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2022 G20 Bali Summit Interim Compliance Report

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Feedback, as always, is welcome and is kept anonymous.
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11. Energy: Zero- and Low-Emission Power Generation

“We will rapidly scale up the deployment of zero and low emission power generation, including renewable energy resources and measures to enhance energy efficiency.”

G20 Bali Leaders’ Declaration

Assessment

	No Compliance	Partial Compliance	Full Compliance
Argentina			+1
Australia			+1
Brazil		0	
Canada			+1
China		0	
France			+1
Germany		0	
India		0	
Indonesia		0	
Italy		0	
Japan			+1
Korea			+1
Mexico		0	
Russia		0	
Saudi Arabia			+1
South Africa		0	
Türkiye		0	
United Kingdom			+1
United States			+1
European Union			+1
Average		+0.50 (75%)	

Background

Climate change was first internationally recognized at the United Nations Scientific Conference in Stockholm in June 1972. Two decades later, the Kyoto Protocol introduced the goal to reduce overall carbon dioxide emissions and other greenhouse gases by at least 5 per cent below 1990 levels, the most influential climate change commitment taken.¹³⁷²

G20 leaders first explicitly referred to renewable energy at the 2009 Pittsburgh Summit, where they committed to increase renewable and clean energy sources and enhance energy efficiency.¹³⁷³

To achieve this commitment, the G20 leaders announced their commitment to strengthen investment in “clean energy, renewables, and energy efficiency,” support projects in developing countries and conduct research and build capacity to facilitate the transfer of clean energy technology.¹³⁷⁴

At the 2010 Seoul Summit, G20 members reaffirmed their commitment to “rationalize and phase-out over the medium-term inefficient fossil fuel subsidies that encourage wasteful consumption, with timing based on national circumstances, while providing targeted support for the poorest.”¹³⁷⁵ Leaders also pledged to

¹³⁷² From Stockholm to Kyoto: A Brief History of Climate Change, UN Chronicle (New York) June 2007. Access Date: 31 January 2023. <https://www.un.org/en/chronicle/article/stockholm-kyoto-brief-history-climate-change>

¹³⁷³ G20 Leaders Statement: The Pittsburgh Summit, G20 Information Centre (Toronto) 25 September 2009. Access Date: 31 January 2023. <http://www.g20.utoronto.ca/2009/2009communique0925.html>

¹³⁷⁴ G20 Leaders Statement: The Pittsburgh Summit, G20 Information Centre (Toronto) 25 September 2009. Access Date: 31 January 2023. <http://www.g20.utoronto.ca/2009/2009communique0925.html>

¹³⁷⁵ G20 Seoul Summit Leaders’ Declaration, G20 Information Centre (Toronto) 12 November 2010. Access Date: 31 January 2023. <http://www.g20.utoronto.ca/analysis/commitments-10-seoul.html>

foster conducive environments for the development of green technologies, specifically technical transfer, capacity building, and investments in clean energy technology.

At the 2011 Cannes Summit, G20 members committed to “enhance competition and reduce distortions.”¹³⁷⁶ Actions include reforming energy efficiency, incorporating more renewable energy, domestic energy resources, and dismantling political and technological barriers to innovation. G20 leaders also reaffirmed their prior commitment to “rationalize and phase-out over the medium term inefficient fossil fuel subsidies that encourage wasteful consumption, while providing targeted support for the poorest.”

At the 2013 St. Petersburg Summit, G20 leaders committed to supporting the development of “cleaner and more efficient energy technologies to enhance the efficiency of markets and shift towards a more sustainable energy future.”¹³⁷⁷ The summit also emphasized cooperation with “international organisations sharing national experiences and case studies regarding clean energy,” in addition to reaffirming the phasing out of fossil fuels.¹³⁷⁸

At the 2014 Brisbane Summit, G20 leaders agreed to endorse the G20 Principles on Energy Collaboration, which called for increased collaboration on energy as a priority.¹³⁷⁹ Additionally, the G20 leaders reaffirmed their commitment to phase out inefficient fossil fuels and support developing countries in the transition.

At the 2015 Antalya Summit, G20 leaders reaffirmed the commitment to phasing out inefficient fossil fuel subsidies while recognising the need to support low-income countries.¹³⁸⁰ At the Energy Ministers’ Meeting, leaders adopted the voluntary collaboration plan on energy access, which included measures to ensure energy security, efficiency, and investments for renewable energy, in addition to phasing out fossil fuel subsidies.¹³⁸¹

At the 2016 Hangzhou summit, G20 members reaffirmed their commitment to “rationalize and phase-out inefficient fossil fuel subsidies that encourage wasteful consumption over the medium term, recognizing the need to support the poor.”¹³⁸² Leaders also agreed to focus on transforming the affordability and sustainability of energy generation, emphasizing low greenhouse gas emissions energy technologies.

At the 2017 Hamburg summit, G20 leaders committed to mitigate greenhouse gas emissions through increasing innovation on sustainable and clean energies and energy efficiency and welcomed international cooperation on developing and commercialising sustainable and clean energy technologies and financially supporting affordable clean energy for all.¹³⁸³

At the 2018 Buenos Aires Summit, G20 members committed to supporting lower greenhouse gas emissions without compromising growth and development, as well as international cooperation and promotion in energy efficiency, security, sustainability, resilience, efficiency, affordability, and stability.¹³⁸⁴

¹³⁷⁶ Cannes Summit Final Declaration – Building Our Common Future: Renewed Collective Action for the Benefit of All, G20 Information Centre (Toronto) 4 November 2011. Access Date: 31 January 2023.

¹³⁷⁷ The 2013 G20 St. Petersburg Summit Commitments, G20 Information Centre (Toronto) March 2014. Access Date: 31 January 2023. <http://www.g20.utoronto.ca/analysis/commitments-13-stpetersburg.html>

¹³⁷⁸ G20 Leaders’ Declaration, G20 Information Centre (Toronto) 6 September 2013. Access Date: 31 January 2023. <http://www.g20.utoronto.ca/2013/2013-0906-declaration.html>

¹³⁷⁹ G20 Leaders’ Communiqué, G20 Information Centre (Toronto) 16 November 2014. Access Date: 30 January 2023. <http://www.g20.utoronto.ca/2014/2014-1116-communiqué.html>

¹³⁸⁰ G20 Leaders’ Communiqué, G20 Information Centre (Toronto) 16 November 2015. Access Date: 31 January 2023. <http://www.g20.utoronto.ca/2015/151116-communiqué.html>

¹³⁸¹ Communiqué: G20 Energy Ministers Meeting, G20 Information Centre (Toronto) 2 October 2015. Access Date: 31 January 2023. <http://www.g20.utoronto.ca/2015/151002-energy.html>

¹³⁸² G20 Leaders’ Communiqué: Hangzhou Summit, G20 Information Centre (Toronto) 5 September 2016. Access Date: 31 January 2023. <http://www.g20.utoronto.ca/2016/160905-communiqué.html>

¹³⁸³ G20 Leaders’ Declaration: Shaping an Interconnected World, G20 Information Centre (Toronto) 8 July 2017. Access Date: 31 January 2023. <http://www.g20.utoronto.ca/2017/2017-G20-leaders-declaration.html>

¹³⁸⁴ G20 Leaders’ Declaration: Building Consensus for Fair and Sustainable Development, G20 Information Centre (Toronto) 1 December 2018. Access Date: 31 January 2023. <http://www.g20.utoronto.ca/2018/2018-leaders-declaration.html>

At the 2019 Osaka Summit, G20 acknowledged the importance of “3E+S” (Energy Security, Economic Efficiency, and Environment + Safety) in achieving low greenhouse gas emissions, in addition to reaffirming the commitment to phase out fossil fuel subsidies.¹³⁸⁵

At the 2020 Riyadh Summit, G20 leaders emphasized the “3E+S” energy transition as well as the Circular Carbon Economy Platform, acknowledging the importance of mobilizing “a wide variety of financial resources, to assist developing countries in their adaptation and mitigation efforts.”¹³⁸⁶

At the 2021 Rome Summit, G20 leaders committed to supporting a global recovery that is sustainable, inclusive and resilient, promoting equity and stimulating progress on all Sustainable Development Goals (SDGs).¹³⁸⁷ Leaders agreed to collaborate on accelerating the development of equitable and efficient energy distribution, and committed to the mobilization of the international public and private sector to support sustainable energy development.¹³⁸⁸

At the 2022 Bali Summit, G20 members committed to “rapidly scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.”¹³⁸⁹ During the Energy Transitions Ministers’ Meeting on the sidelines of the Summit, G20 leaders laid out a set of voluntary principles in addition to the official commitments. The principles include diversifying energy systems to lower emissions, sustainable investments towards net zero or low emissions energy systems, and improved innovation for affordable net zero emissions technologies.¹³⁹⁰ This commitment feature occurs within the context of the G20 leaders’ commitment to achieving SDG 7 targets and aiming to increase access to energy and to eradicate energy poverty.¹³⁹¹

Commitment Features

“To scale up” is defined as “progression or movement forward.”¹³⁹² It does not include past or previous performance or actions already taken, but can include past measures if further or additional attention is applied. In this context, an example of scaling up the deployment of zero and low emission power generation could include increasing the construction of zero emission power plants.

“Deployment” is defined as “putting something into use.”¹³⁹³ In the context of this commitment, the G20 leaders commit to increase the use of renewable and efficient energy, paired with the scaling down of unabated coal power generation.

“Zero and low emission” is defined as energy generation with lower or no carbon dioxide emissions, such as through wind, solar, hydro, or nuclear power.¹³⁹⁴

¹³⁸⁵ G20 Osaka Leaders’ Declaration, G20 Information Centre (Toronto) 29 June 2019. Access Date: 31 January 2023.

<http://www.g20.utoronto.ca/2019/2019-g20-osaka-leaders-declaration.html>

¹³⁸⁶ G20 Riyadh Leaders’ Declaration, G20 Information Centre (Toronto) 21 November 2020. Access Date: 31 January 2023.

<http://www.g20.utoronto.ca/2020/2020-g20-leaders-declaration-1121.html>

¹³⁸⁷ The 2021 G20 Rome Summit Commitments, G20 Information Centre (Toronto) 31 October 2021. Access Date: 31 January 2023. <http://www.g20.utoronto.ca/analysis/commitments-21-rome.html>

¹³⁸⁸ G20 Rome Leaders’ Declaration, G20 Information Centre (Toronto) 31 October 2021. Access Date: 31 January 2023.

<http://www.g20.utoronto.ca/2021/211031-declaration.html>

¹³⁸⁹ G20 Bali Leaders’ Declaration, G20 Information Centre (Toronto) 16 November 2022. Access Date: 31 January 2023.

<http://www.g20.utoronto.ca/2022/221116-declaration.html>

¹³⁹⁰ Bali Compact, G20 Information Centre (Toronto) 2 September 2022. Access Date: 31 January 2023.

<http://www.g20.utoronto.ca/2022/220902-bali-compact.html>

¹³⁹¹ G20 Bali Leader’s Declaration, G20 Information Centre (Toronto) 16 November 2022. Access Date: 31 January 2023.

<http://www.g20.utoronto.ca/2022/221116-declaration.html>

¹³⁹² Compliance Coding Manual for International Institutional Commitments, Global Governance Program (Toronto) 12

November 2020. Access Date: 31 January 2023. http://www.g7.utoronto.ca/compliance/Compliance_Coding_Manual_2020.pdf

¹³⁹³ Deploy, Cambridge Dictionary (Cambridge). Access Date: 31 January 2023.

<https://dictionary.cambridge.org/dictionary/english/deploy>

¹³⁹⁴ What is Low-Carbon Energy, Environmental Defense Fund (New York) 8 July 2020. Access Date: 31 January 2023.

<https://www.edfenergy.com/for-home/energywise/low-carbon-energy>

“Renewable energy resources” is defined as energy “obtained from sources that are for all practical purposes inexhaustible.”¹³⁹⁵ Sources of renewable energy include solar, geothermal, wind, and hydro power.¹³⁹⁶

“Energy efficiency” refers to a “measure of how efficiently...a country uses energy.”¹³⁹⁷ G20 leaders specified efficient energy to include abatement and removal technologies, which refer to reducing and eliminating emissions.¹³⁹⁸

This commitment does not express a target outcome, but rather the means through which a country should fulfill the commitment. Based on previous international agreements, it is implied that the increased deployment of zero and low emissions power generation will contribute to the global effort of reducing greenhouse gases and combating climate change. Actions should focus on both domestic policy and international collaboration.

Full compliance, or a score of +1, requires strong policy actions to increase the deployment of zero and low emission power generation, including renewable energy resources and measures that enhance energy efficiency, abatement, and removal technologies. G20 members must take both domestic and international action to reduce emissions and improve energy efficiency, such as investing in sustainable development, implementing fiscal and regulatory mechanisms, and using carbon pricing mechanisms where necessary.

Partial compliance, or a score of 0, necessitates strong action to increase the deployment of zero and low emission power generation either domestically or abroad.

No compliance, or a score of -1, indicates complete inaction towards improving energy efficiency, neither domestically nor internationally. A score of -1 also includes actions directly against the commitment, such as increasing investment in carbon-intensive infrastructure, or constructing new coal power plants.

Scoring Guidelines

-1	The G20 member does NOT scale up the deployment of zero and low emission power generation, EITHER domestically OR internationally.
0	The G20 member scales up the deployment of zero and low emission power generation EITHER domestically OR internationally.
+1	The G20 member scales up the deployment of zero and low emission power generation BOTH domestically AND internationally.

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Argentina: +1

Argentina has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

On 21 December 2022, Secretary of Energy Flavia Royon announced the Governance Program for the development of the National Just and Sustainable Energy Transition Plan at the Federal Energy Council.¹³⁹⁹ The program focuses on the integral development of the electricity sector, which incorporates the role of energy efficiency, financial sustainability, and the replacement to renewable sources.

On 24 January 2023, Minister of Science, Technology and Innovation Daniel Filmus signed the Memorandum of Understanding on Cooperation in Ocean Sciences and the Binational Program in Science,

¹³⁹⁵ Renewable Energy, Oxford Reference Dictionary (Oxford). Access Date: 31 January 2023.

<https://www.oxfordreference.com/display/10.1093/oi/authority.20110803100413949>

¹³⁹⁶ About Renewable Energy, Natural Resources Canada (Ottawa), n.d. Access Date: 31 January 2023.

<https://www.nrcan.gc.ca/our-natural-resources/energy-sources-distribution/renewable-energy/about-renewable-energy/7295>

¹³⁹⁷ Energy Efficiency, Collins Dictionary (Glasgow) n.d. Access Date: 31 January 2023.

<https://www.collinsdictionary.com/dictionary/english/energy-efficiency>

¹³⁹⁸ G20 Bali Leader’s Declaration, G20 Information Centre (Toronto) 16 November 2022. Access Date: 31 January 2023.

<http://www.g20.utoronto.ca/2022/221116-declaration.html>

¹³⁹⁹ Royon presidió la reunión plenaria del Consejo Federal de Energía, Ministerio de Economía (Buenos Aires) 21 December 2022. Translation provided by Google Translate. Access Date: 18 March 2023. <https://www.argentina.gob.ar/noticias/Royon-presidio-la-reuni%C3%B3n-plenaria-del-Consejo-Federal-de-Energ%C3%ADa>

Technology and Innovation with his Brazilian counterpart, Minister Luciana Santos.¹⁴⁰⁰ The memorandum aims to advance research projects and creation of new technologies related to renewable energy among other sectors. Additionally, the goal of the Binational Program is to organize cooperation and acknowledge the need to create an action plan covering eight areas, including energy transition and environment.

On 2 February 2023, the Federal Energy Council introduced the Regulatory Framework Commission and the Interest Rate Reduction Agreement for Distributed Generation Projects, which provides a line of credit for federal and provincial renewable energy generation.¹⁴⁰¹

On 18 April 2023, YPF Luz, the power generation unit of the Argentine state corporation YPF, inaugurated its first solar park in the province of San Juan.¹⁴⁰² The park will reach a capacity of 100 megawatts in its first stage, with planned expansion of more than 170,000 solar panels generating over 300 gigawatt hours of energy annually.

On 20 April 2023, President Alberto Fernández and Minister of Environment and Sustainable Development Juan Cabandié attended the Forum of the Main Economies on Energy and Climate, hosted by US President Joe Biden.¹⁴⁰³ President Fernández reaffirmed the need to implement collective actions to reduce emissions and advocated for an equitable climate financing structure.

Argentina has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency. Argentina has taken strong actions to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency. It has also collaborated with other countries to increase investments and research in the renewable energy sector.

Thus, Argentina receives a score of +1.

Analyst: Eugenia Lapania

Australia: +1

Australia has fully complied with its commitment to scale up the deployment of zero and low-emission power generation, including renewable resources and measures to enhance energy efficiency.

On 23 November 2022, the Australian government announced an AUD500 million investment in the Powering Australia Technology Fund to help businesses offset the cost of the transition to renewable energy.¹⁴⁰⁴ The funding will be provided to the Clean Energy Finance Corporation and help increase the commercialization of innovative clean energy solutions.

¹⁴⁰⁰ Na Argentina, MCTI fortalece cooperação científica bilateral, Ministério da Ciência, Tecnologia e Inovação (Brasília) 25 January 2023. Access Date: 29 March 2023. <https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/noticias/2023/01/na-argentina-mcti-fortalece-cooperacao-cientifica-bilateral>

¹⁴⁰¹ El Consejo Federal de Energía analizó mecanismos para fomentar la eficiencia energética y la generación distribuida, Ministerio de Economía (Buenos Aires) 2 February 2023. Translation provided by Google Translate. Access Date: 18 March 2023. <https://www.argentina.gob.ar/noticias/el-consejo-federal-de-energia-analizo-mecanismos-para-fomentar-la-eficiencia-energetica-y>

¹⁴⁰² YPF Luz inauguró su primer parque solar en San Juan, El Cronista (Buenos Aires) 18 April 2023. Translation provided by Google Translate. Access Date: 24 April 2023. <https://www.cronista.com/negocios/ypf-luz-inauguro-su-cuarto-parque-eolico-en-san-juan/>

¹⁴⁰³ Cabandié acompañó al presidente Alberto Fernández durante el Foro de las Principales Economías sobre Energía y Clima, Ministerio de Ambiente y Desarrollo Sostenible (Buenos Aires) 20 April 2023. Translation provided by Google Translate. Access Date: 24 April 2023. <https://www.argentina.gob.ar/noticias/cabandie-acompano-al-presidente-alberto-fernandez-durante-el-foro-de-las-principales>

¹⁴⁰⁴ \$500m to Establish Powering Australia Technology Fund through the CEFC, Department of Climate Change, Energy, the Environment and Water (Canberra) 23 November 2022. Access Date: 28 March 2023. <https://www.energy.gov.au/news-media/news/500m-establish-powering-australia-technology-fund-through-cefc>

On 9 December 2022, the Australian government launched the Capacity Investment Scheme to drive renewable energy capacity, with AUD10 billion of investment in clean dispatchable power.¹⁴⁰⁵ The scheme will work in conjunction with existing state and territorial energy plans to ensure the steady supply of cheap and renewable energy.

On 4 January 2023, the Australian Renewable Energy Agency (ARENA) announced AUD41.5 million in funding to 13 research and development projects aimed at reducing the cost of solar energy.¹⁴⁰⁶ The projects will contribute to ARENA's "Solar 30-30-30" goal of implementing solar power with 30 per cent module efficiency with a 30 cent per watt utility scale by 2030.

On 27 January 2023, ARENA announced conditional funding of AUD50 million and EUR40 million with the German Federal Ministry of Education and Research, as part of the German-Australian Hydrogen Innovation and Technology Incubator (HyGATE).¹⁴⁰⁷ The bilateral project is designed to strengthen cooperation on reducing the cost of producing hydrogen from renewable sources.

On 13 February 2023, ARENA approved AUD65 million in funding to Vast Solar to construct the first 30 megawatt concentrated solar power plant in South Australia.¹⁴⁰⁸ The completed project will demonstrate the scale to which Australia's commercial power generation can be renewable.

On 6 March 2023, the Australian government opened the application for energy efficiency grants for small and medium enterprises.¹⁴⁰⁹ The grant opportunity provides small and medium-sized businesses up to AUD25,000 to replace or upgrade existing equipment to monitor energy use, improve energy efficiency and reduce costs. This initiative will contribute to enabling industries to reduce and manage their energy use in the long run.

Australia has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency. Australia has taken strong actions by investing in the domestic infrastructure for a clean energy transition, including solar and hydrogen energy generation. It has also collaborated internationally with Germany to further scale up zero-emissions power generation.

Thus, Australia receives a score of +1.

Analyst: Chaewon Kang

Brazil: 0

Brazil has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

On 24 January 2023, Minister of Science, Technology and Innovation Luciana Santos signed the Memorandum of Understanding on Cooperation in Ocean Sciences and the Binational Program in Science, Technology and Innovation with Argentina's Minister of Science, Technology and Innovation Daniel Filmus.¹⁴¹⁰ The memorandum aims to advance research projects and creation of new technologies related

¹⁴⁰⁵ Capacity Investment Scheme to Power Australian Energy Market Transformation, Department of Climate Change, Energy, the Environment and Water (Canberra) 9 December 2022. Access Date: 28 March 2023. <https://www.energy.gov.au/news-media/news/capacity-investment-scheme-power-australian-energy-market-transformation>

¹⁴⁰⁶ \$41.5 Million in Funding for Ultra Low Cost Solar Research, Australian Renewable Energy Agency (Canberra) 4 January 2023. Access Date: 28 March 2023. <https://arena.gov.au/news/funding-for-ultra-low-cost-solar-research/>

¹⁴⁰⁷ Recipients Announced for Australia-Germany HyGATE Initiative, Australian Renewable Energy Agency (Canberra) 27 January 2023. Access Date: 28 March 2023. <https://arena.gov.au/news/recipients-announced-for-australia-germany-hygate-initiative/>

¹⁴⁰⁸ One Step Closer Towards Australia's First Commercial Scale Concentrated Solar Power Plant, Australian Renewable Energy Agency (Canberra) 13 February 2023. Access Date: 28 March 2023. <https://arena.gov.au/news/one-step-closer-towards-australias-first-commercial-scale-concentrated-solar-power-plant/>

¹⁴⁰⁹ Now open - energy efficiency grants for small and medium enterprises, Department of Climate Change, Energy, the Environment and Water (Parkes) 6 March 2023. Access Date: 10 March 2023. <https://www.energy.gov.au/news-media/news/now-open-energy-efficiency-grants-small-and-medium-enterprises>

¹⁴¹⁰ Na Argentina, MCTI fortalece cooperação científica bilateral, Ministério da Ciência, Tecnologia e Inovação (Brasília) 25 January 2023. Access Date: 29 March 2023. <https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/noticias/2023/01/na-argentina-mcti-fortalece-cooperacao-cientifica-bilateral>

to renewable energy among other sectors. Additionally, the goal of the Binational Program is to organize cooperation and acknowledge the need to create an action plan covering eight areas, including energy transition and environment.

On 26 April 2023, Minister Santos signed a statement of intent with the Spanish Ministry of Science and Innovation, relaunching the bilateral partnership between Brazil and Spain.¹⁴¹¹ The statement prioritized common areas including health, environment, and energy transition.

Brazil has partially complied with its commitment to scale up the deployment of zero and low-emission power generation, including renewable resources and measures to enhance energy efficiency. Brazil has cooperated internationally to scale up the deployment of zero- and low-emission power generation. However, more actions are needed to fully comply with the commitment, especially on the domestic level. This can be done through investments or building infrastructure.

Thus, Brazil receives a score of 0.

Analyst: Rameen Azmat

Canada: +1

Canada has fully complied with the commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

On 17 November 2022, at the 27th United Nations Climate Change Conference of the Parties, Minister of Environment and Climate Change Steven Guilbeault announced that Canada had joined the Net-Zero Government Initiative.¹⁴¹² Canada would set example and lead other countries in achieving net-zero by 2050 through strategies such as clean energy, zero-emission vehicles, and green infrastructure.

On 8 December 2022, Minister of Natural Resources Jonathan Wilkinson announced CAD3 million investment in the Smart Renewables and Electrification Pathways program for Indigenous communities in British Columbia, providing capacity building funding to advance Canada's goal of reaching a net zero grid by 2035.¹⁴¹³

On 10 February 2023, Minister Wilkinson announced the new Green Industrial Facilities and Manufacturing Program (GIFMP), which will provide up to CAD20 million for each proposal in assistance of reducing emissions.¹⁴¹⁴ The GIFMP includes support to provinces, territories, and established industrial networks, as well as a dedicated track to directly support individual facilities in the transition to clean energy production.

On 23 March 2023, Canada released its 2023 Federal Budget, including CAD40 billion investment to the electricity sector, and CAD3 billion to expand Natural Resources Canada's Smart Renewables and Electrification Pathways Program.¹⁴¹⁵ The first investment details a refundable tax credit for non-emitting power generation and support for the construction of critical projects. Investments will be delivered over

¹⁴¹¹ Brasil e Espanha aprofundam parceria em inovação, Ministério da Ciência, Tecnologia e Inovação (Brasília) 26 April 2023. Translation provided by Google Translate. Access Date: 7 May 2023. <https://www.gov.br/mcti/pt-br/acompanhe-o-mcti/noticias/2023/04/brasil-e-espanha-aprofundam-parceria-em-inovacao>

¹⁴¹² Canada Signs-On to Net-Zero Government Initiative, Treasury Board of Canada Secretariat (Ottawa) 17 November 2022. Access Date: 19 March 2023. <https://www.canada.ca/en/treasury-board-secretariat/news/2022/11/canada-signs-on-to-net-zero-government-initiative.html>

¹⁴¹³ Canada Invests Nearly \$3 Million for a Renewable Energy Capacity-Building Program for Indigenous Communities in British Columbia, Natural Resources Canada (Vancouver) 8 December 2022. Access Date: 19 March 2023. <https://www.canada.ca/en/natural-resources-canada/news/2022/12/canada-invests-nearly-3-million-for-a-renewable-energy-capacity-building-program-for-indigenous-communities-in-british-columbia.html>

¹⁴¹⁴ Minister Wilkinson Announces New Program to Support Decarbonization of Industrial Facilities and Manufacturing to Maximize Energy Performance and Industry Competitiveness, Natural Resources Canada (Vancouver) 10 February 2023. Access Date: 19 March 2023. <https://www.canada.ca/en/natural-resources-canada/news/2023/02/minister-wilkinson-announces-new-program-to-support-decarbonization-of-industrial-facilities-and-manufacturing-to-maximize-energy-performance-and-i.html>

¹⁴¹⁵ Budget 2023: A Made-in-Canada Plan, Department of Finance Canada (Ottawa) 28 March 2023. Access Date: 7 May 2023. <https://www.budget.canada.ca/2023/report-rapport/chap3-en.html>

13 years to support clean energy transition in local and Indigenous communities, the Smart Grid Program, and offshore wind power.

On 27 March 2023, Natural Resources Canada announced CAD1 million investment to develop community distributed energy resources solutions to the Taykwa Tagamou Nation and Oneida Nation in Ontario.¹⁴¹⁶ The investment will improve renewable energy systems in consistency with the unique needs faced by Indigenous communities.

On 27 March 2023, Natural Resources Canada released a joint statement with the US Department of Energy on nuclear energy cooperation.¹⁴¹⁷ The two countries committed to strengthening the global nuclear energy supply chain, and reaffirmed the commitment to cooperate with each other and with other allies to accelerate the deployment of nuclear energy generation.

On 16 April 2023, Ministers Guilbeault and Wilkinson concluded the 2023 G7 Minister's Meeting on Climate, Energy, and Environment in Sapporo, Japan. Canada, along with other G7 countries, made new commitments to report on the phasing out of fossil fuels by the end of the year, as well as accelerating the replacement of unabated fossil fuel power.¹⁴¹⁸ Canada also welcomed the collective target of 150 gigawatts in offshore wind and 1 terawatt in solar power generation by 2030.

Canada has fully complied with the commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency. Canada has taken strong actions in investments and projects to encourage energy transition, and has participated internationally to reduce emissions from power generation with key allies and organizations.

Thus, Canada receives a score of +1.

Analyst: Emily Shin

China: 0

China has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources and measures to enhance energy efficiency.

On 9 December 2022, President Xi Jinping voiced China's support for the Qatar National Vision 2030 after meeting with Qatari Emir Sheikh Tamim bin Hamad Al Thani in Riyadh, Saudi Arabia.¹⁴¹⁹ Xi expressed China's willingness to expand cooperation with Qatar in both traditional and renewable energy, among other signals of support between both countries.

On 14 February 2023, the National Development and Reform Commission relayed the completion of the No. 3 Unit (K-3) of the Karachi Nuclear Power Plant.¹⁴²⁰ The project is the first in the Hualong One series,

¹⁴¹⁶ Federal Government Supports Clean Energy Training for Taykwa Tagamou Nation and Oneida Nation of the Thames, Natural Resources Canada (London) 27 March 2023. Access Date: 7 May 2023. <https://www.canada.ca/en/natural-resources-canada/news/2023/03/federal-government-supports-clean-energy-training-for-taykwa-tagamou-nation-and-oneida-nation-of-the-thames.html>

¹⁴¹⁷ Joint Statement between the Department of Energy of the United States of America and the Department of Natural Resources of Canada on Nuclear Energy Cooperation, Natural Resources Canada (Ottawa) 27 March 2023. Access Date: 7 May 2023. <https://www.canada.ca/en/natural-resources-canada/news/2023/03/joint-statement-between-the-department-of-energy-of-the-united-states-of-america-and-the-department-of-natural-resources-of-canada-on-nuclear-energ.html>

¹⁴¹⁸ Ministers Guilbeault and Wilkinson Wrap Up G7 Ministers' Meeting in Japan Focused on Climate Action, Clean Energy, and Nature Protection, Environment and Climate Change Canada (Sapporo) 17 April 2023. Access Date: 7 May 2023. <https://www.canada.ca/en/environment-climate-change/news/2023/04/ministers-guilbeault-and-wilkinson-wrap-up-g7-ministers-meeting-in-japan-focused-on-climate-action-clean-energy-and-nature-protection.html>

¹⁴¹⁹ Xi says China ready to improve cooperation with Qatar in energy, finance, investment, State Council of the People's Republic of China (Beijing) 9 December 2022. Access Date: 18 March 2023. http://english.www.gov.cn/news/topnews/202212/09/content_WS639346d1c6d0a757729e439c.html

¹⁴²⁰ First project of Hualong One in Pakistan to be fully completed, National Development and Reform Commission (Beijing) 14 February 2023. Access Date: 28 April 2023. https://en.ndrc.gov.cn/netcoo/goingout/202302/t20230214_1350228.html

through which China aims to export their third-generation nuclear power technology to foreign countries.¹⁴²¹

On 6 April 2023, China and France signed new cooperation deals on nuclear and wind energy during French President Emmanuel Macron's state visit. The two countries agreed to continue cooperation on the acceleration of the energy transition, as well as supporting developing countries in renewable energy.¹⁴²² The French state-owned power company, EDF, renewed its partnership with CGN, its Chinese counterpart. EDF also signed new agreements with the China Energy Investment Corporation on offshore wind projects.¹⁴²³

China has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources and measures to enhance energy efficiency. China has been quite vocal in its commitments toward developing efficient energy domestically and internationally through cooperation, and has shown its international commitment through the Hualong One project. However, China still needs more concrete actions domestically for full compliance.

Thus, China receives a score of 0.

Analyst: Mia Xie

France: +1

France has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

On 18 November 2022, President Emmanuel Macron declared that France will invest a total of roughly EUR20 billion into the technology and energy transformation innovation in 2023.¹⁴²⁴ As part of the France 2030 plan, more than EUR10 billion is anticipated to be spent on fostering innovation and facilitating the industry's transition; the government promised to spend the same amount in 2023.

On 31 January 2023, the French National Assembly passed the Renewable Energy Acceleration Bill. The bill outlines a bottom-up approach by giving municipalities the power to identify and plan acceleration zones for the installation of renewable energy devices.¹⁴²⁵ France will be able to remove obstacles that delay the deployment of renewable energies by simplifying and streamlining the processes for renewable energy project approval.

On 10 March 2023, the governments of France and the United Kingdom partnered to transition away from fossil fuels and towards nuclear and renewable energy sources in order to enable both countries achieve greater energy security.¹⁴²⁶ The UK and France agree to continue their cooperation on civil nuclear in order to take advantage of both countries' ambitions to significantly expand their respective sectors. The agreement will reduce consumer energy costs and increase the flow of clean renewable energy between the two nations. Both parties will also collaborate to overcome obstacles to the deployment of rapidly evolving low-carbon technologies, such as hydrogen and carbon capture and storage, which will aid in job growth.

¹⁴²¹ Nation still tops nuclear plant building, China Daily (Beijing) 27 April 2023. Access Date: 28 April 2023. <https://global.chinadaily.com.cn/a/202304/27/WS6449c703a310b6054fad0096.html>

¹⁴²² Déclaration conjointe entre la République française et la République Populaire de Chine, Élysée (Paris) 7 April 2023. Translation provided by Google Translate. Access Date: 8 May 2023. <https://www.elysee.fr/emmanuel-macron/2023/04/07/declaration-conjointe-entre-la-republique-francaise-et-la-republique-populaire-de-chine>

¹⁴²³ France, China sign cooperation deals in nuclear and renewable energy, Reuters (Paris) 6 April 2023. Access Date: 1 May 2023. <https://www.reuters.com/business/energy/france-china-sign-cooperation-deals-nuclear-renewable-energy-2023-04-06/>

¹⁴²⁴ France Pledges €20bn in Tech, Energy Innovation Before 2024, EURACTIV (Brussels) 18 November 2022. Access Date: 19 March 2023. <https://www.euractiv.com/section/digital/news/france-pledges-e20bn-in-tech-energy-innovation-before-2024/>

¹⁴²⁵ Énergies Renouvelables: Les Points Clés de l'Accord Entre Députés Et Sénateurs, LCP - Assemblée nationale (Paris) 25 January 2023. Translation provided by Google Translate. Access Date: 28 March 2023. <https://lcp.fr/actualites/energies-renouvelables-les-points-cles-de-l-accord-entre-deputes-et-senateurs-162994>

¹⁴²⁶ Department for Energy Security and Net Zero. "New UK-France Partnership to Bring 'More Energy Security and Independence'." Department for Energy Security and Net Zero (London), 10 March 2023, Access Date: 18 March 2023. <https://www.gov.uk/government/news/new-uk-france-partnership-to-bring-more-energy-security-and-independence>

On 27 March 2023, the Ministry of Energy Transition selected EDF Renewables and Maple Power to construct France's next offshore wind project, Centre Manche 1, in Normandie.¹⁴²⁷ The project comes as part of France's goals to commission 50 offshore wind farms by 2050. Centre Manche 1, when completed, will reach a capacity of 1 gigawatt, supporting the annual consumption of over 1.5 million people.

On 6 April 2023, President Macron signed several agreements with China on nuclear and wind energy. The two countries agreed to continue cooperation on the acceleration of the energy transition, as well as supporting developing countries in renewable energy.¹⁴²⁸ The French state-owned power company, EDF, renewed its partnership with CGN, its Chinese counterpart. EDF also signed new agreements with the China Energy Investment Corporation on offshore wind projects.¹⁴²⁹

On 16 April 2023, France attended the G7 Ministers' Meeting on Climate, Energy and Environment in Sapporo, Japan. Leaders committed to the phasing out of unabated fossil fuel powers and increased transparency on reporting. G7 members committed to collectively increase offshore wind capacity by 150 gigawatts and solar energy by 1 terawatt by 2030.¹⁴³⁰

France has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency. France has invested money towards low energy innovation in the country, and also partnered internationally to create low-emissions power generation facilities.

Thus, France receives a score of +1.

Analyst: Antonette De Los Reyes

Germany: 0

Germany has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources and measures to enhance energy efficiency.

On 18 December 2022, State Secretary of the Ministry for Economic Affairs and Climate Action Sven Giegold signed an offshore agreement with the United Kingdom.¹⁴³¹ Members of the Pentalateral Energy Forum and the North Seas Energy Cooperation met in Brussels to discuss strengthening regional trade of electricity within the European Union and scale up renewable energy generation. In the new offshore agreement, Germany pledged to increase its offshore wind energy generation from the current 7.8 gigawatts (GW) to 30 by 2030, 40 GW by 2035, and 70 GW by 2045.

On 5 January 2023, Federal Economic Affairs and Climate Action Minister Robert Habeck met with Norwegian Prime Minister Jonas Gare Støre. The two countries signed a Joint Statement and a Joint Declaration to increase the production and supply of hydrogen and to decarbonize carbon-intensive

¹⁴²⁷ EDF Renewables and Maple Power awarded the fourth offshore wind tender launched by the French State, securing a one-gigawatt project off the coast of Normandy, France, EDF Renewables (Paris) 27 March 2023. Access Date: 8 May 2023. <https://www.edf-renouvelables.com/en/edf-renewables-and-maple-power-awarded-the-fourth-offshore-wind-tender-launched-by-the-french-state-securing-a-one-gigawatt-project-off-the-coast-of-normandy-france/>

¹⁴²⁸ Déclaration conjointe entre la République française et la République Populaire de Chine, Élysée (Paris) 7 April 2023. Translation provided by Google Translate. Access Date: 8 May 2023. <https://www.elysee.fr/emmanuel-macron/2023/04/07/declaration-conjointe-entre-la-republique-francaise-et-la-republique-populaire-de-chine>

¹⁴²⁹ France, China sign cooperation deals in nuclear and renewable energy, Reuters (Paris) 6 April 2023. Access Date: 1 May 2023. <https://www.reuters.com/business/energy/france-china-sign-cooperation-deals-nuclear-renewable-energy-2023-04-06/>

¹⁴³⁰ G7 Climate, Energy and Environment Ministers' Communiqué, Ministry of the Environment (Sapporo) 16 April 2023. Access Date: 8 May 2023. <https://www.env.go.jp/content/000128270.pdf>

¹⁴³¹ Energy Ministers of the Pentalateral Forum and the North Seas Energy Cooperation discuss crisis management and sign offshore agreement with the UK, Bundesministerium für Wirtschaft und Klimaschutz (Berlin) 18 December 2022. Access Date: 28 March 2023. <https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/12/20221218-energy-ministers-of-the-pentalateral-forum-and-the-north-seas-energy-cooperation-discuss-crisis-management-and-sign-offshore-agreement-with-the-uk.html>

sectors.¹⁴³² Leaders reaffirmed their commitment to deploy large-scale hydrogen supply by 2030 and establish the necessary infrastructure between Norway and Germany.

On 24 January 2023, the Federal Ministry for Economic Cooperation committed to supporting net-zero energy production in Africa. The Ministry will contribute financially to the African Development Bank's Sustainable Energy Fund for Africa and the Team Europe Initiative's Africa-EU Green Energy Initiative, and work with multi-donor partnerships like Energizing Development (EnDev) and the Global Energy Transformation Programme (GET.Pro).¹⁴³³

On 21 February 2023, Minister Habeck met with representatives from the wind turbine, photovoltaic system, and power industries to establish three priority measures in improving Germany's production capacities for renewable energies.¹⁴³⁴ The measures include adjusting investment instruments, increasing energy security, and promoting innovation.

On 9 March 2023, the Federal Ministry for Economic Affairs and Climate Protection published a workshop report on transforming the energy supply.¹⁴³⁵ The Ministry committed to future meetings on climate transition, pledging to present strategies on expanding wind and solar power capabilities in March 2023 and develop a plan by summer 2023 to expand and modernize power plants at 17–25-gigawatt capacity by 2030. The Ministry also pledged that 65 per cent of heating systems installed after 2024 should use renewable energy, and to support households and municipalities in the transition.

On 28 March 2023, the EU Energy Ministers met in Brussels and agreed on decarbonization policies of the European gas market. EU member states extended the efforts to reduce gas consumption to March 2024, and initiated the gas and hydrogen package to ramp up green hydrogen production.¹⁴³⁶

On 15 April 2023, Germany switched off the last three operational nuclear reactors in the country, after powering up several coal power plants last year in response to the energy crisis.¹⁴³⁷ This signifies a move away from nuclear-powered zero-emissions power generation. Even as Chancellor Olaf Scholz has called for the installation of “four to five wind turbines a day,” the goal is unlikely to be reached given the small number installed in recent years.

On 16 April 2023, Germany attended the G7 Ministers' Meeting on Climate, Energy and Environment in Sapporo, Japan. Leaders committed to the phasing out of unabated fossil fuel powers and increased transparency on reporting. G7 members committed to collectively increase offshore wind capacity by 150 gigawatts and solar energy by 1 terawatt by 2030.¹⁴³⁸

Germany has partially complied with its commitment to scale up the deployment of zero and low-emission power generation, including renewable resources and measures to enhance energy efficiency. Germany has taken strong actions to scale up the development of zero- and low-emission energy generation domestically

¹⁴³² Norway and Germany Intensify Cooperation on Energy on the Path Towards Climate Neutrality, Bundesministerium für Wirtschaft und Klimaschutz (Berlin) 5 January 2023. Access Date: 28 March 2023. <https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2023/01/20230105-norway-and-germany-intensify-cooperation-on-energy-on-the-path-towards-climate-neutrality.html>

¹⁴³³ Shaping the future with Africa: The Africa Strategy of the BMZ, Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (Berlin). 23 January 2023. Access date: 18 March 2023. <https://www.bmz.de/resource/blob/137602/bmz-afrika-strategie-en.pdf>

¹⁴³⁴ Habeck: “We Must Strengthen Production Capacities for Renewable Energies in Germany and Europe”, Bundesministerium für Wirtschaft und Klimaschutz (Bonn) 21 February 2023. Translation provided by Google Translate. Access Date: 28 March 2023. <https://www.bmwk.de/Redaktion/DE/Pressemitteilungen/2023/02/20230221-habeck-wir-mussen-produktionskapazitaeten-fur-erneuerbare-energien-in-deutschland-und-europa-starken.html>

¹⁴³⁵ Wohlstand klimaneutral erneuern, Bundesministerium für Wirtschaft und Klimaschutz (Berlin). 9 March 2023. Translation provided by Google Translate. Access date: 18 March 2023. https://www.bmwk.de/Redaktion/DE/Publikationen/Wirtschaft/werkstattbericht-des-bmwk.pdf?__blob=publicationFile&v=14

¹⁴³⁶ EU Member States Pave Way for Decarbonisation of European Gas Market, Bundesministerium für Wirtschaft und Klimaschutz (Berlin) 28 March 2023. Access Date: 8 May 2023. <https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2023/03/20230328-eu-member-states-pave-way-for-decarbonisation-of-european-gas-market.html>

¹⁴³⁷ Germany Ends Nuclear Energy Era as Last Reactors Power Down, Al Jazeera (Doha) 15 April 2023. Access Date: 8 May 2023. <https://www.aljazeera.com/news/2023/4/15/germany-ends-nuclear-energy-era-as-last-reactors-power-down>

¹⁴³⁸ G7 Climate, Energy and Environment Ministers' Communiqué, Ministry of the Environment (Sapporo) 16 April 2023. Access Date: 8 May 2023. <https://www.env.go.jp/content/000128270.pdf>

through investments and new programs, as well as collaborated internationally through multiple partnerships. However, their recent move away from renewable energy sources, such as shutting down nuclear power plants and reinstating coal power, is contrary to the Bali Summit commitment.

Thus, Germany receives a score of 0.

Analyst: Matias Wheeler Nass

India: 0

India has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

On 7 December 2022, Atomic Energy Minister Jitendra Singh announced approval for ten 700 megawatts of pressurized heavy water reactors, along with in principle approval for five further sites.¹⁴³⁹ These nuclear power plants, as zero-emission facilities, serve to increase production of clean energy.

On 4 January 2023, the Cabinet approved the National Green Hydrogen Mission, which intends to create the production of at least five million metric tons of green hydrogen per year.¹⁴⁴⁰ This project is intended to replace hydrogen produced from fossil fuel sources and for use as a green energy storage source both within the country and for export abroad.

On 2 February 2023, Finance Minister Nirmala Sitharaman's announced during the budget speech a commitment of INR350 billion to be invested in energy transition, net-zero objectives, and energy security by the Ministry of Petroleum and Natural Gas.¹⁴⁴¹ Additionally, Viability Gap Funding was allocated to the development of pumped storage hydropower systems with a capacity of 4,000 MWH. These measures are taken in accordance with the government's "Green Growth" budget priority, intending to put money towards projects that reduce India's dependence on fossil fuels and transition towards net-zero carbon emissions.

India has partially complied with its commitment to scale up the deployment of zero and low-emission power generation, including renewable resources and measures to enhance energy efficiency. India has taken some actions to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

Thus, India receives a score of 0.

Analyst: Katherine Zhang

Indonesia: 0

Indonesia has partially complied with the commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

On 5 December 2022, the Ministry of State Secretariat, the Center for Development of Human Resources for Electricity, New Renewable Energy and Energy Conservation, the Ministry of Energy and Mineral Resources collaborated to organize the third Exchange Program in Renewable Energy.¹⁴⁴² The goal is to

¹⁴³⁹ Union Minister Dr Jitendra says, Government proposes to set up more nuclear power plants for augmenting production of clean energy, Department of Atomic Energy (New Delhi) 7 December 2023. Access Date: 19 March 2023.

<https://www.pib.gov.in/PressReleaseDetailm.aspx?PRID=1881375>

¹⁴⁴⁰ Cabinet approves National Green Hydrogen Mission, Ministry of New and Renewable Energy (New Delhi) 4 January 2023. Access Date: 19 March 2023. <https://pib.gov.in/PressReleasePage.aspx?PRID=1888547>

¹⁴⁴¹ What is the Budget's Green Growth push, one of the 'Saptarishi' initiatives for Amrit Kaal?, The Indian Express (Mumbai) 2 February 2023. Access Date: 19 March 2023. <https://indianexpress.com/article/explained/explained-economics/what-is-the-budgets-green-growth-push-8417525/>

¹⁴⁴² Ministry of State Secretariat, Ministry of Energy and Mineral Resources and GIZ Hold Renewable Energy Training – Solar Photovoltaic Powerplant (Jakarta Pusat) 5 December 2022. Translation provided by Google Translate. Access Date: 21 March 2023. https://www.setneg.go.id/baca/index/kemensetneg_kemenesdm_dan_giz_gelar_pelatihan_energi_terbarukan_solar_photovoltaic_powerplant

provide education on Solar Photovoltaic Powerplant, which is a sustainable technology converting sunlight to electrical energy.

On 16 March 2023, President Joko Widodo and Prime Minister Lee Hsien Loong of Singapore signed a memorandum of understanding on renewable energy.¹⁴⁴³ The goal of this memorandum is to support commercial arrangements on the development of renewable energy use, specifically on the transmission and cross-border trade of renewable energies.

Indonesia has partially complied with its commitment to scale up the deployment of zero and low-emission power generation, including renewable resources and measures to enhance energy efficiency. The government has been clear regarding its commitment to low emission power generation, however not many significant actions have been taken to support this.

Thus, Indonesia receives a score of 0.

Analyst: Emily Shin

Italy: 0

Italy has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

On 29 December 2022, the government of Italy approved EUR35 billion 2023 budget law.¹⁴⁴⁴ The budget included over There were various sections devoted to combating the energy crisis, including a new 50 per cent windfall tax applied to energy companies.¹⁴⁴⁵

On 27 February 2023, the Italian Civil Aviation Authority (ENAC) secured a regulatory change, simplifying the process for airports to use their property for renewable energy generation.¹⁴⁴⁶ The new legislation considers Italian airports to be viable locations for new facilities and streamlines the authorizations required to build renewable energy plants there. The simplified regulatory framework, according to ENAC, is a significant step in decarbonizing airport infrastructure and assisting airports in meeting their own energy demands. Small airports on islands are also subject to the new regulations, and airports that choose to build renewable energy facilities may be eligible for incentives.

On 16 April 2023, Italy attended the G7 Ministers' Meeting on Climate, Energy and Environment in Sapporo, Japan. Leaders committed to the phasing out of unabated fossil fuel powers and increased transparency on reporting. G7 members committed to collectively increase offshore wind capacity by 150 gigawatts and solar energy by 1 terawatt by 2030.¹⁴⁴⁷

On 18 April 2023, the Ministry of Environment and Energy Security revealed a new incentive program to promote creative agrivoltaic solutions.¹⁴⁴⁸ This initiative is part of Italy's National Recovery and Resilience Plan, its EUR1.1 billion budget enough to increase the country's photovoltaic capacity by another 1.4 gigawatts by 2026.

¹⁴⁴³ Pernyataan Pers Bersama PM Singapura Lee Hsien Loong dan Presiden RI Joko Widodo, Kementerian Sekretariat Negara (Jakarta) 16 March 2023. Translation provided by Google Translate. Access Date: 3 May 2023.

https://www.setneg.go.id/baca/index/pernyataan_pers_bersama_pm_singapura_lee_hsien_loong_dan_presiden_ri_joko_widodo
¹⁴⁴⁴ 2023 Budget Law Approved by Parliament, Ministero dell'Economia e delle Finanze (Rome) 29 December 2022. Access Date: 21 March 2023. <https://www.mef.gov.it/en/inevidenza/2023-Budget-Law-approved-by-Parliament-00001/>

¹⁴⁴⁵ Italy Issues 2023 Budget Law, EY (London) 10 January 2023. Access Date: 21 March 2023. https://www.ey.com/en_gl/tax-alerts/italy-issues-2023-budget-law

¹⁴⁴⁶ Ulteriore passo per la decarbonizzazione degli aeroporti: nel decreto legge PNRR la proposta Enac per installare nei sedimi aeroportuali impianti FER - Fonte di Energie Rinnovabili, Ente Nazionale per l'Aviazione Civile (Rome) 27 February 2023. Translation provided by Google Translate. Access Date: 19 March 2023.

<https://moduliweb.enac.gov.it/Applicazioni/comunicati/comunicato.asp?selpa1=2850&NumCom=13>

¹⁴⁴⁷ G7 Climate, Energy and Environment Ministers' Communiqué, Ministry of the Environment (Sapporo) 16 April 2023. Access Date: 8 May 2023. <https://www.env.go.jp/content/000128270.pdf>

¹⁴⁴⁸ Italy sets new provisions for innovative agrivoltaics, Pv Magazine International (Berlin) 18 April 2023. Access Date: 4 May 2023. <https://www.pv-magazine.com/2023/04/18/italy-sets-new-provisions-for-innovative-agrivoltaics/>

Italy has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency. Italy has taken strong actions to scale up the deployment of zero and low emission power generation domestically, such as constructing renewable energy plants in airports, but their actions have yet to extend internationally.

Thus, Italy receives a score of 0.

Analyst: Antonette De Los Reyes

Japan: +1

Japan has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

On 24 November 2022, the Ministry of Economy, Trade and Industry selected Tokyo Gas Co., Ltd. as the recipient of a transition bond worth JPY20 billion for low-carbon fuel conversion to natural gas and the development of decarbonization technology.¹⁴⁴⁹ The goal is to reduce carbon emissions by using natural gas as a low-carbon solution to be eventually replaced by hydrogen and synthetic methane.

On 31 January 2023, the Ministry of Economy, Trade and Industry raised the feed-in tariff for rooftop solar power generation for fiscal year 2024.¹⁴⁵⁰ The purpose is to incentivize solar installation on rooftops as open land availability diminishes to ensure solar energy production capacity reaches 14 per cent of the country's energy mix in 2030.

On 10 February 2023, the Cabinet approved the Ministry of Economy, Trade and Industry's "Basic Plan" for realizing the Ministry of the Environment's Green Transformation (GX) goals by 2030 and 2050.¹⁴⁵¹ This committed the government to an investment of JPY20 trillion into renewable energy sources, along with another JPY20 trillion in part devoted to carbon fixation technologies. This plan also approved the construction of next-generation nuclear reactors and the restart of Nuclear Regulation Authority suspended nuclear reactors that had previously suspended operations. The Nuclear Regulation Authority also extended the lifespans of nuclear reactors to discount periods spent shutdown for safety inspections. The plan also promises to introduce supports to pumped storage power plants, clean hydrogen and ammonia co-firing, zero-emission transportation, and establishment of a "GX League" to coordinate companies' emissions efforts. These measures are intended to promote a transition of Japanese power production and consumption to lower carbon emissions.

On 15 April 2023, Japan and the United States signed a memorandum of commitment to cooperate on developing geothermal energy on the sidelines of the G7 Ministers' Meeting. Expanding Japan's geothermal energy would allow 90 per cent of the country's power to come from renewable sources, leading to a 92 per cent reduction in greenhouse gas emissions from power generation.¹⁴⁵²

On 16 April 2023, Japan hosted the G7 Ministers' Meeting on Climate, Energy and Environment. Leaders committed to the phasing out of unabated fossil fuel powers and increased transparency on reporting. G7 members committed to collectively increase offshore wind capacity by 150 gigawatts and solar energy by 1 terawatt by 2030.¹⁴⁵³

¹⁴⁴⁹ FY2022 Subsidy for Global Warming Countermeasures Promotion Project: Tokyo Gas Co., Ltd. Overview, Japanese Ministry of Economy, Trade and Industry (Tokyo) 24 November 2022. Access Date: 19 March 2023.

https://www.meti.go.jp/policy/energy_environment/global_warming/transition/overview_tokyogas_eng.pdf

¹⁴⁵⁰ Japan seeks more industrial rooftop solar with rate incentive, The Nikkei (Tokyo) 31 January 2023. Access Date: 19 March 2023.

<https://asia.nikkei.com/Spotlight/Environment/Climate-Change/Japan-seeks-more-industrial-rooftop-solar-with-rate-incentive>

¹⁴⁵¹ GX 実現に向けた基本方針, Japanese Ministry of Economy, Trade and Industry (Tokyo) 10 February 2023. Translation provided by DeepL. Access Date: 19 March 2023. https://www.meti.go.jp/press/2022/02/20230210002/20230210002_1.pdf

¹⁴⁵² Japan, US Agree to Cooperate on Geothermal Energy, Associated Press (Sapporo) 15 April 2023. Access Date: 8 May 2023. <https://apnews.com/article/energy-geothermal-japan-us-g7-granholm-7ef18483b51d71180d9ba821b41d37d6>

¹⁴⁵³ G7 Climate, Energy and Environment Ministers' Communiqué, Ministry of the Environment (Sapporo) 16 April 2023. Access Date: 8 May 2023. <https://www.env.go.jp/content/000128270.pdf>

Japan has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency. Japan has taken strong actions to scale up the deployment of zero and low emission power generation, both domestically and collaborating globally with partners and international organizations. Japan has taken strong actions both domestically and internationally to promote low emissions and green energy.

Thus, Japan receives a score of +1.

Analyst: Katherine Zhang

Korea: +1

Korea has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources and measures to enhance energy efficiency.

On 14 March 2023, Minister of Trade, Industry and Energy Lee Chang-yang held the Pan-Ministerial Energy Efficiency Innovation Consultative Meeting with 13 other ministries.¹⁴⁵⁴ The meeting drew nationwide public participation to accelerate the energy structure shift towards low consumption and high efficiency. It also discussed three major measures for expanding assistance in energy efficiency innovation and conservation; spread a nationwide campaign that all citizens can put into practice and participate, called for energy efficiency innovation across all sectors and policy assistance for the energy-vulnerable such as small businesses, farmers, fishermen and low-income households.

On 14 March 2023, Minister for Trade Dukgeun Ahn signed 7 Memoranda of Understanding (MOU) with the Dutch Minister for Trade and Development Cooperation Liesje Schreinemacher.¹⁴⁵⁵ The MOUs included provisions on semiconductors and nuclear power generation. Both parties also mentioned deepening the cooperation in the areas of advanced nuclear power project capacity and Korea's clean energy policies regarding hydrogen and offshore wind power.

On 10 April 2023, Minister of Trade, Industry and Energy Lee Chang-yang and the UK's Secretary of State for Energy Security Grant Shapps signed an agreement to reinforce cooperation and exchange in clean energy.¹⁴⁵⁶ Both delegations discussed measures for mutually beneficial cooperation in nuclear energy, offshore wind power, hydrogen and other areas of clean energy.

On 26 April 2023, Minister of Trade, Industry and Energy Lee Chang-Yang met with US Secretary of Energy Jennifer Granholm under the Energy Policy Dialogue (EPD) to determine priority areas for bilateral collaboration on decarbonisation and advancing both countries' clean energy objectives.¹⁴⁵⁷ Both affirmed the need to encourage clean energy partnerships through investments, people-to-people exchanges and cooperation in research and development.¹⁴⁵⁸

Korea has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources and measures to enhance energy efficiency. Korea implements a number of policies and actively partakes in stakeholder and international-level meetings and

¹⁴⁵⁴ Minister holds Pan-Ministerial Energy Efficiency Innovation Consultative Meeting, Ministry of Trade, Industry and Energy (Sejong) 16 March 2023. Access Date: 18 March 2023. http://english.motie.go.kr/en/pc/pressreleases/bbs/bbsView.do?bbs_seq_n=1226&bbs_cd_n=2¤tPage=1&search_key_n=&search_val_v=&cate_n=

¹⁴⁵⁵ Korea and Netherlands sign 7 MOUs for industrial & energy cooperation, Ministry of Trade, Industry and Energy (Sejong) 14 March 2023. Translation provided by Analyst. Access Date: 18 March 2023. http://www.motie.go.kr/motie/ne/presse/press2/bbs/bbsView.do?bbs_seq_n=166919&bbs_cd_n=81¤tPage=21&search_key_n=title_v&cate_n=&dept_v=&search_val_v=

¹⁴⁵⁶ Korea and UK announce joint declaration on energy transition, Ministry of Trade, Industry and Energy (Sejong) 10 April 2023. Access Date: 2 May 2023. http://english.motie.go.kr/en/tp/energy/bbs/bbsView.do?bbs_seq_n=1248&bbs_cd_n=2&view_type_v=TOPIC&¤tPage=1&search_key_n=&search_val_v=&cate_n=3

¹⁴⁵⁷ FACT SHEET: Republic of Korea State Visit to the United States, The White House (Washington D.C.) 26 April 2023. Access Date: 8 May 2023. <https://www.whitehouse.gov/briefing-room/statements-releases/2023/04/26/fact-sheet-republic-of-korea-state-visit-to-the-united-states/>

¹⁴⁵⁸ Secretary Granholm and Minister Lee Commit to Strengthening Clean Energy Cooperation, Department of Energy (Washington D.C.) 1 May 2023. Access Date: 8 May 2023. <https://www.energy.gov/articles/secretary-granholm-and-minister-lee-commit-strengthening-clean-energy-cooperation>

for both domestic and international initiatives, such as collaborating with the Netherlands in deploying nuclear energy.

Thus, Korea receives a score of +1.

Analyst: Chaewon Kang

Mexico: 0

Mexico has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

On 9 January 2023, during a bilateral meeting with the United States, Mexico reaffirmed its commitment to the use of clean energy and its importance in the energy sector.¹⁴⁵⁹ This includes working together towards zero-emission vehicles, creating charging stations for electric vehicles that cross their international borders, and exploring hydrogen energy markets,

On 13 January 2023, the Ministry of Environment and Natural Resources announced that they will not allow solar geoengineering practices in the country.⁴ The goal is to prevent the negative and unequal impacts of solar geoengineering, like meteorological imbalances such as winds, torrential rains, and droughts in tropical areas.

On 17 February 2023, President Andrés Manuel López Obrador inaugurated the first stage of the photovoltaic plant in Puerto Peñasco, in the state of Sonora. The first stage of the solar park, a project by the Federal Electricity Commission, will reach a capacity of 120 MW.¹⁴⁶⁰ The solar park is scheduled to begin commercial activities as of 1 May 2023, reducing approximately 1.4 million tons of carbon dioxide per year.

On 14 March 2023, the Secretary of Foreign Affairs of Mexico Marcelo Ebrard attended the Leaders' Summit on Energy and Climate, where he reaffirmed Mexico's commitment to increase its Nationally Determined Contributions, including its promised investment of approximately 50 billion dollars to attain lower emission power generation.¹⁴⁶¹

On 14 April 2023, head of the Secretary of Environment and Natural Resources María Luisa Albores González and governor of the State of Guerrero Evelyn Salgado Pineda signed a coordination agreement for an ecological management program.¹⁴⁶² The aim of the program is to sustainably guide land use, productive activities, and the use of natural resources that are developed in Mexico.

Mexico has partially complied with its commitment to scale up the deployment of zero and low-emission power generation, including renewable resources and measures to enhance energy efficiency. Mexico has taken strong actions to implement lower emissions, but lacks actions internationally.

Thus, Mexico receives a score of 0.

Analyst: Eugenia Lapania

¹⁴⁵⁹ Versión estenográfica. Cumbre de Líderes de América del Norte. Reunión trilateral. Mensaje a medios de comunicación, Gobierno de México (Mexico City) 10 January 2023. Access Date: 1 July 2023.

<https://www.gob.mx/presidencia/articulos/version-estenografica-cumbre-de-lideres-de-america-del-norte-reunion-trilateral-mensaje-a-medios-de-comunicacion>

¹⁴⁶⁰ 'En México ya hay energía verde': AMLO inaugura planta fotovoltaica de Puerto Peñasco, Forbes México (Puerto Peñasco) 17 February 2023. Translation provided by Analyst. Access Date: 30 April 2023. <https://www.forbes.com.mx/en-mexico-ya-hay-energia-verde-amlo-inaugura-planta-fotovoltaica-de-puerto-penasco/>

¹⁴⁶¹ Participa Ebrard en Foro de las Principales Economías sobre Energía y Clima, MVS Noticias (Mexico City) 14 March 2023. Access Date: 1 July 2023. <https://mvsnoticias.com/nacional/2023/3/14/participa-ebard-en-foro-de-las-principales-economias-sobre-energia-clima-586039.html>

¹⁴⁶² Semarnat y Guerrero firman Convenio de Coordinación para el Ordenamiento Ecológico del estado, Secretaría de Medio Ambiente y Recursos Naturales (Mexico City) 14 April 2023. Translation provided by Google Translate. Access Date: 30 April 2023. <https://www.gob.mx/semarnat/prensa/semarnat-y-guerrero-firman-convenio-de-coordinacion-para-el-ordenamiento-ecologico-del-estado>

Russia: 0

Russia has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources and measures to enhance energy efficiency.

On 19 November 2022, the launching ceremony for the construction of the new nuclear power plant unit №2 at El Dabaa in Egypt took place. It is being constructed by the Rosatom state corporation. According to the Head of “Rosatom” Aleksey Likhachev, the launch of the nuclear power plant should play a crucial part in Egypt’s socio-economic and technological development, providing means for the gradual transition of the country’s industry and economy to low-carbon sources, and creating a solid foundation for Egypt’s confident and sustainable development for decades to come.¹⁴⁶³

On 23 December 2022, the Government approved the draft federal law “On the Amendments to the Code of Administrative Offenses of the Russian Federation” with regard to establishment of administrative liability for failure to provide reliable information on greenhouse gas emissions. The draft law is aimed at ensuring the reliability of state accounting of greenhouse gas emissions generated as a result of economic and other activities of regulated organizations.¹⁴⁶⁴

On 17 January 2023, the Government signed an agreement on cooperation in high-tech development with the companies “Rosatom” and “Gazprom.” The agreement primarily involves cooperative work on developing hydrogen energy capabilities and energy storage technologies. It is planned that by 2024, at least 25000 electric cars will be produced in Russia and more than 9000 charging stations will be opened. Domestic demand for energy storage will reach 17.5 GWh, of which 16 GWh per year will come from electric cars.¹⁴⁶⁵

On 16 January 2023, Prime Minister Mishustin voiced at a meeting with deputy prime ministers Russia’s intention to develop efficient, low-carbon power generating facilities in the coming year.¹⁴⁶⁶ Specifically, Prime Minister Mishustin outlines Russia’s plan to construct hydroelectric facilities, expanding aggregate capacity to 7,000 megawatts. Additionally, he emphasized the importance of replacing obsolete equipment at current power plants in order to promote efficiency.

On 23 January 2023, Prime Minister Mishustin signed a decree “On Approving the Rules for the Development and Approval of Documents for the Prospective Development of the Electric Power Industry and on Amendments to Certain Acts of the Government of the Russian Federation.” The amendments will help optimize the construction and modernization of grid infrastructure and generating facilities. The decree regulates the costs of building power lines and substations, as well as provides for the gradual formation of a rational structure of generating capacity in the country, while taking into account the objectives of low-carbon development.¹⁴⁶⁷

On 8 February 2023, the State Duma approved in the first reading the law “On Environmental Protection and Certain Legislative Acts,” which created the legislative framework for the functioning of the state monitoring system for permafrost. The document was developed by the Russian Ministry of Natural Resources and Environment at the request of the president. According to Alexander Kozlov, the Russian Minister of Natural Resources and Environment, monitoring data should assist in assessing greenhouse gas

¹⁴⁶³ The main stage of the construction of Unit 2 of El-Dabaa NPP started in Egypt, Rosatom (Moscow) 19 November 2022. Access Date: 11 April 2023. https://www.rosatom.ru/journalist/news/v-egipte-nachalsya-osnovnoy-etap-sooruzheniya-vtorogo-energobloka-aes-el-dabaa/?sphrase_id=3930627.

¹⁴⁶⁴ Decisions taken at the Government meeting of December 23, 2022, the Government of Russia (Moscow) 25 December 2022. Access Date: 11 April 2023. <http://government.ru/news/47433/>.

¹⁴⁶⁵ Alexander Novak took part in the signing of the final package of agreements on cooperation in the development of high-tech areas, Government of Russia (Moscow) 17 January 2023. Access Date: 11 April 2023. <http://government.ru/news/47555/>.

¹⁴⁶⁶ Meeting with deputy prime ministers on current issues, Russian Government (Moscow) 16 January 2023. Access Date: 19 March 2023. <http://government.ru/en/news/47544/>

¹⁴⁶⁷ The government has adopted new rules for the prospective development of the electric power industry, Government of Russia (Moscow) 23 January 2023. Access Date: 11 April 2023. <http://government.ru/news/47604/>

emissions from melting permafrost, predict climate change trends and prepare scenario-based forecasts of the country's socio-economic development.¹⁴⁶⁸

On 9 March 2023, Prime Minister Mishustin announced the Government's intention to increase the deployment of nuclear power.¹⁴⁶⁹ The Government will invest RUB27.5 billion over the next four years for the construction of a new domestic seaport terminal that will expand the deployment of floating nuclear power units.

On 11 March 2023, Prime Minister Mishustin signed a decree №373, expanding the nomenclature of green initiatives, subject to preferential financing through special bonds or loans. The list includes projects related to the construction of energy-efficient housing, clearing and restoration of water bodies, creation and modernization of infrastructure for direct capture of greenhouse gases from the environment, as well as capture and utilization of landfill gas with subsequent energy generation.¹⁴⁷⁰

On 27 April 2023, President Vladimir Putin revealed the completion and operation of the first reactor of the Akkuyu Power Plant, a Russian-constructed nuclear power plant operating in Türkiye.¹⁴⁷¹ A total of four reactors will be built, operating with a total capacity of 4,800 megawatts.

Russia has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources and measures to enhance energy. Russia has implemented enough policies to satisfy its commitment to specifically accelerate expansion of energy efficiency and low emission power generation domestically. However, Russia has not invested in low emission power generation on an international level.

Thus, Russia receives a score of 0.

Analyst: Mia Xie

Saudi Arabia: +1

Saudi Arabia has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

On 30 November 2023, the Public Investment Fund announced the plans for the largest solar power plant in the region to start operation in 2025.¹⁴⁷² This plant is a key part of Saudi Arabia's Saudi Vision 2030 goals to increase the amount of renewable energy used across the country. This project will power 350,000 homes.

On 8 February 2023, the Saudi Program for the Development and Reconstruction of Yemen has launched 12 projects to provide drinking water to Yemeni residents from solar power as well as power 20 facilities and 133 homes in Yemen with renewable power.¹⁴⁷³

¹⁴⁶⁸ The State Duma approved in the first reading a bill on monitoring permafrost, Russian Ministry of Natural Resources and Environment (Moscow) 8 February 2023. Access Date: 11 April 2023.

https://www.mnr.gov.ru/press/news/gosduma_v_pervom_chtenii_odobрила_zakonoproekt_o_monitoringe_mnogoletney_merzloty_/?sphrase_id=565866.

¹⁴⁶⁹ Government Meeting, The Russian Government (Moscow) 9 March 2023. Access Date: 28 April 2023. <http://government.ru/en/news/47951/>

¹⁴⁷⁰ The government expanded the green financing program, Government of Russia (Moscow) 11 March 2023. Access Date: 11 April 2023. <http://government.ru/news/47972/>.

¹⁴⁷¹ Putin, Erdogan Unveil Russia-Built Nuclear Plant in Turkey, The Moscow Times (Moscow) 27 April 2023. Access Date: 28 April 2023. <https://www.themoscowtimes.com/2023/04/27/putin-erdogan-unveil-russia-built-nuclear-plant-in-turkey-a80967>

¹⁴⁷² Saudi's ACWA Power, PIF Unit to Develop Largest Solar Plant in Middle East, Reuters (Dubai) 30 November 2022. Access Date: 20 March 2023. <https://www.reuters.com/world/middle-east/saudis-acwa-power-pif-unit-develop-largest-solar-plant-middle-east-2022-11-30/>

¹⁴⁷³ 12 solar-powered drinking water projects launched in 3 Yemeni governorates, Saudi Gazette (Aden) 8 February 2023. Access Date: 20 March 2023. <https://saudigazette.com.sa/article/629690/SAUDI-ARABIA/12-solar-powered-drinking-water-projects-launched-in-3-Yemeni-governorates>

On 6 March 2023, Minister of Energy Prince Abdulaziz bin Salman met with the European Commissioner for Energy Cadre Simson and European Commission Vice President Frans Timmermans.¹⁴⁷⁴ The leaders discussed Saudi Arabia's efforts in clean energy technology and reiterated the commitment of bilateral cooperation on renewable energy, especially on clean hydrogen. This meeting is part of the Saudi Green Initiative created to reduce carbon emissions.

On 12 April 2023, Minister of Energy Prince Abdulaziz bin Salman met with Iraq's Minister of Energy Ziyad Ali Fadel to discuss the linkage of power grids across the two countries.¹⁴⁷⁵ This is being done to promote renewable energy practices and to support the reliability of electricity in Saudi Arabia and Iraq.

Saudi Arabia has fully complied with its commitment to scale up renewable energy generation domestically, and additionally launched programs to aid other countries in the transition.

Thus, Saudi Arabia receives a score of +1.

Analyst: Yanni Alevras

South Africa: 0

South Africa has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

On 15 December 2022, the Ministry of Mineral Resources and Energy published amendments to Schedule 2 of the Electricity Regulation Act, 2006 to remove the licensing threshold for embedded generation in order to encourage private investment in electricity generation, including low-emission power generation.¹⁴⁷⁶ This has resulted in more than 100 projects at various stages of development with over ZAR200 billion in private sector investment, including in renewable energy.¹⁴⁷⁷

On 22 February 2023, Minister of Finance Enoch Godongwana announced a solar panel tax incentive program to encourage households to invest in clean and renewable energy.¹⁴⁷⁸ This incentive will be provided to those who use new and unused solar panels only, so as to add onto the renewable energy production that the country already has in place.

South Africa has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency. It has taken some action to promote the generation of low-emission energy from various sources, including households and private entities. However, there has not been significant action from the government itself towards producing renewable energy.

Thus, South Africa receives a score of 0.

Analyst: Yanni Alevras

Türkiye: 0

Türkiye has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

¹⁴⁷⁴ Key energy issues figure high in Saudi, European Commission talks, Saudi Gazette (Riyadh) 6 March 2023. Access Date: 20 March 2023 <https://saudigazette.com.sa/article/630417/SAUDI-ARABIA/Key-energy-issues-figure-high-in-Saudi-European-Commission-talks>

¹⁴⁷⁵ Saudi, Iraqi officials discuss linking of power grids, Saudi Gazette (Riyadh) 12 April 2023. Access Date: 5 May 2023. <https://saudigazette.com.sa/article/631545/SAUDI-ARABIA/Saudi-Iraqi-officials-discuss-linking-of-power-grids>

¹⁴⁷⁶ Electricity Regulation Act amendments published for comment, ESI Africa (Cape Town) 13 September 2022. Access Date: 1 July 2023. <https://www.esi-africa.com/southern-africa/electricity-regulation-act-amendments-published-for-comment/>

¹⁴⁷⁷ Operation Vulindlela Progress Update, National Treasury (Cape Town) n.d. Access Date: 1 July 2023. https://www.stateofthenation.gov.za/assets/downloads/OperationVulindlela2023_24Q1Report.pdf

¹⁴⁷⁸ Frequently Asked Questions: Solar Panel Tax Incentive for Individuals, National Treasury (Cape Town) 22 February 2023. Access Date: 1 July 2023. <https://www.treasury.gov.za/documents/national%20budget/2023/2023%20budget%20faqs%20-%20solar%20panel%20tax%20incentive.pdf>

On 19 January 2023, Energy and Natural Resources Minister Fatih Dönmez announced its “National Energy Plan.”¹⁴⁷⁹ The plan commits to increase Türkiye’s clean energy generation to 189,700 megawatts by 2035, including increasing nuclear energy to 11.1 per cent of total share. Minister Dönmez recognized the importance of hydrogen in clean energy production, and pledged to increase the ratio of hydrogen to natural gas to 12 per cent, and committed to reaching net zero by 2053.

On 19 January 2023, Minister Dönmez announced the Hydrogen Technologies Strategy and Roadmap.¹⁴⁸⁰ Under this roadmap, Türkiye plans to reduce the price of hydrogen to USD2.40 per kilogram in 2035, and USD1.20 per kilogram by 2050.¹⁴⁸¹ In the meantime, Türkiye will boost its solar energy production as well, which is expected to reach 52,900 megawatts by 2035.

Türkiye has partially complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency, but has yet to introduce international cooperation.

Thus, Türkiye receives a score of 0.

Analyst: Jania Husbands-Jackson

United Kingdom: +1

The United Kingdom has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency.

On 29 November 2022, Business and Energy Secretary Grant Shapps confirmed the UK government’s decision to invest EUR7 million to back the Sizewell C’s development.¹⁴⁸² The goal is to generate reliable clean energy to 6 million UK homes and overall cut household energy usage.

On 7 December 2022, Prime Minister Rishi Sunak announced a new energy partnership with the United States of America.¹⁴⁸³ The goal is to reduce global reliance on Russian energy exports by supporting the transition to clean energy through the development of clean hydrogen globally and promoting the use of local nuclear energy.

On 17 December 2022, the Department for Business, Energy and Industrial Strategy and the Rt Hon Grant Shapps MP announced the launch of the “It All Adds Up” campaign.¹⁴⁸⁴ The goal of the campaign is to increase awareness of the steps that individuals can take to reduce the amount of energy required to maintain the warmth of homes during winter. This action ultimately reduces the amount of energy used to heat homes.

On 18 December 2022, Minister for Energy and Climate Graham Stuart signed an agreement on renewable energy cooperation with European Union and North Seas countries.¹⁴⁸⁵ The agreement entails collaboration

¹⁴⁷⁹Bakan Dönmez, Türkiye'nin Ulusal Enerji Planı'nı tanıttı, T.C. Enerji ve Tabii Kaynaklar Bakanlığı (Ankara) 19 January 2023. Translation provided by Google Translate. Access Date: 21 March 2023. <https://enerji.gov.tr/haber-detay?id=21102>

¹⁴⁸⁰ Türkiye Hidrojen Teknolojileri Stratejisi ve Yol Haritası, T.C. Enerji ve Tabii Kaynaklar Bakanlığı (Ankara) 19 January 2023. Translation provided by Google Translate. Access Date: 21 March 2023. https://enerji.gov.tr/media/Dizin/SGB/tr/kurumsal_politikalar/HSP/ETKB_Hidrojen_Stratejik_Plan2023.pdf

¹⁴⁸¹ Turkey Aims to Produce Hydrogen at \$2.40/kg by 2035, PV Magazine (Berlin) 26 January 2023. Access Date: 29 March 2023. <https://www.pv-magazine.com/2023/01/26/turkey-aims-to-produce-hydrogen-at-2-40-kg-by-2035>

¹⁴⁸² UK government takes major steps forward to secure Britain's energy independence, Department for Business, Energy & Industrial Strategy (London) 29 November 2022. Access Date: 20 March 2023. <https://www.gov.uk/government/news/uk-government-takes-major-steps-forward-to-secure-britains-energy-independence>

¹⁴⁸³ UK and US announce new energy partnership, Prime Minister’s Office, 10 Downing Street (London) 7 December 2022. Access Date: 21 March 2023. <https://www.gov.uk/government/news/uk-and-us-announce-new-energy-partnership>

¹⁴⁸⁴ Small changes mean energy advice campaign adds up to big savings, Department for Business, Energy & Industrial Strategy (London) 17 December 2022. Access Date: 4 May 2023. <https://www.gov.uk/government/news/small-changes-mean-energy-advice-campaign-adds-up-to-big-savings>

¹⁴⁸⁵ UK Signs Agreement on Offshore Renewable Energy Cooperation, Department for Business, Energy, and Industrial Strategy (London) 18 December 2022. Access Date: 29 March 2023. <https://www.gov.uk/government/news/uk-signs-agreement-on-offshore-renewable-energy-cooperation>

on the development of offshore renewable energy, which will support the UK in reaching its target of increasing offshore wind energy to 50 gigawatts and delivering 18 gigawatts of electricity interconnector capacity by 2030.

On 10 March 2023, the governments of the United Kingdom and France partnered to transition away from fossil fuels and towards nuclear and renewable energy sources in order to enable both countries achieve greater energy security.¹⁴⁸⁶ The UK and France agree to continue their cooperation on civil nuclear in order to take advantage of both countries' ambitions to significantly expand their respective sectors. The agreement will reduce consumer energy costs and increase the flow of clean renewable energy between the two nations. Both parties will also collaborate to overcome obstacles to the deployment of rapidly evolving low-carbon technologies, such as hydrogen and carbon capture and storage, which will aid in job growth.

On 16 March 2023, Minister of State for Energy Security and Net Zero Graham Stuart confirmed the UK's decision to pledge GBP205 million to British low-carbon electricity generation projects.¹⁴⁸⁷ The goal is to support green energy by replacing fossil fuels with cheaper, cleaner domestic sources of energy.

On 27 March 2023, the UK Atomic Energy Authority signed a memorandum of understanding with the Korean Institute of Fusion Energy. The memorandum consisted of agreements on knowledge sharing and information exchange between the two organizations, specializing in research on fusion energy as a renewable energy source.¹⁴⁸⁸

On 3 April 2023, Secretary Shapps announced GBP160 million of funding for pilot projects through the Floating Offshore Wind Manufacturing Investment Scheme to build offshore wind energy infrastructure in Wales and Scotland, both which will support the UK's goal of 5 gigawatts in offshore wind energy by 2030.¹⁴⁸⁹

On 10 April 2023, Secretary Shapps and Korea's Minister of Trade, Industry and Energy Lee Chang-yang and declared an agreement to reinforce cooperation and exchange in clean energy.¹⁴⁹⁰ Both delegations discussed measures for mutually beneficial cooperation in nuclear energy, offshore wind power, hydrogen and other areas of clean energy.

On 16 April 2023, the UK attended the G7 Ministers' Meeting on Climate, Energy and Environment in Sapporo, Japan. Leaders committed to the phasing out of unabated fossil fuel powers and increased transparency on reporting. G7 members committed to collectively increase offshore wind capacity by 150 gigawatts and solar energy by 1 terawatt by 2030.¹⁴⁹¹

The United Kingdom has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources, and measures to enhance energy efficiency. The United Kingdom has taken both domestic and international action to reduce carbon emissions and improve energy efficiency by investing in sustainable development and multilateral agreements.

¹⁴⁸⁶ Department for Energy Security and Net Zero. "New UK-France Partnership to Bring 'More Energy Security and Independence'." Department for Energy Security and Net Zero (London), 10 March 2023, Access Date: 18 March 2023. <https://www.gov.uk/government/news/new-uk-france-partnership-to-bring-more-energy-security-and-independence>

¹⁴⁸⁷ UK confirms 205 million budget to power more of Britain from Britain, Department for Energy Security and Net Zero (London) 16 March 2023. Access Date: 20 March 2023. <https://www.gov.uk/government/news/uk-confirms-205-million-budget-to-power-more-of-britain-from-britain>

¹⁴⁸⁸ UKAEA and Korea Institute of Fusion Energy sign MOU for remote handling for future fusion powerplants, UK Atomic Energy Authority (London) 27 March 2023. Access Date: 8 May 2023. <https://www.gov.uk/government/news/ukaea-and-korea-institute-of-fusion-energy-sign-mou-for-remote-handling-for-future-fusion-powerplants>

¹⁴⁸⁹ Green growth for Wales as UK government announces multi billion pound investment to boost UK energy independence, Department for Energy Security and Net Zero (London) 3 April 2023. Access Date: 8 May 2023. <https://www.gov.uk/government/news/green-growth-for-wales-as-uk-government-announces-multi-billion-pound-investment-to-boost-uk-energy-independence>

¹⁴⁹⁰ Korea and UK announce joint declaration on energy transition, Ministry of Trade, Industry and Energy (Sejong) 10 April 2023. Access Date: 2 May 2023. http://english.motie.go.kr/en/tp/energy/bbs/bbsView.do?bbs_seq_n=1248&bbs_cd_n=2&view_type_v=TOPIC&¤tPage=1&search_key_n=&search_val_v=&cate_n=3

¹⁴⁹¹ G7 Climate, Energy and Environment Ministers' Communiqué, Ministry of the Environment (Sapporo) 16 April 2023. Access Date: 8 May 2023. <https://www.env.go.jp/content/000128270.pdf>

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

Analyst: Jania Husbands-Jackson

United States: +1

The United States has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources and measures to enhance energy efficiency.

On 17 November 2022, Secretary of Energy Jennifer Granholm attended the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change. Secretary Granholm announced that the US has joined the Net-Zero Industries Mission, which focuses on decarbonizing emissions-intensive industries by 2030.¹⁴⁹² The US also announced the establishment of a Clean Energy Training Center with Ghana to support the development, education, and training for civil nuclear cooperation and nuclear energy generation.

On 10 February 2023, the Department of Energy announced USD30 million to increase the cost-effectiveness of domestic materials used to improve efficiency in wind turbines.¹⁴⁹³ The materials, including 3D-printed lightweight composites, will aid in the deployment of wind energy in compliance with President Biden's goal of reaching 100 per cent clean electricity by 2035.

On 22 February 2023, at the Floating Offshore Wind Shot Summit, the Department of Energy announced new actions to reduce the cost of floating offshore wind energy by over 70 per cent by 2035, and to deploy 15 gigawatts of floating offshore wind in the same year.¹⁴⁹⁴ The new partnerships and initiatives are funded through the Inflation Reduction Act and will secure the US's leading position in wind energy.

On 28 February 2023, Secretary Granholm met with the UK's Secretary of Energy Security Grant Shapps. The two leaders released a joint statement that committed to promoting international cooperation on clean energy and bilateral working-level site visits.¹⁴⁹⁵

On 1 March 2023, the Department of Energy announced USD300 million as part of the Bipartisan Infrastructure Law for energy projects that increase affordability and comply with climate resilience.¹⁴⁹⁶ An additional USD15 million is put aside for a prize competition to develop renewable energy in rural communities.

On 13-17 March, Deputy Secretary of Energy David Turk visited Brazil, Chile, and Argentina to meet with governments, energy associations, and industry representatives. Deputy Secretary Turk discussed cooperation with the three countries on hydrogen, critical minerals, civil nuclear energy, and just transitions.¹⁴⁹⁷

On 15 March 2023, the Department of Energy announced USD750 million in funding from the Biden-Harris Administration for the research, development, and demonstration efforts on reducing clean

¹⁴⁹² U.S. Secretary of Energy Advances America's Commitment to Reaching Net Zero Global Emissions and Combatting Climate Change at COP27, Department of Energy (Sharm El-Sheikh) 17 November 2022. Access Date: 29 March 2023. <https://www.energy.gov/articles/us-secretary-energy-advances-americas-commitment-reaching-net-zero-global-emissions-and>

¹⁴⁹³ U.S. Department of Energy Announces \$30 Million for Materials and Manufacturing to Lower Costs of Large Wind Turbines, Department of Energy (Washington D.C.) 10 February 2023. Access Date: 29 March 2023. <https://www.energy.gov/articles/us-department-energy-announces-30-million-materials-and-manufacturing-lower-costs-large>

¹⁴⁹⁴ U.S. Department of Energy Announces New Actions to Accelerate U.S. Floating Offshore Wind Deployment, Department of Energy (Washington D.C.) 22 February 2023. Access Date: 29 March 2023. <https://www.energy.gov/articles/us-department-energy-announces-new-actions-accelerate-us-floating-offshore-wind-deployment>

¹⁴⁹⁵ U.S.-U.K. Strategic Energy Dialogue Joint Statement, Department of Energy (London) 28 February 2023. Access Date: 29 March 2023. <https://www.energy.gov/articles/us-uk-strategic-energy-dialogue-joint-statement-0>

¹⁴⁹⁶ Biden-Harris Administration Invests \$315 Million to Advance Reliable Clean Energy in Rural and Remote Communities, Department of Energy (Washington D.C.) 1 March 2023. Access Date: 29 March 2023. <https://www.energy.gov/articles/biden-harris-administration-invests-315-million-advance-reliable-clean-energy-rural-and>

¹⁴⁹⁷ Readout of Deputy Secretary Turk's Visit to Brazil, Chile, and Argentina, Department of Energy (Buenos Aires) 17 March 2023. Access Date: 29 March 2023. <https://www.energy.gov/articles/readout-deputy-secretary-turks-visit-brazil-chile-and-argentina>

hydrogen costs.¹⁴⁹⁸ The funding is the first out of a total of USD1.5 billion in President Biden's Bipartisan Infrastructure Law, aimed at improving electrolysis technologies and their implementation.

On 17 March 2023, Deputy Secretary Turk released a joint statement with Argentina's Secretary of Energy Flavia Royón, reinforcing the bilateral commitment to continue collaborating on accelerating clean energy transitions and enhancing energy security through the Net Zero World initiative.¹⁴⁹⁹ Through this program, the US will share technical resources with Argentina to reach net-zero goals. Technical teams from both countries are scheduled to meet in early April.

On 17 March 2023, the Department of Energy announced USD590 million to renew four Bioenergy Research Centers to help develop new sustainable bioenergy from domestic biomass resources.¹⁵⁰⁰ The research centers are supported by national laboratories and universities to reduce barriers to the domestic bioenergy industry, which will significantly help in reducing greenhouse emissions in energy generation.

On 21 March 2023, the Department of Energy announced the launch of the Pathways to Commercial Liftoff, which consists of a set of reports aiming to enhance engagement between private and public sectors to quicken the deployment of clean energy technologies.¹⁵⁰¹ The reports provide information to the private sector regarding how and when clean hydrogen, advanced nuclear and long duration energy storage can reach maximum deployment.

On 22 March 2023, the Department of Energy announced over USD200 million under the Bipartisan Infrastructure Law to modernize and expand hydroelectric power across the country.¹⁵⁰² Funding will be provided by the Department's Hydroelectric Production Incentives and the Hydroelectric Efficiency Improvement Incentives.

On 27 March 2023, the Department of Energy released a joint statement with the Department of Natural Resources of Canada regarding future nuclear energy cooperation.¹⁵⁰³ Both affirmed their intent to promote increased bilateral collaboration on nuclear energy, stating that "nuclear power provides affordable low carbon energy while contributing to the security of energy supply as a reliable, clean energy source."

On 29 March 2023, the Department of Energy released the Offshore Wind Energy Strategy, aimed at achieving the goal of deploying 30 gigawatts of offshore wind energy by 2030.¹⁵⁰⁴ The strategy outlines the Department's efforts at reducing the cost of offshore wind energy by 70 per cent by 2035, with plans to greatly expand the integration and deployment of wind energy.

¹⁴⁹⁸ Biden-Harris Administration Announces \$750 Million to Advance Clean Hydrogen Technologies, Department of Energy (Washington D.C.) 15 March 2023. Access Date: 29 March 2023. <https://www.energy.gov/articles/biden-harris-administration-announces-750-million-advance-clean-hydrogen-technologies>

¹⁴⁹⁹ Joint Statement Following the Bilateral Meeting Held Between United States of America Deputy Secretary of Energy David Turk and Republic of Argentina Secretary of Energy of The Ministry of Economy Flavia Gabriela Royón, Department of Energy (Washington D.C.) 17 March 2023. Access Date: 29 March 2023. <https://www.energy.gov/articles/joint-statement-following-bilateral-meeting-held-between-united-states-america-deputy>

¹⁵⁰⁰ DoE Announces \$590 Million to Increase Bioenergy Research, Department of Energy (Washington D.C.) 17 March 2023. Access Date: 29 March 2023. <https://www.energy.gov/articles/doe-announces-590-million-increase-bioenergy-research>

¹⁵⁰¹ DOE Releases New Reports on Pathways to Commercial Liftoff to Accelerate Clean Energy Technologies, Department of Energy (Washington D.C.) 21 March 2023. Access Date: 8 May 2023. <https://www.energy.gov/articles/doe-releases-new-reports-pathways-commercial-liftoff-accelerate-clean-energy-technologies>

¹⁵⁰² Biden-Harris Administration Announces Over \$200 Million to Modernize and Expand Hydropower, Department of Energy (Washington D.C.) 22 March 2023. Access Date: 5 May 2023. <https://www.energy.gov/articles/biden-harris-administration-announces-over-200-million-modernize-and-expand-hydropower>

¹⁵⁰³ Joint Statement Between the Department of Energy of the United States of America and the Department of Natural Resources of Canada on Nuclear Energy Cooperation, Department of Energy (Washington D.C.) 27 March 2023. Access Date: 8 May 2023. <https://www.energy.gov/articles/joint-statement-between-department-energy-united-states-america-and-department-natural>

¹⁵⁰⁴ DOE Releases Strategy to Accelerate and Expand Domestic Offshore Wind Deployment, Department of Energy (Washington D.C.) 29 March 2023. Access Date: 5 May 2023. <https://www.energy.gov/articles/doe-releases-strategy-accelerate-and-expand-domestic-offshore-wind-deployment>

On 4 April 2023, the government of the United States and the European Union released a joint statement following the tenth meeting of the US-EU Energy Council in Brussels.¹⁵⁰⁵ The statement reaffirmed the United States and the EU's commitment to promoting energy efficiency policies and advancing technologies that aid the shift toward achieving net-zero emissions by 2050.

On 15 April 2023, the United States and Japan signed a memorandum of commitment to cooperate on developing geothermal energy on the sidelines of the G7 Ministers' Meeting. Expanding Japan's geothermal energy would allow 90 per cent of the country's power to come from renewable sources, leading to a 92 per cent reduction in greenhouse gas emissions from power generation.¹⁵⁰⁶

On 16 April 2023, the US attended the G7 Ministers' Meeting on Climate, Energy and Environment in Sapporo, Japan. Leaders committed to the phasing out of unabated fossil fuel powers and increased transparency on reporting. G7 members committed to collectively increase offshore wind capacity by 150 gigawatts and solar energy by 1 terawatt by 2030.¹⁵⁰⁷

On 26 April 2023, Secretary of Energy Granholm and Minister of Trade, Industry and Energy Lee Chang-Yang from South Korea met under the Energy Policy Dialogue to determine priority areas for bilateral collaboration on decarbonisation and advancing both countries' clean energy objectives.¹⁵⁰⁸ Both affirmed the need to encourage clean energy partnerships through investments, people-to-people exchanges and cooperation in research and development.

The United States has fully complied with its commitment to scale up the deployment of zero and low-emission power generation, including renewable resources and measures to enhance energy efficiency. The United States have taken significant steps in scaling up domestic zero- and low-emissions power generation, improving efficiency, as well as continued collaboration with other countries through investments, dialogues, and information exchange.

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

Analyst: Rameen Azmat

European Union: +1

The European Union has fully complied with its commitment to scale up the deployment of zero and low emission power generation, including renewable energy resources and measures to enhance energy efficiency.

On 12 December 2022, the European Commission approved Germany's 2023 Renewable Energy Sources Act and Offshore Wind Energy Act. The bills greatly expand renewable energy generation through offshore wind and solar power, and include new rules that prioritize that expansion for authorization and planning purposes.¹⁵⁰⁹

On 21 February 2023, the European Council officially adopted an amendment to include REPowerEU chapters in the Recovery and Resilience Facility. Member states will be able to add a new REPowerEU chapter to their national recovery plans to diversify energy supply, reduce dependence on fossil fuels, and

¹⁵⁰⁵ Joint Statement by the U.S. and EU following the 10th U.S.-EU Energy Council (Washington D.C.) 4 April 2023. Access Date: 5 May 2023. <https://www.energy.gov/articles/joint-statement-us-and-eu-following-10th-us-eu-energy-council>

¹⁵⁰⁶ Japan, US Agree to Cooperate on Geothermal Energy, Associated Press (Sapporo) 15 April 2023. Access Date: 8 May 2023. <https://apnews.com/article/energy-geothermal-japan-us-g7-granholm-7ef18483b51d71180d9ba821b41d37d6>

¹⁵⁰⁷ G7 Climate, Energy and Environment Ministers' Communiqué, Ministry of the Environment (Sapporo) 16 April 2023. Access Date: 8 May 2023. <https://www.env.go.jp/content/000128270.pdf>

¹⁵⁰⁸ FACT SHEET: Republic of Korea State Visit to the United States, The White House (Washington D.C.) 26 April 2023. Access Date: 8 May 2023. <https://www.whitehouse.gov/briefing-room/statements-releases/2023/04/26/fact-sheet-republic-of-korea-state-visit-to-the-united-states/>

¹⁵⁰⁹ European Commission approves 2023 Renewable Energy Sources Act and 2023 Offshore Wind Energy Act under State aid rules, Bundesministerium für Wirtschaft und Klimaschutz (Berlin) 22 December 2022. Access Date: 29 March 2023. <https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/12/20221222-european-commission-approves-2023-renewable-energy-sources-act-and-2023-offshore-wind-energy-act-under-state-aid-rules.html>

increase the sustainability of the European energy system. An additional EUR20 billion grant was made available to finance related reforms.¹⁵¹⁰

On 9 March 2023, the European Council affirmed that the transition to climate neutral energy production is the primary goal of external energy policy. The Council voiced its willingness to support measures to improve global sustainable and climate finance to aid low- and middle-income countries in the energy transition and its commitment to the goal of collecting USD100 billion in global aid to support climate action “as soon as possible and through to 2025.”¹⁵¹¹

On 3 April 2023, the European Commission approved a EUR450 million program dedicated to supporting the production of renewable hydrogen with the goal of assisting the transition to a net-zero economy in Italy.¹⁵¹² This program would allow for investments in the production of renewable hydrogen and renewable electricity.

On 4 April 2023, the EU and the United States released a joint statement following the tenth EU-US Energy Council.¹⁵¹³ According to the joint statement, the Council explained the importance of rapidly deploying low-carbon technologies and renewables as a key pillar of energy transition. The EU and the US furthermore reaffirmed their intention to continue their collaboration in fostering energy investments to support the transition to climate neutrality. During the Council’s meetings, the EU and the US also decided to organise a High-Level Small Modular Reactors Forum later in 2023 to explore the role that nuclear power can play in the decarbonisation of energy-systems in countries that will decide to or have decided to rely on nuclear energy. On 3 April, the Council organised a Business Roundtable, which aimed to facilitate the deployment of energy savings and renewable technology solutions in the EU and in the US.

On 24 April 2023, the EU and Norway established a Green Alliance with the aim of strengthening their joint efforts on climate action, environmental protection, industrial transition and clean energy.¹⁵¹⁴ The joint alliance will specifically focus on accelerating the transition to clean energy, namely on hydrogen and offshore renewable energy. Additionally, the decarbonisation of the transport sector is also a priority area of the bilateral Green Alliance with special consideration to zero pollution and zero emission shipping.

The European Union has fully complied with its commitment to scale up the deployment of zero and low-emission power generation, including renewable resources and measures to enhance energy efficiency. The European Union has taken action to scale up the deployment of zero and low emission power generation through investments, adoption of national-level programs, and multilateral cooperation.

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

Analyst: Matias Wheeler Nass

¹⁵¹⁰ EU Recovery Plan: Council Adopts REPowerEU, European Council (Brussels) 21 February 2023. Access Date: 19 March 2023. <https://www.consilium.europa.eu/en/press/press-releases/2023/02/21/eu-recovery-plan-council-adopts-repowereu/>

¹⁵¹¹ Council Conclusions on Climate and Energy Diplomacy, European Council (Brussels). 9 March 2023. Access date: 19 March 2023. <https://www.consilium.europa.eu/media/62942/st07248-en23.pdf>

¹⁵¹² State aid: Commission approves EUR450 million Italian scheme to support the production of renewable hydrogen to foster the transition to a net-zero economy, European Commission (Brussels) 3 April 2023. Access Date: 8 May 2023. https://ec.europa.eu/commission/presscorner/detail/en/ip_23_2044

¹⁵¹³ Joint Statement by the EU and the US following the 10th EU-US Energy Council, European Commission (Brussels) 4 April 2023. Access Date: 8 May 2023. https://ec.europa.eu/commission/presscorner/detail/en/statement_23_2121

¹⁵¹⁴ European Green Deal: New EU-Norway Green Alliance to deepen cooperation on climate, environment, energy and clean industry, European Commission (Brussels) 24 April 2023. Access Date: 8 May 2023. https://ec.europa.eu/commission/presscorner/detail/en/ip_23_2391