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# 2023 G7 Hiroshima Summit Interim Compliance Report

22 May 2023 to 3 December 2023

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

Chancellor Angela Merkel, Schloss Elmau, 8 June 2015

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

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

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## 5. Climate Change: Emission Reduction Policies

“We support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions, and note that these could vary reflecting country-specific circumstances.”

*G7 Hiroshima Leaders’ Communiqué*

### Assessment

	No Compliance	Partial Compliance	Full Compliance
Canada			+1
France			+1
Germany			+1
Italy			+1
Japan			+1
United Kingdom			+1
United States			+1
European Union			+1
Average	+1.00(100%)		

### Background

The 1994 United Nations Framework Convention on Climate Change (UNFCCC) radically changed the discourse surrounding climate action.<sup>443</sup> It set the foundations for G7 members to commit to and engage in tackling the climate crisis, with a focus on reducing greenhouse emissions. By 2016, the need for strengthened emission reduction policies was reinforced as the 2016 Paris Agreement aimed to limit global warming to 1.5°C.<sup>444</sup> Since then, G7 members have reaffirmed their commitment to past climate accords and set ambitious goals for achieving net-zero gas emissions by 2050, emphasizing the urgent need to transition to sustainable energy systems.

At the 1990 Houston Summit, G7 leaders underscored the vital role of international cooperation in developing novel technologies and approaches to complement energy conservation in the endeavour to reduce carbon emissions.<sup>445</sup> Their endorsement extended to expediting scientific and economic research to identify viable responses to climate change, fostering this pursuit across developing and developed nations.

At the 2001 Genoa Summit, G8 leaders underscored the urgency of addressing climate change and greenhouse gas (GHG) emissions.<sup>446</sup> They collectively pledged to support the reduction of GHG emissions by strengthening and implementing national programs, as well as by actively promoting the adoption of renewable energy sources.

At the 2002 Kananaskis Summit, G8 leaders did not discuss policy mixes to reduce emissions, but at the Environment Ministerial Meeting in Banff, G8 Environment Ministers committed to collaborating with governments and various partners to implement impactful measures in the energy sector.<sup>447</sup> These measures

<sup>443</sup> What is the United Nations Framework Convention on Climate Change?, United Nations (New York) n.d. Access Date: 30 September 2023. <https://unfccc.int/process-and-meetings/what-is-the-united-nations-framework-convention-on-climate-change>

<sup>444</sup> The Paris Agreement, United Nations (New York) n.d. Access Date: 30 September 2023. <https://www.un.org/en/climatechange/paris-agreement>

<sup>445</sup> Houston Economic Declaration, G7 Information Centre (Toronto) 11 July 1990. Access Date: 30 September 2023. <http://www.g7.utoronto.ca/summit/1990houston/declaration.html#environment>

<sup>446</sup> Communiqué, G7 Information Centre (Toronto) 22 July 2001. Access Date: 27 December 2023. <http://www.g7.utoronto.ca/summit/2001genoa/finalcommunique.html>

<sup>447</sup> Banff Ministerial Statement on the World Summit on Sustainable Development, Information Centre (Toronto) 14 April 2002. Access Date: 30 September 2023. <http://www.g7.utoronto.ca/environment/020415.html>

encompassed enhancing energy efficiency, refining energy resources, advancing new technologies, and advocating for the widespread adoption of renewable energy sources.

At the 2005 Gleneagles Summit, the G8 committed to addressing climate change and pushing for clean energy.<sup>448</sup> They also pledged to implement policies which would stimulate the growth of markets for clean energy technologies, making them more accessible in developing countries. Additionally, these leaders affirmed their support for vulnerable communities in adapting to the climate crisis.

At the 2014 Brussels Summit, G7 leaders committed to advocating for the adoption of low-carbon technologies, including renewable energy sources.<sup>449</sup> Additionally, these leaders committed to collaborating with organizations such as the International Energy Agency and international financial institutions to provide technical support for the deployment of renewable energy solutions in Ukraine and various European countries.

At the 2015 Schloss Elmau Summit, G7 leaders pledged their support for the adoption of renewable energy sources.<sup>450</sup> They emphasized that their aim in embracing renewables was to decrease greenhouse gas emissions within their energy systems.

At the 2016 Ise-Shima Summit, G7 leaders pledged to allocate investments in energy sectors, notably renewable energy sources and other low-carbon technologies, with the aim of fostering economic growth while minimizing carbon emissions.<sup>451</sup> Leaders reiterated their commitment to bolstering collaboration in energy technology innovation, research, development, and implementation, all geared towards expediting advancements in clean energy, including the adoption of renewable energy sources.

At the 2018 Charlevoix Summit, G7 leaders emphasized their advancements in the field of renewable energy, encompassing technologies such as solar and wind power.<sup>452</sup> They underscored these achievements in light of the imperative to diminish greenhouse gas emissions and enhance the sustainability of energy systems.

At the 2019 Biarritz Summit, G7 leaders did not discuss policy mixes to reduce emissions but at their meeting in Metz, G7 Energy Ministers committed to promoting efficient technologies, including renewable energy sources, and upholding the highest standard policies aimed at boosting energy efficiency.<sup>453</sup> These ministers stressed the significance of energy efficiency as a crucial component for building a global economy with low emissions that makes sustainable use of natural resources.

At the 2021 Cornwall Summit, G7 leaders pledged to expedite the adoption of zero-emission energy sources and to curtail wasteful consumption.<sup>454</sup> The promotion of renewable energy alternatives was framed as the Build Back Better World strategy to bounce back from the Covid-19 pandemic, aligning with the blueprint outlined by the International Energy Agency and the commitments set forth in the Paris Agreement.

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<sup>448</sup> Chairs' Summary, G7 Information Centre (Toronto) 8 July 2005. Access Date: 9 October 2022.  
<http://www.g7.utoronto.ca/summit/2005gleneagles/summary.html>

<sup>449</sup> G7 Brussels Summit Declaration, G7 Information Centre (Toronto) 5 June 2014. Access Date: 27 December 2023.  
<http://www.g7.utoronto.ca/summit/2014brussels/declaration.html>

<sup>450</sup> Leaders' Declaration: G7 Summit, G7 Information Centre (Toronto) 8 June 2015. Access Date: 27 December 2023.  
<http://www.g7.utoronto.ca/summit/2015elmau/2015-G7-declaration-en.html>

<sup>451</sup> G7 Ise-Shima Leaders' Declaration, G7 Information Centre (Toronto) 27 May 2016. Access Date: 27 December 2023.  
<http://www.g7.utoronto.ca/summit/2016shima/ise-shima-declaration-en.html>

<sup>452</sup> The Charlevoix G7 Summit Communiqué, G7 Information Centre (Toronto) 9 June 2018. Access Date: 27 December 2023.  
<http://www.g7.utoronto.ca/summit/2018charlevoix/communique.html>

<sup>453</sup> Communiqué, G7 Information Centre (Toronto) 6 May 2019. Access Date: 30 September, 2023.  
<http://www.g7.utoronto.ca/environment/2019-environment.html>

<sup>454</sup> Carbis Bay G7 Summit Communiqué, The White House (Washington D.C.) 13 June 2021. Access Date: 30 September 2023.  
<https://www.whitehouse.gov/briefing-room/statements-releases/2021/06/13/carbis-bay-g7-summit-communique/>

At the 2023 Hiroshima Summit, the G7 committed to accelerating the Sustainable Development Goals (SDGs), recognizing the interconnected nature of poverty and the climate crisis.<sup>455</sup> As such, member states stated that they will engage with emerging and developing nations to accelerate emission reduction targets by supporting the transition to green, circular, and resilient economies.

### Commitment Features

At the 2023 Hiroshima Summit, G7 leaders made the following commitment: “We support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions, and note that these could vary reflecting country-specific circumstances.”<sup>456</sup> There are three dimensions of this commitment that must be fulfilled to achieve full compliance, supporting policy mixes that include: 1) carbon pricing, 2) non-pricing mechanisms, and 3) incentives that effectively reduce emissions.

### Definitions and Concepts

“Policy mixes” can be defined as “aligning monetary policy and adopting fiscal policies” to manage a country’s economy.<sup>457</sup> In the context of this commitment, policy mixes refer to policies that “enable reduction of greenhouse gas (GHG) emissions but also ensure that the transition to a low-carbon and climate resilient future is affordable, inclusive, and politically feasible.”<sup>458</sup>

“Carbon pricing” is understood to mean an instrument to curb production of GHG emissions by “placing a fee on emitting and/or offering an incentive for emitting less.”<sup>459</sup>

“Non-pricing mechanisms” refers to measures that do not involve significant financial costs or engage with monetary aspects of policy.<sup>460</sup> In the context of the commitment, it refers to actions that are taken to effectively reduce GHG emissions without significant costs. These measures may be more effective and favored as alternatives for member states, as well as complementary and supportive to carbon pricing measures.

“Effectively” should be interpreted to mean operating in a way that produces the intended result. It does not mean any effort, especially thoughtless ones.<sup>461</sup>

“Emissions” refers to the “act of producing or sending out something (such as energy or gas) from a source.”<sup>462</sup> Carbon dioxide (CO<sub>2</sub>) makes up most greenhouse gas emissions from the sector, but smaller amounts of methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) are also emitted.<sup>463</sup> These gasses are released during the “combustion of fossil fuels, such as coal, oil, and natural gas” which contribute to climate change.<sup>464</sup>

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<sup>455</sup> G7 Communiqué Hiroshima 2023, G7 Information Centre (Toronto) 20 May 2023. Access Date: 30 September 2023.

<http://www.g7.utoronto.ca/summit/2023hiroshima/230520-communication.html>

<sup>456</sup> G7 Leaders’ Communiqué, G7 Information Centre (Toronto) 20 May 2023. Access Date: 23 September 2023.

<http://www.g7.utoronto.ca/summit/2023hiroshima/230520-communication.html>

<sup>457</sup> Time to act now: It’s all about the right policy mix, International Monetary Fund (Washington D.C.) 19 October 2017. Access Date: 7 October 2023. <https://www.imf.org/en/Blogs/Articles/2017/10/19/time-to-act-now-its-all-about-the-right-policy-mix>

<sup>458</sup> Promoting Climate Action Through Non-Pricing, Asian Development Bank (Mandaluyong.) 23 March 2023. Access Date: 11 October 2023. <https://g20sfwg.org/wp-content/uploads/2023/03/Promoting-Climate-Action-Through-Non-Pricing-Policy-Measures-ADB.pdf>

<sup>459</sup> About carbon pricing, United Nations Climate Change (Bonn) n.d. Access Date: 22 September 2023. <https://unfccc.int/about-us/regional-collaboration-centres/the-ciaca/about-carbon-pricing#What-is-Carbon-Pricing?>

<sup>460</sup> Promoting Climate Action Through Non-Pricing, Asian Development Bank (Mandaluyong.) 23 March 2023. Access Date: 24 September 2023. <https://g20sfwg.org/wp-content/uploads/2023/03/Promoting-Climate-Action-Through-Non-Pricing-Policy-Measures-ADB.pdf>

<sup>461</sup> Compliance Coding Manual, G7 Information Centre (Toronto) 12 November 2020. Access Date 24 September 2023.

[http://www.g7.utoronto.ca/compliance/Compliance\\_Coding\\_Manual\\_2020.pdf](http://www.g7.utoronto.ca/compliance/Compliance_Coding_Manual_2020.pdf)

<sup>462</sup> Emissions, Britannica (Chicago) n.d. Access Date: 22 September 2023. <https://www.britannica.com/dictionary/emission>

<sup>463</sup> Overview of Greenhouse Gas, Environmental Protection Agency (Washington D.C.) n.d. Access Date: 28 September 2023. <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>

<sup>464</sup> Overview of Greenhouse Gas, Environmental Protection Agency (Washington D.C.) n.d. Access Date: 28 September 2023. <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>

“Circumstances” can be defined as a condition, fact, or event accompanying, conditioning, or determining another.<sup>465</sup>

**General Interpretive Guidelines**

Full compliance, or a score of +1, is awarded to G7 members who demonstrate strong action towards reducing emissions through relevant policy action in all three pillars. The three pillars of emission reduction involve: carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions. Examples of strong actions regarding emissions reduction policy include, but are not limited to, investment subsidies, supporting or introducing climate funds, decarbonizing research, funding the implementation of clean and renewable energy systems, investing in zero emissions buildings and infrastructure, implementing carbon taxes, and supporting the transition to climate-smart policies.

Partial compliance, or a score of 0, is awarded to G7 members who demonstrate weaker action towards reducing emissions through relevant policy mixes by taking less than strong action in at least two of the three pillars of cooperation, or strong action in one pillar and less than strong in another. Examples of weak action include actions that are less substantial, like verbal reaffirmations of existing policies, only implementing either fiscal or monetary policies, etc. Partial compliance is also awarded when a member only takes strong action in one pillar of cooperation but fails to fulfill the two needed to achieve full compliance.

Non-compliance, or a score of -1, is awarded to those members who demonstrate little or no action towards supporting policy mixes through carbon pricing, non-pricing mechanisms, or incentives that effectively reduce emissions.

**Scoring Guidelines**

-1	The G7 member has taken little, none or directly antithetical action towards supporting appropriate policy mixes in any of the following: 1) carbon pricing, 2) non-pricing mechanisms, or 3) incentives that effectively reduce emissions within country-specific circumstances.
0	The G7 member has taken less than strong action towards supporting appropriate policy mixes in at least two of the following: 1) carbon pricing, 2) non-pricing mechanisms, or 3) incentives that effectively reduce emissions within country-specific circumstances or has taken strong action in one pillar and less than strong action in another
+1	The G7 member has taken strong action towards supporting appropriate policy mixes in all three of the following: 1) carbon pricing, 2) non-pricing mechanisms, or 3) incentives that effectively reduce emissions within country-specific circumstances.

*Compliance Director: Eisha Khan  
Lead Analyst: Spencer Lambert*

**Canada: +1**

Canada has fully complied with its commitment to support appropriate policy mixes including, carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions.

On 30 June 2023, the Government of Canada invested of up to CAD62.7 million to transition to cleaner energy in New Brunswick, promoting cleaner energy solutions.<sup>466</sup> This shows support towards effective policy mixes to reduce emissions.

<sup>465</sup> Circumstance, Merriam-Webster (Springfield) n.d. Access Date: 1 October 2023. <https://www.merriam-webster.com/dictionary/circumstance>

<sup>466</sup> Cutting pollution and making life more affordable: Government of Canada investing up to \$62.7 million to switch to cleaner energy in New Brunswick, Government of Canada (Ottawa) 30 June 2023. Access Date: 1 November 2023. <https://www.canada.ca/en/environment-climate-change/news/2023/06/cutting-pollution-and-making-life-more-affordable-government-of-canada-investing-up-to-627-million-to-switch-to-cleaner-energy-in-new-brunswick.html>

On 30 June 2023, the Government of Canada committed CAD101.7 million to switch to cleaner energy in Nova Scotia, aligning with its goals to reduce pollution and improve affordability.<sup>467</sup> The funds allow for infrastructure development and the integration of renewable energy technologies.

On 7 July 2023, Canada, as a member of the International Maritime Organization (IMO), adopted the 2023 IMO Strategy on Reduction of Greenhouse Gas (GHG) Emissions from Ships, which sets new targets in order to achieve net-zero GHG emissions from international shipping by approximately 2050.<sup>468</sup>

On 12 July 2023, the Government of Canada announced a CAD450 million contribution to the Green Climate Fund in support of global climate action.<sup>469</sup> This investment demonstrates Canada's commitment to international climate efforts related to clean energy transitions.

On 13 July 2023, the Government of Canada declared a CAD9 million investment collected from carbon pricing towards three Ontario universities to reduce localized carbon emissions.<sup>470</sup> These projects are estimated to reduce emissions by 35,000 tonnes by 2030.

On 8 August 2023, the Government of Canada introduced draft clean electricity regulations to promote clean, affordable, and reliable electricity, furthering Canada's green energy initiatives.<sup>471</sup> These regulations move Canada toward achieving the targets of the Paris Agreement and represent Canada's commitment to using policy mixes to effectively reduce emissions.

On 24 August 2023, the Government of Canada began to provide funding to Indigenous communities in accordance with the 2022 Budget for the 2030 Emissions Reduction Plan.<sup>472</sup> Over the next three years, the Government will distribute CAD29.6 million to First Nations, Métis and Inuit communities.

On 11 September 2023, the Government of Canada invested in initiatives aimed at reducing landfill emissions, contributing to cleaner air and a healthier environment.<sup>473</sup> Thus, contributing to its commitment to reduction in greenhouse gas emissions.

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<sup>467</sup> Cutting pollution and making life more affordable: Government of Canada announces \$101.7 million to switch to cleaner energy in Nova Scotia, Government of Canada (Ottawa) 30 June 2023. Access Date: 01 November 2023.

<https://www.canada.ca/en/environment-climate-change/news/2023/06/cutting-pollution-and-making-life-more-affordable-government-of-canada-announces-1017-million-to-switch-to-cleaner-energy-in-nova-scotia.html>

<sup>468</sup> Revised GHG reduction strategy for global shipping adopted, International Maritime Organization (London) 7 July 2023. Access Date: 16 February 2024. <https://www.imo.org/en/MediaCentre/PressBriefings/pages/Revised-GHG-reduction-strategy-for-global-shipping-adopted-.aspx>

<sup>469</sup> Canada announces \$450 million for the Green Climate Fund, the world's largest dedicated climate change fund, Government of Canada (Ottawa) 12 July 2023. Access Date: 1 November 2023. <https://www.canada.ca/en/environment-climate-change/news/2023/07/canada-announces-450-million-for-the-green-climate-fund-the-worlds-largest-dedicated-climate-change-fund.html>

<sup>470</sup> Government of Canada supporting Ontario universities with funding to reduce pollution to achieve environmental success, Government of Canada (Hamilton) 13 July 2023. Access Date: 27 December 2023. <https://www.canada.ca/en/environment-climate-change/news/2023/07/government-of-canada-supporting-ontario-universities-with-funding-to-reduce-pollution-to-achieve-environmental-success.html>

<sup>471</sup> Draft Clean Electricity, Government of Canada (Ottawa) 8 August 2023. Access Date: 1 November 2023.

<https://www.canada.ca/en/environment-climate-change/news/2023/08/draft-clean-electricity-regulations.html>

<sup>472</sup> Canada's Partnership with Indigenous Peoples on Climate, Government of Canada (Ottawa) 24 August 2023. Access Date: 27 December 2023. <https://www.canada.ca/en/environment-climate-change/services/climate-change/indigenous-partnership.html>

<sup>473</sup> The Government of Canada invests in cleaning up Canada's landfill emissions, Government of Canada (Ottawa) 11 September 2023. Access Date: 1 November 2023. <https://www.canada.ca/en/environment-climate-change/news/2023/09/the-government-of-canada-invests-in-cleaning-up-canadas-landfill-emissions.html>

On 27 September 2023, Minister of Energy and Natural Resources Jonathan Wilkinson released Canada's Carbon Management Strategy, outlining the country's approach to managing carbon emissions and promoting a sustainable future.<sup>474</sup>

On 4 October 2023, the Government of Canada committed CAD12.5 million in funding to support environmental literacy projects, furthering environmental awareness and sustainability.<sup>475</sup> This investment reflects a dedication to enhancing public awareness and knowledge about environmental issues, demonstrating Canada's use of policy mixes to reduce emissions.

On 25 October 2023, the Government of Canada announced a CAD2.5 million investment to enhance the Lac Mégantic microgrid capacity, contributing to reliable and clean energy solutions.<sup>476</sup> The aim of this investment is to facilitate a carbon neutral transition for Canada's energy sector.

On 14 November 2023, Parliamentary Secretary to the Minister of Agriculture and Agri-Food Francis Drouin launched the Agricultural Methane Reduction Challenge, which provides CAD12 million in funding to projects dealing with procedures and technologies from innovators that will reduce methane emissions from cattle.<sup>477</sup>

On 4 December 2023, the Minister of Environment and Climate Change Steven Guilbeault announced a published draft that will strengthen oil and gas methane regulations at the Global Methane Pledge Ministerial in Dubai.<sup>478</sup> The aim of these regulations is to cut greenhouse gas emissions, aligned with global pledges to cut oil and gas methane emissions by 2030.

Canada has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions. Canada has taken strong actions to reduce emissions by investing in several funds and projects that support the transition to clean energy alternatives and the development of emission reduction technology. Furthermore, it presented draft clean energy regulations and draft plans to cap pollution and hosted discussions regarding carbon pricing, demonstrating its commitment to support policy mixes and incentives that effectively reduce emissions.

Thus, Canada receives a score of +1.

*Analyst: Arnav Tandon*

### **France: +1**

France has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions.

On 22 June 2023, France announced its partnership with the International Partners Group to launch the Just Energy Transition Partnership to support Senegal's efforts to achieve universal access to energy and consolidate

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<sup>474</sup> Minister Wilkinson Releases Canada's Carbon Management Strategy, Government of Canada (Ottawa) 27 September 2023. Access Date: 1 November 2023. <https://www.canada.ca/en/natural-resources-canada/news/2023/09/minister-wilkinson-releases-canadas-carbon-management-strategy.html>

<sup>475</sup> Government of Canada commits \$12.5 million in funding in new collaboration with philanthropic organizations to support environmental literacy projects across Canada, Government of Canada (Ottawa) 4 October 2023. Access Date: 1 November 2023. <https://www.canada.ca/en/environment-climate-change/news/2023/10/government-of-canada-commits-125-million-in-funding-in-new-collaboration-with-philanthropic-organizations-to-support-environmental-literacy-project.html>

<sup>476</sup> Government of Canada Announces \$2.5 Million for Lac-Mégantic Microgrid Capacity Building, Government of Canada (Ottawa) 25 October 2023. Access Date: 1 November 2023. <https://www.canada.ca/en/natural-resources-canada/news/2023/10/government-of-canada-announces-25-million-for-lac-megantic-microgrid-capacity-building.html>

<sup>477</sup> Agriculture and Agri-Food Canada launches new Agricultural Methane Reduction Challenge, Agriculture and Agri-Food Canada (Sainte-Clotilde) 14 November 2023. Access Date: 27 December 2023. <https://www.canada.ca/en/agriculture-agri-food/news/2023/11/agriculture-and-agri-food-canada-launches-new-agricultural-methane-reduction-challenge.html>

<sup>478</sup> Minister Guilbeault announces Canada's draft methane regulations to support cleaner energy and climate action, Government of Canada (Ottawa) 4 December 2023. Access Date: 16 December 2023. <https://www.canada.ca/en/environment-climate-change/news/2023/12/minister-guilbeault-announces-canadas-draft-methane-regulations-to-support-cleaner-energy-and-climate-action.html>



a low-carbon, resilient and sustainable energy system.<sup>479</sup> Through this collaboration, France will provide financial support to Senegal with the aim of facilitating the expansion of renewable and lower sector emissions in the country.

On 7 July 2023, France, as a member of the International Maritime Organization (IMO), adopted the 2023 IMO Strategy on Reduction of Greenhouse Gas (GHG) Emissions from Ships, which sets new targets in order to achieve net-zero GHG emissions from international shipping by approximately 2050.<sup>480</sup>

On 20 July 2023, the National Biodiversity Committee presented its National Biodiversity Strategy in conjunction with the Government of France.<sup>481</sup> The strategy is composed of four goals which are to “reduce pressure, restore degraded ecosystems, mobilize all stakeholders, and have the means to achieve these ambitions.” Within each of the four goals are a variety of projects that address environmental issues such as addressing the fight against plastic pollution and accelerating agroecological transition. These projects will help to reduce emissions by transitioning certain sectors towards green energy.

On 11 October 2023, France passed the Green Industry Bill with the aim to make France the leader in green technologies necessary for decarbonization.<sup>482</sup> The creation of green industries consists of establishing new industries that allow for the decarbonization of the economy. This will be accomplished by using carbon capture technologies to produce green hydrogen and bio-methane, which are suitable alternative to carbon production. The decarbonization plan will work to transform industries in various sectors and sizes, supporting France’s commitment to effectively reduce emissions through non-pricing mechanisms.

On 12 October 2023, the Government of France strengthened its MaPrimeRénov’ aid to encourage energy renovation projects for homes by individuals.<sup>483</sup> This aid is intended to help France to meet its national climate objectives by 2030.

On 13 October 2023, France unveiled the fourth edition of its Green Budget 2024. The Green budget is a finance bill that provides government expenditures for environmental targets.<sup>484</sup> The 2024 budget includes an increase to the annual budget by EUR7 billion for ecological planning purposes. Additionally, it allows for the increased reporting on ecological planning such as identifying areas of expenditure that are harmful to the environment.

On 24 October 2023, France launched the “Every Gesture Counts” campaign. The aim of this campaign is to encourage daily energy saving and promote effective ecological actions.<sup>485</sup> It promotes eco-friendly actions for

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<sup>479</sup> Launch of a Just Energy Transition Partnership, Elysée Palace (Paris) 22 June 2023. Access Date: 10 November 2023.

<https://www.elysee.fr/en/emmanuel-macron/2023/06/22/launch-of-a-just-energy-transition-partnership>

<sup>480</sup> Revised GHG reduction strategy for global shipping adopted, International Maritime Organization (London) 7 July 2023. Access Date: 16 February 2024. <https://www.imo.org/en/MediaCentre/PressBriefings/pages/Revised-GHG-reduction-strategy-for-global-shipping-adopted-.aspx>

<sup>481</sup> Une stratégie nationale pour préserver et restaurer la biodiversité, Government of France (Paris) 24 September 2023.

Translation provided by Google Translate. Access Date: 10 November 2023. <https://www.gouvernement.fr/actualite/une-strategie-nationale-pour-preserver-et-restaurer-la-biodiversite>

<sup>482</sup> Industrie verte : présentation du projet de loi, Ministère de l'Économie, des Finances et de la Relance (Paris) 11 October 2023.

Translation provided by Google Translate. Access Date: 10 November 2023. <https://www.economie.gouv.fr/industrie-verte-presentation-projet-loi#>

<sup>483</sup> 1.6 milliard d'euros supplémentaires pour la rénovation énergétique, Government of France (Paris) 12 October 2023.

Translation provided by Google Translate. Access Date: 10 November 2023. <https://www.gouvernement.fr/actualite/1-6-milliard-deuros-supplementaires-pour-la-renovation-energetique>

<sup>484</sup> Le budget vert 2024 en hausse de 7 milliards d'euros, Government of France (Paris) 13 October 2023. Translation provided by Google Translate. Access Date: 10 November 2023. <https://www.gouvernement.fr/actualite/le-budget-vert-2024-en-hausse-de-7-milliards-deuros>

<sup>485</sup> Une campagne pour promouvoir la sobriété énergétique, Government of France (Paris) 25 October 2023. Translation provided by Google Translate. Access Date: 10 November 2023. <https://www.gouvernement.fr/actualite/une-campagne-pour-promouvoir-la-sobriete-energetique>

households to adopt such as running the washing machine at night, turning off all devices when they are not in use, and carpooling.

On 31 October 2023, France announced EUR200 million to implement new charging stations in line with its plan to establish a new charging infrastructure across the country.<sup>486</sup> The program plans to have 400,000 terminals operating by 2030 as part of its commitment to ecological planning.

France has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions. France has taken strong actions to reduce emissions such as changing its ecological bonus criteria for electric vehicles purchasers to better consider the production criteria of the vehicle and the environmental impact caused. Furthermore, France provided additional funding for deployment of charging stations, passed the Green Industry Bill that establishes and expands new industries that provide goods and services allowing the decarbonization of the economy.

Thus, France receives a score of +1.

*Analyst: Divvy Gupta*

### **Germany: +1**

Germany has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions.

On 7 July 2023, Germany, as a member of the International Maritime Organization (IMO), adopted the 2023 IMO Strategy on Reduction of Greenhouse Gas (GHG) Emissions from Ships, which sets new targets in order to achieve net-zero GHG emissions from international shipping by approximately 2050.<sup>487</sup>

On 26 July 2023, the Federal Government of Germany updated its National Hydrogen Strategy, originally adopted in June 2020.<sup>488</sup> This revision aims to harness hydrogen technology as a means of reducing carbon dioxide emissions across the transportation and energy sector while also exploring new green markets. The strategy outlines key action areas such as increasing the availability and accessibility of low-carbon hydrogen, promoting clean hydrogen imports, and developing financial incentives.

On 10 August 2023, Germany received EUR6.5 billion from the European Commission to support its strategy to provide partial compensation to energy-intensive companies in order to address carbon leakage from higher fuel prices as a result of the German fuel emission trading system.<sup>489</sup>

On 4 October 2023, the Federal Cabinet adopted Germany's 2023 Climate Action Programme in efforts to put the country on track to reach 2030 greenhouse gas reduction targets as mandated by the Climate Action Law.<sup>490</sup> Under the Climate Action Programme 2030 and the Climate Change Act, the Federal Government has

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<sup>486</sup> Accélération du déploiement des bornes de recharge électriques, Government of France (Paris) 31 October 2023. Translation provided by Google Translate. Access Date: 10 November 2023. <https://www.gouvernement.fr/actualite/acceleration-du-deploiement-des-bornes-de-recharge-electriques>

<sup>487</sup> Revised GHG reduction strategy for global shipping adopted, International Maritime Organization (London) 7 July 2023. Access Date: 16 February 2024. <https://www.imo.org/en/MediaCentre/PressBriefings/pages/Revised-GHG-reduction-strategy-for-global-shipping-adopted-.aspx>

<sup>488</sup> Energy from climate-friendly gas, Federal Government (Berlin) n.d. Access Date: 1 November 2023. <https://www.bundesregierung.de/breg-en/search/hydrogen-technology-2204238>

<sup>489</sup> State aid: Commission approves €6.5 billion German scheme to address carbon leakage risk for energy-intensive companies resulting from national fuel emission trading system, European Commission (Brussels) 10 August 2023. Access Date: 27 December 2023. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_4105](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4105)

<sup>490</sup> Federal Cabinet adopts comprehensive 2023 Climate Action Programme, Ministry for Economic Affairs and Climate Action (Berlin) 4 October 2023. Access Date: 1 November 2023. <https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2023/10/20231004-federal-cabinet-adopts-comprehensive-2023-climate-action-programme.html>

committed to a binding reduction of 55 per cent in greenhouse gas emissions by 2030. It also aims to increase the share of renewable energies in gross German electricity consumption to 65 per cent by 2030.

On 20 October 2023, the Bundestag adopted new toll regulations on trucks using federal highways to include a new carbon pricing element.<sup>491</sup> This regulation will be implemented from 1 December 2023 as an amendment to the Federal Highways Toll Act.<sup>492</sup> The toll will charge EUR200 for every tonne of carbon that is additionally emitted.

On 23 October 2023, the Federal Ministry for Economic Affairs and Climate Action co-hosted the Eighth Strategic Dialogue of the Carbon Market Platform with the Japanese Ministry of the Environment to discuss the potential for carbon markets as a method of reducing carbon emissions.<sup>493</sup>

Germany has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions. By incorporating measures such as promoting clean hydrogen, developing financial incentives, and committing to a binding reduction of 55 per cent in greenhouse gas emissions by 2030, Germany has taken various steps to accelerate the clean energy transition and reduce emissions. Furthermore, Germany has implemented toll regulations on trucks and hosted discussions on possible market-orientated policy solutions, demonstrating its commitment to support policy mixes to reduce emissions.

Thus, Germany receives a score of +1.

*Analyst: Ananya Gaur*

### **Italy: +1**

Italy has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions.

On 25 May 2023, the Council of Ministers issued a press release approving the bill for reducing black carbon.<sup>494</sup> They approved the ratification and execution of the 1979 Protocol to the Convention on Long-Range Transboundary Air Pollution for the Reduction of Acidification, Eutrophication and Ground-level Ozone. This demonstrates the implementation of effective policy mixes to reduce emissions of volatile organic compounds to meet national emission reduction targets.

In June 2023, Italy proposed the National Integrated Plan for Energy and Climate to the European Commission, with plans to achieve varying climate targets, including support for green investments and renewable energies for small- and medium-sized enterprises, support for transitioning supply chains to net-zero technologies and developing low-emission infrastructure.<sup>495</sup>

On 7 July 2023, Italy, as a member of the International Maritime Organization (IMO), adopted the 2023 IMO Strategy on Reduction of Greenhouse Gas (GHG) Emissions from Ships, which sets new targets in order to achieve net-zero GHG emissions from international shipping by approximately 2050.<sup>496</sup>

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<sup>491</sup> Bundestag beschließt Ausweitung der Mautpflicht für Lkw, Bundestag (Berlin) 20 October 2023. Access Date: 18 December 2023. <https://www.bundestag.de/dokumente/textarchiv/2023/kw42-de-maut-971416>

<sup>492</sup> For better climate protection in freight transport, Office of the Federal Government (Berlin) 14 June 2023. Access Date: 18 December 2023. <https://www.bundesregierung.de/breg-en/search/lorry-toll-co2-2196348>

<sup>493</sup> Results of Eighth Strategic Dialogue of the Carbon Market Platform, Ministry of the Environment (Tokyo) 30 October 2023. Access Date: 18 December 2023. [https://www.env.go.jp/en/press/press\\_02084.html](https://www.env.go.jp/en/press/press_02084.html)

<sup>494</sup> Comunicato stampa del Consiglio dei Ministri n. 36, Presidency of the Council of Ministers (Rome) 25 May 2023. Translation provided by Google Translate. Access Date: 1 November 2023. <https://www.governo.it/en/node/22709>

<sup>495</sup> PIANO NAZIONALE INTEGRATO PER L'ENERGIA E IL CLIMA, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) June 2023. Access Date: 15 February 2024. [https://www.mase.gov.it/sites/default/files/PNIEC\\_2023.pdf](https://www.mase.gov.it/sites/default/files/PNIEC_2023.pdf)

<sup>496</sup> Revised GHG reduction strategy for global shipping adopted, International Maritime Organization (London) 7 July 2023. Access Date: 16 February 2024. <https://www.imo.org/en/MediaCentre/PressBriefings/pages/Revised-GHG-reduction-strategy-for-global-shipping-adopted-.aspx>

On 7 August 2023, Italy submitted a modified version of its national Recovery and Resilience Plan to the European Commission with five new reforms, including new procedures for renewable energy, addressing subsidies that harm the environment and promoting green skills.<sup>497</sup> Investments outlined including transitioning production processes to be environmentally friendly, incentives to promote investments in green transitions and a financial instrument to renovate energy systems in public and social housing.

On 12 September 2023, the Minister of the Environment and Energy Security Gilberto Pichetto debated on a panel for climate prospects urging to reallocate funds to the Forest Stewardship Council.<sup>498</sup> He recalled the government's previous commitment to decarbonize and extend Special Economic Zones, urging to move funds from the National Recovery and Resilience Plan towards decarbonization to support non-pricing mechanisms in budgetary policy.

On 4 October 2023, the Ministry of the Environment and Energy Security announced the commencement of the first transitional phase of the Carbon Border Adjustment Mechanism (CBAM).<sup>499</sup> CBAM will set a price for producing carbon-intensive goods to reduce carbon leakage. The transition period is to collect data on greenhouse gas emissions and to refine the methodology.

On 9 October 2023, Italy's Net Zero scheme was approved for funding by the European Commission, with the goal of reducing fuel dependency and increase decarbonization processes in industry production.<sup>500</sup> The direct EUR100 million grants will allow Italy to diversify their energy sources, reduce energy prices, and decrease its carbon footprint under the aid of The Temporary Crisis and Transition Framework. The funding shows support for the decarbonization processes in industrial production, contributing to a decrease in Italy's carbon emissions.

On 22 November 2023, Italy's EUR5.7 billion scheme to support the production of renewable electricity was approved by the European Commission.<sup>501</sup> This scheme aims to support the construction of renewable power plants and expand existing facilities as a part of Italy's modified Recover and Resilience Plan.

On 27 November 2023, the Council of Ministers approved a fund to support the construction of renewable energy plants and to provide incentives to companies to encourage them to decarbonize their operations.<sup>502</sup>

Italy has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions. Italy has taken strong action to support policy mixes across all three pillars, including the promotion of the CBAM and the IMO GHG Reductions Strategy for carbon pricing, approving funds to provide incentives for decarbonization and

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<sup>497</sup> COMMISSION STAFF WORKING DOCUMENT: Analysis of the recovery and resilience plan of Italy, European Commission (Brussels) 24 November 2023. Access Date: 16 February 2024. [https://commission.europa.eu/system/files/2023-11/SWD\\_2023\\_392\\_1\\_EN\\_autre\\_document\\_travail\\_service\\_part1\\_v4.pdf](https://commission.europa.eu/system/files/2023-11/SWD_2023_392_1_EN_autre_document_travail_service_part1_v4.pdf)

<sup>498</sup> Ilva: Pichetto, soldi da PNRR a FSC nazionali, impegno decarbonizzazione non cambia, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 12 September 2023. Translation provided by Google Translate. Access Date: 2 November 2023. <https://www.mase.gov.it/comunicati/ilva-pichetto-soldi-da-pnrr-fsc-nazionali-impegno-decarbonizzazione-non-cambia>

<sup>499</sup> Parte il meccanismo di adeguamento del carbonio alle frontiere (CBAM), avviata prima fase transitoria, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 4 October 2023. Translation provided by Google Translate. Access Date: 2 November 2023. <https://www.mase.gov.it/notizie/parte-il-mechanismo-di-adequamento-del-carbonio-alle-frontiere-cbam-avviata-prima-fase>

<sup>500</sup> State aid: Commission approves €100 million Italian scheme to support the production of electrolyzers to foster the transition to a net-zero economy, The European Commission (Brussels) 9 October 2023. Access Date: 2 November 2023. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_4730](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4730)

<sup>501</sup> Commission approves €5.7 billion Italian State aid scheme under the Recovery and Resilience Facility to support renewable energy communities and self-consumers, European Commission (Brussels) 22 November 2023. Access Date: 16 February 2024. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_5787](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_5787)

<sup>502</sup> DL Energia: nel decreto MASE investimenti su rinnovabili e sostegno a imprese gasivore-energivore, Ministero dell'Ambiente e della Sicurezza Energetica (Rome) 27 November 2023. Access Date: 27 December 2023. <https://www.mase.gov.it/comunicati/dl-energia-nel-decreto-mase-investimenti-su-rinnovabili-e-sostegno-imprese-gasivore>

proposing new legislation to the European Commission and passing new legislation of its own for the reduction of black carbon as non-pricing mechanisms.

Thus, Italy receives a score of +1.

*Analyst: Preksha Khemka*

### **Japan: +1**

Japan has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions.

On 26 May 2023, the Ministry of Economy, Trade and Industry and the Ministry of the Environment jointly unveiled a guide with the aim to assist companies in addressing and implementing carbon footprint-related initiatives.<sup>503</sup> This includes calculation, indication, and emission reduction. The guide stems from the results of the Product Carbon Footprint Calculations and Verification for Supply Chain-Wide Carbon Neutrality, a program that aims to reduce emissions across supply chains and achieve carbon neutrality by assessing current carbon pricing mechanisms.

On 6 June 2023, the Japanese Cabinet revised the Basic Hydrogen Strategy that was first established in 2017.<sup>504</sup> The updated strategy outlines a target to use 12 million tons of hydrogen per year by 2040 to increase clean energy supply. This investment in clean hydrogen will allow Japan to accelerate the transition toward a hydrogen/ammonia-based society, shifting away from carbon emissions.

On 7 July 2023, Japan, as a member of the International Maritime Organization (IMO), adopted the 2023 IMO Strategy on Reduction of Greenhouse Gas (GHG) Emissions from Ships, which sets new targets in order to achieve net-zero GHG emissions from international shipping by approximately 2050.<sup>505</sup>

On 28 September 2023, the Ministry of the Environment and the Ministry of Economy, Trade and Industry held the Asia Zero Emissions Community International Conference to promote Japan's Joint Crediting Mechanism (JCM) and the creation of carbon markets.<sup>506</sup> The JCM will help Japan achieve its targets for emissions reductions by promoting low-carbon measures through Japanese technologies and infrastructures.<sup>507</sup>

On 2 October 2023, the Ministry of the Environment announced a new financial framework to help businesses and industries successfully decarbonize their practice.<sup>508</sup>

On 3 October 2023, Prime Minister Fumio Kishida announced new Climate Transition Bonds to incentivize industries to switch to renewable energy sources, thereby reducing their emissions.<sup>509</sup>

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<sup>503</sup> Carbon Footprints Practical Guide, the Ministry of Economy, Trade and Industry (Tokyo) 26 May 2023. Access Date: 4 November 2023. [https://www.meti.go.jp/english/press/2023/0526\\_002.html](https://www.meti.go.jp/english/press/2023/0526_002.html)

<sup>504</sup> Basic Hydrogen Strategy, The Ministerial Council on Renewable Energy, Hydrogen and Related Issues (Tokyo) 6 June 2023. Access Date: 4 November 2023. [https://www.meti.go.jp/shingikai/enecho/shoene\\_shinene/suiso\\_seisaku/pdf/20230606\\_5.pdf](https://www.meti.go.jp/shingikai/enecho/shoene_shinene/suiso_seisaku/pdf/20230606_5.pdf)

<sup>505</sup> Revised GHG reduction strategy for global shipping adopted, International Maritime Organization (London) 7 July 2023. Access Date: 16 February 2024. <https://www.imo.org/en/MediaCentre/PressBriefings/pages/Revised-GHG-reduction-strategy-for-global-shipping-adopted-.aspx>

<sup>506</sup> AZEC International Conference to Promote the JCM and Develop Carbon Markets, Ministry of the Environment (Tokyo) 29 September 2023. Access Date: 18 December 2023. [https://www.env.go.jp/en/press/press\\_02018.html](https://www.env.go.jp/en/press/press_02018.html)

<sup>507</sup> Joint Crediting Mechanism (JCM), Ministry of Foreign Affairs of Japan (Tokyo) 10 July 2023. Access Date: 18 December 2023. [https://www.mofa.go.jp/ic/ch/page1we\\_000105.html](https://www.mofa.go.jp/ic/ch/page1we_000105.html)

<sup>508</sup> Compilation of the Paper Titled "Addressing the Challenges of Financed Emissions", Ministry of the Environment (Tokyo) 2 October 2023. Access Date: 18 November 2023. [https://www.env.go.jp/en/press/press\\_02016.html](https://www.env.go.jp/en/press/press_02016.html)

<sup>509</sup> Statement by Prime Minister Kishida at PRI in Person 2023, Office of the Prime Minister of Japan (Tokyo) 3 October 2023. Access Date: 15 December 2023. [https://japan.kantei.go.jp/101\\_kishida/statement/202310/03pri.html](https://japan.kantei.go.jp/101_kishida/statement/202310/03pri.html)

On 11 October 2023, the Ministry of Economy, Trade and Industry and Tokyo Stock Exchange initiated the Pro-Growth Carbon Pricing Concept and carbon credit market.<sup>510</sup> The aim of these programs is to reach carbon neutrality by 2050 with a 46% reduction in greenhouse gas emissions by 2030. The carbon credit market aims to incentivise greenhouse gas emissions reduction through the use of financial instruments, establishing a system which rewards companies that reduce their carbon emissions.

On 23 October 2023, the Ministry of the Environment co-hosted the Eighth Strategic Dialogue of the Carbon Market Platform with the German Federal Ministry for Economic Affairs and Climate Action to discuss the potential for carbon markets as a method of reducing carbon emissions.<sup>511</sup>

On 1 December 2023, Prime Minister Kishida attended the 28th Conference of the Parties meeting to the United Nations Framework Convention on Climate Change in Dubai, where he outlined several new initiatives that Japan will implement in the near future.<sup>512</sup> These include a carbon pricing scheme and ending the new construction of coal power plants.

Japan has fully complied with its commitments to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions. Japan has taken steps to address carbon reduction efforts and encouraged shifts away from carbon through different non-pricing mechanisms and incentives. Japan announced new financial frameworks and systems such as the carbon credit market and introduced incentives for companies to reduce carbon emissions.

Thus, Japan receives a score of +1.

*Analyst: Ananya Gaur*

### **United Kingdom: +1**

The United Kingdom has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions.

On 7 July 2023, the United Kingdom, as a member of the International Maritime Organization (IMO), adopted the 2023 IMO Strategy on Reduction of Greenhouse Gas (GHG) Emissions from Ships, which sets new targets in order to achieve net-zero GHG emissions from international shipping by approximately 2050.<sup>513</sup>

On 14 September 2023, Secretary of State for Energy Security and Net Zero Claire Coutinho publicly announced that the Great British Insulation Scheme would allow 300,000 families across the UK to upgrade critical insulation technologies at home.<sup>514</sup> This will reduce household emissions.

On 28 September 2023, the UK Government announced a new mandate regarding zero emission vehicles, requiring that 80 per cent of new cars and 70 per cent of new vans sold must be zero emission by 2030.<sup>515</sup> The

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<sup>510</sup> Opening of the Carbon Credit Market and Start of Trading Today, Japan Exchange Group (Tokyo) 13 October 2023. Access Date: 4 December 2023 <https://www.jpx.co.jp/english/corporate/news/news-releases/0060/20231013-01.html>

<sup>511</sup> Results of Eighth Strategic Dialogue of the Carbon Market Platform, Ministry of the Environment (Tokyo) 30 October 2023. Access Date: 18 December 2023. [https://www.env.go.jp/en/press/press\\_02084.html](https://www.env.go.jp/en/press/press_02084.html)

<sup>512</sup> Statement by Prime Minister KISHIDA Fumio at COP28 World Climate Action Summit, Office of the Prime Minister of Japan (Dubai) 1 December 2023. Access Date: 15 December 2023. [https://japan.kantei.go.jp/101\\_kishida/statement/202312/01statement.html](https://japan.kantei.go.jp/101_kishida/statement/202312/01statement.html)

<sup>513</sup> Revised GHG reduction strategy for global shipping adopted, International Maritime Organization (London) 7 July 2023. Access Date: 16 February 2024. <https://www.imo.org/en/MediaCentre/PressBriefings/pages/Revised-GHG-reduction-strategy-for-global-shipping-adopted-.aspx>

<sup>514</sup> Families to save hundreds through £1 billion insulation scheme, Department for Energy Security and Net Zero (London) 14 September 2023. Access Date: 27 December 2023. <https://www.gov.uk/government/news/families-to-save-hundreds-through-1-billion-insulation-scheme>

<sup>515</sup> Government sets out path to zero emission vehicles by 2035, Government of UK (London) 28 September 2023. Access Date: 9 December 2023. <https://www.gov.uk/government/news/government-sets-out-path-to-zero-emission-vehicles-by-2035>

UK required target for 2024 is 22 per cent of new vehicles sold, aiming to then reach 100 per cent of vehicles sold by 2035. To support the production of these vehicles, GBP6 billion has been invested into charging points.

On 26 October 2023, the Department for Environment, Food and Rural Affairs (DEFRA) committed to reducing methane emissions in livestock in England.<sup>516</sup> Under the guidelines of the Environment Improvement Plan and the Net Zero Growth Plan, DEFRA aims to find innovative solutions to reduce cattle emissions by 2030 which shows support towards emission-reducing policies.

On 26 October 2023, the Department for Energy Security and Net Zero announced new energy legislation to lower energy-efficient costs.<sup>517</sup> The Energy Act 2023 aims to increase competition in the electricity networks and protect consumers by incentivizing heating industry investments in low-carbon heat pumps. This shows support for non-pricing mechanisms and incentives to reduce emissions.

On 29 November 2023, the UK Emissions Trading Scheme updated the carbon prices set for civil penalties in 2024.<sup>518</sup> Calculated as the average end-of-day settlement price over the relevant period, the carbon price for 2024 is GBP64.90. Additionally, the scheme will limit the cap on carbon allowance for companies to buy to 12.4 per cent below 2023 levels in 2024.<sup>519</sup> These carbon pricing policies aim to incentivise decarbonisation on the path to net zero emissions.

On 5 December 2023, the Department for Energy Security and Net Zero Minister Graham Stuart announced a GBP140 million aid for developing countries to reach net zero emissions.<sup>520</sup> This aid is predicted to open over 25,000 jobs in the clean energy sector and reduce carbon emissions by 800,000 tonnes.

The United Kingdom has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions. Through a variety of efforts to address emission reduction targets, there is clear support towards both policy mixes and non-pricing mechanisms. Clarity in their carbon pricing policies alongside initiatives to decarbonise in every sector demonstrates full compliance.

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

*Analyst: Preksha Khemka*

### **United States: +1**

The United States has fully complied with commitments to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions.

On 5 June 2023, the United States released the National Clean Hydrogen Strategy and Roadmap, a framework for accelerating the production and effective use of clean hydrogen.<sup>521</sup> This will allow for the productive and

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<sup>516</sup> Further action to cut methane emissions from livestock, Government of UK (London) 26th October 2023. Access Date: 1 November 2023. <https://www.gov.uk/government/news/further-action-to-cut-methane-emissions-from-livestock>

<sup>517</sup> New laws passed to bolster energy security and deliver net zero, Government of UK, Government of UK (London) 26th October 2023. Access Date: 1 November 2023. <https://www.gov.uk/government/news/new-laws-passed-to-bolster-energy-security-and-deliver-net-zero>

<sup>518</sup> UK ETS: Carbon prices for use in civil penalties, 2024, Government of UK (London) 29 November 2023. Access Date: 10 December 2023. <https://www.gov.uk/government/publications/determinations-of-the-uk-ets-carbon-price/uk-ets-carbon-prices-for-use-in-civil-penalties-2024>

<sup>519</sup> Emissions scheme to reduce sale of carbon allowances on path to net zero, Government of UK (London) 5 October 2023. Access Date: 10 December 2023. <https://www.gov.uk/government/news/emissions-scheme-to-reduce-sale-of-carbon-allowances-on-path-to-net-zero>

<sup>520</sup> UK dedicates £140 million to help countries switch to cleaner energy, Government of UK (London) 5 December 2023. Access Date: 10 December 2023. <https://www.gov.uk/government/news/uk-dedicates-140m-to-help-countries-switch-to-cleaner-energy>

<sup>521</sup> Biden-Harris Administration Releases First-Ever National Clean Hydrogen Strategy, U.S. Department of Energy (Washington D.C.) 5 June 2023. Access Date: 11 November 2023. <https://www.energy.gov/articles/biden-harris-administration-releases-first-ever-national-clean-hydrogen-strategy-and>

economically efficient shift away from carbon emissions, in line with the United States' aim to transition into a fully green economy.

On 22 June 2023, the Department of Energy's Office of Technology Transitions announced more than USD21 million in funding 30 projects across 16 National Laboratories to propel clean energy solutions.<sup>522</sup> This will support the implementation of alternative energy which will help to reduce carbon emissions.

On 7 July 2023, the United States, as a member of the International Maritime Organization (IMO), adopted the 2023 IMO Strategy on Reduction of Greenhouse Gas (GHG) Emissions from Ships, which sets new targets in order to achieve net-zero GHG emissions from international shipping by approximately 2050.<sup>523</sup>

On 10 July 2023, the Department of Energy announced the funding of various projects to create and expand effective carbon management technologies.<sup>524</sup> The aim of these projects is to provide locally tailored assistance with carbon management industries to foster the advancement of carbon capture across the United States. These projects are set to receive over USD23.4 million in financial support.

On 24 July 2023, the Department of Energy announced USD100 million to support local governments and public companies in purchasing products that come from converted carbon emissions.<sup>525</sup> The goal of this funding is to incentivize the adaptation of carbon management technologies and expand a sustainable fuel market that does not rely on carbon production.

On 16 August 2023, the United States passed the Inflation Reduction Act, a guide which consists of a variety of tax provisions enforcing clean energy mechanisms.<sup>526</sup> These provisions will save families money on energy bills as well as accelerate the deployment of clean energy. This acts as an incentive to shift households and public utilities towards green energy infrastructure.

On 17 August 2023, the Department of Energy announced nearly USD34 million in funding to various industry and university-led projects.<sup>527</sup> These projects will advance research to make clean hydrogen a more accessible fuel for electricity production and industrial decarbonization.

On 20 September 2023, the United States announced USD4.6 billion in grants to fund a variety of state programs that will cut climate pollution, advance environmental justice, and deploy clean energy solutions across the country.<sup>528</sup> This grant is a part of President Joe Biden's Climate Pollution Reduction Grants, which aim to move forward on America's clean energy transition through state-focused actions.

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<sup>522</sup> DOE Announces Over \$21 Million to Advance Commercialization of Clean Energy Solutions, U.S. Department of Energy (Washington D.C.) 22 June 2023. Access Date: 11 November 2023. <https://www.energy.gov/articles/doe-announces-over-21-million-advance-commercialization-clean-energy-solutions>

<sup>523</sup> Revised GHG reduction strategy for global shipping adopted, International Maritime Organization (London) 7 July 2023. Access Date: 16 February 2024. <https://www.imo.org/en/MediaCentre/PressBriefings/pages/Revised-GHG-reduction-strategy-for-global-shipping-adopted-.aspx>

<sup>524</sup> DOE Invests Over \$23 Million to Reduce Carbon Emissions Across the United States, U.S. Department of Energy (Washington D.C.) 10 July 2023. Access Date: 11 November 2023. <https://www.energy.gov/articles/doe-invests-over-23-million-reduce-carbon-emissions-across-united-states>

<sup>525</sup> Biden-Harris Administration Announces \$100 Million to Transform Climate Pollution into Sustainable Products, U.S. Department of Energy (Washington D.C.) 24 July 2023. Access Date: 11 November 2023. <https://www.energy.gov/articles/biden-harris-administration-announces-100-million-transform-climate-pollution-sustainable>

<sup>526</sup> Inflation Reduction Act Guidebook, The White House (Washington D.C.) 16 August 2023. Access Date: 12 November 2023. <https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/>

<sup>527</sup> DOE Awards \$34 Million to Advance Clean Hydrogen, U.S. Department of Energy (Washington D.C.) 17 August 2023. Access Date: 12 November 2023. <https://www.energy.gov/articles/doe-awards-34-million-advance-clean-hydrogen>

<sup>528</sup> Biden-Harris Administration Announces Availability of \$4.6 Billion in Competitive Grants to Cut Emissions, U.S. Environmental Protection Agency (EPA) (Washington D.C.) 20 September 2023. Access Date: 12 November 2023. <https://www.epa.gov/newsreleases/biden-harris-administration-announces-availability-46-billion-competitive-grants-cut-0>



On 21 September 2023, the United States launched the American Climate Corps, a workforce training initiative that aims to address the impact of a clean energy transition on the labour force.<sup>529</sup> It will provide training for careers in the clean energy economy within the public and private sector, including “the conservation of lands and waters, implementing energy efficient technologies, and advancing environmental justice.” This will create a variety of incentives for climate resilient employment and energy efficient economies.

On 21 September 2023, President Biden endorsed recommendations from the Interagency Working Group on identifying the Social Cost of Greenhouse Gases (SC-GHG), which measures the known damages that greenhouse gas emissions cause in society.<sup>530</sup> The SC-GHG allows for improved assessments of the financial implications of greenhouse gasses and thus, can inform policy that effectively reduces carbon emissions.

On 28 September 2023, the Department of Energy announced USD47.7 million in funding for 16 research projects that assist in the development and demonstration of clean hydrogen technologies.<sup>531</sup> This includes lowering technology costs and improving infrastructure to ensure that the implementation of clean hydrogen fuel is cost-effective for commercial-scale businesses.

On 12 October 2023, the United States announced the launch of the Affordable Home Energy Shot.<sup>532</sup> The goal of this plan is to improve on the research and implementation of cleaner energy solutions, with the aim to decarbonize and deliver energy to American households in a cost-effective manner.

On 26 October 2023, the Department of Energy announced USD36 million for 11 projects that will accelerate the production and research of marine carbon dioxide removal technologies.<sup>533</sup> These projects will support efforts to make marine carbon removal solutions cost-effective and energy efficient.

The United States has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions. The United States has taken strong action to reduce emissions such as providing funding for carbon management, clean hydrogen, and clean energy technology. The United States financing for marine carbon removal solutions and the Affordable Home Energy Shot campaign highlights the United States’ commitment to sustainable alternatives. Furthermore, the United States has taken strong action to accelerate the development of clean energy, clean vehicles, and clean manufacturing through a variety of pricing and non-pricing mechanisms.

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

*Analyst: Divvy Gupta*

### **European Union: +1**

The EU has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions.

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<sup>529</sup> What They Are Saying: Biden-Harris Administration Launches American Climate Corps, The White House (Washington D.C.) 21 September 2023. Access Date: 12 November 2023. <https://www.whitehouse.gov/briefing-room/statements->

<sup>530</sup> Fact Sheet: Biden-Harris Administration Announces New Actions to Reduce Greenhouse Gas Emissions and Combat the Climate Crisis, The White House (Washington D.C.) 21 September 2023. Access Date: 8 December 2023. <https://www.whitehouse.gov/briefing-room/statements-releases/2023/09/21/fact-sheet-biden-harris-administration-announces-new-actions-to-reduce-greenhouse-gas-emissions-and-combat-the-climate-crisis/>

<sup>531</sup> DOE Announces Nearly \$48 Million to Advance Clean Hydrogen Technologies, U.S. Department of Energy (Washington D.C.) 28 September 2023. Access Date: 11 November 2023. <https://www.energy.gov/articles/doe-announces-nearly-48-million-advance-clean-hydrogen-technologies>

<sup>532</sup> Biden-Harris Administration Launches New Energy Earthshot to Lower Energy Bills for Affordable, U.S. Department of Energy (Washington D.C.) 12 October 2023. Access Date: 11 November 2023. <https://www.energy.gov/articles/biden-harris-administration-launches-new-energy-earthshot-lower-energy-bills-affordable>

<sup>533</sup> DOE Announces \$36 Million to Advance Marine Carbon Dioxide Removal Techniques, U.S. Department of Energy (Washington D.C.) 26 October 2023. Access Date: 11 November 2023. <https://www.energy.gov/articles/doe-announces-36-million-advance-marine-carbon-dioxide-removal-techniques-and-slash>

On 9 June 2023, the European Commission approved a state aid scheme of EUR150 million in Slovenia to support the deployment of renewable energy.<sup>534</sup> The scheme aims to encourage businesses and individuals to transition toward clean energy, enabling for reductions in carbon emissions. The state aid scheme aligns with the EU's goals of reducing carbon emissions and achieving climate neutrality by 2050.

On 9 June 2023, the European Union launched a call for evidence and a public consultation on industrial carbon management under the European Green Deal.<sup>535</sup> The consultation collaborated with both citizens and policymakers to develop the new EU strategy for carbon capture, utilisation and storage and considered the public's emission reduction policy recommendations. This process helps to inform sustainable practices and technologies, contributing to the reduction of carbon emissions.

On 25 July 2023, the European Union adopted the Energy Efficiency Directive as part of the European Green Deal.<sup>536</sup> This directive is a component of the EU's efforts to achieve its Fit for 55 goals. The Energy Efficiency Directive aims to enhance energy performance, encouraging the reduction of carbon emissions and transition to clean energy.

On 3 August 2023, the three Baltic states agreed to synchronize their electricity grids with the European grid by early 2025.<sup>537</sup> Estonia, Latvia, and Lithuania agreed that synchronizing electricity grids with the European grid can enhance energy security and sustainability, reducing overall emissions.

On 10 August 2023, the European Commission approved EUR6.5 billion in aid to Germany to provide partial compensation to energy-intensive companies in order to address carbon leakage from higher fuel prices as a result of the German fuel emission trading system.<sup>538</sup>

On 31 August 2023, the European Union improved the EU Building Stock Observatory, a web tool which monitors energy performances of buildings across Europe.<sup>539</sup> By monitoring performance, the web tool helps stakeholders implement sustainable alternatives and operational choices, reducing emissions.

On 21 September 2023, the European Commission approved a state aid scheme, amounting to EUR233 million in Austria to compensate energy-intensive companies.<sup>540</sup> By supporting these businesses, the scheme helps to prevent relocations of energy companies to regions with lower environmental standards.

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<sup>534</sup> State aid: Commission Approves €150 Million Slovenian Scheme to Support the Rollout of Renewable Energy and Energy Storage to Foster the Transition to a Net-Zero Economy, European Commission (Brussels) 9 June 2023. Access Date: 01 November 2023. [https://energy.ec.europa.eu/news/state-aid-commission-approves-eu150-million-slovenian-scheme-support-rollout-renewable-energy-and-2023-06-09\\_en](https://energy.ec.europa.eu/news/state-aid-commission-approves-eu150-million-slovenian-scheme-support-rollout-renewable-energy-and-2023-06-09_en)

<sup>535</sup> Call for Evidence and Public Consultation Launched on Industrial Carbon Management under European Green Deal, European Commission (Brussels) 9 June 2023. Access Date: 1 November 2023. [https://energy.ec.europa.eu/news/call-evidence-and-public-consultation-launched-industrial-carbon-management-under-european-green-2023-06-09\\_en](https://energy.ec.europa.eu/news/call-evidence-and-public-consultation-launched-industrial-carbon-management-under-european-green-2023-06-09_en)

<sup>536</sup> European Green Deal: Energy Efficiency Directive Adopted, Helping Make EU 'Fit for 55', European Commission (Brussels) 25 July 2023. Access Date: 1 November 2023. [https://energy.ec.europa.eu/news/european-green-deal-energy-efficiency-directive-adopted-helping-make-eu-fit-55-2023-07-25\\_en](https://energy.ec.europa.eu/news/european-green-deal-energy-efficiency-directive-adopted-helping-make-eu-fit-55-2023-07-25_en)

<sup>537</sup> Estonia, Latvia, Lithuania Agree to Synchronize Their Electricity Grids with European Grid by Early 2025, European Commission (EU) August 3, 2023. Access Date: 1 November 2023. [https://energy.ec.europa.eu/news/estonia-latvia-lithuania-agree-synchronise-their-electricity-grids-european-grid-early-2025-2023-08-03\\_en](https://energy.ec.europa.eu/news/estonia-latvia-lithuania-agree-synchronise-their-electricity-grids-european-grid-early-2025-2023-08-03_en)

<sup>538</sup> State aid: Commission approves €6.5 billion German scheme to address carbon leakage risk for energy-intensive companies resulting from national fuel emission trading system, European Commission (Brussels) 10 August 2023. Access Date: 27 December 2023. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_4105](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4105)

<sup>539</sup> EU Building Stock Observatory: Monitoring Energy Performance of Buildings Across Europe, European Commission (Brussels) 31 August 2023. Access Date: 1 November 2023. [https://energy.ec.europa.eu/news/eu-building-stock-observatory-monitoring-energy-performance-buildings-across-europe-2023-08-31\\_en](https://energy.ec.europa.eu/news/eu-building-stock-observatory-monitoring-energy-performance-buildings-across-europe-2023-08-31_en)

<sup>540</sup> State aid: Commission Approves €233 Million Austrian Scheme to Compensate Energy-Intensive Companies, European Commission (Brussels) 21 September 2023. Access Date: 1 November 2023. [https://energy.ec.europa.eu/news/state-aid-commission-approves-eu233-million-austrian-scheme-compensate-energy-intensive-companies-2023-09-21\\_en](https://energy.ec.europa.eu/news/state-aid-commission-approves-eu233-million-austrian-scheme-compensate-energy-intensive-companies-2023-09-21_en)

On 6 October 2023, the European Commission approved EUR2.5 billion in aid to Czechia to help the manufacturing industry decarbonize the production process and improve energy efficiency in order to promote net-zero economy in accordance with the Commission's Green Deal Industrial Plan.<sup>541</sup>

On 9 October 2023, the European Commission approved funding for Italy's Net Zero scheme to reduce fuel dependency and increase decarbonization processes in industry production.<sup>542</sup> The direct EUR100 million grants will allow Italy to diversify their energy sources, reduce energy prices, and decrease its carbon footprint under the aid of The Temporary Crisis and Transition Framework. The funding shows support for the decarbonization processes in industrial production, contributing to a decrease in Italy's carbon emissions.

On 9 October 2023, the European Commission established the final two pillars of the "Fit for 55" legislative package by adopting the Energy Directive and the ReFuelEU Aviation Regulation, which will set legally binding climate goals for all key sectors of the EU economy.<sup>543</sup> This includes emissions reduction targets, goals to promote natural carbon sinks and an improved emissions trading system that will limit carbon emissions, increase the costs of pollution and create funds for green transitions.

On 23 October 2023, the European Parliament backed carbon dioxide emissions reduction targets for trucks and buses.<sup>544</sup> This includes the implementation of recharging infrastructure that is cost-efficient, as well as fast-tracking on benchmarks to accelerate the green transition. These targets align with the EU's climate neutrality by 2050 target, encouraging carbon emission reduction in the transportation sector.

The EU has fully complied with its commitment to support appropriate policy mixes including carbon pricing, non-pricing mechanisms, and incentives that effectively reduce emissions. The EU has taken strong action to reduce emissions such as by providing support for various state schemes and introducing incentives that support a clean energy transition. Utilizing both pricing and non-pricing policies, the EU has supporting policy mixes to effectively reduce emissions.

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

*Analyst: Arnav Tandon*

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<sup>541</sup> State aid: Commission approves €2.5 billion Czech scheme to support the decarbonisation and energy efficiency of industrial processes to foster the transition to a net-zero economy, European Commission (Brussels) 6 October 2023. Access Date: 27 December 2023. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_4788](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4788)

<sup>542</sup> State aid: Commission approves €100 million Italian scheme to support the production of electrolyzers to foster the transition to a net-zero economy, The European Commission (Brussels) 9 October 2023. Access Date: 2 November 2023. [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_4730](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4730)

<sup>543</sup> Commission welcomes completion of key 'Fit for 55' legislation, putting EU on track to exceed 2030 targets, European Commission (Brussels) 9 October 2023. Access Date: 16 February 2024. [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_23\\_4754](https://ec.europa.eu/commission/presscorner/detail/en/IP_23_4754)

<sup>544</sup> MEPs Support CO2 Emissions Reduction Targets for Trucks and Buses, European Parliament (Brussels) 23 October 2023. Access Date: 1 November 2023. <https://www.europarl.europa.eu/news/en/press-room/20231023IPR08171/meps-support-co2-emissions-reduction-targets-for-trucks-and-buses>