### GREECE

#### MARKET OVERVIEW

Greece has 10 GW<sup>63</sup> estimated wind potential. The National Renewable Energy Action Plan foresees the wind power capacity to increase from 1.6 GW in 2011 to 7.5 GW in 2020, more than all combined other renewable energy technologies (International Energy Agency (IEA), 2011). Electricity produced from renewable energy resources accounted for 8.2% of the final energy consumption in 2009. Greece currently imports the majority of its oil and gas<sup>64</sup>, and security of supply is one of the key objectives of the national energy policy (IEA, 2011).

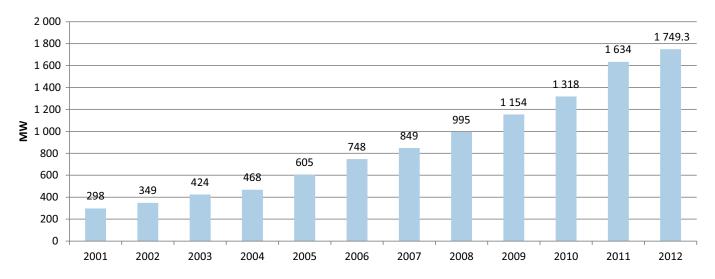


Figure 9: Cumulative Wind Installation (MW) of Greece (GWEC, 2013)

### HISTORY AND EVOLUTION OF THE POLICY AND REGULATORY FRAMEWORK FOR WIND ENERGY

Up until the 1990s, a large part of the base load electricity came from indigenous lignite<sup>65</sup> (thermal) and hydro power plants<sup>66</sup>. The monopolistic electricity market was dominated by a public sector company called the Public Power Corporation (PPC), created in 1950 (under Law 1458/1950) as a vertically integrated, entirely stateowned public company.

The PPC enjoyed exclusive rights to developing, constructing and operating both hydro and thermal power plants, as well as the national transmission and distribution networks. At the same time, the law prohibited any private sector investment in the electricity sector<sup>67</sup>.

Greece became a member of the European Union in 1981 and a member of the Eurozone in 2001. It applies a free market economy policy. Subsequently it was obligated to take part in the structural reforms of the European Union.

<sup>63</sup> According to the Hellenic Wind Energy Association 8.5 GW to 10 GW with existing grid planning.

<sup>&</sup>lt;sup>64</sup> In the case of natural gas, the supply sources are already diversified. Russian gas is imported through the Greek-Bulgarian entry point, while the Greek-Turkish entry point allows Greece to import gas from the MiddleEast and the Caspian region. Greece also receives LNG, mostly from Algeria on long term contracts, as well as additional volumes from the spot market.

<sup>&</sup>lt;sup>65</sup>Lignite is extracted mostly by PPC, due to its exclusive rights for extraction of lignite from surface mines, located mainly in the north-west part of Greece (Ptolemaida/Kozani) and also in Peloponnese (Megalopolis).

<sup>66</sup> Because of its strong reliance on oil and lignite, primary energy supply in Greece is the most carbon-intensive among the IEA member countries (IEA,2011).

<sup>&</sup>lt;sup>67</sup> A decision was made in 1956 for PPC to purchase all private and municipal energy generating enterprises to ensure the existence of one controlling entity. PPC gradually purchased all these enterprises and hired their employees.

#### Phase 1:

#### Electricity sector maturation (1981-1993)

In 1982, the PPC established the Alternative Energy Sources Department (PPC/DEME). The first commercial wind park in Europe was built in Greece in 1983 on the island of Kythnos (five turbines of 15 kW each).

In 1985, Law 1559/85 was instrumental in setting up the initial framework to generate electricity from renewable energy sources in Greece. In addition to the PPC, municipalities and other public-owned companies were permitted to set up renewable energy projects. Under this legal framework, the Hellenic Telecommunication Organisation elaborated a programme to establish seven wind turbines, mostly in the islands of the Aegean Sea. However, the scheme met with limited success.

In 1987, the Centre for Renewable Energy Sources was established as the national institution under the Ministry of Industry, Energy and Technology<sup>68</sup> for providing technical know-how, carrying out R&D activities and implementing pilot projects in order to promote energy conservation and renewable energy technologies. The Centre still supports innovative projects and major activities for the promotion and consolidation of new and renewable energy technologies.

#### Phase 2:

## Introduction of feed-in tariffs and authorisation for IPPs (1994-1998)

The special status granted to the PPC for electricity generation was limited for the first time under the provisions of the Law 2244/1994, which allowed independent power producers (IPPs) to produce electricity from renewable sources. The government also introduced a new feed-in tariff. This system was similar to the feed-in tariff laws in Germany during the same period (see page 64 for further discussion).

This Law also imposed an obligation on the IPPs to sell their electricity to the PPC on the basis of regulated power purchase agreements, one exception being the automotive industry that could use the electricity for its production facilities. In parallel, the Law imposed an obligation on the PPC to buy the electricity produced.

The regulated feed-in tariff did not discriminate between any of the renewable energy technologies. The tariff was defined as a percentage (90%) of the PPC medium-voltage retail price for electricity and an equal percentage (90%) of the PPC low-voltage retail price for electricity, which were produced on the mainland and the non-interconnected islands, respectively. Furthermore, each renewable energy installation on the mainland was granted a small additional remuneration for meeting its maximum capacity per month.

Law 2244/1994 allowed the first privately owned power generation units. The first privately owned wind parks were developed between 1997 and 1998 (PPC Renewables S.A., n.d.).

The PPC Renewables S.A. was established as a subsidiary entirely owned by PPC in 1998. Its objective was to engage in the generation of electricity from renewable sources. From 1 MW installed in 1991, the installed capacity grew to 27 MW by 1995 and to 109 MW by 1999 (UN data, n.d.).

#### Phase 3:

#### Electricity sector reform (1999-2006)

The liberalisation of Greece's electricity sector started with the enactment of Law 2733/1999<sup>69</sup>, when the process of privatisation of Greece's PPC<sup>70</sup> was initiated. In accordance with Presidential Decree 333/2000<sup>71</sup>, PPC became a public limited company<sup>72</sup> on 1 January 2001 (Iliadou, 2009).

The electricity transmission system was unbundled under the provisions of the Law 2733/1999:

es In 1996 the Ministry of Development was created by combining the Ministry of Industry, Energy and Technology, the Ministry of Commerce and the Ministry of Tourism. Main responsibility for the energy sector was entrusted to the Ministry of Development via the Department of Energy and Natural Resources. The Ministry of Development is the main policy-maker for the power sector in Greece and was central to defining market rules, price regulation and administrative decisions regarding the power sector. The Ministry was renamed as the Ministry of Regional Development and Competitiveness in 2010. Then, in 2011 it was merged with the Ministry Maritime Affairs, Islands and Fisheries to be called as the Ministry of Development, Competitiveness and Shipping. Since 2011, the Energy Sector has been transferred to the Ministry for the Environment, Energy and Climate Change (MEECC).

<sup>&</sup>lt;sup>69</sup> The main drivers behind liberalisation in Greece were the EU energy directives especially 96/92/EC, from which Greece has enjoyed derogations for full implementation. These derogations were set to expire at the end of 2007. Law 2773/1999 was subsequently amended with the provisions of Laws2837/2000, 2941/2001, 3175/2003, 3377/2005 and 3426/2005.

<sup>&</sup>lt;sup>70</sup> Public Power Corporation Societe Anonyme and distinctive title "PPC S.A." or "PPC" was established by conversion and as a successor of the previously existing Public Corporation bearing the name "Public Power Corporation".

- » Responsibility for operating the electricity transmission system was in principle delegated to a new independent company called the Hellenic Transmission System Operator (HTSO).
- » The Greek electricity sector (generation, transmission, distribution and supply of electricity) was to be supervised by the Regulatory Authority for Energy (RAE<sup>73</sup>). This independent administrative authority would oversee the liberalisation of the energy market by monitoring the operation of all market segments<sup>74</sup>.

According to the provisions of the 1999 Law, the Greek electricity sector was divided into two parts:

(a) the transmission and distribution network, which remained monopolistic and regulated and (b) electricity generation and supply on which free market rules were applied.

The Law also required a licence issued by the Ministry of Development after seeking the opinion of the RAE for any activity in the electricity sector (Iliadou, 2009).

In addition, as a part of the reform process the 1999 Law adopted the basic rules for the organisation of the electricity system and market operation. It also empowered the Minister of Development (in consultation with RAE), for issuing the secondary legislation for specific organisational issues, including price regulation.

Under this process the first few years of the market reform saw the introduction of key pieces of secondary legislation such as the System Operation Code (2001), the Power Exchanges Code (2001) and the Supply Code (2001). Following the liberalisation of the Greek electricity market in February 2001, any company (or individual) was authorised to produce electricity. Individual consumers were gradually granted full rights to choose their energy supplier by July of 2007, except the remote islands consumers.

Between 2001 and 2004 the completion of renewable energy projects was delayed, largely due to the

reforming and restructuring of the electricity sector. By the end of 2004 Greece had installed 468 MW of wind power capacity.

Law 3175/2003 introduced extensive amendments, including a mandatory wholesale electricity market to advance and develop an open market and to increase competition in the electricity sector.

RAE subsequently prepared proposals for a new operation system and power exchange code. This was approved in 2005 after two years of public consultation that included the HTSO and  $PPC^{75}$ .

Complete application of this code was scheduled for 2008 (Iliadou, 2009), but did not take place until 2010 due to structural difficulties cited by PPC.

The key provisions of the 2003 Law were:

- » The right of consumers to choose a supplier. Household customers became eligible on 1 July, 2007, with the exception of those customers based on islands with no interconnections.
- » Reform of the licensing procedures regarding generation units of islands with no interconnections.
- » Clarification of HTSO duties and responsibilities, regarding the maintenance and expansion of the transmission system.
- » Reinforcement of the TSO's independence with regard to the PPC.
- » Facilitation of the criteria for the granting of supply licences.
- » Enhancement of the regulator's (RAE) role and duties.

Up until 2006 only a few renewable energy projects that had been granted licences were completed. An IEA study of the Greek Energy Policy pointed out insufficient grid capacity as a significant barrier to faster uptake of renewable energy sources during that time.

<sup>71</sup> Articles of Incorporation.

<sup>&</sup>lt;sup>72</sup> Under civil law systems, a society or corporation in which liability is limited to the capital invested.

<sup>&</sup>lt;sup>73</sup> RAE was established on the basis of the provisions of Law 2773/1999, which was issued within the framework of the harmonisation of the Greek Law to the provisions of Directive 96/92/EC for the liberalisation of the electricity market. RAE's operational independence was guaranteed under the provisions of Law 2837/2000. RAE's resources are managed in accordance with the Presidential Decree 139/2001 on Regulation for the Internal Operation and Administration of RAE.

#### Phase 4:

#### Promotion of renewable energy (2006-2008)

As part of Greece's efforts to comply with European Union legislation, Law 3468/2006 (Hellenic Republic, 2006) further promoted electricity generation from renewable energy sources along with high-efficiency cogeneration of electricity and heat.

This Law was aimed at establishing a clearer and transparent process in issuing licences and further promoting renewable energy investments. It also ensured privileged access of renewable energy producers to the distribution system (Hellenic Republic, 2006).

To list some of the important aspects of Law 3468/2006:

- » It set the national target for the share of renewables at 20.1% of net domestic power consumption by 2010.
- » It ensured privileged access of renewable energy producers to the distribution and transmission system and restated the obligation of the system and distribution operators to dispatch the production from renewable energy sources as a priority (Hellenic Republic, 2006).
- » New feed-in tariffs were defined, with a significant increase in the case of photovoltaic systems (EUR 500/MWh or USD 814.32/MWh).
- » It improved the terms for sale of renewables-based electricity in order to facilitate bank financing. A 10-year validity period of the power purchase agreement could be extended for an equal period simply upon the receipt of a power producer's unilateral declaration to the responsible operator. Furthermore, it withdrew the right of the minister in charge of calling for a price reduction for renewables except for solar PV.
- » The limit on installed capacity (50 MW) above which operators were not obliged to grant priority to renewable energy plants during load dispatching, was removed.

- » It permitted the installation of off-shore wind parks for the first time.
- » The Law defined the means of remuneration for the energy produced and the capacity available for hybrid systems that combined renewables with storage.
- » It introduced the guarantees of origin.
- » It increased the limits for installed capacity up to which the issuance of production, authorisation, installation and operating permits were not required.
- » It increased the definition of a small-scale hydroelectric plant from 10 MW to 15 MW so that a greater number of plants utilising hydraulic power would enjoy a feed-in tariff regime plus priority by load dispatch.
- » It increased the special levy paid to local municipalities from 2% to 3% of the gross proceeds which were accrued from the sale of generated electricity.

According to a report by the Greek Ministry of Development the licensing process was significantly improved (Stefanou, n.d.) as a result of those regulations.

HTSO and the PPC developed plans to reinforce the grid through the Electricity System Development Plan 2006-2010.

A national campaign which was aimed at raising public awareness and supporting the development of renewable energy was to be launched throughout Greece. However, broader economic and structural concerns delayed it.

Since the end of 2008, the Special Spatial Framework for Renewables has been providing guidelines and criteria for siting renewable energy projects.

This framework indicates exclusion zones, distances from these zones, quantitative criteria for the assessment of visual impact and methodology for calculating the maximum number of wind turbines permitted at municipal level.

<sup>&</sup>lt;sup>74</sup> The Greek electricity system (generation, transmission, distribution of electricity) was now supervised by the Regulatory Authority for Energy. However, the effectiveness of the RAE was limited (Papamichalopoulos, Douklias and Gonithellis, 2012).

<sup>&</sup>lt;sup>75</sup> In December 2005, a new law (3423/2005) for the introduction of biofuels in the Greek market was approved in Parliament, which transposed the EU target of 5.75% biofuels contribution in 2010.

#### Phase 5:

# Renewable energy targets and administrative reform (2009-2011)

#### Improved targets

According to Law 3851/2010, the Greek National Renewable Energy Action Plan raised its commitments to produce 20% of the final energy consumption and 40% electricity generation from renewable sources by 2020 (Greek Ministry of Environment, Energy and Climate Change, 2012).

According to the National Action Plan, the installed wind energy capacity would reach 7.5 GW by 2020, which translates into annual installations of approximately 600 MW<sup>76</sup> between 2011 and 2020. Accelerating the licensing process would be a critical success factor to reach this objective.

A new Ministry for the Environment, Energy and Climate Change (MEECC) was established in 2009, in order to bring the bodies involved in the licensing of power projects, under a single administrative structure. Different responsibilities were considered, such as energy, environment and fiscal aspects, as well as long-term requirements to address climate change<sup>77</sup>. One of the objectives in creating the new ministry was to facilitate effective utilisation of the considerable renewable energy potential, besides safeguarding the natural environment of Greece<sup>78</sup>.

The Renewables Investment Facilitation Service was created within the new ministry in order to operate as a one-stop-shop for investors in the sector in the future.

#### Clear administrative deadlines

A new legal framework to accelerate deploying renewable energy was created (Law 3851/2010) (Greek Ministry of Environment, Energy and Climate Change, 2012), along with the Renewables Investment Facilitation Service, which was formed to accelerate the licensing procedure. According to an assessment carried by the IEA (IEA, 2011), this Law has in some cases shortened the licensing process for renewables from several years to just a few months. Its aim was to reduce the average procedure from 3-5 years to 8-10 months. In fact, the average licensing procedure for wind parks took more than five years and in some cases even reached 10 years (Greek Ministry of Environment, Energy and Climate Change, n.d.). The new legal framework also helped to increase the public acceptance of renewable energy projects by providing more financing from the electricity generators to the local communities.

A crucial part of the 2010 strategy was to accelerate the licensing process, and the authorities were required to meet mandatory deadlines. The most important changes concerned the production license, the first stage in the approval process. This license was issued by the regulatory authority, and had a two-month deadline. In addition, a preliminary environmental impact assessment (EIA) was no longer required. Instead, only one assessment would be required to apply for the installation license<sup>79</sup>. The authorities were given four months to provide their decision based on the EIA.

According to the Hellenic Wind Industry Association (HWEA), although there are visible signs of increased efficiency for the permitting process, much remains to be done, especially in improving the application of the non-energy legislation (e.g., land use, environmental legislation, etc.).

<sup>&</sup>lt;sup>76</sup> Greece has large off-shore wind potential; however off-shore will play a limited role in meeting the 2020 target. Greece has opted for competitive tenders for off-shore wind. The government was carrying out strategic environmental assessments in promising areas in 2011, with a view to launching the tenders sometime in 2012 and bringing the first 50 MW online by 2016 (Dodd, J., 2011).

<sup>&</sup>lt;sup>77</sup> The new ministry was to replace two previous ministries: the Ministry of Environment, Physical Planning & Public Works and the Ministry of Development.

<sup>&</sup>lt;sup>78</sup> Since 2010, the Ministry of Environment, Energy and Climate Change has been responsible for environmental policies related to the energy sector, including climate change policy. It works closely with the National Observatory of Athens (NOA) and the Ministry of Development in the formulation of climate change policies and measures for the implementation of Greece's 2020 targets.

<sup>&</sup>lt;sup>79</sup> Under the new system, developers can apply for clearance from the Forestry Commission and for a grid connection, and sign a power purchase agreement before the EIA is completed. However, none of the agreements come into effect until after the installation licence has been issued.

<sup>&</sup>lt;sup>80</sup> If the island is eventually connected to the grid, producers would continue to receive the higher tariff, and could earn 10 to 25% more if they paid for the interconnection themselves, depending on the length of the connection and the installed capacity.

<sup>&</sup>lt;sup>81</sup> According to the Law there are three kinds of incentives under Art. 6 Law 3908/2011:

Law 3851/2010 made important improvements in the grid connection framework. It imposed clauses aimed at rationalising the process and eliminating the restrictions on renewable energy producers who connect their plants to the grid, by giving them the right to build and own their interconnection networks.

The new Law also seeks to rationalise the feed-in tariff to extend the grid to non-interconnected islands. Prior to this law, the developers could apply for subsidies amounting to around 30% of capital expenditure.

Under the new Law, the tariff rates would be 20% higher if the project developer chooses not to apply for capital subsidies. The system is moving towards a more rational tariff policy that favours long-term operation of a project.

In 2011 the tariff stood at EUR 87.5/MWh (USD 121.8/MWh) for a wind plant on the mainland and EUR 99.4/MWh (USD 138.36/MWh) on any of the non-interconnected Greek islands<sup>80</sup>. The tariff would be valid for a 20-year term. At the end of 2011 these were one of the most attractive tariffs available for wind industry across Europe.

Investments in renewable energy (except PV) are eligible to access the Investment Incentives Fund (Law 3908/2011). The subsidy varies according to the size of the enterprise and to the project location. The subsidy cannot exceed 50% of the qualifying cost of the investment under any circumstances<sup>81</sup>.

The government also passed a new environmental law in 2011<sup>82</sup>. This law is likely to help project developers determine the extent of protected areas and avoid any conflicts during the environmental assessment process. In the past, a number of projects were contested in court due to such conflicts.

#### Rewarding local communities

In order to ensure direct local benefits to the local communities, Law 3851/2010 imposed a redesign of the special levy of  $3\%^{83}$ . A third of this sum will be directed to local residents as a credit on their electricity bills and 0.3% to a "green fund"<sup>84</sup> to support Natura 2000 reserves.

The remainder will be directed towards supporting local authorities. According to HWEA, electricity consumption in some households is very low, so they may get their electricity free.

#### CHALLENGES AHEAD

A comprehensive policy framework is now in place, with strong support for renewable energy. In the past, despite a favourable feed-in tariff, the long and costly administrative process for licensing and other grid-related issues hindered the development of wind power (European Renewable Energy Council (EREC), 2009). It is hoped that the newly designed decision-making process will address this issue.

The Greek case is a good illustration of the importance of involving and rewarding local communities, as well as planning land use. Public support for wind projects has been low in the past, which could be due to a lack of adequate information about wind power and its benefits to communities.

In addition, the absence of land planning (as foreseen by the Laws 2742/99 and 3868/06) raised opposition to wind project siting. Although a new Special Spatial Framework for Renewables was introduced towards the end of 2008, legal procedures could delay a project by

<sup>-</sup> Tax relief, comprising exemption from payment of income tax on pre-tax profits, which result from an enterprise's activities. The amount of tax relief is calculated as a percentage of the value of the subsidised expenditure of the project, or the value of the new machinery and other equipment acquired by leasing, and constitutes an equivalent un-taxed reserve.

<sup>-</sup> A grant comprising a free payment by the State of a sum of money to cover part of the subsidised expenditure for the investment plan is calculated as a percentage of that expenditure.

<sup>-</sup> A leasing subsidy comprising a payment by the State of part of the instalments is paid under an executed leasing agreement in order to acquire new machinery and other equipment. It is calculated as a percentage of the purchase price and included in the installments paid. The leasing subsidy shall be granted for no longer than seven years. Renewable energy investments fall into the "regional cohesion" category and are eligible for subsidies capped at 70% for existing enterprises and 80% for new ones compared to the same amount of other investment categories.

<sup>82</sup> New Environmental Law: Law 4014/2011 (OGG A/209/21.09.2011).

<sup>83</sup> A 3% tax is levied on the pre-VAT sale price of electricity to the operator of the system or the network of the islands not connected to the mainland's interconnected system.

<sup>84</sup> Since October 2011, 95% of the funds from the Green Fund have been allocated to the national budget in order to reduce the country's deficit.

several years. However, the 2010 legislation considerably streamlined the planning and approval processes.

PPC and the System Operator are facing delays in extending and upgrading transmission grids. Secondary legislation would help in fully implementing the New Grid Operation and Power Exchange Codes. A comprehensive Distribution Network Code would facilitate the connection of projects located in areas with excellent wind resources but limited grid capacity.

Lastly, the market distortion that favours conventional (lignite) power production over renewables has delayed renewables from achieving their true potential<sup>85</sup>.

#### CONCLUSION

Greece has two main support mechanisms for wind energy: a feed-in tariff and investment subsidies. The actual impact of such measures has been limited, not because of the lack of incentives, but largely due to lengthy administrative processes. The latest legislation addresses those challenges and might significantly improve market development. However, the severe economic crisis affecting the country has had an impact on the investment climate.

The government has adopted ambitious targets, policies and measures to increase to use renewable energy. The 2020 target for renewable energy in gross total final consumption was increased to 20%, which is 2% higher than the obligation under the EU Renewable Energy Directive (18% by 2020).

In the past, Greece was considered as an emerging wind energy market, attracting high interest from investors. However, despite significant potential, limitations on land use and a lack of clarity in licensing procedures delayed market growth.

The complexity of the permitting procedure was of concern. Several permits were required from different authorities. The 2010 legislation tried to overcome these

barriers by streamlining the authorisation process and concentrating powers of licensing in the Regulatory Agency of Energy (RAE) for regulatory support in the Ministry of Environment, Energy and Climate Change. It also extended the length of purchase contracts from 10 to 20 years.

Until 2010, the regulator monitored the compliance of the projects according to the terms of their licences. Under the new 2010 Law, the RAE's duties have been significantly increased and now include the authority to approve the licences for renewable energy projects.

The main elements of the 2010 legislation are based on learning and experiencing in the sector over the past decade. The relevant aspects include:

- » Clear and ambitious targets for each renewable energy source, providing long-term clarity to investors and industry on the market volumes.
- » A significant reduction of the number of administrative steps involved in the permitting process ("a one-stopshop"), providing clarity on the administrative process.
- » Clear administrative deadlines, ensuring that developers will receive decisions after a reasonable pre-determined and fixed time.
- » A clear tariff structure, ensuring a stable return on investment, complemented by financing support.
- » A reward system targeted towards local communities, ensuring benefits to the local communities and individuals.
- » Further detailing of a spatial planning policy, ensuring clarity and non-recourse for the proposed project locations.

According to a 2011 report by the IEA, while market competition is emerging in Greece, the PPC continued to be a dominant player both in the wholesale market (75%)

<sup>85</sup> For example, consumers in Greece pay an additional "fee" for renewable energy sources in their electricity bills to finance renewable energy development. However, only about half of this goes towards supporting the feed-in tariff scheme. Several successive increases of the "fee" for renewables in electricity bills, needed in order to finance deficits in the TSO accounts, have made renewables look expensive to the average consumer.

<sup>&</sup>lt;sup>86</sup> The operator of the transmission system and wholesale market.

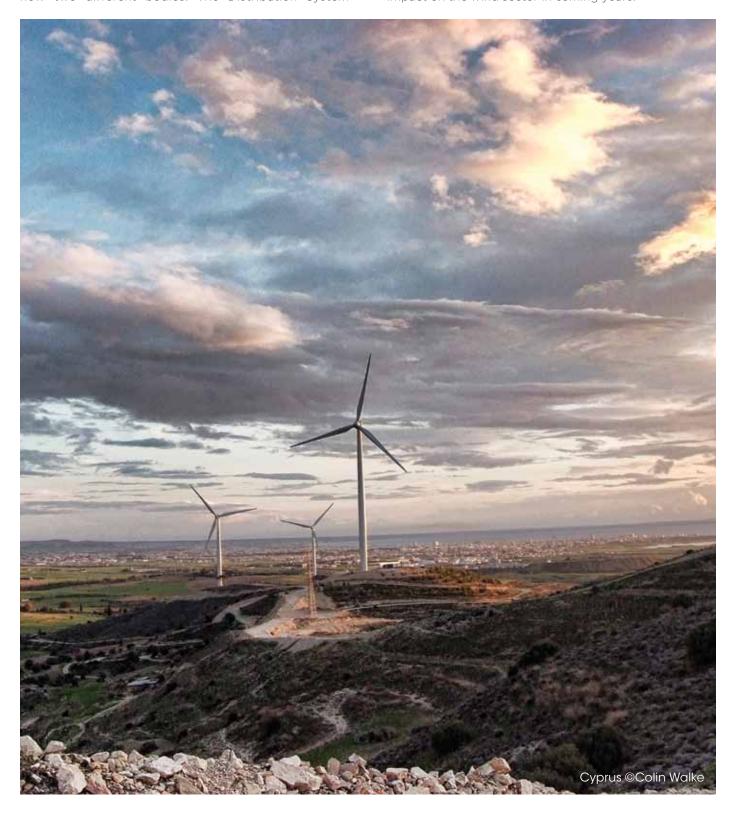
<sup>&</sup>lt;sup>87</sup> The Independent Power Transmission Operation (IPTO or ADMIE) was established in compliance with Law 4001/2011 and European Union Directive 2009/72/EC regarding the adoption of common rules in the organisation of EU electricity markets. According to Law 4001/2011 ADMIE undertakes the role of Transmission System Operator for the Hellenic Electricity Transmission System and as such performs the duties of system operation, maintenance and development so as to ensure Greece's electricity supply in a safe, efficient and reliable manner.

and in the retail market (90%) in 2010. The PPC continued to be the owner of transmission and distribution assets and until recently had a 49% stake in the HTSO<sup>86</sup>. There have been significant changes in recent months.

The market operator (100% state-owned for now) (LAGIE, n.d.) and the HTSO (owner of transmission assets, 100% PPC subsidiary, but independent<sup>87</sup>) are now two different bodies. The Distribution System

Operator (DSO) is also an independent company (100% subsidiary of PPC).

New confidence was infused into the wind sector after the creation of the Ministry of Environment and Climate Change and the steps being taken to meet Greece's 2020 target for renewable energy sources since 2010. However, current economic concerns about Greece's economy may impact on the wind sector in coming years.



### ANALYSIS OF ENABLING CONDITIONS FOR WIND ENERGY

Effective rule of law; and transparency in administrative and permitting processes	A comprehensive energy sector reforms began in 1999 but full implementation is still lacking. In 2010, Law 3851/2010 (OGG A/85/04.06.2010) helped reduce the bureaucratic barriers to some extent. The permitting process was also improved under Law 3851/2010, which addresses these issues under the authority of the Ministry of Environment, Energy and Climate Change. However, between 1999 and 2009 project developers had to face serious delays in getting planning permissions.
A clear and effective pricing structure	Greeceintroducedatariffforrenewableenergyin1994with Law 2244/1994 (OGG A/168/07.10.1994.) The tariff rates were amended by Law 3468/2006 (OGG A/129/2006) and Law 3851/2010 (OGG A/85/04.06.2010). However, broader structural reforms to complement the sector were not implemented concurrently. In March 2012, a revision to the methodology for calculating the tariff was on-going.
Provisions for access to the grid (incentives and penalties for grid operators)	Law 3468/2006 (OGG A/129/27.06.2006) ensures privileged access of renewable energy producers to the distribution system. However, grid connection was problematic until recently. The costs for grid connection are met by the power producer, and the date of connection depends on the contractual terms. If grid expansion is required to fulfil the obligation, the grid operator has to cover the corresponding costs.
An industrial development strategy	Not Applicable
A functioning finance sector	Not Applicable
Expression of political commitment from government (e.g. targets)	Greece has committed to increase the share of renewable energy in its gross total final consumption to 20% by 2020, which is 2% higher than its EU obligation.
A government and/or industry-led strategy for public and community buy-in.	This was undertaken after the passage of the 2010 bill, before the economic crisis delayed the efforts.
An employment development strategy	Not applicable
NOTE	The creation of the Ministry of Environment and Climate Change and the steps being taken to meet Greece's 2020 target for renewable energy sources since 2010 are well perceived by investors. However, current economic concerns may affect the wind sector for the years to come.

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