



Saving Energy in Residential Housing

Agencia Provincial de la Energía de Burgos, Spain

Summary

Energy is essential in our homes for the daily operation of domestic appliances, heating and lighting systems, etc. In the last few years, the energy consumption in the domestic and tertiary sectors (in Spain in general and particularly in Burgos) has increased at the annual rate of 2.5%. Considering all these issues, the Provincial Energy Agency of Burgos has developed an information campaign denominated “El ahorro energético en el hogar” (Saving energy in residential housing), the purpose of which is to promote, province-wide, the rational use of energy in residential housing, mainly targeting housewives and consumers. This objective has been achieved through the edition and distribution of 22 000 **dissemination leaflets** containing simple yet effective advice on residential energy efficiency, supported through the realisation of **dissemination conferences** in several provincial municipalities.

End-user area

- New buildings
- Refurbishment of buildings
- Transport and mobility
- Financial instruments
- Industry
- Legal initiatives (regulations, directives, etc)
- Planning issues
- Sustainable communities
- User behaviour
- Education
- Other

Target Audience

- Citizens
- Households
- Property owners
- Schools and universities
- Decision makers
- Local and regional authorities
- Transport companies
- Utilities
- ESCOs
- Architects and engineers
- Financial institutions
- Other

Technical

- Energy efficiency
- Heating
- Cooling
- Appliances
- Lighting
- CHP
- District Heating
- Solar energy
- Biomass
- Wind
- Geothermal
- Hydro power
- Other

Context

Nowadays, energy is essential in our homes for the daily operation of domestic appliances, heating and illumination systems, etc. During the last few years, this type of energy consumption has been on a continuous rise. Due to the improvement of the comfort levels in our houses, the energy consumption in the domestic and tertiary sectors in Spain has increased at the annual rate of 2.5%. A large portion of such an increase is due to the perennially cold climate in the Province of Burgos. As a result of the increasing levels of comfort, the heating systems are a very important factor in the residential sector, province wide.. Mindful of all these issues, the Burgos Province Energy Agency has developed a dissemination campaign denominated “El ahorro energético en el hogar” (Saving energy in residential housing).

Objectives

The main objective of the campaign is to promote, province wide, the rational use of energy in residential housing, and to instruct and train the general population on how to reduce their energy bills and thus the environmental effects. Therefore, the targeted audience includes the principal groups concerned with the domestic energy consumption:

- Housewives
- Consumers



Process

The dissemination campaign is based on three main activities:

- Edition and distribution of **dissemination leaflet** that includes basic advices on energy consumption and especially building insulation, domestic appliances, lighting, heating systems, etc. Thanks to the collaboration of "Diario de Burgos" (the main provincial newspaper) and the Provincial Government, 21,000 copies of this leaflet were distributed throughout the province.
- Organisation of **dissemination conferences** in several provincial municipalities, where the information on residential energy consumption was presented to the attendants and during which the Agency staff had an opportunity to present the residential housing saving measures, without renouncing any of the comfort.
- The conferences were also used to carry out the survey among the assistants in order to find out more about their daily energy consumption habits.

The dissemination leaflet was designed by the technicians of the Province of Burgos while the Energy Agency along with UNAE (Burgos Provincial Civic Union of Consumers and Housewives) provided the technical support. The pamphlet was prepared following the main national guide model on energy saving measures. The Provincial Government press office printed 22,000 copies, 21,000 of which were distributed throughout the entire province with the assistance of the main provincial newspaper (Diario de Burgos).

Advices put forth through the dissemination pamphlet are related to:

- positioning and thermal insulation of the building
- energy label of electrical domestic appliances
- efficient use of electrical domestic appliances (refrigerator, washing machine, furnace, iron, etc)
- efficient use of heating systems
- efficient use of sanitary hot water
- efficient use of lighting systems
- environmental protection through energy savings.

In addition to the pamphlet distribution, Provincial Energy Agency of Burgos organised several conferences in different provincial municipalities to put to a practical use all these advices. Several City Councils and Housewives Associations have expressed their interest in these conferences. Average duration was 1 hr duration and it allowed for an extensive implementation of advices explained in the pamphlet. In fact, the conferences were a large success as hundreds of housewives and consumers from the entire province participated as attendants. The conferences also served to carry out a survey whereby the attendants answer a questionnaire prepared by the agency and aimed at detecting their daily energy consumption habits.



Cover of the pamphlet distributed in the province of Burgos



Images of the assistants in two of the conferences (in Briviesca and Fuentes Blancas)

Financial resources and partners

Throughout the campaign, Provincial Energy Agency of Burgos has received the collaboration of:

- **Provincial Government**, with the printing of 22,000 pamphlets.
- Main provincial newspaper, **Diario de Burgos**, with the distribution of 21,000 pamphlets.
- Burgos Provincial Civic Union of Consumers and Housewives (**UNAE**), with the design of the pamphlet contents and the execution of the conferences.
- **City Councils** and the **Housewives Associations** of the different municipalities hosting the conferences, summing up the attendants and procuring the actual conference sites.

Date	Place	Collaborators
28/04/2005	BURGOS	Burgos Provincial Civic Union of Consumers and Housewives (UNAE)
04/05/2005	BRIVIESCA	Briviesca City Council "Mencia de Velasco" Housewives Association
05/05/2005	ARANDA DE DUERO	Aranda de Duero City Council "UNAE Aranda" Housewives Association
12/05/2005	VILLASANA DE MENA	Valle de Mena City Council "Amas de Casa del Valle" Housewives Association
17/05/2005	FUENTES BLANCAS (BURGOS)	Burgos City Council
17/05/2005	LERMA	Lerma City Council "Villa Ducal" Housewives Association
19/05/2005	SALAS DE LOS INFANTES	Salas de los Infantes City Council "Doña Sancha" Housewives Association
25/05/2005	MEDINA DE POMAR	Medina de Pomar City Council "Reina Maria Cristina" Housewives Association
02/06/2005	MIRANDA DE EBRO	Miranda de Ebro City Council "Altamira Allende" Housewives and Consumers Association

Organised conferences and collaborators



Case Study 213: Agencia Provincial de la Energía de Burgos, Spain

Due to an excellent partner support, the tasks were carried out in spite of the fact that the partners did not financially support the campaign. In other words, the campaign was developed in a way as to allow the partners to contribute with their own work and/or other resources. In any case, the table attached to the present document illustrates the estimated costs of the project's different sections.

Organization	Activity	Estimated Market Cost
Province Government Printing Works	Printing of 22,000 pamphlets	6,000 €
Diario de Burgos	Distribution of 21,000 pamphlets	9,000 €
Agencia Provincial de la Energía de Burgos	Conference Organization (preparation of the material, travels, distribution of 1,000 pamphlets...)	3,000 €
City Counties and Associations	Conference Organization	----
TOTAL COSTS		18,000 €

Results

From the standpoint of the Provincial Energy Agency of Burgos, the campaign has been successful and very positive in general, with the following results:

- Distribution of 22,000 dissemination pamphlets with interesting energy advices among the general public within the province.
- Hundreds of people attended the nine conferences organized in different provincial municipalities.
- Roughly 200 questionnaires filled by the assistants. Through these questionnaires, the agency staff were able to assess that housewives are conscious of the importance of residential energy savings and that they indeed realise the advantages of the efficient use of electrical domestic appliances. However, a certain lack of awareness was observed in aspects such as; lighting or efficient heating systems.
- Collaboration of principal city councils and the provincial housewives and consumers associations helped a great deal to achieve an excellent campaign acceptance rate.

Lessons learned and repeatability

The success of this campaign was due to a good promotion (efficient use of energy at home has been promoted between the most important target groups). The main problem during the campaign had been the initial refusal on behalf of the collaborators due to the high campaign costs. However, this problem was solved putting together an excellent partner consortium. The latter supported the campaign and proved to be of an enormous assistance helping with its execution through the voluntary work and other types of assistance. Moreover, the Agency considers as very important the large rate of collaboration and the satisfaction on behalf of the provincial city councils and associations which have arranged to celebrate more campaigns of this type in future.

Finally, the Agency considers this project to be the one with a high repeatability rate easily replicated in other areas of the EU, especially so as the general public shown a great deal of interest in this field and the partners were readily available.

**Contact for more information:**

Organisation / Agency: Agencia Provincial de la Energía de Burgos (Agenbur)

Main contact: Mr. Ricardo Pizarro (Director)

Address: CEEI – Aeropuerto de Burgos, Spain

Tel: . 0034 947 040628

Fax: 0034 947 040631

E-mail: info@agenbur.com, rpizarro@agenbur.com

Web Site: www.agenbur.com

Printed reports or other literature available: **pamphlet** – 22 000 copies – “Saving energy in residential housing”