

<b>Title of Measure</b>	<b>SPA38 “IDAE’s Financing Lines for Thermal Renewable Energies in Buildings: BIOMCASA-SOLCASA-GEOTCASA”</b>
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### General Description

BIOMCASA, SOLCASA & GEOTCASA Programmes, for the enhancement of renewable energies such as biomass, solar and geothermal energy are meant to boost the arrangement of a quality offer, adapted to the needs of potential users, originally in full from the energy exploitation of biomass, solar-thermal and geothermal energy as renewable energy sources in buildings:

- In Installations adapted to the user’s specific needs.
- Offering the customer comprehensive energy services (through ESCOs)
- Guaranteeing the performance of the applicable regulation.
- Maximizing energy efficiency.
- Guaranteeing energy source supply (biomass, solar, geothermal).

This activity will be developed by means of the promotion and financial support on the part of IDAE to projects carried out by biomass, solar thermal and geothermal energy in the household and buildings sectors. This is in line with the measures to reduce energy consumption in Spain, as introduced by the Ministry of Industry, Tourism and Trade within the new Energy Saving and Efficiency Action Plan 2008-2012, on actions to activate energy saving and efficiency to reinforce the measures already taken.



The **Instrument** for the Comprehensive Energy Service to the Customer is the **Energy Service Company**, a firm with suitable capacity, structure and means, acting upon the energy exploitation sector of biomass, solar thermal or geothermal energy, to provide the following services:

- Simulation, TRT tests and/or previous geothermal prospecting (GEOTCASA)
- Basic design and in detail of installations
- Supply, assembly and implementation of “turn key” installations
- Operation and maintenance
- Biomass supply (BIOMCASA)
- Billing of the services according to the energy used by the customer

Pursuant to the above, the said Programmes enhance the firms in the sector - performing as Energy Service Companies, ESCOs - to execute a comprehensive service contract with the user to provide energy adapted to their needs, once having been authorised by IDAE, and having had access to a specific funding line for projects based on the use of the named renewable energy sources..

With a view to this, the Resolutions of the Institute for the Diversification and Saving of Energy establishing the **call and the bases** relating to the authorisation of collaborative firms

in BIOMCASA, (BOE (*Spanish Official Gazette*), No. 68, of 20<sup>th</sup> March 2009), SOLCASA (BOE No. 122, of 13<sup>th</sup> May 2010) and GEOTCASA (BOE No. 122, of 13<sup>th</sup> May 2010) Programmes were published, within the **Spanish Renewable Energy Plan 2005-2010** framework.

Installations are to be made in **buildings** running on biomass, solar thermal energy or geothermal energy for thermal use and/or air conditioning for any kind of **non-industrial use**.

These programmes spin round **three axes**: a quality control of the installations and firms; the funding of installations; and the spreading/promotion of the very Programme.

### **1. Quality control mechanisms.**

The development of these actions is based on the conditions to be demanded to the sector's firms so as to obtain the authorisation for the programme. This quality control will take place in three phases:

#### ***Phase 1: Initial process to authorise a firm into the Programme.***

A firm in the sector of biomass, thermal, geothermal or solar energy may be accredited into this programme if it complies with a series of requirements aimed at guaranteeing that the authorised firms should have:

- Enough means, as well as technical and economic solvency.
- Capacity to build up installations in accordance with the material and human means available.
- Ways of ensuring energy or fuel supply thanks to one's own means or through agreements with suppliers.
- Justified, provable reliability in the technology applied, as regards the fuel to use, on the basis of its performance, emissions and user's assistance.
- Suitable patterns and ways of action as an energy service company, to facilitate the development of projects vis-à-vis users.

The authorisation of collaborative firms within the Programme is to be carried out in compliance with the procedure and the bidding documents, as established by IDAE for this purpose.

#### ***Phase 2: Capacity to build up installations***

The installations built up by the authorised firms have to meet the requirements established in the RITE (*Regulations of Thermal Installations in Buildings*) - and in IDAE's technical guidebook - as regards biomass, thermal, geothermal and solar thermal energy installations, as well as any other national, regional or local regulation to be applied to them.

IDAE, or those on which it may delegate upon, will be able to check the correct structure of the installations.

IDAE will have access to the telemonitoring system, to be incorporated in all the installations, to record the most relevant operation parameters that will enable to assess the performance for the said values on an hourly, daily, monthly and annual basis.

The authorised firm will provide the said access from IDAE's headquarters whenever necessary. The authorised firm will draft an annual report for IDAE, itemising for each financed installation, the consumption of renewable energy (biomass, geothermal or solar

thermal energy) per kind and amount of energy supplied, and the billing involved. Once the installations have been made, they are to be registered by the installer in the corresponding department of the Autonomous Community, and the installer shall present IDAE with a copy justifying that the installation has been duly registered.

IDAE will also be provided with a copy of the contracts the accredited firms will execute with their customers.

### ***Phase 3: The exploitation of installations.***

During their exploitation, any of the installations may be revised by IDAE's technicians or by those it chooses to delegate upon. IDAE will exploit the telemonitoring system as it should deem it wise.

The authorised firm must immediately let know IDAE, the moment it becomes identified, about any breakdown involving service interruption. It shall also notify the re-commissioning, stating in detail the reasons and the actions carried out.

## **2. Spreading mechanisms.**

The boost to development sought by these actions rests on providing the maximum possible information to installers and consumer motivators, in a way that they may know and value positively the change of conventional installations for others running on thermal biomass, geothermal energy or solar thermal energy, taking advantage of the Programme's mechanisms.

An image of its own will be created for the programme, which may be used by the authorised bodies. The spreading of information will be carried out by IDAE through the following means: specific spreading campaigns to strategic groups; information on IDAE's website; updated list of authorised firms.

## **3. Financing mechanisms.**

To finance the submitted projects on the part of authorised companies, IDAE has devised a specific budget for each programme.

### **BIOMCASA Programme:**

The budget to finance the projects that meet the BIOMCASA Programme requirements amounts to M€5. The typology of the projects envisaged within the programme is as follows:

- T1: SHW and/or heating Installations  $\leq$  50 kW in a building.
- T2: SHW and/or heating Installations  $>$  50 kW in a building.
- T3: SHW and/or heating Installations and cooling  $\leq$  50 kW in a building.
- T4: SHW and/or heating Installations and cooling  $>$  50 kW in a building.
- T5: SHW and/or heating Installations  $>$  50 kW in two or more buildings.
- T6: SHW and/or heating Installations and cooling  $>$  50 kW in two or more buildings.

The projects for the typologies referred to can resort to IDAE's specific financing, with a maximum financing limit per project (€ per kW of installed capacity) according to the typology of the project, in accordance with the following table:

Kind of project	Limit in €/kW
T1	600
T2	400
T3	800
T4	700
T5	500
T6	800

Biomass installations deemed to be financeable are those with a high technological level, with an absolute financial limit per individual Project of €350,000 over a 10 year term and one year's waiting period. The maximum accumulated financing limit per authorised company is M€1.

#### GEOTCASA Programme:

The budget to finance the projects that meet the GEOTCASA Programme requirements amounts to M€3. The typology of the projects envisaged within the programme is as follows:

G1: SHW and/or heating/cooling Installations in open circuit, in a building.

G2: SHW and/or heating/cooling Installations in closed circuit with a buried horizontal exchanger, in a building.

G3: SHW and/or heating & cooling Installations in closed circuit with a vertical exchanger, with prospecting, in a building.

G4: SHW and/or heating/cooling Installations with direct geothermal energy use in a building.

GR1: Central heating, heat generation installations.

GR2: Central heating and cooling, distribution and user-exchange generation installations.

GR3: Central heating generation installations, distribution, and exchange & cool decentralised production installations to users.

The projects for the typologies referred to can resort to IDAE's financing, with a maximum financing limit according to the typology of the project:

Kind of project	Limit in €/kW
G1	500
G2	1,100
G3	1,400
G4	2,000
GR1	1,500
GR2	2,000
GR3	2,200

The absolute financing limit per individual project amounts to €200,000 and the maximum accumulated financing limit per authorised company is M€1. The repayment period is up to 10 years.

#### SOLCASA Programme:

The budget to finance the projects that meet the SOLCASA Programme requirements amounts to M€5. The typology of the projects envisaged within the programme is as follows:

S1: Solar installations to produce SHW and/or indoor swimming pool heating.

S2: Solar installations for heating purposes and optionally, with the applications stated in typology S1.

S3: Solar installations for heating and cooling purposes and optionally, with the applications stated in typology S1.

The projects for the typologies referred to can resort to IDAE's specific financing, with a maximum financing limit according to the typology of the project:

Kind of project	Limit in €/kW
S1	1,000
S2	1,500
S3	1,850

The maximum and minimum financing limits per individual project amount to €20,000 and €100,000. The maximum accumulated financing limit per authorised company is M€1. The repayment period is up to 10 years.

### Impacts Assessment (methods and results)

The implementation of the aforementioned Programmes could suppose a substitution of primary energy of 3.5 ktoe, which implies a favourable impact due to the novelty nature of these Programs.

Measure Impact level			
low	X	medium	high

### Interaction of Measures

- Revised Regulation of Thermal Installations in Buildings (RITE) (SPA37)
- Activation Plan in the State's General Administration Buildings through ESCOS (Plan 330 ESE) (SPA45- Tertiary sector)
- Plan to Boost Energy Services Contracts (*Plan 2000 ESE*) (SPA46- Tertiary sector)

### Historical data

### References

- Resolution of 13<sup>th</sup> May 2010, of the Institute for the Diversification and Saving of Energy, establishing the call and the corresponding bases for authorising collaborative firms into Programme GEOCASA, with the firms in the geothermal energy sector operating in buildings. BOE No. 122, of 19<sup>th</sup> May 2010.
- Resolution of 13<sup>th</sup> May 2010, of the Institute for the Diversification and Saving of Energy,, establishing the call and the corresponding bases for authorising collaborative firms into Programme SOLCASA, with the firms in the solar thermal energy sector operating in buildings. BOE No. 122, of 19<sup>th</sup> May 2010.
- Resolution of 13<sup>th</sup> March 2009, of the Presidency of the Institute for the Diversification and Saving of Energy, establishing the call and the corresponding bases for authorising collaborative firms, within the Voluntary Agreement Programme with the firms in the thermal biomass sector operating in buildings. BOE (*Spanish Official Gazette*) No. 68, of 20<sup>th</sup> March 2009.
- Action Plan 2008-2012. Ministry of Industry, Tourism and Trade- IDAE. (July, 2007).

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- Regulations on Building Heating Installations. Ministry of Industry, Tourism and Trade. July, 2007. Royal Decree 1027/2007, dated on 20<sup>th</sup> July 2007.
- Royal Decree 315/2006, dated on 17<sup>th</sup> March 2006, creating the Council for Building Sustainability, Innovation and Quality.
- Technical Building Code. Ministry of Housing. Royal Decree 314/2006, dated on 17<sup>th</sup> March 2006.
- Plan for Renewable Energies, 2005-2010. Ministry of Industry, Tourism and Trade-IDAE. (August, 2005).
- [www.idae.es](http://www.idae.es)
- [www.boe.es](http://www.boe.es)