**RESOURCES ON SUSTAINABLE ENERGY AND GREENHOUSE GAS EMISSIONS**

**1. Fundamentals on energy**

* [Energy Transfer and Conversion Methods](http://ocw.mit.edu/courses/nuclear-engineering/22-081j-introduction-to-sustainable-energy-fall-2010/lectures-and-readings/MIT22_081JF10_lec03a.pdf) (MIT, 2010)
* [Energy Footprints](http://ocw.mit.edu/courses/nuclear-engineering/22-081j-introduction-to-sustainable-energy-fall-2010/lectures-and-readings/MIT22_081JF10_lec04a.pdf) (MIT, 2010)
* [Energy Units](http://www.aps.org/policy/reports/popa-reports/energy/units.cfm), definição e conversões (The American Physical Society)
* [Energy Basics](https://www.nrel.gov/research/learning.html). NREL

**2. Future Outlooks**

* [World Outlook to 2050](https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/energy-outlook/bp-energy-outlook-2020.pdf), BP Outlook 2020;
* [World Energy Outlook 2040](https://www.iea.org/reports/world-energy-outlook-2020), International Energy Agency 2020;
* [Energy Technologies Perspectives](https://www.iea.org/reports/energy-technology-perspectives-2020), International Energy Agency 2020;
* [Trends and projections in Europe 2020](https://www.eea.europa.eu/publications/trends-and-projections-in-europe-2020), European Environment Agency 2020;
* [2018 - Vision for a long-term EU strategy for reducing greenhouse gas emissions](https://ec.europa.eu/clima/policies/strategies/2050_en#tab-0-1), European Commission

**3. Energy data and statistics**

* [Portuguese Energy statistics](https://www.dgeg.gov.pt/pt/estatistica/energia/): Direção Geral de Energia e Geologia
* [EU energy in figures](https://op.europa.eu/en/publication-detail/-/publication/e0544b72-db53-11e9-9c4e-01aa75ed71a1), Statistical pocketbook 2019, European Union;
* [Energy statistics for EU](https://ec.europa.eu/eurostat/web/energy/data/database), EUROSTAT
* [Statistical Review of World Energy 2020](https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2020-full-report.pdf?utm_source=BP_Global_GroupCommunications_UK_external&utm_medium=email&utm_campaign=11599394_Statistical%20Review%202020%20-%20on%20the%20day%20reminder&dm_i=1PGC%2C6WM5E%2COV0LQ4%2CRQW75%2C1) | 69th edition. BP;
* [IEA Key World Energy Statistics 2020](https://www.iea.org/reports/key-world-energy-statistics-2020), International Energy Agency.
* [Renewable energy statistics 2020](https://www.irena.org/publications/2020/Jul/Renewable-energy-statistics-2020). IRENA (International Renewable Energy Agency)

**4. Energy policy | Europe**

* [EU countries’ long-term strategies to meet their Paris Agreement commitments and the energy union objectives](https://ec.europa.eu/info/energy-climate-change-environment/implementation-eu-countries/energy-and-climate-governance-and-reporting/national-long-term-strategies_en), European Union
* [Clean Energy for all European](https://ec.europa.eu/energy/topics/energy-strategy/clean-energy-all-europeans_en), European Union
* [ENERGY UNION PACKAGE](https://ec.europa.eu/energy/topics/energy-strategy/energy-union_en), A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy
* [National energy and climate plans](https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en) (NECPs), European Union
* [The European green deal](https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/actions-being-taken-eu_en), European Union

**5. Energy Topics**

* [Energy Efficiency 2020](https://www.iea.org/reports/energy-efficiency-2020), International Energy Agency.
* [Technology Roadmaps](https://webstore.iea.org/technology-roadmaps?pagesize=24), explore the several roadmaps from International Energy Agency and select what you want
* [Photovoltaic Geographical Information System (PVGIS)](https://ec.europa.eu/jrc/en/pvgis), PVGIS is a tool for PV potential, available for any location in Europe and Africa, as well as large part of Asia and America.
* [Green hydrogen cost reduction](https://www.irena.org/publications/2020/Dec/Green-hydrogen-cost-reduction), 2020. IRENA (International Renewable Energy Agency)
* [Oil companies and the energy transition](https://www.irena.org/publications/2021/Feb/Oil-companies-and-the-energy-transition), 2021. IRENA (International Renewable Energy Agency)
* [Renewable energy and climate pledges: Five years after the Paris Agreement](https://www.irena.org/publications/2020/Dec/Renewable-energy-and-climate-pledges), 2020. IRENA (International Renewable Energy Agency)
* [Innovation Outlook: Ocean Energy Technologies](https://www.irena.org/publications/2020/Dec/Innovation-Outlook-Ocean-Energy-Technologies), 2020. IRENA (International Renewable Energy Agency)
* [Global Landscape of Renewable Energy Finance 2020](https://www.irena.org/publications/2020/Nov/Global-Landscape-of-Renewable-Energy-Finance-2020). IRENA (International Renewable Energy Agency)
* [World Energy Investment 2020](https://www.iea.org/reports/world-energy-investment-2020). International Energy Agency
* [Rise of Renewables in Cities, 2020](https://www.irena.org/publications/2020/Oct/Rise-of-renewables-in-cities). IRENA (International Renewable Energy Agency)
* [Renewable Energy and Jobs – Annual Review 2020](https://www.irena.org/publications/2020/Sep/Renewable-Energy-and-Jobs-Annual-Review-2020). IRENA (International Renewable Energy Agency)
* [Reaching Zero with Renewables](https://www.irena.org/publications/2020/Sep/Reaching-Zero-with-Renewables), 2020. IRENA (International Renewable Energy Agency)
* [Renewable energy market update](https://www.iea.org/reports/renewable-energy-market-update), 2020. International Energy Agency
* [Regional Market Analyses](https://www.irena.org/policy/Regional-Market-Analyses), IRENA (International Renewable Energy Agency)

**7. Scenarios**

* [Scenarios for the Energy Transition: Global experience and best practices](https://www.irena.org/publications/2020/Sep/Scenarios-for-the-Energy-Transition-Global-experience-and-best-practices), 2020. IRENA (International Renewable Energy Agency)
* [Four scenarios of the energy transition](https://onlinelibrary.wiley.com/doi/abs/10.1002/wcc.625): Drivers, consequences, and implications for geopolitics. Bazilian et al (2019), <https://doi.org/10.1002/wcc.625>
* [World Energy Trilemma Index | 2020](https://www.worldenergy.org/publications/entry/world-energy-trilemma-index-2020). World Energy Council.
* [Insight into Energy Scenarios: A comparison of key transition indicators of 2 °C scenarios](https://www.pbl.nl/sites/default/files/downloads/pbl-2019-insight-into-energy-scenarios_3686.pdf). Dagnachew et al (2019) PBL Netherlands Environmental Assessment Agency.