an assessment about these matters will be

done. Moreover, that staff is going to be invited to every seminars and courses imparted within Innovative Thinking project, because there are similar aspects between municipality and rural tourism houses consumption.

The National School Academy has public lighting installations and consumptions like the municipalities (sport installations, offices, etc); and energy demand like the tourism rural houses because there are individual houses in the Academy where the teachers live in. For these reasons, the National Police Academy staff will be invited to taking part in the courses and seminars of the project.

<i>Action</i>	<i>Target</i>	<i>Timescale</i>	<i>Resourcess</i>	<i>Participants</i>	<i>Lead</i>	<i>Monitoring</i>	<i>Comunication</i>
Diffusion of efficiency measures for public lighting and public building.	Printing of Guides about Energy Efficiency in Lighting for Council Towns.	Printed in June 2008.	Innovative Thinking resources.	Council Towns, Lighting Products Companies, APEA and CARTIF.	CARTIF	Number of copies distributed.	The Guides will be sent to all the Council Towns of Province of Ávila by post and email. They can also be downloaded in web project.
Promotion of Saving and Energy Efficiency measures in public buildings.	Organisation of a Seminar about Saving and Energy Efficiency in Public Building and Public Lighting.	June 2008.	Innovative Thinking resources.	Council Towns, APEA and CARTIF.	CARTIF	Paper of Signatures.	Promotion in press, Project web and mailing.
Promotion about incorporation of RES systems in municipalities.	Organisation of a Training Course about Energy Use of Biomass.	June 2008.	Innovative Thinking resources.	Council Towns, APEA and CARTIF.	CARTIF	Paper of Signatures.	Promotion in press, Project web and mailing.
Inform about grants for RES Installations and Saving and Energy Efficiency Measures.	Inform about the main grants for RES installations and Saving and Energy Efficiency by means of an email address	From April 2008.	Innovative Thinking resources	Council Towns, Owners of Rural Houses, National Police Academy, General Public, APEA and CARTIF	APEA	Number of people who demand the information	Promotion in press, Project web and brochures
Inform about grants for RES Installations and Saving and Energy Efficiency Measures.	Design of Brochures that resume the main grants for RES installations and Saving and Energy Efficiency.	Printed in March 2008.	Innovative Thinking resources.	Council Towns, Owners of Rural Houses, National Police Academy, General Public, APEA and CARTIF.	APEA	Number of copies delivered and grants applied.	Brochures will be distributed to Council Towns, Rural Houses and National Police Academy by post and email. The General Public can look up them in web project.
Support of Saving and Energy Efficiency Measures in Rural Houses.	A Seminar about Saving and Energy Efficiency in Rural Houses Construction.	Around October 2008.	Innovative Thinking resources.	Rural Houses Owners, APEA and CARTIF.	APEA	Paper of signatures.	Information in press, Project web and mailing.
Support of RES for thermal energy in Rural Tourism.	A Training Course about biomass possibilities in Rural Houses.	Around October 2008.	Innovative Thinking resources.	Rural Houses Owners, APEA and CARTIF.	APEA	Paper of signatures.	Promotion in press, Project web and mailing.

Action	Target	Timescale	Resourcess	Participants	Lead	Monitoring	Comunication
Make the user of rural houses concious about the importance of Energy Saving.	Posters with practice advices about saving energy habits to have present during the stay in rural houses.	Around October 2008.	Innovative Thinking resources.	Owners and users of Rural Houses, APEA and CARTIF.	APEA	Number of promotoros that receive the posters.	Posters are shown on training courses also, being looked up in Project web.
Promotion of Saving and Energy Efficiency and RES systems in National Police Academy.	Invitation to take part in seminars and courses.	June and October 2008.	Innovative Thinking resources.	National Police Academy of Ávila and APEA.	APEA	Paper of signatures.	Communication with decisor agents of the Academy.
Diffusion of information about RES and measures for saving and energy efficiency.	Design of a web page to include information about RES and measures for Saving and Energy Efficiency.	Starting on January 2008.	Innovative Thinking resources.	APEA and CARTIF.	APEA	By means of a meter in web page.	Updating information compiled during the Project.
Involve to the main energy agents in the target of achieving the energy sustainability in the province of Ávila.	To commit to the main responsables of Energy Sector though Agreement signatures in the Sustainable Development of the province of Ávila.	Starting on 2007.	Innovative Thinking resources.	Energy Agents, APEA and CARTIF.	APEA	Paper of signatures.	Deliver the agreement to the main energy agents.
Promote the participation and the collaboration between skateholders and decisor makers..	Organization of Tours, Seminars and Meetings for politicians and decisor makers.	May 2008.	Innovative Thinking resources.	Politicians, APEA and CARTIF.	APEA	Paper of signatures.	Direct communication to politicians.
Promote the participation and the collaboration between skateholders	Organization of Tours, Seminars and Meetings for skateholders.	October 2008.	Innovative Thinking resources.	Agentes del Sector energético, APEA and CARTIF.	CARTIF	Paper of signatures.	Direct communication to skateholders.
To assess the most promising investment about RES and RUE	To use these proiects in the further implementation of the action plans in other european regions.	Starting on July 2008.	Innovative Thinking resources.	APEA and CARTIF	APEA and CARTIF	Number of people interested in assesment report.	Delivered via mail and Project web.
Continuity of the Energy Strategy	Design of Good Examples and Learned Lessons.	From 2009.	Innovative Thinking resources.	APEA and CARTIF	CARTIF	Number of copies delivered.	Delivered via mail and Project web.
Translate the Energy Strategy of the province of Ávila to other regions	Involve decision makers and skateholders in RES use and energy efficiency. Invitation to decision makers of the province of Valladolid to take part in semianars and courses.	From May 2008.	Innovative Thinking resources	CARTIF	CARTIF	Number of copies received of Guides and Brochures. Paper of signatures.	Diffusion via mail, Newsletter and Project web.

