

<b>Region / country</b>	Europe / Portugal
<b>Leading actor(s)</b>	<b>Government of Portugal</b>
<b>Participating actor(s)</b>	None

With the aim to promote economic development, reduce external dependence, fight climate change and sponsoring research and development in state-of-the-art technologies, the Government reviewed in the beginning of 2007 goals upwards, in particular:

- Increase the goal set for 2010 for power generation based on renewable energies from 39% to 45% of total electricity consumption, strongly investing in all types of renewable sources;
- Increase biofuels penetration goal from 5.75% to 10% of total fuels consumption in transport in 2010;
- Replace 5% to 10% of coal used in Sines and Pego power stations with biomass or waste until 2010;
- Implement energy efficiency measures equivalent to 9% of energy consumption until 2015 (Directive Energy end-use Efficiency and Energy Services).

In order to achieve these goals, the Government approved a wide range of measures covering critical areas:

**Energy efficiency:** approved legislation and launch programs to improve energy efficiency in buildings (energy certification), regulations for solar energy systems in buildings (with new construction regulations, installing solar panels in new buildings is now mandatory – 150 000 m<sup>2</sup>/year); the introduction of carbon taxes on less efficient light bulbs, and tax disincentives to the use of heating gas-oil, and automobile tax based on CO<sub>2</sub> (10% of the automobile tax depends now on the emission of greenhouse effect gases); voluntary agreements in industry and measures in the transport area. It is also preparing an ambitious Energy Efficiency Action Plan to implement reduction measures equivalent to 9 % of total energy consumption until 2015.

**Renewable energies:** Portugal has one of the most ambitious goals in terms of renewable energies (45% of total electricity production by 2010). To meet this commitment, the Government make diversified investments in wind, hydropower and solar energies, biomass and biofuels. The priorities are:

**Wind power:** Increase by **1950 MW** the installed capacity goal for 2012 (reaching a new total of **5100 MW** with an increase of 600 MW via equipment upgrade) and promote the creation of new technological and investment clusters linked to wind power;

**Hydropower:** Anticipate upgrading capacity investments for existing hydropower plants, in order to reach the **5575 MW** goal of

installed hydropower capacity by 2010 (575 MW more than expected by previous energy policies); Other planned investments will enable Portugal to exceed **7000 MW** of installed hydropower capacity by 2020, increasing explored potential from current 46% to 70%.

**Biomass:** Increase by **100 MW** the installed capacity goal for 2010 (67% increase), promoting a tight coordination across regional forest resources, and fire risk mitigation policies;

**Solar energy:** Ensure effective attainment of goals (construction of the world's largest photovoltaic plant – Moura plant and ensure link to micro-generation policies and solar energy systems in building (in a total of **150 MW**);

**Waves:** Increase installed capacity by **200 MW** through the creation of a Pilot Area with a total exploration potential of up to 250 MW for new emerging industrial and pre-commercial technological development prototypes;

**Biofuels:** Define a goal of **10%** penetration in road transport on biofuels (attaining European Union goal 10 years earlier than required) and promote supporting domestic agriculture initiatives through tax exemptions for road transport means using biofuels.

**Biogas:** Define goals and action plan for a previously uncovered area, establishing a goal of **100 MW** of installed capacity for waste anaerobic treatment units;

**Micro-generation:** Promote program for installing **50 000** systems until 2010, with incentives to the installation of water heating systems based on solar energy in existing houses.

**Thermoelectric power:** grant operational conditions to new gas plants (4 plants with a total installed power of 3200 MW) and future clean coal plants (800 MW);

The creation of more competitive energy markets, the gas market has been liberalized before schedule, the State has a very limited presence in the industry as a shareholder, and the gas and electricity transportation assets have been unbundled

According to the Kyoto Protocol, Portugal's emissions growth vis-à-vis 1990 values should not exceed 27%. However, since 1990, Portugal has strayed from Kyoto goals, mostly because of the growth experienced by transport and household/services sectors;

In order to comply with Kyoto goals, the Portuguese Cabinet approved a strategy including the full implementation of the National Plan for Climate Change (PNAC) 2006, a set of additional measures, and the creation of the Portuguese Carbon Fund (24 March 2006).

**Contact person**

Ministry of Economy and Innovation, Av. 5 de Outubro n° 87,  
1039-069 Lisboa, Portugal

**Eng<sup>a</sup> Luísa Basílio**, Tel.: +351217922700

Email: [luisa.basilio@dgge.pt](mailto:luisa.basilio@dgge.pt)

**Eng<sup>a</sup> Luísa Silvério**, Tel.: +351217922700

Email: [luisa.silverio@dgge.pt](mailto:luisa.silverio@dgge.pt)