

# THE ENERGY+ PROCESS: A GOOD PRACTICE FOR ENERGY EFFICIENCY

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## ABSTRACT

Energy+ is a co-operative procurement process involving energy agencies from thirteen European countries that co-operate in order to increase the market for super-efficient domestic cold appliances. This co-operation includes discussions with manufacturers to encourage the production of advanced, high efficiency equipment and discussions with retailers and other institutions to encourage the stocking and sale of “Energy+ appliances”. The concept of co-operative procurement has developed through the EC-sponsored SAVE project Energy+ (started in 1998); it did not exist before. Ended on October 2004 the project stimulated the introduction on the European market of almost 900 models of energy efficient cold appliances from 21 manufacturers. These models meet the stringent efficiency criteria of the new A++ and A+ classes of the European Energy Label reaching very high energy efficiency levels: they save from 25% up to more than 64% of the energy consumed by equivalent basic class A models. Key ingredients for the success of the process are its simple specifications, random tests of registered products in order to verify data provided by manufacturers, periodic publication and update of the lists of Energy+ products and participants, dissemination and communication activities at EU level.

Energy+ is about co-operative procurement, with the energy agencies from thirteen European countries co-operating to increase the market for super-efficient domestic cold appliances. This co-operation involves discussions with manufacturers to encourage the production of advanced, high efficiency equipment and discussions with retailers and other institutions to encourage the stocking and sale – or bulk buy - of these “Energy+ appliances”.

Co-operative procurement is different from traditional procurement as there is:

- a minimal and very simple technical specification;
- no need to have capital to purchase the equipment;
- no need to assemble and retain a core group of buyers;
- a push both for higher market shares of high efficiency equipment and the development of more advanced products;
- a regular stimulation of competition on energy efficiency through the publication of lists of qualifying appliances ranked by energy performance;
- a European dimension with a centralised dialogue with manufacturers organised at European level, but activities implemented at national and local levels.

The concept of co-operative procurement has developed through the EC-sponsored SAVE project Energy+ (started in 1998); it did not exist before. Hence, this research initiative has introduced a new policy tool which can influence a market:

- co-operative procurement is about the promotion of the very best equipment that manufacturers actually bring to market;
- the on-going Energy+ communication activities enable manufacturers’ R&D departments to convince their

marketing departments to actually commercialise the very efficient models which were waiting in their laboratories<sup>1</sup>;

- Energy+ defines energy efficiency as a vital market attribute for manufacturers;
- Co-operative procurement involves marketing of the concept by the Energy+ team, rather than debating with potential customers and the development of a unified “demand pull”;
- each manufacturer can choose how to respond to the qualifying criteria, depending on the national preferences of the market it wishes to serve<sup>2</sup>;
- the Energy+ team has no control over levels of production or sales;
- co-operative procurement is an advantageous process for market transformation led by public authorities: no capital investment<sup>3</sup>, a process open to all market actors, but with strict specifications to select motivated manufacturers;
- the project has shown that, given inspired objectives defined in line with European Policy, market actors can in a very short time (less than 12 months) develop and introduce marketable, highly energy-efficient products.

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<sup>1</sup> This has been confirmed by several personal communications from manufacturers.

<sup>2</sup> Domestic cold appliances are standardised appliances, however lots of characteristics depend on national markets preferences: size, position of the freezer, shapes, design, etc.

<sup>3</sup> The budget is estimated at an average 26 000 Euro per year and per participating country.

## Energy+ process

### *On the market actors' side* (on the left in Figure 1)

- Manufacturers are contacted through their headquarters, by the Energy+ co-ordination team. This avoids the confusion that would be caused if the same manufacturer were contacted by several separate national representatives.
- Participating manufacturers declare in which countries they are prepared to offer the product for sale. Each individual product is submitted to the Energy+ co-ordination team which centralises and checks the data before publishing it.
- National Energy+ teams verify the presence of appliances in their country. Adjustments are made in the product list through a dialogue between manufacturers' European HQ, national branches, Energy+ central and national teams.
- Energy+ randomly tests registered products in order to confirm that they do conform to the specification and their product declaration.
- In each participating country, retail chains and other institutions are approached by the national Energy+ representatives, who disseminate information and provide overall support. Commitment to the project is indicated by a signed certificate. Participants are different kinds of retailers, supporters (environmental and consumer NGO, etc.) and institutional buyers that have a responsibility for purchasing significant numbers of appliances (tourism resorts, housing associations, municipalities, etc).
- No money is required by the Energy+ project from participants at any stage.

### *At an institutional level* (on the right in Figure 1)

- Consistency with European Policy is ensured as Energy+ is based on the European energy label, norms and test procedures, and the project was aimed to prepare the market for the introduction of a revised label.
- Energy+ serves as a reference for several national and local programmes because the Energy+ information is centralised and verified – which is not the case for the energy label: eg the Dutch rebate programme, operations organised by municipalities in Germany and in Switzerland.

### *Energy+ activities* (central part of Figure 1)

The role of the central team is crucial, as they carry out the co-ordination work with the manufacturers' headquarters and are responsible for the bi-annual Energy+ list and the on-line appliance database<sup>4</sup>. Much of the publicity material and the organisation of the competitions have been provided centrally. The national teams provide input for all these tasks, comment on the documents proposed by the co-ordination team, translate all the material (up to nine languages), organise dissemination in their own country, including supporting the participants. The Energy+ teams are effectively acting as a broker through providing information. Trade activities remain a part of the traditional, confidential negotiations between buyer and seller.

## Specifications and results

### *Energy+ specifications*

The specifications are deliberately simple so that manufacturers can choose the best technical and commercial solutions according to their position on the European market. Until the end of 2001, the project's first phase focused on the most sold appliance across Europe: fridge-freezers with a capacity of 200/300 litres. Then, the specifications were extended to cover all categories of cold appliances as defined in the Labeling Directive 94/2/EC. This had positive results and market operators developed a full range of Energy+ appliances. These must:

- Have an energy efficiency index equal to or below 42%<sup>5</sup> (in accordance with Directive 94/2/EC and the EN 153 test procedure). Given the models on the list in March 2004, Energy+ appliances are 25 to 64% more efficient than A-rated models.
- Have a maximum energy consumption of 280 kWh/year – to put a cap on the size of appliances being marketed under Energy+.
- Be available on the European market by the relevant official Energy+ list update publication deadline (twice a year).

### *Quantitative results*

The number of participants and models shown in the **Energy+ lists** has grown substantially (Table 1), particularly as a result of extending the categories covered. There is a continuing growth in the number of qualifying models.

**Table 1: Energy+ participants and models**

| Date     | Countries | Participating Manufacturer | Number of Models | Participants |
|----------|-----------|----------------------------|------------------|--------------|
| May 1999 | 10        | 0                          | 2*               | 0            |
| Feb 2000 | 10        | 1                          | 2+7**            | 90           |
| Jun 2001 | 10        | 2                          | 16               | 100          |
| Dec 2001 | 10        | 5                          | 23               | 100          |
| Mar 2002 | 12        | 8                          | 78               | 108          |
| Dec 2002 | 12        | 12                         | 188              | 109          |
| Mar 2003 | 13        | 13 (33 brands)             | 438              | 111          |
| Oct 2003 | 13        | 19 (39 brands)             | 597              | 118          |
| Mar 2004 | 13        | 21 (49 brands)             | 866              | 118***       |

Notes: \*on the market before Energy+ commenced; \*\*available by December 2000; \*\*\*representing 45 retailers (15 500 outlets), 17 institutions (1 million dwellings), and 49 supporters.

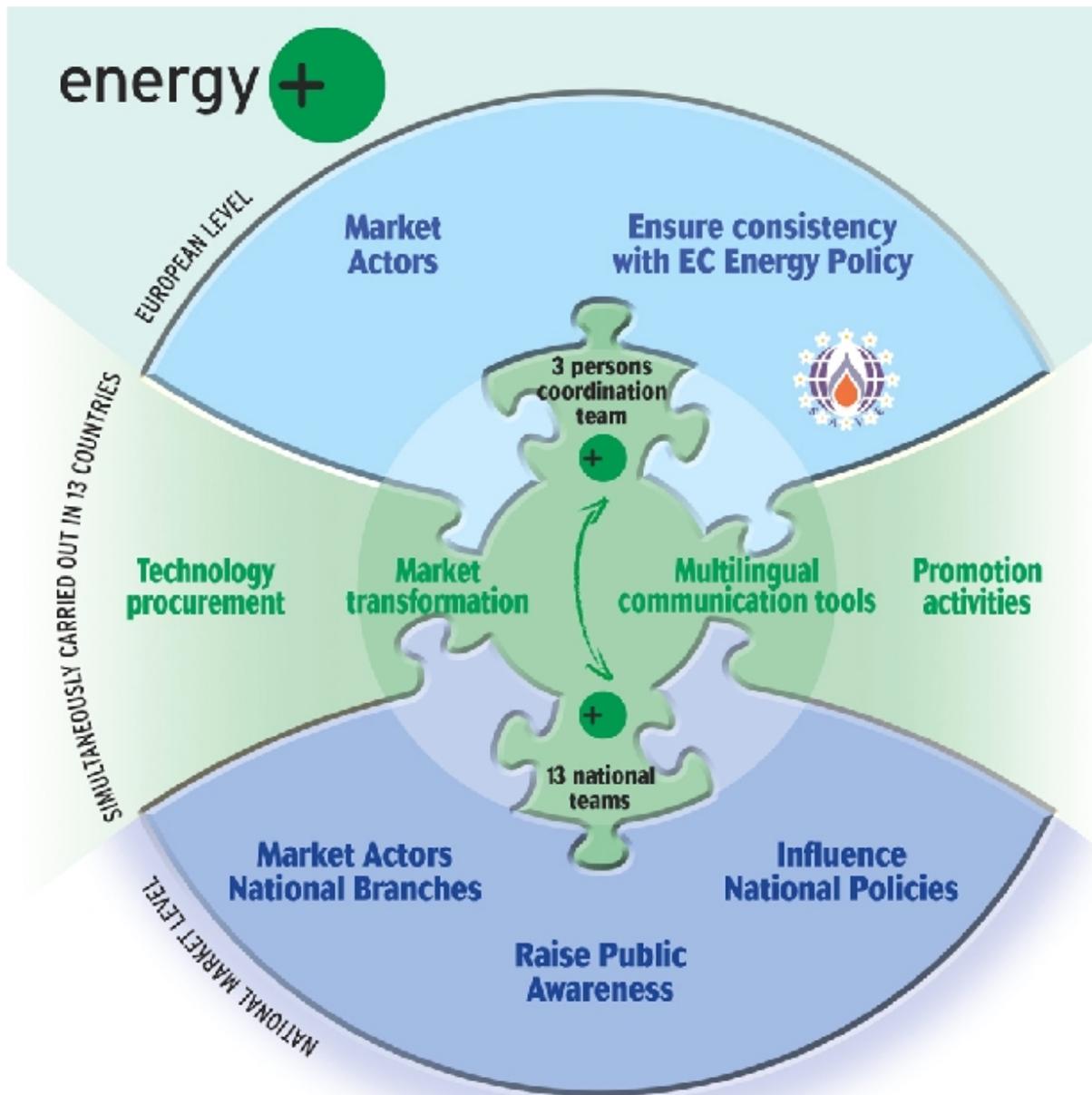
To stimulate R&D, Energy+ organises the **European Energy+ Award Competition** (presenting the most efficient appliances available on the European market – not prototypes). In 2001, the two most energy-efficient fridge-freezers ever proposed on the European market were rewarded from AB Electrolux and Whirlpool (EEI of 33% and 35% respectively). In 2004, Energy+ Awards were for five different categories of cold appliances and also to Energy+ participants for their most creative promotional campaign – the aim being to create synergies between the most active participants and manufacturers and thus raise market shares of super efficient products. AB Electrolux models were rewarded in four of the five categories considered (EEI of these models being within

<sup>5</sup> The EEI is used to define the EU energy label categories, with 55% the maximum for an A-rated product.

<sup>4</sup> Visit [www.energy-plus.org](http://www.energy-plus.org)

27% and 30%) and Arcelik received a special mention for presenting the “Most Efficient Energy+ Model” in the category of two door fridge-freezers (EEI of 19,8 %). Migrants

(a Swiss retail chain) and EWZ (utility for the city of Zurich) shared the award for Energy+ participants for “the most effective retailers campaign” and “the most comprehensive promotion campaign” respectively.



**Figure 1. The Energy+ approach: transforming the market thanks to pan-European procurement.**

Source: eceee 2003 Summer Study Poster, S. Attali & M.P. L’Hostis

**Energy+ qualitative outputs**

- Manufacturers are positive about this kind of voluntary, flexible, both European and local instrument. They have publicly stated that Energy+ helped them to get prepared for the introduction of new regulations on energy efficiency.
- Retailers are largely ignored by European and national policies whereas they are a key actor since they implement the regulation in their shops and influence the consumer at

the time of purchase. Energy+ provides them with regular support.

- The Energy+ list ranks products by energy efficiency index: this encourages the development of products far more efficient than the required level since this data is publicised (manufacturers compete every six months to be at the top of the list), thus avoiding the “threshold” difficulty encountered by the energy label<sup>6</sup>.

<sup>6</sup> Manufacturers target the category boundary level on the label - there is no incentive to go beyond. .

- Energy+ has succeeded in the market place because the listed appliances are now in all price ranges, from the very high range – linked to marketing and branding policies more than to energy performance – to cheaper retailer own brands. Time was needed, but this is a sign of market acceptance;
- Energy+ is not a label and its aim is to promote efficient appliances as a whole (not to become well known by the general public, means are not available for this). The diversity with which market operators reacted to the communication tools shows that they have taken over the Energy+ logo and/or the general discourse developed in the Bulletin, the web site, etc., and used them with their own signature. Within participating manufacturers and retailers, some of them publicise their appliances as Energy+ (Whirlpool included the logo on some of its appliances), some as A+, some use both Energy+ and A+ in their promotion material, some used the Energy+ discourse in their catalogues or their institutional communication brochures, etc. With the official introduction of A+ and A++ categories, the Energy+ logo fades away<sup>7</sup>, but the Energy+ concept of independent and verified information surely remains.
- Based on the European energy label, norms and test procedures, Energy+ facilitated the transition between old and new EU Energy Label setting one of the two new boundaries between A and A+ at the Energy+ complying value (EEI = 42%).

### **Energy+ approach in the future**

- This kind of approach identifies, highlights and helps in marketing the most efficient appliances available on the European market at any given moment (true both before and after the EU label revision process).
- It provides invaluable assistance to those market actors investing in energy efficiency by increasing the profile of participants, especially manufacturers achieving high product efficiency (generating publicity and thus incentive for manufacturers to comply with new stringent labeling requirements).
- It reduces costs and market prices through increased economies of scale.
- This approach is demanding, based on market operators and existing regulations, based on task and resource sharing in order to pull the market up.

We thus believe it is replicable under certain conditions, for instance where:

- the product is sold throughout Europe;
- a minimum regulation and testing procedures already exists;
- a thorough market study is undertaken before any public announcement, and
- the project is undertaken by motivated teams.

The policy may be implemented most easily with “plugged in appliances” (to avoid major local preferences) and markets without middle men, for instance, in the

commercial cold sector, an Energy+ scheme could focus on direct buyers, who may be more interested than retailers in energy efficiency.

Energy+ has demonstrated the real benefits that flow from facilitating the exchange of information between manufacturers and retailers. It has provided a strong market pull for energy efficient cold appliances, with the numbers of models growing significantly, over five years. The traditional market does not provide clear signals to manufacturers of the attributes valued by society and policy makers – Energy+ provides that direction.

### **Acknowledgements**

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<sup>7</sup> In early 2004 EU Energy Label set new boundaries: between A and A+ at 42 (the Energy+ complying criteria) and between A+ and A++ at 30.