

Renewables Global Status Report 2025 – Renewables in Buildings- Endnotes

- 1 International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
- 2 International Energy Agency, “Buildings - Energy System”, accessed 27 June 2025, <https://www.iea.org/energy-system/buildings>.
- 3 International Energy Agency, “World Energy Outlook 2024”, 16 October 2024, <https://www.iea.org/reports/world-energy-outlook-2024>.
- 4 International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
Figure B – 1 from International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
- 5 United Nations Environment Program, “Global Status Report for Buildings and Construction 2024/2025: Not Just Another Brick in the Wall - The Solutions Exist. Scaling Them Will Build on Progress and Cut Emissions Fast”, 2025, <https://wedocs.unep.org/20.500.11822/47214>.
- 6 International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
- 7 International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
- 8 International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
Figure B – 2 from International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
- 9 International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
- 10 International Energy Agency, “Global Energy Review 2025”, 24 March 2025, <https://www.iea.org/reports/global-energy-review-2025>.
- 11 International Energy Agency, “World Energy Outlook 2024”, 16 October 2024, <https://www.iea.org/reports/world-energy-outlook-2024>.
- 12 International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
Figure B – 3 from International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
- 13 REN21, “Renewables Global Status Report 2024: Global Overview”, 2024, <https://www.ren21.net/gsr-2024/>; International Energy Agency, “Energy Efficiency 2024”, 7 November 2024, <https://www.iea.org/reports/energy-efficiency-2024/executive-summary>.
- 14 International Energy Agency, “Global Energy Review 2025”, 24 March 2025, <https://www.iea.org/reports/global-energy-review-2025>.
- 15 International Energy Agency, “Global Energy Review 2025”, 24 March 2025, <https://www.iea.org/reports/global-energy-review-2025>.
- 16 REN21, “Renewables Global Status Report 2024: Global Overview”, 2024, <https://www.ren21.net/gsr-2024/>.

- 17 REN21, “Renewables Global Status Report 2025: Global Overview”, June 2025, <https://www.ren21.net/gsr-2025/>.
- 18 REN21, “Renewables Global Status Report 2025: Global Overview”, June 2025, <https://www.ren21.net/gsr-2025/>.
- 19 Renewables First & Herald Analytics, “The Great Solar Rush in Pakistan”, accessed 29 May 2025, https://uploads.renewablesfirst.org/The_Great_Solar_Rush_in_Pakistan_38157451a3.pdf.
- 20 L’Orient Today, “Experts Weigh in: Why Is Lebanon’s Solar ‘Boom’ No Longer Booming?”, 13 May 2024, <https://today.lorientlejour.com/article/1413635/experts-weigh-in-why-is-lebanons-solar-boom-no-longer-booming.html>.
- 21 South African Local Government Association, “Status of Embedded Generation in South African Municipalities”, December 2023, <https://www.sseg.org.za/wp-content/uploads/2024/02/Status-of-EG-in-South-African-Municipalities-2023-FINAL-2.pdf>.
- 22 Solar Power Europe, “Global Market Outlook for Solar Power 2025-2029”, May 2025, https://api.solarpowereurope.org/uploads/Global_Market_Outlook_2025_v1_aaebd9698b.pdf.
- 23 Global Energy Monitor, “Global Solar Power Tracker”, accessed 4 July 2025, <https://globalenergymonitor.org/projects/global-solar-power-tracker/>; IEA-PVPS, “Snapshot of Global PV Markets 2025”, April 2025, <https://iea-pvps.org/snapshot-reports/snapshot-2025/>; Clean Energy Council, “Rooftop Solar and Storage Biannual Report”, accessed 4 July 2025, <https://cleanenergycouncil.org.au/news-resources/rooftop-solar-and-storage-report-july-to-december-2024>; Ember, “Global Electricity Review 2025”, Ember, 8 April 2025, <https://ember-energy.org/latest-insights/global-electricity-review-2025>.
- 24 International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
- 25 International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
- 26 International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>.
- 27 Euroheat & Power, “DHC Market Outlook 2025”, accessed 29 June 2025, <https://www.euroheat.org/data-insights/outlooks/dhc-market-outlook-2025>.
- 28 IEA SHC, “Solar Heat Worldwide”, accessed 4 July 2025, <https://www.iea-shc.org/solar-heat-worldwide>.
- 29 International Energy Agency, “World Energy Balances”, 2025, <https://www.iea.org/data-and-statistics/data-product/world-energy-balances>; International Energy Agency, “District Heating - Energy System”, accessed 29 June 2025, <https://www.iea.org/energy-system/buildings/district-heating>.
- 30 International Energy Agency, “Energy Efficiency 2024”, 7 November 2024, <https://www.iea.org/reports/energy-efficiency-2024/executive-summary>.
- 31 International Energy Agency, “Energy Efficiency 2024”, 7 November 2024, <https://www.iea.org/reports/energy-efficiency-2024/executive-summary>.

- 32 International Energy Agency, “Building Envelopes”, accessed 2 July 2025, <https://www.iea.org/energy-system/buildings/building-envelopes>.
- 33 International Energy Agency, “World Energy Investment 2024”, 6 June 2024, <https://www.iea.org/reports/world-energy-investment-2024>.
- 34 International Energy Agency, “Energy Efficiency 2024”, 7 November 2024, <https://www.iea.org/reports/energy-efficiency-2024/executive-summary>.
- 35 European Commission, “Energy Efficiency Directive”, accessed 2 July 2025, https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-directive_en.
- 36 Government of Kenya, “The National Construction Authority Act, (Cap. 118) The National Building Code, 2024”, accessed 2 July 2025, https://kenyalaw.org/kl/fileadmin/pdfdownloads/LegalNotices/2024/LN47_2024.pdf; Government of China, “国务院关于印发《2024—2025 年节能降碳行动方案》的通知” [Notice of the State Council on Issuing the ‘2024-2025 Energy Conservation and Carbon Reduction Action Plan’_Energy Conservation and Comprehensive Utilization of Resources_China Government Network], accessed 2 July 2025, https://www.gov.cn/zhengce/content/202405/content_6954322.htm.
- 37 International Energy Agency, “Energy Efficiency 2024”, accessed 29 May 2025, <https://iea.blob.core.windows.net/assets/f304f2ba-e9a2-4e6d-b529-fb67cd13f646/EnergyEfficiency2024.pdf>.
- 38 IEA, “Annual Investment in Energy Efficiency in the Buildings Sector in the Net Zero Scenario, 2017-2030 – Charts – Data & Statistics”, accessed 11 July 2025, <https://www.iea.org/data-and-statistics/charts/annual-investment-in-energy-efficiency-in-the-buildings-sector-in-the-net-zero-scenario-2017-2030-2>.
- 39 REN21, “REN21 Policy Database”, 2025. Figure B-4 from REN21, “REN21 Policy Database”, 2025.
- 40 REN21, “REN21 Policy Database”, 2025.
- 41 Natural Resources Canada, “Oil to Heat Pump Affordability Program”, accessed 4 July 2025, <https://natural-resources.canada.ca/energy-efficiency/home-energy-efficiency/canada-greener-homes-initiative/oil-heat-pump-affordability-program>; Bioclima, “New Program Exoikonomo”, accessed 4 July 2025, <https://bioclima.gr/en/new-program-exoikonomo>.
- 42 Executive Yuan, R.O.C. (Taiwan), “Residential Rooftop Solar Energy Installation Acceleration Plan”, accessed 4 July 2025, <https://english.ey.gov.tw/News3/9E5540D592A5FECD/5f48483c-4b00-4a2e-b3a0-2078610d4473?utm>; Dotace pro obce (Subsidies for municipalities), “Fotovoltaika pro malé obce” [Photovoltaics for Small Municipalities], accessed 4 July 2025, <https://dotaceproobce.cz/dotace/fotovoltaika-pro-male-obce>; Government of India, “PM Surya Ghar - Muft Bijli Yojana”, accessed 4 July 2025, <https://www.india.gov.in/spotlight/pm-surya-ghar-muft-bijli-yojana>; PV Magazine International, “Jordan Launches Online Platform for Residential Solar Subsidies”, accessed 4 July 2025, https://www.pv-magazine.com/2024/02/14/jordan-launches-online-platform-for-residential-solar-subsidies/?utm_source=dlvr.it&utm_medium=linkedin; Malaysian News Gazette, “Quotas For NEM Rakyat, NEM Nova Raised To Spur Installation Of Solar PV Systems - Petra”, accessed 4 July 2025,

<https://www.malaysiannewsgazette.com/quotas-for-nem-rakyat-nem-nova-raised-to-spur-installation-of-solar-pv-systems-petra/>; Regulator for Energy and Water Services, “En/Sdgr/465-2021-Solar-Water-Heater-Scheme”, accessed 4 July 2025, <https://www.rews.org.mt/#/en/sdgr/465-2021-solar-water-heater-scheme>.

- 43 International Energy Agency, “Energy Efficiency 2024”, 7 November 2024, <https://www.iea.org/reports/energy-efficiency-2024/executive-summary>.
- 44 International Energy Agency, “Energy Efficiency 2024”, 7 November 2024, <https://www.iea.org/reports/energy-efficiency-2024/executive-summary>.
- 45 Government of the Isle of Man Government, “Clean Heat Installations Required in New Builds from 2025”, accessed 6 July 2025, <https://www.gov.im/news/2024/oct/08/clean-heat-installations-required-in-new-builds-from-2025/>.
- 46 Government of Luxembourg, “Luxembourg’s Integrated National Energy and Climate Plan for the Period 2021-2030 (PNEC)”, 23 October, 2024, <http://gouvernement.lu/en/dossiers/2023/2023-pnec.html>.
- 47 Government of Slovenia, “Energy Act (EZ-2)”, accessed 6 July 2025, <https://pisrs.si/pregledPredpisa?id=ZAKO8855>.
- 48 Government of the United Kingdom, “Clean Heat Market Mechanism: Who It Applies to, Annual Tasks”, accessed 6 July 2025, <https://www.gov.uk/guidance/clean-heat-market-mechanism-who-it-applies-to-annual-tasks>.
- 49 EUR-lex, “Directive (EU) 2024/1275 of the European Parliament and of the Council of 24 April 2024 on the Energy Performance of Buildings (Recast) (Text with EEA Relevance)”, 2024, <http://data.europa.eu/eli/dir/2024/1275/oj/eng>.
- 50 European Commission, “Draft Update of the Belgian National Energy and Climate Plan”, 2023, <https://commission.europa.eu/system/files/2023-12/Belgium%20-%20Draft%20updated%20NECP%202021-2030%20EN.pdf>.
- 51 International Energy Agency, “Germany’s 2nd Amendment to the Building Energy Act (GEG) - Phase-out of Fossil Fuels – Policies”, accessed 6 July 2025, <https://www.iea.org/policies/18133-germanys-2nd-amendment-to-the-building-energy-act-geg-phase-out-of-fossil-fuels>.
- 52 Government of Ireland, “Renewable Heat Obligation”, accessed 6 July 2025, <https://gov.ie/en/department-of-climate-energy-and-the-environment/publications/renewable-heat-obligation/>.
- 53 European Commission, “Romania National Energy and Climate Plan”, accessed July 3, 2025, <https://commission.europa.eu/system/files/2023-11/ROMANIA%20-%20DRAFT%20UPDATED%20NECP%202021-2030.pdf>.
- 54 Government of China, “国务院关于印发《2024—2025 年节能降碳行动方案》的通知” [Notice of the State Council on Issuing the ‘2024-2025 Energy Conservation and Carbon Reduction Action Plan’_Energy Conservation and Comprehensive Utilization of Resources_China Government Network], accessed 2 July 2025, https://www.gov.cn/zhengce/content/202405/content_6954322.htm.
- 55 Government of Latvia, “Latvia’s National Energy and Climate Plan 2021-2030.GADAM”, December 2023,

- <https://commission.europa.eu/system/files/2023-12/Latvia%20-%20Draft%20updated%20NECP%202021-2030%20EN.pdf>.
- 56 International Energy Agency, “Germany’s 2nd Amendment to the Building Energy Act (GEG) - Phase-out of Fossil Fuels – Policies”, accessed 4 July 2025, <https://www.iea.org/policies/18133-germanys-2nd-amendment-to-the-building-energy-act-geg-phase-out-of-fossil-fuels>; Government of Ireland, “Climate Action Plan 2023 - CAP23 Changing Ireland for the Better”, 2023, <https://assets.gov.ie/static/documents/climate-action-plan-2023-8b7dba92-f397-4163-8293-3aea656f6b5f.pdf>.
- 57 European Commission, “Integrated National Energy and Climate Plan for the Republic of Croatia for the Period 2021-2030”, 2023, https://commission.europa.eu/document/download/c4a12c32-7c7c-475a-80b9-366a7309bdc8_en?filename=CROATIA_%20DRAFT%20UPDATED%20NECP%202021%202030%20%282%29_0.pdf.
- 58 EUR-Lex, “Directive (EU) 2024/1275 of the European Parliament and of the Council of 24 April 2024 on the Energy Performance of Buildings (Recast) (Text with EEA Relevance)”, 2024, <http://data.europa.eu/eli/dir/2024/1275/oj/eng>.
- 59 REN21, “Renewables Global Status Report 2025: Global Overview”, June 2025, <https://www.ren21.net/gsr-2025/>.
- 60 REN21, “Renewables Global Status Report 2025: Global Overview”, June 2025, <https://www.ren21.net/gsr-2025/>.
- 61 REN21, “Renewables Global Status Report 2025: Global Overview”, June 2025, <https://www.ren21.net/gsr-2025/>.
- 62 REN21, “Renewables Global Status Report 2025: Global Overview”, June 2025, <https://www.ren21.net/gsr-2025/>.
- 63 International Energy Agency, “Energy Efficiency 2024”, 7 November 2024, <https://www.iea.org/reports/energy-efficiency-2024/executive-summary>.
- 64 International Energy Agency, “Energy Efficiency 2024”, 7 November 2024, <https://www.iea.org/reports/energy-efficiency-2024/executive-summary>.
- 65 International Energy Agency, “Energy Efficiency 2024”, 7 November 2024, <https://www.iea.org/reports/energy-efficiency-2024/executive-summary>.
- 66 United Nations Environment Program, “Global Status Report for Buildings and Construction 2024/2025: Not Just Another Brick in the Wall - The Solutions Exist. Scaling Them Will Build on Progress and Cut Emissions Fast.”, 2025, <https://wedocs.unep.org/20.500.11822/47214>.
- 67 International Energy Agency, “Building Envelopes”, accessed 2 July 2025, <https://www.iea.org/energy-system/buildings/building-envelopes>.
- 68 United Nations Human Settlements Programme, “State of Efforts to Progressively Realize Adequate Housing for All”, Open-ended Intergovernmental Expert Working Group on Adequate Housing for All, 2024.
- 69 World Green Building Council, “Minimum Energy Performance Standards and Renovation Trajectories in the Energy Performance of Buildings Directive”, August 2024, <https://worldgbc.org/wp-content/uploads/2024/08/WorldGBC-MEPS-factsheet-1.pdf>.
- 70 EUR-Lex, “Directive - EU - 2024/1275 - EN”, accessed 11 July 2025, <https://eur-lex.europa.eu/eli/dir/2024/1275/oj/eng>.

71 OECD Urban Studies, “Global Monitoring of Policies for Decarbonising Buildings A MULTI-LEVEL APPROACH”, 2024, <https://doi.org/10.1787/d662fdcb-en>.