

<b>Title of the measure:</b>	POR 8 – Energy Efficiency Fund (EEF)
------------------------------	--------------------------------------

### **General description**

In 2010 was published the Decree-Law n. 50/2010 of May 20th, concerning to Energy Efficiency Fund (EEF), that constitutes a financial instrument capable of financing the programs and measures provided in the National Energy Efficiency Action Plan (NEEAP) in all its lines of action, which comprises a wide range of programmes and measures that are fundamental for Portugal to achieve the goals set out in the European Directive n.º 2006/32/CE of April 5th, related to efficient energy end-use and energy services.

The activity of the EEF is still in line with the economic, social and territorial development policy to be promoted between 2014 and 2020 called "Portugal 2020", with the support of the European Structural Funds and Investment and in accordance with the established national targets in order to improve the country's energy efficiency through a 25% reduction in energy consumption by 2020, with the state as an example with a specific objective of reducing energy consumption by 30%.

EEF may also support projects not foreseen in the NEEAP but which are shown to contribute to energy efficiency. In this context, the EEF also aims to boost operations that will serve as the basis to the definition of larger scale projects financed under Portugal 2020, and which also aim to implement the measures of the NEEAP 2016, in complementarity with the objectives of this Fund.

This Fund permits to give incentives for purchase of equipment with better energy performance, such as green heat, solar thermal as well as the implementation of efficient windows or thermal insulation. In addition, it could support projects of energy efficiency in the sectors of agriculture or manufacturing industry that aim to reduce the final energy consumption. Besides that, it may also be used to promote campaigns and events related to behaviour changes to reduce energy consumption profiles.

EEF aims to finance programs and measures provided in NEEAP, mainly in the following action lines:

- i) Support projects of predominantly technological nature in the areas of transport, residential, non-residential, industry and public sector;
- ii) Support actions of a transversal nature that promote energy efficiency in the areas of behaviour, taxation, incentives, and financing;

Later, is was published the Ordinance n. 26/2011, of January 10<sup>th</sup>, whose objective was to establish the financial support scheme for eligible EEF's project aiming at implementation of programs and measures under NEEAP purpose.

Thus, in compliance with the Management Regulations, approved by Ordinance n. 26/2011, several specific Notices are issued annually within the scope of the EEF, where all natural or legal persons of the public sector, cooperative or private, whether or not for profit, that fulfil the conditions expressed in the EEF Management Regulations and defined as eligible under its specific Notices can applied to.

Till now 21 Calls were promoted under EEF, which 12 of them are already closed, 6 are under implementation status, 2 are in formalization contracts phase and the remaining 1 Call is in candidature phase.

Following are the Notices resumes launched under EEF:

Call 01 – “Efficiency Building 2012” aiming to support the installation of solar thermal systems or new glazing, by replacing single glazing with double glazing (frame + glass) with high energy efficiency. This Call is directed to residential multi-family buildings, and it is already closed.



Call 02 – “SGCIE 2012” to support the operators with Energy Consumption Rationalization Agreements in the framework of the SGCIE - Energy Consumption Management Systems and specifically with regard to:

Category 1 - Reimbursement of 50% of the cost of mandatory energy audits for operators with annual energy consumption lesser than 1000 toe/year;

Category 2 - Reimbursement of 25% of investments made in equipment and management and monitoring systems of energy consumption.

This Call is directed to industry sector and is already closed.

Call 03 – “Efficiency Building 2012” aiming to support the implementation of solutions in the areas of solar thermal energy and passive envelop, assuming two options of typology:

(i) Installation of solar thermal systems, for the production of domestic hot water;

(ii) Installation of efficient windows by replacing windows with single glazing.

The beneficiaries acceded to the incentive by submitting an application to this notice by a promoter, as Energy Services Entity (ESE), Suppliers of solar thermal systems and Suppliers of efficient windows. This Call is directed to existing residential buildings and it already is closed.

Call 04 – “SGCIE II in 2012” to support the operators with Energy Consumption Rationalization Agreements in the framework of the SGCIE - Energy Consumption Management Systems and specifically with regard to:

Category 1 - Reimbursement of 50% of the cost of mandatory energy audits for operators with annual energy consumption lesser than 1000 toe/year;

Category 2 - Reimbursement of 25% of investments made in equipment and management and monitoring systems of energy consumption.

This Call is directed to industry sector and already is closed.

Call 5 – “Energy Certification Buildings, State 2012” supports investments that aimed the accomplishment of the previous studies, the technical analysis and the creation of tools and analysis methodologies leading to the Buildings Energy Certification and Quality of Indoor Air and systems that are part of the ECO.AP Program, or in the case of this not be mandatory, supports audits that enable the identification of baselines of energy consumptions to be used in the ECO.AP Program.

This Call is directed to State buildings and it already is closed.

Call 6 – “Inflate tires with nitrogen 2014” aims to support investments in inflate tires with nitrogen.

This Call is directed to all road and passenger transport operators and is already closed.

Call 7 – “Promoting the Sustainable Urban Mobility 2014” to support investments of (i) Plans of Mobility and Transport (PMT) and (ii) Plans of Mobility of Enterprises and Generator Poles and Travel Attractors (PMEP). This Notice is directed to

(i) Municipalities and intermunicipal communities for investments of PMT

(ii) Enterprises and Employers and Managers Entities of poles and equipment.

This Call is under implementation status.

Call 08 – “SGCIE – Incentive to promoting the Energy Efficiency 2014” to support projects that lead to the direct implementation of the measures defined in the NEEAP programs and specifically to operators with Energy Consumption Rationalization Agreements established with the DGEG under the SGCIE - Energy Consumption Management System (specifically with regard to Application of Article 12. Of Decree-Law no. 71/2008, of April 15).



The incentive to grant, within the scope of the transversal measures of the industrial sector, included in the NEEAP programs, concerns to the following Category 1 - Reimbursement of 50% of investments made in thermal insulation (excluding thermal insulation in building envelop).

The incentives to be granted, referred to in article 12 of Decree-Law no. 71/2008, concern to the following Categories:

Category 2 - Reimbursement of 50% of the cost of mandatory energy audits for operators with annual energy consumption of less than 1000 toe / year (according to the registration submitted and validated in the SGCIE portal);

Category 3 - Reimbursement of 25% of investments made in equipment and management and monitoring systems of energy consumption.

This Call is directed to industry sector and is already closed.

Call 09 – “Energy Audit Elevators Services Buildings in 2015” for the promotion of energy audits to elevators in office buildings for maintenance companies recognized by the Directorate General for Energy and Geology which result in the issuance of the elevator energy label, the promotion of improvement measures in these equipment’s in order to improve their performance.

This Call is directed to non-residential buildings and is already closed.

Call 10 - " Efficient Building 2015" to support the implementation of total or partial insulation (in the case of roof) of opaque envelope in residential buildings built before 1990 (single-family or multi-family) as a way to promote energy rehabilitation of the building stock and the implementation of energy certificates measures.

This Call is directed to residential buildings and it is under implementation status.

Call 11 - "Hospitality - incentive to the promotion of Energy Efficiency 2015", destined to support the installation of Centralized Technical Management Systems (SGTC – Portuguese acronym) or optimization / improvement of existing systems in existing buildings of the hotels subsector.

This Call is directed to non-residential buildings and is already closed.

Call 12 – “Requalification of Solar Thermal Systems 2015,” intended to provide support to audits and requalification interventions of solar thermal systems in the solar park of service buildings owned by Private Institutions of Social Solidarity (IPSS) and Utility Sports Public Associations (ADUP).

This Call is directed to non-residential buildings and it is under implementation status.

Call 13 - "SGCIE – Incentive to promote of Energy Efficiency II in 2015" destined for enterprises of the industry and agriculture sectors, which aims to provide support to the implementation of energy efficiency projects that contemplate the implementation of "horizontal measures" identified in NEEAP 2016, the installation of equipment and management system and monitoring of energy consumption as well as conducting energy audits.

This Call is directed to industry sector and is already closed.

Call 15 - "RGCE Transport 2015" will be released which supports the development of energy audits and energy rationalization plans in companies with fleets consumption greater than 250 toe/year.

This Call is directed to the transport sector and is already closed.

Call 18 - "Reduction of Reactive Energy Consumption in the State sector in 2015," intended to provide support to public authorities (central and local) in the installation of reactive power compensation systems (capacitor banks).

This Call is directed to State buildings and it is under implementation status.



Call 19 – “Energy Efficiency in Industry” aims to support the development of projects and initiatives that promote the energy efficiency, financing candidatures in the area of industry and inserted in NEEAP measures, Cross Measures or Specific Measures, that provides support for projects that lead to increase energy efficiency through energy optimization of manufacturing processes and the introduction of new technologies.

This Call is directed to Industry sector and it is under implementation status .

Call 20 – “Efficient Buildings” aims to optimize the conditions of energy consumption use in the buildings sector (exception made to all entities that are part of the Public Administration) inserted in NEEAP Programs in terms of solar thermal water heating (DWH), installation of efficient windows, requalification of opaque envelop thermal insulation and efficient lighting.

This Call is directed to Buildings sector and it is under candidature phase.

Call 21 – “Efficient Public Administration” aims to reduce energy consumption, contributing to the reduction of public expenditure and also to contribute to the promotion of rational use of energy in line with the targets defined in the National Energy Efficiency Action Plan (NEEAP), which ambitions to achieve a level of energy efficiency of 30%, in the organisms and services of the Public Administration, until 2020.

This Call is directed to State Buildings and it is under candidature phase.

Call 22 – “Energetic Efficient in Industry and Agriculture 2016” aims to reduce energy consumption by improvement and increasing of the competitiveness of these sectors.

This is the case of investments that aimed to improve the energy performance of the facilities, by replacing existing equipment with more efficient ones, by implementing control and performance devices to optimize the conditions of use and energy consumption, and / or by recasting and integration of processes, which together have a simple payback period of less than 7 years.

This Call is directed to Industry and Agriculture sector and it is under candidature phase.

Call 23 – “Energetic Efficient in Transports Infrastructure 2017” aims to reduce energy consumption in this sector.

This is the case of investments that aimed to promote the energy promote the improvement of the energy performance of transport infrastructures, by replacing existing equipment with more efficient ones, by implementing control and performance devices to optimize the conditions of use and consumption of energy, which together show a period of single return less than 6 years.

This Call is directed to managing bodies of transport infrastructure, the road, rail, sea-port, air and airport sectors.

Call 25 – “Energy Efficiency in Buildings” aims to optimize the conditions of use and energy consumption in the buildings sector.

In this context, measures that lead to better energy performance of existing buildings that could contribute to the goals of the NEEAP program or to national goals of energy efficiency under the Energy Efficiency Directive are eligible for funding, with exception made to all entities that are part of the Public Administration,

The measures envisaged under this call respect to solar thermal water heating (DWH), DWH efficient equipment’s, installation of efficient windows, requalification of the envelop thermal insulation and efficient lighting

This call is directed to buildings sector and it is under candidature phase.

## ***Impact evaluation***

### Methods

The management of the EFF, in its technical area, is the responsibility of the executive body of the NEEAP management structure.



Results

Following is the available results coming from the above mentioned Calls.

Call	Sector	N° applications received	N° beneficiary applications	Total Eligible Investment	Total EEf funding	Primary energy savings (toe / year)	Notice Status
Call 02	Industry	60	48	1,053,110.70 €	226,027.40 €	2,312	Implemented
Call 03	Residential	1,459	1146	3,841,536.47 €	1,704,366.43 €	296	Implemented
Call 04	Industry	55	25	660,251.82 €	159,680.13 €	570	Implemented
Call 05	State	43	10	239,076.20 €	239,076.20 €	-	Implemented
Call 06	Transports	3	3	35,044.00 €	17,522.00 €	339	Implemented
Call 07	Transports	10	9	1,350,489.57 €	235,797.43 €	-	In implementation
Call 08	Industry	53	43	637,036.16 €	151,761.83 €	1,937	Implemented
Call 09	Services	116	94 <sup>(a)</sup>	114,742.40 €	52,770.00 € <sup>(b)</sup>	-	Implemented
Call 10	Residential	211	196	1,013,337.30 €	384,009.20 €	-	In implementation
Call 11	Hotels	5	5	280,500.00 €	76,925.00 €	317	Implemented
Call 12	Services	4	4	15,837.00 €	7,918.50 €	9.4	Implemented
Call 13	Industry	14	14	824,105.04 €	208,971.44 €	515*	Implemented
Call 15	Transports	9	8	40,656.20 €	20,328.10 €	-	Implemented
Call 18	State	332	245	596,718.69 €	594,322.03 €	-	In implementation
Call 19	Industry	148	97	5,674,702.82 €	1,578,547.05 €	5,594*	In implementation
Call 20	Buildings	2,730	753	3,158,108.39 €	1,300,000.00 €	302.63*	Formalization contracts phase
Call 21	State	619	196	3,741,740.55 €	3,244,922.27 €	-	In implementation
Call 22	Industry and Agriculture	332	156	5,025,270.57 €	1,350,000.00 €	5,632	In implementation
Call 23	Transports	31	31	2,074,153.60 €	535,711.54 €	1,131	Formalization contracts phase
Call 25	Buildings	-	-	-	-	-	Open Call

\* Estimated amounts based on applications

(a) From 116 beneficiary applications, 22 gave up

(b) The EEf funding for the 116 were of 86,056. 80 €. This amount decreased to 52,770.00 € as a result of the withdrawal of the 22 beneficiaries

***Interaction of measures***

Interaction with:

- (i) General Cross-Cutting measures, namely: POR 7 - National Action Plan for Energy Efficiency (NEEAP) for 2013-2016; POR 9 - Energy Efficiency in Public Administration; POR 12 – Portugal 2020 and POR 13 - Energy Efficiency Directive (EED)
- (ii) Industry measure: POR 4 - Intensive Energy Consumption Management System (SGCIE)
- (iii) Residential measures: POR 21 - Energy Labelling Buildings (2013) and POR 22 - Building code REH 2013
- (iv) Tertiary measures, namely: POR 15 - Energy Labelling Buildings (2013) and POR 16 – Building code RECS 2013
- (v) Transport measures, namely: POR 27 - Support to the installation of equipment to inflate tires with nitrogen and POR 28 - Sustainable mobility promotion and good practices adoption

***Means and outputs***Means

No information available.

Outputs

Agência para a Energia

There were 6,256 applications received and 3,083 beneficiaries/participants since the beginning of the EEF, with a total of 12,1M€ of EEF funding. All the energy efficiency actions implemented or still in implementation has a saving potential of 18,955 toe/year, in terms of primary energy.

### ***Data about energy savings***

The energy savings up to now in EEF are, in terms of primary energy and for all types of actions, 10,928 toe/year in the industry sector, 296 toe/year for residential, and 339 toe/year in transports. Globally, the saving potential is 18,955 toe/year.

### ***Sources of uncertainties about energy savings***

The uncertainty of data collection of EEF is related to possible differences between the monitorization of the real measure of the savings, *in loco*, and the verification of the results. These two actions are done separately and by different actors.

### ***Evaluation of the energy savings***

The typology of the calculation method used are numbers: 1, 2, 3, 4 and 5 of the quantitative impact evaluation table: direct measurement of unitary energy savings; unitary energy savings are established on the basis of billing analysis; deemed estimate of unitary energy savings; mixed deemed and ex-post estimate; and detailed engineering estimates.

The typology of the baseline used in the evaluation method is the “before” energy consumption.

The typology of adjustments, correction and other factors is not available.

### ***Other indicators monitored and/or evaluated***

An indicator that is not yet available but which is expected to be estimated in the future is the money saved by energy consumed - €/kW.

### ***Historical data***

The Decree-law n. 50/2010 of May 20<sup>th</sup> has created the Energy Efficiency Fund provided for in the National Action Plan for Energy Efficiency and the Ordinance n. 26/2011, of January 10<sup>th</sup>, came to approve the Regulation of Management of the Energy Efficiency Fund.

### ***References***

- Decree-law n. 50/2010 of May 20<sup>th</sup>:  
<https://dre.pt/web/guest/pesquisa/-/search/614844/details/normal?q=Decreto-Lei+n.+50%2F2010>  
<https://dre.pt/application/file/a/614762>
- Ordinance n. 26/2011, of January 10<sup>th</sup>:  
<https://dre.pt/web/guest/pesquisa/-/search/485630/details/normal?q=Portaria+n.+26%2F2011>  
<https://dre.pt/application/file/a/485568>
- Others: <http://www.pnaee.pt/avisos-fee>

