

T@W Good Practice Form

Setting

Title: Plan for Promoting Electrical Energy Consumption Efficiency (PPEC)
Country: Portugal
Location:
Start date: 2007
End date:
Technology keyword(s): Other technologies
Host sector:

General description

Summary:

In the scope of the Kyoto Protocol and also regarding the European commitments, Portugal assumed to limit the growth of its greenhouse gases (GHG) emissions by 27%, in the period 2008-2012, taking into account the values of 1990.

In this context, the National Programme for Climate Change (PNAC), adopted by the Ministers Council Resolution No. 119/2004 of July 31, and more recently the PNAC 2006, approved by the Ministers Council Resolution No. 104/2006 of 23 August, quantifies the national effort of GHG emissions and integrates a wide range of policies and measures that covers all the activities sectors. In this scope, The Energy Services Regulatory Authority (ERSE) has the responsibility to define mechanisms that seek the promotion of the energy efficiency in the demand side.

The regulation and liberalization of the electricity and natural gas market increase the efficiency in the supply side. However, regarding the demand side, the growth of the efficiency was locked by some barriers, namely related with the participation of electricity utilities in activities of energy efficiency. One way to promote the electrical energy efficiency is the creation of tariffs that persuade the rational use of electrical energy and of its associated resources.

Keeping this in mind, ERSE established in the Tariff Regulation of the electric sector a competitive mechanism for the promotion of demand management actions called Plan for the Promotion of the Electrical Energy Consumption Efficiency (PPEC).

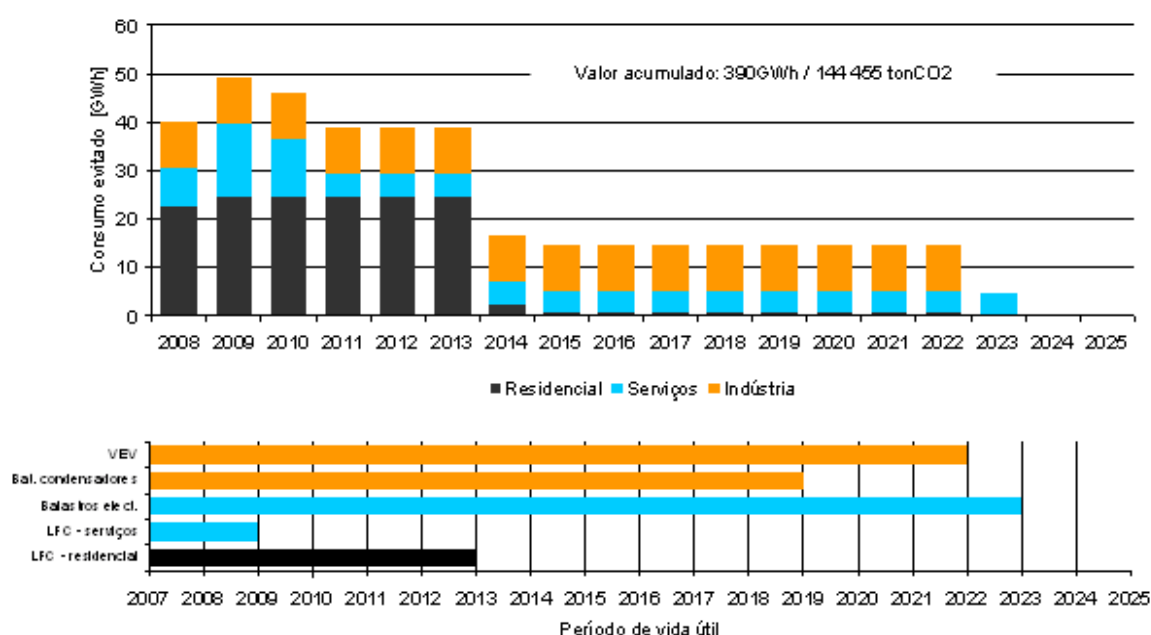
Aims:

The PPEC plan aims to promote measures that improve the electrical energy consumption efficiency. The actions will be implemented by suppliers, network operators and consumer associations, they are addressed to the consumers of different market sectors and result from proposed specific measures that are chosen by an evaluation process based in predefined criteria and budget established in the rules of the plan. ERSE is the entity responsible for this evaluation and selection of the measures.

Summary of Results:

The total implementation of the measures approved within the PPEC 2007 will have impact in the market of the energy efficiency equipment and services and also in the reduction of energy consumption.

The following pictures show the electricity consumption avoided, each year, due to the implementation of PPEC measures. After some years of application, the benefits of the short-term measures (such as efficient lights) will cease, leaving the others. In the residential sector, due to the type of measures approved (compact efficient lights), the savings are concentrated in a few years, while in services and industry sectors, the type of measures are more durable and the savings last more time.



The benefits from the PPEC measures implementation will last until 2023, resulting in an accumulated electrical energy saving of about 390 GWh, and consequently a reduction of 144 thousand tonCO2 emissions.

It is important to mention that the results showed regard only the implementation of the PPEC 2007 measures, so with future PPEC the energy savings will increase.

Energy data

Energy data:

With the implementation of all the measures it is possible to save about 390 GWh.

Energy saved/generated: 390 GWh (not mandatory)

Environmental data

Environmental data:

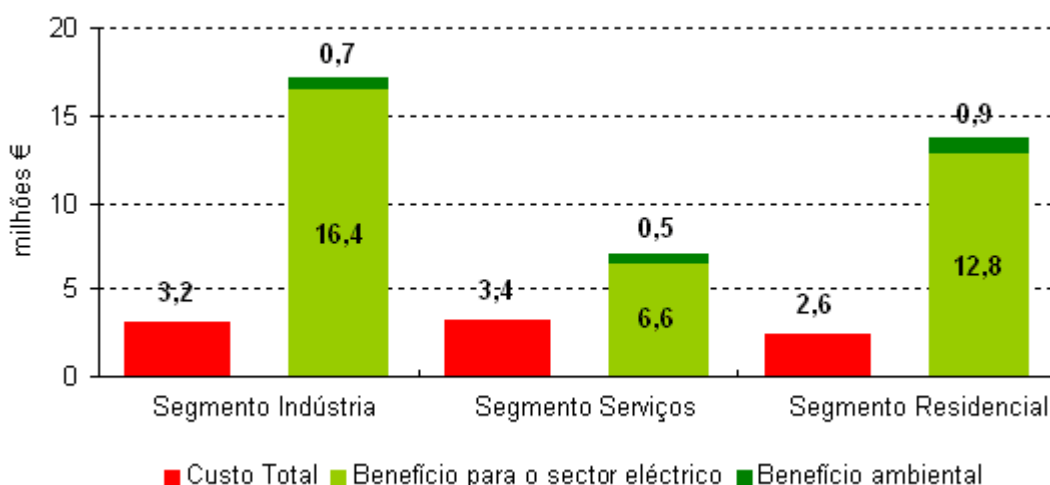
The implementation of these measures gives the country environmental benefits, due to the diminution of the greenhouse gases emissions that is a result of the improvement of the energy efficiency.

GHG-emission reductions: 144 thousand ton CO₂

Economic data:

Economic data:

The following figure shows the total costs to implement all the approved measures, and the corresponding environmental benefits and also the benefits for the electrical sector.



The implementation of the measures presents a unitary avoided cost of around 0.0212 €/kWh. It is important to mention that this value is lower than the difference between the costs related with the electricity produced by renewable energy and the costs of the conventional electricity production (around 0.0294 €/kWh).

Contact information:

Technology keyword(s) specific to this organisation: Chemical

Organisation / Agency: ERSE

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