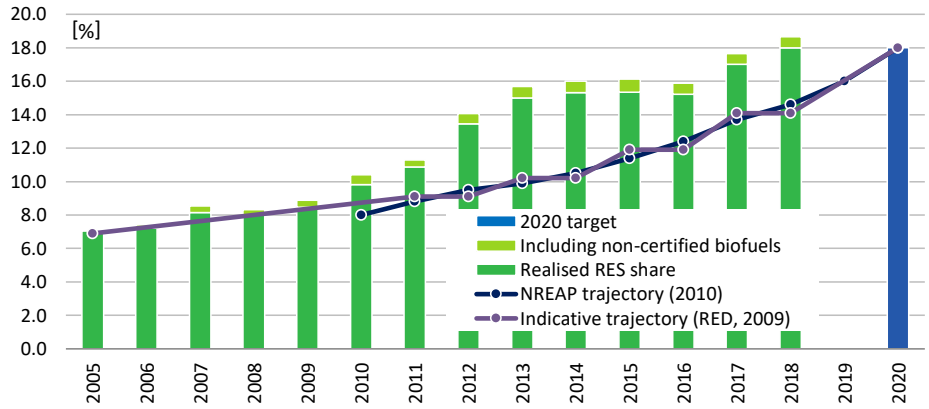
Greece

Renewable Energy Policy Factsheet

October 2020

Summary

In Greece, electricity from renewable sources is promoted through feed-in premiums, granted through tenders (as from 2017), feed-in tariffs for limited cases, a preferential tax regime under the 2016 Development Law and a net metering scheme. Heating and cooling from renewable energy sources is incentivised by way of a preferential tax regime and an investment subsidy scheme. The main instrument for renewable energy use in transport is a biofuels quota scheme. In addition, there are a new tax regulation mechanism and subsidies available under the 2016 Development Law.



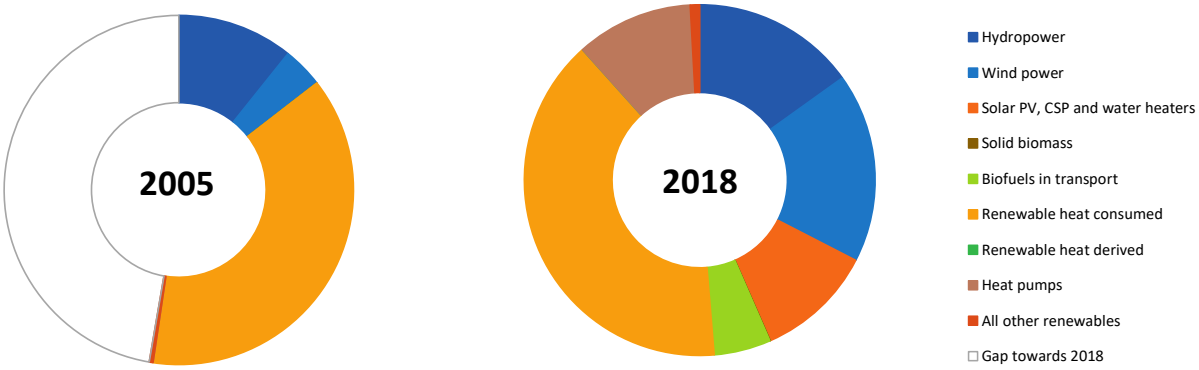
Source: EEA, Eurostat

Abbreviations used:

RES: renewable energy sources
RES-E: renewable electricity
RES-H/C: renewable heating/cooling
RES-T: renewable transport fuels

Data for 2018

Overall RES share:	18.0%	Avoided fossil fuels:	4.7 [Mtoe]
Overall RES 2020 target:	18.0%	Avoided fuel expenses:	1.2 [billion euro]
Share RES-E in electricity:	26.0%	RES Turnover:	1460 [MEUR]
Share RES-T in transport:	3.8%	RES Employment:	26900 [jobs]
Share RES-H/C in heating:	30.2%		



Source: Eurostat, 2020.

	2005	2018		
	Energy	Energy	Employment	Turnover
Hydropower	322.6 ktoe	453.3 ktoe	2400 Jobs	170 MEUR
Wind power	113.3 ktoe	524.5 ktoe	5100 Jobs	350 MEUR
Solar PV, CSP and water heaters	0.1 ktoe	325.9 ktoe	3600 Jobs	240 MEUR
Solid biomass	0.0 ktoe	1.0 ktoe	2400 Jobs	160 MEUR
Biofuels in transport	0.0 ktoe	157.3 ktoe	10900 Jobs	360 MEUR
Renewable heat consumed	1136.5 ktoe	1191.1 ktoe		
Renewable heat derived	0.0 ktoe	0.0 ktoe		
Heat pumps	0.0 ktoe	323.8 ktoe	1500 Jobs	130 MEUR
All other renewables	10.4 ktoe	26.0 ktoe	1000 Jobs	50 MEUR
Gap towards 2018	1420.0 ktoe			

Source: Eurostat, EurObserv'ER, 2020.

Hydropower jobs & turnover only covers 'small hydropower'. PV=Photovoltaics, CSP=Concentrated Solar Power. Biofuels in transport only covers compliant fuels (employment and turnover additionally cover the non-compliant biofuels). Derived heat includes heat produced in main activity producer plants and heat sold produced in autoproducer plants. Its counterpart is the final heat consumption in the final consumption sectors (such as households).

CURRENT RENEWABLE ENERGY POLICY

Until 2015 *renewable electricity generation* was mainly promoted through a guaranteed feed-in tariff. However, as from 2017, electricity from renewable energy sources is promoted for large installations through floating *feed-in premiums* (changing over time contingent on the dynamics of the difference between a pre-defined reference price and the measured relevant market price), granted after successful participation in *technology-specific tenders*. Excepted are hydropower installations >15 MW and wind farms > 50 MW. Technology-specific tender rounds are implemented for setting feed-in premiums for non-wind renewable generating plants as well as combined heat and power plants ≥ 1 MW and windfarms in between 3 MW and 50 MW. Tenders are on a pay-as-bid basis with acceptance of the lowest bids until the pre-specified total capacity for tender in the tender round concerned has been depleted. *Feed-in tariffs* remain applicable in specific small-scale technology cases only, such wind energy farms ≤ 3 MW and other renewable power installations ≤ 500 kW. A special feed-in tariff regime remains in place for rooftop PV installations up to 10 kW_p; households are also eligible to zero-interest loans for such installations. In addition, autonomous generating installations using renewable energy sources are eligible for a *net metering scheme*. Especially operators of PV installations benefit from net metering. Since July 2016, under the Development Law *an income tax relief mechanism* or alternatively *a subsidy scheme* is available for specified renewable power technologies, including bio-energy using CHP, small-scale hydropower and other renewable generation technologies for self- production. Hybrid renewable power plants on non-interconnected islands ≤ 5MW are also supported.

Heating and cooling installations sector using renewable energy sources are supported by two tax relief mechanisms and by investment subsidies. The 2016 Development Law stipulates support for combined heat and power plants and renewable heating and cooling installations in the form of two types of income tax credits or investment subsidies. Interest-free loans and subsidies are offered for the installation of renewable energy equipment, including notably solar thermal, in existing residential and other buildings. In addition, Greece is supporting RD&D activities. The introduction of new energy efficiency standards promotes, or even imposes the installation of renewable energy generation equipment in new buildings and in public buildings.

The main incentive for *renewable energy use in transport* is a biofuels quota scheme. Producers and distributors of automotive petrol and diesel are the obligatory parties to the quota scheme. Moreover, those producers of biofuels not based on edible plants, who are not benefitting from the quota scheme are eligible to a tax credit regulation and a subsidy scheme under the 2016 Development Law. Battery electric vehicles are exempt from registration tax, PHEVs for 50%. Electric and hybrid passenger cars with an engine capacity up to 1,549 cc are exempt from annual circulation tax. Hybrid cars with a higher engine capacity pay 50% of the normal annual circulation tax. Electric vehicles and PHEVs are exempt from luxury and luxury living tax. BEVs are exempt from parking fees until June 2022. Subsidies will be available for electric vehicles (M1 and N1) purchased from 7 August 2020 onwards with up to 6,000 euros per vehicle, but only up to a list price of 50,000 euros. The subsidy programme runs until the end of 2021 with a budget of 100 million euros.

So far, the assessment by the European Commission of *draft National Energy and Climate Plans* of the Member States is available. The Commission's assessment of the draft integrated National Energy and Climate Plan of Greece – regarding the targets for year 2030 for the share of renewable energy and gross final energy consumption only – is shown in Table 1 below.[1]

Table 1: Overview of Greece's actual performance (2018), targets (2020), proposed contributions (2030) under the Governance Regulation, Regulation (EU) 2018/1999 and contribution ambition assessment by the European Commission, regarding the share of renewables and the level of gross final energy consumption

National targets and contributions	2018	2020	2030	Assessment of 2030 ambition level
Share of energy from renewable sources in gross final consumption of energy (%)	18.0	18.0	31.0	In line with 31% (result of RES formula)
Final energy consumption (Mtoe)	16.0	18.4	18.1	Very low

Source: European Commission, (2019); eurostat (2020a, 2020b)

Based on the formula contained in Annex II of the Governance Regulation, Greece's renewables share would have to reach the level of **31%** in 2030 (European Commission, 2019) against the historical rate of 18.0% in 2018. The European Commission (2019) concludes that the Greek draft plan sets out a contribution of at least 31 % renewable energy to the EU's 32 % target (in gross final consumption of energy) for renewable energy share in 2030, which may be increased to 32 % depending on the methodology retained for accounting cooling from heat pumps. Although the interim targets between 2020 and 2030 are below the ones meeting the Governance Regulation (EU, 2018), the contribution of 31 % planned for year 2030 is in line with the result of the formula in Annex II of the Governance Regulation. In contrast, the Commission deemed the ambition level of the proposed **18.1 Mtoe** as contribution to the EU 2030 target for final energy consumption to be "very low".

Greece's final 2030 National Energy and Climate Plan revised upwards the ambitious draft 31% target for the renewables share by year 2030 to **at least 35%**, exceeding the 31% rate based on the formula in Annex II of the Governance Regulation by 4% (Government of Greece, 2019). Notably, the share of renewables in the consumption of electricity is envisaged to rise considerably to 61% by 2030 (Government of Greece, 2019), compared to 26% in 2018 (Eurostat, 2020a). In this context specific initiatives are already being promoted and implemented by the government, e.g. simplifying and speeding up the licensing framework, ensuring optimal integration of RES in electricity networks, operating storage systems and promoting electromobility.

As for the 2030 gross final energy consumption target, Greece has also increased its planned ambition level with a target of **16.5 Mtoe** in the final NECP (Government of Greece, 2019), compared to 18.1 Mtoe in the Greek draft NECP.

[1] The core renewables policy performance metric in the EU is the ratio of annual *gross final renewable energy consumption* and annual *gross final energy consumption*. Other factors remaining the same, gross final energy consumption reduction boosts the share of renewables as defined by the aforementioned metric.

OVERVIEW OF MAIN SUPPORTING POLICIES

The main RES support measures applied in Greece are epitomized in Tables 2 and 3 below. See the previous section and the notes to Table 2 for more details.

Table 2: Overview of support schemes to promote renewable energy in Greece

	NON-FISCAL SUPPORT SCHEMES						FISCAL AND OTHER STATE FUNDED INCENTIVES		
	Feed-in tariffs 1)	Feed-in premiums 2)	Tenders 3)	Quota obligation with Tradable Green certificates	Quota obligation without Tradable Green certificates 4)	Net-metering/ net-billing	Investment subsidies 5)	Tax credits mechanism I5)	Soft loans
RES-E									
- Offshore wind		x	x				x	x	
- Onshore wind	x	x	x			x	x	x	
- Solar	x	x	x			x	x	x	x
- Hydro	x	x	x				x	x	
- Geothermal	x	x	x				x	x	
- Solid biomass	x	x	x				x	x	
- Biogas	x	x	x				x	x	
RES-H/C									
- Solar thermal							x	x	
- Geothermal							x	x	
- Biomass							x	x	
- Biogas							x	x	
- Small scale installations, e.g. solar thermal collects, heat pumps, biomass boilers and pellet stoves							x	x	
- Others, i.e. aerothermal, hydrothermal							x	x	
RES-T									
- Bio gasoline					x		x	x	
- Biodiesel					x		x	x	

1) Small renewable installations in compliance with EU legislation
2) Medium and large installations in compliance with EU legislation
3) As from 2017, medium and large installations have to acquire feed-in premium support through successful participation in tenders
4) A biofuels quota scheme
5) Investment subsidies and/or tax credits through the 2016 Development Law

Source: RES-Legal Europe (2019), EurObserv'ER,

Table 3: Overview of instruments used at present in Greece

Instrument	*Description*
Feed-in tariffs	Guaranteed sale of electricity at a pre-set preferential price during the support contract period. Windpower installation ≤ 3 MW and other RES-E installations ≤ 500 kW
Feed-in premiums	Floating premiums based on difference between guaranteed reference values and the average benchmark electricity price per reference period during the support contract period. Applicable to medium and large-scale RES-E installations
Tenders	Applicable to medium and large-scale RES-E installations
Biofuels quota scheme	Closed for other alternative fuels
Investment subsidies	Granted through the Development Law
Tax credits	Granted through the Development Law

For further information:

CEER, 2017. Status Review of Renewable Support Schemes in Europe. http://www.ceer.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/CEER_PAPERS/Electricity/2017/C16-SDE-56-03%20Status%20Review%20RES%20Support%20Schemes.pdf

European Alternative Fuels Observatory, https://www.eafo.eu/countries/greece/1735/incentives

European Commission, 2019. Assessment of the draft National Energy and Climate Plan of Greece. SWD(2019) 261. Brussels, 18 June https://ec.europa.eu/energy/sites/ener/files/documents/gr_swd_en.pdf

EEA, 2019. Progress towards renewable energy source targets at member State and EU-28 levels. Copenhagen, 19 December https://www.eea.europa.eu/data-and-maps/daviz/actual-res-progress-indicative-trajectory-9#tab-chart_3

European Union, 2018. Regulation (EU) 2018/1999 on the Governance of the European Union and Climate Action, OJEU L328/1, Brussels, 21 December https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R1999&from=EN

Eurostat, 2020a. Renewable energy statistics; Share of renewable energy almost doubled between 2004 and 2018. Luxembourg, January https://ec.europa.eu/eurostat/statistics-explained/index.php/Renewable_energy_statistics

Eurostat, 2020b. Energy consumption in 2018. Primary and final energy consumption still 5% and 3% away from 2020 targets. Luxembourg, 4 February https://ec.europa.eu/eurostat/documents/2995521/10341545/8-04022020-BP-EN.pdf/39dcc365-bdaa-e6f6-046d-1b4d241392ad

Government of Greece, 2019. National Energy and Climate Plan. Athens, December https://ec.europa.eu/energy/sites/ener/files/el_final_necp_main_en.pdf

International Energy Agency (IEA) database on policies and measures ,https://www.iea.org/policies?topic=Renewable%20Energy

Member State Progress Report, available at the Renewable Energy pages of the European Commission, http://ec.europa.eu/energy/en/topics/renewable-energy

REN21, 2020. Global Status Report 2020. Paris, 16 June
https://www.ren21.net/wp-content/uploads/2019/05/gsr_2020_full_report_en.pdf

RES Legal database, http://www.res-legal.eu/search-by-country/greece/

https://ec.europa.eu/commission/sites/beta-political/files/energy-union-factsheet-greece_en.pdf
(European Commission/ DG ENER, Energy Union Factsheet Greece, November 2017)

This project is funded
by the European Union under
contract nº ENER/C2/2016-487/SI2.742173

Disclaimer