

# EXECUTIVE SUMMARY AND KEY RECOMMENDATIONS

## EXECUTIVE SUMMARY

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Portugal has continued to develop and strengthen its energy policy over the period since the last in-depth review in 2004. The list of Portuguese policy achievements is extensive and a large number of policy developments and accompanying actions have been implemented. Many have been based on recommendations contained in the previous review and are designed to have long-term practical impact on the character and nature of the Portuguese energy system. The most important of these has been the publication of a new National Energy Strategy in October 2005, which replaced the previous 2003 strategy. The new strategy sets out a series of measures to achieve the government's principal objectives of securing energy supply, protecting the environment and maintaining economic competitiveness. The key policies to attain these goals have been identified as competition in energy markets, the promotion of renewable energy and increased energy efficiency.

Many steps have been taken towards the liberalisation of energy markets. These have included the creation of two large competing players in the natural gas and electricity sectors, and the development of a single operator for the transportation of both natural gas and electricity. Portugal has taken an innovative approach to the unbundling of the gas and electricity transportation assets and placed them, along with natural gas storage and the Sines LNG terminal, in one regulated entity, Redes Energéticas Nacionais (REN). The Portuguese example has the potential to serve as a model for other IEA members. Another important step has been the implementation of the Iberian Electricity Market (MIBEL) in 2007. Similar arrangements are presently being developed in the natural gas market (MIBGAS).

Further steps have been taken to enhance security of energy supply. Portugal remains in compliance with the IEA oil stockholding obligations, fossil fuel import sources have been diversified, and production from indigenous energy sources has been increased. An LNG terminal at Sines is operational and natural gas storage capacity has grown. Capacity in both the electricity and natural gas networks has been expanded and interconnections with neighbouring Spain strengthened.

Significant growth in renewable energy capacity over the past four years will play a large part in aiding Portugal in meeting its GHG obligations. Furthermore, the government recently set a new more demanding target such that power generation from renewable sources is to supply 45% of gross

electricity consumption by 2010, an increase on the previous target of 39%. Other new and ambitious targets for renewable energies include a wind power capacity target of 5 100 MW and 5 575 MW of installed hydropower capacity by 2010. Progressive policies have also been adopted for biofuels and micro-generation.

The establishment of the Climate Change Commission by means of the CECAC as a co-ordinating body for climate change policy is a hugely progressive step that has strengthened Portugal's efforts to meet its climate change obligations. The national emission inventories, the second National Allocation Plan 2008-2012 (NAP II) and the Portuguese Carbon Fund build on this progress. Clear roles have been assigned to policy stakeholders. CECAC has taken lead responsibility for the co-ordination of activities, the development of policies and measures, and management of the Portuguese Carbon Fund.

The government has also developed a robust set of policies and measures with the aim of reducing energy consumption, particularly in buildings, industry and transport sectors. A buildings' energy certification system became mandatory in July 2007, higher construction standards have been imposed, and motor vehicle taxes have become a function of GHG emissions. A National Action Plan for Energy Efficiency (PNAEE) was enacted in 2008 and it targets an increase in energy efficiency equivalent to 9.8% of total final energy consumption by 2015. The plan is made up of a broad range of programmes and measures and pays particular attention to transport and industry, the largest consumers of energy.

Each of these developments demonstrates a visible commitment to energy policy reform and improvement. They reflect a broad attempt to engage with, and build upon, the IEA 2004 recommendations and the continued implementation of EU energy policy and targets. Nonetheless a number of policy challenges remain.

## **CONTINUED STRUCTURAL REFORM OF THE ELECTRICITY SECTOR**

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While there has been a large degree of progress in the electricity sector, some structural weaknesses remain. Further gaps need to be bridged before the market becomes fully competitive and the benefits of competition are passed to final consumers. There is considerable scope for higher levels of competition, at both wholesale and retail levels, to develop in the near future. Government policy in this sector must continue its focus on the design and implementation of effective mechanisms to encourage competition. The awarding of permits to new market entrants for incremental generation capacity is a welcome step forward but further measures must be taken.

## CONTINUED GROWTH OF RENEWABLE ENERGIES

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Portugal is now among the leading IEA member countries in terms of both hydro and wind power penetration and is at the forefront of ocean power development. Historically, Portugal was highly dependent on imported fossil fuels. Renewable energy policy, therefore, is an important instrument for achieving broader policy goals of energy security, sustainability and competitiveness. Care must be taken to ensure that targets are realistic, affordable and regularly monitored and updated as necessary. Environmental assessments of new projects should continue to be subject to the broadest possible public analysis and a greater examination on how the costs of renewable energy are distributed through existing cost recovery mechanisms is needed.

## ENERGY TECHNOLOGY, RESEARCH AND DEVELOPMENT

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Public funding for energy research and development, as a percentage of GDP, remains the lowest among IEA member countries. A formal national energy research and development strategy has not been developed, and co-ordination among relevant ministries and stakeholders in the sector leaves room for further improvement. The sector needs clearer leadership and closer co-operation between the different ministries, relevant research laboratories and the private sector. Policy makers need to explore all possible means to respond to these challenges and the possible advantages provided by effective energy research and development policy must be fully considered. We encourage the government to vest leadership and responsibility for the sector within one ministry in order to facilitate the development of a more coherent, appropriately funded, energy research and development strategy. This strategy should be consistent with broader industrial and educational policy.

## KEY RECOMMENDATIONS

*The government of Portugal should:*

- ▶ *Build on past successes and take further steps to increase competition levels in the electricity and natural gas markets and examine means by which they can encourage new entry in wholesale and retail markets.*
- ▶ *Continue to pursue support schemes for renewable energy while ensuring that the cost-effectiveness of the overall strategy is optimised and the costs of the policy are distributed equitably among consumers.*

- ▶ *Invest in developing a formal energy research and development strategy, consistent with energy policy and broader economic goals, with leadership and responsibility for delivery provided by the appropriate ministry in collaboration with other ministries, third-level institutions, the private sector and state agencies.*