

2024 G7 Apulia Summit Final Compliance Report

15 June 2024 to 15 May 2025

Prepared by
Jacob Rudolph and Angus MacKellar
and the G7 Research Group
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www.g7.utoronto.ca • g7@utoronto.ca • @g7 rg

"We have meanwhile set up a process and there are also independent institutions monitoring which objectives of our G7 meetings we actually achieve. When it comes to these goals we have a compliance rate of about 80%, according to the University of Toronto. Germany, with its 87%, comes off pretty well. That means that next year too, under the Japanese G7 presidency, we are going to check where we stand in comparison to what we have discussed with each other now. So a lot of what we have resolved to do here together is something that we are going to have to work very hard at over the next few months. But I think that it has become apparent that we, as the G7, want to assume responsibility far beyond the prosperity in our own countries. That's why today's outreach meetings, that is the meetings with our guests, were also of great importance."

Chancellor Angela Merkel, Schloss Elmau, 8 June 2015

G7 summits are a moment for people to judge whether aspirational intent is met by concrete commitments. The G7 Research Group provides a report card on the implementation of G7 and G20 commitments. It is a good moment for the public to interact with leaders and say, you took a leadership position on these issues — a year later, or three years later, what have you accomplished?

Achim Steiner, Administrator, United Nations Development Programme, in G7 Canada: The 2018 Charlevoix Summit

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7. Energy: Decarbonizing the Power Sector

"We reaffirm our commitment to achieve a fully or predominantly decarbonized power sector by 2035."

Apulia G7 Leaders' Communiqué

Assessment

| | No Compliance | Partial Compliance | Full Compliance |
|----------------|---------------|--------------------|-----------------|
| Canada | | | +1 |
| France | | | +1 |
| Germany | | | +1 |
| Italy | | | +1 |
| Japan | | | +1 |
| United Kingdom | | | +1 |
| United States | | 0 | |
| European Union | | | +1 |
| Average | +0.88 (94%) | | |

Background

Since the 1992 United Nations Framework Convention on Climate Change (UNFCCC), reducing greenhouse gas emissions has been discussed internationally as a way to combat climate change. The 2015 Paris Agreement set out a global framework to ideally limit the global temperature increase to 2°C, striving for 1.5°C, calling for net-zero economies. Among other measures to reach the target of the Paris Agreement, it is imperative that countries overcome the hurdle of decarbonizing their energy sector to eliminate greenhouse gas emissions from electricity-generating facilities. The G7 has explored and supported a diversified energy mix since its early summits.

At the 1979 Tokyo Summit, the G7 first recognized the importance of developing clean technology. This summit was the first to acknowledge the pressing need to stabilize the carbon dioxide levels in the atmosphere and establish principled and normative directions for dealing with climate change for future summits.

At the 1990 Houston Summit, G7 leaders acknowledged the importance of international cooperation to develop new technologies and methods to complement energy conservation in the reduction of carbon emissions. Leaders supported accelerated scientific and economic research on potential responses to climate change in developing and developed countries.

At the 2000 Okinawa Summit, G7 leaders discussed renewable energy and its ability to mitigate climate change and air pollution. Leaders also discussed the findings of the G8 Environment Ministers' Meeting in Otsu and Cartagena Protocol on Biosafety and committed to investigating renewable energy barriers and solutions in developing countries as a way to combat pollution and climate change.

¹⁵¹² Declaration, G7 Information Centre (Toronto) 29 June 1979. Access Date: 21 December 2024.

https://www.g7.utoronto.ca/summit/1979tokyo/communique.html

https://www.g7.utoronto.ca/summit/2000okinawa/finalcom.htm

¹⁵¹⁰ What is the United Nations Framework Convention on Climate Change?, United Nations (New York) n.d. Access Date: 21 December 2024. https://unfccc.int/process-and-meetings/what-is-the-united-nations-framework-convention-on-climate-change ¹⁵¹¹ The Paris Agreement, United Nations (New York) n.d. Access Date: 21 December 2024.

https://www.un.org/en/climatechange/paris-agreement

¹⁵¹³ Houston Economic Declaration, G7 Information Centre (Toronto) 11 July 1990. Access Date: 21 December 2024.

https://www.g7.utoronto.ca/summit/1990houston/declaration.html

¹⁵¹⁴ G8 Communiqué Okinawa 2000, G7 Information Centre (Toronto) 23 July 2000. Access Date: 21 December 2024.

At the 2001 Environment Ministerial Meeting in Trieste, G8 Environment Ministers promoted timely action to address climate change and greenhouse gas emissions. ¹⁵¹⁵ Ministers committed to promoting the reduction of emissions by strengthening and implementing national programs and promoting renewable energies.

At the 2002 Environment Ministerial Meeting in Banff, G8 Environment Ministers committed to working together with governments and other partners to take effective actions in the field of energy. ¹⁵¹⁶ These actions included increasing energy efficiency, improving energy resources, developing new technologies and promoting the use of renewable energy sources in all countries.

At the 2005 Gleneagles Summit, G8 leaders committed to tackling climate change and promoting clean energy. Leaders also committed to taking measures to develop markets for clean energy technologies to increase their availability in developing nations and to help vulnerable communities adapt to the impact of climate change.

At the 2009 L'Aquila Summit, G8 leaders discussed renewable energy's role in the global green recovery and CO2 reduction. Leaders discussed barriers to combat climate change and incorporated renewable energy into action-based discussions on technology-driven paths to tackle climate change.

At the 2010 Muskoka Summit, G8 leaders reaffirmed the need to commit to low carbon and renewable energies. Leaders also called on the International Energy Agency (IEA) to develop an International Platform for low-carbon technologies for the purpose of accelerating their development and deployment.

At the 2014 Energy Ministerial Meeting in Rome, G7 Energy Ministers committed to promoting the use of low carbon technologies such as renewable energies. Ministers also committed to working with institutions such as the International Renewable Energy Agency and international financial institutions to supply technical assistance for renewable energies in Ukraine and other European nations.

At the 2015 Energy Ministerial Meeting in Hamburg, G7 Energy Ministers committed to supporting the use of renewable energy sources. Ministers mentioned that their goal with the usage of renewable energy sources is to reduce the greenhouse gas emissions in their energy systems but also acknowledged that fossil fuels "will remain an important part of the energy mix for some time."

At the 2016 Energy Ministerial Meeting in Fukuoka, G7 Energy Ministers committed to investing in energy sectors including renewable energy sources and other low carbon technologies to help to build economic growth from carbon emissions. ¹⁵²² Ministers reaffirmed their commitment to enhancing cooperation in energy

¹⁵¹⁵ G8 Environment Ministers Communiqué, G7 Information Centre (Toronto) 4 March. Access Date: 21 December 2024. https://www.g7.utoronto.ca/environment/2001-environment.html

¹⁵¹⁶ Banff Ministerial Statement on the World Summit on Sustainable Development, Information Centre (Toronto) 14 April 2002. Access Date: 21 December 2024. https://www.g7.utoronto.ca/environment/020415.html

¹⁵¹⁷ Chairs' Summary, G7 Information Centre (Toronto) 8 July 2005. Access Date: 21 December 2024. https://www.g7.utoronto.ca/summit/2005gleneagles/summary.html

¹⁵¹⁸ Responsible Leadership for a Sustainable Future, G7 Information Centre (Toronto) 8 July 2009. Access Date: 21 December 2024. https://www.g7.utoronto.ca/summit/2009laquila/2009-declaration.pdf

¹⁵¹⁹ Muskoka Declaration: Recovery and New Beginnings, G7 Information Centre (Toronto) 26 June 2010. Access Date: 23 September 2022. https://www.g7.utoronto.ca/summit/2010muskoka/communique.html

¹⁵²⁰ Rome G7 Energy Initiative for Energy Security, G7 Information Centre (Toronto) 6 May 2014. Access Date: 21 December 2024. https://www.g7.utoronto.ca/energy/140506-rome.html

¹⁵²¹ G7 Hamburg Initiative for Sustainable Energy Security, G7 Information Centre (Toronto) 12 May 2015. Access Date: 21 December 2024. https://www.g7.utoronto.ca/energy/150512-hamburg.html

¹⁵²² G7 Kitakyushu Energy Ministerial Meeting Kitakyushu Initiative on Energy Security for Global Growth Joint Statement, G7 Information Centre (Toronto) 2 May 2016. Access Date: 21 December 2024. https://www.g7.utoronto.ca/energy/160502-statement.html

technology innovation, research, development and deployment in order to accelerate technological progress towards clean energy including renewable energy sources.

At the 2018 Energy Ministers' Meeting in Halifax, G7 Energy Ministers highlighted their progress in the development and deployment of renewable energy including solar and wind power.¹⁵²³ This progress was highlighted in the context of the need to reduce emissions and improve the sustainability of energy systems.

At the 2019 Energy Ministers' Meeting in Metz, G7 Energy Ministers committed to promoting highly efficient technologies, including renewable energies, and the best standard policies in order to increase energy efficiency.

1524 Ministers emphasized the importance of energy efficiency for a low emission global economy that sustainably uses natural resources.

At the 2021 Cornwall Summit, G7 leaders committed to accelerating the deployment of zero emissions energy and reducing wasteful consumption. The push for renewable energy alternatives was also a way to "build back better" from the Covid-19 pandemic, as per the roadmap designed by the International Energy Agency and to adhere to the targets from the Paris Agreement.

At the 2022 Elmau Summit, G7 leaders first made this commitment to decarbonize the power sector fully or predominantly by 2035. 1526

At the 2023 Hiroshima Summit, G7 leaders reaffirmed their commitment to decarbonize the power sector fully or predominantly by 2035. 1527

At the 2024 Apulia Summit, G7 leaders committed to "a fully or predominantly decarbonized power sector by 2035." 1528

Commitment Features

Definitions and Concepts

"Fully" is understood to mean "in a full manner or degree: completely." 1529

"Predominantly" is understood to mean "for the most part: mainly." 1530

"Decarbonize" is understood to mean to "reduce the levels of carbon emission." ¹⁵³¹ In the context of this commitment, decarbonised refers to means of producing, storing, and using energy that are less carbonintensive than fossil fuels, such as renewable energies.

¹⁵²³ Chair's Summary: G7 Energy Ministers' Meeting, G7 Information Centre (Toronto) 21 September 2018. Access Date: 21 December 2024. https://www.g7.utoronto.ca/energy/2018-energy.html

¹⁵²⁴ Communiqué, G7 Information Centre (Toronto) 6 May 2019. Access Date: 21 December 2024.

https://www.g7.utoronto.ca/environment/2019-environment.html

¹⁵²⁵ Carbis Bay G7 Summit Communiqué, The White House (Washington D.C.) 13 June 2021. Access Date: 21 December 2024.

https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/13/carbis-bay-g7-summit-communique/statements-releases/2021/06/13/carbis-bay-g7-summit-communique/statements-releases/statements-releas

¹⁵²⁶ G7 Leaders' Communiqué, G7 Information Centre (Toronto) 28 June 2022. Access Date: 21 December 2024.

https://g7.utoronto.ca/summit/2022elmau/220628-communique.html

¹⁵²⁷ G7 Hiroshima Leaders' Communiqué, G7 Information Centre (Toronto) 20 May 2023. Access Date: 21 December 2024. https://g7.utoronto.ca/summit/2023hiroshima/230520-communique.html

¹⁵²⁸ Apulia G7 Leaders' Communiqué, G7 Information Centre (Toronto) 14 June 2024. Access Date: 15 September 2024. https://g7.utoronto.ca/summit/2024apulia/240614-apulia-communique.html

¹⁵²⁹ Fully, Merriam-Webster (Springfield) n.d. Access Date: 21 December 2024. https://www.merriam-webster.com/dictionary/fully

¹⁵³⁰ Predominantly, Merriam-Webster (Springfield) n.d. Access Date: 21 December 2024. https://www.merriam-webster.com/dictionary/predominantly

¹⁵³¹ Decarbonize, Merriam-Webster (Springfield) n.d. Access Date: 21 September 2022. https://www.merriam-webster.com/dictionary/decarbonize

"Power sector" is understood to mean "a sector that consists of electricity only and combined heat and power plants whose primary business is to sell electricity, or electricity and heat, to the public." ¹⁵³²

General Interpretive Guidelines

Full compliance, or a score of +1, will be assigned to G7 members that take strong action to decarbonize the power sector. Strong actions to decarbonize the power sector include fiscal supports including funds, subsidies, tax credits, grants, or loans for research and development, scale up of manufacturing processes, investment in infrastructure such as grid modernization and renewable or nuclear electricity production. Other strong actions include but are not limited to legislation advancing clean electricity standards, net-zero targets, phase-out of fossil fuel-based electricity production including coal, diesel, and natural gas. Note that only actions that contribute to the decarbonization of G7 members power sectors will contribute to compliance.

Partial compliance, or a score of 0, will be assigned to G7 members that take weak action to decarbonize the power sector. Weaker actions include verbal statements of support, diplomatic meetings, and organization of forums that advance the commitment.

Non-compliance, or a score of -1, will be assigned to G7 members that take no action to decarbonize the power sector.

Scoring Guidelines

| | -1 | The G7 member has taken no action to decarbonize the power sector. | |
|---|----|--|--|
| | 0 | The G7 member has taken weak action to decarbonize the power sector. | |
| Ī | +1 | The G7 member has taken strong action to decarbonize the power sector. | |

Compliance Director: Eliana Tiritilli Lead Analyst: Quanita Khan

Canada: +1

Canada has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035.

On 21 June 2024, Minister of Energy and Natural Resources Jonathan Wilkinson and Minister of National Revenue Marie-Claude Bibeau announced four new Investment Tax Credit (ITC) for clean technology projects. The Clean Technology ITC, the Carbon Capture, Utilization and Storage ITC, the Clean Technology Manufacturing ITC and the Clean Hydrogen ITC aim to incentivize private-sector clean technology investment by reducing associated costs.

On 2 July 2024, Minister of Housing, Infrastructure and Communities Sean Fraser announced that the Canadian government will invest CAD9.7 million to modernize the electrical grid in Antigonish, Nova Scotia. ¹⁵³⁴ The investment, facilitated through the Smart Renewables and Electrification Pathways Program (SREP), seeks to improve the grid's resilience and efficiency, incorporate low-carbon energy sources and support Antigonish's net-zero carbon emissions target.

¹⁵³² Electric Power Sector, Energy Information Administration (Washington D.C.) Access Date: 21 December 2024. https://www.eia.gov/tools/glossary/index.php?id=Electric%20power%20sector

¹⁵³³ Government of Canada Launches the First Clean Economy Investment Tax Credits, Natural Resources Canada (Ottawa) 21 June 2024. Access Date: 28 December 2024. https://www.canada.ca/en/natural-resources-canada/news/2024/06/government-of-canada-launches-the-first-clean-economy-investment-tax-credits.html

¹⁵³⁴ Government of Canada Invests in Antigonish's Electrical Grid Modernization to Support Goal of 100% Clean Energy, Natural Resources Canada (Ottawa) 2 July 2024. Access Date: 28 December 2024. https://www.canada.ca/en/natural-resources-canada/news/2024/07/government-of-canada-invests-in-antigonishs-electrical-grid-modernization-to-support-goal-of-100-clean-energy.html

On 3 July 2024, Minister of Northern Affairs and Minister Responsible for Prairies Economic Development and the Northern Economic Development Agency Dan Vandal announced that the Canada Coal Transition Initiative and its Infrastructure Fund will invest approximately CAD39.4 million for 10 infrastructure projects for municipalities in Alberta. The disbursement aims to support municipalities in their transition away from coal-powered energy by stimulating their local economies.

On 3 July 2024, Minister Wilkinson announced a CAD11 million investment into clean hydrogen and small modular reactor research. ¹⁵³⁶ The investment seeks to support the development of clean hydrogen and nuclear energy as viable low- and ultra-low carbon energy alternatives.

On 15 July 2024, Minister of Innovation, Science and Industry François-Philippe Champagne announced that Canada's Strategic Innovation Fund will invest CAD30 million to support Hitachi Energy Canada's high-voltage direct current (HVDC) and transformer test laboratory projects. The investment aims to economize electricity use through in innovations in power transformer and HVDC transmission technology, facilitating the integration of low-carbon energy sources into power grids.

On 26 July 2024, Minister of Mental Health and Addictions Ya'ara Saks announced that the government would invest CAD5 million to support the University of Toronto in developing a Grid Modernization Centre. Through centralizing resources and promoting multi-stakeholder partnerships that encourage clean energy innovations, the Centre aims to modernize Canada's electrical grid and make low-carbon energy sources more prevalent.

On 29 July 2024, Minister Vandal announced CAD19 million in funding for renewable energy projects in Nunavut.¹⁵³⁹ Investments in solar and wind energy aim to support the territory's clean transition away from diesel as a primary energy source.

On 30 July 2024, Minister Wilkinson announced CAD192 million in funding for clean electricity projects in Nova Scotia through the SREP program.¹⁵⁴⁰ The supported projects, which include grid modernizations and wind farms, aim to both economize existing energy consumption and develop new low-carbon energy sources.

¹⁵³⁵ Minister Vandal announces investments to support infrastructure and economic development projects across Alberta, Prairies Economic Development Canada (Wabamun) 3 July 2024. Access Date: 28 December 2024.

https://www.canada.ca/en/prairies-economic-development/news/2024/07/minister-vandal-announces-investments-to-support-infrastructure-and-economic-development-projects-across-alberta.html

¹⁵³⁶ Government of Canada Announces \$11 Million to Advance Small Modular Reactor Research and Hydrogen Technologies to Support Clean Energy Development, Natural Resources Canada (Calgary) 3 July 2024. Access Date: 28 December 2024. https://www.canada.ca/en/natural-resources-canada/news/2024/07/government-of-canada-announces-11-million-to-advance

https://www.canada.ca/en/natural-resources-canada/news/2024/07/government-of-canada-announces-11-million-to-advance-small-modular-reactor-research-and-hydrogen-technologies-to-support-clean-energy-development.html

¹⁵³⁷ Government of Canada invests in project to secure electrical grids, Innovation, Science and Economic Development Canada (Varennes) 15 July 2024. Access Date: 28 December 2024. https://www.canada.ca/en/innovation-science-economic-development/news/2024/07/government-of-canada-invests-in-project-to-secure-electrical-grids.html

¹⁵³⁸ First-in-Canada Centre will support businesses and organizations as they accelerate clean technology development, Federal Economic Development Agency for Southern Ontario (Toronto) 26 July 2024. Access Date: 29 December 2024.

 $https://www.canada.ca/en/economic-development-southern-ontario/news/2024/07/first-in-canada-centre-will-support-businesses-and-organizations-as-they-accelerate-clean-technology-development. \\html$

¹⁵³⁹ Minister Vandal announces investments in clean energy projects to help reduce diesel use in Nunavut, Crown-Indigenous Relations and Northern Affairs Canada (Rankin Inlet) 29 July 2024. Access Date: 29 December 2024.

https://www.canada.ca/en/crown-indigenous-relations-northern-affairs/news/2024/07/minister-vandal-announces-investments-in-clean-energy-projects-to-help-reduce-diesel-use-in-nunavut.html

¹⁵⁴⁰ Government of Canada Expands Clean, Reliable and Affordable Electricity in Nova Scotia, Natural Resources Canada (Halifax) 30 July 2024. Access Date: 29 December 2024. https://www.canada.ca/en/natural-resources-

can ada/news/2024/07/government-of-can ada-expands-clean-reliable-and-affordable-electricity-in-nova-scotia. html

On 31 July 2024, Minister Wilkinson announced that the SREP program will mobilize CAD23.7 million in funding to expand renewable capacity in Edmonton, Alberta's Blatchford neighbourhood.¹⁵⁴¹

On 6 September 2024, the Housing, Infrastructure and Communities Ministry announced a joint federal, provincial and local investment of over CAD89 million into various clean energy projects in British Columbia. The suite of projects include clean energy-friendly building retrofits, infrastructure developments such as an renewable energy plant to crowd-out natural gas and improvements to North Vancouver's electrical service capacities.

On 15 September 2024, Minister Fraser announced CAD9.25 million through the Energy Innovation Program for net-zero technologies research in Atlantic Canada. Funding will support various projects led by Net Zero Atlantic, including clean technology research and development and an assessment of the viability of offshore wind resources in Atlantic Canada as a low-carbon energy source.

On 16 September 2024, Minister Wilkinson and Minister Fraser released a joint statement on clean energy development with Nova Scotia Premier Tim Houston and Nova Scotia Natural Resources Minister Tory Rushton.¹⁵⁴⁴ In this statement, the ministers note that the Canadian Infrastructure Bank will cooperate with Nova Scotia's Green Choice Program, which incentivizes private-sector adoption of low-carbon energy sources.

On 3 October 2024, the Atlantic Canada Opportunities Agency announced CAD100,000 in funding for L'nu Energy, a business operating in Prince Edward Island that develops and manages renewable energy projects. ¹⁵⁴⁵ The funding aims to support L'nu Energy's expansion by facilitating investment into new equipment.

On 3 October 2024, the Ministry of Energy and National Resources announced a total investment of CAD13.6 million into various small nuclear reactor research and development projects.¹⁵⁴⁶ The investment aims to improve the viability of nuclear energy as a low-carbon alternative energy source.

On 9 October 2024, Minister of Finance Chrystia Freeland announced a series of measures that aim to promote investment in Canada's clean technology sector. ¹⁵⁴⁷ Specifically, Minister Freeland announced new sustainable

¹⁵⁴¹ Government of Canada Announces \$23.7 Million in Affordable and Clean Energy Support for Blatchford, a Neighbourhood in Edmonton, Natural Resources (Edmonton) 31 July 2024. Access Date: 29 December 2024. https://www.canada.ca/en/natural-resources-canada/news/2024/07/government-of-canada-announces-237-million-in-affordable-and-clean-energy-support-for-blatchford-a-neighbourhood-in-edmonton.html

¹⁵⁴² More than \$89 million invested in clean economy infrastructure projects across British Columbia, Housing, Infrastructure and Communities Canada (Vancouver) 6 September 2024. Access Date: 29 December 2024. https://www.canada.ca/en/housing-infrastructure-communities/news/2024/09/more-than-89-million-invested-in-clean-economy-infrastructure-projects-across-british-columbia.html

 ¹⁵⁴³ Canada Invests in Net Zero Atlantic to Create Jobs and Support Clean Energy for Atlantic Canadians, Natural Resources Canada (Halifax) 15 September 2024. Access Date: 29 December 2024. https://www.canada.ca/en/natural-resources-canada/news/2024/09/canada-invests-in-net-zero-atlantic-to-create-jobs-and-support-clean-energy-for-atlantic-canadians.html
 1544 Ensuring Access to Affordable, Reliable, Secure and Non-Emitting Electricity in Nova Scotia, Natural Resources Canada (Ottawa) 16 September 2024. Access Date: 29 December 2024. https://www.canada.ca/en/natural-resources-canada/news/2024/09/ensuring-access-to-affordable-reliable-secure-and-non-emitting-electricity-in-nova-scotia.html
 1545 Supporting clean tech innovation in First Nations communities, Atlantic Canada Opportunities Agency (Lennox Island) 3 October 2024. Access Date: 29 December 2024. https://www.canada.ca/en/atlantic-canada-opportunities/news/2024/10/supporting-clean-tech-innovation-in-first-nations-communities.html

¹⁵⁴⁶ Government of Canada Advances Small Modular Reactor Research and Development With \$13.6-Million Investment, Natural Resources Canada (Ottawa) 3 October 2024. Access Date: 29 December 2024. https://www.canada.ca/en/natural-resources-canada/news/2024/10/government-of-canada-advances-small-modular-reactor-research-and-development-with-136-million-investment.html

¹⁵⁴⁷ Government advances Made-in-Canada sustainable investment guidelines and mandatory climate disclosures to accelerate progress to net-zero emissions by 2050, Department of Finance Canada (Ottawa) 9 October 2024. Access Date: 29 December 2024. https://www.canada.ca/en/department-finance/news/2024/10/government-advances-made-in-canada-sustainable-investment-guidelines-and-mandatory-climate-disclosures-to-accelerate-progress-to-net-zero-emissions.html

investment guidelines for clean energy technologies that are made in Canada, as well as sharing the government's intent to mandate climate-related financial disclosures for large corporations. The measures aim to make corporate climate-related financing more transparent, and to guide investment into Canadian clean energy capital.

On 10 October 2024, the Department of Finance announced the re-opening of a ten-year "green bond." The green bond issuance aims to raise an additional CAD2 billion for reinvestment into nature conservation and the green economy, including low-carbon energy and infrastructure.

On 10 October 2024, Minister Wilkinson announced that SREP will offer up to CAD500 million through its Utilities Support Stream to organizations looking to either economize their electrical transmission or modernize their grids with renewable energies.¹⁵⁴⁹ The new Utilities Support offering allows organizations to better accommodate low-carbon energy alternatives.

On 15 October 2024, Public Services and Procurement Canada announced the purchase of CAD73 million worth of low-carbon energy inflows to federal government-owned buildings. The contracts support Canada's Greening Government Strategy and promotes low-carbon energy as a viable alternative.

On 6 November 2024, Minister Wilkinson announced CAD660,000 in SREP funding for the Labrador West Transmission Study. 1551 The new funding aims to increase the prevalence of low-carbon energy sources, namely hydroelectricity and wind, in Newfoundland and Labrador.

On 26 November 2024, Natural Resources Canada announced a CAD2 million investment for geothermal energy development in the Northwest Territories (NWT). The funding aims to facilitate a just clean energy transition for communities in NWT, particularly through promoting geothermal energy as a low-carbon alternative.

On 27 November 2024, Minister Wilkinson opened a grant competition promote connectivity and open dialogue between offshore wind developments and citizens in coastal communities. The grants aim to ensure that the offshore wind energy industry is accountable, supporting its viability as a low-carbon energy source in Atlantic Canada.

¹⁵⁴⁸ Canada successfully re-opens 10-year green bond to raise an additional \$2 billion, Department of Finance Canada (Ottawa) 10 October 2024. Access Date: 29 December 2024. https://www.canada.ca/en/department-finance/news/2024/10/canada-successfully-re-opens-10-year-green-bond-to-raise-an-additional-2-billion.html

¹⁵⁴⁹ The Government of Canada Announces New Intake for Clean Electricity Program With \$500 Million in Additional Funding, Natural Resources Canada (Toronto) 10 October 2024. Access Date: 29 December 2024. https://www.canada.ca/en/natural-resources-canada/news/2024/10/the-government-of-canada-announces-new-intake-for-clean-electricity-program-with-500-million-in-additional-funding.html

¹⁵⁵⁰ Government of Canada continues progress on greening operations and supporting clean electricity infrastructure, Public Services and Procurement Canada (Calgary) 15 October 2024. Access Date: 29 December 2024.

 $https://www.canada.ca/en/public-services-procurement/news/2024/10/government-of-canada-continues-progress-on-greening-operations-and-supporting-clean-electricity-infrastructure. \\ html$

¹⁵⁵¹ Canada Invests in Clean Energy and Critical Minerals at Mineral Resources Review 2024 Conference, Natural Resources Canada (St. John's) 6 November 2024. Access Date: 29 December 2024. https://www.canada.ca/en/natural-resources-canada/news/2024/11/canada-invests-in-clean-energy-and-critical-minerals-at-mineral-resources-review-2024-conference.html ¹⁵⁵² The Government of Canada Invests in Geothermal Energy in Northern Canada, Natural Resources Canada (Yellowknife) 26 November 2024. Access Date: 29 December 2024. https://www.canada.ca/en/natural-resources-canada/news/2024/11/the-government-of-canada-invests-in-geothermal-energy-in-northern-canada.html

¹⁵⁵³ The Government of Canada Launches Call for Proposals for the Offshore Wind Indigenous and Coastal Communities Grant Funding, Natural Resources Canada (Halifax) 27 November 2024. Access Date: 29 December 2024.

https://www.canada.ca/en/natural-resources-canada/news/2024/11/the-government-of-canada-launches-call-for-proposals-for-the-offshore-wind-indigenous-and-coastal-communities-grant-funding.html

On 5 December 2024, Minister Wilkinson announced that the federal government will invest CAD265 million into clean electricity projects in Saskatchewan. The investments support a mix of public and private actors in modernizing Saskatchewan's electrical grid and expanding low-carbon energy capacities.

On 8 December 2024, Minister of Environment and Climate Change Steven Guilbeault and Minister of Intergovernmental Affairs, Public Safety and Democratic Institutions Dominic LeBlanc announced a series of investments, totalling over CAD1 billion, into New Brunswick's clean energy economy. Particular investments include support for the Belledune Generating Station's transition from coal to biomass, a CAD25 million SREP investment into the Neweg Energy wind project and up to CAD1 billion for Indigenous-led wind developments.

On 13 December 2024, the Ministry of Energy and Natural Resources announced that the government will mobilize CAD152 million in SREP funding for various clean electricity projects in Alberta. The projects aim to support upgrades to Alberta's renewable energy infrastructure, making low-carbon energy sources such as solar and wind power more viable.

On 16 January 2025, Minister for Prairies Economic Development Terry Duguid announced CAD718,400 in funding for Saskatoon's Business Association to educate businesses on decarbonization efforts. The funding seeks to promote sustainable business practices and advocate for decarbonization as a competitive advantage.

On 31 January 2025, the Government of Canada and the Government of Nova Scotia announced the coming into force of Bill C-49 and Bill741. These bills amend the Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act to allow offshore renewable energy development.

On 5 February 2025, Minister of Transport and Internal Trade Anita Anand announced up to CAD25 million in funding to the Halifax Port Authority. 1559 This funding will accelerate the development of various green initiatives at the port, such as a hydrogen production facility and the electrification of port equipment.

On 6 February 2025, Minister Wilkinson and Quebec's Minister of the Economy, Innovation and Energy Christine Frechette and Quebec's Minister of Natural Resources and Forests Maïté Blanchette Vézina announced the establishment of the Quebec-Canada Collaboration Table on Energy and Resources. 1560 The

¹⁵⁵⁴ Powering Canada's Future: Federal measures helping build Saskatchewan's 21st century electricity grid, Environment and Climate Change Canada (Regina) 5 December 2024. Access Date: 29 December 2024. https://www.canada.ca/en/environment-climatechange/news/2024/12/powering-canadas-future-federal-measures-helping-build-sask at chewans-21 st-century-electricity-grid. html1555 Powering Canada's Future: Ensuring Access to Affordable, Reliable and Clean Electricity in New Brunswick, Natural Resources Canada (Dieppe) 8 December 2024. Access Date: 29 December 2024. https://www.canada.ca/en/natural-resourcescan ada/news/2024/12/powering-can adas-future-ensuring-access-to-affordable-reliable-and-clean-electricity-in-new-brunswick. html¹⁵⁵⁶ Powering Canada's Future: More Renewable, Affordable and Reliable Power for Albertans, Natural Resources Canada (Calgary) 13 December 2024. Access Date: 29 December 2024. https://www.canada.ca/en/natural-resourcescan ada/news/2024/12/powering-can adas-future-more-renewable-affordable-and-reliable-power-for-albertans. html¹⁵⁵⁷ Government of Canada supports decarbonization initiative to assist Saskatchewan businesses, Prairies Economic Development Canada (Saskatoon) 16 January 2025. Access Date: 28 January 2025 https://www.canada.ca/en/prairies-economicdevelopment/news/2025/01/government-of-can ada-supports-decarbonization-initiative-to-assist-sask at chewan-businesses. html1558 Government of Canada and Nova Scotia Moving Forward to Seize the Enormous Economic Opportunities of Offshore Wind, Natural Resources Canada (Ottawa) 31 January 2025. Access Date: 28 February 2025. https://www.canada.ca/en/naturalresources-canada/news/2025/01/government-of-canada-and-nova-scotia-moving-forward-to-seize-the-enormous-economicopportunities-of-offshore-wind.html

¹⁵⁵⁹ The Government of Canada invests in port infrastructure for Atlantic Canada, Transport Canada (Halifax) 5 February 2025. Access Date: 19 February 2025. https://www.canada.ca/en/transport-canada/news/2025/02/the-government-of-canada-invests-in-port-infrastructure-for-atlantic-canada.html

¹⁵⁶⁰ Governments of Canada and Quebec Launch Quebec-Canada Collaboration Table on Energy and Resources, Natural Resources Canada (Montreal) 6 February 2025. Access Date 27 February 2025. https://www.canada.ca/en/natural-resources-canada/news/2025/02/governments-of-canada-and-quebec-launch-quebec-canada-collaboration-table-on-energy-and-resources.html

Table aims to help facilitate the decarbonization of Quebec's economy and find areas of cooperation in the transition to a clean economy.

On 11 February 2025, Minister Anand announced up to CAD35.5 million in funding to projects in British Columbia to improve the carbon impact of port activities in the province. The funding will improve shore power capabilities reducing emissions from idling ships and increasing the use of renewables in port operations.

On 12 February 2025, Parliamentary Secretary Marc G. Serré, on behalf of Minister Wilkinson, announced CAD14.2 million in funding for several carbon capture research and development projects. These investments aim to reduce the cost of carbon capture and offset emissions and are funded through the EIP. This research applies to carbon capture for both the power sector and other potentially emitting energy production sectors.

On 13 February 2025, Minister Wilkinson announced Canada's membership in the Global Offshore Wind Alliance (GOWA), an international coalition to accelerate offshore wind uptake. GOWA will give Canada access to international and industry knowledge to accelerate offshore wind development, focusing on the maritime provinces.

On 24 February, 2025, Natural Resources Canada announced a contribution of CAD500,000 to the second phase of the Global Initiative for Transitioning Remote Communities to Renewable Energy in partnership with the International Renewable Energy Agency (IRENA).¹⁵⁶⁴ The funds will contribute to phase two activities, including developing case studies, conducting country level assessments and organizing workshops, and technical discussions aimed at developing renewable energy projects in remote communities.

On 5 March 2025, Minister Wilkinson announced up to CAD304 million over four years to finance the development of a new Canadian deuterium uranium (CANDU) reactor. The development, overseen by AtkinsRéalis, will fulfill the demand for safe, clean electricity and advance Canadian nuclear power research and development. Minister Wilkinson also announced CAD55 million in funding to support Ontario Power Generation's Darlington New Nuclear Project and CAD66 million in funding to support SaskPower's development of a small nuclear reactor.

¹⁵⁶¹ The Government of Canada is reducing emissions at British Columbia ports, Transport Canada (Victoria) 11 February 2025. Access Date: 19 February 2025. https://www.canada.ca/en/transport-canada/news/2025/02/the-government-of-canada-is-reducing-emissions-at-british-columbia-ports.html

¹⁵⁶² Canada Invests in Cutting-Edge Carbon Capture and Storage to Drive Clean Energy Innovation, National Resources Canada (Toronto) 12 February 2025. Access Date: 19 February 2025. https://www.canada.ca/en/natural-resources-canada/news/2025/02/canada-invests-in-cutting-edge-carbon-capture-and-storage-to-drive-clean-energy-innovation0.html ¹⁵⁶³ Government of Canada Joins Global Efforts to Accelerate the Deployment of Offshore Wind and Help Power Canada's Economy, Natural Resources Canada (Halifax) 13 February 2025. Access Date: 19 February 2025. https://www.canada.ca/en/natural-resources-canada/news/2025/02/government-of-canada-ioins-global-efforts-to-accelerate

 $https://www.canada.ca/en/natural-resources-canada/news/2025/02/government-of-canada-joins-global-efforts-to-accelerate-the-deployment-of-offshore-wind-and-help-power-canadas-economy. \\html$

¹⁵⁶⁴ Canada Invests in Phase 2 of the Global Initiative on Transitioning Remote Communities to Renewable Energy, Natural Resources Canada (Ottawa) 24 February 2025. Access Date 27 February 2025. https://www.canada.ca/en/natural-resources-canada/news/2025/02/canada-invests-in-phase-2-of-the-global-initiative-on-transitioning-remote-communities-to-renewable-energy.html

¹⁵⁶⁵ Canada Invests in the Next Generation of Canadian-Made, Clean, Affordable Nuclear Energy, Natural Resources Canada (Cambridge) 5 March 2025. Access Date: 27 March 2025. https://www.canada.ca/en/natural-resources-canada/news/2025/03/canada-invests-in-the-next-generation-of-canadian-made-clean-affordable-nuclear-energy0.html

On 6 March 2025, Member of Parliament Yasir Naqvi, on behalf of Minister Guilbeault, announced CAD1.6 million in funding to Carleton University through the Decarbonization Incentive Program. This funding will be used to replace a natural gas steam boiler with an electric boiler, cutting 2,900 tonnes of emissions in 2030.

On 13 March 2025, Member of Parliament Chad Collins, on behalf of Minister Wilkinson, announced a CAD10 million investment through the Greener Neighbourhoods Pilot Program (GNPP) to retrofit affordable housing units in Hamilton. These retrofits, which include rooftop solar and electric heat pumps, are expected to reduce per-unit greenhouse gas emissions by 90 per cent and energy usage by 61 per cent.

On 18 March 2025, Minister Wilkinson, alongside Minister of Indigenous Services Patty Hajdu and Minister of Crown–Indigenous relations and Northern Affairs Gary Anandasangaree, announced CAD11 million towards clean energy initiatives under Natural Resources Canada's Clean Energy for Rural and Remote Communities program.¹⁵⁶⁸ This funding round focuses on indigenous communities, including building and expanding photovoltaic systems and heat pump installations.

On 21 March 2025, Minister of Environment and Climate Change Terry Duguid announced CAD150 million in funding towards 38 decarbonization incentive projects. This money was sourced from the Output-Based Pricing System and is slated to go towards a range of carbon-minimizing activities, such as replacing old gas boilers with electric ones and promoting direct carbon management technologies.

On 21 March 2025, Joanne Thompson, on behalf of Minister Wilkinson, announced CAD11.46 million through the GNPP to retrofit community housing units in St. John's. 1570 The retrofits aim to reduce electricity usage and improve environmental impact. They include lighting and heating efficiency improvements, which are expected to reduce per-unit greenhouse gas emissions by more than 80 per cent.

Canada has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035. Through a series of investments, notably through various disbursements under the SREP program, Canada has supported both new clean energy development starts and measures to make existing electrical grids more efficient. Canada has also supported clean energy research and development, directly through funding research projects and indirectly through supporting dialogues and partnerships between clean energy industry stakeholders. Canada's green bond issuance demonstrates an intent to continue these investments and further promote a decarbonized energy sector.

Thus, Canada receives a score of +1.

Analysts: Eli Mueller and Luca Rampersad

¹⁵⁶⁶ Federal support helps deliver innovative clean energy upgrades at Carleton University, Environment and Climate Change Canada (Ottawa) 6 March 2025. Access Date: 27 March 2025. https://www.canada.ca/en/environment-climate-change/news/2025/03/federal-support-helps-deliver-innovative-clean-energy-upgrades-at-carleton-university.html ¹⁵⁶⁷ Canada Invests in Deep Energy Retrofits for Affordable Housing in Hamilton, Natural Resources Canada (Ottawa) 13 March 2025. Access Date: 27 March 2025. https://www.canada.ca/en/natural-resources-canada/news/2025/03/canada-invests-in-deep-energy-retrofits-for-affordable-housing-in-hamilton.html

¹⁵⁶⁸ Government of Canada Announces Funding for Clean and Reliable Energy in First Nations and Inuit Communities, Natural Resources Canada (Thunder Bay) 18 March 2025. Access Date: 27 March 2025. https://www.canada.ca/en/natural-resources-canada/news/2025/03/government-of-canada-announces-funding-for-clean-and-reliable-energy-in-first-nations-and-inuit-communities0.html

¹⁵⁶⁹ Federal industrial carbon pricing delivers 38 new innovative and clean technology projects across Canada, Environment and Climate Change Canada (Gatineau) 21 March 2025. Access Date: 27 March 2025. https://www.canada.ca/en/environment-climate-change/news/2025/03/federal-industrial-carbon-pricing-delivers-38-new-innovative-and-clean-technology-projects-across-canada.html

¹⁵⁷⁰ Canada Invests in Retrofits for Community Housing in St. John's, Natural Resources Canada (St. John's) 21 March 2025. Access Date: 27 March 2025. https://www.canada.ca/en/natural-resources-canada/news/2025/03/canada-invests-in-retrofits-for-community-housing-in-st-johns.html

France: +1

France has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035.

On 7 July 2024, President Emmanuel Macron and Prime Minister Gabriel Attal issued a decree outlining provisions to operationalize "transition bonds" for decarbonization.¹⁵⁷¹ France will guarantee up to EUR5 billion in bonds for small and medium sized enterprises, with funds committed in the 2024 Budget. 1572 The decree outlines a list of eligible investments including those that contribute to power sector decarbonization. 1573

On 25 October 2024, the Ministry of Ecological Transition announced that public consultation for the Third National Climate Change Adaptation Plan would occur from 25 October to 27 December 2024. 1574 Additionally, they announced that consultation for the Third National Low-Carbon Strategy and the Third Multi-Year Energy Program would occur from 4 November to 16 December 2024. These consultation periods help involve citizens in climate policy, including decarbonization, allowing them to express their views and policy choices in an open forum.

On 20 November 2024, the French Alternative Energies and Atomic Energy Commission, along with the Japanese Ministry of Economy, Trade and Industry and the Ministry of Education, Culture, Sports, Science and Technology, updated the agreement on cooperation in fast reactor development.¹⁵⁷⁵ Established in 2014, this agreement outlined cooperation in atomic energy development in France and Japan. The update added Electricité de France and Japan Atomic Power Company as implementing agencies related to reactor cooperation.

On 16 December 2024, Minister for the Ecological Transition, Energy, the Climate and Risk Prevention Agnes Pannier-Runacher and the Council of the European Union approved conclusions on promoting geothermal energy. 1576 As a result of these conclusions the European Council called for faster deployment of geothermal energy across the EU, including in France, by adopting or adapting proposals for its promotion. These measures include easier access to permits and finance for geothermal projects.

On 19 December 2024, the Ministry of the Economy, Finance and Industrial and Digital Sovereignty announced a call for projects under the "DECARB IND 25" scheme as part of the France 2030 plan. 1577 The

¹⁵⁷¹ Décret n° 2024-752 du 7 juillet 2024 relatif à la garantie de l'Etat prévue à l'article 185 de la loi n° 2023-1322 du 29 décembre 2023 de finances pour 2024, Légifrance (Paris) 7 July 2024. Translation provided by Google Translate. Access Date: 3 January 2025. https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000049894711

¹⁵⁷² Les Obligations transition, un nouvel outil de financement de la transition destiné aux PME et ETI, Ministère de l'Économie, des Finances et de la Souveraineté Industrielle et Numérique (Paris) 22 November 2024. Access Date: 3 January 2025.

https://www.economie.gouv.fr/actualites/les-obligations-transition-un-nouvel-outil-de-financement-de-la-transition-destine-aux.1573 Décret n° 2024-752 du 7 juillet 2024 relatif à la garantie de l'Etat prévue à l'article 185 de la loi n° 2023-1322 du 29 décembre 2023 de finances pour 2024, Légifrance (Paris) 7 July 2024. Translation provided by Google Translate. Access Date: 3 January 2025. https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000049894711

¹⁵⁷⁴ Transition énergétique et climatique : les Français consultés, Ministères Aménagement du territoire Transition écologique (Paris) 25 October 2024. Translation Provided by Google Translate. Access Date 29 December 2024.

https://www.ecologie.gouv.fr/actualites/transition-energetique-climatique-francais-consultes

¹⁵⁷⁵ フランス共和国と高速炉の開発の協力に係る合意文書を更新しました, 経済産業省 (Tokyo) 20 November 2024. Translation provided by Google Translate. Access Date: 29 December 2024.

https://www.meti.go.jp/press/2024/11/20241120001/20241120001.html

¹⁵⁷⁶ Geothermal energy: Council calls for faster deployment, European Council (Brussels) 16 December 2024. Access Date 30 December 2024. https://www.consilium.europa.eu/en/press/press-releases/2024/12/16/geothermal-energy-council-calls-forfaster-deployment/

¹⁵⁷⁷ France 2030 : Relance de l'appel à projets « DECARB IND » pour décarboner l'industrie, Ministère de L'Économie, des Finances et de la Souveraineté Industrielle et Numérique (Paris) 19 December 2024. Translation provided by Google Translate. Access Date: 28 February 2025. https://presse.economie.gouv.fr/france-2030-relance-de-lappel-a-projets-decarb-ind-pourdecarboner-lindustrie/

scheme will provide investment support for selected projects aimed at decarbonizing industrial activities by at least 1,000 tCO2/year.

On 6 February 2025, the Senate passed the 2025 budget. The budget outlines a plan to expand renewable electricity, targeting a 40 per cent share of total electricity production from renewable sources by 2030. To support this, it tracks installed capacity targets for onshore wind, offshore wind, and photovoltaic solar, with progress measured in megawatts. These technologies benefit from updated reference remunerations delivered through contractual mechanisms like feed-in tariffs and contracts for difference, ensuring predictable returns for investors. To maintain grid reliability, a new capacity certification system determines which production or storage units can participate in the capacity market. The scheme excludes installations emitting more than 550g of CO₂/kWh (if commissioned after 2019) or older installations emitting over 350kg CO₂/kW, reinforcing the shift to cleaner energy. Additionally, the budget allocates EUR3 million allocated to support renewable energy deployment and demand-side management in non-interconnected zones, such as island or remote grids.

France has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035. France has taken strong action by providing finance for small business and through provisions in its 2025 budget including, updated feed-in tariffs for wind and solar, capacity targets rules, a scheme that excludes high-emission plants from grid certification, and allocates funding for renewables in remote areas.

Thus, France receives a score of+1.

Analysts: Alisha Aslam and Ilya Goheen

Germany: +1

Germany has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035.

On 26 June 2024, the Ministry for Economic Affairs and Climate Protection expanded support for local renewable energy projects. Particularly, the Ministry raised the ceiling for per-project support to EUR300,000 and reduced the minimum size of an applicant company for grant eligibility (in number of employees). The decisions effectively increase both eligibility and potential disbursement for small-scale renewable energy projects.

On 28 June 2024, Development Minister Svenja Schulze concluded a cooperation agreement on climate and renewable energies with the government of Morocco.¹⁵⁸¹ As part of this agreement, Germany will support the development of a green hydrogen industry in Morocco and facilitate electricity trading between Morocco and the European Union given Morocco's wind and solar conditions.

On 2 July 2024, the Ministry for Economic Affairs and Climate Protection announced a special guarantee program to mitigate the financial risks involved with state projects to establish onshore converters and offshore

¹⁵⁷⁸ French Parliament finally passes 2025 budget, Le Monde (Paris) 6 February 2025. Access Date: 12 May 2025. https://www.lemonde.fr/en/france/article/2025/02/06/french-parliament-finally-passes-2025-budget_6737858_7.html ¹⁵⁷⁹ PROJET DE LOI de finances pour 2025, Le Sénat (Paris) 6 February 2025. Translation provided by Google Translate. Access Date: 12 May 2025. http://senat.fr/leg/tas24-048.pdf

¹⁵⁸⁰ BMWK verbessert Förderung von Bürgerenergieprojekten bei Windenergie an Land, Bundesministerium für Wirtschaft und Klimaschutz (Berlin) 26 June 2024. Translation provided by Google Translate. Access Date: 30 December 2024. https://www.bmwk.de/Redaktion/DE/Pressemitteilungen/2024/06/20240626-bmwk-foerderung-buergerenergieprojekten-windenergie-an-land.html

¹⁵⁸¹ Deutschland und Marokko vereinbaren Allianz für Klima und Energie, Bundesministerium für Wirtschaft und Klimaschutz (Berlin) 28 June 2024. Translation provided by Google Translate. Access Date: 30 December 2024. https://www.bmwk.de/Redaktion/DE/Pressemitteilungen/2024/06/20240628-deutschland-marokko-allianz-fuer-klima-und-energie.html

converter platforms.¹⁵⁸² The development of converters and converter platforms facilitate the further introduction of renewable and low-carbon energy sources into electrical grids.

On 23 August 2024, the Ministry for Economic Affairs and Climate Protection released new guidelines for small and medium-sized enterprises (SMEs) looking to benefit from government funding for climate-smart initiatives. The guidelines indicate a total of EUR3.3 billion in annual grant competitions available to SMEs between September 2024 and 2030.

On 29 August 2024, the Ministry for Economic Affairs and Climate Action produced an update to its Integrated National Energy and Climate Plan (NECP).¹⁵⁸⁴ In this update, the Ministry shared various new goals relating to the phase-in and phase-out of energy sources. By 2030, the Ministry aims for renewable energy to constitute 80 per cent of all energy production, and for coal-fired power to be completely phased out. The updated NECP also includes provisions to improve energy efficiency, including supports for energy storage technology development. Further, the NECP outlines plans for the development of new hydrogen-ready gas power plants and the modernization of electricity grids for renewable energy integration. Finally, the NECP notes the German government's use of market incentives to reduce emissions by supporting market integration for renewable energies, supporting research and development and carbon pricing.

On 4 September 2024, the Cabinet adopted a draft law that aims to promote geothermal energy as a low-carbon alternative to fossil fuels. ¹⁵⁸⁵ The draft law expedites approval processes for new geothermal plant, heat pump and heat accumulator starts. Geothermal project proposals will also enjoy a higher level of priority when being considered for approval. The draft law also simplifies the approval process, by allowing online document filing for new geothermal project proposals.

On 8 October 2024, the Federal Ministry for Economic Cooperation and Development jointly organized the first Hamburg Sustainability Conference (HSC) alongside the United Nations Development Programme, the City of Hamburg and the Michael Otto Foundation. ¹⁵⁸⁶ The HAC provided stakeholders with the opportunity to explore avenues for cooperation on low-carbon energies. The HSC led to more than 15 joint agreements and declarations, including the Hamburg Declaration on the Decarbonization on Global Shipping and the Hamburg Declaration on Green Aviation.

On 9 October 2024, the Cabinet adopted draft legislation implementing the European Union's Directive 2023/2413 and instituting new policies to promote the development of low-carbon energy sources. The draft law establishes an "acceleration area" system, where onshore wind and solar energy starts in designated

¹⁵⁸⁶ More than 15 agreements for a sustainable future, Federal Ministry for Economic Cooperation and Development (Berlin) 8 October 2024. Access Date: 30 December 2024. https://www.bmz.de/en/news/press-releases/hsc-more-than-15-agreements-for-a-sustainable-future-230740

¹⁵⁸⁷ Bundeskabinett – Ergebnisse, Die Bundesregierung (Berlin) 9 October 2024. Translation provided by Google Translate. Access Date: 3 January 2025. https://www.bundesregierung.de/breg-de/bundesregierung/bundeskanzleramt/kabinettssitzungen/bundeskabinett-ergebnisse-2313986

¹⁵⁸² Wichtiger Schritt zur Umsetzung der Energiewende, Bundesministerium für Wirtschaft und Klimaschutz (Berlin) 2 July 2024. Translation provided by Google Translate. Access Date: 30 December 2024. https://www.bmwk.de/Redaktion/DE/Pressemitteilungen/2024/07/20240702-sonderbuergschaftsprogramm-konverter-konverterplattformen.html
1583 Neue Förderrichtlinie für die Dekarbonisierung des Mittelstands, Bundesministerium für Wirtschaft und Klimaschutz (Berlin)
23 August 2024. Translation provided by Google Translate. Access Date: 30 December 2024. https://www.bmwk.de/Redaktion/DE/Pressemitteilungen/2024/08/20240823-neue-foerderrichtlinie-dekarbonisierung-mittelstand.html
1584 Update of the Integrated National Energy and Climate Plan, Federal Ministry for Economic Affairs and Climate Action (Berlin)
29 August 2024. Access Date: 29 December 2024. https://commission.europa.eu/document/download/cd8ba2d6-1af6-4f37-aa07-059989bb1264_en?filename=GERMANY-FINAL_UPDATED_NECP_2021-2030_%28ENGLISH%29.pdf
1585 Mehr Strom und Wärme aus Erdenergie, Bundesregierung (Berlin) 4 September 2024. Translation provided by Google Translate. Access Date: 29 December 2024. https://www.bundesregierung.de/breg-de/bundesregierung/bundeskanzleramt/geothermie-genehmigung-2305644

zones benefit from expedited government approval processes.¹⁵⁸⁸ Additionally, the draft law allows developers to connect energy storage facilitates to renewable energy farms, improving energy retention and securing energy supply continuity. The draft law also amends the Federal Emission Control Act and the Renewable Energy Sources Act to accommodate the "acceleration area" system and to facilitate more renewable energy starts. The overall aim of the draft law is to accelerate renewable energy source production and to improve the volume and security of energy supply from low-carbon sources.

On 17 October 2024, Federal Minister of Economic Affairs and Climate Protection Robert Habeck agreed to various measures with representatives of major companies in the German wind turbine industry. The Ministry and the companies jointly agreed to improve the fairness of wind markets, support wind turbine cybersecurity and introduce new financing avenues for expansion.

On 13 November 2024, the Cabinet adopted changes to Germany's energy industry law. ¹⁵⁹⁰ The amendments incentivize the development of "energy sharing" system in communities, seeking to improve the connectivity and efficiency of solar energy by integrating solar panels on residential roofs into community grids.

On 27 November 2024, the Cabinet adopted the Second Future Financing Act.¹⁵⁹¹ The federal government's statement on the Act's adoption emphasizes the Act's focus on facilitating capital investment in renewable energy sources.

On 16 December 2024, Minister Habeck and the Council of the European Union approved conclusions on promoting geothermal energy.¹⁵⁹² As a result of these conclusions the European Council called for faster deployment of geothermal energy across the EU, including Germany, by adopting or adapting proposals for its promotion. These measures include easier access to permits and finance for geothermal projects.

On 20 December 2024, the Federal Ministry for Economic Affairs and Climate Protection announced EUR37.875 million in support for the states of Berlin and Lower Saxony. The disbursement to Lower Saxony aims to support the development of onshore and offshore wind energy projects in the state.

Germany has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035. Germany has taken various strong actions to support the development of domestic low-carbon energy starts through targeted funding for wind and geothermal projects, the simplification of government approval processes and the incentivization of small-scale low-carbon energy projects. The above actions demonstrate Germany's commitment to decarbonizing the energy sector.

¹⁵⁸⁸ Gesetz zur Umsetzung der Richtlinie (EU) 2023/2413 in den Bereichen Windenergie an Land und Solarenergie sowie für Energiespeicheranlagen am selben Standort, Bundesrat (Berlin) 9 October 2024. Translation provided by Google Translate. Access Date: 29 December 2024. https://dserver.bundestag.de/brd/2024/0396-24.pdf

¹⁵⁸⁹ Maßnahmenpapier für heimische Windindustrie vorgelegt, Bundesministerium für Wirtschaft und Klimaschutz (Berlin) 17 October 2024. Translation provided by Google Translate. Access Date: 30 December 2024.

https://www.bmwk.de/Redaktion/DE/Pressemitteilungen/2024/10/20241017-massnahmenpapier-heimische-windindustrie.html ¹⁵⁹⁰ Änderungen im Energiewirtschaftsrecht, Bundesregierung (Berlin) 13 November 2024. Translation provided by Google Translate. Access Date: 29 December 2024. https://www.bundesregierung.de/breg-de/bundesregierung/bundeskanzleramt/energiewirtschaftsrecht-2320072

¹⁵⁹¹ Finanzstandort Deutschland weiter stärken, Bundesregierung (Berlin) 27 November 2024. Translation provided by Google Translate. Access Date: 29 December 2024. https://www.bundesregierung.de/breg-de/bundesregierung/bundeskanzleramt/zweites-zukunftsfinanzierungsgesetz-2322054

¹⁵⁹² Geothermal energy: Council calls for faster deployment, European Council (Brussels) 16 December 2024. Access Date 30 December 2024. https://www.consilium.europa.eu/en/press/press-releases/2024/12/16/geothermal-energy-council-calls-for-faster-deployment/

¹⁵⁹³ Gemeinschaftsaufgabe Regionale Wirtzschaftsförderung: BMWK sichert Finanzierung wichtiger Investitionsvorhaben in Berlin und Niedersachsen, Bundesministerium für Wirtschaft und Klimaschutz (Berlin) 20 December 2024. Translation provided by Google Translate. Access Date: 29 December 2024. https://www.bmwk.de/Redaktion/DE/Pressemitteilungen/2024/12/20241220-regionale-wirtschaftsfoerderung-berlin-und-niedersachsen.html

Thus, Germany receives a score of +1.

Analysts: Nathan Cheung and Luca Rampersad

Italy: +1

Italy has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035.

On 11 July 2024, Minister of Environment and Energy Security Gilberto Pichetto signed a decree that sets environmental requirements for energy-intensive companies receiving bill discounts for using renewable energy. Companies must now meet conditions such as implementing quick-return energy efficiency upgrades, sourcing 30 per cent of energy from renewables, and investing half of their incentives in emissions-reduction projects. This decree finalizes the 2023 incentive program aimed at supporting decarbonization while ensuring competitiveness, developed with industry and organizational input.

On 23 July 2024, Minister Pichetto introduced the Energy Release decree to support energy-intensive companies transitioning to renewable energy. The Energy Release decree allows energy-intensive companies to access cheaper electricity if they commit to building renewable energy capacity within 40 months. They must repay the energy over 20 years, with up to EUR300 thousand in support for related costs.

On 8 October 2024, the Ministry of Environment and Energy Security, introduced a decree to support renewable energy production and expand the national electricity grid, with EUR1.62 billion in funding. ¹⁵⁹⁶ This initiative, part of the National Research, Innovation, and Competitiveness Program for 2021-2027, aims to help companies of all sizes implement renewable energy projects and improve grid capacity to handle more renewable power.

On 11 October 2024, the Italian government, led by Minister Pichetto, approved a new regulation for a centralized electricity storage system. These storage systems will collect excess energy from renewable sources such as solar and wind during high-production periods and release it during peak consumption times. This move aims to strengthen Italy's storage capacity and support the integration of more renewable energy into the grid.

On 30 October 2024, the Ministry of the Environment and Energy Security announced their approval of new rules regarding their "energy release" program. The program helps high-energy-consuming companies transition to renewable energy by offering early access to renewable electricity at a fixed price for up to three years, with repayment over 20 years. It aims to support around 3,800 companies, with next steps including launching a tender and an application portal.

2024. Translation provided by Google Translate. Access Date: 23 December 2024. https://www.mase.gov.it/comunicati/energia-pichetto-firma-decreto-imprese-energivore

https://www.mase.gov.it/comunicati/energy-release-il-mase-approva-le-regole-operative-gse

 ¹⁵⁹⁴ Energia: Pichetto firma decreto per "condizionalità green" imprese energivore, Ministero dell'Ambiente e della Sicurezza
 Energetica (Rome) 11 July 2024. Translation provided by Google Translate. Access Date: 23 December 2024.
 https://www.mase.gov.it/comunicati/energia-pichetto-firma-decreto-condizionalita-green-imprese-energivore
 1595 Energia: Pichetto firma decreto per imprese energivore, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 23 July

¹⁵⁹⁶ Energia: MASE, decreto con criteri per sostenere maggiore produzione rinnovabile e capacità di rete, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 8 October 2024. Translation provided by Google Translate. Access Date: 23 December 2024. https://www.mase.gov.it/comunicati/energia-mase-decreto-con-criteri-sostenere-maggiore-produzione-rinnovabile-e-capacita-di 1597 Energia: Pichetto firma decreto per disciplina sistema centralizzato di stoccaggio elettrico, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 11 October 2024. Translation provided by Google Translate. Access Date: 23 December 2024. https://www.mase.gov.it/comunicati/energia-pichetto-firma-decreto-disciplina-sistema-centralizzato-di-stoccaggio-elettrico 1598 Energy release: il MASE approva le regole operative GSE, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 30 October 2024. Translation provided by Google Translate. Access Date: 23 December 2024.

On 13 December 2024, the Ministry of the Environment and Energy Security initiated discussions with the Regions to finalize the "Conto Termico 3.0" decree, which aims to enhance incentives for energy efficiency improvements and renewable thermal energy production in buildings. Dotable updates include extending energy efficiency measures to private non-residential buildings, adding photovoltaic systems with storage and electric vehicle charging stations as eligible, and increasing incentives for public buildings, particularly in small municipalities and healthcare facilities.

On 16 December 2024, Minister of the Environment and Energy Security Gilberto Fratin and the European Council approved conclusions on promoting geothermal energy. As a result of these conclusions the European Council called for faster deployment of geothermal energy across the European Union, including Italy, by adopting or adapting proposals for its promotion. These measures include easier access to permits and finance for geothermal projects.

On 21 February 2025, the Ministry of the Environment and Energy Security announced EUR38 million to support territorial renewable energy projects. These projects include production plants and storage systems geared towards clean energy.

On 28 February 2025, the Council of Ministers in Italy authorized a bill for nuclear power. 1602 The bill requires the government to adopt a series of legislative decrees within twelve months to create a National Program to facilitate the development of Italy's nuclear power sector.

On 7 March 2025, the Ministry of the Environment and Energy Security launched a "multi-channel communication campaign" to raise awareness among Italians of all ages regarding environmental and energy sustainability. This campaign reflects Italy's need for energy security as it aims to transition to clean energy.

On 11 March 2025, the Ministry of the Environment and Energy Security opened a public consultation to obtain data and information from stakeholders on regulating the incentive mechanism for "large-scale thermal energy production" from renewable sources. ¹⁶⁰⁴ This consultation will help inform Italy's efforts to decarbonize the power sector by 2030.

¹⁶⁰⁰ Geothermal energy: Council calls for faster deployment, European Council (Brussels) 16 December 2024. Access Date 30 December 2024. https://www.consilium.europa.eu/en/press/press-releases/2024/12/16/geothermal-energy-council-calls-for-faster-deployment/

https://www.mase.gov.it/comunicati/nucleare-sostenibile-mase-il-consiglio-dei-ministri-approva-la-delega
¹⁶⁰³ Ambiente: MASE, da locale a globale, una campagna di comunicazione per chiamare all'azione, Ministero dell'Ambiente e
della Sicurezza Energetica (Rome) 7 March 2025. Translation provided by Google Translate. Access Date: 16 April 2025.
https://www.mase.gov.it/comunicati/ambiente-mase-da-locale-globale-una-campagna-di-comunicazione-chiamare-allazione
¹⁶⁰⁴ Energia termica: Mase, al via consultazione pubblica, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 11 March
2025. Translation provided by Google Translate. Access Date: 16 April 2025. https://www.mase.gov.it/comunicati/energia-termica-mase-al-consultazione-pubblica

¹⁵⁹⁹ Energia: MASE avvia confronto con Regioni su Conto Termico 3.0, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 13 December 2024. Translation provided by Google Translate. Access Date: 23 December 2024. https://www.mase.gov.it/comunicati/energia-mase-avvia-confronto-con-regioni-su-conto-termico-30

¹⁶⁰¹ Energia: da MASE 38 milioni a Regioni per "progetti esemplari" su rinnovabili, anche CER, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 21 February 2025. Translation provided by Google Translate. Access Date: 27 February 2025. https://www.mase.gov.it/comunicati/energia-da-mase-38-milioni-regioni-progetti-esemplari-su-rinnovabili-anche-cer ¹⁶⁰² Nucleare sostenibile: MASE, il Consiglio dei Ministri approva la delega, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 28 February 2025. Translation provided by Google Translate. Access Date: 16 April 2025.

On 7 April 2025, the Ministry of the Environment and Energy Security and the Research on the Energy System invested EUR200 million in the "Green Powered Future" and "Clean Hydrogen" missions. The notices call for "integration of renewable energy" into the energy system.

Italy has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035. Italy has taken several strong actions to decarbonize the power sector including allocating substantial funds through grants, subsidies, and tax incentives to support the green transition. It has also invested heavily in renewable energy infrastructure, with a focus on developing a centralized electricity storage system to better manage renewable energy from sources such as solar and wind. Moreover, Italy has introduced a series of laws and regulations designed to boost renewable energy production and integration, including the "Energy Release" mechanism and the "Conto Termico 3.0" decree.

Thus, Italy receives a score of +1.

Analysts: Nathan Cheung and Petrina van Nieuwstadt

Japan: +1

Japan has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035.

On 17 June 2024, the Ministry of Economy, Trade and Industry of Japan (METI) and the Ministry of Trade and Industry of the Kingdom of Norway signed the Green Strategic Partnership Joint Communique. They affirmed their collaboration on Green Transformation, particularly in offshore wind and Carbon Capture and Storage (CCS).

On 28 June 2024, the Japan Organization for Metals and Energy Security selected nine CCS projects to receive priority support in 2024. These CCS projects aim to contribute to realizing carbon neutrality by 2050.

On 13 August 2024, the METI formulated standards for the Green Transformation Acceleration Agency to follow in determining which projects will receive financial assistance. The Standards contribute to promoting a smooth transition for a decarbonized power sector.

On 20 August 2024, the METI and the Ministry of the Environment attended the Second Asia Zero Emission Community (AZEC) Ministerial Meeting in Jakarta, Indonesia. 1610 They reaffirmed AZEC Principles, including using "various pathways towards net-zero emissions" and "addressing climate change, promoting economic

¹⁶⁰⁵ Mission Innovation 2.0: cinque bandi MASE da 200 milioni per ricerca e innovazione, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 7 April 2025. Translation provided by Google Translate. Access Date: 16 April 2025. https://www.mase.gov.it/comunicati/mission-innovation-20-cinque-bandi-mase-da-200-milioni-ricerca-e-innovazione ¹⁶⁰⁶ Avviso pubblico per la presentazione di Progetti di ricerca, sviluppo e innovazione tecnologica riguardanti l'area strategica Fonti Rinnovabili Non Programmabili, finanziabili nell'ambito dell'iniziativa "Mission Innovation 2.0", Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 6 May 2025. Access Date: 11 May 2025. https://www.mase.gov.it/bandi/avviso-pubblico-la-presentazione-di-progetti-di-ricerca-sviluppo-e-innovazione-tecnologica-0

¹⁶⁰⁷ Parliamentary Vice-Minister Ishii Holds Meeting with Mr. Andreas Motzfeldt Kravik, State Secretary, Ministry of Foreign Affairs of the Kingdom of Norway, Ministry of Economy, Trade and Industry (Tokyo) 17 June 2024. Access Date: 29 December 2024. https://www.meti.go.jp/english/press/2024/0617 001.html

¹⁶⁰⁸ Advanced Efforts for Commercialization of CCS, Ministry of Economy, Trade and Industry (Tokyo) 28 June 2024. Access Date: 29 December 2024. https://www.meti.go.jp/english/press/2024/0628_005.html

¹⁶⁰⁹ Standards for Support Related to Financial Assistance by the GX Acceleration Agency Formulated, Ministry of Economy, Trade and Industry (Tokyo) 13 August 2024. Access Date: 29 December 2024.

https://www.meti.go.jp/english/press/2024/0813_001.html

¹⁶¹⁰ Minister Saito Visits Jakarta, the Republic of Indonesia, Ministry of Economy, Trade and Industry (Tokyo) 21 August 2024. Access Date: 29 December 2024. https://www.meti.go.jp/english/press/2024/0821 001.html

growth and achieving energy security simultaneously." They also agreed on AZEC Sectoral Initiatives, which aim to promote decarbonization in the power, transport and industry sectors.

On 28 August 2024, the Development Bank of Japan issued its 17th sustainability bond of USD600 million, which will finance both green and social projects including renewable energy.¹⁶¹¹

On 9 September 2024, Minister Saito held a bilateral meeting with Minister of Energy of the Kyrgyz Republic Taalaibek Omukeevich Ibraev. 1612 They affirmed to strengthen economic ties to realize energy transition. After the meeting, they signed an intergovernmental Memorandum of Cooperation toward a realistic energy transition that utilizes all available energy sources, such as energy conservation, renewable energy, hydrogen, ammonia, e-fuel, carbon capture, use and storage (CCUS), and other highly efficient power generation technology.

On 23 September 2024, Parliamentary Vice-Minister for International Affairs Matsuo Takehiko participated in the Clean Energy Public-Private Roundtable hosted by the US Department of State and the Clean Energy Buyers Association. Participants recognized the importance of ensuring a stable supply of decarbonized power sources in light of increased electricity demand driven by the growth of data centers and generative AI. They stressed the need for collective action by companies and stronger public-private cooperation to address this challenge, while expressing expectations for faster renewable energy adoption and the development of power infrastructure.

On 17 October 2024, State Minister of Economy, Trade and Industry Ryosuke Kozuki attended the 27th Turkey-Japan Joint Business Committee and the First Japan-Turkey Energy Forum. 1614 Japan and discussed topics related to energy efficiency, renewable energy and new fuels and technologies. They confirmed potential for bilateral cooperation with State Minister Kozuki signing a Records of Discussion for the 1st Japan-Turkey Energy Forum.

On 18 October 2024, the DBJ announced its decision to invest in Marunouchi Climate Tech Growth Fund L.P.¹⁶¹⁵ The primary objective of this fund is to invest in companies developing advanced technologies and innovative solutions that support the transition to a decarbonized society.

On 31 October 2024, Minister Muto held a meeting with Minister of Investment, Industry and Trade of the Republic of Uzbekistan Laziz Kudratov. ¹⁶¹⁶ They exchanged views on bilateral cooperation in sectors related to the economy and energy. They confirmed their commitment to advancing cooperation on renewable energy projects that would benefit both countries, including the utilization of the Joint Crediting Mechanism.

¹⁶¹³ Clean Energy Public-Private Roundtable Held in the United States, Ministry of Economy, Trade and Industry (Tokyo) 25 September 2024. Access Date: 29 December 2024. https://www.meti.go.jp/english/press/2024/0925_003.html

 $^{^{1611}}$ DBJ issued USD 600m 17th Sustainability Bond ~ Green/Sustainability bond issuance for eleven consecutive years ~ , Development Bank of Japan (Tokyo) 9 October 2024. Access Date: 29 December 2024. https://www.dbj.jp/en/topics/dbj_news/2024/html/20241009_204997.html

¹⁶¹² Minister Saito Holds Meeting with Mr. Taalaibek Omukeevich Ibraev, Minister of Energy of the Kyrgyz Republic, Ministry of Economy, Trade and Industry (Tokyo) 9 September 2024. Access Date: 29 December 2024.

https://www.meti.go.jp/english/press/2024/0909_001.html

¹⁶¹⁴ State Minister Kozuki Attends the 27th Türkiye-Japan Joint Business Committee and The 1st Japan-Türkiye Energy Forum, Ministry of Economy, Trade and Industry (Tokyo) 18 October 2024. Access Date: 29 December 2024. https://www.meti.go.jp/english/press/2024/1018_001.html

¹⁶¹⁵ Investment Decision in Marunouchi Climate Tech Growth Fund L.P., Development Bank of Japan (Tokyo) 18 October 2024. Access Date: 29 December 2024. https://www.dbj.jp/en/topics/dbj_news/2024/html/20241018_205007.html ¹⁶¹⁶ Minister Muto Holds Meeting with Mr. Laziz Kudratov, Minister of Investment, Industry and Trade of the Republic of Uzbekistan, Ministry of Economy, Trade and Industry (Tokyo) 31 October 2024. Access Date: 29 December 2024. https://www.meti.go.jp/english/press/2024/1031 001.html

On 4 November 2024, Parliamentary Vice-Minister Takeuchi visited Romania with representatives from Japanese energy-related companies and governmental organizations. At the inaugural Japan-Romania Energy Forum, Japan presented its technologies to support Romania's energy transition challenges. Following the forum, Parliamentary Vice-Minister Takeuchi and Romania's Minister of Energy Sebastian-Ioan Burduja signed a joint statement on cooperation in energy, covering nuclear power, hydrogen, renewable energy and CCUS. In addition, Parliamentary Vice-Minister Takeuchi and Romania's Minister of Research, Innovation and Digitalization Bogdan-Gruia Ivan discussed the need for energy transformation, including nuclear power, hydrogen, renewables and CCUS. They expressed their commitment to enhancing cooperation by introducing Japanese advanced technologies to address energy security challenges and rising demand, particularly from the information technology sector. Following the meeting, the ministers signed a joint statement on cooperation for energy transformation.

On 7 November 2024, Parliamentary Vice-Minister Takeuchi and the Republic of Poland's Minister of Industry Marzena Czarnecka signed a memorandum of understanding on cooperation in the field of nuclear power. They aim to build a resilient nuclear supply chain in Poland, collaborate on the industrial use of next-generation reactors and strengthen cooperation on nuclear infrastructure development, including human resources, waste management, and international partnerships for Small Modular Reactors deployment.

On 9 November 2024, Japan and China held the 17th Japan-China Energy Conservation Forum, where they signed memorandums for 27 new cooperative projects. Minister Muto emphasized the need to achieve decarbonization, economic growth and energy security simultaneously, expressing hope that the forum would strengthen Japan-China cooperation on carbon neutrality. The forum also included five subcommittees focused on energy conservation, electrification, hydrogen, smart vehicles, greening homes and buildings and long-term green trade, fostering active exchanges between public and private sector officials from both countries.

On 20 November 2024, the French Alternative Energies and Atomic Energy Commission, along with the Japanese Ministry of Economy, Trade and Industry and the Ministry of Education, Culture, Sports, Science and Technology, updated the agreement on cooperation in fast reactor development. Established in 2014, this agreement outlined cooperation in atomic energy development in France and Japan. The update added Electricité de France and Japan Atomic Power Company as implementing agencies related to reactor cooperation.

On 4 December 2024, Minister Muto and Minister for Energy, Business and Industry and Deputy Prime Minister of the Kingdom of Sweden Ebba Busch signed a Memorandum of Cooperation Regarding Energy and Innovation Cooperation. They also discussed further enhancing bilateral economic relations in energy areas such as nuclear power.

On 12 December 2024, the Ministry of Economy, Trade and Industry, the Ministry of Foreign Affairs along with the United States Department of State reaffirmed their commitment to enhance cooperation in advancing clean energy technologies, including floating offshore winds, at the Third Annual Japan-U.S. Energy Security

https://www.meti.go.jp/press/2024/11/20241120001/20241120001.html

¹⁶¹⁷ Parliamentary Vice-Minister Takeuchi Visits Romania and the Republic of Poland, Ministry of Economy, Trade and Industry (Tokyo) 11 November 2024. Access Date: 29 December 2024. https://www.meti.go.jp/english/press/2024/1111_001.html 1618 Parliamentary Vice-Minister Takeuchi Visits Romania and the Republic of Poland, Ministry of Economy, Trade and Industry (Tokyo) 11 November 2024. Access Date: 29 December 2024. https://www.meti.go.jp/english/press/2024/1111_001.html 1619 The 17th Japan-China Energy Conservation and Environment Forum Held, Ministry of Economy, Trade and Industry (Tokyo) 9 November 2024. Access Date: 29 December 2024. https://www.meti.go.jp/press/2024/11/20241109001/20241109001.html 1620 フランス共和国と高速炉の開発の協力に係る合意文書を更新しました。経済産業省 (Tokyo) 20 November 2024. Translation provided by Google Translate. Access Date: 29 December 2024.

¹⁶²¹ Minister Muto Holds Meeting with Ms. Ebba Busch, Minister for Energy, Business and Industry and Deputy Prime Minister of the Kingdom of Sweden, Ministry of Economy, Trade and Industry (Tokyo) 4 December 2024. Access Date: 29 December 2024. https://www.meti.go.jp/english/press/2024/1204 001.html

Dialogue. The Dialogue focused on enhancing energy security by expanding the use of advanced clean energy techniques.

On 18 December 2024, State Minister of Economy, Trade and Industry Yuichiro Koga met with Minister of Economy of the United Arab Emirates (UAE) Abdulla bin Touq Al Marri. 1623 They shared views on expanding bilateral economic exchanges through leveraging the UAE's renewable energy potential and Japan's resource circulation technologies.

On 18 February 2025, the Japanese Cabinet approved the Seventh Strategic Energy Plan, outlining Japan's energy policy direction. This plan aims to reduce greenhouse gas emissions by 73 per cent by 2024 compared to 2013 levels and emphasizes achieving a stable energy supply, economic growth, and decarbonisation.

Japan has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035. Japan advanced strong action to decarbonize the power sector through its sustainability bond investments and CCS projects. They also engaged in strategic collaborations, signing memorandums with countries such as Poland, Romania and Malaysia to promote clean energy technologies. Japan has also committed to decarbonization through frameworks such as the Asia Zero Emission Community.

Thus, Japan receives a score of +1.

Analysts: Hamza Noor and Serena Honekin

United Kingdom: +1

The United Kingdom has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035.

On 24 July 2024, Prime Minister Keir Starmer and Secretary of State for Energy Security and Net Zero Ed Miliband announced a new partnership between Great British Energy, a state-owned energy company, and the Crown Estate, which manages vast land and seabed resources. The partnership aims to boost clean energy production, and energy independence by increasing investments in offshore wind power, as well as hydrogen, wave, tidal energy and carbon capture.

On 31 July 2024, Secretary Miliband established and chaired the first meeting of the Energy Mission Board. 1626 The board aims to coordinate government ministers in a shared effort to accelerate the UK's progress towards clean energy use in 2030, and the UK's net zero targets by reducing dependence on fossil fuels. During the first meeting, Secretary Miliband announced the largest-ever budget of GBP1.5 billion for the year's renewables auction, including GBP185 million specifically allocated to establishing technologies such as onshore wind and solar. 1627

¹⁶²² Third Annual Japan-U.S. Energy Security Dialogue Held, Ministry of Economy, Trade and Industry (Tokyo) 24 December 2024. Access Date: 19 February 2024. https://www.meti.go.jp/english/press/2024/1224 001.html

¹⁶²³ State Minister Koga Holds Meeting with H.E. Abdulla bin Touq Al Marri, Minister of Economy of the United Arab Emirates, Ministry of Economy, Trade and Industry (Tokyo) 18 December 2024. Access Date: 29 December 2024. https://www.meti.go.jp/english/press/2024/1218_001.html

¹⁶²⁴ Cabinet Decision on the Seventh Strategic Energy Plan, Ministry of Economy, Trade and Industry (Tokyo) 18 February 2025. Access Date: 28 March 2025. https://www.meti.go.jp/english/press/2025/0218_001.html

¹⁶²⁵ New Great British Energy partnership launched to turbocharge energy independence, Government of the United Kingdom (London) 24 July 2024, Access Date: 22 December 2024. https://www.gov.uk/government/news/new-great-british-energy-partnership-launched-to-turbocharge-energy-independence

¹⁶²⁶ First Mission Board focuses on immediate action to make Britain a clean energy superpower, Government of the United Kingdom (London) 31 July 2024. Access Date: 22 December 2024. https://www.gov.uk/government/news/first-mission-board-focuses-on-immediate-action-to-make-britain-a-clean-energy-superpower

¹⁶²⁷ Record Breaking funding for clean energy in Britain, Government of the United Kingdom (London) 31 July 2024. Access Date: 22 December 2024. https://www.gov.uk/government/news/record-breaking-funding-for-clean-energy-in-britain

On 23 August 2024, Secretary Miliband along with of the Chief Executive Officer of Climate Change Committee wrote a joint letter requesting the director of the Electricity System Operator, Fintan Slye, to provide advice for decarbonizing the power sector in the UK by 2030. 1628 More specifically, they requested for a detailed plan outlining energy scenarios, infrastructure needs, cost-benefit assessments, and actions for stakeholders.

On 4 October 2024, Prime Minister Starmer, Chancellor of the Exchequer Rachel Reeves and Secretary Miliband announced funding to launch carbon capture sites in Teesside and Merseyside. The funding, up to GBP21.7 billion over 25 years, aim to advance the UK's goals in carbon capture and hydrogen technology use.

On 10 October 2024, Parliamentary Under-Secretary of State for Energy Michael Shanks launched a new initiative to encourage investment in long-duration energy storage technologies, aiming to strengthen energy security and accelerate the country's transition to renewable energy. The initiative projects GBP24 billion in savings and lower energy bills by reducing reliance on natural gas.

On 16 October 2024, Secretary Miliband wrote a letter to the Chief Executives of Offshore Energies UK and Renewable UK asking for the continued support and collaboration to develop a skills passport. This passport will assist workers in transitioning from carbon-intensive industries to the clean energy sector.

On 17 October 2024, the UK and Scottish governments signed an agreement to strengthen Scotland's clean energy sector. This initiative aims to provide GBP8.3 billion in funding through Great British Energy, focusing on developing clean energy projects, particularly offshore wind, and creating new jobs. It also introduces a "skills passport" to help workers from the oil and gas industry transition into renewable energy roles.

On 30 October 2024, Chancellor Reeves table the Autumn Budget for 2024. Within the Budget was announced several key measures aimed at supporting clean energy development and decarbonization. This includes funding of GBP125 million for Great British Energy, focused on advancing clean energy projects. The government also revealed an increase in the Energy Profits Levy for oil and gas companies, raising the rate from 35% to 38% until March 2030. Additionally, the government committed GBP3.9 billion to support carbon capture, utilization, and storage projects and over GBP 2 billion for the Public Sector Decarbonization Scheme.

On 14 November 2024, Parliamentary Under-Secretary Shanks announced the UK government's intention to introduce legislation banning new coal mining licences. ¹⁶³⁴ This announcement services the UK's aim to advance their shift from fossil fuels, including coal power, to renewable energy sources in the power sector.

¹⁶²⁸ Advice on decarbonising the power sector by 2030: NESO commission, Government of the United Kingdom (London) 29 August 2024. Access Date: 22 December 2024. https://www.gov.uk/government/publications/advice-on-decarbonising-the-power-sector-by-2030

¹⁶²⁹ Government reignites industrial heartlands 10 days out from the International Investment Summit, Government of the United Kingdom (London) 4 October 2024. Access Date: 22 December 2024. https://www.gov.uk/government/news/government-reignites-industrial-heartlands-10-days-out-from-the-international-investment-summit

¹⁶³⁰ New scheme to attract investment in renewable energy storage, Government of the United Kingdom (London) 10 October 2024. Access Date: 22 December 2024. https://www.gov.uk/government/news/new-scheme-to-attract-investment-in-renewable-energy-storage

¹⁶³¹ Delivering a skills passport for the Clean Energy Transition, Government of the United Kingdom (London) 17 October 2024. Access Date: 22 December 2024. https://www.gov.uk/government/publications/delivering-a-skills-passport-for-the-clean-energy-transition ¹⁶³² Action to boost jobs and investment for clean energy in Scotland, Government of the United Kingdom (London) 17 October 2024. Access Date: 22 December 2024. https://www.gov.uk/government/news/action-to-boost-jobs-and-investment-for-clean-energy-in-scotland

¹⁶³³ Autumn Budget 2024, His Majesty's Treasury (London) 17 December 2024. Access Date: 22 December 2024. https://www.gov.uk/government/publications/autumn-budget-2024.

¹⁶³⁴ New coal mining licences will be banned, Government of the United Kingdom (London) 14 November 2024. Access Date: 22 December 2024. https://www.gov.uk/government/news/new-coal-mining-licences-will-be-banned

On 19 November 2024, the Department for Science, Innovation and Technology, the Department for Energy Security and Net Zero announced the launch of the second round of the Manchester Prize. ¹⁶³⁵ This competition is aimed at promoting AI-driven innovations that will aid the UK's shift toward a clean energy future. It will support the creation of new technologies designed to reduce energy consumption, enhance power generation from renewable sources such as wind and solar, and forecast future energy surges.

On 10 December 2024, Secretary Miliband signed contracts for the UK's first carbon capture, usage, and storage projects starting in 2025. 1636 Projects aim to bring low-carbon power to over one million homes.

On 13 December 2024, Secretary Miliband announced an energy reform plan to deliver a clean electricity system by 2030, aiming to reduce household energy bills, created skilled jobs, and tackle the climate crisis. Specifically, the plan involves reforming grid infrastructure, speed up clean-energy project approvals, and scale up renewable energy deployment.

On 16 December 2024, Prime Minister Starmer and Norwegian Prime Minister Jonas Gahr Støre launched a joint UK-Norway partnership, named the Green Industrial Partnership, with the aim to boost clean energy collaboration, drive economic growth, and create skilled jobs in both countries. ¹⁶³⁸ Key initiatives of the partnership include collaboration on carbon capture projects in the North Sea, and development of offshore wind farms in the UK.

On 17 December 2024, the UK government reintroduced the Net Zero Council, with an expanded membership, now including civil society and local government members to enhance collaboration to advance the UK's shift to net zero emissions. ¹⁶³⁹ The aims of the Net Zero Council are to provide expert advice on net zero policies, address obstacles of decarbonization, and mobilize advocacy.

On 17 January 2025, the UK's Atomic Energy Authority (UKAEA) announced the investment of GBP200 million in the Lithium Breeding Tritium Innovation (LIBRTI) program's efforts to advance fusion energy development. Another GBP9 million will be made available by the UK Atomic Energy Agency to support 12 small-scale fusion fuel experiments.

On 29 January 2025, the Department for Environment, Food and Rural Affairs and the Department for Energy Security and Net Zero announced measures to allow the acceleration of construction of offshore wind. The measures unlock up to GBP30 billion in investment in clean energy through thirteen offshore wind projects.

¹⁶³⁵ Al innovators to fuel UK's clean energy future as new competition launches, Government of the United Kingdom (London) 19 November 2024. Access Date: 22 December 2024. https://www.gov.uk/government/news/ai-innovators-to-fuel-uks-clean-energy-future-as-new-competition-launches

¹⁶³⁶ Contracts signed for UK's first carbon capture projects in Teesside, Government of the United Kingdom (London) 10 December 2024. Access Date: 22 December 2024. https://www.gov.uk/government/news/contracts-signed-for-uks-first-carbon-capture-projects-in-teesside

¹⁶³⁷ Government sets out plan for new era of clean electricity, Government of the United Kingdom (London) 13 December 2024. Access Date: 22 December 2024. https://www.gov.uk/government/news/government-sets-out-plan-for-new-era-of-clean-electricity ¹⁶³⁸ UK and Norway join forces to seize green industrial opportunities, Government of the United Kingdom (London) 15 December 2024. Access Date: 22 December 2024. https://www.gov.uk/government/news/uk-and-norway-join-forces-to-seize-green-industrial-opportunities

¹⁶³⁹ Net Zero Council, Government of the United Kingdom (London) 17 December 2024. Access Date: 22 December 2024. https://www.gov.uk/government/news/net-zero-council

¹⁶⁴⁰ Multi-million-pound investment to advance fusion fuel development, Government of the United Kingdom (London) 17 January 2025. Access Date 28 February 2025. https://www.gov.uk/government/news/multi-million-pound-investment-to-advance-fusion-fuel-development

¹⁶⁴¹ Government unleashes offshore wind revolution, Government of the United Kingdom (London) 29 January 2025. Access Date: 28 February 2025. https://www.gov.uk/government/news/government-unleashes-offshore-wind-revolution

On 6 February 2025, Prime Minister Starmer announced his decision to reduce barriers to the creation of new nuclear power plants. 1642 The changes will be tabled in planning reform legislation.

On 13 February 2025, the Department for Energy Security and Net Zero announced the opening of applications for the Clean Industry Bonus, which is intended to encourage investment in clean energy manufacturing, such as offshore wind developers. The investment aims to support transitions to clean energy in industrial communities.

On 21 February 2025, the Department for Energy Security and Net Zero adopted reforms to the Contracts for Difference scheme to allow for greater offshore wind and renewable energy investment.¹⁶⁴⁴

On 5 March 2025, Exchequer Secretary to the Treasury James Murray and Secretary Miliband announced the launch of a government consultation to make the North Sea a "world leading example of an offshore energy industry." This consultation will focus on supporting private investment schemes to help the North Sea and its sectors cut carbon emissions and transition to clean energy.

On 10 March 2025, Deputy Prime Minister Angela Rayner and Secretary Miliband announced the Planning and Infrastructure Bill. 1646 This bill will allocate GBP200 billion to clean energy projects, specifically to cut wait times for the installation of wind and solar power farms.

On 21 March 2025, Parliamentary Under-Secretary Shanks announced Great British Energy's GBP10 million partnership with English mayoral authorities to build new clean energy projects in local communities.¹⁶⁴⁷ These projects include rooftop solar, onshore wind and hydropower projects.

The United Kingdom has fully complied with decarbonizing the power sector, as it has taken several strong actions in the commitment dimensions as it has launched significant initiatives such as funding carbon capture projects, increasing investments in offshore wind and renewable energy, and introducing policies to support clean energy technologies, such as hydrogen production, fusion and long-duration energy storage. Additionally, the UK government has committed to a substantial budget for renewable energy auctions and has also worked on regulatory reforms to accelerate the energy transition.

Thus, the United Kingdom receives a score of +1.

Analysts: Alisha Aslam and Petrina van Nieuwstadt

United States: 0

The United States has partially complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035.

¹⁶⁴² Government rips up rules to fire-up nuclear power, Government of the United Kingdom (London) 6 February 2025. Access Date: 28 February 2025. https://www.gov.uk/government/news/government-rips-up-rules-to-fire-up-nuclear-power ¹⁶⁴³ New industry bonus opens to support good jobs and low carbon manufacturing factories, Government of the United Kingdom (London) 13 February 2025. Access Date: 28 February 2025. https://www.gov.uk/government/news/new-industry-bonus-opens-to-support-good-jobs-and-low-carbon-manufacturing-factories

¹⁶⁴⁴ Essential reforms to pave the way for clean power by 2030, Government of the United Kingdom (London) 21 February 2025. Access Date: 28 February 2025. https://www.gov.uk/government/news/essential-reforms-to-pave-the-way-for-clean-power-by-2030 ¹⁶⁴⁵ Government to unleash the North Sea's clean energy future, Government of the United Kingdom (London) 5 March 2025. Access Date: 6 April 2025. https://www.gov.uk/government/news/government-to-unleash-the-north-seas-clean-energy-future ¹⁶⁴⁶ Planning revolution to fuel growth and make Britain energy secure, Government of the United Kingdom (London) 10 March 2025. Access Date: 6 April 2025. https://www.gov.uk/government/news/planning-revolution-to-fuel-growth-and-make-britain-energy-secure

¹⁶⁴⁷ Great British Energy announces £10 million for local government, Government of the United Kingdom (London) 21 March 2025. Access Date: 6 April 2025. https://www.gov.uk/government/news/great-british-energy-announces-10-million-for-local-governments

On 6 August 2024, the Department of Energy (DOE) announced USD2.2 billion in grants to protect the national energy grid from extreme weather events and bring clean, affordable energy into the grid. These grants fund several projects that will add thousands of megawatts of offshore wind capacity.

On 26 August 2024, the DOE announced an investment of USD31 million to improve access to clean geothermal energy. This investment supports six projects to research and develop critical technologies to expand access to geothermal energy.

On 10 September 2024, the DOE announced an investment of USD20 million into projects aimed at improving the siting of renewable energy and to help co-locate solar generation with cattle grazing. These projects, undertaken jointly with State and Tribal teams, aim to increase access to renewable energy sources, chiefly solar energy. Additionally, the agrivoltaics projects, as part of this funding, aim to utilize open cattle grazing land for solar energy, aiding power grid decarbonization.

On 17 September 2024, the DOE announced USD38.8 million in funding for 25 research and development projects to decarbonize buildings. The projects focus on decarbonizing and increasing the affordability of heating, ventilation, air conditioning and water heating systems, increasing the affordability and replicability of roof and attic retrofits, improving building resilience and energy capacity and advancing research in commercial lighting retrofits.

On 20 September 2024, the DOE and the Washington State Department of Commerce announced the launch of the Pacific Northwest Regional Energy Planning Project. The project aims to examine how utilities in Idaho, Montana, Oregon and Washington can better plan investments to meet decarbonization goals.

On 21 October 2024, the DOE, in cooperation with the Department of the Interior, announced investments totaling USD17 million into 14 projects to support offshore wind and marine energy. These projects aim to conduct research on reliable moorings for offshore wind and marine energy systems.

On 4 November 2024, the DOE's Office of Electricity and Office of Energy Efficiency announced an investment of USD11 million in high voltage direct current (HVDC) transmission projects. These projects aim to reduce HVDC transmission system costs by 35 per cent by 2035 and assist in energy transmission from

¹⁶⁴⁸ Invests \$2.2 Billion in the Nation's Grid to Protect Against Extreme Weather, Lower Costs, and Prepare For Growing Demand, United States Department of Energy (Raleigh) 6 August 2024. Access Date: 27 December 2024.

https://www.energy.gov/articles/biden-harris-administration-invests-22-billion-nations-grid-protect-against-extreme ¹⁶⁴⁹ Biden-Harris Administration Invests \$31 Million to Reduce Costs and Expand Clean, Renewable Geothermal Energy, United States Department of Energy (Washington D.C.) 26 August 2024. Access Date: 27 December 2024.

https://www.energy.gov/articles/biden-harris-administration-invests-31-million-reduce-costs-and-expand-clean-renewable ¹⁶⁵⁰ Biden-Harris Administration Invests Nearly \$20 Million to Improve Siting of Renewable Energy and Co-Locate Solar with Cattle Grazing, United States Department of Energy (Washington D.C.) 10 September 2024. Access Date: 27 December 2024.

https://www.energy.gov/eere/articles/biden-harris-administration-invests-nearly-20-million-improve-siting-renewable-energy ¹⁶⁵¹ DOE Announces \$38.8 Million for Technology R&D to Decarbonize Buildings Under the BENEFIT 2024 Funding Opportunity, United States Department of Energy (Washington D.C.) 17 September 2024. Access Date: 28 December 2024.

https://www.energy.gov/eere/buildings/articles/doe-announces-388-million-technology-rd-decarbonize-buildings-under-benefit ¹⁶⁵² DOE Launches Pacific Northwest Regional Energy Planning Study to Explore Solutions to Energy Planning Challenges, United States Department of Energy (Washington D.C.) 20 September 2024. Access Date: 28 December 2024.

https://www.energy.gov/gdo/articles/doe-launches-pacific-northwest-regional-energy-planning-study-explore-solutions-energy ¹⁶⁵³ U.S. Departments of Energy and the Interior Invest \$17 Million to Enhance the Sustainability and Reliability of Offshore Renewable Energy Deployments, United States Department of Energy (Washington D.C.) 21 October 2024. Access Date: 28 December 2024. https://www.energy.gov/eere/articles/us-departments-energy-and-interior-invest-17-million-enhance-sustainability-and

¹⁶⁵⁴ DOE Announces \$11M in High Voltage Direct Current Transmission Projects, United States Department of Energy (Washington D.C.) 4 November 2024. Access Date: 28 December 2024. https://www.energy.gov/oe/articles/doe-announces-11m-high-voltage-direct-current-transmission-projects

remote locations such as offshore wind grids. These projects also aim to improve the reliability of energy systems and help integrate clean energy into the power grid.

On 18 November 2024, the DOE announced an investment of nearly USD15 million into projects to enhance hydropower's ability to support electricity grids. These nine research and development projects aim to improve hydropower's flexibility in power production and within the market and to enhance hydropower pairing with other renewables such as wind.

On 12 December 2024, the Department of State along with the Japanese Ministry of Economy, Trade and Industry, the Japanese Ministry of Foreign Affairs along with reaffirmed their commitment to enhance cooperation in advancing clean energy technologies, including floating offshore winds, at the Third Annual Japan-U.S. Energy Security Dialogue. ¹⁶⁵⁶ The Dialogue focused on enhancing energy security by expanding the use of advanced clean energy techniques.

On 17 January 2025, the DOE announced a USD15 billion loan guarantee program for Pacific Gas & Electric Company to fund a portfolio of projects, including hydropower generation and battery storage expansion. This investment will improve California's electricity generation's reliability and environmental impact.

On 17 January 2025, the DOE announced a USD584.5 million loan guarantee for Convergent Energy and Power Inc, a large energy storage company, to fund solar voltaic and battery energy storage system projects in Puerto Rico. 1658 This investment aims to improve Puerto Rico's grid stability and lower its carbon impact, resulting in the avoidance of nearly 2.5 million tonnes of carbon emissions annually.

On 17 January 2025, the DOE announced USD6.25 million to support research into large wind turbine aerodynamics. 1659 This research aims to increase the reliability, performance and cost of large wind turbine generators in the U.S.

On 17 March 2025, Secretary of Energy Chris Wright announced a USD56,787,300 loan disbursement to Holtec to support restarting the Palisades nuclear reactor. Once operational, this station will produce 800MW of green power.

On 24 March 2025, the DOE reissued a solicitation for the design and production of small modular reactors valued at USD900 million. This funding aims to de-risk private investment in modular reactor technology and boost deployment speed.

¹⁶⁵⁵ U.S. Department of Energy Invests Nearly \$15 Million to Enhance Hydropower's Ability to Support Electricity Grids, United States Department of Energy (Washington D.C.) 18 November 2024. Access Date: 28 December 2024.

https://www.energy.gov/eere/articles/us-department-energy-invests-nearly-15-million-enhance-hydropowers-ability-support ¹⁶⁵⁶ Third Annual Japan-U.S. Energy Security Dialogue Held, Ministry of Economy, Trade and Industry (Tokyo) 24 December 2024. Access Date: 19 February 2024. https://www.meti.go.jp/english/press/2024/1224_001.html

¹⁶⁵⁷ DOE Announces \$15 Billion Loan Guarantee to Pacific Gas & Electric Company to Expand Hydropower Generation, Battery Energy Storage, and Transmission, United States Department of Energy (Washington D.C.) 17 January 2025. Access Date: 28 January 2025. https://www.energy.gov/lpo/articles/doe-announces-15-billion-loan-guarantee-pacific-gas-electric-company-expand-hydropower

¹⁶⁵⁸ DOE Announces \$584.5 Million Loan Guarantee to Subsidiaries of Convergent Energy and Power Inc. to Build Solar PV and Energy Storage in Puerto Rico, United States Department of Energy (Washington D.C.) 17 January 2025. Access Date: 28 January 2025. https://www.energy.gov/lpo/articles/doe-announces-5845-million-loan-guarantee-subsidiaries-convergent-energy-and-power-inc Request for Proposals: DOE Announces \$6.25 Million for Aerodynamics Research on Large Wind Turbines, United States Department of Energy (Washington D.C.) 17 January 2025. Access Date: 28 January 2025.

https://www.energy.gov/eere/wind/articles/request-proposals-doe-announces-625-million-aerodynamics-research-large-wind ¹⁶⁶⁰ DOE Approves Loan Disbursement for Palisades Nuclear Plant, United States Department of Energy (Washington D.C.) 17 March 2025. Access Date: 27 March 2025. https://www.energy.gov/articles/doe-approves-loan-disbursement-palisades-nuclear-plant ¹⁶⁶¹ \$900 Million Available to Unlock Commercial Deployment of American-Made Small Modular Reactors, United States Department of Energy (Washington D.C.) 24 March 2025. Access Date: 27 March 2025. https://www.energy.gov/ne/articles/900-million-available-unlock-commercial-deployment-american-made-small-modular-reactors

On 28 March 2025, the Trump administration terminated two grants to fund clean energy projects. The grants, totalling USD6 million, aimed to reduce emissions caused by inefficient homes and to provide improved access to electric vehicle car share options. This action contravenes the US commitment.

On 7 April 2025, the Environmental Protection Agency (EPA) announced final approval for three carbon capture wells, to be completed by Oxy Low Carbon Ventures LLC. 1663 These wells will store a combined 722,000 metric tonnes of carbon dioxide per year.

On 8 April 2025, President Donald Trump signed four executive orders to reinvigorate the American coal industry. ¹⁶⁶⁴ These orders mandate federal agencies to identify coal resources, lift barriers on mining on public lands and allow exemptions from rules and planned closures for some coal plants. This action contravenes the US commitment.

On 9 April 2025, President Trump signed an executive order mandating a one year expiration date on all existing energy regulations within federal agencies. Unless extended, these energy regulations will expire by 30 September 2026. This action contravenes the United States' commitment.

On 16 April 2025, the Trump administration ordered Equinor to halt construction of its Empire Wind project, an offshore wind farm funded under the Biden administration. The project was expected to generate enough power for 700,000 homes. This action contravenes the United States' commitment.

The United States has partially complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035. The United States has invested a significant amount of funding in the research and implementation of advanced clean energy systems across the United States. The United States has also cooperated with private partners and state governments to improve access and decarbonize the electricity grid. Despite these actions, the cancellation of clean energy contracts and the loosening of regulations on coal mining and coal-based electricity production act to undermine the United States's commitment to a decarbonized power sector.

Thus, the United States receives a score of 0.

Analysts: Eli Mueller and Ilya Goheen

European Union: +1

The European Union has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035.

On 18 June 2024, the European Commission announced EUR116 million in funding for 151 Regional Innovation Valleys that aim to improve innovation to address challenges such as fossil fuel dependence, food

¹⁶⁶² Trump administration cancels clean energy grants as it prioritizes fossil fuels, Associated Press (New York) 28 March 2025. Access Date: 3 May 2025. https://apnews.com/article/trump-energy-department-clean-energy-wind-solar-batteries-hydrogen-fossil-fuels-cf1dff9ee771c566765e9ca3e3599d91

¹⁶⁶³ EPA Issues Final Permits for Geologic Sequestration of Carbon Dioxide in Texas, United States Environmental Protection Agency (Dallas) 7 April 2026. Access Date: 8 April 2025. https://www.epa.gov/newsreleases/epa-issues-final-permits-geologic-sequestration-carbon-dioxide-texas

¹⁶⁶⁴ Trump signs executive orders to boost coal, a reliable but polluting energy source, Associated Press (New York) 8 April 2025. Access Date: 3 May 2025. https://apnews.com/article/trump-coal-ai-data-centers-energy-dominance-693e2604785c07ff790d9afd2e06d543

¹⁶⁶⁵ Fact Sheet: President Donald J. Trump Pushes the Reset Button on America's Energy Regulations, The White House (Washington D.C) 9 April 2025. Access Date: 3 May 2025. https://www.whitehouse.gov/fact-sheets/2025/04/fact-sheet-president-donald-j-trump-pushes-the-reset-button-on-americas-energy-regulations/

¹⁶⁶⁶ US orders halt to construction of Equinor's New York offshore wind project, Reuters (London) 17 April 2025. Access Date: 3 May 2025. https://www.reuters.com/world/us/us-orders-halt-construction-new-york-offshore-wind-project-2025-04-16/

security and digital transformation.¹⁶⁶⁷ Funds will be provided by Horizon Europe's European Innovation Ecosystems programme and the European Regional Development Fund's Interregional Innovation Investments Instrument.

On 19 June 2024, the European Commission launched the European Solar Academy with EUR9 million in funding "to train 100,000 workers in the solar photovoltaic value chain over the next three years." ¹⁶⁶⁸ In doing so, the Solar Academy will work with industry officials to develop learning modules, certify trained workers and ultimately address labour and skills gaps. This initiative falls under the EU's Net-Zero Industry Act which aims to increase the usage of clean technologies for manufacturing.

On 23 June 2024, the European Commission announced EUR2.967 billion in funds for 39 energy projects aimed at "reducing greenhouse gas emissions in the energy, industry and transport sectors," improving energy efficiency, increasing renewable electricity and energy and modernizing energy systems. These projects will support ten EU member states including Bulgaria, Croatia and Poland.

On 24 June 2024, the European Investment Bank (EIB) and RWE announced EUR1.2 billion in joint financing for a wind farm in Denmark's North Sea with 1.1 gigawatts (GW) capacity to provide electricity for one million Danish households. The EIB's contribution will "co-finance monopile foundations, turbines, inter-array cabling, an offshore converter station, export cables, a section of onshore cables and an onshore substation." This initiative supports RWE's decarbonization strategy.

On 27 June 2024, the European Commission endorsed Germany's EUR30.3 billion modified recovery and resilience plan which focuses on seventeen reforms and twenty-eight investments. ¹⁶⁷¹ The REPowerEU chapter of the plan includes two new reforms and investments and one scaled-up investment to eliminate Europe's reliance on Russian fossil fuels by 2030 by increasing renewable energy through planning, decarbonization of the transport sector and energy efficiency. This includes a focus on promoting wind energy power plants, hydrogen infrastructure projects and energy-efficient renovations.

On 2 July 2024, the European Commission approved France's EUR10.82 billion scheme under the Temporary Crisis and Transition Framework (TCTF). The 20-year plan focuses on transitioning towards a net-zero economy through the development of two offshore wind farms to enable the use of renewable offshore wind energy.

¹⁶⁶⁷ Commission funds Regional Innovation Valleys with €116 million to strengthen competitiveness and promote innovation*, European Commission (Brussels) 18 June 2024. Access Date: 23 December 2024.

https://ec.europa.eu/commission/presscorner/detail/en/ip_24_3368

¹⁶⁶⁸ First Net-Zero Academy to train 100,000 workers in the EU solar photovoltaic value chain*, European Commission (Brussels) 19 June 2024. Access Date: 23 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip 24 3407

¹⁶⁶⁹ EU invests close to €3 billion of emissions trading revenues for cleaner energy systems in 10 EU countries via the

Modernisation Fund, European Commission (Brussels) 23 June 2024. Access Date: 23 December 2024.

https://ec.europa.eu/commission/presscorner/detail/en/ip 24 3436

¹⁶⁷⁰ Denmark/Germany: EIB to co-finance RWE's new Gigawatt offshore wind farm with a €1.2 billion green loan, European Investment Bank (Luxembourg) 24 June 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-216-denmark-germany-eib-to-co-finance-rwe-s-new-gigawatt-offshore-wind-farm-with-a-eur1-2-billion-green-loan

¹⁶⁷¹ Commission endorses Germany's €30.3 billion modified recovery and resilience plan, including a REPowerEU chapter, European Commission (Brussels) 27 June 2024. Access Date: 23 December 2024.

https://ec.europa.eu/commission/presscorner/detail/en/ip_24_3484

¹⁶⁷² Commission approves €10.82 billion French State aid scheme to support offshore wind energy to foster the transition to a net-zero economy, European Commission (Brussels) 2 July 2024. Access Date: 23 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip 24 3584

On 14 July 2024, the European Commission endorsed an EUR1.3 billion allocation to the Netherlands under the Recovery and Resilience Facility."¹⁶⁷³ The funds support initiatives electricity grid code reforms which will enable a transition towards renewable energy sources such as wind and solar power.

On 24 July 2024, the EIB announced a EUR390 million loan to support the Public Gas Corporation of Greece's EUR500 million plan for renewable energy investments in Greece. 1674 Over four years, this financing will enable the implementation of new photovoltaic farms in Macedonia, Thessaly and central Greece to increase the use of renewable energy for electricity, reduce electricity costs and improve energy security.

On 26 July 2024, the EIB announced a EUR250 million loan to support "renewable energy and clean transport infrastructure at [Warehouses De Pauw] logistics centres mainly in Belgium, the Netherlands and Romania." ¹⁶⁷⁵ Over ten years, this loan will be used to cover the installation of solar panels on roofs and increase electric vehicle charging stations. This initiative will reduce Warehouses De Pauw's carbon footprint and contribute to the EU's REPowerEU plan to reduce the reliance on fossil fuels.

On 30 July 2024, the EIB, Natixis Corporate and Investment Banking and the Sunprime Group announced EUR204 million in joint financing to construct over 100 rooftop and land photovoltaic plants in Italy to increase renewable electricity and decrease carbon dioxide emissions. ¹⁶⁷⁶ By 2026, the plants are expected to produce 275 gigawatt hours of electricity per year, supporting the REPowerEU plan and Italy's plans for renewable energy. The EIB plans to provide approximately EUR97 million for this initiative.

On 2 August 2024, the EIB and Haizea Wind Group signed a EUR35 million loan for technologies including wind power production to support power sector decarbonization in Spain.¹⁶⁷⁷

On 6 August 2024, the EIB and Matrix Renewables signed a EUR50 million green loan for the construction of five solar photovoltaic plants in Spain's Castilla y Leon and Extremadura regions. The plants expect to provide capacity of 240 megawatts to support energy security and reduce reliance on fossil fuel imports per the REPowerEU plan.

¹⁶⁷³ Commission endorses positive preliminary assessment of the Netherlands' first payment request for €1.3 billion under the Recovery and Resilience Facility, European Commission (Brussels) 14 July 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_3725

¹⁶⁷⁴ Greece's solar-energy supplies to expand with €390 million EIB financing for DEPA Commercial, European Investment Bank (Luxembourg) 24 July 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-294-greece-s-solar-energy-supplies-to-expand-with-eur390-million-eib-financing-for-depa-commercial

¹⁶⁷⁵ Belgian logistics real estate player WDP gets €250 million EIB loan to expand green energy infrastructure at sites across Europe, European Investment Bank (Luxembourg) 26 July 2024. Access Date: 28 December 2024.

https://www.eib.org/en/press/all/2024-302-belgian-logistics-real-estate-player-wdp-gets-eur250-million-eib-loan-to-expand-green-energy-infrastructure-at-sites-across-europe

¹⁶⁷⁶ Italy: EIB, Natixis CIB and Sunprime sign €204 million transaction for one of Italy's largest solar portfolio operations, European Investment Bank (Luxembourg) 30 July 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-307-eib-natixis-cib-and-sunprime-sign-eur204-million-transaction-for-one-of-italy-s-largest-solar-portfolio-operations

¹⁶⁷⁷ Spain: EIB and Haizea sign €35 million green loan boosting European wind energy sector component manufacturing, European Investment Bank (Luxembourg) 2 August 2024. Access Date: 28 December 2024.

https://www.eib.org/en/press/all/2024-236-eib-and-haizea-sign-eur35-million-green-loan-boosting-european-wind-energy-sector-component-manufacturing

¹⁶⁷⁸ Spain: InvestEU - EIB signs €50 million green loan with Matrix Renewables to deploy five new solar photovoltaic plants, European Investment Bank (Luxembourg) 6 August 2024. Access Date: 28 December 2024.

https://www.eib.org/en/press/all/2024-312-investeu-eib-signs-eur50-million-green-loan-with-matrix-renewables-to-deploy-5-new-solar-photovoltaic-plants-in-spain

On 3 September 2024, the European Commission "endorsed a positive preliminary assessment" for Greece to receive its fourth payment under the Recovery and Resilience Facility. 1679 Pending approval from the Economic and Finance Committee, Greece will receive EUR998.6 million for eight reforms and twelve investments for renewable energy, energy efficiency and other needs. In particular, Greece will use this payment to install energy storage systems and support electricity integration to enable the use of renewable energy.

On 4 September 2024, the EIB, the European Union and Cabo Verde announced EUR300 million in financing for the energy, digital and port sectors in Cabo Verde under the EU's Global Gateway Strategy. Of this, EUR159 million will be financed by the EIB, EU and Luxembourg to develop "an electricity generation, grid and storage system up to 2029," increase storage for renewable energy and reduce Cabo Verde's reliance on fossil fuels.

On 11 September 2024, the EIB announced a EUR20.1 million loan for WEB Windenergie AG to construct four wind turbines in Austria's Spannberg municipality. An additional seven wind turbines plan to be constructed in phase two of this plan in 2027-2028 to produce enough energy for 40,000 households. This initiative contributes to Lower Austria's transition to renewable energy in the power sector.

On 12 September 2024, the European Commission approved Belgium's EUR682 million scheme under the TCTF.¹⁶⁸² The 20-year plan will support the transition towards a net-zero economy through the development of an "offshore windfarm in the Princess Elisabeth Zone in the North Sea."

On 16 September 2024, the EIB, Natixis Corporate and Investment Banking and Libeccio S.r.l. announced EUR97 million in funding to construct a new wind farm in Mazara del Vallo, Italy with a capacity of 44.8 megawatts. By 2026, the farm aims to produce enough energy for 56,000 households in Italy, supporting the transition to renewable energy and contributing to the REPowerEU plan.

On 16 September 2024, the European Commission approved Poland's EUR1.2 billion scheme under the TCTF.¹⁶⁸⁴ This scheme will provide direct grants to companies producing renewable energy equipment, carbon storage and capture technologies and other relevant components to support the transition towards a net-zero economy.

On 18 September 2024, the EIB announced that it will provide a EUR166 million loan to BNZ as part of its EUR500 million commitment to support the company's "roll-out of 1.7 GW of solar photovoltaic power in

¹⁶⁷⁹ Commission endorses preliminary assessment of Greece's fourth payment request for €998.6 million in grants under the Recovery and Resilience Facility, European Commission (Brussels) 3 September 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_4522

¹⁶⁸⁰ Cabo Verde: Global Gateway - Team Europe expands its support for digital sector, port infrastructure and renewable energy, European Investment Bank (Luxembourg) 4 September 2024. Access Date: 28 December 2024.

https://www.eib.org/en/press/all/2024-319-global-gateway-l-equipe-europe-renforce-son-soutien-au-secteur-numerique-aux-infrastructures-portuaires-et-aux-energies-renouvelables-de-cabo-verde

¹⁶⁸¹ EIB finances wind farm in Lower Austria, European Investment Bank (Luxembourg) 11 September 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-325-eib-finances-wind-farm-in-lower-austria

¹⁶⁸² Commission approves €682 million Belgian State aid scheme to support renewable offshore wind energy to foster the transition to a net-zero economy, European Commission (Brussels) 12 September 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_4567

¹⁶⁸³ Italy: EIB and Natixis CIB provide €97 million in financing to Libeccio for new state-of-the-art wind farm in Sicily, European Investment Bank (Luxembourg) 16 September 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-337-eib-and-natixis-cib-provide-eur97-million-in-financing-to-libeccio-for-new-state-of-the-art-wind-farm-in-sicily

¹⁶⁸⁴ Commission approves €1.2 billion Polish State aid scheme to support investments in strategic sectors to foster the transition to a net-zero economy, European Commission (Brussels) 16 September 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip 24 4141

Southern Europe by the end of 2026." This funding will help develop 17 solar photovoltaic plants in Spain, Italy and Portugal to support the energy needs of 390,000 households, advancing a decarbonized power sector.

On 25 September 2024, the European Commission opened infringement procedures against 26 EU Member States who have failed to inform the Commission on their incorporation of EU directives on justice, financial stability, energy and the environment into national law. 1686 Of note, 26 Member States have been sent a formal letter to adopt the provisions of the revised Renewable Energy Directive (RED) into national law and inform the European Commission accordingly within two months. The RED calls for procedures for renewable energy projects to be simplified and accelerated and for infrastructure projects to incorporate "additional renewable energy into the electricity system."

On 26 September 2024, the European Commission approved Portugal's EUR1 billion scheme under the TCTF.¹⁶⁸⁷ The scheme will provide direct grants to companies producing renewable energy equipment, carbon storage and capture technologies and other relevant components to support the transition towards a net-zero economy.

On 2 October 2024, the European Commission approved Poland's EUR1.2 billion scheme under the TCTF. 1688 Funding will be provided by the Modernisation Fund and Recovery and Resilience Facility for direct grants and loans to companies for "the installation of at least 5.4 [gigawatt hours] of new electricity storage facilities." This will support the transition towards a net-zero economy by reducing fossil fuel reliance and enabling the use of renewable energy in the national electricity system.

On 2 October 2024, the European Commission announced infringement decisions against EU Member States that failed to incorporate the EU's directives into national law. Of note, the Commission sent a reasoned opinion to Austria regarding its failure to incorporate rules from Directive (EU) 2018/2001 into national law. The Directive aims to ensure that at least 32 per cent of all energy used in the EU is renewable by 2030 by establishing a legal framework and setting targets for renewable energy for heating, cooling, electricity and transport and by supporting citizen involvement in the renewable energy transition. Austria has two months to incorporate the Directive into national law or the Commission may choose to escalate the issue to the Court of Justice of the European Union.

On 10 October 2024, the European Commission approved Luxembourg's EUR520 million schemes to transition towards a net-zero economy under the TCTF. 1690 Of this, the decarbonisation scheme will receive EUR500 million to disburse to manufacturing companies with projects to reduce at least 40 per cent of greenhouse gas emissions in industrial processes through electrification. The remaining EUR20 million will go

the transition to a net-zero economy, European Commission (Brussels) 26 September 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_4822

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¹⁶⁸⁵ InvestEU: EIB signs €166 million green loan with BNZ to deploy renewable energy plants in Spain, Italy and Portugal, European Investment Bank (Luxembourg) 18 September 2024. Access Date: 28 December 2024.

https://www.eib.org/en/press/all/2024-341-investeu-eib-signs-eur 166-million-green-loan-with-bnz-to-deploy-renewable-energy-plants-in-spain-italy-and-portugal

¹⁶⁸⁶ Commission takes action to ensure complete and timely transposition of EU directives, European Commission (Brussels) 25 September 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/inf_24_4661 ¹⁶⁸⁷ Commission approves €1 billion Portuguese State aid scheme to support investments in strategic sectors necessary to foster

¹⁶⁸⁸ Commission approves €1.2 billion Polish State aid scheme to support investments in electricity storage facilities to foster the transition to a net-zero economy, European Commission (Brussels) 2 October 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_4985

¹⁶⁸⁹ October infringements package: key decisions, European Commission (Brussels) 2 October 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/inf_24_4561

¹⁶⁹⁰ Commission approves €520 million Luxembourgish State aid schemes to foster the transition to a net-zero economy, European Commission (Brussels) 10 October 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip 24 5025

towards the investments in strategic sectors scheme to companies producing renewable energy equipment, carbon storage and capture technologies and other relevant components.

On 10 October 2024, the EIB announced an EUR8 billion investment in wind energy with Intesa Sanpaolo. 1691 Supported by the InvestEU programme and in accordance with the EU's EUR5 billion wind power package announced at the 28th United Nations Climate Change Conference, the EIB will provide a counter-guarantee of EUR500 million to enable Intesa Sanpaolo to establish bank guarantees for EUR1 billion. These guarantees will support "the supply chain and power grid interconnection for new wind farms projects" in the EU. The EIB's guarantee is also expected to result in funding from other sources to work towards the goal of EUR8 billion in investment. This initiative will support decarbonisation and the green transition in the EU.

On 20 October 2024, the European Commission announced over EUR380 in funding for 133 European projects for environment and climate action. 1692 Of note, EUR105 million will support 59 projects for the clean energy transition including almost EUR10 million for the ENERCOM FACILITY project to enable investments in sustainable electricity in 140 communities.

On 21 October 2024, the EIB and Iberdrola signed an agreement whereby the EIB will provide a EUR120 million loan for research and innovation projects related to the energy sector, including in solar photovoltaics, hydropower and wind projects, to support the decarbonisation and electrification of the economy. 1693

On 22 October 2024, the European Commission announced EUR4.8 billion for 85 innovative projects in 18 countries to support the net-zero transition through the Innovation Fund. 1694 These projects include cleantech manufacturing to build plants to develop key technologies and components for renewable energy and energy storage, aiding power sector decarbonization.

On 25 October 2024, EIB Vice-President Robert de Groot, signed a green credit facility agreement worth EUR650 million to support the transition to renewable energy in Europe. 1695 Between 2024-2027, this funding will support phase one of the Princess Elisabeth Island project in Belgium which aims to develop an artificial offshore wind island with a capacity of 3.5 GW to provide power for three million households in the country. This project will contribute to the decarbonisation of the power sector, make renewable electricity more affordable and work towards the EU's renewable energy and climate-neutrality objectives.

¹⁶⁹¹ Italy: EIB and Intesa Sanpaolo announce agreement to stimulate up to €8 billion investment in the wind industry, European Investment Bank (Luxembourg) 10 October 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-368eib-and-intesa-sanpaolo-announce-agreement-to-stimulate-up-to-eur8-billion-investment-in-the-wind-industry ¹⁶⁹² EU invests over €380 million in 133 new LIFE projects to support the green transition all around Europe, European Commission (Brussels) 2 October 2024. Access Date: 26 December 2024.

https://ec.europa.eu/commission/presscorner/detail/en/ip 24 5381

¹⁶⁹³ Spain: EIB and Iberdrola sign €120 million loan to develop energy innovation projects, European Investment Bank (Luxembourg) 21 October 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-383-eib-and-iberdrolasign-eur120-million-loan-to-develop-energy-innovation-projects-in-spain

¹⁶⁹⁴ EU invests €4.8 billion of emissions trading revenues in innovative net-zero projects, European Commission (Brussels) 22 October 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_5423 ¹⁶⁹⁵ Belgium: EIB commits €650 million to support green energy transition with Elia Transmission Belgium for the Princess Elisabeth Island Project, European Investment Bank (Luxembourg) 25 October 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-396-eib-commits-eur650-million-to-support-green-energy-transition-with-eliatransmission-belgium-for-princess-elisabeth-island-project

On 29 October 2024, the EIB approved a EUR300 million loan for Red Eléctrica's Salto de Chira project in Gran Canaria island in Spain. ¹⁶⁹⁶ This funding will support the development of a "pumped-storage hydroelectric power plant" that uses water reservoirs to deliver and store renewable electricity.

On 11 November 2024, the European Commission endorsed Poland's EUR9.4 billion Recovery and Resilience Plan payment request. 1697 The new funding includes support for measures to accelerate renewable electricity through onshore wind and photovoltaic power.

On 11 November 2024, the European Commission endorsed Lithuania's EUR463 million Recovery and Resilience Plan payment request. The funding includes support to "[simplify] administrative requirements for the deployment of renewable energy" through regulating and simplifying permits for hybrid power plants and reducing the timeframe for granting renewable energy power plants procedures to one year.

On 13 November 2024, the European Commission announced infringement decisions against EU Member States that failed to incorporate the EU's directives into national law.¹⁶⁹⁹ Of note, the Commission issued a formal notice to Belgium, Bulgaria, Czechia, Estonia, Greece, Croatia, Cyprus, Malta, Austria, Poland, Portugal, Slovenia and Slovakia for their failure to provide the Commission with final plans for the "National Energy and Climate Plans (NECPs) in line with the Regulation on the Governance of the Energy Union and Climate Action." The NECPs aim to ensure that EU Member States comply with the EU's goals to reduce greenhouse gas emissions and work towards renewable energy and energy efficiency. The Member States have two months to provide their finals plans to the Commission or the Commission may issue a reasoned opinion against them.

On 13 November 2024, the EIB announced a EUR100 million multi-beneficiary intermediated loan for Germany's largest savings bank, Haspa. This funding will support financing to small and medium sized companies and mid-caps by Haspa, with one-third of the funds being used for "onshore wind, solar photovoltaic and energy efficiency projects in Germany."

On 14 November 2024, the EIB and European Investment Fund announced EUR100 million in funding for Enpal, a German energy company.¹⁷⁰¹ This funding will support the development of "Europe's first public solar securitisation" which is an "innovative financing instrument for private solar systems on the capital market." This initiative will make solar energy more affordable and solar energy solutions more feasible for homeowners and other small-scale actors, contributing to the transition to a renewable power sector.

¹⁶⁹⁶ EIB approves a €300 million loan to Red Eléctrica for the construction of Salto de Chira hydroelectric power plant in the Canary Islands, European Investment Bank (Luxembourg) 25 October 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-403-eib-approves-a-eur300-million-loan-to-red-electrica-for-the-construction-of-salto-de-chira-hydroelectric-power-plant-in-the-canary-islands

¹⁶⁹⁷ Commission endorses preliminary assessment of Poland's payment request for the second and third instalments under the Recovery and Resilience Facility, for €9.4 billion, European Commission (Brussels) 11 November 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_5743

¹⁶⁹⁸ Commission endorses preliminary assessment of Lithuania´s third payment request for €463 million, under the Recovery and Resilience Facility, European Commission (Brussels) 11 November 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_5783

¹⁶⁹⁹ November infringements package: key decisions, European Commission (Brussels) 13 November 2024. Access Date: 26 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/inf 24 5223

¹⁷⁰⁰ Germany: EIB and Haspa join forces to finance small businesses, mid-caps and small renewable energy projects, European Investment Bank (Luxembourg) 13 November 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-445-germany-eib-and-haspa-join-forces-to-finance-small-businesses-mid-caps-and-small-renewable-energy-projects

¹⁷⁰¹ Germany: EIB-Group and Enpal boost residential solar market, European Investment Bank (Luxembourg) 14 November 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-448-eib-group-and-enpal-boost-residential-solar-market-in-germany

On 14 November 2024, the European Commission endorsed Czechia's EUR1.9 billion Recovery and Resilience Plan payment request. The funding includes support to "[accelerate]... renewable energy development" by simplifying permits and enabling renewable energy such as solar power to be used for electricity.

On 14 November 2024, the European Commission approved EUR790 million in grant aid for Romania to cover unexpected expenses related to the closure of four coal mines in the Jiu Valley. Per Romania's commitments in the Recovery and Resilience Plan and Territorial Just Transition Plan, this funding "will help Romania to phase out coal by 2032" aiding power sector decarbonization.

On 20 November 2024, the European Commission approved Romania's EUR578 million scheme to lower electricity levies for energy-intensive companies in order to promote renewable energy sources for electricity. The levies will be reduced by 75 to 85 per cent.

On 20 November 2024, the EIB signed a EUR500 million loan agreement with Iberdola to enable the development of a project to improve electricity grid efficiency and resilience, use electricity in new ways and support the interconnectivity of renewable energy sources. This project aims to support energy security and enable the energy transition in 12 autonomous communities in Spain.

On 25 November 2024, the EIB Group and Inbank signed a PLN701 million deal for synthetic securitization to enable three years of lending to private individuals in Poland for the installation of solar panels and heat pumps. 1706

On 25 November 2024, the European Commission endorsed Germany's EUR13.5 billion Recovery and Resilience Plan payment request.¹⁷⁰⁷ The funding includes support for onshore and offshore wind energy reforms to increase renewable energy usage for electricity and work towards long-term renewable energy goals.

On 29 October 2024, the EIB and Naturgy signed a EUR400 million loan agreement of the total EUR1 billion approved amount for renewable energy investments in solar and onshore wind and for hybrid facilities in Spain. This initiative will increase Spain's renewable energy capacity by 2.3 GW and help to power 115,000 households annually to support decarbonisation and the energy transition.

¹⁷⁰² Commission endorses preliminary assessment of Czechia's third payment request under the Recovery and Resilience Facility, European Commission (Brussels) 14 November 2024. Access Date: 27 December 2024.

https://ec.europa.eu/commission/presscorner/detail/en/ip_24_5826

¹⁷⁰³ Commission approves €790 million Romanian State aid measure to support closure of coal mines in Jiu Valley, European Commission (Brussels) 14 November 2024. Access Date: 27 December 2024.

https://ec.europa.eu/commission/presscorner/detail/en/ip_24_5844

¹⁷⁰⁴ Commission approves €578 million Romanian State aid scheme to support energy-intensive companies, European Commission (Brussels) 20 November 2024. Access Date: 27 December 2024.

https://ec.europa.eu/commission/presscorner/detail/en/ip_24_5981

¹⁷⁰⁵ Spain: EIB and Iberdrola sign €500 million loan financed by NextGenerationEU to expand smart electricity grids, European Investment Bank (Luxembourg) 20 November 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-460-el-bei-e-iberdrola-firman-un-prestamo-de-500-millones-de-euros-financiados-con-fondos-next-generation-para-inversiones-en-expansion-de-las-redes-electricas-inteligentes-en-espana

¹⁷⁰⁶ Poland: EIB Group signs first synthetic securitisation backed by solar panel loans to private individuals with PLN 625 million to Inbank, European Investment Bank (Luxembourg) 25 November 2024. Access Date: 28 December 2024.

https://www.eib.org/en/press/all/2024-468-eib-group-signs-first-synthetic-securitisation-backed-by-solar-panel-loans-to-private-individuals-in-poland-with-pln-625-million-to-inbankp

¹⁷⁰⁷ Commission endorses preliminary assessment of Germany's second payment request for €13.5 billion under the Recovery and Resilience Facility, European Commission (Brussels) 25 November 2024. Access Date: 27 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip 24 6065

¹⁷⁰⁸ Spain: EIB and Naturgy agree a €1 bn loan to invest in solar energy and onshore wind projects, European Investment Bank (Luxembourg) 29 November 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-479-eib-and-naturgy-agree-a-eur1-bn-loan-to-invest-in-solar-energy-and-onshore-wind-projects-in-spain

On 2 December 2024, the EIB announced a EUR400 million loan for ČEZ to support energy efficiency and renewable energy in Czechia.¹⁷⁰⁹ In part, this loan will enable the development of new infrastructure for renewable energy such as solar and wind, allowing the power grid to "absorb up to additional 5.5 gigawatts of new renewables." This will help to reduce Czechia's reliance on fossil fuel imports in accordance with the REPowerEU plan and power sector decarbonization.

On 5 December 2024, President of the European Commission Ursula von der Leyen, Brazil's President Luiz Inácio Lula da Silva, Argentina's President Javier Gerardo Milei, Paraguay's President Santiago Peña Palacios and Uruguay's President Luis Lacalle Pou signed the EU-Mercosur partnership agreement on economic, sustainability, geopolitical, and security-related issues. 1710 Of note, the partnership focuses on trade in "strategic net zero industry sectors such as renewable energy technologies" and emphasizes the Paris Agreement. The EU will also provide EUR1.8 billion to the Mercosur countries to support their green and digital transition as part of the Global Gateway.

On 8 December 2024, the European Commission approved Estonia's EUR2.6 billion scheme under the TCTF.¹⁷¹¹ This funding support offshore wind to work towards a net-zero economy.

On 11 December 2024, the EIB announced a EUR225 million framework loan for Prologis, Inc. to install rooftop solar panels and battery storage systems.¹⁷¹²

On 12 December 2024, the EIB, with support from InvestEU, announced a EUR500 million counter-guarantee for Commerzbank AG to establish bank guarantees for EUR1 billion. These guarantees will support windenergy manufacturers with new wind farms investments in the EU and are expected to result in private investments of EUR8 billion. This initiative contributes to decarbonization in the power sector.

On 16 December 2024, the European Commission approved Italy's EUR9.7 billion scheme under the TCTF.¹⁷¹⁴ This funding will enable "the construction of new onshore wind, solar photovoltaic, hydropower and sewage gases electricity production installations" within 36 months to add 17.65 GW of energy. This scheme will result in increased renewable energy sources for electricity generation.

On 16 December 2024, the EIB announced a EUR243 million green loan for the ERG Group to support renewable energy in Italy, France and Germany.¹⁷¹⁵ By the end of 2025, this loan will enable the construction "of three greenfield onshore wind farms in France, the repowering of two existing wind farms in Italy and another in Germany, and the repowering and revamping of seven existing solar power plants in Italy." In total,

¹⁷⁰⁹ Czech electricity grid to get upgrade with €400 million EIB loan to utility ČEZ, European Investment Bank (Luxembourg) 2 December 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-481-czech-electricity-grid-to-get-upgrade-with-eur400-million-eib-loan-to-utility-cez

¹⁷¹⁰ EU and Mercosur reach political agreement on groundbreaking partnership, European Commission (Brussels) 5 December 2024. Access Date: 27 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_6244

¹⁷¹¹ Commission approves €2.6 billion Estonian State aid scheme to support renewable offshore wind energy to foster the transition to a net-zero economy, European Commission (Brussels) 8 December 2024. Access Date: 27 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip 24 6262

¹⁷¹² Prologis secures €225 million EIB loan to accelerate solar and energy projects across Europe, European Investment Bank (Luxembourg) 11 December 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-499-prologis-secures-eur225-million-eib-loan-to-accelerate-solar-and-energy-projects-across-europe

¹⁷¹³ Germany: EIB and Commerzbank to boost Europe's wind manufacturers, European Investment Bank (Luxembourg) 12 December 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-504-eib-and-commerzbank-to-boost-europe-s-wind-manufacturers

¹⁷¹⁴ Commission approves an Italian State aid scheme to support renewable electricity production to foster the transition to a net-zero economy, European Commission (Brussels) 16 December 2024. Access Date: 27 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip 24 6432

¹⁷¹⁵ EIB provides €243 million to ERG for renewable energy development in Italy, France and Germany, European Investment Bank (Luxembourg) 16 December 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-511-eib-provides-eur243-million-to-erg-for-renewable-energy-development-in-italy-france-and-germany

this will result in an added renewable energy capacity of approximately 270 megawatts to support 200,000 families access renewable power.

On 16 December 2024, the Council of the European Union approved conclusions on promoting geothermal energy. The Council called for faster deployment of geothermal energy across the EU by adopting or adapting proposals for its promotion. These measures include easier access to permits and finance for geothermal projects. The Council also floated the idea of a European Geothermal alliance.

On 17 December 2024, the EIB announced a EUR200 million loan to Distributie Energie Electrica Romania to increase energy efficiency and support the interconnectivity of renewable energy sources in Romania. 1717

On 17 December 2024, the European Commission announced part two of the European Semester Autumn Package. ¹⁷¹⁸ In particular, the Commission's recommendation for economic policy in the EU recommends that EU Member States work together to develop an EU-wide strategy that encompasses national strategies to work towards "effective electrification and the green transition" including by significantly increasing the use of renewable energy and decreasing the use of imported fossil fuels. ¹⁷¹⁹

On 18 December 2024, the European Commission and EIB announced EUR2.7 billion in funding for 39 projects in eight EU Member States. These projects will focus on reducing greenhouse gas emissions and improving energy efficiency in lower-income EU Member States by producing renewable energy for electricity, modernizing energy networks, reducing greenhouse gas emissions for heat production and through other strategies.

On 19 December 2024, the EIB and EDP Group signed a EUR500 million credit out of an approved EUR900 million green framework loan and EUR200 million loan out of an approved EUR800 million investment loan for renewable energy in Europe. The EUR500 million loan will go towards will help develop solar photovoltaic and wind onshore plants with a total capacity of 1,943 megawatts in Portugal, Spain and Italy. The EUR200 million loan will help modernize key energy infrastructure, support smart energy management and enable the integration of renewable energy into the power grids in Spain and Portugal.

¹⁷¹⁶ Geothermal energy: Council calls for faster deployment, European Council (Brussels) 16 December 2024. Access Date 30 December 2024. https://www.consilium.europa.eu/en/press/press-releases/2024/12/16/geothermal-energy-council-calls-for-faster-deployment/

¹⁷¹⁷ Romania's electricity distribution network gets an upgrade with a €200 million EIB loan to Distributie Energie Electrica Romania, European Investment Bank (Luxembourg) 17 December 2024. Access Date: 28 December 2024.

https://www.eib.org/en/press/all/2024-515-romania-s-electricity-distribution-network-gets-an-upgrade-with-a-eur 200-million-eib-loan-to-distributie-energie-electrica-romania

¹⁷¹⁸ The second part of the European Semester Autumn Package addresses socio-economic challenges for 2025, European Commission (Brussels) 17 December 2024. Access Date: 27 December 2024.

https://ec.europa.eu/commission/presscorner/detail/en/ip_24_6427

¹⁷¹⁹ Recommendation for a COUNCIL RECOMMENDATION on the economic policy of the euro area, European Commission (Brussels) 17 December 2024. Access Date: 27 December 2024. https://commission.europa.eu/document/download/60337037-1815-47fc-9c22-772b12046025_en?filename=COM_2024_704_1_EN.pdf

¹⁷²⁰ Joint press release: Commission and European Investment Bank clear an additional €2.7 billion from emissions trading revenues for cleaner energy systems via the Modernisation Fund, European Commission (Brussels) 18 December 2024. Access Date: 27 December 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_6426

¹⁷²¹ EIB and EDP sign €700 million in loans to rollout renewable energy projects and to finance power grid expansion in southern Europe, European Investment Bank (Luxembourg) 19 December 2024. Access Date: 28 December 2024.

https://www.eib.org/en/press/all/2024-516-eib-and-edp-sign-eur700-million-in-loans-to-rollout-renewable-energy-projects-and-to-finance-power-grid-expansion-in-southern-europe

On 20 December 2024, the EIB and ORLEN Group signed a PLN900 million agreement for projects to support the energy transition in Poland.¹⁷²² The funding will be used to expand the distribution network of Energa, in part, expanding the renewable energy capacity by 1.4 GW and enabling 900,000 additional households to access clean energy.

On 20 December 2024, the EIB signed a EUR100 million green loan agreement with Iberdrola for a new photovoltaic plant in Italy's Enna and Catania provinces.¹⁷²³ This project will produce approximately 400 gigawatt hours of energy per year to support 154,000 Italian households contributing to power sector decarbonization.

On 20 December 2024, the EIB signed an "Intermediated Framework Loan," investing EUR500 million to support Deutsche Bank in continuing to finance projects in "renewable energies and energy efficiency." The loan aims support low carbon electricity production.

On 29 January 2025, the European Commission announced that it would allocate almost EUR1.25 billion to 41 energy infrastructure projects, including for offshore clean electricity production. These projects seek to further integrate and decarbonise the European power sector.

On 17 February 2025, the European Commission approved a EUR2.3 billion Finnish State aid scheme, including measures to support investment in renewable power generation sources. This scheme seeks to help accelerate Finland's transition to a decarbonised power sector.

On 9 March 2025, the European Commission approved two State aid schemes to support renewable hydrogen production: a EUR400 million scheme in Austria and a EUR36 million scheme in Lithuania. These initiatives aim to produce approximately 112,000 tonnes of renewable hydrogen in Austria and 13,000 tonnes in Lithuania, contributing to the EU's decarbonisation goals by reducing carbon dioxide emissions by up to 536,000 tonnes and 61,000 tonnes, respectively. The funding remains contingent upon "contributing to the deployment or financing of the additional renewable electricity."

On 10 April 2024, the European Commission approved a new Important Project of Common European Interest (IPCEI) Commission dedicated to promoting the development of nuclear technologies.¹⁷²⁸

¹⁷²² Poland: EIB doubles to more than €420 million financing to ORLEN Group to boost power distribution network, European Investment Bank (Luxembourg) 20 December 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-521-poland-eib-doubles-to-more-than-eur420-million-financing-to-orlen-group-to-boost-power-distribution-network

¹⁷²³ Italy: EIB signs €100 million green loan with Iberdrola backed by SACE for new photovoltaic plant in Sicily, European Investment Bank (Luxembourg) 20 December 2024. Access Date: 28 December 2024. https://www.eib.org/en/press/all/2024-520-eib-signs-eur100-million-green-loan-with-iberdrola-backed-by-sace-for-new-photovoltaic-plant-in-sicily

¹⁷²⁴ DB IFL RENEWABLE ENERGY AND ENERGY EFFICIENCY EU, European Investment Bank (Brussels) 2 January 2024. Access Date: 28 February 2025. https://www.eib.org/en/projects/pipelines/all/20240436

¹⁷²⁵ EU invests over €1.2 billion in cross-border infrastructure contributing to build our Energy Union and to boost competitiveness, European Commission (Brussels) 29 January 2025. Access Date: 19 February 2025.

https://ec.europa.eu/commission/presscorner/detail/en/ip 25 377

¹⁷²⁶ Commission approves €2.3 billion Finnish State aid scheme to foster the transition to a net-zero economy, European Commission (Brussels) 17 February 2025. Access Date: 19 February 2025.

https://ec.europa.eu/commission/presscorner/detail/en/ip 25 527

¹⁷²⁷ Commission approves a €400 million Austrian State aid scheme, and a €36 million Lithuanian State aid scheme, to support renewable hydrogen production, European Commission (Brussels) 25 February 2025. Access Date: 30 March 2025. https://ec.europa.eu/commission/presscorner/detail/en/ip 25 718

¹⁷²⁸ IPCEI Nucleare: l'Italia al centro di progetti strategici europei sulle tecnologie nucleari innovative Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 10 April 2025. Translation provided by Google Translate. Access Date: 18 April 2025. https://www.mase.gov.it/comunicati/ipcei-nucleare-litalia-al-centro-di-progetti-strategici-europei-sulle-tecnologie

On 14 April 2025, the European Commission approved a EUR400 million state aid scheme to support renewable hydrogen production in Spain.¹⁷²⁹

The European Union has fully complied with its commitment to achieve a fully or predominantly decarbonized power sector by 2035. To this end, the EU has taken strong actions to decarbonize the power sector through funding for renewable energy and electricity projects including for solar photovoltaics and wind energy. The EU has also provided funding to several EU Member States for renewable energy and decarbonisation initiatives under the Recovery and Resilience Facility and Temporary Crisis and Transition Framework. It has also issued formal notices or reasoned opinions against EU Member States that have failed to transpose the EU's renewable energy related objectives into national law.

Thus, the European Union receives a score of +1.

Analysts: Hamza Noor and Mahek Kaur

 ¹⁷²⁹ Commission approves a €400 million Spanish State aid scheme to support renewable hydrogen production, European Commission (Brussels) 14 April 2025. Access Date: 17 April 2025.
 https://ec.europa.eu/commission/presscorner/detail/en/ip_25_1059