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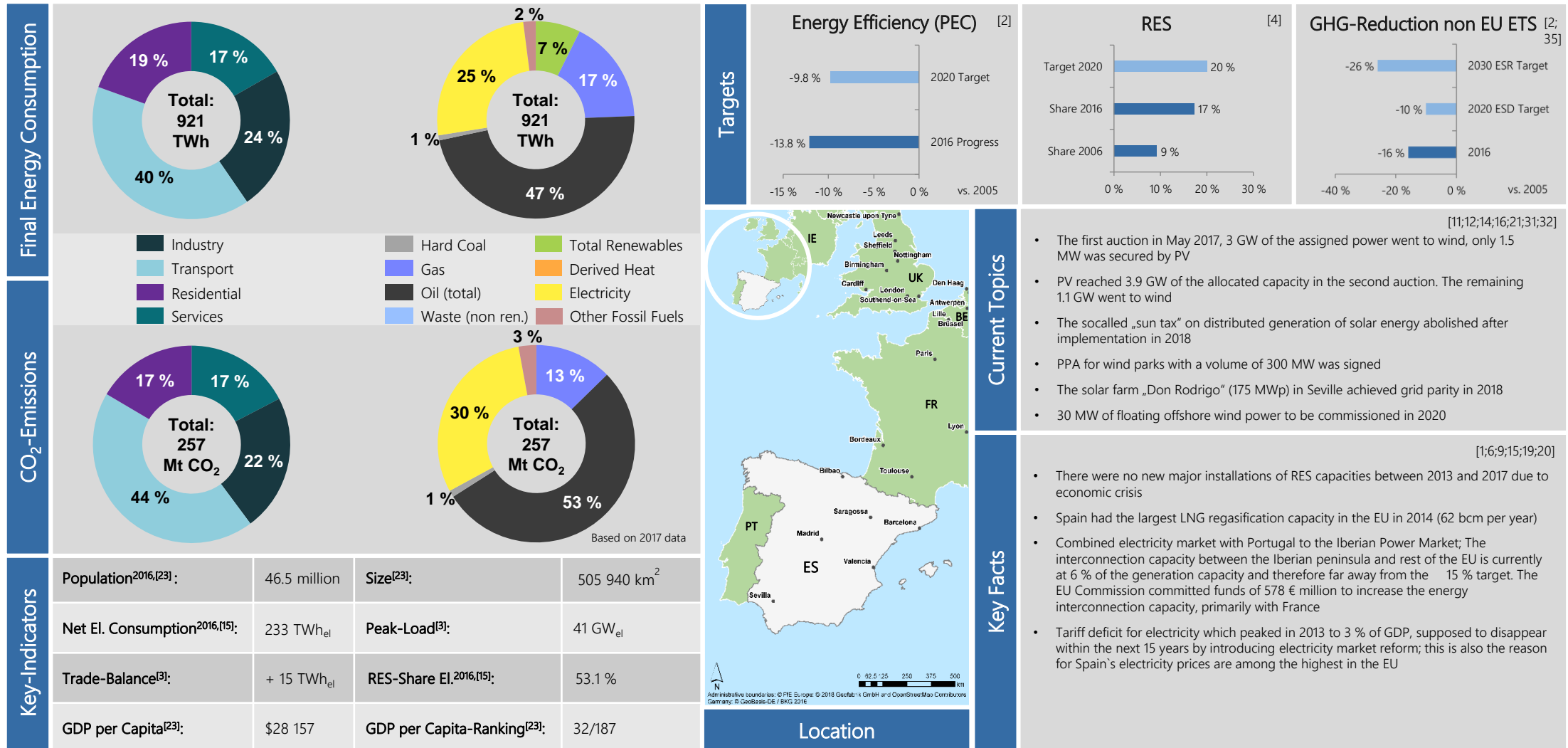


# Energy Country Profile Spain



2020

# Spain at a Glance



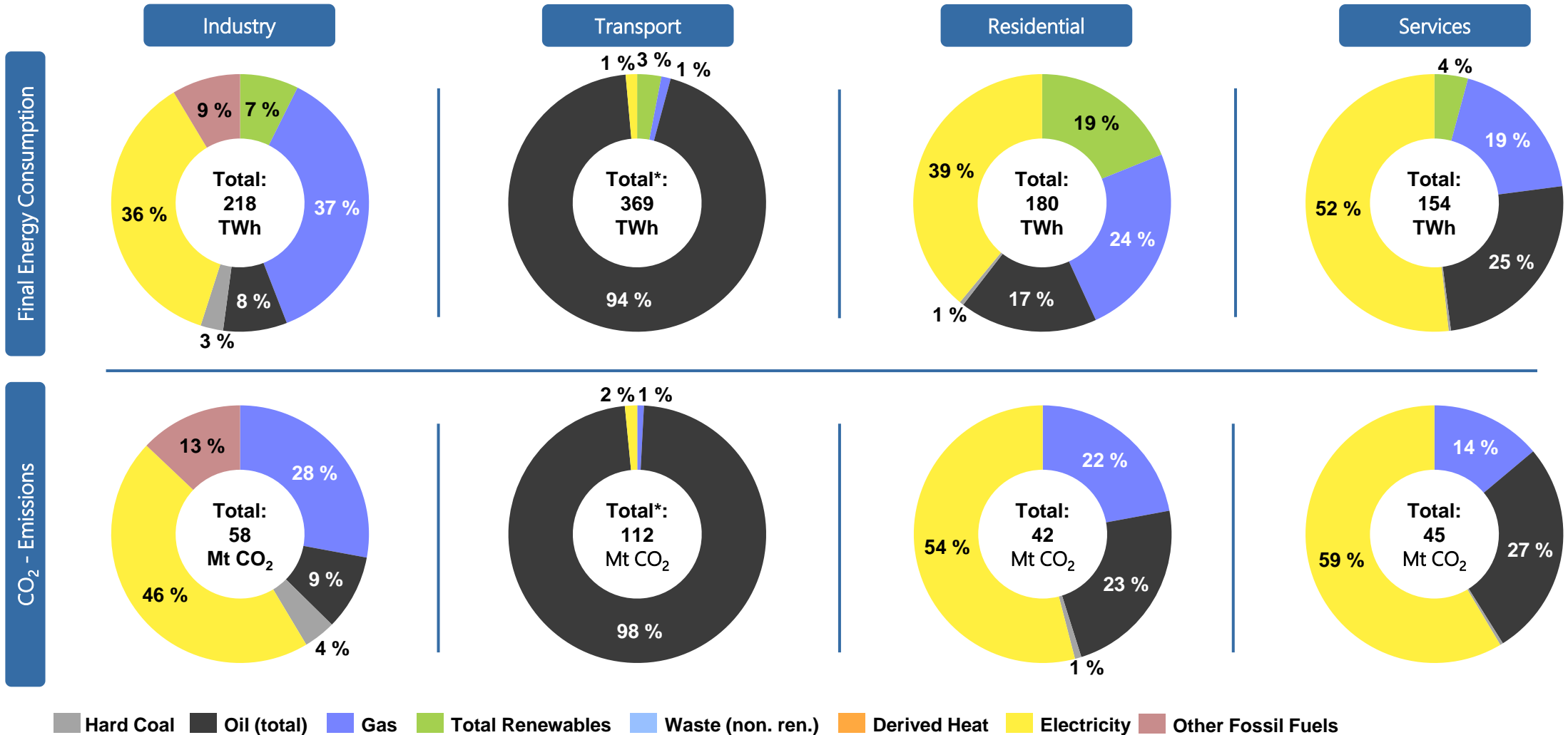
All evaluations based on the year 2017 if not mentioned otherwise.

# Spain's Electricity Sector



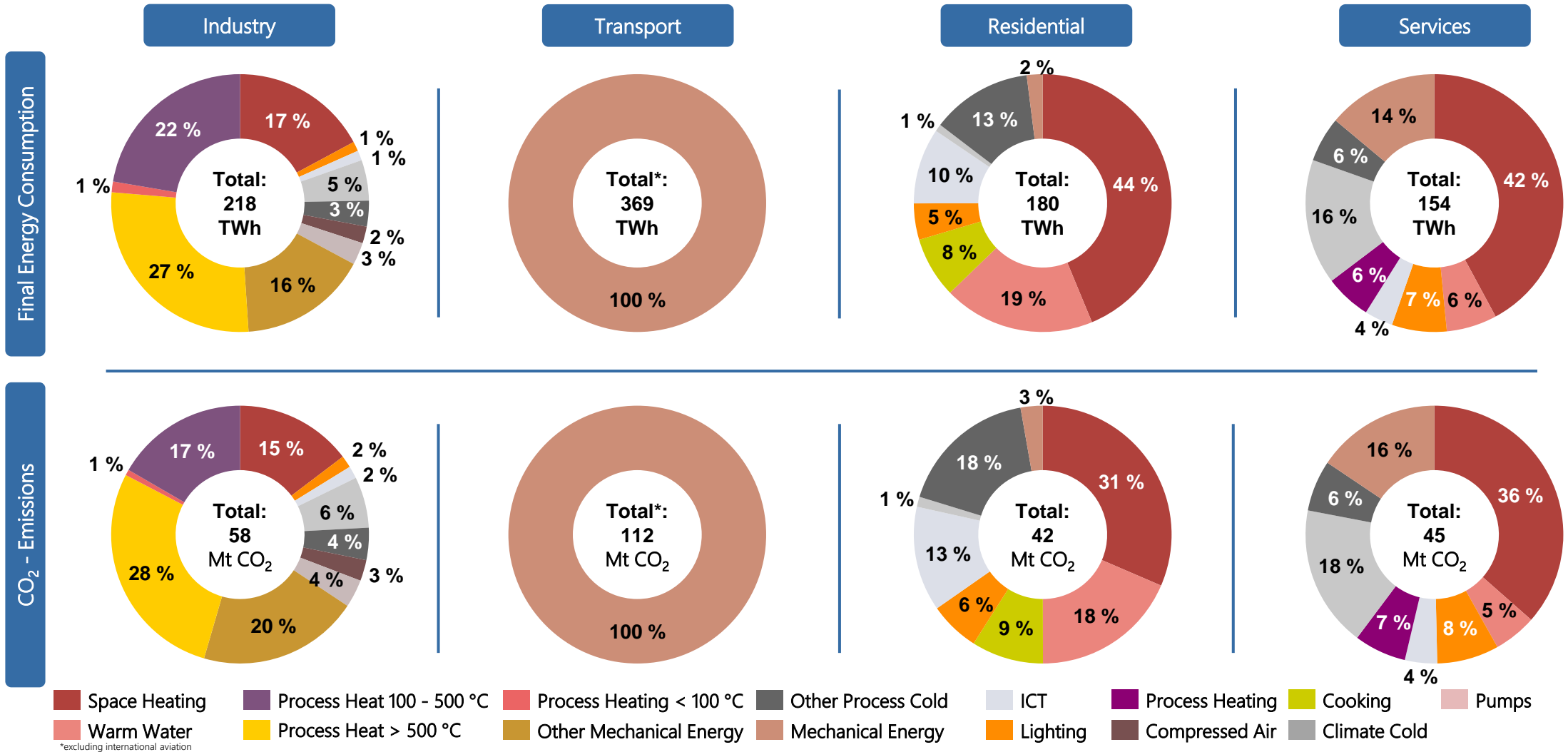
All evaluations based on the year 2017 if not mentioned otherwise.

# Spain's Energy Consumption & Emissions by Sectors and Energy Carriers - 2017



\*excluding international aviation

# Spain's Energy Consumption & Emissions by Application & Sector - 2017



# Spain: Sources

## Institutions

Ministry of Industry, Trade and Tourism		<a href="http://www.mincotur.gob.es/en-us/Paginas/index.aspx">http://www.mincotur.gob.es/en-us/Paginas/index.aspx</a>
TSO	Red Eléctrica de España S.A.	<a href="http://www.ree.es/en">http://www.ree.es/en</a>
Regulator	National Commission of Markets and Competition (CNMC)	<a href="https://www.cnmc.es/en">https://www.cnmc.es/en</a>
Energy Agency	Institute for the Diversification and Saving of Energy	<a href="http://www.idae.es/en">http://www.idae.es/en</a>
Main Power Market	OMI-POLO ESPAÑOL S.A.	<a href="http://www.omie.es/en/inicio">http://www.omie.es/en/inicio</a>

## Sources

[1] IEA (International Energy Agency) 2017, Energy policies of IEA countries, Spain Review 2015, <https://webstore.iea.org/energy-policies-of-iea-countries-spain-2015-review>

[2] European Environment Agency <https://www.eea.europa.eu/publications/trends-and-projections-in-europe-2018-climate-and-energy>

[3] International Renewable Energy Agency, <https://www.irena.org/Statistics>

[4] Eurostat, <http://ec.europa.eu/eurostat/statistics-explained/figures/b7/7/2/10/c/k/u/Free-Spains-Second-Renewable-Energy-Auction-2017.pdf>

[5] Institute for Energy Economics and Financial Analysis, <http://ieefa.org/wp-content/uploads/2017/11/Spains-Capacity-Market-Energy-Security-or-Subsidy-December-2016.pdf>

[6] OMIÉ, <http://www.omie.es/files/price-report-omie-2017.pdf>

[7] Res legal, <http://www.res-legal.eu/search-by-country/spain/tools-list/c/spain/s/res-e/t/policy/sum/196/pid/195/>

[8] Global Data, <http://www.arena-international.com/Journals/2017/12/10/c/k/u/Free-Spains-Second-Renewable-Energy-Auction-2017.pdf>

[9] PV Magazine, <https://www.pv-magazine.com/2017/11/03/spanish-pv-could-go-merchant-but-market-must-change/>

[10] PV Magazine, <https://www.pv-magazine.com/2018/06/27/spain-prepares-to-resume-renewable-energy-auctions/>

[11] PV Magazine, <https://www.pv-magazine.com/2017/07/27/spanish-government-provides-auctions-official-numbers-allocated-solar-capacity-reaches-3-9-gw/>

[12] PV Magazine, <https://www.pv-magazine.com/2018/06/19/spain-epc-contract-signed-for-300-mw-subsidy-free-pv-plant/>

[13] Eurostat Database, <http://ec.europa.eu/eurostat/de/data/database>

[14] PV Magazine, <https://www.pv-magazine.com/2018/06/02/spain-set-to-cancel-solar-tax/>

[15] Solarplaza International BV, <https://www.solarplaza.com/channels/finance/11813/who-needs-subsidies-when-there-solar-market-party/>

[16] European Commission, [http://europa.eu/rapid/press-release-MEMO-18-4622\\_en.htm](http://europa.eu/rapid/press-release-MEMO-18-4622_en.htm)

[17] PV Magazine, <https://www.pv-magazine.com/2018/07/30/eu-commits-e578-million-for-iberian-eu-energy-market-integration/>

[18] Renewables Now, <https://renewablesnow.com/news/spanish-subsidy-free-wind-project-of-300-mw-secures-financing-610491/>

[19] National flag <http://www.nationalflaggen.de/flaggen-europa.html>

[20] World Development Indicators, The World Bank, <https://data.worldbank.org/>

[21] European Commission - Eurostat, 2017, Energy statistics - supply, transformation and consumption: Complete energy balances - annual data - nrg\_110a: [http://appsso.eurostat.ec.europa.eu/nu/show.do?dataset=nrg\\_110a&lang=en](http://appsso.eurostat.ec.europa.eu/nu/show.do?dataset=nrg_110a&lang=en)

[22] European Commission - Eurostat, 2017, Energy consumption in households: [http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy\\_consumption\\_in\\_households](http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_consumption_in_households)

[23] AG Energiebilanzen e.V., 2018, Energiebilanz der Bundesrepublik Deutschland 2016

[24] TEP Energy GmbH (TEP), University Utrecht ARMINES, 2017, Deliverable 3.1: Profile of heating and cooling demand in 2015: [http://www.heatroadmap.eu/output.php Karlsruhe: Fraunhofer Institute for Systems and Innovation Research \(ISI\)](http://www.heatroadmap.eu/output.php Karlsruhe: Fraunhofer Institute for Systems and Innovation Research (ISI))

[25] Fraunhofer Institute for Systems and Innovation Research (ISI), Fraunhofer Institute for Solar Energy Systems (ISE), Institute for Resource Efficiency and Energy Strategies GmbH (IREES), ObservERTU Wien - Energy Economics Group (EEG), TEP Energy GmbH (TEP), European Commission (EC), 2016, Mapping and analyses of the current and future (2020 - 2030) heating/cooling fuel deployment (fossil/renewables) - Work package 1: Final energy consumption for the year 2012

[26] Institute for Global Environmental Strategies, 2006, IPCC Guidelines for National Greenhouse Gas Inventories - Energy - Stationary Combustion

[27] Fleiter, Tobias et al.: Mapping and analyses of the current and future (2020 - 2030) heating/cooling fuel deployment (fossil/renewables) - Work package 2: Data Annex 2 Industrial processes for publication

[28] BayWa r.e., 2019, <https://www.rethink-energy.com/white-paper/subsidy-free-solar>

[29] WindEurope asbl/vzw <https://wind-europe.org/wp-content/uploads/files/policy/position-papers/Floating-offshore-wind-energy-a-policy-blueprint-for-Europe.pdf>

[30] S&P Global, <https://www.spglobal.com/platts/en/products-services/electric-power/world-electric-power-plants-database>

[31] ENTSO-E Transparency Platform, <https://transparency.entsoe.eu/>

[32] European Union, <https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32018R0842>

[33] Own Calculation, [www.ffe.de/ios/laendersteckbriefe/methodik](http://www.ffe.de/ios/laendersteckbriefe/methodik)

## Main Studies

- **National Renewable Energy Action Plan 2011-2020** 2010 (Ministry of Industry, Trade and Tourism), [http://pvtin.eu/assets/media/PDF/EU\\_POLICIES/National%20Renewable%20Energy%20Action%20Plan/202.pdf](http://pvtin.eu/assets/media/PDF/EU_POLICIES/National%20Renewable%20Energy%20Action%20Plan/202.pdf)
- **Spain Review** 2015 (International Energy Agency), <https://webstore.iea.org/energy-policies-of-iea-countries-spain-2015-review>

## Abbreviations

RES	Renewable Energy Source
EFR	Effort Sharing Regulation
PEC	Primary Energy Consumption
GHG	Greenhouse Gases
ESD	Effort Sharing Decision
EU ETS	European Union Emissions Trading System
EL	Electricity
EU	European Union
TSO	Transmission System Operator