2021 G7 Cornwall Summit Final Compliance Report

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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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10. Energy: Renewables

"[In our energy sectors, we will]…accelerate renewable and other zero emissions energy deployment."

Carbis Bay G7 Summit Communiqué

Assessment

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

Background

Over the decades, there has been an increase in net-zero energy emissions pledges to combat climate change on the global stage. However, organizations like the International Energy Agency (IEA) argue that, even if positive changes have been made, current government strategies are in poor form to achieve their goals of net-zero energy emissions by 2050, never mind 2030.[1874] Despite its recent urgency, energy and its renewable alternatives have been pushed by the G7 since its early summits as a key way to move away from imported oil and, according to the G7, improve energy security.[1875]

At the 1978 Bonn Summit in Germany, the G7 leaders first introduced the importance of pursuing research and development (R&D) initiatives for renewable energy alternatives as a way to combat the worsening OPEC oil energy crisis.[1876] At the time, the leaders prioritized reducing their dependency on imported oils while also emphasizing the importance coal would play as an energy source in the long term.

At the 2000 Okinawa Summit, the G7 leaders discussed renewable energy for the first time since 1981. This conversation preceded the findings of the G8 Environment Ministers' Meeting in Otsu and Cartagena Protocol on Biosafety.[1877] At this summit, the leaders committed to investigate renewable energy barriers and solutions in developing countries as a way to combat pollution and climate change.

At the 2001 Trieste Summit in France, the leaders committed to take the lead by strengthening and implementing national programs and actions in order to reduce the GHG emissions and, to also promote renewable energies.[1878]

At the 2002 Summit in Banff, Canada, the leaders committed to work together with governments and other partners to take effective actions in the field of energy.[1879] The leaders committed to increase energy

[1874] Net Zero by 2050, International Energy Agency (Paris) 18 May 2021. Access Date: 24 September 2021. https://www.iea.org/reports/net-zero-by-2050

[1875] Bonn Summit G7 Communiqué, G7 Information Centre (Toronto) 17 July 1978. Access Date: 24 September 2021. http://www.g7.utoronto.ca/summit/1978bonn/communique.html

[1876] Bonn Summit G7 Communiqué, G7 Information Centre (Toronto) 17 July 1978. Access Date: 24 September 2021. http://www.g7.utoronto.ca/summit/1978bonn/communique.html

[1877] G8 Communiqué Okinawa 2000, G7 Information Centre (Toronto) 23 July 2000. Access Date: 24 September 2021. http://www.g7.utoronto.ca/summit/2000okinawa/finalcom.html

[1878] G7/8 Environment Ministers Commitments, G7 Information Centre (Toronto) 8 May 2018. Access Date: 16 October 2021. http://www.g7.utoronto.ca/evaluations/g7-commitments-environment.html

efficiency, improving energy resources, developing new technologies and promoting the usage of renewable energy sources in all countries.

At the 2005 Gleneagles Summit, the G8 leaders committed to tackle climate change and promote clean energy.[1880] The leaders committed to take measures to develop markets for clean energy technologies in order to increase their availability in developing nations, and to help vulnerable communities to adapt to the impact of climate change.

At the 2009 at the L'Aquila Summit in Italy, renewable energy was given a larger role in global climate talks following the 2008 Economic Crisis. At this summit, renewable energy was incorporated into action-based discussions on green recovery, technology-driven paths to tackle climate change, and the preliminary talks of carbon markets.[1881] However, a focus still was put on the importance of R&D of sustainable alternatives in developing countries.

At the 2014 Rome Summit in Italy, the energy ministers committed to promote the use of low carbon technologies like renewable energies.[1882] They also committed to work with known 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 Hamburg Summit in Germany, the leaders committed to support the use of renewable energy sources.[1883] The leaders mentioned that their goal with the usage of renewable energy sources is to reduce the GHG emissions in their energy systems.

At the 2016 Ise-Shima Summit in Japan, the G7 leaders committed to invest in the energy sectors such as innovations in renewable energy sources and other low carbon technologies in order to help to build an economic growth from carbon emissions.[1884] The leaders reaffirmed their commitment to enhance cooperation in energy technology innovation, research, development, and deployment, in order to accelerate the technological progress towards clean energy, including renewable energy sources.

At the 2018 Charlevoix Summit in Canada, the US took the lead on the issue of renewable energy.[1885] The US committed to "work closely with other countries" to "help deploy renewable and other clean energy sources" to aid in the fight against climate change and foster sustainable development. The other members subsequently committed to work towards emissions reductions by fostering innovation.

Finally, at the 2021 at the Cornwall Summit, the G7 strived to push renewable energy alternatives as a way to holistically "build back better" from the COVID-19 pandemic, as per the roadmap designed by the International Energy Agency and adhere to the targets from the Paris Agreement.[1886]

[1879] G7/8 Environment Ministers Commitments, G7 Information Centre (Toronto) 8 May 2018. Access Date: 16 October 2021. http://www.g7.utoronto.ca/evaluations/g7-commitments-environment.html

[1880] Chairs' Summary, G7 Information Centre (Toronto) 8 July 2005. Access Date: 16 October 2021. http://www.g7.utoronto.ca/summit/2005gleneagles/summary.html

[1881] Responsible Leadership for a Sustainable Future, G7 Information Centre (Toronto) 8 July 2009. Access Date: 24 September 2021. http://www.g7.utoronto.ca/summit/2009laquila/2009-declaration.pdf

[1882] Rome G7 Energy Initiative for Energy Security, G7 Information Centre(Toronto) 6 May 2014. Access Date: 16 October 2021. http://www.g7.utoronto.ca/energy/140506-rome.html

[1883] G7 Hamburg Initiative for Sustainable Energy Security, G7 Information Centre (Toronto) 12 May 2015. Access Date: 16 October 2021. http://www.g7.utoronto.ca/energy/150512-hamburg.html

[1884] G7 Kitakyushu Energy Ministerial Meeting Kitakyushu Initiative on Energy Security for Global Growth Joint Statement, G7 Information Centre (Toronto) 2 May 2016. Access Date: 16 October 2021. http://www.g7.utoronto.ca/energy/160502-statement.html

[1885] The Charlevoix G7 Summit Communiqué, G7 Information Centre (Toronto) 9 June 2018. Access Date: 10 February 2022. http://www.g7.utoronto.ca/summit/2018charlevoix/communique.html

[1886] Carbis Bay G7 Summit Communiqué, Group of Seven (Cornwall) 13 June 2021. Access Date: 25 September 2021. https://www.g7uk.org/wp-content/uploads/2021/06/Carbis-Bay-G7-Summit-Communique-PDF-430KB-25-pages-3.pdf

Commitment Features

At the 2021 Cornwall Summit, G7 leaders strived to push renewable energy alternatives as a way to holistically "build back better" from the COVID-19 pandemic, as per the roadmap designed by the IEA in order to adhere to the targets from the Paris Agreement.[1887] The G7 leaders declared that "[in our energy sectors, we will]…accelerate renewable and other zero emissions energy deployment." There are two criteria components of this commitment that must be fulfilled in order to achieve full compliance. These include accelerating renewable energy deployment and accelerating other zero emissions energy deployment. Since the commitment specifies "in our energy sectors" only domestic actions will count towards compliance.

To "accelerate" is understood to mean "to hasten the progress or development of."[1888] In the context of this commitment, "accelerate" refers to increasing the rate of development of new projects or initiatives that seek to implement the deployment of renewable and other zero emissions energy. In addition, "accelerate" also refers to increasing the rate of pre-established initiatives that work towards this goal.

"Renewable energy" is understood to mean, "any naturally occurring, theoretically inexhaustible source of energy, such as biomass, solar, wind, tidal, wave, and hydroelectric power, that is not derived from fossil or nuclear fuel."[1889] In the context of this commitment, examples of strong action to accelerate renewable energy can include, but are not limited to: funding the utilization of solar, wind and hydro power; supporting research and development initiatives that promote renewable energy; and implementing renewable energies in government buildings and properties. Examples of weaker actions related to the acceleration of renewable energy include, but are not limited to: chairing/organizing a conference on the importance of renewable energy and making a public statement on the importance of accelerating renewable energy without actually providing concrete support.

"Other zero emissions energies" refer to energy technology that produces no emissions (or that the GHGs going "into the atmosphere are balanced by removal out of the atmosphere").[1890] In the context of this commitment, other zero emissions energies refer to the non-renewable net-zero energy technologies. Examples of other zero emissions energies include, but are not limited to: nuclear power and carbon capture and sequestration technologies. Similar to renewable energies, examples of a strong action to accelerate other zero emissions energies can include, but are not limited to: funding the utilization of nuclear and carbon capture technologies and supporting research and development initiatives that promote zero-emissions energies (other than renewable ones). Examples of weaker actions related to the acceleration of other zero emissions energies include, but are not limited to: chairing/organizing a conference on the importance of other zero emissions energies beyond renewable ones and by making a public statement on the importance of accelerating these initiatives without actually providing concrete support.

In order to achieve full compliance, or a score of +1, a G7 member must take at least two strong actions in each of the two commitment components. The two commitment components that must be fulfilled, as stated above, include accelerating renewable energy deployment and accelerating other zero emissions energy deployment. Examples of what is considered strong action for each component is described above. An example of overall full compliance includes: one action that designates funding to a municipality to incorporate renewable energy technologies, one action that creates a task force for researching how to efficiently implement renewable technologies in the energy sector, one action that provides funding for R&D of carbon capture and sequestration technologies and one action that provides funding for research into adopting nuclear energy.

[1887] Carbis Bay G7 Summit Communiqué, Group of Seven (Cornwall) 13 June 2021. Access Date: 25 September 2021. https://www.g7uk.org/wp-content/uploads/2021/06/Carbis-Bay-G7-Summit-Communique-PDF-430KB-25-pages-3.pdf
[1888] Accelerate, Merriem-Webster (Springfield) n.d. Access Date: 18 October 2021. https://www.merriam-webster.com/dictionary/accelerate
[1889] Renewable Energy, Dictionary.com . Access Date: 13 October 2021. https://www.dictionary.com/browse/renewable-energy
[1890] What Is Net Zero, Net Zero Climate (Oxford) n.d. Access Date: 18 October 2021. https://netzeroclimate.org/what-is-net-zero/

In order to achieve partial compliance, or a score of 0, a G7 member will have either taken at least one strong and one partial action in each of the two commitment components or the G7 member has taken at least two strong actions in one component and only weak action in the other component. For example, if a G7 member were to have only provided funding for both a research initiative that seeks to develop carbon capture technologies and for a project that utilizes solar panels, they would have taken a strong action in each component. However, if a G7 member only took weak action in each component beyond the two examples of strong action, they would achieve partial compliance. Additionally, if a member takes two strong actions in only one component (such as only taking strong action for renewable technologies) but only partial action in the other component, they will achieve partial compliance.

Non-compliance, or a score of −1, will be awarded to any G7 member that fails to meet the threshold of partial compliance, whether by only taking one strong action, taking only weak action(s) or taking no action towards fulfilling the commitment.

Scoring Guidelines

−1	The G7 member has either only taken ONE strong action overall, only taken weak actions overall or taken no actions towards fulfilling the two commitment components.
0	The G7 member has taken at least ONE strong action and ONE weak action in EACH of the two commitment components OR the member has taken TWO strong actions in one of the components and only weak action in the other.
+1	The G7 member has taken at least TWO strong actions in BOTH of the two commitment components.

Compliance Director: Aida Zarghami
Lead Analyst: Angelina Zahajko

Canada: +1

Canada has fully complied with its commitment to accelerate renewable energy deployment and accelerate other zero emissions energy deployment.

On 30 June 2021, the Parliamentary Secretary to the Minister of Infrastructure and Communities, Andy Fillmore, announced in partnership with other ministers, announced that government funding will be provided for an ambient temperature district energy system in downtown Halifax.[1891] The project will support a "district energy system that supplies renewable energy" to buildings in the district.

On 12 July 2021, the Government of Canada announced that it will provide CAD1.8 million in federal funding for the New Dawn Enterprises and the Verschuren Centre for Sustainability in Energy and the Environment to produce the first net-zero community in Pine Tree Park Estates, Nova Scotia.[1892] This will serve as a model for other communities to implement similar objectives.

On 14 July 2021, Prime Minister Justin Trudeau announced CAD25 million in funding, in collaboration with the Government of Quebec and LM Wind Power, as contribution to a CAD160 million project for LM Wind

[1891] Canada and Nova Scotia invest in renewable energy infrastructure for the Cogswell Redevelopment Area, Infrastructure Canada (Halifax) 30 June 2021. Access Date: 5 February 2022. https://www.canada.ca/en/office-infrastructure/news/2021/06/canada-and-nova-scotia-invest-in-renewable-energy-infrastructure-for-the-cogswell-redevelopment-area.html
[1892] Government of Canada announces support for the first net-zero energy community in Nova Scotia, Atlantic Canada Opportunities Agency (Ottawa) 12 July 2021. Access Date: 5 February 2022. https://www.canada.ca/en/atlantic-canada-opportunities/news/2021/07/government-of-canada-announces-support-for-the-first-net-zero-energy-community-in-nova-scotia.html

Power to expand its wind turbine blades manufacturing facility in Gaspé, Québec.[1893] Energy generated from wind turbines is renewable.

On 16 July 2021, Minister Andy Fillmore announced that the Government of Canada will provide additional funding to "support energy efficiency upgrades to five community buildings in Halifax."[1894] The funding will go to installing solar power energy production infrastructure to reduce emissions and aid the transition to renewables.

On 23 July 2021, the Special Representative for the Prairies, Jim Carr, announced that the Government of Canada will provide funding for nine new projects in Manitoba to "support green infrastructure and upgrade" facilities.[1895] This will help buildings to become more energy efficient and aid in the energy transition.

On 9 August 2021, Minister of Natural Resources Seamus O'Regan Jr. opened calls for studies on carbon capture technologies, supplementing the government's pledge to contribute CAD319 million as a part of Budget 2021 to fund research, development, and commercialization of carbon capture technologies.[1896] Carbon capture technologies contribute to the goal of net-zero.

On 30 August 2021, it was announced that a Canadian government document outlined plans to build two new carbon capture hubs, with capacities for at least 15 million tonnes of carbon captured annually. The document also details plans to have both sites in planning and under construction by 2030.[1897]

On 1 November 2021, Prime Minister Justin Trudeau announced CAD25 million in funding to the Energy Sector Management Assistance Program, a partnership with the World Bank that seeks to develop and implement clean energy alternatives in low- and middle-income countries.[1898] This will help countries that can't afford it to transition to renewable energy.

On 4 November 2021, Canada was a signatory to the Statement of International Public Support for the Clean Energy Transition at the 2021 United Nations Climate Change Conference (COP26) in Glasgow, pledging to accelerate adoption of clean and renewable energy and ending investment in unabated fossil fuel production globally.[1899]

[1893] Supporting renewable energy manufacturing in Quebec to create jobs and build a cleaner future, Prime Minister of Canada (Ottawa) 14 July 2021. Access date: 9 November 2021. https://pm.gc.ca/en/news/news-releases/2021/07/14/supporting-renewable-energy-manufacturing-quebec-create-jobs-and

[1894] Canada and Nova Scotia invest in energy efficiency upgrades for five community buildings in Halifax, Infrastructure Canada (Halifax) 16 July 2021. Access Date: 5 February 2022. https://www.canada.ca/en/office-infrastructure/news/2021/07/canada-and-nova-scotia-invest-in-energy-efficiency-upgrades-for-five-community-buildings-in-halifax.html

[1895] Canada and Manitoba support green infrastructure and upgrades to community, culture, and recreation facilities, Infrastructure Canada (Manitoba) 23 July 2021. Access Date: 5 February 2022. https://www.canada.ca/en/office-infrastructure/news/2021/07/canada-and-manitoba-support-green-infrastructure-and-upgrades-to-community-culture-and-recreation-facilities.html

[1896] News release: Canada Opens Call for Studies on Carbon Capture Technologies, Natural Resources Canada (Ottawa) 9 August 2021. Access date: 10 November 2021. https://www.canada.ca/en/natural-resources-canada/news/2021/08/canada-opens-call-for-studies-on-carbon-capture-technologies.html

[1897] Exclusive Canada pushes to build 2 new carbon capture hubs - gov't document, Reuters (Winnipeg/Calgary) 30 August 2021. Access date: 9 November 2021. https://www.reuters.com/world/americas/exclusive-canada-pushes-build-2-new-carbon-capture-hubs-document-2021-08-30/

[1898] Prime Minister Trudeau announces enhanced and ambitious climate action to cut pollution at the COP26 summit, Office of the Prime Minister (Ottawa) 1 November 2021. Access date: 10 November 2021. https://pm.gc.ca/en/news/news-releases/2021/11/01/prime-minister-trudeau-announces-enhanced-and-ambitious-climate

[1899] Statement of International Public Support for the Clean Energy Transition, UN Climate Change Conference UK 2021 (Glasgow) 4 November 2021. Access date: 10 November 2021. https://ukcop26.org/statement-on-international-public-support-for-the-clean-energy-transition/

On 5 November 2021, Minister of Natural Resources Jonathan Wilkinson announced CAD500,000 in a new partnership with the International Renewable Energy Agency to support the transition of remote communities to renewable energy.[1900]

On 13 January 2022, the International Energy Agency (IEA) conducted its first in-depth review of Canada since 2015.[1901] The report praises Canada's ambitious policy plans, and the carbon pricing schemes and the energy technology innovation it has developed to do so, including "carbon capture, utilization and storage (CCUS); hydrogen; and nuclear small modular reactors (SMRs)." Based on current policy plans, the IEA makes the following relevant recommendations: work with provincial governments to create clear, net-zero plans for 2050 and energy efficiency, especially for key energy sectors (e.g., "transport, oil and gas, buildings, industry") and "increasing federal funding to the research and development on clean energy technology" to ensure both the success of their own policy plans and their status as a strong competitor in the energy export market.

On 14 February 2022, Minister of Environment and Climate Change Steven Guilbeault launched the Output-Based Pricing System Proceeds Fund (OBPSPF) to support industrial initiatives that reduce greenhouse gas emissions and deploy clean technology and green energy.[1902] The Future Electricity Fund, as a part of the OBPSPF, aims to return federal carbon pollution pricing proceeds toward clean and renewable energy development.

On 11 March 2022, Minister Wilkinson, Nova Scotia Premier Tim Houston, Newfoundland and Labrador Premier Andrew Furey, and New Brunswick Minister of Natural Resources and Energy Development Mike Holland pledged support for a "collective Atlantic Canadian vision for an interconnected clean power grid that would serve as the foundation for a competitive, electrified economy across the Atlantic region."[1903] This commitment, in particular, pledges deeper integration of the region's electricity system to facilitate the transmission of renewable hydro power.

On 15 March 2022, Minister Guilbeault launched consultations to develop Canada's Clean Electricity Standard (CES) and drive progress towards a net-zero electricity grid by 2035.[1904] The development of the CES will include provisions to further the development of Canada's renewable electricity capacity.

On 7 April 2022, the Government of Canada announced a budget of CAD600 million over the next seven years, starting 2022-2023 to Natural Resources Canada for the Smart Renewables and Electrification Pathways Program to support additional renewable electricity generation projects.[1905]

On 11 April 2022, Minister Wilkinson and Nova Scotia Minister of Natural Resources and Renewables Tony Rushton jointly announced the joint federal-provincial intention to expand the Canada-Nova Scotia offshore

[1900] News release: Canada Invests in a New Global Initiative for Transitioning Remote Communities to Renewable Energy, Natural Resources Canada (Hamilton) 5 November 2021. Access date: 10 November 2021. https://www.canada.ca/en/natural-resources-canada/news/2021/11/canada-invests-in-a-new-global-initiative-for-transitioning-remote-communities-to-renewable-energy.html

[1901] Canada 2022: Energy Policy Review, International Energy Agency (Paris) 13 January 2022. Access date: 30 January 2022. https://iea.blob.core.windows.net/assets/7ec2467c-78b4-4c0c-a966-a42b8861ec5a/Canada2022.pdf

[1902] Canada launches new fund to reinvest proceeds from carbon pollution pricing system and reduce industrial greenhouse gas emissions, Environment and Climate Change Canada (Gatineau) 14 February 2022. Access Date: 23 April 2022. https://www.canada.ca/en/environment-climate-change/news/2022/02/canada-launches-new-fund-to-reinvest-proceeds-from-carbon-pollution-pricing-system-and-reduce-industrial-greenhouse-gas-emissions.htm

[1903] Clean Power Roadmap for Atlantic Canada Unveils Collective Vision for an Interconnected Power Grid, Natural Resources Canada (Ottawa) 11 March 2022. Access Date: 23 April 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/03/clean-power-roadmap-for-atlantic-canada-unveils-collective-vision-for-an-interconnected-power-grid.html

[1904] Canada launches consultations on a Clean Electricity Standard to achieve a net-zero emissions grid by 2035, Environment and Climate Change Canada (Gatineau) 15 March 2022. Access Date: 23 April 2022. https://www.canada.ca/en/environment-climate-change/news/2022/03/canada-launches-consultations-on-a-clean-electricity-standard-to-achieve-a-net-zero-emissions-grid-by-2035.html

[1905] Clean and a Strong Economy, Department of Finance Canada (Ottawa) 7 April 2022. Access Date: 9 May 2022. https://budget.gc.ca/2022/report-rapport/chap3-en.html

energy regime's mandate, in order to increase the province's offshore wind and clean hydrogen capacity.[1906] In addition, the federal and provincial governments have committed to expand the Canada-Nova Scotia Offshore Energy Board's mandate to include the management of offshore renewable energy development.

On 6 June 2022, the Government of Canada announced a funding of CAD515,000 towards the renewable energy system in New Glasgow, Nova Scotia.[1907]

Canada has fully committed to accelerate renewable energy and other net zero emission energy deployment. Canada is willing to allocate several different fundings to its energy sector as part of its commitment to accelerate renewable energy deployment and other net zero emissions. At COP26, Canada made a strong commitment to accelerate adoption of clean and renewable energy and ending investment in unabated fossil fuel production globally.

Thus, Canada receives a score of +1.

Analysts: Peter Lee and Aida Zarghami

France: +1

France has fully complied with its commitment to accelerate renewable energy deployment and accelerate other zero emissions energy deployment.

On 24 August 2021, the Government Gazette announced a new framework that commits to the ban of advertisements for fossil fuel starting in July 2022, the declination of the Multi-year Energy Plan into regional objectives of renewable developments, the extension of the mandatory deployment of solar panels or vegetized roofs on commercial developments, offices, and parking lots, and support for hydroelectricity, hydrogen and biogas.[1908] The role of towns regarding the deployment of wind farms is reinforced.

On 8 September 2021, the French Government extended the timeline for achieving renovation work through the CEE Boost by two months. The CEE Boost: a subsidy scheme for citizens deploying energy efficiency measures in their household.[1909] This initiative is aiming at supporting citizens to finance heating systems overhaul, increase thermal isolation or global renovation.[1910]

On 30 September 2021, the National Hydrogen Council held its third meeting in order to discuss the execution of the National Strategy for the Development of Carbon-free Hydrogen, adopted on 8 September

[1906] Canada and Nova Scotia Announce Intent to Expand the Mandate of Offshore Energy Regime to Support the Transition to a Clean Economy and Create Sustainable Jobs, Natural Resources Canada (Halifax) 11 April 2022. Access Date: 23 April 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/04/canada-and-nova-scotia-announce-intent-to-expand-the-mandate-of-offshore-energy-regime-to-support-the-transition-to-a-clean-economy-and-create-sust.html

[1907] Canada Invests in New Glasgow Renewable Energy System, Natural Resources Canada (Ottawa) 6 June 2022. Access Date: 11 June 2022. https://www.canada.ca/en/natural-resources-canada/news/2022/06/canada-invests-in-new-glasgow-renewable-energy-system.html

[1908] Law of August 22, 2021 on the fight against climate change and strengthening resilience to its effects, Republic of France (Paris) 24 August 2021. Translation provided by Analyst. Access Date: 20 November 2021. https://www.vie-publique.fr/loi/278460-loi-22-aout-2021-climat-et-resilience-convention-citoyenne-climat

[1909] Energy saving boost (EEC): a two-month period to benefit from the aid, Ministry of Economy Finances, and Recovery (Paris) 9 September 2021. Translation provided by Analyst. Access Date: 20 November 2021. https://www.economie.gouv.fr/coup-de-pouce-economies-energie-cee-delai-deux-mois-beneficier-aide#

[1910] "Energy boost" bonuses, Ministry of Economy, Finances and Recovery (Paris) 9 November 2021. Translation provided by Analyst. Access Date: 20 November 2021. https://www.economie.gouv.fr/cedef/coup-pouce-energie

2020.[1911] Economy, Finance and Recovery Minister Bruno Le Maire and Ecological Transition Minister Barbara Pompili reaffirmed France's commitment to develop decarbonized hydrogen.[1912]

On 7 October 2021, the Ministry of Ecological Transition announced 10 measures for developing wind farms.[1913] It includes instructions to map zones suitable for the development of wind farms, the creation of a wind energy mediator in the Ministry for Ecological Transition, the setting up of regional committees for energy and measures to make citizen engagement in wind energy projects easier.[1914]

On 12 October 2021, President Emmanuel Macron announced the France 2030 investment plan, which strives to develop France's industrial competitiveness and future technologies.[1915] Among the EUR30 billion prepared for France 2030, 12 will be dedicated to decarbonizing the economy, with 8 solely devoted to the energy sector. EUR2 billion will be added to complement the existing EUR7 billion hydrogen strategy.[1916] EUR1 billion will be invested to develop small modular reactors (SMR), and EUR500 million will be invested toward breakthrough technologies in renewable energies.

On 18 October 2021, the French Government launched Innovative Solutions and Technologies for Batteries' call for projects as part of the 4th Future Investments Program and the plan 'France Relance'.[1917] This call aims at supporting projects dedicated to creating an integrated value chain for batteries, by supporting R&D, innovation and industrial deployment. Operated by the State and BPI France, the call for projects will run until 10 January 2023.

On 2 November 2021, France joined South Africa, Germany, the United States, United Kingdom and the European Union governments to launch the International Partnership for a Fair Energy Transition, aimed at helping South Africa to decarbonize its economy through cleaner energies.[1918] The countries involved will engage USD8.5 billion in the next three to five years through subventions, loans, investments and shared risk instruments, in order to support South Africa's transition from coal to renewable energies.[1919]

[1911] France must become the world "leader" in green hydrogen, Government of France (Paris) 1 October 2021. Translation provided by Analyst. Access Date: 20 November 2021. https://www.gouvernement.fr/la-france-doit-devenir-le-leader-mondial-de-l-hydrogene-vert

[1912] [Video] Meeting of the National Hydrogen Council Thursday, September 30, at Bercy, Ministry of Economy, Finances and Recovery (Paris) 30 September 2021. Translation provided by Analyst. Access Date: 20 November 2021. https://www.economie.gouv.fr/direct-video-conseil-national-hydrogene

[1913] [Video] Meeting of the National Hydrogen Council Thursday, September 30, at Bercy, Ministry of Economy, Finances and Recovery (Paris) 7 October 2021. Translation provided by Analyst. Access Date: 20 November 2021. https://www.gouvernement.fr/des-mesures-pour-un-developpement-maitrise-de-l-eolien

[1914] Measures for controlled development of wind power, Government of France (Paris) 07 October 2021. Translation provided by Analyst. Access Date: 20 November 2021. https://www.gouvernement.fr/des-mesures-pour-un-developpement-maitrise-de-l-eolien

[1915] France 2030: an investment plan for the France of tomorrow, Government of France (Paris) 13 October 2021. Translation provided by Analyst. Access Date: 20 November 2021. https://www.gouvernement.fr/france-2030-un-plan-d-investissement-pour-la-france-de-demain

[1916] Discours du Président de la République à l'occasion de la présentation du plan France 2030, Élysée (Paris) 12 October 2021. Translation provided Analyst. Access Date: 20 November 2021. https://www.gouvernement.fr/sites/default/files/contenu/piece-jointe/2021/10/elysee-module-18543-fr.pdf

[1917] Launch of the call for projects "innovative solutions and technologies for batteries," Building the France of Tomorrow (Paris) 18 October 2021. Translation provided by Analyst. Access Date: 21 October 2021. https://www.economie.gouv.fr/plan-de-relance/lancement-appel-projets-solutions-technologies-innovantes-batteries

[1918] Joint Communiqué on the International Partnership for a Just Energy Transition, Elysée (Paris) 2 November 2021. Translation provided by Analyst. Access Date: 23 November 2021. https://www.elysee.fr/emmanuel-macron/2021/11/02/communique-conjoint-sur-le-partenariat-international-pour-une-transition-energetique-juste

[1919] France, Germany, UK, US and EU launch ground-breaking International Just Energy Transition Partnership with South Africa, European Commission (Brussels) 02 November 2021. Access Date: 20 November 2021. https://ec.europa.eu/commission/presscorner/detail/en/IP_21_5768

On 3 November 2021, the Ministry of Ecological Transition announced 10 measures for the development of solar energy.[1920] It includes the setting up of support plans for deploying solar panels on buildings and wastelands, mandatory solar panels on warehouses, hangars and parking lots, regular bids with dedicated budgets for roof solar panels, the target of deploying 1,000 photovoltaic projects on public properties, the relief of administrative procedures for small-scale projects, support for project developers and collectivities, the lowering of grid connection costs for small-scale projects and the creation of a Solar Cities and Solar Departments label.[1921]

On 4 November 2021, Minister of Europe and Foreign Affairs Jean-Yves Le Drian announced that he would meet COP26 President Alok Sharma to defend France's priorities regarding the summit: the launching of the Green Grids Initiative and the deployment of an initiative for favoring private investments for solar energy.[1922] Minister Le Drian participated in an event on nuclear and renewable energy complementarity, as well as an event focusing on the development of the decarbonized hydrogen French industry, along with Engie, GRTgaz and Lhyfe.

On 4 November 2021, Minister Pompili, Minister Delegate in Charge of Industry Agnès Pannier-Runacher and industry leaders signed a sector contract for new energy systems to take the acceleration of renewable deployments as an opportunity for improving France's industrial competitiveness.[1923] The renewed sector contract reunites the state, industrialists, and union around reciprocal engagements, thanks to the consultation of more than 600 contributors.

On 5 November 2021, the Ministry of Ecological Transition announced 10 measures to favor the development of "citizen renewable energies," organized around three main axes: accelerating local governance projects, accompanying projects and their communication and simplifying project development and financing.[1924] The Minister's target is to reach 1,000 new locally governed renewable projects associating collectivities and citizens between now and 2028.

On 15 November 2021, Minister Pompili announced that France will stop financing foreign fossil fuel projects starting at the end of 2022.[1925] Minister Pompili reiterated that France joined the international coalition Beyond Oil and Gas, aiming at progressively phasing out fossil fuel production.

On 10 December 2021, Minister Pompili and Minister Delegate Pannier-Runacher announced an investment of EUR420 million for the development of industrial biotechnologies and the manufacturing of biosourced

[1920] 10 measures to accelerate photovoltaics, Ministry for the Ecological Transition (Paris) 3 November 2021. Translation provided by Analyst. Access Date: 20 November 2021. https://www.gouvernement.fr/10-mesures-pour-accelerer-le-photovoltaique

[1921] Plan d'actions pour accélérer le développement du photovoltaïque, ministère de la Transition écologique (Paris) 3 November 2021. Translation provided by Analyst. Access Date: 20 November 2021. https://www.ecologie.gouv.fr/sites/default/files/21189_Plan-actions_Photovoltaique-1.pdf

[1922] Climate – Participation of Jean-Yves Le Drian at COP26 (Glasgow, November 4, 2021), Ministry of Europe and Foreign Affairs (Paris) 4 November 2021. Translation provided by Analyst. Access Date: 20 November 2021. https://www.diplomatie.gouv.fr/fr/politique-etrangere-de-la-france/climat-et-environnement/actualites-et-evenements/2021/article/climat-participation-de-jean-yves-le-drian-a-la-cop26-glasgow-04-11-21

[1923] CSF New Energy Systems: Signature of the New Sector Contract, national council of industry (Paris) 4 November 2021. Translation provided by Analyst. Access Date: 23 November 2021. https://www.conseil-national-industrie.gouv.fr/actualites/comites-strategiques-de-filiere/nouveaux-systemes-energetiques/csf-nouveaux-systemes-energetiques-signature-du-nouveau-contrat-de-filiere

[1924] 10 measures for the development of citizen renewable energies, Ministry for the Ecological Transition (Paris) 5 November 2021. Translation provided by Analyst. Access Date: 23 November 2021. https://www.ecologie.gouv.fr/10-mesures-developpement-des-energies-renouvelables-citoyennes

[1925] France stops foreign public funding of fossil fuel projects, Government of France (Paris) 15 November 2021. Translation provided by Analyst. Access Date: 21 November 2021. https://www.gouvernement.fr/la-france-cesse-les-financements-publics-a-l-etranger-de-projets-d-energies-fossiles

products, in order to replace petroleum products, it includes biofuels, and synthetic fuels produced from renewable energies.[1926]

On 14 December 2021, France and the United States inaugurated the Bilateral Partnership France-United States for Clean Energies in Paris, an initiative planned at COP26.[1927] The goals of the partnership are to discuss policies and innovation in clean energies, and exchange on diplomatic efforts to accelerate the energy transition. The next partnership meeting is planned for 2022 in Washington DC.

On 10 February 2022, President Macron announced France's new energy strategy which will use renewable and nuclear energy to produce 60 per cent more electricity.[1928] No functional nuclear reactors will be closed, and all the currently operating reactors' lifetimes will be extended beyond 50 years. Six EPR2 reactors will be built before 2050, and studies for eight additional EPR2 reactors will commence. By 2050, photovoltaic capacities will be multiplied by ten to reach over 100 gigawatts (GW), more than 50 offshore wind power plants will be set up and land wind capacities will be doubled.

On 9 March 2022, the Government of France launched a call for innovative nuclear reactor projects with a budget of EUR500 million as part of the France 2030 strategy.[1929] The call will fund projects aimed at developing cogeneration, close the nuclear fuel cycle, improve radioactive waste management and increase nuclear energy competitiveness.

On 17 March 2022, Minister Pompili detailed a strategic plan for increasing France's energy resiliency and accelerating the phasing out of fossil fuels.[1930] The plan sets out a framework to have biogas making up 10 per cent of the national gas consumption by 2030 and to increase the coverage of connection costs for biogas plants from 40 to 60 per cent.

On 29 March 2022, the Ministry of the Ecological Transition and France's electricity transmission system operator Réseau de Transport d'Électricité (RTE) signed a new contract for public service provision.[1931] The contract devises 40 strategic objectives for RTE according to three axes: making the energy transition possible by improving social acceptability and territory development, adapting the flexibility and resiliency of the network, and establishing the role of RTE as a decision support for the Government of France.

France has fully complied with its commitment to accelerate renewable and other net zero energy deployment, by taking actions to favorize the deployment of decarbonized energy production at the local, national, and international levels. France has committed to allocate several different fundings toward

[1926] Investments for the future: Barbara Pompili and Agnès Pannier-Runacher announce 420 million euros to accelerate the development of industrial biotechnologies and the manufacture of biosourced products in France, Ministry for the Ecological Transition (Paris) 10 December 2021. Translation provided by Analyst. Access Date: 2 January 2022. https://www.ecologie.gouv.fr/investissements-davenir-barbara-pompili-et-agnes-pannier-runacher-annoncent-420-millions-deuros

[1927] Joint Statement Issued by the United States and France Following the First Meeting of the United States – France Bilateral Clean Energy Partnership, Ministry for the Ecological Transition (Paris) 14 December 2021. Translation provided by Analyst. Access Date: 10 January 2022. https://www.ecologie.gouv.fr/declaration-conjointe-emise-etats-unis-et-france-suite-premiere-reunion-du-partenariat-bilateral

[1928] The new energy strategy of France, Government of France (Paris) 11 February 2022. Translation provided by Analyst. Access Date: 20 March 2022. https://www.gouvernement.fr/actualite/la-nouvelle-strategie-energetique-de-la-france

[1929] France 2030: opening of the call for "innovative nuclear reactors" projects, Ministry of the Economy, Finance and the Recovery (Paris) 10 March 2022. Translation provided by Analyst. Access Date: 20 March 2022. https://www.economie.gouv.fr/france-2030-ouverture-appel-projets-reacteurs-nucleaires-innovants

[1930] A Resilience Plan to secure our supplies and get out of our dependence on fossil fuels, Ministry of the Ecological Transition (Paris) 17 March 2022. Translation provided by Analyst. Access Date: 20 March 2022. https://www.ecologie.gouv.fr/plan-resilience-securiser-nos-approvisionnements-et-sortir-notre-dependance-aux-energies-fossiles

[1931] Signature of the new public service contract between the State and RTE, Ministry of the Ecological Transition (Paris) 29 March 2022. Translation provided by Analyst. Access Date: 20 April 2022. https://www.ecologie.gouv.fr/signature-du-nouveau-contrat-service-public-entre-letat-et-rte

accelerating renewable energy sources. France has also signed multiple agreements with other G7 members such as the United States, United Kingdom and Germany, and other non-G7 members such as South Africa.

Thus, France receives a score of +1.

Analyst: Thomas Houlie

Germany: +1

Germany has fully complied with its commitment to accelerate renewable energy deployment and accelerate other zero emissions energy deployment.

On 25 August 2021, the German government outlined preliminary plans to refurbish and retrofit government buildings to increase energy efficiency and usage of renewable energy as a part of Climate Action Plan 2030.[1932]

On 22 September 2021, Andreas Feicht, State Secretary for Economic Affairs and Energy, attended an informal meeting with energy ministers to discuss the 'Fit for 55' legislation to revise the new proposals submitted by the European Union in regard to higher energy savings and increasing the proportion of renewable energy by 2030.[1933]

On 14 October 2021, the German government will eliminate the surcharge on electricity generated from renewable sources, designed to fund renewable energy generation projects, by 2022.[1934] The typical household is projected to save EUR132 from this measure.

On 2 November 2021, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) released a press statement detailing an agreement between the German and South African delegations at the COP26 conference in Glasgow.[1935] The agreement outlined plans for Germany to give EUR700 million to South Africa in phasing out the use of coal and promote investment in developing renewable energy sources.

On 23 November 2021, an agreement signed by the Danish national grid operator Energinet with Belgium's Eila (a transmission systems operator) and Germany's 50Hertz (a high-voltage grid operator) to build power grid links in facilitating the export of Danish green energy to mainland Europe.[1936]

On 24 November 2021, the Government of Germany announced an agreement on climate action between the parties of the incoming German government (Social Democrats, Greens and Free Democrats) to install 200 gigawatts capacity of solar electricity generation and 30 gigawatts capacity of offshore wind generation by

[1932] A role model for climate-neutral buildings, The Federal Government (Berlin) 25 August 2021. Access date: 27 November 2021. https://www.bundesregierung.de/breg-en/news/climate-neutral-federal-government-buildings-1953906

[1933] State Secretary Feicht discusses energy-policy aspects of the 'Fit for 55' package of measures with European Energy Ministries, Federal Ministry for Economic Affairs and Climate Action (Berlin) 22 September 2021. Access Date: 31 January 2022. https://www.bmwi.de/Redaktion/EN/Pressemitteilungen/2021/09/20210922-state-secretary-feicht-discusses-energy-policy-aspects-of-the-fit-for-55-package-of-measures-with-european-energy-ministers.html

[1934] EXCLUSIVE Germany to slash renewable power fee to ease burden of higher energy bills – sources, Reuters (Toronto) 14 October 2021. Access date: 27 November 2021. https://www.reuters.com/business/energy/exclusive-germany-slash-renewable-power-fee-ease-burden-higher-energy-bills-2021-10-14/

[1935] Germany supports South Africa in coal phase-out, Reuters (Toronto) Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (Berlin) 2 November 2021. Access date: 17 January 2022. https://www.bmuv.de/en/pressrelease/deutschland-unterstuetzt-suedafrika-beim-kohleausstieg

[1936] Denmark signs deals to facilitate wind power links to Germany and Belgium, Reuters (Toronto) 23 November 2021. Access date: 27 November 2021. https://www.reuters.com/markets/europe/denmark-signs-deals-facilitate-wind-power-links-germany-belgium-2021-11-23/

2030, raising the targeted proportion of renewable energy as a part of Germany's gross energy demand from 65 per cent to 80 per cent by 2030.[1937]

On 25 November 2021, it was reported that a supplementary budget by the incoming German government allocated EUR50 billion toward the country's climate action fund.[1938] The funding will help make homes more energy efficient and reduce emissions.

On 10 December 2021, Minister of Finance Christian Lindner announced an extra EUR60 billion in funding for climate policies.[1939] This extra funding comes from the unused debt borrowed by the former Federal Government in 2021. This supplementary budget was passed unanimously on 13 December 2021.[1940]

On 13 January 2022, the Minister of Economic Affairs and Climate Action Robert Habeck announced that Germany will become climate-neutral by the year of 2045 and reaffirmed that Germany will boost its share of renewable energy by 80 per cent by 2030.[1941]

On 23 March 2022, Parliamentary State Secretary at the Federal Ministry for Economic Affairs and Energy Oliver Krischer and Israel's Minister of Energy Karine Elharrar signed a joint declaration of intent on energy cooperation on the margins of this year's Ministerial Meeting of the International Energy Agency in Paris.[1942] The partnership seeks to increase cooperation regarding development of renewable energy technologies, in addition to increasing cyber-security of energy infrastructure and collaboration on natural gas and hydrogen use.

On 6 April 2022, the Federal Government of Germany made amendments to the Renewable Energy Sources Act.[1943] The amendment aims to accelerate the development of renewable energy production through abolishing electricity consumer levies for funding renewables, increasing tender volumes for new projects and expansions through 2028/29, and undertaking efforts to increase local acceptance of energy transition through reduction of bureaucratic red tape on citizens' energy cooperatives.

Germany has strongly committed towards increasing its renewable energy deployments and other net zero emission energy deployments. Germany has taken actions both domestically and internationally. Germany has allocated several different fundings towards increasing renewable energy sources domestically but has also helped other nations such as South Africa.

Thus, Germany receives a score of +1.

Analyst: Peter Lee

[1937] Germany hits renewable accelerator, targets coal exit by 2030, Reuters (Toronto) 24 November 2021. Access date: 27 November 2021. https://www.reuters.com/markets/commodities/german-coalition-commits-faster-decarbonisation-2021-11-24/

[1938] Germany to pump more than 50 bln euros into climate fund – sources, Reuters (Toronto) 25 November 2021. Access date: 27 November 2021. https://www.reuters.com/world/europe/germany-pump-more-than-50-bln-eurs-into-climate-fund-sources-2021-11-25/

[1939] Germany's new finance minister announces billions in climate investments, Deutsche Welle (Bonn) 10 December 2021. Access Date: 15 May 2022. https://www.dw.com/en/germanys-new-finance-minister-announces-billions-in-climate-investments/a-60085847

[1940] German cabinet passes climate fund booster with €60 billion extra budget, Euractiv (Brussels) 13 December 2021. Access Date: 15 May 2022. https://www.euractiv.com/section/energy-environment/news/german-cabinet-passes-climate-fund-booster-with-e60-billion-extra-budget/

[1941] Habeck presents Germany's current climate action status: "Need to triple the rate of emission reductions", Federal Ministry of Economic Affairs and Climate Action (Berlin) 13 January 2022. Access Date: 31 January 2022. https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/20220111-habeck-presents-germanys-current-climate-action-status-need-to-triple-the-rate-of-emission-reductions.html

[1942] Germany and Israel agree on energy partnership, Federal Ministry of Economic Affairs and Climate Action (Berlin) 24 March 2022. Access Date: 23 April 2022. https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/03/20220324-germany-and-israel-agree-on-energy-partnership.html

[1943] Cabinet approves accelerated development of renewable energies, The Federal Government (Berlin) 6 April 2022. Access Date: 23 April 2022. https://www.bundesregierung.de/breg-en/search/amendment-of-the-renewables-act-2024096

Italy: 0

Italy has partially complied with its commitment to accelerate renewable energy deployment and accelerate other zero emissions energy deployment.

On 20 September 2021, the Ministry of Ecological Transition issued a request for proposals for their Green Ports Initiative.[1944] The goal of the project is to reduce carbon dioxide and other pollutants in ports by implementing systems to generate energy from renewable sources and encouraging the environmental sustainability of port activities. The project's total expenditure is expected to cost EUR270 million with a focus on energy efficiency.

On 15 December 2021, the Ministry of Ecological Transition allocated EUR200 million towards making 19 smaller non-interconnected islands more environmentally sustainable and energy efficient.[1945] This action will accelerate renewable energy deployment by increasing renewable energy production on the islands, implementing water efficiency projects and improving waste cycle management. The funding comes from Italy's National Recovery and Resiliency Plan (PNRR) supported and funded by the European Union's Next Generation EU initiative.

On 15 December 2021, the Ministry of Ecological Transition pledged to develop hydrogen supply chains and to support the research, development and regulation needed to facilitate the use and transport of hydrogen fuel.[1946] This action will contribute to increasing the use of zero emissions fuels by providing the technology and infrastructure needed for successful implementation of hydrogen fuels.

On 15 December 2021, the Ministry of Ecological Transition pledged to develop infrastructure for 21,250 recharging stations and renew transportation fleets with vehicles that use zero emissions fuels.[1947] This action will contribute to accelerating the use of zero emissions technologies in transport.

On 15 December 2021, the Ministry of Ecological Transition pledged to increase the share of Italy's energy produced by renewable sources through investment in developing small-scale energy distribution systems.[1948] This action will contribute to accelerating the use of zero emissions technologies by increasing investment in the infrastructure needed for its implementation.

On 16 January 2022, the Ministry of Ecological Transition announced that on 18 January 2022 it will set up the Technical Commission for the PNRR and the Integrated National Energy and Climate Plan (PNIEC).[1949] This action will contribute to accelerating the construction of renewable energy sources and meeting the objectives of PNRR with its initial task of environmental assessments of PNRR projects.

[1944] MiTE starts the PNRR with the Green Ports project, Ministry of Ecological Transition (Rome) 20 September 2021. Translation provided by Google Translate. Access Date: 26 November 2021. https://www.mite.gov.it/pagina/il-mite-avvia-il-pnrr-con-il-progetto-green-ports

[1945] PNRR, 200 million to make 19 smaller islands more sustainable, Ministry of Ecological Transition (Rome) 15 December 2021. Translation provided by Google Translate. Access Date: 17 January 2022. https://www.mite.gov.it/comunicati/pnrr-200-milioni-rendere-piu-sostenibili-19-isole-minori

[1946] Measure 3 – Promote the production, distribution and end the uses of hydrogen, Ministry of Ecological Transition (Rome) 15 December 2021. Translation provided by Google Translate. Access Date: 17 January 2022. https://www.mite.gov.it/pagina/misura-3-promuovere-la-produzione-la-distribuzione-e-gli-usi-finali-dell-idrogeno

[1947] Measure 4 – To develop more sustainable local transport, Ministry of Ecological Transition (Rome) 15 December 2021. Translation provided by Google Translate. Access Date: 17 January 2022. https://www.mite.gov.it/pagina/misura-4-sviluppare-un-trasporto-locale-piu-sostenibile

[1948] Measure 1 – Increase the share of energy produced from renewable energy sources, Ministry of Ecological Transition (Rome) 15 December 2021. Access Date: 17 January 2022. https://www.mite.gov.it/pagina/misura-1-incrementare-la-quota-di-energia-prodotta-da-fonti-di-energia-rinnovabile

[1949] MiTE Renewables: the Technical Commission PNRR PNIEC - Cingolani is underway: "A fundamental step forward for the implementation of the ecological transition," Ministry of Ecological Transition (Rome) 16 January 2022. Translation provided by Analyst. Access Date: 21 March 2022. https://www.mite.gov.it/comunicati/mite-rinnovabili-al-la-commissione-tecnica-pnrr-pniec-cingolani-passo-avanti-fondamentale

On 11 February 2022, the Ministry of Ecological Transition announced that it will sign an agreement with the National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) for up to EUR110 million in funding for hydrogen research and development between 2022 and 2025.[1950] This action will contribute to accelerating the production and use of zero emissions technologies by increasing investment in the technology necessary for hydrogen adoption.

On 24 March 2022, the Ministry of Ecological Transition allocated EUR50 million in funding toward projects which will increase the production of hydrogen energy.[1951] Of this funding, EUR30 million will go towards research projects by corporations while EUR20 million will go towards projects led by public research organizations including universities. This action will contribute to accelerating the construction of zero emissions energy sources by increasing investment in hydrogen technologies.

On 11 May 2022, the Prime Minister Draghi met with President Biden in Washington. At a press briefing, Prime Minister Draghi emphasized Italy's investments in renewable energy.[1952]

Italy has partially complied with its commitment to accelerate renewable and other zero emissions energy deployment. Italy has taken strong actions to reduce the CO2 emissions of their port infrastructure and increase their ports' usage of renewable energy sources. Italy has taken strong action by investing EUR200 million in renewable deployment on 19 of their islands. Additionally, Italy has taken strong action to accelerate zero emissions deployment by pledging EUR50 million and EUR 110 million towards hydrogen research, development and deployment, as well as weak actions by pledging to develop hydrogen supply chains, build charging infrastructure and fuel transportation infrastructure with zero emissions fuels. Lastly, Italy has taken weak action to accelerate the implementation of renewable energy by pledging to invest in developing small scale energy distribution systems for renewable energy.

Thus, Italy receives a score of 0.

Analyst: Emilio Ortelli

Japan: +1

Japan has fully complied with its commitment to accelerate renewable energy deployment and accelerate other zero emissions energy deployment.

On 18 June 2021, the Ministry of Economy, Trade and Industry (METI), along with related ministries and agencies, updated the Green Growth Strategy Through Achieving Carbon Neutrality in 2050.[1953] METI added policy measures, taking into consideration how carbon neutrality could improve people's lives, and addressed how to implement renewable and zero emissions tech to contribute to decarbonization goals.[1954]

[1950] PNRR, MiTE: 110 million agreement with ENEA for hydrogen research, Ministry of Ecological Transition (Rome) 11 February 2022. Translation provided by Google Translate. Access Date: 21 March 2022. https://www.mite.gov.it/comunicati/pnrr-mite-accordo-da-110-milioni-con-enea-ricerche-sull-idrogeno

[1951] PNRR. MiTE, published tenders for 50 million hydrogen funds, Ministry of Ecological Transition (Rome) 23 March 2022. Translation provided by Analyst. Access Date: 25 April 2022. https://www.mite.gov.it/comunicati/pnrr-mite-pubblicati-i-bandi-50-milioni-di-fondi-l-idrogeno

[1952] PM Draghi meets with the press in Washington, Italian Government Presidency of the Council Ministers (Rome) 11 May 2022. Access Date: 11 June 2022. https://www.governo.it/en/articolo/pm-draghi-meets-press-washington/19829

[1953] "Green Growth Strategy Through Achieving Carbon Neutrality in 2050" Formulated, Ministry of Eonomy, Trade and Industry (Tokyo) 18 June 2021. Access Date: 21 November 2021. https://www.meti.go.jp/english/press/2021/0618_002.html

[1954] METI Issues New Green Growth Strategy Through Achieving Carbon Neutrality, Japan Atomic Industrial Forum (Tokyo) 24 June 2021. Access Date: 21 November 2021. https://www.jaif.or.jp/en/meti-issues-new-green-growth-strategy-through-achieving-carbon-neutrality/

On 21 June 2021, Minister of Economy, Trade and Industry Hiroshi Kajiyama pledged to offer USD10 billion to 10 Southeastern Asian countries for developing renewable and liquefied natural gas projects.[1955] As part of this initiative, called Asian Energy Transition, Minister Kajiyama proposed that Japan could help countries in the region to design their roadmaps for reaching carbon neutrality, as well as sharing technological developments and deployment support.

On 22 June 2021, Minister Kajiyama announced the launch of the Asia Carbon Capture, Utilization and Storage (CCUS) Network, a new platform that aims at promoting overseas projects, and sharing knowledge and best practices for using CCUS technologies.[1956] The CCUS Network regroups all members of the Association of Southeast Asian Nations, Japan, the United States and Australia, and over 100 companies, research, and international organizations.

On 15 July 2021, the New Energy and Industrial Technology Development Organization started 14 R&D projects for geothermal power generation.[1957] The projects are grouped under three items: the evaluation of Japanese domestic geothermal resources, the development of exploration technologies for supercritical resources and the development of geothermal power generation technologies.

On 20 July 2021, Japanese government's Independent Administrative Institution Japan Oil, Gas and Metals National Corporation, Woodside Energy, Marubeni Corp., Hokuriku Electric Power Company, and Kansai Electric Power company signed a joint research agreement for conducting a feasibility study regarding the development of a clean ammonia supply chain from Australia to Japan.[1958] This agreement comes a few days after the 15 July 2021 Japan-Australia Ministerial Economic Dialogue, in which both countries renewed their will to collaborate on CCUS, clean hydrogen and clean ammonia.[1959]

On 26 July 2021, METI revised the roadmap for carbon recycling technologies.[1960] The revision considers the significant progress made in the areas covered by the roadmap, as well as the 2050 carbon neutrality objective. Compared to the original roadmap published in 2019, the revision integrates new technologies such as direct air capture and synthetic fuels, brings forward the beginning of widespread adoption of carbon recycling products to 2040, and adds efforts regarding international cooperation.

On 26 August 2021, the New Energy and Industrial Technology Development Organization announced the launch of research projects on 11 themes related to hydrogen, as part of the Green Innovation Fund

[1955] Japan proposes $10 bil in finance for ASEAN renewables, LNG to aid energy transition, S&P Global (New York City) 21 June 2021. Access Date: 21 November 2021. https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/062121-japan-proposes-10-bil-in-finance-for-asean-renewables-lng-to-aid-energy-transition

[1956] "Asia CCUS Network" has launched, Ministry of Economy, Trade and Industry (Tokyo) 22 June 2021. Access Date: 21 November 2021. https://www.meti.go.jp/english/press/2021/0622_001.html

[1957] Started research and development to expand the introduction of geothermal power generation, National Research and Development Corporation (Tokyo) 15 July 2022. Translation provided by Google Translate. Access Date: 21 November 2022. https://www.nedo.go.jp/news/press/AA5_101460.html

[1958] Feasibility Study on Establishing a Clean Fuel Ammonia Supply Chain from Australia to Japan, Japan Oil, Gas and Metals National Corporation (Tokyo) 20 July 2021. Access Date: 21 November 2021. https://www.jogmec.go.jp/english/news/release/news_15_000001_00022.html

[1959] Japan-Australia Ministerial Economic Dialogue, Ministry of Economy, Trade and Industry (Tokyo) 15 July 2021. Access Date: 21 November 2021. https://www.meti.go.jp/press/2021/07/20210715008/20210715008-1.pdf

[1960] Roadmap for carbon recycling technologies revised, Ministry of Economy, Trade and Industry (Tokyo) 26 July 2021. Access Date: 21 November 2021. https://www.meti.go.jp/english/press/2021/0726_003.html

Project.[1961] The projects funded focus on the building of a large-scale hydrogen supply chain and the development of green hydrogen production projects.[1962]

On 1 September 2021, during the visit of John Kerry, United States Special Presidential Envoy for Climate, to Japan, both countries issued a joint statement to express their intention to further cooperate on innovation on areas such as renewable energy, energy storage, smart grid, energy efficiency, low carbon hydrogen, carbon capture, utilization, storage and recycling of carbon, industrial decarbonization and advanced nuclear power.[1963] The two sides agreed on the importance of cooperating with developing countries for supporting their emission reduction efforts.[1964]

On 8 September 2021, METI signed a memorandum of cooperation with Gazprom regarding hydrogen, ammonia, carbon capture and storage, carbon utilization and recycling.[1965] In addition, the two countries' governments are working on a science and technology cooperation program from 2021 to 2023, focused on private partnerships for hydrogen projects.

On 14 September 2021, METI formulated an R&D and Social Implementation Plan for hydrogen use in steelmaking processes.[1966] The plan aims at developing hydrogen reduction technology using blast furnaces, and direct hydrogen reduction technology through joint public and private research and development. The strategy, implemented with the support of the New Energy and Industrial Technology Development Organization, strives at lowering the emission of the carbon-intensive steel industry.

On 16 September 2021, during the Eastern Economic Forum, METI signed a Memorandum of Cooperation with Russian company Rosneft regarding carbon management.[1967] The Ministry and Rosneft will continue their cooperation in order to bring Rosneft and Japanese companies to build less carbonized projects, and promote synergies in technologies like hydrogen, ammonia, carbon capture, storage and utilization.[1968]

On 1 October 2021, the New Energy and Industrial Technology Development Organization started a call for applicants for two projects: cost reductions for offshore wind power generation and next-generation solar cell development.[1969] Both projects will be implemented using the Green Innovation Fund established by the New Energy and Industrial Technology Development Organization.

[1961] Roadmap for Carbon Recycling Technologies Revised, Ministry of Economy, Trade and Industry (Tokyo) 26 August 2021. Translation provided by Google Translate. Access Date: 21 November 2022. https://www.nedo.go.jp/news/press/AA5_101471.html

[1962] Green Innovation Fund Project Starts Demonstration Research Project on Hydrogen as the First Projects, National Research and Development Coordination (Tokyo) 26 August 2021. Translation provided by Google Translate. Access Date: 21 November 2022. https://www.nedo.go.jp/news/press/AA5_101471.html

[1963] Japan-U.S. Joint Media Statement on the occasion of Special Presidential Envoy for Climate John Kerry's visit to Japan, Ministry of Foreign Affairs (Tokyo) 1 September 2021. Access Date: 21 November 2021. https://www.mofa.go.jp/press/release/press6e_000323.html

[1964] Meeting between Foreign Minister MOTEGI and The Honorable John F. Kerry, United States Special Presidential Envoy for Climate, Ministry of Foreign Affairs (Tokyo) 31 August 2021. Access Date: 21 November 2021. https://www.mofa.go.jp/press/release/press6e_000322.html

[1965] METI and Gazprom Sign a Memorandum of Cooperation on Hydrogen, Ammonia, CCS, and CCU/Carbon Recycling, Ministry of Economy, Trade and Industry (Tokyo) 8 September 2021. Access Date: 21 November 2021. https://www.meti.go.jp/english/press/2021/0908_001.html

[1966] An R&D and Social Implementation Plan for "Hydrogen Use in Steelmaking Processes" Projects Formulated, Ministry of Economy, Trade and Industry (Tokyo) 14 September 2021. Access Date: 21 November 2021. https://www.meti.go.jp/english/press/2021/0914_001.html

[1967] METI and Rosneft Sign a Memorandum of Cooperation on Carbon Management, Ministry of Economy, Trade and Industry (Tokyo) 17 September 2021. Access Date: 21 November 2021. https://www.meti.go.jp/english/press/2021/0917_004.html

[1968] Rosneft and Japan's METI to Develop Cooperation in Carbon Management, Rosneft (Moscow) 16 September 2021. Access Date: 21 November 2021. https://www.rosneft.com/press/releases/item/207793

[1969] Call Starts for Applicants for "Cost Reductions for Offshore Wind Power Generation" Projects, Ministry of Economy, Trade and Industry (Tokyo) 01 October 2021. Access Date: 21 November 2021. https://www.meti.go.jp/english/press/2021/1001_007.html

On 8-12 October 2021, METI launched the Beyond-Zero Week 2021 in Tokyo in which 17,000 participants attended the event's 8 conferences, where ministers and experts from various countries were invited to discuss challenges, paths and methods to accelerate the transition to global carbon neutrality.[1970]

On 22 October 2021, the Cabinet of Japan approved the Sixth Strategic Energy Plan after deliberations by the Advisory Committee for Natural Resources and Energy.[1971] In the strategy, the Government is aiming for 36 to 38 per cent of renewable energy capacity by the end of 2030 (up from 22 to 24 per cent in the previous plan), and a decrease of thermal power capacity to 41 per cent (down from 56 per cent in the previous plan).[1972] The contribution of nuclear energy is expected to increase to 20 to 22 per cent by 2030, the same value as in the previous strategy.

On 28 October 2021, State Minister of Economy, Trade and Industry Ishii Masahiro attended the 22nd Council of the International Renewable Energy Agency in Abu Dhabi as chair.[1973] Minister Ishii stated that Japan will continue its efforts toward maximal introduction of renewable energy.

On 2 November 2021, Prime Minister Fumio Kishida declared as part of the COP26 that Japan will commit USD10 billion for developing countries over the next five years.[1974] Prime Minister Kishida mentioned that Japan will spend USD100 million for the adaptation of thermal power plants to carbon-free fuels such as ammonia and hydrogen.[1975]

On 25 November 2021, METI and Vietnam's Ministry of Industry and Trade signed the Joint Statement for Cooperation on Energy Transition to Carbon Neutrality.[1976] Both parties committed to support Japanese private investments for clean energy projects, financial and technical supports for low-carbon energies and assistance for formulating Vietnam's energy transition roadmaps.

On 11 December 2021, the New Energy and Industrial Technology Development Organization issued updated guidelines for photovoltaic capacities.[1977] The directions, made to ensure the sustainability of new installations, focuses on agrivoltaics, on slope and floating solar panels.

On 28 December 2021, the New Energy and Industrial Technology Development Organization announced its support for R&D on solar cells through the Green Innovation Fund Project.[1978] The program includes two

[1970] Results of Tokyo "Beyong-Zero" Week 2021, Ministry of Economy, Trade and Industry (Tokyo) 20 October 2021. Access Date: 21 November 2021. https://www.mofa.go.jp/files/100256813.pdf

[1971] Cabinet Decision on the Sixth Strategic Energy Plan, Ministry of Economy, Trade and Industry (Tokyo) 22 October 2021. Access Date: 21 November 2021. https://www.meti.go.jp/english/press/2021/1022_002.html

[1972] Japan Govt Approves Its Sixth Strategic Energy Plan, Seeks To Increase Renewables, Republicworld.com (Delhi) 22 October 2021. Access Date: 21 November 2021. https://www.republicworld.com/world-news/rest-of-the-world-news/japan-govt-approves-its-sixth-strategic-energy-plan-seeks-to-increase-renewables.html

[1973] State Minister Ishii Attends the 22nd Council of the International Renewable Energy Agency (IRENA), Ministry of Economy, Trade and Industry (Tokyo) 28 October 2021. Access Date: 21 November 2021. https://www.meti.go.jp/english/press/2021/1028_001.html

[1974] Japan's Kishida Pledges Up to $10 Billion in New Climate Finance, Bloomberg (New York) 2 November 2021. Access Date: 21 November 2021. https://www.bloomberg.com/news/articles/2021-11-02/japan-s-kishida-pledges-up-to-10-billion-in-new-climate-finance

[1975] Japan pledges extra $10 billion to bridge climate financing gap at COP26, HIS Markit (London) 2 November 2021. Access Date: 21 November 2021. https://ihsmarkit.com/research-analysis/japan-pledges-extra-10-billion-to-bridge-climate-finance-gap-a.html

[1976] Joint Statement between the Ministry of Trade, Economy and Industry of Japan and the Ministry of Industry and Trade of Viet Nam for Cooperation on Energy Transition to carbon neutrality, Ministry of Economy, Trade and Industry (Tokyo) 25 November 2021. Access Date: 2 January 2022. https://www.meti.go.jp/press/2021/11/20211125005/20211125005-1.pdf

[1977] Regarding the provisions of the 2021 version of the technical standards for the design and construction of solar power generation systems installed on slopes, farming, and water., Ministry of Economy, Trade and Industry (Tokyo) 20 December 2021. Translation provided by Google Translate. Access Date: 15 January 2022. https://www.meti.go.jp/policy/safety_security/industrial_safety/oshirase/2021/12/20211220-1.html

[1978] Started development of next-generation solar cells in the Green Innovation Fund Project, National Research and Development Corporation (Tokyo) 28 December 2021. Translation provided by Google Translate. Access Date: 15 January 2022. https://www.nedo.go.jp/news/press/AA5_101501.html

items: the development of infrastructures for R&D projects on next-generation solar cell, and the improvement of photovoltaic technologies application scalability.

On 7 January 2022, the New Energy and Industrial Technology Development Organization announced the Fuel Ammonia Supply Chain Construction Project.[1979] With a budget of USD524 million, the project aims at developing green ammonia production technologies, and supporting projects for ammonia use in thermal power plants. It targets a production cost in "the high JPY10 range per Nm^3" by 2030.

On 20 January 2022, the METI released an R&D and social plan for the development of technologies for producing fuel using carbon dioxide, funded by the Green Innovation Fund.[1980] The project will strive to develop technologies for production and use of decarbonized fuels, such as synthetic fuel, sustainable aviation fuel, synthetic methane and carbon zero-LPG.

On 4 February 2022, the METI published a sectoral roadmap aimed at promoting sustainable finance for decarbonizing the fields of electricity, gas and oil.[1981] Devised in collaboration with the Ministry of the Environment and the Financial Services Agency, the roadmap is built on the Basic Guidelines for Climate Transition Finance published in May 2021.

On 1 March 2022, the Cabinet approved a bill revising the Act on Rationalization of Energy Use.[1982] The amendment will, among other changes, require industries to prepare medium to long-term strategies for transitioning to non-fossil energies, classify hydrogen and ammonia as non-fossil energy sources, and mandate the Japan Oil, Gas and Metals National Corporation to conduct geological surveys for offshore wind power generation.

On 4 March 2022, the Cabinet revised the High-Pressure Gas Safety Act, Gas Business Act and the Electricity Business Act.[1983] The revisions aim at promoting industrial safety by amending existing procedures, modifying the administrative status of small-scale solar and wind power infrastructure to strengthen their resiliency and allowing private experts to establish the technical conformity of wind power infrastructure.

On 23 May 2022, Japan and the United States committed to cooperate and "increase climate ambition, including through decarbonization and clean energy" and to further their own individual domestic and international efforts to aid in the combatting of climate change.[1984]

Japan has committed both domestically and internationally, through signing joint partnerships with other G7 and non-G7 members, allocating funds internationally accelerating the deployment of renewables and net zero energy. Japan has committed to allocate funding in order to help other non-G7 members in Southeastern Asia. Japan has also signed multiple agreements with other nations as part of its commitment toward accelerating renewable energy deployments and other net zero emission deployments.

[1979] Started the Green Innovation Fund project "Building a supply chain for fuel ammonia," National Research and Development Corporation (Tokyo) 7 January 2022. Translation provided by Google Translate. Access Date: 15 January 2022. https://www.nedo.go.jp/news/press/AA5_101502.html

[1980] R&D and Social Implementation Plan Formulated for "Development of Technology for Producing Fuel Using CO2, etc." Projects, Ministry of Economy, Trade and Industry (Tokyo) 20 January 2022. Access Date : 20 March 2022. https://www.meti.go.jp/english/press/2022/0120_005.html

[1981] A roadmap for transition finance in the electricity, gas and oil sectors has been compiled for the transition to decarbonization, Ministry of Economy, Trade and Industry (Tokyo) 4 February 2022. Translation provided by Google Translate. Access Date: 20 March 2022. https://www.meti.go.jp/press/2021/02/20220204001/20220204001.html

[1982] "A Bill to partially revise the Act on Rationalization of Energy Use to Establish a Stable Energy Supply and Demand Structure" was approved by the Cabinet, Ministry of Economy, Trade and Industry (Tokyo) 1 March 2022. Translation provided by Google Translate. Access Date: 20 March 2022. https://www.meti.go.jp/press/2021/03/20220301002/20220301002.html

[1983] Cabinet Decision on the Bill for Partial Revision of the High-Pressure Gas Safety Act, etc., Ministry of Economy, Trade and Industry (Tokyo) 4 March 2022. Access Date: 25 April 2022. https://www.meti.go.jp/english/press/2022/0304_001.html

[1984] U.S. - Japan Climate Partnership, The White House (Washington D.C.) 23 May 2022. Access Date: 8 June 2022. https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/23/u-s-japan-climate-partnership-fact-sheet/

Thus, Japan receives a score of +1.

Analyst: Thomas Houlie

United Kingdom: +1

The United Kingdom has fully complied with its commitment to accelerate renewable energy deployment and accelerate other zero emissions energy deployment.

On 25 August 2021, the Department for Business, Energy, and Industrial Strategy awarded a collective GBP4 million to 24 projects designed to increase production of biomass in the UK.[1985] This biomass can then be used to facilitate green production and create green energy.[1986]

On 7 October 2021, the Department for Business, Energy and Industrial Strategy unveiled plans to decarbonize the UK power system by 2035.[1987] The UK is planning to deploy offshore wind, hydrogen, solar, nuclear and onshore wind energy generation as well as carbon capture and storage. This plan accelerates the UK government's commitment to a fully decarbonized power system by 2050.

On 26 October 2021, the Department for Business, Energy and Industrial Strategy deployed the Nuclear Energy (Financing) Bill, a new funding model to attract increased amounts of private investment for new nuclear power projects.[1988] Under this new funding model, consumers contribute to funding in the construction phase of a nuclear power project to give private investors certainty of returns on investment in new nuclear power projects. This new model will also reduce the UK's reliance on foreign developers for funding nuclear power projects.

On 24 November 2021, the UK Government announced that it will invest GBP20 million per year into tidal power generation.[1989] This is part of the fourth allocation round of the UK Government's Contracts for Difference (CfD) Scheme intended to help the Tidal Stream projects increase its ability to develop technology and reduce costs. This will bring funding for the 2021 Contracts for Difference Scheme allocation round to GBP285 million.

On 24 November 2021, the UK Government allocated GBP11 million in cash boosts to four projects aimed at helping distilleries pivot away from using fossil fuels during production.[1990] Hydrogen and biogas will replace fossil fuels as part of the UK Government's goals of ending contributions to climate change by 2050. This pivot may reduce the distilleries sector's carbon emissions by half a million tonnes annually.

On 7 December 2021, the UK Government invested GBP116 million towards zero emissions and renewable energy innovation in the UK, including for the development of technologies to absorb carbon dioxide emissions, replace diesel engines in boats with hydrogen power and research into green technologies for

[1985] £4 million funding to boost UK biomass production, Department for Business, Energy and Industrial Strategy (London) 25 August 2021. Access Date: 8 January 2022. https://www.gov.uk/government/news/4-million-funding-to-boost-uk-biomass-production
[1986] £4 million funding to boost UK biomass production, Department for Business, Energy and Industrial Strategy (London) 25 August 2021. Access Date: 8 January 2022. https://www.gov.uk/government/news/4-million-funding-to-boost-uk-biomass-production
[1987] Plans unveiled to decarbonise the UK power system by 2035, Department for Business, Energy & Industrial Strategy (London) 7 October 2021. Access date: 26 November 2021. https://www.gov.uk/government/news/plans-unveiled-to-decarbonise-uk-power-system-by-2035
[1988] New finance model to cut cost of new nuclear power stations, Department for Business, Energy & Industrial Strategy (London) 26 October 2021. Access Date: 26 November 2021. https://www.gov.uk/government/news/new-finance-model-to-cut-cost-of-new-nuclear-power-stations
[1989] UK government announces biggest investment into Britain's tidal power, Department for Business, Energy & Industrial Strategy (London) 24 November 2021. Access Date: 26 November 2021. https://www.gov.uk/government/news/uk-government-announces-biggest-investment-into-britains-tidal-power
[1990] Funding helps UK distilleries fuel a greener future, Department for Business, Energy & Industrial Strategy (London) 24 November 2021. Access Date: 26 November 2021. https://www.gov.uk/government/news/funding-helps-uk-distilleries-fuel-a-greener-future

powering homes.[1991] The funding also directly supports research to improve carbon capture technology and businesses may bid for a share of the GBP64 million in funding from the Direct Air Capture and Greenhouse Gas Removal program.

On 20 December 2021, the UK Government commenced a consultation on a proposed oil and gas climate checkpoint requiring future oil and gas licenses to pass a climate screening which ensures that the license complies with the UK's commitment to net zero emissions by 2050.[1992] This measure aims to assist the UK's oil and gas sector to shift to net zero emissions.

On 20 December 2021, the UK Government announced that it will invest GBP26 million into the Biomass Feedstocks Innovation Programme to boost sustainable biomass production for power generation.[1993] Biomass innovators from across the UK can bid to receive portions of this funding to support increased production of sustainable biomass in the UK.

On 29 December 2021, the UK Government announced a cash boost of GBP19 million for the expansion of green energy powered heating networks.[1994] This action will increase the use of renewable and other zero emission energy in the heating of homes and public buildings.

On 27 January 2022, the UK Government announced a GBP100 million investment to build a new nuclear power plant in Suffolk.[1995] This action will power the equivalent of 6 million homes using zero emissions energy, thus accelerating the use of zero emissions energy.

On 9 February 2022, the UK Government announced that CfD auctions will be held annually to accelerate the adoption of low-cost renewable power.[1996] This action will accelerate the adoption for renewable energy by increasing the frequency of CfD from biannual to annual auctions in order to leverage GBP90 billion of private investment by 2030.

On 23 February 2022, the UK Government announced that it awarded GBP6.7 million to support 24 UK projects developing renewable energy storage.[1997] This action will increase the UK's ability to store power from intermittent renewable energy sources like solar and wind power.

[1991] Government invests over £116 million to drive forward green innovation in the UK, Department for Business, Energy & Industrial Strategy (London) 7 December 2021. Access Date: 17 January 2022. https://www.gov.uk/government/news/government-invests-over-116-million-to-drive-forward-green-innovation-in-the-uk

[1992] UK government seeks views on new oil and gas climate checkpoint, Department for Business, Energy & Industrial Strategy (London) 20 December 2021. Access Date: 17 January 2022. https://www.gov.uk/government/news/uk-government-seeks-views-on-new-oil-and-gas-climate-checkpoint

[1993] £26 million government funding to boost biomass in UK, Department for Business, Energy & Industrial Strategy (London) 20 November 2021. Access Date: 17 January 2022. https://www.gov.uk/government/news/26-million-government-funding-to-boost-biomass-in-uk

[1994] UK government announces major expansion of heat networks in latest step to power homes with green energy, Department for Business, Energy & Industrial Strategy (London) 29 December 2021. Access Date: 17 January 2022. https://www.gov.uk/government/news/uk-government-announces-major-expansion-of-heat-networks-in-latest-step-to-power-homes-with-green-energy

[1995] Government readies Sizewell C nuclear project for future investment, Department of Business, Energy & Industrial Strategy (London) 27 January 2022. Access Date: 21 March 2022. https://www.gov.uk/government/news/government-readies-sizewell-c-nuclear-project-for-future-investment

[1996] Government hits accelerator on low-cost renewable power, Department of Business, Energy and Industrial Strategy (London) 9 February 2022. Access Date: 21 March 2022. https://www.gov.uk/government/news/government-hits-accelerator-on-low-cost-renewable-power

[1997] Government boost for new renewable energy storage technologies, Department of Business, Energy & Industrial Strategy (London) 23 February 2022. Access Date: 21 March 2022. https://www.gov.uk/government/news/government-boost-for-new-renewable-energy-storage-technologies

On 4 March 2022, the UK Government announced the launch of the Green Heat Network Fund with GBP288 million in funding towards projects implementing zero emissions and renewable methods of heating in UK businesses and homes.[1998] This funding scheme will encourage low carbon technologies like heat pumps and projects that meet the criteria can apply for funding through till 2025. This action will increase the implementation of zero emissions and renewable energy in the UK.

On 6 April 2022, Prime Minister Boris Johnson announced the British Energy Security Strategy, which will accelerate clean energy deployment and "could see 95 [per cent] of Great Britain's electricity set to be low carbon by 2030."[1999] This new Strategy will include a faster expansion of nuclear, wind, solar, hydrogen energy production and the creation of 480,000 new jobs in clean industries by 2030. Furthermore, this new Strategy includes delivering at least one nuclear reactor annually instead of one per decade.

On 24 May 2022, the Government of the United Kingdom announced an amount of GBP12 million towards funding for research and development of net zero emission maritime technologies.[2000]

The United Kingdom has fully complied with its commitment to accelerate renewable and other zero emissions energy deployment. The United Kingdom has taken strong action to accelerate domestic renewable energy deployment by funding tidal energy infrastructure, planning to decarbonize power generation by 2035 using renewables, heavily investing in green energy, heavily investing in renewable energy and investing in innovation in sustainable biomass production. The United Kingdom has taken strong action to accelerate implementation and production of domestic zero emissions energy by expanding green energy powered heating networks and investing GBP116 million in zero emissions energy innovation. Additionally, the United Kingdom took actions to deploy and produce other zero emissions energy by implementing a new financing model to increase private sector investment in nuclear energy, and by investing GBP11 million into decarbonizing the distillery industry.

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

Analysts: Emilio Ortelli and Aida Zarghami

United States: +1

The United States has fully complied with its commitment to accelerate renewable energy deployment and accelerate other zero emissions energy deployment.

On 24 June 2021, Secretary of Energy Jennifer M. Granholm and Canadian Minister of Natural Resources Seamus O'Regan released the North American Renewable Integration Study.[2001] The study "assesses opportunities to modernize and decarbonize the North American power system through the integrated planning and operation of generation and transmission infrastructures to meet end-use demand."[2002]

[1998] £288 million fund opens for green heating projects, Department of Business, Energy & Industrial Strategy (London) 4 March 2022. Access Date: 21 March 2022. https://www.gov.uk/government/news/288-million-fund-opens-for-green-heating-projects
[1999] Major acceleration of homegrown power in Britain's plan for greater energy independence, Prime Minister's Office 10 Downing Street (London) 6 April 2022. Access Date: 9 May 2022. https://www.gov.uk/government/news/major-acceleration-of-homegrown-power-in-britains-plan-for-greater-energy-independence
[2000] Voyage to net zero in maritime underway as UK confirms £12 million for zero emission technologies, Government of United Kingdom Department of Transport (London) 24 May 2022. Access Date: 11 June 2022. https://www.gov.uk/government/news/voyage-to-net-zero-in-maritime-underway-as-uk-confirms-12-million-for-zero-emission-technologies
[2001] U.S. Secretary of Energy Granholm, Canadian Minister of Natural Resources O'Regan Launch Cooperative Agreement on Clean Energy, Innovation, and Energy Justice, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 24 June 2021. Access Date: 27 November 2021. https://www.energy.gov/eere/articles/us-secretary-energy-granholm-canadian-minister-natural-resources-oregan-launch
[2002] The North American Renewable Integration Study, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 24 June 2021. Access Date: 27 November 2021. https://www.energy.gov/eere/articles/north-american-renewable-integration-study

On 7 July 2021, the Department of Energy (DOE) announced "USD52.5 million to fund 31 projects to advance next-generation clean hydrogen technologies and support the Hydrogen Energy Earthshot initiative."[2003] This funding aims to reduce the cost and accelerate breakthroughs in the clean hydrogen sector, a form of renewable energy, that can have a major role in tackling the climate crisis.

On 9 July 2021, the DOE announced "the selection of four projects to receive up to USD3.5 million to apply machine learning techniques to geothermal exploration and production datasets."[2004] This funding could assist in the development of new geothermal resources that could lead to higher success rates in exploratory drilling, greater efficiency in plant operations and lower costs for geothermal energy operators.

On 13 July 2021, the National Renewable Energy Laboratory published its 2021 U.S. Geothermal Power Production and District Heating Market Report.[2005] This report identifies opportunities for expanding power production through enhanced geothermal systems technology development. The report evaluates the impact of current policy as well as presenting future opportunities for the domestic geothermal industry.

On 20 July 2021, the DOE awarded USD127 million to support 110 innovative projects focused on tackling the climate crisis.[2006] The funding among American small businesses and entrepreneurs will power the clean energy revolution by supporting the research and development of innovative clean energy technologies.

On 3 August 2021, the DOE announced nearly USD34 million in funding for 11 projects for the development to improve and produce biofuels, biopower, and bioproducts.[2007] The funding for biofuel research and development can promote renewable energy and contribute to the decarbonization of the transportation sector.

On 3 August 2021, the DOE selected eight small businesses to develop wind technology under the 2021 Competitiveness Improvement Project.[2008] The project is to help advance wind energy as a cost-effective, reliable and compatible distributed energy resource.

On 11 August 2021, the DOE announced USD45 million for projects that will help integrate clean energy sources onto the power grid.[2009] The funding will advance the domestic manufacturing of solar energy and electric grid technologies.

On 1 September 2021, during the visit of John Kerry, Special Presidential Envoy for Climate, to Japan, both countries issued a joint statement to express their intention to further cooperate on innovation on areas such

[2003] DOE Announces $52.5 Million to Accelerate Progress in Clean Hydrogen, United States Department of Energy (Washington D.C.) 7 July 2021. Access Date: 27 November 2021. https://www.energy.gov/articles/doe-announces-525-million-accelerate-progress-clean-hydrogen

[2004] Department of Energy Selects Four Projects to Receive up to $3.5 Million to Advance Research in Machine Learning for Geothermal Energy, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 9 July 2021. Access Date: 27 November 2021. https://www.energy.gov/eere/articles/department-energy-selects-four-projects-receive-35-million-advance-research-machine

[2005] NREL 2021 U.S. Geothermal Market Report Released, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 13 July 2021. Access Date: 27 November 2021. https://www.energy.gov/eere/articles/nrel-2021-us-geothermal-market-report-released

[2006] Department of Energy Awards $127 Million to Bring Innovative Clean Energy Technologies to Market, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 20 July 2021. Access Date: 27 November 2021. https://www.energy.gov/eere/articles/department-energy-awards-127-million-bring-innovative-clean-energy-technologies

[2007] DOE Announces Nearly $34 Million to Advance Waste and Algae Bioenergy Technology, United States Department of Energy (Washington D.C.) 3 August 2021. Access Date: 27 November 2021. https://www.energy.gov/articles/doe-announces-nearly-34-million-advance-waste-and-algae-bioenergy-technology

[2008] Small Businesses Selected To Help Advance Wind Energy as a Distributed Energy Resource, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 3 August 2021. Access Date: 27 November 2021. https://www.energy.gov/eere/articles/small-businesses-selected-help-advance-wind-energy-distributed-energy-resource

[2009] DOE Awards $45 Million to Advance Solar Manufacturing and Grid Technologies, United States Department of Energy (Washington D.C.) 11 August 2021. Access Date: 27 November 2021. https://www.energy.gov/articles/doe-awards-45-million-advance-solar-manufacturing-and-grid-technologies

as renewable energy, energy storage, smart grid, energy efficiency, low carbon hydrogen, carbon capture, utilization, storage and recycling of carbon, industrial decarbonization and advanced nuclear power.[2010] The two sides agreed on the importance of cooperating with developing countries for supporting their emission reduction efforts.[2011]

On 8 September 2021, the DOE released the Solar Futures Study.[2012] The study details the importance of solar energy in decarbonizing the nation's power grid; the findings call for massive and equitable deployment of clean energy sources.

On 9 September 2021, the DOE "announced USD64.7 million in funding for projects focused on producing cost-effective, low-carbon biofuels."[2013] The funding will help advance technologies to create replacements for petroleum fuels used in heavy-duty forms of transportation.

On 23 September 2021, the DOE announced "USD17.9 million in funding for four research and development projects to scale up American manufacturing of flow battery and long-duration storage systems."[2014] This funding along with the new USD9 million effort for the Energy Storage Social Equity Initiative will provide materials needed to expand the power grid with new, clean energy sources.

On 30 September 2021, the DOE announced a "USD8.5 million funding opportunity to improve the operational flexibility of the U.S. hydropower fleet."[2015] DOE's Water Power Technologies Office will fund awards to advance hydropower technologies to enhance grid reliability. Funding will increase hydropower's ability to operate flexibly and support intermittent energy sources.

On 7 October 2021, the DOE announced USD20 million in funding to produce clean hydrogen energy from nuclear power.[2016] The approach will allow clean hydrogen to serve as a source for zero-carbon electricity.

On 8 October 2021, the DOE announced a new National Community Solar Partnership target to enable community solar systems to power five million households by 2025.[2017] Reaching this milestone will help achieve the Biden-Harris Administration's goals of achieving 100% clean electricity by 2035.

On 15 October 2021, the DOE announced USD20 million in funding for four projects to work on accelerating the regional deployment of carbon capture, utilization and storage.[2018] This initiative is designed

[2010] Japan-U.S. Joint Media Statement on the occasion of Special Presidential Envoy for Climate John Kerry's visit to Japan, Ministry of Foreign Affairs (Tokyo) 1 September 2021. Access Date: 21 November 2021. https://www.mofa.go.jp/press/release/press6e_000323.html

[2011] Meeting between Foreign Minister MOTEGI and The Honorable John F. Kerry, United States Special Presidential Envoy for Climate, Ministry of Foreign Affairs (Tokyo) 31 August 2021. Access Date: 21 November 2021. https://www.mofa.go.jp/press/release/press6e_000322.html

[2012] DOE Releases Solar Futures Study Providing the Blueprint for a Zero-Carbon Grid, United States Department of Energy (Washington D.C.) 8 September 2021. Access Date: 27 November 2021. https://www.energy.gov/articles/doe-releases-solar-futures-study-providing-blueprint-zero-carbon-grid

[2013] DOE Announces Nearly $65 Million for Biofuels Research to Reduce Airplane and Ship Emissions, United States Department of Energy (Washington D.C.) 9 September 2021. Access Date: 27 November 2021. https://www.energy.gov/articles/doe-announces-nearly-65-million-biofuels-research-reduce-airplane-and-ship-emissions

[2014] DOE Invests $27 Million in Battery Storage Technology and to Increase Storage Access, United States Department of Energy (Washington D.C.)23 September 2021. Access Date: 27 November 2021. https://www.energy.gov/articles/doe-invests-27-million-battery-storage-technology-and-increase-storage-access

[2015] DOE Announces $8.5 Million to Increase Hydropower Flexibility, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 30 September 2021. Access Date: 27 November 2021. https://www.energy.gov/eere/articles/doe-announces-85-million-increase-hydropower-flexibility

[2016] DOE Announces $20 Million to Produce Clean Hydrogen From Nuclear Power, United States Department of Energy (Washington D.C.) 7 October 2021. Access Date: 27 November 2021. https://www.energy.gov/articles/doe-announces-20-million-produce-clean-hydrogen-nuclear-power

[2017] DOE Sets 2025 Community Solar Target to Power 5 Million Homes, United States Department of Energy (Washington D.C.) 8 October 2021. Access Date: 27 November 2021. https://www.energy.gov/articles/doe-sets-2025-community-solar-target-power-5-million-homes

to identify and address regional storage and transportation challenges as well as reducing carbon dioxide emissions from industrial sources.

On 18 October 2021, the DOE "announced USD105 million in funding for small businesses to pursue the deployment of clean energy technologies."[2019] The clean energy research and development will assist with carbon removal.

On 19 October 2021, the DOE awarded nearly USD40 million to 40 projects for advancing the next generation of solar, storage and industrial technologies.[2020] The projects will work towards reducing the cost of solar technologies and increasing the lifespan of solar panels.

On 2 November 2021, the DOE announced USD16 million in funding for national lab directed projects focused on hydropower's contributions to a decarbonized, reliable and resilient grid.[2021] The projects will enable the hydropower community to more accurately model future water availability, evaluate opportunities for adding hydropower to non-powered dams and to understand how to operate hydropower to mitigate wildfires' impacts to the power grid.

On 1 December 2021, the DOE announced "USD13 million in funding for 17 projects to implement energy and water efficiency, renewable energy and climate resilience technologies at federal facilities."[2022] This funding will promote the use of renewables as an efficient source of energy at federal buildings.

On 6 December 2021, the DOE released a Request for Information regarding technologies on carbon emission reduction and carbon removal.[2023] The request seeks information from industry, investors, developers, academia, research laboratories, government agencies, non-governmental organizations and other relevant communities on available and affordable decarbonization technologies for deployment.

On 8 December 2021, President Joe Biden signed an executive order on catalyzing the country's clean energy economy.[2024] The order will "reduce emissions across federal operations, invest in American clean energy industries and manufacturing, and create clean, healthy, and resilient communities."

On 21 December 2021, the DOE announced the establishment of the Office of Clean Energy Demonstrations.[2025] The new office will work towards supporting clean energy technology demonstration projects such as clean hydrogen, carbon capture and energy storage.

[2018] OE Awards $20 Million to Help States Deploy Carbon Capture and Storage, United States Department of Energy (Washington D.C.) 15 October 2021. Access Date: 27 November 2021. https://www.energy.gov/articles/doe-awards-20-million-help-states-deploy-carbon-capture-and-storage

[2019] DOE Announces $105 Million for Small Businesses to Invest in Clean Energy Research and Development, United States Department of Energy (Washington D.C.) 18 October 2021. Access Date: 27 November 2021. https://www.energy.gov/articles/doe-announces-105-million-small-businesses-invest-clean-energy-research-and-development

[2020] DOE Awards Nearly $40 Million for Grid Decarbonizing Solar Technologies, United States Department of Energy (Washington D.C.) 19 October 2021. Access Date: 27 November 2021. https://www.energy.gov/articles/doe-awards-nearly-40-million-grid-decarbonizing-solar-technologies

[2021] DOE Awards $16M for National Lab Projects Focused on Hydropower's Role in a Clean Energy Future, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 2 November 2021. Access Date: 27 November 2021. https://www.energy.gov/eere/articles/doe-awards-16m-national-lab-projects-focused-hydropowers-role-clean-energy-future

[2022] DOE Announces $13 Million For Energy Efficiency Technologies at Federal Buildings, United States Department of Energy (Washington D.C.) 1 December 2021. Access Date: 12 January 2022. https://www.energy.gov/articles/doe-announces-13-million-energy-efficiency-technologies-federal-buildings

[2023] DOE Seeks Information on Deployment-Ready Carbon Reduction and Removal Technologies, United States Department of Energy (Washington D.C.) 6 December 2021. Access Date: 12 January 2022. https://www.energy.gov/articles/doe-seeks-information-deployment-ready-carbon-reduction-and-removal-technologies

[2024] FACT SHEET: President Biden Signs Executive Order Catalyzing America's Clean Energy Economy Through Federal Sustainability, The White House (Washington D.C.) 8 December 2021. Access Date: 12 January 2022. https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/08/fact-sheet-president-biden-signs-executive-order-catalyzing-americas-clean-energy-economy-through-federal-sustainability/

On 6 January 2022, the DOE announced USD35 million in funding for small businesses pursuing clean energy and climate solutions.[2026] The aim of this funding is to support 158 projects to develop an array of clean energy technology.

On 12 January 2022, the DOE awarded USD8.4 million to four projects to establish new geothermal energy from abandoned oil and gas wells.[2027] The funding will assist in transforming oil wells into geothermal wells, accelerating the production of renewable energy.

On 13 January 2022, the DOE announced USD420 million for funding in clean energy technology advancement.[2028] The funding will assist in accelerating advances in clean energy research and work towards lowering carbon emissions.

On 25 January 2022, the DOE allocated USD25 million in funding to eight projects focused on testing or developing wave energy converters and researching environmental monitoring technologies for wave energy.[2029] The funding will strengthen wave energy technologies and accelerate clean energy deployment through the DOE's Water Power Technologies Office.

On 4 February 2022, the DOE allocated up to USD20 million for supporting projects focused on faster drilling technologies.[2030] This funding is aimed at reducing the cost of geothermal energy development and selected projects for drilling demonstrations should encourage outside investment into geothermal energy.

On 10 February 2022, the DOE's Bioenergy Technologies Office and the Office of Fossil Energy and Carbon Management's Carbon Utilization Program jointly announced up to USD19 million in funding for projects using waste carbon to lower greenhouse gas emissions and produce materials employable by biotechnologies.[2031] The funding will help utilize waste carbon by increasing the capability of algal systems, a form of biofuel.

On 11 February 2022, the DOE issued a Notice of Intent and Request for Information on the implementation of the Civil Nuclear Credit Program.[2032] This program is worth USD6 billion following the

[2025] DOE Establishes New Office of Clean Energy Demonstrations Under the Bipartisan Infrastructure Law, United States Department of Energy (Washington D.C.) 21 December 2021. Access Date: 12 January 2022. https://www.energy.gov/articles/doe-establishes-new-office-clean-energy-demonstrations-under-bipartisan-infrastructure-law
[2026] DOE Awards $35 Million to Small Businesses Pursuing Clean Energy and Climate Solutions, United States Department of Energy (Washington D.C.) 6 January 2022. Access Date: 12 January 2022. https://www.energy.gov/articles/doe-awards-35-million-small-businesses-pursuing-clean-energy-and-climate-solutions
[2027] DOE Awards $8.4 Million for Accessing Geothermal Potential from Abandoned Oil and Gas Wells, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 12 January 2022. Access Date: 12 January 2022. https://www.energy.gov/eere/articles/doe-awards-84-million-accessing-geothermal-potential-abandoned-oil-and-gas-wells
[2028] DOE Announces $420 Million to Advance Clean Energy Breakthroughs at Energy Research Centers Across America, United States Department of Energy (Washington D.C.) 13 January 2022. Access Date: 16 January 2022. https://www.energy.gov/articles/doe-announces-420-million-advance-clean-energy-breakthroughs-energy-research-centers
[2029] DOE Announces $25 Million for Cutting-Edge Wave Energy Research, United States Department of Energy (Washington D.C.) 25 January 2022. Access Date: 20 March 2022. https://www.energy.gov/articles/doe-announces-25-million-cutting-edge-wave-energy-research
[2030] DOE Announces $20 Million to Lower Costs of Geothermal Drilling, United States Department of Energy (Washington D.C.) 4 February 2022. Access Date: 20 March 2022. https://www.energy.gov/articles/doe-announces-20-million-lower-costs-geothermal-drilling
[2031] U.S. Department of Energy Announces $19 Million for Carbon Utilization Funding Opportunity, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 10 February 2022. Access Date: 20 March 2022. https://www.energy.gov/eere/articles/us-department-energy-announces-19-million-carbon-utilization-funding-opportunity
[2032] DOE Establishes $6 Billion Program to Preserve America's Clean Nuclear Energy Infrastructure, United States Department of Energy (Washington D.C.) 11 February 2022. Access Date: 20 March 2022. https://www.energy.gov/articles/doe-establishes-6-billion-program-preserve-americas-clean-nuclear-energy-infrastructure

Bipartisan Infrastructure Law and supports the continued operation of domestic nuclear reactors, which is the US' largest source of clean energy.

On 14 February 2022, the DOE allocated USD175 million in funding for 68 projects focused on strengthening American energy technologies.[2033] The technologies will cover electric vehicles, offshore wind, nuclear recycling, and more, ultimately assisting in the US Government's climate goals to increase domestic clean energy technology.

On 17 February 2022, the DOE allocated USD3.1 million in funding to the University Coal Research program and USD2.2 million in funding to the Historically Black Colleges and Universities and Other Minority Institutions program for environmental remediation and carbon capture, utilization and storage research.[2034] Additionally, the DOE has secured up to USD800,000 in additional funding for projects on emissions control in both programs. The two funding programs aim to support student training and research on clean energy innovation. The funding will support 20 student engineers and scientists on research projects related to clean energy to assist in the country's goal of net-zero emissions by 2050.

On 22 February 2022, the DOE issued USD150 million in open funding for research projects on "increasing efficiency and curbing carbon emissions from energy technologies and manufacturing."[2035] The goal of the funding is to improve clean energy technology within a decade including carbon capture and sequestration.

On 24 February 2022, the DOE announced the first plan to "ensure [energy] security and increase [American] energy independence."[2036] In response to President Biden's Executive Order 14017 on American Supply Chains, this report includes actions and strategies to build a secure and resilient domestic energy sector.

On 18 March 2022, the DOE introduced an action plan for the safe handling of photovoltaic end-of-life materials.[2037] The plan will assist in lowering the "end of life" environmental impact of solar energy while encouraging the deployment of solar energy and socially responsible supply chains.

On 21 March 2022, the DOE allocated almost USD9 million in funding for 13 American Indian and Alaska Native communities to assist with providing clean energy to balance the needs of rural underserved communities.[2038] The funding will go towards 14 projects focused on harnessing and enhancing undeveloped solar, hydro and geothermal energy resources and assist with ensuring energy security in these communities.

[2033] DOE Announces $175 Million for Novel Clean Energy Technology Projects, United States Department of Energy (Washington D.C.) 14 February 2022. Access Date: 20 March 2022. https://www.energy.gov/articles/doe-announces-175-million-novel-clean-energy-technology-projects

[2034] DOE Announces $6 Million Investment to Train the Next Generation of Clean Energy Innovators, United States Department of Energy (Washington D.C.) 17 February 2022. Access Date: 20 March 2022. https://www.energy.gov/articles/doe-announces-6-million-investment-train-next-generation-clean-energy-innovators

[2035] DOE Announces $150 Million to Reduce Climate Impacts of Energy Technologies and Manufacturing, United States Department of Energy (Washington D.C.) 22 February 2022. Access Date: 20 March 2022. https://www.energy.gov/articles/doe-announces-150-million-reduce-climate-impacts-energy-technologies-and-manufacturing

[2036] DOE Releases First-Ever Comprehensive Strategy to Secure America's Clean Energy Supply Chain, United States Department of Energy (Washington D.C.) 24 February 2022. Access Date: 20 March 2022. https://www.energy.gov/articles/doe-releases-first-ever-comprehensive-strategy-secure-americas-clean-energy-supply-chain

[2037] DOE Releases Action Plan For Photovoltaic Systems End-Of-Life Management, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 18 March 2022. Access Date: 20 March 2022. https://www.energy.gov/eere/articles/doe-releases-action-plan-photovoltaic-systems-end-life-management

[2038] DOE Awards $9 Million to Tribal Communities To Enhance Energy Security And Resilience, Department of Energy (Washington D.C.) 21 March 2022. Access Date: 24 April 2022. https://www.energy.gov/articles/doe-awards-9-million-tribal-communities-enhance-energy-security-and-resilience

On 22 March 2022, the DOE issued USD34.5 million in funding for projects converting waste streams, often found in underserved communities, into usable biofuels and bioproducts.[2039] The converted biofuels and bioproducts will be used to benefit the local energy economy and accelerate clean energy deployment.

On 29 March 2022, the DOE selected 23 communities for the new Communities Local Energy Action Program.[2040] This initiative will help communities create action plans on ways towards clean energy in the long term. For example, plans may focus on reducing air pollution, strengthening energy resilience or reducing utility costs and more.

On 6 April 2022, the DOE's Water Power Technologies Office announced the Hydropower Operations Optimization Prize of USD75,000, which will be rewarded to individuals developing innovative solutions in order to strengthen the country's hydropower usage.[2041]

On 14 April 2022, the DOE allocated USD3.2 million in funding to eight projects at seven Minority-Serving Institutions, focused on encouraging new researchers and promoting research on solar energy.[2042] The selected projects vary in solar energy technology research areas from photovoltaics to assuring a just clean energy transition.

On 19 April 2022, the DOE issued a Request for Information on Bipartisan Infrastructure Law investments in support of the Enhanced Geothermal Systems Pilot Demonstration Program worth USD84 million.[2043] The four selected projects will provide information as well as ways to grow geothermal energy across different sectors.

On 23 May 2022, the United States and Japan committed to cooperate and "increase climate ambition, including through decarbonization and clean energy" and to continue their own individual domestic efforts to aid in the combatting of climate change.[2044]

On 9 June 2022, President Biden committed to increasing investments in clean energy and "support for regional cooperation through the Renewable Energy in Latin America and the Caribbean (RELAC) initiative."[2045]

The United States has fully complied with its commitment to accelerate renewable and other zero emissions energy deployment. The United States has accelerated renewable energy deployment through supporting research and implementing renewable energies in sectors across the nation. The United States has also accelerated other zero emissions energy deployment through methods such as carbon capture and storage.

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

Analyst: Jane Hu

[2039] Department of Energy Announces $34.5 Million for Improved Bioenergy Resource Recovery and Conversion Systems, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 22 March 2022. Access Date: 24 April 2022. https://www.energy.gov/eere/articles/department-energy-announces-345-million-improved-bioenergy-resource-recovery-and
[2040] DOE Will Assist 23 Communities With Locally Tailored Pathways to Clean Energy, Department of Energy (Washington D.C.) 29 March 2022. Access Date: 24 April 2022. https://www.energy.gov/articles/doe-will-assist-23-communities-locally-tailored-pathways-clean-energy
[2041] DOE Prize Seeks to Maximize Hydropower's Ability to Support Grid Reliability and Resilience, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 6 April 2022. Access Date: 24 April 2022. https://www.energy.gov/eere/articles/doe-prize-seeks-maximize-hydropowers-ability-support-grid-reliability-and-resilience
[2042] Seven Minority-Serving Institutions Selected for Solar Research Funding through DOE Pilot Program, Office of Energy Efficiency & Renewable Energy (Washington D.C.) 14 April 2022. Access Date: 24 April 2022. https://www.energy.gov/eere/articles/seven-minority-serving-institutions-selected-solar-research-funding-through-doe-pilot
[2043] DOE Launches $84 Million Program to Demonstrate Enhanced Geothermal Energy Systems, Department of Energy (Washington D.C.) 19 April 2022. Access Date: 24 April 2022. https://www.energy.gov/articles/doe-launches-84-million-program-demonstrate-enhanced-geothermal-energy-systems
[2044] U.S. - Japan Climate Partnership, The White House (Washington D.C.) 23 May 2022. Access Date: 8 June 2022. https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/23/u-s-japan-climate-partnership-fact-sheet/
[2045] FACT SHEET: Tackling Climate Change and Creating Clean Energy Jobs in the Americas, The White House (Washington D.C.) 9 June 2022. Access Date: 11 June 2022. https://www.whitehouse.gov/briefing-room/statements-releases/2022/06/09/fact-sheet-tackling-climate-change-and-creating/

European Union: +1

The European Union fully complied with its commitment to accelerate renewable energy deployment and accelerate other zero emissions energy deployment.

In June 2021, the European Parliament adopted the European Climate Law so that member states' commitments to the European Green Deal of "climate neutrality by 2050" are "binding obligations."[2046] The adopted European Climate Law also increases the European Union's target for the reduction of greenhouse gas emissions by 2030 to at least 55 per cent. As of now, the European Union will have to accelerate renewable energy and zero-emissions energy deployment in order to achieve targets set on reduction of greenhouse gas emissions in the European Climate law.

On 14 July 2021, the European Commission presented a package of proposals titled "Fit for 55" as part of the European Green Deal.[2047] The European Union pledged to reduce carbon dioxide emissions from cars by at least 55 per cent and vans by 50 per cent by the year 2030, and it aims to reduce emissions from new cars by 100 per cent by the year 2035. The commission promotes the growth and investment for zero and low emission vehicles. This initiative promotes zero-emission transport, cleaner fuel use and investment in clean technology in the European Union.

On 14 July 2021, the European Commission proposed extended carbon pricing in the maritime sector.[2048] The Fuel EU initiative will set a maximum limit on greenhouse gas content of energy used by ships at European ports.[2049] This action increases sustainable maritime fuels and zero-emission technology. As part of "Fit for 55" the European Commission will make the increase in energy efficiency targets binding to achieve an overall reduction of 26-39 per cent of final and primary energy consumption by the year 2030. In addition, the renewable energy directive will increase the binding target of renewable sources to 40 per cent by the year 2030. Member states are required to expand their carbon sinks to achieve the new EU 'carbon removal by natural sinks' target, which is 310 million tonnes of carbon dioxide emissions by the year 2030. This requires member states to accelerate their use of renewable energy and the process of decarbonisation. The "Fit for 55," financed by the EU budget, will "provide EUR 72.2 billion over 7 years in funding for renovation of buildings, access to zero and low emission mobility or even income support."

On 14 July 2021, the "Fit for 55" introduced the Energy Taxation Directive proposes to 'align' the taxation of energy products with EU energy policies.[2050] This will promote clean technology and reduce taxation rates that encourage the use of fossil fuels.

On 26 October 2021, the second call for large project proposals for the Innovation Fund was launched.[2051] The Innovation Fund, a programme for innovative low-carbon technologies, has a budget of EUR 1.5 billion to "finance technologies for renewable energy, energy intensive industries, energy storage and carbon capture use and storage." With a revenue of EUR 25 billion until the year 2030, the Innovation Fund aims to give financial incentives to companies to invest in low-carbon technologies. The Innovation Fund, a development initiative, aims to accelerate the transition to zero emission energy technology by supporting research.

[2046] "EU 2030 Climate Package: Parliament to Assess Commission's Proposals" European Parliament (Strasbourg) 9 September 2021. Access Date: 22 November 2021 https://www.europarl.europa.eu/news/en/agenda/briefing/2021-09-13/9/eu-2030-climate-package-parliament-to-assess-commission-s-proposal s

[2047] European Green Deal: commission proposes transformation of EU economy and society to meet climate ambitions, European Commission (Brussels) 14 July 2021. Access Date: 22 November 2021. https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541

[2048] "Delivering the European Green Deal," European Commission (Brussels) 14 July 2021. Access Date: 22 November 2021. https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/delivering-european-green-deal_en

[2049] European Green Deal: commission proposes transformation of EU economy and society to meet climate ambitions, European Commission (Brussels) 14 July 2021. Access Date: 22 November 2021. https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541

[2050] "Delivering the European Green Deal," European Commission (Brussels) 2021. Access Date: 22 November 2021. https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/delivering-european-green-deal_en

[2051] "Boosting Europe's Green Transition: commission invests €1.5 billion in innovative Clean tech projects," European Commission (Brussels) 26 October 2021. Access Date: 22 November 2021. https://ec.europa.eu/commission/presscorner/detail/en/ip_21_5473

On 15 December 2021, the Commission of the European Union adopted a new framework to decarbonize the EU gas market by facilitating more renewable energy sources and low carbon gasses, including hydrogen.[2052] The European Union committed to decarbonize and reduce the greenhouse gas emissions by at least 55 per cent by 2030, and to become fully climate neutral by 2050.

On 16 December 2021, the European Commission announced a new methodology for renewable cooling energy sources that would count towards the overall European Union renewable energy targets.[2053]

On 10 January 2022, the European Investment Bank signed a loan agreement with the amount of EUR45 million with a Danish company named Haldor Topsøe to support research into innovative green hydrogen technologies that will lead to reduction of emissions.[2054]

On 11 February 2022, the European Commission announced a series of maritime initiatives that aim to increase the use of zero-emission technologies at the One Ocean Summit in Brest.[2055] The Alternative Fuels Infrastructure Regulation focuses on providing clean energy infrastructure at maritime ports by using zero-emission technologies while ships are docked and/or connecting to onshore power supply. The European Union has already invested EUR1.5 billion from the Connecting Europe Facility and Horizon Europe to support green maritime transport.

On 25 February 2022, the European Commission announced an investment package worth EUR3.2 billion to support 21 sustainability connectivity projects in the Western Balkans.[2056] The clean energy projects will use the financial aid to construct solar power plants and the Trans-Balkan Electricity Transmission Corridor. The package encourages the development of renewable energies, ensures a clean energy transition and decreases coal use in the Western Balkans.

On 8 March 2022, the European Commission proposed the REPowerEU program that outlines how to make Europe no longer dependent on Russian fossil fuels before the year 2030.[2057] The program aims to remove 155 billion cubic meters of fossil fuel gas use by accelerating renewable gas rollout and replacing gas in heating and power production. To achieve this aim, the REPowerEU program encourages the acceleration of renewable energy and other zero emission energy deployment across EU member states.

On 10 March 2022, the European Parliament voted to adopt the 8th General Union Environment Action Programme to accompany the European Green Deal.[2058] The European Union commits to phasing out all fossil fuel subsidies by the year 2030 to promote the acceleration of renewable energy deployment.

[2052] Commission proposes new EU framework to decarbonise gas market, promote hydrogen and reduce methane emissions, European Commission (Brussels) 15 December 2021. Access Date: 31 January 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_21_6682

[2053] European Commission adopts new methodologies rules for renewable cooling, European Commission (Brussels) 16 December 2021. Access Date: 31 January 2022. https://ec.europa.eu/info/news/european-commission-adopts-new-methodology-rules-renewable-cooling-2021-dec-16_en

[2054] Haldor Topsøe signs 45 million euros funding deal with European Investment Bank to drive green energy transition, European Commission (Brussels) 10 January 2022. Access Date: 31 January 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_281

[2055] One Ocean Summit: new steps strengthen EU leadership in protecting the Ocean, European Commission (Brest) 11 February 2022. Access Date: 18 March 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_843

[2056] European Commission launches €3.2 billion investment package to advance sustainable connectivity in the Western Balkans, European Commission (Brussels) 25 February 2022. Access Date: 18 March 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1362

[2057] REPowerEU: Joint European action for more affordable, secure and sustainable energy, European Commission (Strasbourg) 8 March 2022. Access Date: 18 March 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1511

[2058] European Parliament adopts EU's Environmental Action Programme to 2030, The Greens/EFA in the European Parliament (Strasbourg) 10 March 2022. Access Date: 21 March 2022. https://www.greens-efa.eu/en/article/press/european-parliament-adopts-eus-environmental-action-programme-to-2030

On 16 March 2022, the European Commission approved the Czechia's state aid scheme to partially compensate energy-intensive companies for indirect emission costs.[2059] The Czech scheme is worth EUR1.4 billion. The maximum aid will be equivalent to 75 per cent of the indirect emission costs. This scheme limits carbon leaking and encourages the acceleration of renewable energy.

On 25 March 2022, the European Commission, after releasing a positive preliminary assessment, granted EUR1.16 billion to Portugal under NextGenerationEU for their Recovery and Resilience plan.[2060] Portal will use the funding to encourage the acceleration of renewable energy including hydrogen and industrial decarbonisation, as well as reforms in forestry, the blue economy and bio-economy among other areas.

On 1 April 2022, the European Commission approved grants worth EUR1.1 million to seven large scale projects via the EU Innovation fund.[2061] These projects aim to massively reduce carbon dioxide emissions by introducing new low-carbon technologies in industries in various sectors including hydrogen, steel, chemicals, cement, solar energy, biofuels as well as carbon capture, use and storage. The EU Innovation Fund aims to accelerate decarbonisation and the transition to zero emission energy technology by supporting research projects.

On 8 April 2022, the European Commission approved Bulgaria's Recovery and Resilience Plan and will disburse EUR6.3 billion in grants.[2062] According to the European Commission's positive assessment, 59 per cent of the budget for Bulgaria's plan will be allocated toward achieving the European Union's climate objectives. Bulgaria's plan will accelerate the decarbonisation of the energy sector and the tripling of power generation from renewables by 2026.

On 18 May 2022, the European Commission committed to end the EU's dependence on Russian fossil fuels by emphasizing efforts to create and invest in more renewable energy sources.[2063]

The European Union has fully complied with its commitment to accelerate renewable and other zero emissions energy deployment. The European Union released an extensive proposal package with all intended steps and funds to decarbonise the European Union, promote zero emissions energy and renewable energy. The European Union has also allocated multiple fundings towards accelerating renewable energy deployments and other net zero emission deployments.

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

Analyst: Ambra Bisagni

[2059] State aid: Commission approves €1.4 billion Czech scheme to compensate energy-intensive companies for indirect emission costs, European Commission (Brussels) 16 March 2022. Access Date: 21 March 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1782

[2060] NextGenerationEU: European Commission endorses positive preliminary assessment of Portugal's request for €1.16 billion disbursement under the Recovery and Resilience Facility, European Commission (Brussels) 25 March 2022. Access Date: 25 April 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1965

[2061] Commission awards over €1.1 billion to innovative projects for the EU climate transition, European Commission (Brussels) 1 April 2022. Access Date: 25 April 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_2163

[2062] NextGenerationEU: European Commission endorses Bulgaria's recovery and resilience plan, European Commission (Brussels) 8 April 2022. Access Date: 25 April 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_2282

[2063] REPowerEU: a plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition, European Commission (Brussels) 18 May 2022. Access Date: 11 June 2022. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131