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The G7 Research Group presents the

2022 G7 Elmau Summit Final Compliance Report

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Prepared by
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"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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"We commit to … a fully or predominantly decarbonized power sector by 2035 … prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power."

Elmau G7 Summit Communiqué

Assessment

	No Compliance	Partial Compliance	Full Compliance
Canada			+1
France			+1
Germany			+1
Italy		0	
Japan		0	
United Kingdom			+1
United States			+1
European Union			+1
Average		+0.75 (88%)	

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.[682] 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.[683] 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.[684] 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.[685] 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.[686] 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.

[682] What is the United Nations Framework Convention on Climate Change?, United Nations (New York) n.d. Access Date: 26 September 2022. https://unfccc.int/process-and-meetings/what-is-the-united-nations-framework-convention-on-climate-change
[683] The Paris Agreement, United Nations (New York) n.d. Access Date: 25 September 2021. https://www.un.org/en/climatechange/paris-agreement
[684] Declaration, G7 Information Centre (Toronto) 29 June 1979. Access Date: 24 September 2022. http://www.g7.utoronto.ca/summit/1979tokyo/communique.html
[685] Houston Economic Declaration, G7 Information Centre (Toronto) 11 July 1990. Access Date: 25 September 2022. http://www.g7.utoronto.ca/summit/1990houston/declaration.html#environment
[686] G8 Communiqué Okinawa 2000, G7 Information Centre (Toronto) 23 July 2000. Access Date: 9 October 2022. http://www.g7.utoronto.ca/summit/2000okinawa/finalcom.htm

At the 2001 Environment Ministerial Meeting in Trieste, G8 Environment Ministers promoted timely action to address climate change and greenhouse gas emissions.[687] Leaders 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.[688] 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.[689] 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.[690] 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.[691] 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.[692] Leaders also committed to working with institutions like 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.[693] Leaders mentioned that their goal with the usage of renewable energy sources is to reduce the GHG 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.[694] Leaders reaffirmed their commitment to enhancing cooperation in energy technology innovation, research, development and deployment in order to accelerate technological progress towards clean energy including renewable energy sources.

[687] G8 Environment Ministers Communiqué, G7 Information Centre (Toronto) 4 March. Access Date: 9 October 2022. http://www.g7.utoronto.ca/environment/2001-environment.html
[688] Banff Ministerial Statement on the World Summit on Sustainable Development, Information Centre (Toronto) 14 April 2002. Access Date: 9 October 2022. http://www.g7.utoronto.ca/environment/020415.html
[689] Chairs' Summary, G7 Information Centre (Toronto) 8 July 2005. Access Date: 9 October 2022. http://www.g7.utoronto.ca/summit/2005gleneagles/summary.html
[690] Responsible Leadership for a Sustainable Future, G7 Information Centre (Toronto) 8 July 2009. Access Date: 24 September 2022. http://www.g7.utoronto.ca/summit/2009laquila/2009-declaration.pdf
[691] Muskoka Declaration: Recovery and New Beginnings, G7 Information Centre (Toronto) 26 June 2010. Access Date: 23 September 2022. http://www.g7.utoronto.ca/summit/2010muskoka/communique.html#green
[692] Rome G7 Energy Initiative for Energy Security, G7 Information Centre (Toronto) 6 May 2014. Access Date: 24 September 2022. http://www.g7.utoronto.ca/energy/140506-rome.html
[693] G7 Hamburg Initiative for Sustainable Energy Security, G7 Information Centre (Toronto) 12 May 2015. Access Date: 24 September 2022. http://www.g7.utoronto.ca/energy/150512-hamburg.html
[694] G7 Kitakyushu Energy Ministerial Meeting Kitakyushu Initiative on Energy Security for Global Growth Joint Statement, G7 Information Centre (Toronto) 2 May 2016. Access Date: 24 September 2022. http://www.g7.utoronto.ca/energy/160502-statement.html

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.[695] 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.[696] 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.[697] 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.

Commitment Features

At the 2022 Elmau Summit, G7 leaders committed to "a fully or predominantly decarbonized power sector by 2035 … prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power."[698] The actionable and measurable aspect of this commitment is therefore to accelerate a phase-out of domestic unabated coal power in pursuit of decarbonizing power sectors.

"Decarbonise" is understood to mean to "reduce the levels of carbon emission."[699] In the context of this commitment, decarbonised refers to means of producing, storing, and using energy that are less carbon-intensive than fossil fuels, such as renewable energies.

"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."[700]

"Timely" refers to something coming early or at the right time.[701] In the context of the commitment, it refers to decarbonisation steps that are taken at the time during which they are needed and whose implementation is prompt.

"Accelerate" is understood to mean "to bring [something] about at an earlier time" or "to hasten the progress or development of [something]."[702] This indicates that the commitment deals with a process that has already been started, which is the transition away from coal power, and that the G7 members agree to move quickly to speed up the process of a coal phase-out.

[695] Chair's Summary: G7 Energy Ministers' Meeting, G7 Information Centre (Toronto) 21 September 2018. Access Date: 9 October 2022. http://www.g7.utoronto.ca/energy/2018-energy.html
[696] Communiqué, G7 Information Centre (Toronto) 6 May 2019. Access Date: 24 September. 2022. http://www.g7.utoronto.ca/environment/2019-environment.html
[697] Carbis Bay G7 Summit Communiqué, The White House (Washington D.C.) 13 June 2021. Access Date: 9 October 2022. https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/13/carbis-bay-g7-summit-communique/
[698] G7 Leaders' Communiqué, G7 Information Centre (Toronto) 28 June 2022. Access Date: 21 September 2022. http://www.g7.utoronto.ca/summit/2022elmau/220628-communique.html
[699] Decarbonize, Merriam-Webster (Springfield) n.d. Access Date: 21 September 2022. https://www.merriam-webster.com/dictionary/decarbonize
[700] Electric Power Sector, Energy Information Administration (Washington D.C.) Access Date: 22 September 2022. https://www.eia.gov/tools/glossary/index.php?id=Electric%20power%20sector
[701] Timely, Merriam-Webster (Springfield) n.d. Access Date: 9 October 2022. https://www.merriam-webster.com/dictionary/timely
[702] Accelerate, Merriam-Webster (Springfield) n.d. Access Date: 9 October 2022. https://www.merriam-webster.com/dictionary/accelerate

"Phase-out" refers to a gradual stopping of something or closing it down by phases.[703]

"Unabated coal power" refers to the "use of coal that is not mitigated with technologies to reduce the CO2 [carbon dioxide] emissions, such as Carbon Capture Utilisation and Storage (CCUS)."[704]

Examples of weak actions toward the phasing-out of unabated domestic coal power can include, but are not limited to: making a public statement on the importance of phasing out coal power generation without providing concrete support.

Full compliance, or a score of +1, will be assigned to G7 members who take strong action within the compliance period to accelerate, or to do more than they have before, to speed up a domestic phase-out of unabated coal power. Examples of strong actions include, but are not limited to: deploying CCUS systems for coal power plants, phasing-out infrastructures supporting coal power, implementing a carbon tax, putting an end to public financing of coal and relevant policy and legislation.

Partial compliance, or a score of 0, will be assigned to G7 members who take less than strong action to phase out domestic unabated coal power plants. Examples of less than strong action include efforts that are weaker than those listed above dealing with legislation, policy, financing and investments. This can include diplomatic efforts, public awareness efforts, information or knowledge sharing, and reiterations of support for the commitment.

Non-compliance, or a score of −1, will be assigned to G7 members who backslide on this commitment by opening new domestic coal plants with or without abatement technology or who fail to take even weak action to phase-out existing plants. Actions taken internationally do not count towards compliance, as the commitment explicitly identifies countries' domestic coal markets as the target.

Scoring Guidelines

−1	The G7 member takes very weak actions OR takes no actions to phase-out domestic unabated coal power OR takes action that is antithetical to the commitment.
0	The G7 member takes some action to phase-out domestic unabated coal power.
+1	The G7 member takes strong action to for a timely phase-out of domestic unabated coal power.

Compliance Director: Thomas Houlie
Lead Analyst: Serena Honekin

Canada: +1

Canada has fully complied with its commitment to a fully or predominantly decarbonized power sector by 2035, prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power.

On 11 July 2022, Minister of Natural Resources Jonathon Wilkinson announced an investment of nearly CAD10 million for five projects in Saskatchewan that support renewable energy technologies in rural, remote and Indigenous communities.[705] Technologies include the replacement of propane heating systems, an 816-kilowatt solar farm and development of other renewable energy projects to replace existing higher carbon options in the electricity system.

[703] Phaseout, Merriam-Webster (Springfield) n.d. Access Date: 9 October 2022. https://www.merriam-webster.com/dictionary/phaseout
[704] What does 'unabated coal' mean?, E3G (London) 24 June 2021. Access Date: 22 September 2022. https://www.e3g.org/news/explained-what-does-unabated-coal-mean/
[705] Minister Wilkinson Announces Nearly $10 million in Clean Energy Support for Indigenous Communities in Saskatchewan, Natural Resources Canada (Regina) 11 July 2022. Access Date: 12 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/07/minister-wilkinson-announces-nearly-10-million-in-clean-energy-support-for-indigenous-communities-in-saskatchewan.html

On 26 July 2022, Minister of Environment and Climate Change Steven Guilbeault announced the second round of consultations to develop the Clean Electricity Regulations, which follow feedback gathered from a March 2022 discussion paper regarding a Clean Electricity Standard.[706] Draft regulations are expected by the end of 2022. Ensuring access to affordable and reliable clean electricity for powering transportation, residences, and commercial and industrial businesses is critical to achieving a net zero economy by 2050.

On 26 July 2022, Member of Parliament René Arseneault announced CAD5.4 million in federal funding for Edmundston's first solar panels.[707] The one-megawatt (MW) solar panels on the Jean Daigle Centre will help decarbonize the power system and reduce emissions.

On 27 July 2022, Parliamentary Secretary to the Minister of Natural Resources and to the Minister of Environment and Climate Change Julie Dabrusin announced CAD175,000 in funding to assist Toronto in transitioning to low carbon and renewable energy.[708] The projects focus on two childcare and community centres.

On 28 July 2022, Member of Parliament Ryan Turnbull announced the first investment of CAD44,250 for a geothermal district heating project in Whitby, Ontario.[709] The geothermal system will be integrated with construction of a sports complex and is expected to be 90 per cent more efficient than external electricity sources, which will help decarbonize the power sector.

On 28 July 2022, Minister Wilkinson announced the call for proposals for the new Toward Net Zero Homes and Communities Program.[710] The program will help drive innovation increasing the use of renewables and low-carbon energy and electricity sources in buildings and communities, which will reduce emissions and ensure resilience. The program will invest CAD14.6 million over four years and proposals will be accepted until 31 August 2022.

On 2 August 2022, Minister Wilkinson announced Canada's investment of CAD9 million to install a 4.86-MW solar project in the Smoky Lake County at Metis Crossing.[711] The 100 per cent Metis-owned initiative will help decarbonize Alberta's power system and will reduce 4,700 tonnes of carbon dioxide annually.

[706] Government of Canada launches second round of public engagements to establish the Clean Electricity Regulations, Environment and Climate Change Canada (Gatineau) 26 July 2022. Access Date: 27 October 2022. https://www.canada.ca/en/environment-climate-change/news/2022/07/government-of-canada-launches-second-round-of-public-engagements-to-establish-the-clean-electricity-regulations.html

[707] Canada and New Brunswick Invest in Solar Energy Generation and Sewer Infrastructure in Edmundston, Infrastructure Canada (Edmundston) 26 July 2022. Access Date: 12 November 2022. https://www.canada.ca/en/office-infrastructure/news/2022/07/canada-and-new-brunswick-invest-in-solar-energy-generation-and-sewer-infrastructure-in-edmundston.html

[708] Canada and FCM Deliver Investments in Net Zero Energy Buildings in Toronto, Natural Resources Canada (Toronto) 27 July 2022. Access Date: 12 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/07/canada-and-fcm-deliver-investments-in-net-zero-energy-buildings-in-toronto.html

[709] New Investment in a Geothermal District Energy Project in Whitby, Natural Resources Canada (Whitby) 28 July 2022. Access Date: 12 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/07/new-investment-in-a-geothermal-district-energy-project-in-whitby.html

[710] Canada Launches the First Call for Proposals for the Toward Net Zero Homes and Communities Program, Natural Resources Canada (Vancouver) 28 July 2022. Access Date: 12 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/07/canada-launches-the-first-call-for-proposals-for-the-toward-net-zero-homes-and-communities-program.html

[711] Canada Invests in Smoky Lake County Metis Crossing Solar Project, Natural Resources Canada (Smoky Lake) 2 August 2022. Access Date: 12 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/07/canada-invests-in-smoky-lake-county-metis-crossing-solar-project.html

On 2 August 2022, Minister of Tourism Randy Boissonnault announced a contribution of CAD6.6 million for the new net zero River Valley Outdoor Activity Centre.[712] The new facility will incorporate solar panels and other design features to decarbonize the building and power systems.

On 9 August 2022, Minister of Northern Affairs Daniel Vandal announced funding of CAD1.2 million over three years to assess Nunavut's geothermal potential.[713] The project will assess geothermal production and waste energy storage in Baker Lake, Cambridge Bay and Resolute Bay and will provide the groundwork for design and cost estimates for future phases. Geothermal has the potential to decrease reliance on diesel and other carbon-based heating and electricity sources in Canada's north.

On 15 August 2022, Ministers Vandal and Wilkinson announced a CAD5.586 million investment in a solar project in Inuvik, Northwest Territories by Nihtat Energy Ltd., a northern and Indigenous owned enterprise.[714] The one-MW solar initiative will divert use from diesel to create electricity in the amount of 1,435 MW hours. Inuvik currently uses the most diesel of anywhere in the Northwest Territories. It will also reduce some 824 tonnes of greenhouse gas emissions. The project is an important part of decarbonizing the power system in Canada's north.

On 16 August 2022, Minister Guilbeault kicked off in-person consultations regarding the regional assessment for offshore wind projects in Nova Scotia and Newfoundland and Labrador.[715] Clean wind power is a critical component to help decarbonize the power system.

On 17 August 2022, Minister Vandal announced a federal contribution of nearly CAD15.5 million towards the Beaver Creek Solar Project in the Yukon.[716] The project is in partnership with and sits on the Traditional Territory of the White River First Nation. It involves 1.9 MW of solar panels and 3.5 MW of battery storage, and will displace 55 per cent of the diesel used for electricity generation. It will reduce 1100 tonnes of carbon dioxide annually, reduce reliance on diesel fuel and increase energy security for the First Nation.

On 17 August 2022, Minister Wilkinson launched public consultations on the Canada Green Building Strategy.[717] The strategy is part of an effort to decarbonize Canada's economy, including the building and power sectors, and to achieve a net-zero economy by 2050. The strategy will address new building retrofits including space and water heating, electrical systems and other design features. It will be backed by CAD150 million. The building sector accounts for some 30 per cent of Canada's emissions.

[712] Government of Canada Funds New Net Zero River Valley Outdoor Activity Centre in Edmonton, Infrastructure Canada (Edmonton) 2 August 2022. Access Date: 12 November 2022. https://www.canada.ca/en/office-infrastructure/news/2022/08/government-of-canada-funds-new-net-zero-river-valley-outdoor-activity-centre-in-edmonton.html
[713] Minister Vandal Announces Federal Investments in Geothermal Energy Feasibility Across Nunavut, Canadian Northern Economic Development Agency, (Baker Lake) 9 August 2022. Access Date: 12 November 2022. https://www.canada.ca/en/northern-economic-development/news/2022/08/minister-vandal-announces-federal-investments-in-geothermal-energy-feasibility-across-nunavut.html
[714] Indigenous-owned Company Forging a New Path Toward Renewable Energy in Inuvik, Crown-Indigenous Relations and Northern Affairs Canada (Inuvik) 15 August 2022. Access Date: 12 November 2022. https://www.canada.ca/en/crown-indigenous-relations-northern-affairs/news/2022/08/indigenous-owned-company-forging-a-new-path-toward-renewable-energy-in-inuvik.html
[715] Minister Guilbeault Kicks off in-person engagement on the future of clean offshore wind power in Newfoundland and Labrador and Nova Scotia, Environment and Climate Change Canada (St. John's) 16 August 2022. Access Date: 12 November 2022. https://www.canada.ca/en/environment-climate-change/news/2022/08/minister-guilbeault-kicks-off-in-person-engagement-on-the-future-of-clean-offshore-wind-power-in-newfoundland-and-labrador-and-nova-scotia.html
[716] Minister Vandal announces a CAD15.5 million Investment in the Yukon's Largest Solar Project, Natural Resources Canada (Yukon) 17 August 2022. Access Date: 11 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/08/minister-vandal-announces-a-155-million-investment-in-the-yukons-largest-solar-project.html
[717] Minister Wilkinson Advances the Canada Green Buildings Strategy and Announces Funding to Revitalize Community Recreation Centre, Natural Resources Canada (North Vancouver) 17 August 2022. Access Date: 11 November 2022 https://www.canada.ca/en/natural-resources-canada/news/2022/08/minister-wilkinson-advances-the-canada-green-buildings-strategy-and-announces-funding-to-revitalize-community-recreation-centre.html

On 19 August 2022, Associate Minister of Finance Rachel Bendayan, announced CAD10 million in federal funding for a net-zero community centre for Sun Youth.[718] The building will incorporate measures to help Canada decarbonize its power system and reduce emissions. The measures include solar panels, natural lighting and energy efficiency in structural design.

On 23 August 2022, Minister Wilkinson and Vice Chancellor of Germany Robert Habeck signed an agreement to establish a Canada-Germany Hydrogen Alliance.[719] The joint declaration recognizes the energy security challenges for Germany posed by Russian weaponization of conventional fuels and builds on Canada's December 2020 Hydrogen Strategy to expedite transitions to clean energy globally. The two countries intend to establish a policy and regulatory framework to encourage investment in secure hydrogen value chains in both countries through a trans-Atlantic corridor and to export Canadian hydrogen to Germany by 2025.

On 25 August 2022, Minister Wilkinson issued a call for proposals for establishing biomass supply chain projects.[720] The goal is to ensure steady reliable feedstock supplies for clean fuel producers across Canada. Renewable biofuels will help Canada decarbonize its energy systems and reduce GHG emissions.

On 25 August 2022, Member of Parliament Wayne Long announced funding of CAD815,115 for Smart Grid Innovation Network Canada.[721] The funds will be used to support electric utilities to decarbonize and expand the electricity grid using smart benchmarking. A Smart Energy Scorecard will be developed for utilities to use to guide their visions, activities and progress toward decarbonization.

On 26 August 2022, Minister Wilkinson released a report documenting the needs for public charging for electric vehicles across Canada.[722] The report noted that it is critical to have objective data to determine the quantity and location of public charging stations to facilitate the transition to a pollution-free electrified transportation system. Transportation accounts for some 25 per cent of Canada's greenhouse gas emissions. There is a need to make it easy for individuals and businesses to purchase electric vehicles to decarbonize Canada's industries.

On 26 August 2022, Minister Guilbeault announced the Net Zero Challenge, a voluntary business initiative to encourage businesses, including provincial and municipal utilities, to become more environmentally resilient and competitive.[723] The challenge includes minimum performance targets, and annual and five-year reporting. The challenge will assist Canada's industry sectors to reduce their emissions and transition away from carbon to help Canada meet its decarbonization and climate change goals.

[718] Construction of a Net Zero Community Centre for Sun Youth, Infrastructure Canada (Montreal) 19 August 2022. Access Date: 11 November 2022. https://www.canada.ca/en/office-infrastructure/news/2022/08/construction-of-a-net-zero-community-centre-for-sun-youth.html

[719] Canada and Germany Sign Agreement to Enhance German Energy Security with Clean Canadian Hydrogen, Natural Resources Canada (Stephenville) 23 August 2022. Access Date: 10 November 2022.https://www.canada.ca/en/natural-resources-canada/news/2022/08/canada-and-germany-sign-agreement-to-enhance-german-energy-security-with-clean-canadian-hydrogen.html

[720] Canada Launches Call for Proposals for Establishing Biomass Supply Chains Projects, Natural Resources Canada (Ottawa) 25 August 2022https://www.canada.ca/en/natural-resources-canada/news/2022/08/canada-launches-call-for-proposals-for-establishing-biomass-supply-chains-projects.html

[721] Canada Invests in Smart Energy Benchmarking to Decarbonize Electricity Grid, Natural Resources Canada (Saint John) 25 August 2022. Access Date: 11 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/08/canada-invests-in-smart-energy-benchmarking-to-decarbonize-electricity-grid.html

[722] Minister Wilkinson Releases Report on Public Charging Needs for Electric Vehicles in Canada, Natural Resources Canada (Ottawa) 26 August 2022. Access Date: 11 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/08/minister-wilkinson-releases-report-on-public-charging-needs-for-electric-vehicles-in-canada.html

[723] Launching the Net Zero Challenge to Recognize and Support Businesses Transitioning to Cleaner Operations, Environment and Climate Change Canada (St-Constant) 26 August 2022. Access Date: 11 November 2022. https://www.canada.ca/en/environment-climate-change/news/2022/08/launching-the-net-zero-challenge-to-recognize-and-support-businesses-transitioning-to-cleaner-operations.html

On 2 September 2022, Parliamentary Secretary to the Minister of Indigenous Services Vince Badawey announced CAD5.4 million in funding to build a net zero carbon library.[724] The new library will include rooftop solar panels, glazing and natural lighting to lower Canada's use of carbon in the power system.

On 6 September 2022, Parliamentary Secretary to the Minister of Agriculture and Agrifood Francis Drouin announced CAD1.4 million in funding for SixRing Clean Technology.[725] The funds will help the company scale up production of its renewable biofuels made from agricultural wastes as well as production of advanced sustainable materials. Success will help decarbonize the fuels system and reduce Canada's emission levels.

On 8 September 2022, Minister Wilkinson announced a CAD11.5 million contribution to construct a net-zero energy ready RCMP building in North Cowichan.[726] The building will include the incorporation of energy efficiency in all aspects of the structure and site orientation, solar panels on the roof, solar shading and daylight sensors. The program will help shift power choices away from carbon sources, reduce GHG emissions, and help Canada advance towards net zero by 2050.

On 15 September 2022, Minister Guilbeault announced an investment of CAD250 million over four years into the Low Carbon Economy Fund.[727] The fund will help homeowners who use home heating oil transition to greener home heating sources like electric heat pumps. The program will help decarbonize the power and fuel system and will improve affordability for Canadians, especially those in areas like Atlantic Canada where home heating oil use is prevalent.

On 23 September 2022, Minister Guilbeault announced Canada's Methane Strategy to cut methane emissions and help decarbonize the power system.[728] Measures outlined in the plan will reduce Canada's methane emissions by more than 35 per cent by 2030 from a base year of 2020.

On 23 September 2022, Member of Parliament Marcus Powlowski announced funding of CAD1.3 million for the Confederation College of Applied Arts and Technology.[729] The funding will enable the college to establish a net zero facility, pursue renewable energy projects with excess capacity sold to the grid and modernize its curriculum as it pertains to decarbonizing the power system.

On 27 September 2022, Minister of Transportation Omar Alghabra released Canada's Aviation Climate Action Plan.[730] The plan presents a net-zero vision for 2050 (including electrification and batteries) and specific actions

[724] Pelham Residents to Benefit from New Zero Carbon Library, Canada Infrastructure Bank (Pelham) 2 September 2022. Access Date: 11 November 2022. https://www.canada.ca/en/office-infrastructure/news/2022/09/pelham-residents-to-benefit-from-new-zero-carbon-library.html

[725] Government of Canada Invests Over CAD1.4 million in SixRing Clean Technology, Agriculture and Agrifood Canada (Calgary) 6 September 2022. https://www.canada.ca/en/agriculture-agri-food/news/2022/09/government-of-canada-invests-over-14-million-in-sixring-clean-technology.html

[726] New Investments for Net Zero RCMP building in North Cowichan, Natural Resources Canada (North Cowichan) 8 September 2022. Access Date: 11 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/09/new-investments-for-net-zero-rcmp-building-in-north-cowichan.html

[727] Making Home Heating More Affordable for Atlantic Canada and Other Regions, Environment and Climate Change Canada (Gatineau) 15 September 2022. Access Date: 11 November 2022. https://www.canada.ca/en/environment-climate-change/news/2022/09/making-home-heating-more-affordable-for-atlantic-canada-and-other-regions.html

[728] Canada Releases Faster and Further: Canada's Methane Strategy, Environment and Climate Change Canada (Gatineau) 23 September 2022 https://www.canada.ca/en/environment-climate-change/news/2022/09/canada-releases-faster-and-further-canadas-methane-strategy2.html

[729] Government of Canada Contributes CAD1.3 million to Confederation College of Applied Arts and Technology to Advance Renewable Energy Projects, Natural Resources Canada (Thunder Bay) 23 September 2022. Access Date: 11 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/09/government-of-canada-contributes-13-million-to-the-confederation-college-of-applied-arts-and-technology-to-advance-renewable-energy-projects.html

[730] Minister Alghabra Announces the Release of Canada's Aviation Climate Action Plan, Transport Canada (Montreal) 27 September 2022. Access Date: 11 November 2022. https://www.canada.ca/en/transport-canada/news/2022/09/minister-alghabra-announces-the-release-of-canadas-aviation-climate-action-plan.html

between 2020 and 2030 to develop and use sustainable aviation fuels by 2030. It also includes pathways to improve efficiency and reduce emissions in the interim.

On 28 September 2022, Parliamentary Secretary Dabrusin announced funding of CAD2.3 million for energy storage infrastructure being delivered by SWITCH Power Ontario Battery Operations Corporation.[731] The project involves six storage systems, 3.82 MW of energy storage capacity and distributed energy resources in a partnership between SWITCH and the Independent Electricity System Operator. Grid modernization is important to bolster Canada's green electricity system, which is more than 75 per cent emissions-free.

On 3 October 2022, Minister Wilkinson announced funds for Calgary, St. Albert, Lethbridge and Canmore to improve building energy efficiency.[732] The CAD25.6 million investment permits the municipalities to create loan and grant funding programs to enable homeowners to retrofit buildings to lower carbon use, reduce emissions and transition to renewable energy sources.

On 4 October 2022, Minister Wilkinson announced funding of nearly CAD3.4 million to Elemental Energy's 20 MW East Strathmore Solar project.[733] Elemental Energy invested over CAD30 million in the initiative with debt financing from the Alberta Treasury. The funding supports the renewable energy sector as a means to decarbonize the power system and to reduce emissions.

On 4 October 2022, the Canadian Coast Guard announced the start of a biodiesel testing project and the construction of Canada's first hybrid electric vessel.[734] Biodiesel blend ratios will be tested for operational efficiency and to ascertain the technological capacity for higher blends in different operational settings. In addition to fuel testing, the Coast Guard has issued a request for proposals to build its Near-shore Fishery Research Vessel. The successful bidder will begin construction incorporating the overall design by British Columbia vessel designer Robert Allan Ltd and will lower the overall fleet's carbon emissions.

On 12 October 2022, the Canadian government issued payments to Canadians living in Ontario, Manitoba, Alberta and Saskatchewan, where the federal carbon pollution pricing system operates.[735] The carbon price exists to provide price signals to Canadians to lower their use of carbon and to help facilitate the transition to a decarbonized power system. The climate action incentive payments occur quarterly.

On 12 October 2022, Minister Wilkinson, Minister Vandal and Minister of Indigenous Services Patty Hajdu announced the call for applications for the second cohort of Indigenous off-diesel projects.[736] Successful applicants will receive a total of CAD1.525 million funds in three phases to help switch their community off diesel for heating in order to decarbonize the power system.

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[731] Canada Invests CAD2.3 million in Ontario Energy Market Transformation, Natural Resources Canada (Toronto) 28 September 2022. Access Date: 10 November 2022.https://www.canada.ca/en/natural-resources-canada/news/2022/09/canada-invests-23-million-in-ontarios-energy-market-transformation.html

[732] CAD25.6 million in New Federal Home Energy Investments for Four Alberta Communities, Natural Resources Canada (Calgary) 3 October 2022. Access Date: 11 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/10/256-million-in-new-federal-home-energy-investments-for-four-alberta-communities.html

[733] Minister Wilkinson Delivers Nearly CAD3.4 million for Solar in Strathmore Alberta, Natural Resources Canada (Strathmore) 4 October 2022. Access Date: 11 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/10/minister-wilkinson-delivers-nearly-34-million-for-solar-in-strathmore-alberta.html

[734] Canadian Coast Guard Takes Important Steps to Reduce Fleet Emissions, Canadian Coast Guard (Ottawa) 4 October 2022. Access Date: 11 November 2022https://www.canada.ca/en/canadian-coast-guard/news/2022/10/canadian-coast-guard-takes-important-steps-to-reduce-fleet-emissions.html

[735] Latest Climate Action Incentive Payments Helping Make Life More Affordable and Fight Climate Change, Environment and Climate Change Canada (Gatineau) 12 October 2022. Access Date: 11 November 2022 https://www.canada.ca/en/environment-climate-change/news/2022/10/latest-climate-action-incentive-payments-helping-make-life-more-affordable-and-fight-climate-change.html

[736] Call for Funding Applications Now Open for Clean Energy Projects in Indigenous and Remote Communities, Natural Resources Canada (Ottawa) 12 October 2022. Access Date: 11 November 2022 https://www.canada.ca/en/natural-resources-canada/news/2022/10/call-for-funding-applications-now-open-for-clean-energy-projects-in-indigenous-and-remote-communities.html

On 13 October 2022, Minister Wilkinson announced the second phase of work by Regional Energy and Resource Tables.[737] New Brunswick, Nova Scotia, Prince Edward Island, the Northwest Territories and Yukon joined following the phase one launch by Canada, British Columbia, Manitoba and Newfoundland and Labrador. Canada wants all provinces and territories to join by early 2023. The objective is to align regulatory, timeline and resource allocation efforts to decarbonize the power system and to advance economic opportunities related to the low-carbon economy. These opportunities include critical mineral mining for EV vehicles and batteries, hydrogen, small modular nuclear reactors (SMRs), biofuels, carbon capture and wind and solar projects.

On 13 October 2022, Parliamentary Secretary to the Minister of Seniors Darren Fisher announced a CAD3.7 million contribution to the Clean Foundation's clean energy and equity network.[738] The network will help Indigenous and African Nova Scotians access resources and capital for wind, solar and energy efficiency installations and upgrades. The partnership will assist Canada to decarbonize the power system and will ensure that historically under-represented communities can participate in these efforts.

On 21 October 2022, Minister of Labour Seamus O'Regan Jr. announced an investment of CAD37,000 to advance a fuel switching project for Sea Force Hyperbaric Inc.[739] The project will reduce carbon emissions and facilitate the company's transition from oil by replacing three furnaces with air to water heat pumps.

On 25 October 2022, Minister Wilkinson and Ontario Minister of Energy Todd Smith announced that Ontario would join the partnership among the federal and provincial governments to transition energy systems sustainably and inclusively for security and environmental and economic benefit.[740] The priorities that Ontario and Canada have set are expanding Ontario's clean electricity grid, leading in nuclear technology, and expediting hydrogen production. The goal is to align regulatory approaches, timelines, and resource allocations.

On 26 October 2022, Minister Wilkinson issued Canada's National Statement on Nuclear Energy and announced Canada's support of new nuclear technology, such as SMRs, in addition to its existing CANDU nuclear reactors.[741] Minister Wilkinson also announced a CAD970 million loan from the Canada Infrastructure Bank for a commercial SMR of 300 MW to be built on the site of the Darlington Nuclear Generating Station in Ontario to come on-line by 2028. These projects build on recent federal budget commitments to develop and deploy SMRs, improve fuel supply chains, minimize waste generation and enhance the role of the Canadian Nuclear Safety Commission in regulating SMRs.

On 28 October, Parliamentary Secretary Dabrusin announced funding of CAD1.6 million as a contribution to CanREA's Electricity Transition Hub.[742] The hub adds capacity to system operators and utilities to implement

[737] Minister Wilkinson Launches Phase 2 of the Regional Energy and Resource Tables, Natural Resources Canada (Ottawa) 13 October 2022. Access Date: 11 November 2022 https://www.canada.ca/en/natural-resources-canada/news/2022/10/minister-wilkinson-launches-phase-2-of-the-regional-energy-and-resource-tables.html

[738] MP Fisher announces CAD3.7 million for clean energy and equity network in Nova Scotia, Natural Resources Canada (Dartmouth) 13 October 2022. Access Date: 11 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/10/mp-fisher-announces-37-million-for-clean-energy-and-equity-network-in-nova-scotia.html

[739] Canada and the Government of Newfoundland and Labrador Invest in Heat Pumps with Sea Force Hyperbaric Inc., Environment and Climate Change Canada (St. John's) 21 October 2022. Access Date: 11 November 2022. https://www.canada.ca/en/environment-climate-change/news/2022/10/canada-and-the-government-of-newfoundland-and-labrador-invest-in-heat-pumps-with-sea-force-hyperbaric-inc.html

[740] Ontario Becomes Ninth Jurisdiction to Join Canada's Regional Energy and Resource Tables, Natural Resources Canada (Pickering) 25 October 2022. Access Date: 11 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/10/ontario-becomes-ninth-jurisdiction-to-join-canadas-regional-energy-and-resource-tables.html

[741] Canada's National Statement on Nuclear Energy by the Honourable Jonathon Wilkinson, Minister of Natural Resources to the International Atomic Energy Agency's 5th Ministers' Conference, Natural Resources Canada (Washington) 26 October 2022. Access Date: 11 November 2022 https://www.canada.ca/en/natural-resources-canada/news/2022/10/canadas-national-statement-on-nuclear-energy--the-honourable-jonathan-wilkinson-minister-of-natural-resources--the-international-atomic-energy-agen.html

[742] Parliamentary Secretary Julie Dabrusin Delivers CAD1.6 million in Federal Support for CanREA's Electricity Transition Hub, Natural Resources Canada (Toronto) 28 October 2022. Access Date: 11 November 2022 https://www.canada.ca/en/natural-resources-canada/news/2022/10/ps-julie-dabrusin-delivers-16-million-in-federal-support-for-canreas-electricity-transition-hub.html

clean power, storage, and grid modernization. Its electronic library will foster knowledge and tool exchange to accelerate change and decarbonization of the power system.

On 3 November 2022, Minister of Finance Chrystia Freeland delivered the 2022 Fall Economic Statement, which outlined measures to decarbonize and transition the Canadian economy.[743] The statement's technical background document describes operationalization and governance of the CAD15 billion Canada Growth Fund to attract the scale of private sector capital necessary to accelerate deployment of the innovative technologies required to transform and grow Canada's economy with net-zero emission goals. The statement also outlined CAD250 million over five years to help Canadian workers adjust to the changing economy and retrain for clean energy jobs through a Sustainable Jobs Training Centre, a new sustainable stream within the Union Training and Innovation Program and a Sustainable Jobs Secretariat as a one-stop shop for federal green jobs. Minister Freeland also announced two tax credits. A refundable tax credit equal to 30 per cent of capital cost investments will be effective Budget Day 2023 through 2035 for investments in clean electricity systems (solar, small modular nuclear, wind, small hydro, run-of-river, wave and tidal power), stationary electricity storage systems, low carbon heat equipment and industrial zero emissions vehicles. A clean hydrogen investment tax credit will also be implemented effective Budget Day 2023 with the level of tax credit tied to lifecycle carbon intensity and labour conditions.

On 7 November 2022, Minister Alghabra committed Canada to the Canadian Green Shipping Corridors Framework and to Canada becoming a member supporter of the Zero Emission Shipping Mission.[744] Specifically, Minister Alghabra referenced Canada's joint work with the United States to address zero emission shipping within the Great Lakes and the busy St. Lawrence Seaway corridor. The Canadian initiative will test scalable net zero fuels and hybrid electric technologies.

On 8 November 2022, Minister of Innovation, Science and Industry Francois-Philippe Champagne, along with other federal and Alberta representatives, announced the investment of CAD300 million towards a CAD1.6 billion hydrogen production and liquefication facility in Edmonton.[745] The plant will spur Canada's hydrogen production sector and establish Edmonton and Alberta as a hydrogen hub in the new economy. Minister Champagne also stated that ten projects have been selected for further assessment in the call to action for high emitting sectors. The projects have been identified as early movers to expedite decarbonization efforts in their sectors and project greenhouse gas reductions of 10 million tonnes by 2030, or the equivalent of two million cars.

On 9 November 2022, Minister Wilkinson participated with Awasis Solar Limited Partnership and its community partners to recognize the commissioning of the 10-MW solar initiative.[746] More than 14,000 tonnes of carbon dioxide equivalent will be reduced in the first year, leading to a reduction of over 350,000 tonnes over the project's lifetime. The announcement shows support for indigenous-led energy projects that demonstrate community energy security and achievement of decarbonization and climate change goals.

On 9 November 2022, Parliamentary Secretary to the Minister of Crown-Indigenous Relations Jaime Battiste announced federal funding of CAD1.3 million for geothermal energy capacity development in Nova Scotia.

[743] Jobs, Growth and An Economy That Works for Everyone Backgrounder, Department of Finance (Ottawa) 3 November 2022. Access Date: 10 November 2022. https://www.canada.ca/en/department-finance/news/2022/11/jobs-growth-and-an-economy-that-works-for-everyone.html

[744] Minister of Transport Announces Canadian Green Shipping Corridors Framework and Canada Joining the Zero Emission Shipping Mission, Transport Canada (Ottawa) 7 November 2022. Access Date: 11 November 2022. https://www.canada.ca/en/transport-canada/news/2022/11/minister-of-transport-announces-canadian-green-shipping-corridors-framework-and-canada-joining-the-zero-emission-shipping-mission.html

[745] Canada Makes Significant Investment in Alberta's Clean Hydrogen Sector and Outlines Next Steps to help Canadian Industry Sectors Cut Pollution, Innovation Science & Economic Development Canada (Edmonton) 8 November 2022. Access Date: 10 November 2022. https://www.canada.ca/en/innovation-science-economic-development/news/2022/11/government-of-canada-makes-significant-investment-in-albertas-clean-hydrogen-sector-and-outlines-next-steps-to-help-canadian-industry-sectors-cut-p.html

[746] Canada Invests CAD18.5 million in Cowessess First Nation Awasis Solar Project, Natural Resources Canada (Regina) 9 November 2022. Access Date: 9 November 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/11/canada-invests-185-million-in-cowessess-first-nation-awasis-solar-project.html

Geothermal projects will be undertaken in five Mi'kmaw and twelve rural communities in Nova Scotia.[747] The projects will be delivered through Net Zero Atlantic in partnership with the Confederacy of Mainland Mi'kmaq and Nova Scotia's Department of Natural Resources and Renewables.

On 9 November 2022, Minister Champagne, along with industry representatives, released the cement industry's roadmap to net-zero concrete.[748] The initiative is important given concrete's role as the most used building material and its 7 per cent share of global carbon dioxide emissions. Realization of the plan will reduce more than 15 million tonnes by 2030 and over 4 million tonnes annually thereafter. The government and industry partnership will focus on deployment of industrial decarbonization technologies, electricity generation with excess sales to the grid, research and development and skills upgrading. The initiative ties into Canada's agreement to lead the post-Glasgow Breakthrough on Cement and Concrete and will accelerate domestic and international efforts to decarbonize cement and concrete.

On 10 November 2022, Minister of Crown-Indigenous Relations Marc Miller announced a CAD750,000 investment in Edgehog Advanced Technologies.[749] The investment assists the scale-up of proprietary glass technology to enhance performance of solar panels. The scale-up aims to increase winter energy production and facilitate the adoption of solar panels in northern and remote locations.

On 10 November 2022, Parliamentary Secretary to the Minister of Fisheries, Oceans and the Canadian Coast Guard Mike Kelloway announced funding of CAD1.8 million towards building offshore wind capacity in the Atlantic Region.[750] The projects will be delivered through Net Zero Atlantic in partnership with the Confederacy of Mainland Mi'kmaq. Infrastructure investment through the project will also be eligible for the Clean Technology Tax Credit announced in the Fall 2022 Economic Statement.

On 15 November 2022, Minister Guilbeault released the most recent report of the Powering Past Coal Alliance to demonstrate current progress towards decarbonization of the power sector.[751] He also noted a new partnership between the alliance and health groups globally, Canadian investments towards the coal phase out domestically and internationally and Canada's funding of the Just Transition Partnership to foster change in the developing world.

On 16 November 2022, Minister Wilkinson announced a CAD500,000 investment in Opus One Solutions Inc. to advance a clean energy grid.[752] Combined with its own funds, the company enhanced Opus One DERMs, software technology, which assists utilities in increasing the number and types of distributed energy systems

[747] MP Battiste Announces over CAD1.3 million to Unlock Clean Geothermal Energy in Nova Scotia, Natural Resources Canada (Membertou) 9 November 2022. Access Date: 9 November 2022 https://www.canada.ca/en/natural-resources-canada/news/2022/11/mp-battiste-announces-over-13-million-to-unlock-clean-geothermal-energy-in-nova-scotia-highlights-clean-investments-in-fall-economic-statement.html

[748] Government of Canada and Cement Association of Canada Launch Roadmap to Net Zero Carbon Concrete by 2050, Innovation Science and Economic Development Canada (Saskatoon) 9 November 2022. Access Date: 10 November 2022. https://www.canada.ca/en/innovation-science-economic-development/news/2022/11/government-of-canada-and-cement-association-of-canada-launch-roadmap-to-net-zero-carbon-concrete-by-2050.html

[749] Minister Miller Announces Federal Investment for Clean Energy Technology in Montreal, Natural Resources Canada (Montreal) 10 November 2022. Access Date: 10 November 2022 https://www.canada.ca/en/natural-resources-canada/news/2022/11/minister-miller-announces-federal-investment-for-clean-energy-technology-in-montreal.html

[750] MP Kelloway Delivers nearly CAD1.8 million to Support Offshore Wind Development, Natural Resources Canada (Port Hawkesbury) 10 November 2022. Access Date: 10 November 2022 https://www.canada.ca/en/natural-resources-canada/news/2022/11/mp-kelloway-delivers-nearly-18-million-to-support-offshore-wind-development-highlights-clean-investments-in-fall-economic-statement.html

[751] Canada supports the global transition to clean and secure energy with investments to phase out coal electricity around the world, Environment and Climate Change Canada (Sharm El-Sheikh) 15 November 2022. Access Date: 20 December 2022. https://www.canada.ca/en/environment-climate-change/news/2022/11/canada-supports-the-global-transition-to-clean-and-secure-energy-with-investments-to-phase-out-coal-electricity-around-the-world.html

[752] Canada invests in clean energy technology in Toronto, Natural Resources Canada (Toronto) 16 November 2022. Access Date: 20 December 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/11/canada-invests-in-clean-energy-technology-in-toronto.html

which can connect with the grid. The software provides real time monitoring and optimal dispatch integration to ensure sustainable, reliable and affordable electricity grids.

On 25 November 2022, Minister Wilkinson announced an agreement between Natural Resources Canada and Enbridge Gas to co-deliver the Canada Greener Homes initiative across Ontario through the company's Home Efficiency Rebate Plus program.[753] This follows up on the May 2021 original Canada Greener Homes program announcement. Rebates will be provided to homeowners to offset the costs of green home assessment audits (up to CAD600) and deep energy retrofits (up to CAD40,000) such as window and door replacements, home insulation improvements and renewable energy systems.

On 1 December 2022, the Department of Finance launched consultations regarding an investment tax credit for clean hydrogen and related labour conditions as a follow-up to commitments contained in the Fall Economic Statement.[754] The federal government seeks to learn the levels of support needed to develop a variety of production pathways and a corollary skilled workforce.

On 8 December 2022, Minister Wilkinson announced nearly CAD3 million for the Fraser Basin Council's Energy Peers in Indigenous Communities Network (EPIC).[755] Funds will flow from the Smart Renewables and Electrification Pathways program, and EPIC will work with eight communities to hire clean energy champions to develop knowledge and skills to develop small scale under-100-kw on-grid renewable energy projects.

On 8 December 2022, Minister Wilkinson announced the Government of Canada's practical steps to deliver on its international commitment to end public support for international unabated fossil fuel energy.[756] The Minister released policy guidelines which will direct how federal departments and agencies meet, or exceed, the goals set out at the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change in Glasgow to end financial support for the fossil fuel sector. This means that Canada will be investing in clean energy and electricity only. Minister Wilkinson also committed to eliminating further domestic fossil fuel subsidies early in 2023 to build on the phase-out of flow-through shares for oil, gas and coal production, and to end nine other subsidy initiatives.

On 12 December 2022, Minister Hajdu, Minister for the Pacific Economic Development Canada Harjit Sajjan and CEO of the New Relationship Trust Walter Schneider announced CAD10 million in new clean energy initiatives.[757] The funds will support a First Nations owned and operated hydroelectric project and solar farm that will generate clean electricity to replace diesel, thereby decarbonizing the power system, reducing GHG emissions and saving the community over CAD600,000 annually in diesel fuel operating and maintenance costs.

[753] Minister Wilkinson announces Canada Greener Homes initiative delivery across Ontario with Enbridge Gas, Natural Resources Canada (Ottawa) 25 November 2022. Access Date: 20 December 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/11/minister-wilkinson-announces-canada-greener-homes-initiative-delivery-across-ontario-with-enbridge-gas.html
[754] Government consulting on clean hydrogen and labour conditions for clean investment tax credits, Department of Finance Canada (Ottawa) 1 December 2022. Access Date: 20 December 2022. https://www.canada.ca/en/department-finance/news/2022/12/government-consulting-on-clean-hydrogen-and-labour-conditions-for-clean-investment-tax-credits.html
[755] Canada invests nearly CAD3 million for a renewable energy capacity building program for Indigenous communities in British Columbia, Natural Resources Canada (Vancouver) 8 December 2022. Access Date: 20 December 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/12/canada-invests-nearly-3-million-for-a-renewable-energy-capacity-building-program-for-indigenous-communities-in-british-columbia.html
[756] Government of Canada delivers on key international climate commitment to end new public support for the international unabated fossil fuel energy, Natural Resources Canada (Ottawa) 8 December 2022. Access Date: 20 December 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/12/government-of-canada-delivers-on-key-international-climate-commitment-to-end-new-public-support-for-the-international-unabated-fossil-fuel-energy-s.html
[757] New Federal Investments announced for British Columbia Indigenous Clean Energy Initiative, Pacific Economic Development Canada (Vancouver, Coast Salish Territory), 12 December 2022. Access Date: 20 December 2022. https://www.canada.ca/en/pacific-economic-development/news/2022/12/new-federal-investments-announced-for-british-columbia-indigenous-clean-energy-initiative.html

On 13 December 2022, Parliamentary Secretary Badaway announced a CAD4.9 million investment in a woody biomass to renewable energy facility to be developed in Thorold, Ontario.[758] The funds increase the previous FederalDev ON contribution of CAD1.5 million to bring the total federal assistance to CAD6.4 million.

On 16 December 2022, Member of Parliament Wayne Long announced a CAD45.9 million joint investment by the Canadian and New Brunswick governments to support green retrofits at the New Brunswick Community College's Saint John Campus.[759] In addition to adding new courtyards and facility spaces, the funds will support on-site renewable sources, building energy efficiency upgrades and electric vehicle chargers. The investments will reduce emissions by 385 tonnes of CO2 per year.

On 3 January 2023, Minister Guilbeault submitted Canada's Climate Action Progress Report to the United Nations.[760] The report documented the progress which Canada has made towards its 2030 targets and outlined specific legislated, regulated, policy and program measures to alter the trajectory of its emissions profile for the public and private sectors. Measures covered include those designed to decarbonize the power and energy sectors.

On 11 January 2023, Minister Wilkinson announced a CAD455,000 investment in the Nunavut All-of-Government Energy Forum.[761]The forum organized leaders from the federal, territorial, and municipal levels of government along with economic development agencies to identify and address policy and legislative barriers in the transition to clean energy. It also introduced the numerous funding programs available to commit to renewable energy projects. Funding for the project came from the Smart Renewables and Electrification Pathways program to build capacity and implement projects which decarbonize the power sector, reduce emissions towards climate change goals, address sustainable economic advancement and prove consistent with reconciliation efforts.

On 15 January 2023, 11 Arctic Energy champions gathered in Whitehorse, Yukon as part of the Arctic Remote Energy Networks Academy.[762] The group exchanged information, developed collaborative approaches, visited renewable energy projects in Old Crow and Teslin and discussed how to better integrate renewable energy projects in their communities to diversify away from coal and diesel fuels. Natural Resources Canada provided CAD199,572, and Crown-Indigenous Affairs and Northern Affairs Canada provided CAD81,725 for this event.

On 27 January 2023, Minister Guilbeault released the first annual report of the Net-Zero Advisory Body (NZAB).[763] The report contains advice and recommendations for Canada related to development of policies

[758] MP Badaway announces investment of CAD$4.9 million for a first of its kind woody biomass to renewable energy facility in Canada, Natural Resources (Thorold) 13 December 2022. Access Date: 20 December 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/12/mp-badaway-announces-investment-of-49-million-for-a-first-of-its-kind-woody-biomass-to-renewable-energy-facility-in-canada.html

[759] Canada and New Brunswick partner to support green retrofits on New Brunswick Community College's Saint John Campus, Infrastructure Canada (Saint John) 16 December 2022. Access Date: 20 December 2022. https://www.canada.ca/en/office-infrastructure/news/2022/12/canada-and-new-brunswick-partner-to-support-green-retrofits-on-new-brunswick-community-colleges-saint-john-campus.html

[760] Minister of Environment and Climate Change Canada Submits Climate Action Progress Report to the United Nations, Environment and Climate Change Canada (Ottawa) 3 January 2023. Access Date: 07 February 2023. https://www.canada.ca/en/environment-climate-change/news/2023/01/minister-guilbeault-submits-climate-action-progress-report-to-the-united-nations.html.

[761] Minister of Natural Resources Invests in Nunavut All-of-Government Energy Forum, Natural Resources Canada (Iqaluit) 11 January 2023. Access Date: 7 February 2023. https://www.canada.ca/en/natural-resources-canada/news/2023/01/minister-wilkinson-announces-an-investment-for-the-nunavut-all-of-government-energy-forum.html

[762] Arctic Energy Champions Come Together to Learn and Share Renewable Energy Expertise on Renewable Energy in the North, Natural Resources Canada (Whitehorse) 13 January 2023. Access Date: 7 February 2023. https://www.canada.ca/en/natural-resources-canada/news/2023/01/arctic-energy-champions-come-together-to-learn-and-share-expertise-on-renewable-energy-in-the-north.html

[763] Minister Guilbeault welcomes the 2022 Annual Report from the Net-Zero Advisory Body, Environment and Climate Change Canada (Gatineau) 27 January 2023. Access Date: 7 February 2023. https://www.canada.ca/en/environment-climate-change/news/2023/01/minister-guilbeault-welcomes-the-2022-annual-report-from-the-net-zero-advisory-body.html

and programs to achieve the Paris Agreement targets and to establish a pathway to zero emissions by 2050. A key line of inquiry for the NZAB included net-zero energy systems.

On 10 February 2023, the Canadian and Ontario governments announced their plans to build the largest battery storage facility in the country, the 250-megawatt Oneida Energy Storage Project.[764] The initiative is part of the Canadian and Ontario plans to build a reliable and affordable clean electricity grid towards decarbonization of the power system and net zero emission goals. The federal government committed a further CAD50 million with the Canada Infrastructure Bank negotiating the investment agreement. Ontario also directed the Independent Electricity Systems Operator (IESO) to negotiate a 20-year contract with the project.

On 10 February 2023, Minister Vandal announced a CAD5.5 million investment in Tarquti Energy. Tarquti will work in 12 communities developing renewable energy projects to meet local Inuit community needs and priorities.[765] Building clean electricity capacity in the Nunavik region of Quebec will help meet Canada's decarbonization and net zero emissions goals.

On 13 February 2023, Minister Wilkinson and Minister Vandal announced the Indigenous Council, Wah-ila-toos, to guide the transition to clean energy in Indigenous, rural, and remote communities.[766] The Council will act as the jury for the second cohort of the Indigenous Off-Diesel Initiative and will support community clean energy projects through the CAD300 million streamlined window access fund. Wind, solar, geothermal, hydro, and biomass projects will help decarbonize the power sector, increase community security of supply and affordability, and help Canada to meet its climate change and net zero emissions goals.

On 23 February 2023, Parliamentary Secretary Dabrusin announced the Small Modular Reactor (SMR) Funding Program.[767] The initiative fosters safe, commercial development of SMRs to decarbonize the power system and to help mitigate climate change. With CAD29.6 million, the program will support supply chain development and research into SMR waste management approaches.

On 28 February 2023, Minister Wilkinson announced a CAD35 million investment in the new Whitesand First Nation energy facility.[768] Sagatay Co-generation Limited Partnership will build and operate a 6.5 MW combined heat and power facility which will connect to the local microgrid. It will use locally sourced wood waste to displace diesel in heating and electricity for the First Nation as well as the communities of Armstrong and Collins. This will help towards Canada's net zero and decarbonization of the power sector goals with co-benefits to improve air quality and affordability.

On 5 April 2023, Minister Guilbeault provided further details on the five transformational clean investment tax credits and other expenditures announced in the 2023 Federal Budget to foster Canada's net zero journey,

[764] Governments of Canada and Ontario Working Together to Build the Largest Battery Storage Project in Canada, Natural Resources Canada (Oshweken) 10 February 2023. Access Date: 24 February 2023. https://www.canada.ca/en/natural-resources-canada/news/2023/02/governments-of-canada-and-ontario-working-together-to-build-largest-electricity-battery-storage-project-in-canada0.html

[765] Canada Supports Tarquit Energy to Empower Inuit to Take Charge of Nunavik's Energy Transition, Natural Resources Canada (Ottawa) 10 February 2023. Access Date: 24 February 2023. https://www.canada.ca/en/natural-resources-canada/news/2023/02/canada-supports-tarquti-energy-to-empower-inuitto-take-charge-of-nunaviks-energy-transition.html

[766] New Indigenous Council to Play Key Role in Advancing Clean Energy Projects in Indigenous, Rural, and Remote Communities, Natural Resources Canada (Edmonton) 13 February 2023. Access Date: 24 February 2023. https://www.canada.ca/en/natural-resources-canada/news/2023/02/new-indigenous-council-to-play-key-role-in-advancing-clean-energy-projects-in-indigenous-rural-and-remote-communities.html

[767] Canada Launches New Small Modular Reactor Funding Program, Natural Resources Canada (Ottawa) 23 February 2023. Access Date: 24 February 2023. https://www.canada.ca/en/natural-resources-canada/news/2023/02/canada-launches-new-small-modular-reactor-funding-program.html

[768] Minister Wilkinson announces CAD35 million in support for clean air and good jobs through new Whitesand First Nation energy facility, Natural Resources Canada (Thunder Bay) 28 February 2023. Access Date: 3 March 2023. https://www.canada.ca/en/natural-resources-canada/news/2023/02/minister-wilkinson-announces-35-million-in-support-for-clean-air-and-good-jobs-through-new-whitesand-first-nation-energy-facility.html

including decarbonization of the power sector and development of the made-in-Canada economy.[769] The five tax credits will cost CAD60 billion over the next 10 years. They include: a 15 per cent refundable Clean Electricity Tax Credit for investments in clean generation, storage, and transmission technology, a Clean Hydrogen Tax Credit which covers 15 to 40 percent of eligible project costs for production of hydrogen in Canada, an expansion of the Carbon Capture and Underground Storage tax credit and further broadening of the Clean Technology Investment Tax Credit to include geothermal energy systems. The budget also included CAD20 billion for the Canada Infrastructure Bank to fund the building of major clean electricity and infrastructure projects. The Smart Renewables and Electrification Pathways program, the Smart Grids program, and other science-based activities to foster development of Canada's off-shore wind potential will be supported by an additional CAD3 billion.

Canada has fully complied with its commitment to a fully or predominantly decarbonized power sector by 2035, prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power. Canada built upon its a foundation of coal phase-out in Ontario and abatement systems on remaining coal facilities in other provinces. Canada also strengthened its clean electricity power system regulatory framework and funded direct and indirect phase-out of carbon fuels such as coal, propane, diesel and oil. Canada has also increased renewable and alternate fuel sources and modernized its grid infrastructure.

Thus, Canada receives a score of +1.

Analyst: Jacob Rudolph

France: +1

France has fully complied with its commitment to a fully or predominantly decarbonized power sector by 2035, prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power.

On 8 July 2022, the Ministry of Ecological Transition and Territorial Cohesion announced its Energy Sobriety Plan, which details strategies to reduce energy consumption and introduce alternative methods of energy generation to increase energy efficiency.[770] The objectives are reflected in the plan's actions to expedite the development of renewable energies and the relaunching of the French nuclear energy industry.

On 13 July 2022, Prime Minister Élisabeth Borne, along with the Ministries of Economy, Energy Transition and Industry announced the third phase of the Zero Fossil Industry plan, which is part of the overall France 2030 project to decarbonize the economy.[771] The third phase of the plan is centered on recruiting small to medium-sized companies to take part in the decarbonization plan, and any prospective applicants must submit technologies that aim to decarbonize the economy, including the power sector. The first phase of the program, which focused on developing biomass power for the power sector as part of a plan to phase out fossil fuel, opened earlier this year and has attracted large investments from private firms.

On 2 August 2022, Minister for Ecological Transition and Territorial Cohesion Christophe Béchu, Minister for Energy Transition Agnès Pannier-Runacher and Secretary of State for the Sea Hervé Berville began the

[769] Minister Guilbeault highlights the big five Clean Investment Tax Credits in Budget 2023 to support sustainable made-in-Canada clean economy, Environment and Climate Change Canada (St. Jerome, PQ) 5 April 2023. Access Date: 7 April 2023. https://www.canada.ca/en/environment-climate-change/news/2023/04/minister-guilbeault-highlights-the-big-five-new-clean-investment-tax-credits-in-budget-2023-to-support-sustainable-made-in-canada-clean-economy.html

[770] Energy sobriety: a plan to reduce our energy consumption, Ministry of Ecological Transition and Territorial Cohesion (Paris) 8 July 2022. Access Date: 10 November 2022. https://www.ecologie.gouv.fr/sobriete-energetique-plan-reduire-notre-consommation-denergie

[771] France 2030: launch of the third part of the call for projects to accelerate the phase-out of fossil fuels in industry, aimed at small industrial sites, Prime Minister's Office (Paris) 13 July 2022. Translation provided by Google Translate. Access Date: 25 December 2022. https://www.gouvernement.fr/france-2030-lancement-du-troisieme-volet-de-l-appel-a-projets-pour-accelerer-la-sortie-des

selection phase of companies for the construction of 50 offshore wind farms by 2050.[772] 13 corporate groups will compete for this contract to reduce greenhouse emissions in the energy sector.

On 26 August 2022, the Ministry of Ecological Transition and Territorial Cohesion announced the expansion of the production capacity of the hydroelectric power network by 200 megawatts by 2023 and by 1,200 megawatts by 2028.[773] The expansion is planned to be done through upgrading about 60 per cent of the current infrastructure. There are also plans to equip dams in France with more hydroelectric facilities.

On 26 September 2022, the Ministry of Ecological Transition and Territorial Cohesion announced that EUR1.2 billion of its EUR19 billion total annual budget for 2023 will be dedicated to investments in developing its nuclear power sector.[774] The ministry would also continue its support in building other renewable energy infrastructure for the future and is researching the feasibility of building offshore wind farms. The investments in nuclear and renewable energy will aid in the decarbonization of the French energy sector.

On 28 September 2022, Prime Minister Borne introduced a EUR2.1 billion funding scheme for the development of hydrogen power in France.[775] The money would be primarily used to fund research and development within the power sector as part of France's long-term goal of completely decarbonizing its power grid. The plan is also expected to raise 5,200 jobs in the power sector for the development of future technologies, such as electrolyzers for generating hydrogen power.

On 30 September 2022, the Ministry of Ecological Transition and Territorial Cohesion sought to decrease and eventually eliminate the mining and utilization of fossil fuels, including coal, within France.[776] The French government plans to eliminate all fossil fuel exploitation by 2040 and aims to restrict the opening of new mining operations with existing laws and permits after the passing of a law that stops research of new sources of hydrocarbons in 2017.

On 4 October 2022, the Ministry of Ecological Transition and Territorial Cohesion confirmed that the plan for increasing the usage of biogas in powering the French power generation sector will be continuing.[777] The plan is part of an ongoing initiative for replacing fossil fuels with biogas energy since 2014.

On 12 October 2022, the Ministry of Ecological Transition introduced objectives regarding the development of offshore wind power to increase its share in the French electricity mix.[778] The plan is part of the France 2030 initiative, which plans to increase the offshore wind deployed capacity to 2.4 gigawatts in 2023 and 5 gigawatts in 2028. Currently, the project comprises 17 offshore wind farms under construction or bidding, with the

[772] Wind farms in the Mediterranean Sea: the Government announces the selection of 13 candidates to participate in the second phase of the procedure, Ministry of Ecological Transition and Territorial Cohesion (Paris) 2 August 2022. Access Date: 10 November 2022. https://www.ecologie.gouv.fr/parcs-eoliens-en-mer-mediterranee-gouvernement-annonce-selection-13-candidats-participer-deuxieme
[773] Hydroelectricity, Ministry of Ecological Transition and Territorial Cohesion (Paris) 26 August 2022. Access Date: 26 December 2022. https://www.ecologie.gouv.fr/hydroelectricite
[774] 2023 budget of the Ministry of Energy Transition: 19 billion euros to accelerate the decarbonization of our lifestyles and protect the French against rising energy prices, Ministry of Ecological Transition and Territorial Cohesion (Paris) 26 September 2022. Access Date: 10 November 2022. https://www.ecologie.gouv.fr/budget-2023-du-ministere-transition-energetique-19-milliards-deuros-accelerer-decarbonation-nos
[775] Make France the "leader" in carbon-free hydrogen with France 2030, Ministry of Ecological Transition and Territorial Cohesion (Paris) 28 September 2022. Translation provided by Google Translate. Access Date: 25 December 2022. https://www.gouvernement.fr/actualite/faire-de-la-france-le-leader-de-lhydrogene-decarbone-avec-france-2030
[776] 2023 budget of the Ministry of Energy Transition: 19 billion euros to accelerate the decarbonization of our lifestyles and protect the French against rising energy prices, Ministry of Ecological Transition and Territorial Cohesion (Paris) 26 September 2022. Access Date: 10 November 2022. https://www.ecologie.gouv.fr/budget-2023-du-ministere-transition-energetique-19-milliards-deuros-accelerer-decarbonation-nos
[777] Biogas, Ministry of Ecological Transition and Territorial Cohesion (Paris) 04 October 2022. Access Date: 26 December 2022. https://www.ecologie.gouv.fr/biogaz
[778] Offshore wind, Ministry of Ecological Transition and Territorial Cohesion (Paris) 12 October 2022. Access Date: 25 December 2022. https://www.ecologie.gouv.fr/eolien-en-mer-0

earliest being ready in 2025 and are set to contribute to the goal of generating 40 per cent of France's power with renewables.

On 13 October 2022, the Ministry of Ecological Transition and Territorial Cohesion reviewed the results of the first year of the France 2030 plan to decarbonize the economy.[779] Of the EUR8.4 billion spent on various sectors of the economy to decarbonize them, EUR105 million is directly invested in the development of clean energy, while EUR64 million is spent on decarbonization and hydrogen power research. The majority of the budget is spent on three other areas, which are other unspecified investment funds that are involved in decarbonization (EUR1.9 billion), research in universities (EUR1.7 billion), and clean energy start-ups (EUR1.5 billion). Out of the 1,752 projects funded by the plans, 669 projects are from small companies.

On 13 October 2022, the Ministry of Ecological Transition and Territorial Cohesion detailed the plans for geothermal energy in France that is being developed.[780] By 2023, it plans to raise the power generation of geothermal facilities to generate 24 megawatt hours.

On 14 October 2022, the Ministry of Ecological Transition and Territorial Cohesion met with representatives of 45 French startup companies that are designated as Greentech Innovators for their work on technologies that would allow the transition of the French economy to meet its climate targets.[781] Among these startups, there are several that aim to develop renewable energy technologies that aim to decarbonize the energy sector.

On 14 October 2022, the French government announced that the offshore wind power site at Saint-Nazaire has successfully produced hydrogen from desalinated seawater that can be transported back to land for hydrogen power production.[782] Production of hydrogen through electrolysis in offshore wind facilities can greatly increase the efficiency of renewable power production and has the added benefit of increasing the efficiency of production, as the facility now contributes to two renewable energy sources targeted in the French 2030 plan. The development and operation of the power station of Saint-Nazaire is part of the renewables plan that France intends to implement in the future.

On 2 November 2022, the Ministry of Ecological Transition and Territorial Cohesion announced a bill to investigate the feasibility of the construction of new nuclear reactors as a part of the French government's goals of decarbonizing the power sector.[783] The bill specifically facilitates the construction of nuclear power plants close to any existing nuclear power generation facilities and will aim to accelerate the bureaucratic processes regarding the building of new nuclear plants and the maintenance of any existing nuclear plants.

On 4 November 2022, President Emmanuel Macron announced new plans for the decarbonization of the power sector during a pre-meeting of the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change.[784] Chief among these plans is the announcement to build 40 windfarms by 2050 and build an additional six nuclear reactors. Offshore wind power is also planned to be the primary source of energy generation for France. President Macron also announced that EUR30 billion will be pledged in a

[779] "France 2030" celebrates its first anniversary, Ministry of Ecological Transition and Territorial Cohesion (Paris) 30 September 2022. Access Date 27 December 2022. https://www.gouvernement.fr/actualite/france-2030-fete-son-premier-anniversaire
[780] Geothermal, Ministry of Ecological Transition and Territorial Cohesion (Paris) 13 October 2022. Access Date: 26 November 2022. https://www.ecologie.gouv.fr/geothermie
[781] Christophe Béchu welcomes the 45 laureates labeled "Greentech Innovation", Ministry of Ecological Transition and Territorial Cohesion (Paris) 14 October 2022. Access Date: 10 November 2022. https://www.ecologie.gouv.fr/christophe-bechu-accueille-45-laureats-labellises-greentech-innovation
[782] Renewable hydrogen at sea, a world first, Government of France (Paris) 14 October 2022. Access Date: 26 December 2022. https://www.gouvernement.fr/actualite/de-lhydrogene-renouvelable-en-mer-une-premiere-mondiale
[783] Minutes of the Council of Ministers of November 02, 2022, Government of France (Paris) 2 November 2022. Access date: 24 November 2022. https://www.gouvernement.fr/conseil-des-ministres/compte-rendu-du-conseil-des-ministres-du-02-11-2022
[784] COP 27 in Sharm el-Sheikh: assessment of our ecological action, Élysée (Paris) 04 November 2022. Access Date: 27 December 2022. https://www.elysee.fr/emmanuel-macron/2022/11/04/cop-27-a-charm-el-cheikh-bilan-de-notre-action-ecologique

recovery plan to boost environmental friendliness, with a significant amount of these funds being devoted to green energy in 2023.

On 24 November 2022, France and Germany hosted the Fifth Franco-German Energy Forum and collaborated to implement and shape the energy transition.[785] They included the fundamental role of energy in achieving the energy and climate targets for 2030, the challenges of energy reform in the geopolitical context, and concrete questions about how to finance energy reforms and industry decarbonization.

On 6 December 2022, the Ministry of Ecological Transition and Territorial announced progress towards using and further developing methods of water electrolysis to produce hydrogen power carbon-free.[786] Water electrolysis will ultimately replace the processing of fossil fuels to generate hydrogen.

On 7 December 2022, Minister Pannier-Runacher, Minister Delegate for Industry Roland Lescure and Minister of Economics and Finance Bruno Le Maire announced the creation of a working group for designing the long-term national hydrogen strategy.[787] The plan outlines that industries must develop hydrogen hubs close to high-carbon industries to provide them with effective energy with reduced transport costs. They also announced that electric companies in France need to integrate hydrogen power generation into their power grids through long-term contracts.

On 7 December 2022, President Macron pledged to continually follow the Fit for 55 plan laid out by the European Union, which plans to cut emissions by 55 per cent by 2030.[788] President Macron reassured that the objectives will be met by the measures implemented by the French Energy Sobriety plan, which plans to cut emissions by replacing fossil fuels with renewable and low-carbon energy sources.

On 9 December 2022, the Ministry of Ecological Transition and Territorial Cohesion approved funding for research for firms that aim to develop innovative measures in radioactive waste management.[789] In total, EUR134.9 million will be allocated to this research.

On 9 December 2022, Minister of Economics and Finance Bruno Le Maire reiterated the plan to build six new nuclear power plants to boost nuclear power production as fossil fuels are being phased out.[790] The new nuclear reactors will utilize the new "Evolutionary Power Reactor 2" technology to reduce the cost of the nuclear power generated. All six nuclear reactors are planned to be completed between 2034 to 2035.

[785] 5th Franco-German Energy Forum: Germany and France successfully collaborate on shaping the energy transition, Federal Ministry for Economic Affairs and Climate Action (Berlin) 24 November 2022. Access Date: 23 December 2022. https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/11/20221124-5-5th-franco-german-energy-forum-germany-and-france-successfully-collaborate-on-shaping-the-energy-transition.html

[786] Fuels and combustibles authorized in France, Ministry of Ecological Transition and Territorial Cohesion (Paris) 6 December 2022. Access Date: 26 December 2022. https://www.ecologie.gouv.fr/carburants-et-combustibles-autorises-en-france

[787] National hydrogen strategy, Ministry of Ecological Transition and Territorial Cohesion (Paris) 07 December 2022. Access Date: 24 December 2022. https://presse.economie.gouv.fr/07122022-strategie-nationale-hydrogene/

[788] Visit of the President of the Republic to the Arab Republic of Egypt on the occasion of COP 27, Élysée (Paris) 7 December 2022. Access Date: 27 December 2022. https://www.elysee.fr/emmanuel-macron/2022/11/07/deplacement-du-president-de-la-republique-en-republique-arabe-degypte-a-loccasion-de-la-cop-27

[789] France 2030: Bruno Le Maire, Agnes Pannier-Runacher and Roland Lescure Announce the Winners of the Call for Projects Aimed at Supporting Innovation for the Management of Radioactive Waste and Materials, Ministry of Economics, Finance and Industrial and Digital Sovereignty (Paris) 9 December 2022. Access Date: 25 December 2022. https://presse.economie.gouv.fr/09122022-france-2030-bruno-le-maire-agnes-pannier-runacher-et-roland-lescure-annoncent-les-laureats-de-lappel-a-projets-visant-a-soutenir-linnovation-pour-la-gestion-des-dechets-et-matieres-radioacti/

[790] Speech by Bruno Le Maire at the Penly nuclear power plant, Ministry of Economics, Finance and Industrial and Digital Sovereignty (Paris) 09 December 2022. Access Date: 25 December 2022 https://presse.economie.gouv.fr/09122022-discours-de-bruno-le-maire-a-la-centrale-nucleaire-de-penly/

On 10 December 2022, the General Commission of Planning proposed the launching of a comprehensive plan to utilize geothermal power sources within France.[791] It is predicted that if all deposits within France are used in power generation for heat, it can save about 100TWh per year within 15 to 20 years.

On 9 January 2023, the Ministry of Economy, Finance, Digital, and Industrial Sovereignty announced an additional EUR500 million to fund the France 2030 program, which aims to promote sustainability across all sectors of the economy, including the energy sector.[792] However, at this moment it is unknown how much will be allocated specifically for the development of low-carbon power generation.

On 16 January 2023, Minister Lescure declared the harbors of Dunkirk and Fos-sur-Mer to be low-carbon industrial areas.[793] There is a grant of EUR13.6 million to conduct studies of feasibility of incorporating carbon capture infrastructure into the facilities of the harbor and the establishment of hydrogen production facilities for future energy needs. The traditional fossil fuel power grids of these harbors will be replaced if deemed appropriate. The plan is part of a policy to eventually convert 10 industrial sites within France to be bases of low carbon industry.

On 19 January 2023, the French government announced the decarbonization of the power sector as a key aspect of its future ecological planning operations.[794] The plan also aims to specifically remodel the energy system of France with renewable energies such as nuclear energy as the main source of power.

On 20 January 2023, Minister of Energy Transition Agnès Pannier-Runacher and Minister Lescure announced new work groups to organize the renewable energies and nuclear power sector while the government present two bills in the legislature relating to the acceleration of nuclear energy.[795] The workgroup on renewable energy will focus on the expansion of production chains of renewable energies domestically to avoid dependency, while the nuclear energy work group specifically aims to provide innovation in the nuclear sector.

On 1 February 2023, Minister Pannier-Runacher announced 14 winners of the "Territorial hydrogen ecosystems" project, which aims to provide the transport sector with hydrogen production facilities.[796] A total of EUR126 million of funding will be allocated to the winning projects.

On 1 February 2023, Minister Pannier-Runacher and the High Commissioner for Planning François Bayrou presented details of a program focusing on the acceleration of geothermal energy development.[797] The new geothermal power development plan will focus on building human capital and technical research for the future development of the geothermal sector, such as improving knowledge of the geothermal vents located

[791] Climate responsibility. Surface geothermal energy: a powerful weapon, General Commission of Planning (Paris) 10 December 2022. Access Date: 05 February 2022 https://www.gouvernement.fr/responsabilite-climatique-la-geothermie-de-surface-une-arme-puissante

[792] 09/01/2023 – CP – France 2030 : Le gouvernement investit 500 millions d'euros supplementaires pour faire emerger davantage de start-up issues de la recherche, Ministère de l'Économie, des finances, de la souveraineté numérique et industrielle (Paris) 9 January 2023. Translation provided by Google Translate. Access Date: 14 January 2023. https://presse.economie.gouv.fr/09012023-cp-france-2030-le-gouvernement-investit-500-millions-deuros-supplementaires-pour-faire-emerger-davantage-de-start-up-issues-de-la-recherche/

[793] 01/16/2023 - Roland Lescure announces the industrial-port areas of Dunkirk and Fos sur Mer as winners of the call for "low-carbon industrial areas" (ZIBAC) projects, as part of France 2030, Office of the Minister Delegate in charge of Industry (Paris) 16 January 2022. Access Date: 05 February 2022 https://presse.economie.gouv.fr/16012023-roland-lescure-annonce-les-zones-industrialo-portuaires-de-dunkerque-et-de-fos-sur-mer-comme-laureates-de-lappel-a-projets-zones-industrielles-bas-carbone-zibac-dans-le-cadre-de-france-2030/

[794] Ecological planning, The Government of France (Paris) 19 January 2023. Access Date: 5 February 2023 https://www.gouvernement.fr/france-nation-verte

[795] Agnès Pannier-Runacher and Roland Lescure announce the launch of working groups on the renewable and nuclear energy production industry, Ministry of Energy Transition (Paris) 20 January 2023. Access Date: 05 February 2023 https://www.ecologie.gouv.fr/agnes-pannier-runacher-et-roland-lescure-annoncent-lancement-groupes-travail-sur-lindustrie

[796] "Ecosystèmes territoriaux hydrogène" : Agnès Pannier-Runacher annonce 14 nouveaux lauréats de l'appel à projets, Ministry of Energy Transition (Paris) 1 February 2023. Access Date: 8 March 2023

[797] Agnès Pannier-Runacher présentera un plan d'action pour accélerer le développement de la géothermie, aux côtés de François Bayrou le jeudi 2 février à Clamart (92), Ministry of Energy Transition (Paris) 1 February 2023. Access Date: 8 March 2023

throughout France. The plan will also look into building legal systems that facilitate the development of Geothermal power and offer monetary support for players in the industry.

On 2 February 2023, Minister Pannier-Runacher and High Commissioner for Planning Bayrou provided a concrete development target for the geothermal power industry in France.[798] By 2030, the government aims to grow the number of active geothermal projects by 40 per cent as part of its plan to decarbonize the power sector and reduce reliance on fossil fuels.

On 7 February 2023, the legislature adopted the bill to accelerate the development of all renewable energies.[799] The bill aims to reduce legal and procedural hurdles to the development of all renewable energies in order to comply with the plans outlined in the France 2030 initiative. In addition, funding for renewable energy projects will be easier to secure in the future, which creates economic incentives for future developments.

On 8 February 2023, Ministry of Economy, Finance, and Industrial and Digital Sovereignty identified four key areas of energy industry development to eventually achieve complete decarbonization of the power sector.[800] Future investments will be directed to projects relating to Green Hydrogen, Biomass, Carbon-Free electricity, and Carbon Capture. The Ministry of Ecological Transition will work with the 50 highest CO2-emitting industrial sites in France to discuss the integration of power generation technologies related to the four identified energy sectors and reduce reliance on fossil fuels.

On 17 March 2023, Minister Pannier-Runacher announced the publishing of the full law that permits accelerated development for renewable energies.[801] The new law has four principles to hasten the deployment of low-carbon energies: increasing coordination with local officials, simplifying authorization procedures, mobilizing already artificialized spaces for the development of renewable energies and sharing the value of the new low-carbon energies with the territories that they are resided in. The law will provide a general framework for all low-carbon energy development projects in France.

On 23 March 2023, Minister Lescure announced the establishment of an investment network to support the goals of the France 2030 plan.[802] The main objective of the investment network is to mobilize corporate forces to kickstart the development of low-carbon power generation industries on a region-to-region basis. Management of individual projects will also be based on the geographic region to increase proximity between projects and management.

On 27 March 2023, Minister Pannier-Runacher announced the next phase of the offshore wind power development plan in Normandy.[803] The Ministry of Energy Transition has found a suitable bid for the project and the new wind farm is expected to begin operation in 2031 with the ability to power 800,000 households in the region.

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[798] Géothermie : Un plan d'action pour accélerer, Ministry of Energy Transition (Paris) 2 February 2023. Access Date: 8 March 2023 https://www.ecologie.gouv.fr/geothermie-plan-daction-accelerer

[799] Projet de loi relatif à l'accélération de la production d'énergies renouvelables (ENER2223572L), Government of France (Paris) 7 February 2023. Access Date: 8 March 2023 https://www.legifrance.gouv.fr/dossierlegislatif/JORFDOLE000046329719/

[800] Transition écologique : une stratégie pour accélérer la décarbonation des sites industriels, Ministry of the Economy, Finance and Industrial and Digital Sovereignty of France (Paris) 8 February 2023. Access Date: 8 March 2023 https://www.economie.gouv.fr/transition-ecologique-strategie-accelereration-decarbonation-sites-industriels#

[801]Publication de la loi relative à l'accélération des énergies renouvelables, Ministry of Energy Transition (Paris) 17 March 2023. Access Date: 4 April 2023 https://www.ecologie.gouv.fr/publication-loi-relative-lacceleration-des-energies-renouvelables

[802] 23/03/2023 - CP - Roland Lescure, Dominique Faure et Bruno Bonnell annoncent l'installation d'un réseau départemental de sous-préfets référents chargés d'accompagner le déploiement du plan France 2030, Ministry of the Economy, Finance and Industrial and Digital Sovereignty of France (Paris) 23 March 2023. Access Date: 7 April 2023 https://presse.economie.gouv.fr/23032023-cp-roland-lescure-dominique-faure-et-bruno-bonnell-annoncent-linstallation-dun-reseau-departemental-de-sous-prefets-referents-charges-daccompagner-le-deploiement-du-plan-france-2030/

[803] Eolien en mer : Agnès Pannier-Runacher présente le plan d'accélération de la filière et annonce le lauréat de l'appel d'offres Centre Manche 1, Ministry of Energy Transition (Paris) 27 March 2023. Access Date: 7 April 2023 https://www.ecologie.gouv.fr/eolien-en-mer-agnes-pannier-runacher-presente-plan-dacceleration-filiere-et-annonce-laureat-lappel

France has fully complied with its commitment to a fully or predominantly decarbonized power sector by 2035 and prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power. France partnered with the private sector to advance technology in producing more low-carbon energy. France has also funded decarbonization projects while reaffirming and pledging to increase the scope of their commitments in the latest 2022 United Nations Climate Change Conference in Egypt. Additionally, France has halted any operations to mine coal within its borders, maintaining a low share of coal power in the nation's overall power grid. Lastly, France passed the accelerated renewable energy development bill and continues the development of renewable energies, such as offshore wind.

Thus, France receives a score of +1.

Analyst: Harry Pun

Germany: +1

Germany has fully complied with its commitment to a fully or predominantly decarbonized power sector by 2035 and prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power.

On 7 July 2022, the Federal Ministry for Economic Affairs and Climate Action announced funding of almost EUR3 billion for the industrial production of battery cells for mobile and stationary energy storage.[804] This initiative aims at strengthening the technological expertise required for battery cell production to achieve carbon neutrality.

On 15 July 2022, the Federal Ministry for Economic Affairs and Climate Action and Federal Ministry for Digital and Transport had four large-scale hydrogen projects approved by the European Commission.[805] The federal and state governments provided a total of more than EUR8 billion for the IPCEI Hydrogen projects.

On 27 July 2022, the German government expanded the Energy and Climate Fund to create the Climate and Transformation Special Fund to finance EUR177.4 billion between 2023 and 2026 for energy transformation and climate protection.[806] The funding will help promote an environmentally friendly and reliable energy supply.

On 29 July 2022, the Federal Ministry for Economic Affairs and Climate Action revised the Renewable Energy Sources Act to further speed up the expansion of renewable energy.[807] The aim is to prioritize renewable energy when making decisions to minimize the usage of fossil fuels and transform Germany's energy systems.

On 23 August 2022, Vice Chancellor Robert Habeck and Canada's Minister of Natural Resources Jonathon Wilkinson signed an agreement to establish the Canada-Germany Hydrogen Alliance.[808] The joint declaration recognizes the energy security challenges for Germany posed by Russian weaponization of conventional fuels and builds on Canada's December 2020 Hydrogen Strategy to expedite transitions to clean energy globally. The two

[804] Transformation to a climate-neutral industry, The Federal Government of Germany (Salzgitter) 7 July 2022. Access Date: 4 November 2022. https://www.bundesregierung.de/breg-en/search/battery-cell-plant-vw-salzgitter-2060434
[805] European Commission approves 41 large-scale hydrogen projects – Tailwind from Brussels for four initial projects from Germany, The Federal Ministry for Digital and Transport (Baden) 15 July 2022. Access Date: 4 November 2022. https://bmdv.bund.de/SharedDocs/EN/PressRelease/2022/052-41-large-scale-hydrogen-projects.html
[806] 170 billion euros for energy supplies and climate protection, The Federal Government of Germany (Salzgitter) 27 July 2022. Access Date: 4 November 2022. https://www.bundesregierung.de/breg-en/search/climate-and-transformation-fund-2066034
[807] First rules of new 2023 RES Act enter into force: "renewable energy first" and higher remuneration for solar power Introduction, the Federal Ministry for Economic Affairs and Climate Action (Berlin) 29 July 2022. Access Date: 4 November 2022. https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/07/20220729-first-rules-of-new-2023-res-act-enter-into-force-renewable-energy-first-and-higher-remuneration-for-solar-power.html
[808] Canada and Germany Sign Agreement to Enhance German Energy Security with Clean Canadian Hydrogen, Natural Resources Canada (Stephenville) 23 August 2022. Access Date: 10 November 2022.https://www.canada.ca/en/natural-resources-canada/news/2022/08/canada-and-germany-sign-agreement-to-enhance-german-energy-security-with-clean-canadian-hydrogen.html

countries intend to establish a policy and regulatory framework to encourage investment in secure hydrogen value chains in both countries through a trans-Atlantic corridor and to export Canadian hydrogen to Germany by 2022.

On 2 September 2022, the German government announced that it had committed EUR40 billion under the Structural Improvement Act to support structural change in the lignite mining regions for coal phase-out.[809] The fund will be used for establishment of research institutions, promoting innovative energy transition projects and funding key infrastructure projects.

On 22 September 2022, the Ministry for Digital and Transport awarded EUR80 million to 19 Fraunhofer Institutes to support the National Fuel Cell Production Action Plan (H2GO), which is a joint project about fuel cell production.[810] H2GO investigates efficient and cost-effective large-scale production of fuel cells for converting hydrogen to electric power on board a vehicle.

On 7 October 2022, the Ministry of Economic Affairs and Climate Action adopted Energy Security of Supply Act 3.0 to temporarily increase the production of electricity using renewables and to raise transmission capacities in the power grid.[811] These actions aim to increase electricity production using photovoltaics, biogas and onshore wind power to cut gas consumption.

On 12 October 2022, the Ministry of Finance published the German Draft Budgetary Plan for 2023.[812] It recommended policies that reduce overall reliance on fossil fuels, such as making amendments to the Renewable Energy Sources Act that increases the share of renewable energy in electricity consumption from 65 per cent to 80 per cent by 2030.

On 18 October 2022, Germany's Foreign Minister held the 6th German-Belgian Conference at the Federal Foreign Office in Berlin to develop joint solutions and approaches for climate change and energy transition.[813] The conference discussed how Belgium and Germany can join forces to make sufficient amounts of green hydrogen available for industry, transport and consumers.

On 19 October 2022, the German government developed the Charging Infrastructure Master Plan II to set out the timetable for boosting the expansion of the charging infrastructure.[814] The plan aims to construct and operate charging stations more easily to expand the charging infrastructure for heavy commercial vehicles.

On 24 October 2022, the Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection updated their Marine Environmental Protection plan.[815] The update emphasized the German government's effort in promoting nature-based solutions to protect the carbon storing capability of the marine ecosystem through the Federal Action Plan on Nature-based Solutions for Climate and Biodiversity.

[809] Prospects for the eastern German coal regions, The Federal Government of Germany (Salzgitter) 2 September 2022. Access Date: 4 November 2022. https://www.bundesregierung.de/breg-en/search/chancellor-eastern-german-coal-states-2122692
[810] Wissing: Providing more climate-friendly alternatives to HGVs, The Federal Ministry for Digital and Transport (Munich) 23 September 2022. Access Date: 5 November 2022. https://bmdv.bund.de/SharedDocs/EN/PressRelease/2022/066-more-climate-friendly-alternatives.html
[811] Bundesrat adopts Energy Security of Supply Act 3.0, The Federal Ministry for Economic Affairs and Climate Actions (Berlin) 7 October 2022. Access Date: 5 November 2022. https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/10/20221007-bundesrat-adopts-energy-security-of-supply-act-30.html
[812] German Draft Budget Plan 2023, The Federal Ministry of Finance (Berlin) 12 October 2022. Access Date: 23 December 2022. https://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Press_Room/Publications/Brochures/german-draft-budgetary-plan-2023.pdf
[813] Climate change and energy transition: German-Belgian cooperation, Federal Foreign Office (Berlin) 18 October 2022. Access Date: 23 December 2022. https://www.auswaertiges-amt.de/en/aussenpolitik/laenderinformationen/belgien-node/-/2558380
[814] Boosting the expansion of charging infrastructure, The Federal Government (Berlin) 19 October 2022. Access Date: 23 December 2022. https://www.bundesregierung.de/breg-en/search/charging-infrastructure-master-plan-2135836
[815] Marine Environmental Protection, Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (Berlin) 24 October 2022. Access Date: 23 December 2022. https://www.bmuv.de/en/topics/water-resources-waste/marine-environment/marine-conservation-what-is-it-all-about

On 24 November 2022, Germany and France hosted the Fifth Franco-German Energy Forum and collaborated to implement and shape the energy transition.[816] They included the fundamental role of energy in achieving the energy and climate targets for 2030, the challenges of energy reform in the geopolitical context and concrete questions about how to finance energy reforms and industry decarbonization.

On 24 November 2022, the Ministry for Food and Agriculture launched the Climate Change Act to reduce annual emissions in agriculture to 56 million tonnes of carbon dioxide equivalents by 2030.[817] By using harvested wood in the material and energy sectors, additional carbon is stored and emissions can be lowered.

On 8 December 2022, the Federal Ministry for Economic Affairs and Climate Action launched the procurement procedure for the import of green hydrogen under the H2Global programme.[818] Germany will purchase green hydrogen products cheaply on the world market and to sell them to the highest bidder in the European Union to support the global market ramp-up of green hydrogen.

On 21 December 2022, the Federal Government released the evaluation report on the Carbon Dioxide Storage Act.[819] The report describes the advances in technology, the latest scientific findings and the potential contribution from carbon capture and storage to climate change mitigation.

On 24 December 2022, the *Federal* Ministry for Economic Affairs and Climate Action introduced a new funding guideline for energy companies for onshore wind energy.[820] The aim of the programme is to fund the high costs incurred by citizens' energy companies during the planning and approval phase of wind turbine construction.

On 11 January 2023, the Federal Cabinet adopted a bill tabled by the Federal Ministry for Economic Affairs and Climate Action on relaunching the digitization of the energy transition.[821] The act is set to bring digitization and the smart meter rollout to a new level as a prerequisite for speeding up the energy transition. Smart meters form part of the digital infrastructure and are therefore an essential element of a close to zero emissions energy system characterized by fluctuating demand and volatile generation.

On 30 January 2023, the Federal Cabinet approved a wind and grid expansion accelerator submitted by the Federal Minister for Economic Affairs and Climate Action, which served to implement the EU Emergency

[816] 5th Franco-German Energy Forum: Germany and France successfully collaborate on shaping the energy transition, Federal Ministry for Economic Affairs and Climate Action (Berlin) 24 November 2022. Access Date: 23 December 2022. https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/11/20221124-5-5th-franco-german-energy-forum-germany-and-france-successfully-collaborate-on-shaping-the-energy-transition.html

[817] Agriculture, climate change mitigation and climate resilience, Federal Ministry for Food and Agriculture (Berlin) 24 November 2022. Access Date: 23 December 2022. https://www.bmel.de/EN/topics/farming/climate-stewardship/agriculture-climate-change-mitigation.html

[818] A boost to public acceptance for the energy transition – support for citizens' energy to be expanded, Federal Ministry for Economic Affairs and Climate Action (Berlin) 24 December 2022. Access Date: 3 March 2023. https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/12/20221224-a-boost-to-public-acceptance-for-the-energy-transition-support-for-citizens-energy-to-be-expanded.html

[819] Federal cabinet adopts evaluation report on the Carbon Dioxide Storage Act, the Federal Government (Berlin) 21 December 2022. Access Date: 3 March 2023. https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/12/20221221-federal-cabinet-adopts-evaluation-report-on-the-carbon-dioxide-storage-act.html

[820] Federal Ministry for Economic Affairs and Climate Action launches first auction procedure for H2Global – €900 million for the purchase of green hydrogen derivatives, Federal Ministry for Economic Affairs and Climate Action (Berlin) 8 December 2022. Access Date: 3 March 2023. https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/12/20221208-federal-ministry-for-economic-affairs-and-climate-action-launches-first-auction-procedure-for-h2global.html

[821] The Cabinet adopts relaunch of the digitisation of the energy transition and paves the way for accelerated smart meter rollout, the Federal Government (Berlin) 11 January 2022. Access Date: 3 March 2023. https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2023/01/20230111-the-cabinet-adopts-relaunch-of-the-digitisation-of-the-energy-transition-and-paves-the-way-for-accelerated-smart-meter-rollout.html

Regulation.[822] The approval facilitated procedures for expanding onshore and offshore wind energy by simplifying licensing procedures.

On 31 March 2023, the Federal Environment Ministry set up the funding initiative "AI lighthouse projects for the environment, climate, nature and resources" to promote projects that use AI to tackle environmental challenges and serve as models for green, climate-friendly and nature-compatible digital technologies.[823] The funding target is to reduce or prevent emissions of greenhouse gases and the projects range from smart grid operation as part of the energy transition to improved urban climate adaptation and AI-optimised rail transport.

Germany has fully complied with its commitment to a fully or predominantly decarbonized power sector by 2035 and prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power. Germany funded projects and policies such as the Renewable Energy Sources Act, the Structural Improvement Act and the Energy Security of Supply Act 3.0, accelerating its domestic phase-out of unabated coal power.

Thus, Germany receives a score of +1.

Analyst: Sau Ting Wu

Italy: 0

Italy has partially complied with its commitment to a fully or predominantly decarbonized power sector by 2035, prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power.

On 11 July 2022, the Italian parliament voted in favor of the Aid decree that supports the installation of renewable energy in homes and businesses of those affected by inflation.[824] The decrees will transition private and public sectors into low-carbon energy generators.

On 19 July 2022, Italy received EUR42.1 billion from the Cohesion Policy Partnership Agreement of the EU.[825] EUR1 billion of the fund is meant to support the transition to renewable energy sources in Sardinia.

On 5 September 2022, Italy mandated government bonds to be used in agreement with Italy's Green Bond Framework.[826] The framework supports the objective of energy efficiency and renewable sources for electricity and heat production.

[822] Cabinet approves accelerator for wind and grid expansion – EU Emergency Regulation to be implemented – Procedures to become even faster, the Federal Government (Berlin) 11 January 2022. Access Date: 3 March 2023. https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2023/01/20230130-cabinet-approves-accelerator-for-wind-and-grid-expansion.html

[823] Annual Economic Report 2023 Renewing prosperity, Artificial Intelligence in support of environmental protection BMUV funding initiative "AI lighthouse projects for the environment, climate, nature and resources", Federal Ministry for Environment, Nature Conservation, Nuclear Safety and Consumer Protection (Berlin) 9 March 2023. Access Date: 31 March 2023. https://www.bmuv.de/en/topics/sustainability-digitalisation/digitalisation/our-support-programme-for-artificial-intelligence

[824] Report of the Assembly, Stenographic report of the Assembly (Rome) 11 July 2022. Translation provided by Google Translate. Access Date: 3 November 2022. https://www.camera.it/leg18/410?idSeduta=0723&tipo=stenografico

[825] EU Cohesion Policy: €42.7 billion for Italy to support sustainable growth, employment and modernisation while reducing regional disparities, European Commission (Brussels) 19 July 2022. Access Date: 30 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_4562

[826] Syndicated issuance of a new BTP Green April 2035, Press release (Rome) 5 September 2022. Translation provided by Google Translate. Access Date: 3 November 2022. https://www.mef.gov.it/en/ufficio-stampa/comunicati/2022/Syndicated-issuance-of-a-new-BTP-Green-April-2035-00001/

On 6 October 2022, the Council of Ministers approved the construction of eight renewable energy projects that were introduced in March 2022.[827] The projects include wind energy that has a capacity of 314 MW when totaled and aim to further reduces reliance on gas.

On 7 November 2022, Prime Minister Giorgia Meloni reaffirmed Italy's commitment to the Paris Agreement during the COP27 summit.[828] Part of the agreement focuses on decarbonization and achieving climate neutrality by 2050. On that occasion, Prime Minister Meloni announced that Italy has almost tripled its financial commitment to climate finance to USD1.4 billion for the next five years, including EUR840 million in the new "Italian Climate Fund." This investment is dedicated towards creating and deploying clean technology to assist in climate change in developing countries. In October 2022, the Minister of Ecological Transition, together with the Minister of Economy and Finance and the Minister of Foreign Affairs, adopted ministerial decrees setting up the structure of the new Fund, which will start its operations in the first half of 2023.

On 13 December 2022, Italy, alongside other G7 members, reaffirmed its commitment to continue its work on Just Energy Transitions Partnerships.

On 20 December 2022 the EU granted Italy EUR1 billion under the Just Transition Fund (JTF) to support the just climate transition in Taranto, Apulia, and in Sulcis Iglesiente, Sardinia.[829] Currently, the last coal mine of the country is in Sardinia. JTF aid will invest in construction of wind turbines and the development of green hydrogen to phase out the usage of coal.

On 23 January 2023, the EIB and Cassa Depositi e Prestiti agreed to provide EUR200 million to public authorities in Italy to support sustainability projects.[830] This investment represents the first partnership between the two institutions focusing solely on public sector green investment. The funds will target renewable energy projects to decarbonize the power system along with projects to support cycling, public transportation, energy efficiency in school and public buildings, and reforestation.

Italy has partially complied with its commitment to a fully or predominantly decarbonized power sector by 2035, by accelerating the deployment of low-carbon energy sources. However, the phase-out of coal power has not been addressed through direct policy implementation.

Thus, Italy receives a score of 0.

Analyst: Manraj Johal

Japan: 0

Japan has partially complied with its commitment to a fully or predominantly decarbonized power sector by 2035, prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power.

[827] Italian government loosens permits for more large-scale renewables (Berlin) 6 October 2022. Translation provided by Google Translate. Access Date: 3 November 2022. https://www.pv-magazine.com/2022/10/06/italian-government-loosens-permits-for-more-large-scale-renewables/

[828] Speech by President Meloni at the COP27 Summit of Heads of State and Government, Rappresentanza Permanente d'Italia ONU, (Sharm El-Sheikh Egypt) 7 November 2022. Translation provided by Google Translate. Access Date: 30 November 2022. https://italyun.esteri.it/en/news/dalla_rappresentanza/2022/11/speech-by-president-meloni-at-the-cop27-summit-of-heads-of-state-and-government/

[829] EU Cohesion Policy: €1 billion for Italy, European Commission (Brussels) 20 December 2022. Access Date: 21 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7800.

[830] Italy: EIB and CDP provide public authorities with EUR200 million to fund sustainability projects, European Investment Bank (Luxembourg) 23 January 2023. Access Date: 7 February 2023. https://www.eib.org/en/press/all/2023-020-da-bei-e-cdp-200-milioni-alla-pubblica-amministrazione-per-finanziare-progetti-di-sostenibilita

On 30 September 2022, the Ministry of the Economy, Trade and Industry held the Second International Conference on Fuel Ammonia.[831] Japan is considering the use of ammonia to replace coal and natural gas for dispatchable power generation as part of its energy system decarbonation strategy.

On 28 October 2022, the Ministry of the Environment invested JPY10.2 billion to set up the Japan Green Investment Corporation for decarbonization projects.[832] This corporation operated a fund business to provide investments and loans for projects contributing to decarbonization and created cash flow for achieving carbon neutrality.

On 7 December 2022, the Ministry of Economy, Trade and Industry and the National Development and Reform Commission of the People's Republic of China held the second bilateral policy dialogue on decarbonization.[833] Participants discussed, among other things, the possibilities of using hydrogen and ammonia as energy sources.

On 22 December 2022, the Government of Japan announced during the Green Transformation Executive Committee that it will maximize the use of its nuclear infrastructures by restarting as many reactors as possible, as well as extending their lifetime beyond the original 60-years limit.[834] Reactors at their end-of-life would also be recommissioned.

On 10 February 2023, the Cabinet formally adopted a policy that will allow for the operation of nuclear reactors beyond their current 60-year limit alongside the building of new units to replace aging ones.[835] This can cut carbon emissions while ensuring adequate national energy supply.

On 17 March 2023, the Government of Japan decided to launch the Basic Policy on the Rationalizing Use of Energy and Shifting to Non-fossil Energy to coincide with the Act on Rationalizing Energy use and Shifting to Non-fossil Energy on 1 April 2023.[836] It requires businesses that use energy to install equipment that contributes to the use of non-fossil electricity and will also change the legal system to encourage the optimization of power demand in light of the need to expand the introduction of non-fossil energy toward achieving carbon neutrality by 2050.

Japan has partially complied with its commitment to a fully or predominantly decarbonized power sector by 2035, by accelerating the deployment of low-carbon energy sources. However, the phase-out of coal power has not been addressed through direct policy implementation.

Thus, Japan receives a score of 0.

Analyst: Sau Ting Wu

United Kingdom: +1

The United Kingdom has fully complied with its commitment to a fully or predominantly decarbonized power sector by 2035 and prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power.

[831] Second International Conference on Fuel Ammonia Held, Ministry of Economy, Trade and Industry (Tokyo) 30 September 2022. Access Date: 6 November 2022. https://www.meti.go.jp/english/press/2022/0930_002.html
[832] Foundation and held 1st meeting of stockholders of Japan Green Investment Corp. for Carbon Neutrality (JICN), The Ministry of the Environment (Tokyo) 28 October 2022. Access Date: 6 November 2022. https://www.env.go.jp/en/press/press_00704.html
[833] Second Japan-China Policy Dialogue on Decarbonization Held, Ministry of Economy, Trade and Industry (Tokyo) 7 December 2022. Access Date: 30 December 2022. https://www.meti.go.jp/english/press/2022/1207_002.html
[834] Basic Policy (Draft) for Realizing the GX Roadmap for the Next 10 Years, GX Committee (Tokyo) 22 December 2022. Translation provided by analyst. Access Date: 30 December 2022. https://www.cas.go.jp/jp/seisaku/gx_jikkou_kaigi/dai5/siryou1.pdf
[835] Cabinet formally adopts policy of using nuclear reactors past 60 yrs, Mainichi Japan (Tokyo) 10 February 2023. Access Date: 3 March 2023. https://mainichi.jp/english/articles/20230210/p2g/00m/0na/014000c
[836]Cabinet Decision on the Basic Policy on the Rationalizing Use of Energy and Shifting to Non-fossil Energy, The Ministry of the Economy, Trade and Industry (Tokyo) 17 March 2023. Access Date: 30 March 2023. https://www.meti.go.jp/english/press/2023/0317_003.html

On 7 July 2022, the Contracts for Difference scheme of the British government attracted investments in low-carbon and renewable energy, such as offshore wind, onshore wind, solar and tidal power to power 12 million homes.[837] The plan provides investors with future energy infrastructure to invest in while protecting them and consumers from the price fluctuations of the energy market.

On 19 July 2022, the Department for Business, Energy and Industrial Strategy enacted the Nuclear Fuel Fund.[838] The program aims to protect the UK's nuclear power industry and to replace more of the infrastructure of the current energy sector with nuclear power plants. Up to GBP75 million in funding will be spent on achieving these nuclear power objectives.

On 19 July 2022, the Coal Authority of the UK issued a report in which they recognized the role of the coal industry in contributing to global warming.[839] The Coal Authority outlined measures to reduce the carbon emissions of the process, such as using low-carbon vehicles in the extraction of coal and recycling 86 per cent of their waste.

On 11 August 2022, the UK Government launched a consultation to develop biomass energy to reduce carbon emissions in the national power sector.[840] This announcement is preceded by a grant of GBP37 million in funding to various biomass energy projects around the UK.

On 12 August 2022, the Department for Business, Energy and Industrial Strategy announced that it had allowed 20 projects focusing on carbon capture, usage and storage to be considered in future development schemes.[841] The plan is significant as it is a step forward in facilitating the capturing of greenhouse gases in the seabeds of the North Sea, which can mitigate emissions for years to come.

On 23 September 2022, the Department for Business, Energy and Industrial Strategy announced the investment of GBP49.4 million to key industries such as steel, pharmaceuticals and food production to develop technologies that will reduce the use of fossil fuels.[842] The technologies developed with the funding are expected to also allow these industries to move to more sustainable means of powering their operations, such as renewable power and hydrogen.

On 27 October 2022, the Department for Business, Energy and Industrial Strategy called for research proposals that inquire into the feasibility of using low-carbon hydrogen to heat homes as part of its plan to decarbonize the energy sector.[843] The plan is also seeking to introduce any potential effective solutions that result from the research to designate metropolitan areas in the future to test their effectiveness.

[837] Biggest renewables auction accelerates move away from fossil fuels, Department for Business, Energy & Industrial Strategy (London) 7 July 2022. Access Date: 10 November 2022. https://www.gov.uk/government/news/biggest-renewables-auction-accelerates-move-away-from-fossil-fuels

[838] Nuclear Fuel Fund (NFF), Department for Business, Energy & Industrial Strategy (London) 19 July 2022. Access Date: 10 November 2022. https://www.gov.uk/government/publications/nuclear-fuel-fund-nff

[839] The Coal Authority annual report and accounts 2021 to 2022, Coal Authority (London) 19 July 2022. Access Date: 10 November 2022. https://www.gov.uk/government/publications/the-coal-authority-annual-report-and-accounts-2021-to-2022#full-publication-update-history

[840] Government seeks to further improve diversity of energy supply by boosting biomass, Department for Business, Energy & Industrial Strategy (London) 11 August 2022. Access Date: 10 November 2022. https://www.gov.uk/government/news/government-seeks-to-further-improve-diversity-of-energy-supply-by-boosting-biomass

[841] UK's industrial heartlands boosted by next stage of carbon capture clusters, Department for Business, Energy & Industrial Strategy (London) 12 August 2022. Access Date: 29 December 2022. https://www.gov.uk/government/news/uks-industrial-heartlands-boosted-by-next-stage-of-carbon-capture-clusters

[842]Nearly £50 million boost for Britain's industrial future, Department for Business, Energy & Industrial Strategy (London) 23 September 2022. Access Date: 10 November 2022. https://www.gov.uk/government/news/nearly-50-million-boost-for-britains-industrial-future

[843] Hydrogen Heating Town pilot: open letter to Gas Distribution Networks, Department for Business, Energy & Industrial Strategy (London) 27 October 2022. Access Date: 10 November 2022. https://www.gov.uk/government/publications/hydrogen-heating-town-pilot-open-letter-to-gas-distribution-networks

On 31 October 2022, the Department for Business, Energy and Industrial Strategy announced the winners of the Low Carbon Hydrogen Supply 2 Competition, which aims to select innovative projects that are feasible in producing low-carbon hydrogen for the energy sector of the future.[844] In total, five projects have been successful in their efforts, including one that aims to produce low-carbon hydrogen through ammonia reactors.

On 7 November 2022, Prime Minister Rishi Sunak promised to accelerate the decarbonization process of the British energy sector in light of the 2022 Russian invasion of Ukraine.[845] Prime Minister Sunak promised to continue to create high-skill professions within the low-carbon energy sector to keep up with the demand.

On 11 November 2022, the Department for Business, Energy and Industrial Strategy signed a joint declaration with energy importers and exporters on reducing greenhouse gas emissions from fossil fuels.[846] The declaration signed during the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change in Egypt aims to limit various types of emissions as part of the plan to phase out coal in the UK.

On 29 November 2022, Business and Energy Secretary Grant Shapps of the Department for Business, Energy and Industrial Strategy announced the decision to fund the development of the Sizewell C nuclear power station with GBP700 million.[847] The station is set to create 10,000 high-skill jobs in the low-carbon nuclear energy sector while powering six million homes in the UK. The decision is part of the plan to decarbonize the British energy sector and will work with other government schemes such as the plan to deliver 50 gigawatts of offshore wind power.

On 13 December 2022, the Department for Business, Energy and Industrial Strategy announced new strategies for increasing the hydrogen production capacity to 10 gigawatts in 2030 as part of the UK's plan to achieve net-zero in the power sector by 2050.[848] The UK government aims to achieve this goal in hydrogen power production by increasing the sponsoring of private market-driven initiatives to drive innovation and research in the hydrogen power sector.

On 13 December 2022, the Department for Business, Energy and Industrial Strategy started the second phase of its Hydrogen BECCS Innovation Programme.[849] The program will fund projects that are proven to be feasible enough to produce hydrogen from low-cost biomass and that can be integrated with carbon capture technologies to lessen environmental impact. There are currently 22 projects eligible for application for. the second phase.

On 13 December 2022, the Department for Business, Energy and Industrial Strategy launched a funding program designed to facilitate nuclear and hydrogen technology development in the UK.[850] The UK

[844] Low Carbon Hydrogen Supply 2 Competition (closed to applications), Department for Business, Energy & Industrial Strategy (London) 31 October 2022. Access Date: 28 December 2022. https://www.gov.uk/government/publications/low-carbon-hydrogen-supply-2-competition#full-publication-update-history

[845] PM pledges to make UK a clean energy superpower ahead of COP27, Prime Minister's Office (London) 7 November 2022. Access Date: 28 December 2022. https://www.gov.uk/government/news/pm-pledges-to-make-uk-a-clean-energy-superpower-ahead-of-cop27

[846] Reducing greenhouse gas emissions from fossil fuels: joint declaration from energy importers and exporters, Department for Business, Energy & Industrial Strategy (London) 11 November 2022. Access Date: 28 December 2022. https://www.gov.uk/government/publications/reducing-greenhouse-gas-emissions-from-fossil-fuels-joint-declaration-from-energy-importers-and-exporters

[847] UK government takes major steps forward to secure Britain's energy independence, Department for Business, Energy & Industrial Strategy (London) 29 November 2022. Access Date: 28 December 2022. https://www.gov.uk/government/news/uk-government-takes-major-steps-forward-to-secure-britains-energy-independence

[848] UK hydrogen strategy, Department for Business, Energy & Industrial Strategy (London) 13 December 2022. Access Date: 28 December 2022. https://www.gov.uk/government/publications/uk-hydrogen-strategy

[849] Hydrogen BECCS Innovation Programme: Phase 2, Department for Business, Energy & Industrial Strategy (London) 13 December 2022. Access Date: 28 December 2022.https://www.gov.uk/government/publications/hydrogen-beccs-innovation-programme

[850] £102 million government backing for nuclear and hydrogen innovation in the UK, Department for Business, Energy & Industrial Strategy (London) 13 December 2022. Access Date: 29 December 2022. https://www.gov.uk/government/news/102-million-government-backing-for-nuclear-and-hydrogen-innovation-in-the-uk

government has pledged GBP102 million to support the nuclear and hydrogen power industries. GBP77 million will be distributed for projects relating to the development of more advanced nuclear reactors and nuclear fuel, while GBP25 million would be used in developing technologies to obtain low-carbon hydrogen through biomass.

On 29 December 2022, the Department for Business, Energy and Industrial Strategy outlined an upgraded plan for offshore wind energy production, which is part of the Energy Security Bill passed on 6 July 2022.[851] The improvement plan entails an Offshore Wind Environmental Improvement Package, which aims to accelerate the pace of deploying new offshore wind production facilities by 25 per cent starting 2023.

On 2 January 2023, the Department for Business, Energy and Industrial Strategy announced the plans to allocate GBP75 million to boost domestic production of nuclear fuel to reduce reliance on Russian Uranium.[852] GBP13 million of the total funding will be used for developing uranium conversion of new and used fuel rods. GBP50 million will be used to develop a stronger nuclear fuel market that can handle the increased projected demand for nuclear fuels and develop new fuel types for modular reactors that are expected to be introduced in the 2030s. The plan is also made in accordance with the objective to increase nuclear power output to 24GW by 2050.

On 3 February 2023, the Environment Agency of the United Kingdom released production guidelines regarding 'blue' hydrogen, hydrogen produced from methane with the use of carbon capture technologies.[853] The objective of the guidelines is to provide businesses with a standardized framework for future designs of sites that produce 'blue' hydrogen for power generation purposes.

On 21 February 2023, the Department for Energy Security and Net Zero and Department for Business, Energy & Industrial Strategy extended the deadline for the Advance Modular Reactor Research, Development, and Demonstration Programme.[854] The ministries have cited significant technological changes in the energy market as a reason for this extension. The winners of the competition will receive a grant of GBP27.5 million for the continued development of their project.

On 3 March 2023, the Offshore Petroleum Regulator for Environment and Decommissioning added a new decommissioning project under consideration.[855] A proposal for the decommissioning of the Western Isles FPSO pipeline is submitted to the government and outlines all risks and procedures for the operation.

On 8 March 2023, the Department for Business and Trade and Department for International Trade published a plan for exporting offshore decommissioning strategies worldwide.[856] While the plan is focused on

[851] Energy Security Bill factsheet: Offshore wind environmental improvement package, Department for Business, Energy & Industrial Strategy (London) 29 December 2022. Access Date: 29 December 2022. https://www.gov.uk/government/publications/energy-security-bill-factsheets/energy-security-bill-factsheet-offshore-wind-environmental-improvement-package

[852] Ministers bolster UK nuclear fuel capacity to squeeze out Russian influence, Department for Business, Energy & Industrial Strategy (London) 2 January 2023. Access Date: 4 February 2023 https://www.gov.uk/government/news/ministers-bolster-uk-nuclear-fuel-capacity-to-squeeze-out-russian-influence

[853] Environment Agency publishes guidance on production of 'blue' hydrogen, Environment Agency (Bristol) 3 February 2023. Access Date: 4 February 2023. https://www.gov.uk/government/news/environment-agency-publishes-guidance-on-production-of-blue-hydrogen

[854] Advanced Modular Reactor (AMR) Research, Development and Demonstration Programme: Phase B competition, Department for Energy Security and Net Zero (London) and Department for Business, Energy & Industrial Strategy (London) 21 February 2023. Access Date: 8 March 2023. https://www.gov.uk/government/publications/advanced-modular-reactor-amr-research-development-and-demonstration-programme-phase-b-competition

[855] Oil and gas: decommissioning of offshore installations and pipelines, Offshore Petroleum Regulator for Environment and Decommissioning (London) 3 March 2023. Access Date: 8 March 2023. https://www.gov.uk/guidance/oil-and-gas-decommissioning-of-offshore-installations-and-pipelines

[856] Export strategy for global offshore upstream decommissioning, Offshore Petroleum Regulator for Environment and Decommissioning (London) 8 March 2023. Access Date: 8 March 2023. https://www.gov.uk/government/publications/export-strategy-for-global-offshore-upstream-decommissioning

international offshore petroleum decommissioning, it shows that the UK currently has the technical expertise in decommissioning oil platforms.

On 16 March 2023, the Department for Energy Security and Net Zero announced the launch of a scheme to encourage investment in new low-carbon power generation projects.[857] The government has pledged a total GBP205 million to the Contracts for Difference scheme that subsidies companies that develop low-carbon energy generation technologies domestically.

On 30 March 2023, the Office of the Secretary of State for Scotland and the Department for Energy Security and Net Zero announced the launch of a new green energy plan that would promote the use and deployment of CCUS and hydrogen power generation technologies in Scotland.[858] Scotland will be given a total of GBP240 million drawn from the Net Zero Hydrogen Fund to construct its domestic hydrogen energy sector, while GBP20 million will be given for the CCUS projects. GBP160 million is also allocated for offshore will projects in Scotland. These projects aim to eventually eliminating the need for fossil fuel imports in Scotland and raising the total production capacity of hydrogen power in the UK to 10 gigawatts in 2030.

On 30 March 2023, Secretary Shapps announced the establishment of the Great British Nuclear.[859] The organization will be tasked with overseeing the nuclear development schemes of the United Kingdom. The current objective for this organization is to organize a competition for finding the best design for small modular nuclear reactors by autumn.

The United Kingdom has fully complied with its commitment to a fully or predominantly decarbonized power sector by 2035, prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power. The UK funded programs that aim to transform the power sector to lower its carbon output, particularly in developing renewable energy sources such as nuclear, hydrogen, and wind farms. The UK also implemented carbon capture, utilization and storage technologies to reduce carbon emissions and has adopted measures such as using low-carbon vehicles and recycling while reducing coal. The UK plans to cease coal power production by October 2024, despite energy security setbacks in winter 2022. The government remains committed to this deadline, while the coal industry adopts low-carbon measures and reduces domestic production. Although the power sector still imports most of its coal, imports are declining.

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

Analyst: Harry Pun

United States: +1

The United States has fully complied with its commitment to a fully or predominantly decarbonized power sector by 2035, prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power.

[857] UK confirms £205 million budget to power more of Britain from Britain, Department for Energy Security and Net Zero (London). Access Date: 7 April 2023. https://www.gov.uk/government/news/uk-confirms-205-million-budget-to-power-more-of-britain-from-britain

[858] Green growth for Scotland with multi billion pound investment, Office of the Secretary of State for Scotland (Edinburgh), Department for Energy Security and Net Zero (London) 30 March 2023. Access Date: 7 April 2023. https://www.gov.uk/government/news/green-growth-for-scotland-with-multi-billion-pound-investment

[859] Shapps sets out plans to drive multi billion pound investment in energy revolution, Department for Energy Security and Net Zero (London) 30 March 2023. Access Date: April 7 2023. https://www.gov.uk/government/news/shapps-sets-out-plans-to-drive-multi-billion-pound-investment-in-energy-revolution

On 3 August 2022, the Biden-Harris Administration announced the Climate Smart Buildings Initiative, which is expected to reduce greenhouse gas emissions by 2.8 million metric tonnes annually by 2030.[860] It will also grow the clean energy industry by increasing on-site clean electricity generation by catalyzing USD8 billion of private sector investments.

On 16 August 2022, the Biden-Harris Administration enacted the Inflation Reduction Act.[861] The Act seeks to lower energy costs and build a clean energy economy by installing 950 million solar panels, 120,000 wind turbines and 2,300 grid-scale battery plants to power businesses and homes with clean energy by 2030. The Inflation Reduction Act also set up a USD5 billion fund for retrofitting existing coal plants to abate emissions, as well as funding for energy communities dependent on coal power.

On 26 August 2022, the Department of Energy and the Office of Fossil Energy and Carbon Management announced a funding of USD31 million for ten projects to develop carbon capture technologies.[862] The carbon capture technologies are capable of capturing 95 per cent of carbon dioxide emissions from natural gas power plants, waste-to-energy power plants and industrial applications, including cement and steel. These technologies will transition the energy and industrial sectors to net-zero emissions.

On 12 September 2022, President Joe Biden implemented the Energy and Infrastructure Provisions of the Inflation Reduction Act of 2022.[863] The Act seeks to increase the deployment of clean energy technologies in both private and public sectors, incentivize the purchase of electric vehicles, invest in domestic clean energy supply chains and expand research to increase the development of clean energy, climate, and related technologies.

On 21 October 2022, the Department of Energy announced USD28 million to fund research and development projects that will advance hydropower as a source of clean energy.[864] The first project aims to develop sustainable hydropower, while the remaining two projects involve researching the environmental impact and sustainability of hydropower.

On 14 November 2022, the Biden-Harris administration announced USD350 million in funding towards Long-Duration Energy Storage Demonstrations (LDES).[865] LDES apply to projects that can deliver electricity for longer than 10 hours to support a reliable, carbon-free electric grid, and the funding of LDES will advance new renewable energy technologies.

On 17 November 2022, Secretary of Energy Jennifer Granholm announced that the US joined Mission Innovation's Net-Zero Industries Mission at the 27th Conference of the Parties to the United Nations

[860] White House Takes Action on Climate by Accelerating Energy Efficiency Projects Across Federal Government, The White House, Statements and Releases (Washington D.C.) 3 August 2022. Access Date: 3 November 2022. https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/03/fact-sheet-white-house-takes-action-on-climate-by-accelerating-energy-efficiency-projects-across-federal-government/

[861] The Inflation Reduction Act, The White House: Statements and Releases (Washington D.C.) 16 August 2022. Access Date: 3 November 2022. https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/15/by-the-numbers-the-inflation-reduction-act/

[862] US Department of Energy Invests $31 Million to Advance Carbon Capture and Storage for Natural Gas Power and Industrial Sectors, Office of Fossil Energy and Carbon Management (Washington D.C.) 26 August 2022. Access Date:3 November 2022. https://www.energy.gov/fecm/articles/us-department-energy-invests-31-million-advance-carbon-capture-and-storage-natural

[863] Executive Order on the Implementation of the Energy and Infrastructure Provisions of the Inflation Reduction Act of 2022, The White House (Washington D.C.) 12 September 2022. Access Date: 3 November 2022. https://www.whitehouse.gov/briefing-room/presidential-actions/2022/09/12/executive-order-on-the-implementation-of-the-energy-and-infrastructure-provisions-of-the-inflation-reduction-act-of-2022/

[864] Biden-Harris Administration Announces $28 Million To Advance And Deploy Hydropower Technology, US Department of Energy (Washington D.C.) 21 October 2022. Access Date: 30 November 2022. https://www.energy.gov/articles/biden-harris-administration-announces-28-million-advance-and-deploy-hydropower-technology

[865] Biden-Harris Administration Announces Nearly $350 Million For Long-Duration Energy Storage Demonstration Projects, US Department of Energy (Washington D.C.) 14 November 2022. Access Date: 1 December 2022. https://www.energy.gov/articles/biden-harris-administration-announces-nearly-350-million-long-duration-energy-storage

Framework Convention on Climate Change.[866] The Mission aims to tackle technical challenges that impede on clean energy innovations and a clean energy economy.

On 17 November 2022, Secretary Granholm signed a Memorandum of Understanding to advance Zero-Emission Medium and Heavy-Duty Vehicles.[867] This non-binding memorandum is part of the Drive to Zero Campaign of the Electric Vehicles Initiative under the Clean Energy Ministerial.

On 21 November 2022, the Biden-Harris Administration announced an investment of USD6 billion towards the Civil Nuclear Credit program (CNC).[868] The CNC provides clean, reliable nuclear energy facilities and avoids carbon emissions.

On 8 December 2022, the Department of Energy announced USD8 million in funding for six solar energy research projects across six states.[869] The project supports the co-location of agricultural production and solar energy generation on the same land and reduces barriers to larger community-scale solar energy.

On 13 December 2022, the Biden-Harris administration, through the Department of Energy, funded four programs to remove the domestic carbon dioxide industry.[870] USD3.7 billion will be directed to these programs, which are a part of the Bipartisan Infrastructure Law. The programs are the following: the Direct Air Capture Commercial and Pre-Commercial Prize, the Regional Direct Air Capture Hubs, the Carbon Utilization Procurement Grants and the Bipartisan Infrastructure Law Technology Commercialization Fund.

On 14 December 2022, the Department of Energy announced USD15 million in funding towards two geothermal energy projects.[871] The projects are the following: the Geothermal Limitless Approach to Drilling Efficiencies (GLADE) in the Denver-Julesburg Basin of Colorado and the Evaluation of Physics-Based Drilling and Alternative Bit Design in the Geysers Geothermal Field of California. The GLADE project seeks to drill twin high-temperature geothermal wells at a deeper depth at a rapid rate compared to current standard for Geothermal drilling.

On 16 December 2022, the Biden-Harris administration announced the issue of USD750 million on behalf of the Department of Energy to reduce the cost of clean hydro energy.[872] The funding will advance the technical expansion required to achieve the Department's Hydrogen Shot goal of USD1 per kilogram of clean hydrogen by 2030.

[866] US Secretary of Energy Advances America's Commitment to Reaching Net Zero Global Emissions and Combatting Climate Change at COP27, US Department of Energy (Sharm El-Sheikh Egypt) 17 November 2022. Access Date: 1 December 2022. https://www.energy.gov/articles/us-secretary-energy-advances-americas-commitment-reaching-net-zero-global-emissions-and
[867] US Secretary of Energy Advances America's Commitment to Reaching Net Zero Global Emissions and Combatting Climate Change at COP27, US Department of Energy (Sharm El-Sheikh Egypt) 17 November 2022. Access Date: 1 December 2022. https://www.energy.gov/articles/us-secretary-energy-advances-americas-commitment-reaching-net-zero-global-emissions-and
[868] Biden-Harris Administration Announces Major Investment to Preserve America's Clean Nuclear Energy Infrastructure, US Department of Energy (Washington D.C.) 21 November 2022. Access Date: 30 November 2022. https://www.energy.gov/articles/biden-harris-administration-announces-major-investment-preserve-americas-clean-nuclear
[869] DOE Announces $8 Million to Integrate Solar Energy Production with Farming, US Department of Energy (Washington D.C.) 8 December 2022. Access Date: 18 December 2022. https://www.energy.gov/articles/doe-announces-8-million-integrate-solar-energy-production-farming
[870] Biden-Harris Administration Announces $3.7 Billion to Kick-Start America's Carbon Dioxide Removal Industry, US Department of Energy (Washington D.C.) 13 December 2022. Access Date: 18 December 2022. https://www.energy.gov/articles/biden-harris-administration-announces-37-billion-kick-start-americas-carbon-dioxide
[871] US Department of Energy Announces Over $15 Million to Drive Down Costs of Geothermal Drilling, US Department of Energy (Washington D.C.) 14 December 2022. Access Date: 18 December 2022. https://www.energy.gov/articles/us-department-energy-announces-over-15-million-drive-down-costs-geothermal-drilling
[872] Biden-Harris Administration Announces $750 Million To Accelerate Clean Hydrogen Technologies, US Department of Energy (Washington D.C.) 16 December 2022. Access Date 18 December 2022. https://www.energy.gov/articles/biden-harris-administration-announces-750-million-accelerate-clean-hydrogen-technologies

On 22 February 2023, the Biden-Harris administration announced the proposal of the advancement of the offshore wind lease in the Gulf of Mexico, Texas and Louisiana.[873] This announcement is a part of the President's Inflation Reduction Act and Bipartisan Infrastructure Law. If carried out, these areas could generate 1.3 billion American homes with clean energy.

On 22 February 2023, the Department of Energy announced new actions to accelerate offshore wind development.[874] This action is a part of the Biden-Harris Administration's Floating Offshore Wind Shot Summit and the Floating Offshore Wind Shot. These actions seek to deploy 15 gigawatts of floating offshore wind by 2035.

The United States has fully complied with its commitment to a fully or predominantly decarbonized power sector by 2035, prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power. The US has funded initiatives and projects, such as the Climate Smart buildings, investments in solar panels and offshore wind energy that accelerate the transition to clean energy.

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

Analyst: Manraj Johal

European Union: +1

The European Union has fully complied with its commitment to a fully or predominantly decarbonized power sector, prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power.

On 29 June 2022, the European Council adopted its negotiating position regarding the Fit for 55 package.[875] Fit for 55 will enable the EU to reduce its greenhouse gas emissions by 55 per cent by 2030 compared to 2019 levels and to achieve climate neutrality by 2050. The package places strong emphases on decarbonization of the power sector and accelerating renewables deployment.

On 5 July 2022, the European Investment Bank (EIB) invested EUR475 million for wind energy in Denmark.[876] The European Investment Bank will loan the funds to Vesta A/S to accelerate deployment of its wind power generation technology to more sites in Denmark.

On 13 July 2022, the EIB strengthened its lending for sustainable transportation and approved EUR8.6 billion for innovation, renewable energy, education and water projects.[877] Specifically, the European Investment Bank

[873] Biden-Harris Administration Announces Actions to Expand Offshore Wind Nationally and Harness More Reliable, Affordable Clean Energy (Washington D.C.) 22 February 2023. Access Date: 3 March 2023. https://www.whitehouse.gov/briefing-room/statements-releases/2023/02/22/fact-sheet-biden-harris-administration-announces-actions-to-expand-offshore-wind-nationally-and-harness-more-reliable-affordable-clean-energy/

[874] Biden-Harris Administration Announces Actions to Expand Offshore Wind Nationally and Harness More Reliable, Affordable Clean Energy (Washington D.C.) 22 February 2023. Access Date: 3 March 2023. https://www.whitehouse.gov/briefing-room/statements-releases/2023/02/22/fact-sheet-biden-harris-administration-announces-actions-to-expand-offshore-wind-nationally-and-harness-more-reliable-affordable-clean-energy/

[875] Fit for 55 package Council reaches general approaches relating to emissions reductions and removals and their social impacts, European Council (Brussels) 29 June 2022. Access Date: 13 November 2022. https://www.consilium.europa.eu/en/press/press-releases/2022/06/29/fit-for-55-council-reaches-general-approaches-relating-to-emissions-reductions-and-removals-and-their-social-impacts/

[876] Denmark: EIB investing EUR475 million for wind energy in Denmark, European Investment Bank (Luxembourg City) 5 July 2022. Access Date: 13 November 2022. https://www.eib.org/en/press/all/2022-309-eib-investing-eur475-million-for-wind-energy-in-denmark

[877] EIB strengthens sustainable transport lending and approves EUR8.6 billion for innovation, renewable energy, education and water, European Investment Bank (Luexembourg City) 13 July 2022. Access Date: 13 November 2022. https://www.eib.org/en/press/all/2022-318-eib-strengthens-sustainable-transport-lending-and-approves-eur-8-6-billion-for-innovation-renewable-energy-education-and-water

backed research and development into on and offshore wind turbine technology, three large scale solar power farms in central Spain and the acceleration of small-scale wind and solar projects in France and Italy.

On 14 July 2022, the European Commission published new rules to drive more renewable energy generation so that its share comprises 40 per cent of the energy mix by 2030 and to cut energy consumption by 9 per cent by 2030.[878] The Fit for 55 package must be negotiated by EU countries and the European Parliament in a process that takes approximately two years.

On 18 July 2022, the EIB and BBVA agreed to mobilize EUR1.194 billion to boost climate action and the economic recovery of small and medium enterprises in Spain.[879] EUR512 million will fund clean energy and climate action including the construction and operation of photovoltaic plants.

On 22 July 2022, Iberdrola and the EIB signed a EUR550 million green loan to boost renewable energy in Spain.[880] The agreement will accelerate Spain's green energy transition, and the funds will finance some 1800-MW of photovoltaic and wind farms in rural areas around the country. The new facilities will supply the equivalent amount of electricity needed to power over one million homes.

On 8 August 2022, the European Commission approved a EUR149 million Romanian measure to support development of renewable hydrogen production under the Recovery and Resilience Facility.[881] Romania's measure will run until December 2023 and is open to companies of any size active in electricity and/or hydrogen production, administrative territorial units and national institutes for research and development in the energy field. By the end of December 2025, Romania aims to install 100 MW capable of producing at least 10,000 tonnes of hydrogen annually.

On 10 August 2022, the EIB provided the Unicredit Bank of Austria with a EUR92 million framework loan.[882] Unicredit will create a financing portfolio for funding clean energy projects from small and medium sized companies. The long-term loan meets a financing vehicle gap created by Austria's goal to power itself 100 per cent by renewables by 2030.

On 1 September 2022, the EIB lent EUR3 million to Osterreiche Bundesforste AG for an additional four wind turbines.[883] The funding built on European Investment Bank's Initial investment of EUR36.7 million for the Pretul 42-MW wind farm and the seven-kilometer line connecting it to the electricity system. Austria plans to generate 100 per cent of its electricity from renewables by 2030, and the four new turbines will add an incremental 16.6 MW.

[878] Fit for 55 – The EU plan for a green transition, European Council (Brussels) 14 July 2022. Access Date: 13 November 2022. https://www.consilium.europa.eu/en/policies/green-deal/fit-for-55-the-eu-plan-for-a-green-transition/

[879] Spain: the EIB group and BBVA agree to mobilize EUR1.194 billion to boost climate action and the economic recovery of SMEs in Spain, European Investment Bank (Luxembourg City) 18 July 2022. Access Date: 13 November 2022. https://www.eib.org/en/press/all/2022-326-the-eib-group-and-bbva-agree-to-mobilize-eur1-194-billion-to-boost-climate-action-and-the-economic-recovery-of-smes-in-spain

[880] Spain: Iberdrola and EIB sign EUR550 million green loan to boost renewable energy, European Investment Bank (Luxembourg City) 22 July 2022. Access Date: 13 November 2022. https://www.eib.org/en/press/all/2022-334-spain-iberdrola-and-eib-sign-eur550-million-green-loan-to-boost-renewable-energy

[881] State aid: Commission approves €149 million Romanian scheme under Recovery and Resilience Facility to support development of renewable hydrogen production, European Commission (Brussels) 8 August 2022. Access Date: 12 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_4865

[882] Austria: EIB and Unicredit bank Austria enable companies to invest in renewable energy and energy efficiency, European Investment Bank (Luxembourg City) 10 August 2022. Access Date: 13 November 2022. https://www.eib.org/en/press/all/2022-333-eib-and-unicredit-bank-austria-enable-companies-to-invest-in-renewable-energy-and-energy-efficiency

[883] Austria: EIB supports extension of pretul wind farm, European Investment Bank (Lusxembourg City) 1 September 2022. Access Date: 13 November 2022. https://www.eib.org/en/press/all/2022-351-austria-eib-supports-extension-of-pretul-wind-farm

On 5 September 2022, the European Commission approved a EUR341 million Green measure under the Recovery and Resilience Facility to support the development of electricity storage facilities.[884] Construction and operation of storage facilities will smooth the integration of wind and solar installations into the Greek electricity system.

On 7 September 2022, the EIB signed an agreement with the European Commission on the Public Sector Loan Facility under the Just Transition Fund.[885] The EIB will combine EUR10 billion with an EU budgeted EUR1.5 billion to the loan facility. The facility will offer loans and grants to reduce the burden on public coffers in the affected regions transitioning away from coal and other fossil fuels.

On 7 September 2022, Aquila Clean Energy raised financing for 2.6 gigawatt (GW) of capacity for renewable energy projects in Spain and Portugal with the support of Invest EU.[886] There will be more than 50 projects consisting of solar photovoltaics and onshore wind, and total generation capacity will be the equivalent of serving 1.4 million households.

On 14 September 2022, the EIB approved EUR15 billion for business, climate action, sustainable transport, innovation and urban investment.[887] Specifically, the European Investment Bank allocated EUR4.4 billion for projects such as wind, photovoltaic, hydro and geothermal power in France; small scale solar in Italy; and larger scale wind farms in central Spain.

On 27 September 2022, the European Commission approved additional German measures to support electricity production from renewable energy sources.[888] The measures include the introduction of financial incentives to encourage consumers to install rooftop solar photovoltaic panels and to incentivize selling excess power to the grid.

On 27 September 2022, at the 41st assembly of the International Civil Aviation Organization, the European Commission advocated for "a long-term aspirational goal for net-zero aviation emissions by 2050."[889] Additionally, it reaffirmed its commitment to the Carbon Offsetting and Reduction Scheme for International Aviation as well as its future implementation.

[884] State aid: Commission approves Greek scheme under Recovery and Resilience Facility to support development of electricity storage facilities, European Commission (Brussels) 5 September 2022. Access Date: 12 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_4582

[885] Just transition: EIB to provide up to EUR10 billion in support of regions most affected by the shift away from fossil fuels, European Investment Bank (Luxembourg City) 7 September 2022. Access Date: 13 November 2022. https://www.eib.org/en/press/all/2022-346-just-transition-eib-to-provide-up-to-eur10-billion-in-support-of-regions-most-affected-by-the-shift-away-from-fossil-fuels

[886] Aquila Clean Energy raises financing for 2.6 GW capacity renewable energy projects in Southern Europe with support of InvestEU, European Commission (Brussels) 7 September 2022. Access Date: 12 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_5370

[887] EIB approves EUR15 billion for business, climate action, sustainable transport, innovation, and urban investment, European Investment Bank (Luxembourg City) 14 September 2022. Access Date: 13 November 2022. https://www.eib.org/en/press/all/2022-361-eib-approves-eur15-billion-for-business-climate-action-sustainable-transport-innovation-and-urban-investment

[888] State aid: Commission approves additional German measures to support electricity production from renewable energy sources, European Commission (Brussles) 27 September 2022. Access Date: 12 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_5811

[889] ICAO 41st Assembly opening speech, European Commission (Brussels) 27 September 2022. Access Date: 18 February 2023. https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_22_5842

On 3 October 2022, Iberdrola and the EIB signed a EUR220 million green loan top up to boost smart grids in Spain.[890] The additional resources will focus on the distribution company's strategic plan which emphasizes renewables and smart grids in twelve Spanish regions.

On 4 October 2022, the European Council agreed to its general approach on the May 2022 REPowerEU plan.[891] The approach revised several measures designed to decrease dependency on fossil fuels and accelerate renewable generation. It also allocates an additional EUR20 billion, as proposed by the European Commission. The Council modified the formula for allocation of funds to consider fossil fuel dependency, member social cohesion policy, and increased renewable investment prices.

On 13 October 2022, the European Commission approved EUR220 million to support a Spanish measure for COBRA in the production of renewable hydrogen.[892] COBRA will start its first renewable hydrogen production facility with the intent of supplying hard to abate sectors such as refineries and ceramics who need to reduce dependence on Russian fossil fuels. There will be two electolysers in Cartagena and Castillon with a total capacity of 205 MW, which will help generate 8,550 tonnes of renewable hydrogen and reduce 47,038 tonnes of emissions annually.

On 18 October 2022, the European Commission issued its call for applications for candidate projects in all categories under the new energy infrastructure regulation.[893] The categories include projects for electricity transmission, offshore grids for renewable energy, electricity storage, hydrogen, electrolysers, smart electricity grids, smart gas grids and CO2 networks.

On 19 October 2022, Members of the European Parliament (MEPs) called for the 2023 EU budget to address energy and climate.[894] Specifically, MEPs supported an additional EUR533 million to increase EU energy independence, help citizens and small/medium enterprises with their bills, and accelerate the green energy transition to combat climate change.

On 21 October 2022, the European Commission and Latvia adopted a partnership agreement to allocate EUR4.6 billion to support a green and fair economy and society as Latvia shifts out of coal and other fossil fuels from 2021 to 2027.[895] Specifically, EUR839 million will be allocated to renewable energy projects including wind and solar.

On 21 October 2022, the German Lander North-Rhine Westphalia, Brandenburg, Saxony and Saxony Anhalt launched their programming under their EUR2.5 billion share of the EU Just Transition Fund to support a fair transition to the green economy.[896] Germany's commitment to phase out of coal by 2038 means these territorial

[890] Iberdrola and EIB sign a EUR220 million green loan top up to boost smart grids in Spain, European Investment Bank (Luxembourg City) 3 October 2022. Access Date: 13 November 2022. https://www.eib.org/en/press/all/2022-391-iberdrola-and-eib-sign-a-eur220-million-green-loan-top-up-to-boost-smart-grids-in-spain

[891] REPowerEU: Council agrees to its position, European Council (Brussels) 4 October 2022. Access Date: 13 November 2022. https://www.consilium.europa.eu/en/press/press-releases/2022/10/04/repowereu-council-agrees-its-position/

[892] State aid: Commission approves €220 million Spanish measure to support COBRA in production of renewable hydrogen, European Commission (Brussels) 13 October 2022. Access Date: 12 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6017

[893] Call for applications for candidate projects in all categories under new energy infrastructure regulation, European Commission (Brussels) 18 October 2022. Access Date: 12 November 2022. https://ec.europa.eu/info/news/call-applications-candidate-projects-all-categories-under-new-energy-infrastructure-regulation-2022-oct-18_en

[894] MEPs want EU budget for 2023 to focus on Ukraine, energy, and the pandemic, European Parliament (Brussels) 19 October 2022. Access Date: 13 November 2022. https://www.europarl.europa.eu/news/en/press-room/20221014IPR43214/meps-want-eu-budget-for-2023-to-focus-on-ukraine-energy-and-pandemic

[895] EU Cohesion Policy: €4.6 billion for Latvia to support a green and fair economy and society 2021-2027, European Commission (Brussels) 21 October 2022. Access Date: 13 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_6249

[896] EU Cohesion Policy: €2.5 billion for just climate transition in Germany, European Commission (Brussels) 21 October 2022. Access Date: 13 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_6275

regions need to be supported so that the local economy and population do not fall behind economically and socially.

On 21 October 2022, the European Council issued its meeting conclusions.[897] One conclusion recommended an emergency measure to simplify and expedite administrative approvals for renewable energy projects under Article 122 of the Treaty given worsening energy market conditions from the Russian invasion of Ukraine.

On 26 October 2022, the EIB announced support for the REPowerEU plan with an additional EUR30 billion in equity financing over the next five years.[898] The funds will be directed to renewables, energy efficiency, grids and storage, electric vehicle charging stations, and breakthrough technologies such as low carbon hydrogen.

On 28 October 2022, the European Environment Agency issued a statement to cities that they can offer new opportunities for consumers to both produce and consume renewable energy.[899] Through efficient use of rooftops and targeted financing, city dwellers can be encouraged to pursue citizen-led renewable energy generation. Municipalities can also act as information and resource hubs to build capacity. The brief accelerates renewable generation which is critical to decarbonizing the power system.

On 3 November 2022, the European Commission announced its third call for large scale projects as part of the EU Innovation Fund.[900] The objective of the projects is to accelerate energy independence from Russian fossil fuels and to deliver on REPowerEU. Projects may include general decarbonization, innovative electrification in industry and hydrogen, clean tech manufacturing and mid-size pilots.

On 7 November 2022, President of the European Commission Ursula von der Leyen and Prime Minister of Kazakhstan Alikhan Smailov concluded a strategic partnership on raw materials, batteries, and renewable hydrogen.[901] The agreement's objectives include a sustainable and secure supply of raw and refined materials critical to renewable energy deployment. It also focuses on battery and green hydrogen value chains.

On 8 November 2022, President von der Leyen and President of Egypt Abdel Fattah El-Sisi issued a joint statement announcing a green hydrogen partnership.[902] They committed to a long-term partnership focused on accelerating deployment of renewable energy sources as an enabler for green hydrogen production. They intend to cooperate on regulatory frameworks, market assessment and research and development. They also plan to promote investments which will lead to production, storage, distribution and transportation of green hydrogen.

[897] European Council Conclusions, European Council (Brussels) 20 and 21 October 2022. Access Date: 13 November 2022. https://www.consilium.europa.eu/media/59728/2022-10-2021-euco-conclusions-en.pdf

[898] EIB boosts clean energy financing in support of repowereu plan, European Investment Bank (Luxembourg City) 26 October 2022. Access Date: 13 November 2022. https://www.eib.org/en/press/all/2022-450-eib-boosts-clean-energy-financing-in-support-of-repowereu-plan

[899] Cities can offer new opportunities for prosumers for renewable energy, European Environment Agency (Copenhagen) 28 October 2022. Access Date: 13 November 2022. https://www.eea.europa.eu/highlights/cities-can-offer-new-opportunities?utm_source=EEASubscriptions&utm_medium=RSSFeeds&utm_campaign=Generic

[900] Commission invests €3 Billion in innovative clean tech projects to deliver on REPowerEU and accelerate energy independence from Russian fossil fuels, European Commission (Brussels) 3 November 2022. Access Date: 12 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_6489

[901] COP27: European Commission concludes a strategic partnership with Kazakhstan on raw materials, batteries and renewable hydrogen, European Commission (Brussels) 7 November 2022. Access Date: 13 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_6585

[902] Joint Statement on the EU-Egypt Green Hydrogen Partnership, European Commission (Sharm El-Sheikh) 8 November 2022. Access Date: 12 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/STATEMENT_22_6646

On 9 November 2022, the European Commission proposed a temporary new emergency regulation to expedite the permitting of renewables.[903] The Commission proposed a European Council regulation under Article 122 of the Treaty to apply for one year until member countries adopt and transpose the Renewables Directive.

On 10 November 2022, MEPs voted to include energy measures in their national recovery plans.[904] Measures would include reductions in energy use, production of clean energy and diversification of energy supplies. The proposal aims to support acceleration of independence from Russian fossil fuel supplies and towards a clean energy transition as per the EU's RePowerEU Plan. Members also called for an additional EUR20 billion and additional funding to financially assist members with these measures.

On 10 November 2022, Eiffel Investment Group and the European Investment Fund backed by InvestEU announced the launch of Eiffel Transition Infrastructure, an innovative bridge equity fund.[905] The EIF committed EUR75 million to the new fund. Several top institutional investors joined the fund as well, which is expected to raise EUR500 million for its first close. The fund's goal is to accelerate development of renewable energy assets for developers and independent power producers who may have difficulty accessing capital for the development phase of their projects. The fund expects to expedite up to 7 GW of renewable assets and offset four million tonnes of carbon dioxide annually.

On 15 November 2022, the European Commission pledged an additional EUR10 million in funds "for a project to reduce international shipping's greenhouse gas emissions."[906] This project is being managed by the International Maritime Organization and intends to establish five Maritime Technology Cooperation Centres around the world. These centres are designed to increase energy efficiency through solar power vessels, data collection systems and energy-efficiency assessments.

On 17 November 2022, the EIB approved EUR11 billion in additional investments for climate action and clean energy, business, sustainable transport, health and urban renewal.[907] The EUR4 billion meant for climate action and clean energy includes projects to reinforce energy networks in Spain, the Czech Republic and Moldova, as well as renewable energy endeavors in Greece, Estonia and Cyprus.

On 21 November 2022, the European Commission approved EUR37.3 billion for Spain between 2021 and 2027 to support its green transition and to develop a fair and competitive economy.[908] Some EUR3.3 billion will assist the country to meet its target of 74 per cent of electricity produced from renewable sources by 2030.

[903] REPowerEU: Commission steps up green transition away from Russian gas by accelerating renewables permitting, European Commission (Brussels) 9 November 2022. Access Date: 13 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_6657

[904] MEPs Vote to Include Energy Measures in National Recovery Plans, European Parliament (Brussels) 10 November 2022. Access Date: 12 November 2022. https://www.europarl.europa.eu/news/en/press-room/20221107IPR49607/meps-vote-to-include-energy-measures-in-national-recovery-plans

[905] Eiffel Investment Group and the European Investment Fund backed by InvestEU announce innovative equity bridge solution to support renewable energy development, European Commission (Brussels) 10 November 2022. Access Date: 12 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_6746

[906] Decarbonising international shipping: At COP 27, European Commission provides additional €10 million, European Commission (Brussels) 15 November 2022. Access Date: 18 February 2023. https://international-partnerships.ec.europa.eu/news-and-events/news/decarbonising-international-shipping-cop-27-european-commission-provides-additional-eu10-million-2022-11-15_en

[907] EIB approves EUR11 billion for climate action and clean energy, business, sustainable transport, health and urban investment, European Investment Bank (EIB) (Luxembourg) 17 November 2022. Access Date: 17 December 2022. https://www.eib.org/en/press/all/2022-491-eib-approves-eur-11-billion-for-climate-action-and-clean-energy-business-sustainable-transport-health-and-urban-investmen

[908] EU Cohesion Policy: Euro 37.3 billion for Spain to support its green transition and a fair and competitive economy, European Commission (Brussels) 21 November 2022. Access Date: 17 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_6964

On 23 November 2022, Eurazeo announced its first close of EUR210 million for its Eurazeo Transition Infrastructure Fund.[909] The objectives of the Fund include climate change mitigation and infrastructure transition towards zero carbon futures.

On 23 November 2022, MEPs approved the 2023 Budget with focus on key priorities including decarbonizing the power sector.[910] Specifically, they added EUR103.5 million to the Connecting Europe Facility, which funds high quality cross-border transmission and energy systems, modernizes infrastructure and fosters renewable connectivity. Members also added EUR30 million to the environment and climate action LIFE programme.

On 24 November 2022, EU Energy Ministers agreed to changes in permit granting processes to expedite renewable energy projects.[911] The temporary 18-month regulation will accelerate projects which can deploy quickly and carry limited environmental impacts. Solar energy equipment will be permitted within three months and some projects may be excused from environmental impact assessment. Projects above 50 MW will be approved within one month assuming no grid reliability or connectivity issues. Repowering of existing renewable energy projects will carry a maximum six-month deadline for approval. Where repowering increases plant capacity more than 15 per cent, the deadline will be three months. Heat pumps with less than 50MW will be approved within one month and ground source heat pumps within three months.

On 24 November 2022, the European Commission approved EUR459 million for a just climate transition in Slovakia.[912] The funds allocated will assist Slovakia in phasing out coal mining and thermal power production in its Trencin/Upper Nitra region during 2023. The funds will also invest in renewable energy projects, electricity system improvements, building efficiency and geothermal heating.

On 2 December 2022, the European Commission announced EUR623 million in funding for a just transition to climate neutrality for the Netherlands.[913] In addition to moving away from carbon intensive energy sources, greening traditional manufacturing, economic diversification and worker up-skilling, the Just Transition Fund will support renewable energy production and improvements to the electricity transmission system.

On 2 December 2022, the EIB established a EUR100 million framework loan with Austria's regional bank RLB NO-Wien to support Austria's national green energy goals.[914] The loan will permit RLB NO-Wien to institute a EUR200 million credit portfolio to fund clean energy products.

On 5 December 2022, the European Commission announced EUR3.85 billion in funding to support a just climate transition in five Polish regions.[915] One region, Silesia, is the largest hard coal mining centre in the EU. Besides economic diversification, worker training and reskilling and land rehabilitation, the funds will support renewable energy projects and energy efficiency.

[909] Eurazeo announces the first close of its transition infrastructure fund to support the transition to a low carbon economy with a commitment from the European Investment Fund backed by InvestEU, European Commission (Brussels) 23 November 2022. Access Date: 17 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7115

[910] MEPs adopt EU Budget 2023 focusing on Ukraine, energy and recovery, Euopean Parliament (Brussels) 23 November 2022. Access Date: 17 December 2022. https://www.europarl.europa.eu/news/en/press-room/20221118IPR55709/meps-adopt-eu-budget-2023-focus-on-ukraine-energy-and-recovery

[911] EU to speed up permitting process for renewable energy projects, European Council (Brussels) 24 November 2022. Access Date: 17 December 2022. https://www.consilium.europa.eu/en/press/press-releases/2022/11/24/eu-to-speed-up-permitting-process-for-renewable-energy-projects/

[912] EU Cohesion Policy: EUR459 million for a just climate transition in Slovakia, European Commission (Brussels) 24 November 2022. Access Date: 17 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7086

[913] EU Cohesion Policy: EUR623 million for a just transition to climate neutrality for the Netherlands, European Commission (Brussels) 2 December 2022. Access Date: 17 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7372

[914] Austria: EIB supports RLB NO-Wien's investments in renewable energy and energy efficiency, European Investment Bank (Luxembourg) 2 December 2022. Access Date: 16 December 2022. https://www.eib.org/en/press/all/2022-515-austria-eib-supports-rlb-no-wien-s-investments-in-renewable-energy-and-energy-efficiency

[915] EU Cohesion Policy: EUR3.85 billion for a just transition toward climate neutrality in five Polish regions, European Commission (Brussels) 5 December 2022. Access Date: 16 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7413

On 7 December 2022, the European Commission announced EUR67 million in funding for Luxembourg to support its green transition.[916] Some EUR23 million will be invested in renewable energy production such as biomass and solar.

On 7 December 2022, the EIB signed a partnership agreement with Caisse d'Epargne CEPAC, which is dedicated to financing French solar and wind projects.[917] The financing package is valued at EUR350 million.

On 8 December 2022, EU members agreed to a European Commission proposal to allocate EUR602 million in eight trans-European energy infrastructure projects.[918] These include a high voltage undersea cable to connect the electricity infrastructure of Italy and Tunisia, a smart grid project between Austria-Croatia and Slovenia, a hydroelectric pumped storage project in Ireland and carbon capture and storage initiatives in Belgium and France.

On 9 December 2022, the European Commission announced EUR2.14 billion in funding for a just climate transition in Romania.[919] In addition to worker training and reskilling along with economic diversification, the funds will support renewable energy projects, hydrogen production, and other clean energy sources.

On 9 December 2022, the European Commission launched a new industrial alliance with partners from industry sectors, research organizations and other associations.[920] The alliance's main target encompasses 30 GW of manufacturing capacity by 2025 across the value chain to support REPowerEU targets of 320 GW of solar photovoltaic power by 2025. The group proposes to increase domestic production capacity, diversify import sources, support investment, and address policy and other regulatory barriers to mitigate supply risks.

On 12 December 2022, the EIB announced a EUR790 million loan to the Czech Republic.[921] The loan provides financing for modernization of the Czech electricity grid and facilitates connectivity for renewable energy sources. CEZ, the country's energy utility, will connect approximately 2.2 GW of new renewable energy supply to help decarbonize the Czech economy.

On 12 December 2022, the European Commission signed an InvestEU agreement with the Nordic Investment Bank.[922] The agreement, which is worth up to EUR114 million, will unlock some EUR480 million in green energy investments, including decarbonization and modernization of the power system. The funds are expected to generate overall private and public investments of EUR2 billion. Eligible projects must be sited in Denmark, Estonia, Latvia, Lithuania, and Poland, and/or Finland and Sweden.

[916] EU Cohesion Policy: EUR67 million for Luxembourg to support its green and digital transition, jobs, and inclusion, European Commission (Brussels) 7 December 2022. Access Date: 16 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7524
[917] France energy transition: Caisse d'Epargne Cepac and EIB sign major partnership agreement, European Investment Bank (Luxembourg) 7 December 2022. Access Date: 16 December 2022. https://www.eib.org/en/press/all/2022-519-energy-transition-caisse-d-epargne-cepac-and-eib-sign-major-partnership-agreement
[918] Connecting Europe Facility: Over EUR600 million energy infrastructure support to support European green deal and REPowerEU, European Commission (Brussels) 8 December 2022. Access Date: 16 December 2022. https://energy.ec.europa.eu/news/connecting-europe-facility-over-eu-600-million-energy-infrastructure-support-european-green-deal-and-2022-12-08_en
[919] EU Cohesion Policy: EUR2.14 billion for a just climate transition for Romania, European Commission (Brussels) 9 December 2022. Access Date: 16 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7562
[920] REPowerEU: New Industrial Alliance to boost the EU's solar power and energy security, European Commission (Brussels) 9 December 2022. Access Date: 16 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7617
[921] Czech Republic: EIB to finance modernisation of CEZ's distribution grid and connection of new renewable energy sources with a record-breaking loan of EUR790 million, European Investment Bank (Luxembourg) 12 December 2022. Access Date: 16 December 2022. https://www.eib.org/en/press/all/2022-529-czech-republic-eib-to-finance-modernisation-of-cez-s-distribution-grid-and-connection-of-new-renewable-energy-sources-with-a-record-breaking-loan-of-eur790-million
[922] InvestEU: Commission signs agreement with Nordic Investment Bank to unlock EUR480 million in green energy investments, European Commission (Brussels) 12 December 2022. Access Date: 16 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7541

On 13 December 2022, the European Parliament and the European Council struck an agreement on the Carbon Border Adjustment Mechanism (CBAM).[923] The CBAM is the EU's tool to put a fair price on carbon for goods entering the EU market and to foster lower carbon production in non-EU countries. The agreement will spark amendment of the Emissions Trading System to encourage EU production and power systems to decarbonize and reduce carbon leakage risk.

On 14 December 2022, the European Commission announced that Belgium will receive nearly EUR3 billion as part of EU Cohesion Policy to support its green and digital transition between 2021 and 2027.[924] Almost EUR400 million will be invested in emission reductions, energy efficiency and renewable energy projects.

On 14 December 2022, the European Parliament struck a deal with the European Council to include REPowerEU measures in national recovery plans to accelerate decarbonization and the transition away from Russian fuel.[925] Under the provisional agreement, EU countries who apply for extra funds under amended recovery and resilience plans must include specific efforts to reduce energy use, produce clean energy and diversify energy supplies consistent with REPowerEU.

On 14 December 2022, MEPs amended the European Commission legislative proposal to expedite approvals of renewable energy projects.[926] Specifically, the proposed law accelerates timelines for approvals for renewable energy proposals from one year to nine months. EU countries must also approve solar panel on roof proposals within one month. The European Commission tabled the draft legislation as part of the REPowerEU package.

On 15 December 2022, the European Commission welcomed the agreements reached at the 20th Ministerial Council meeting of the Energy Community.[927] The agreement included a renewable energy target of 31 per cent for 2030 along with energy efficiency and reduction objectives. The Parties also committed to adopting the EU electricity market rules.

On 15 December 2022, the European Council issued its meeting conclusions.[928] In the energy and economy section, the Council called for rapid completion of the Renewable Energy Directive, the Energy Efficiency Directive and the Energy Performance of Buildings Directive. It emphasized the importance of innovation and investment in the decarbonized power and energy systems to meet green deal objectives, reduce dependence on Russian energy supplies and ensure energy security. The Council asked the European Commission to submit its impact assessment on the structural reform of the electricity market by early 2023 to facilitate uptake of renewable energy and make it fully decarbonized.

On 15 December 2022, the EU institutions, European Parliament, European Council and European Commission released their joint 2023-24 priorities and legislative measures.[929] Highest priority will be accorded

[923] European Green Deal: Agreement reached on the Carbon Border Adjustment Mechanism (CBAM), European Commission (Brussels) 13 December 2022. Access Date: 16 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7719

[924] European Cohesion Policy: almost EUR3 billion for Belgium's green and digital transition and economic development from 2021-2027, European Commission (Brussels) 14 December 2022. Access Date: 16 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7673

[925] REPowerEU: Deal on energy measures in national recovery plans, European Parliament (Brussels) 14 December 2022. Access Date: 16 December 2022. https://www.europarl.europa.eu/news/en/press-room/20221212IPR64514/repowereu-deal-on-energy-measures-in-national-recovery-plans

[926] Energy Crisis: MEPs back plans to boost the deployment of renewables, European Parliament (Brussels) 14 December 2022. Access Date: 16 December 2022. https://www.europarl.europa.eu/news/en/press-room/20221209IPR64422/energy-crisis-meps-back-plans-to-boost-the-deployment-of-renewables

[927] Commission welcomes Energy Community's agreement on 2030 energy and climate targets, European Commission (Vienna) 15 December 2022. Access Date: 16 December 2022. https://energy.ec.europa.eu/news/commission-welcomes-energy-communitys-agreement-2030-energy-and-climate-targets-2022-12-15_en

[928] European Council Meeting – Conclusions, European Council (Brussels) 15 December 2022. Access Date: 16 December 2022. https://www.consilium.europa.eu/media/60872/2022-12-15-euco-conclusions-en.pdf

[929] EU institutions agree on joint priorities for 2023 and 2024, European Parliament (Brussels) 15 December 2022. Access Date: 16 December 2022. https://www.europarl.europa.eu/news/en/press-room/20221214IPR64711/eu-institutions-agree-on-joint-priorities-for-2023-and-2024

to laws and regulations required to expedite implementation of the European Green Deal with its decarbonization of the power system and investment in renewable and alternate energy sources.

On 16 December, the European Commission announced that Slovenia will be granted EUR258 million to work towards a just climate transition in the regions of Savinjsko-Saleska (SASA) and Zasavje.[930] In addition to supporting life-long training and redeployment of coal workers and economic diversification, the funds will help to repurpose the former mines for investment in renewable energy projects and hydrogen production. The fund will also redesign the district heating system to transition from coal to other sources of power such as solar and heat pumps. In SASA, coal mining and the thermal plants will close by 2033.

On 16 December 2022, the European Commission authorized EUR1.2 billion under EU state aid rules for the Czech Republic's green district heating proposal.[931] The plan supports the decarbonization and modernization of heat generation units fueled by renewable energy. Direct grants will be paid to the owners of heating generation units and district heating systems to install new or replace existing units with heat generation units based on renewable energy and to modernize units and systems to replace coal with biomass. The plan will also foster transitions from natural gas-powered systems to low or no carbon fuels and will support carbon capture systems.

On 18 January 2023, the EIB invested up to EUR35 million in PPC Renewables to support three solar farms generating some 230-megawatt in Greece.[932] The projects will assist Greece to decarbonize its electricity sector, reduce greenhouse gas emissions, and diminish its fossil fuel dependency. The solar farms in Kazani are also backed by InvestEU and exist as part of the Western Macedonia Just Transition initiative.

On 23 January 2023, the EIB and Cassa Depositi e Prestiti agreed to provide EUR200 million to public authorities in Italy to support sustainability projects.[933] This investment represents the first partnership between the two institutions focusing solely on public sector green investment. The funds will target renewable energy projects to decarbonize the power system along with projects to support cycling, public transportation, energy efficiency in school and public buildings, and reforestation.

On 26 January 2023, the EIB announced EUR900 million in investments for Greece including measures to reach climate neutrality.[934] Approximately 33 per cent of the funds will be directed to projects designed to reduce carbon emissions through energy efficiency, renewable projects, and smart energy distribution. EUR600 million will flow through the 2021-2027 Partnership Agreement between Greece and the EU and EUR300 million represents support for Greece's Consignment Deposits and Loan Fund under the Antonis Tritsis Sustainable Urban Investment programme.

On 26 January 2023, the European Commission referred Bulgaria and Slovakia to the Court of Justice of the European Union to enforce financial penalties for failing to implement the EU Renewable Energy Directive in

[930] EU Cohesion Policy: More than EUR258 million for a just climate transition for Slovenia, European Commission (Brussels) 16 December 2022. Access Date: 16 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7744
[931] State aid: Commission approves EUR1.2 billion Czech scheme to promote green district heating, European Commission (Brussels) 16 December 2022. Access Date: 16 December 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_7680
[932] Greece: InvestEU-EIB backs PPC Renewables for 230MW capacity solar farms to increase renewable production and support just transition efforts in Greece's Western Macedonia Region, European Investment Bank (Luxembourg) 18 January 2023. Access Date: 7 February 2023. https://www.eib.org/en/press/all/2023-014-investeu-eib-backs-ppc-renewables-for-230mwp-capacity-solar-farms-to-increase-renewable-energy-production-and-support-just-transition-efforts-in-greece-s-western-macedonia-region
[933] Italy: EIB and CDP provide public authorities with EUR200 million to fund sustainability projects, European Investment Bank (Luxembourg) 23 January 2023. Access Date: 7 February 2023. https://www.eib.org/en/press/all/2023-020-da-bei-e-cdp-200-milioni-alla-pubblica-amministrazione-per-finanziare-progetti-di-sostenibilita
[934] Greece: EIB confirms EUR900 million in vital investments in public sector to support social cohesion, sustainable urban regeneration, and a just transition to climate neutrality, European Investment Bank (Luxembourg) 26 January 2023. Access Date: 7 February 2023. https://www.eib.org/en/press/all/2023-025-eib-confirms-eur900-million-of-support-for-vital-investments-in-greece-s-public-sector-to-finance-social-cohesion-sustainable-urban-regeneration-and-a-just-transition-toward-climate-neutrality

national legislation by June 2021.[935] The Commission also sought to have the Court ensure renewable development occurs in the two nations.

On 13 February 2023, the EIB loaned EUR150 million to Iberdrola for renewable energy projects in Italy. Iberdrola will build a portfolio of wind and solar projects across Italy with a capacity of 400 megawatts.[936] The small and medium sized wind and photovoltaic plants will largely fall in EU cohesion regions in Southern Italy.

On 15 February 2023, the EIB backed EUR2.4 billion in clean energy projects. These include new renewable energy projects across France, expansion of a clean energy transmission grid in Portugal, Iceland and Romania and construction of three solar plants in Uzbekistan.[937] The EIB also confirmed upgrades in the electricity distribution network in Hungary and priority renewable energy investment across Lithuania.

On 15 February 2023, the EIB loaned EUR50 million to Asja Ambiente Italia for the construction of wind and photovoltaic plants.[938] The nine facilities include two wind farms in Basilicata and Campania, six solar operations in Sardinia, and repowering of a wind farm in Sicily. The projects to be completed by 2027 will generate some 460 GWh of electricity, equivalent to consumption of approximately 190,000 households.

On 27 February 2023, the EIB increased its financing support of REPowerEU by an additional EUR15 billion.[939] This will bring EIB support for the initiative from EUR30 billion to EUR45 billion. The increase in funding aims to accelerate the EU's net zero plans, reduce the union's dependence on fossil fuels and Russian imports and address the green technology supports in the United States' Inflation Reduction Act.

On 3 March 2023, the EIB signed a EUR55 million loan for a wind farm with joint venture partners, Iberdrola, and Caja Rural de Soria. Total investment in the project will be EUR100 million.[940] The 100-megawatt wind farm in Castilla y Leon will generate clean energy for 69 700 households and will reduce 90 000 tonnes of CO2 per year. The project represents a REPowerEU initiative to accelerate the green transition and to reduce dependency on Russian fossil fuels.

On 9 March 2023, the EIB signed a new contract with the Greek state to provide technical services from its Advisory Hub to facilitate crucial investments in energy efficiency and renewable projects on smaller, remote

[935] Commission decides to refer Bulgaria and Slovakia to the Court of Justice to ensure development of renewable energy, European Commission (Brussels) 26 January 2023. Access Date: 7 February 2023. https://ec.europa.eu/commission/presscorner/detail/en/IP_23_163

[936] Italy: Iberdrola Receives EUR150 million EIB loan for renewable energy, European Investment Bank (Luxembourg) 13 February 2023. Access Date: 24 February 2023. https://www.eib.org/en/press/all/2023-055-iberdrola-firma-con-la-bei-un-prestito-verde-di-150-milioni-di-euro-per-la-costruzione-di-parchi-di-rinnovabili-in-italia

[937] EIB Approves EUR5.5 billion Investment for Energy, Business, Transport, Health and Cities, European Investment Bank (Luxembourg) 15 February 2023. Access Date: 24 February 2023. https://www.eib.org/en/press/all/2023-060-eib-approves-eur-5-5-billion-investment-for-energy-business-transport-health-and-cities

[938] Italy: InvestEU and EIB Lends EUR50 million to Asja Ambiente Italia to Build Wind and Photovoltaic Power Plants in Basilicata, Campania, Sardinia, and Sicily, European Investment Bank (Luxembourg) 15 February 2023. Access Date: 24 February 2023. https://www.eib.org/en/press/all/2023-059-investeu-eib-lends-eur50-million-to-asja-ambiente-italia-to-build-wind-and-photovoltaic-power-plants-in-basilicata-campania-sardinia-and-sicily

[939] EIB Group Forum: President Hoyer Signals Readiness to Boost Green Energy Finance in Support of EU Autonomy and Competitiveness, European Investment Bank (Luxembourg) 27 February 2023. Access Date: 3 March 2023. https://www.eib.org/en/press/all/2023-077-eib-group-forum-president-hoyer-signals-readiness-to-boost-green-energy-finance-in-support-of-eu-autonomy-competitiveness

[940] EIB Signs EUR55 million green loan for Iberdrola and Caja Rural de Soria for Wind Farm in Castilla y Leon Region, European Investment Bank (Luxembourg) 3 March 2023. Access Date: 3 March 2023. https://www.eib.org/en/press/all/2023-089-eib-signs-eur-55-million-green-loan-for-iberdrola-and-caja-rural-de-soria-for-wind-farm-in-castilla-y-leon

islands.[941] Regions including island and coastal areas along the Ionian Sea, the North and South Aegean, and around Crete will be assisted.

On 15 March 2023, the EIB agreed to lend EUR63.7 million to Landsnet for next generation transmission lines to upgrade Iceland's national power grid and to facilitate the energy transition and incorporation of additional renewable power systems.[942] Two new transmission lines will improve the interconnectivity between the country's north-eastern and eastern regions. Transmission line work will ensure more homes are reached to be powered by Iceland's 85 per cent renewable generation system and will increase system reliability overall.

On 23 March 2023, the EIB granted a EUR600 million loan to the German utility company Energie Baden-Wurttemberg to construct a massive offshore wind farm in the North Sea.[943] The He Dreit wind farm will have a capacity of 960 megawatts and is expected to supply green power to some 1.1 million households. The wind farm will consist of 64 wind turbines, each with 15 MW capacity, and grid connection is scheduled for December 2025.

On 24 March 2023, the EIB signed a EUR450 million green loan contract with Portugal. The green loan contributes to REN's 2022-2026 investment plan to enhance and modernize Portugal's electricity transmission network throughout Portugal. The financing will also support the connection and integration of additional renewable energy projects as part of the REPowerEU plan to reduce use of and dependency on foreign fossil fuels.[944]

The European Union has fully complied with its commitment to a fully or predominantly decarbonized power sector, prioritizing concrete and timely steps towards the goal of accelerating phase-out of domestic unabated coal power. The EU strengthened its regulatory regime, increased funding, established strategic partnerships and adopted other measures to accelerate the deployment of renewable energy and secure a just transition away from coal and other fossil fuels for the power sector.

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

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[941] Greece: EIB Group to provide advisory services to improve sustainable and energy efficient infrastructure projects on smaller, remote islands, European Investment Bank (Luxembourg) 9 March 2023. Access Date: 7 April 2023. https://www.eib.org/en/press/all/2023-101-eib-group-to-provide-advisory-services-to-improve-sustainable-and-energy-efficiency-infrastructure-projects-on-smaller-remote-islands-in-greece

[942] Iceland: Landsnet gets EUR63.7 million EIB loan for new generation power lines, European Investment Bank, (Luxeumbourg) 15 March 2023. Access Date: 7 April 2023. https://www.eib.org/en/press/all/2023-109-landsnet-gets-usd63-7-million-eib-loan-for-new-generation-power-lines

[943] Germany: EIB co-finances large offshore wind farm in the North Sea with EnBW, European Investment Bank (Luxembourg) 23 March 2023. Access Date: 7 April 2023. https://www.eib.org/en/press/all/2023-148-germany-eib-co-finances-large-offshore-wind-farm-in-the-north-sea-with-enbw

[944] Portugal: EIB commits EUR450 million green loan to support REN plan for the extension and reinforcement of the electricity transmission network, European Investment Bank (Luxembourg) 24 March 2023. Access Date: 7 April 2023. https://www.eib.org/en/press/all/2023-151-eib-commits-eur450-million-green-loan-to-support-ren-plan-for-the-extension-and-reinforcement-of-the-electricity-transmission-network-in-portugal