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The
G20 Research Group
at Trinity College at the Munk School of Global Affairs and Public Policy
in the University of Toronto
presents the

2017 G20 Hamburg Summit Interim Compliance Report

8 July 2017 to 9 January/5 March 2018*

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“The University of Toronto ... produced a detailed analysis to the extent of which each G20 country has met its commitments since the last summit ... I think this is important; we come to these summits, we make these commitments, we say we are going to do these things and it is important that there is an organisation that checks up on who has done what.”

— *David Cameron, Prime Minister, United Kingdom, at the 2012 Los Cabos Summit*

* Note: For seven commitments, the assessment period was from 8 July 2017 to 9 January; for the remaining 10 commitments, the assessment period extended to 5 March 2018.

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PART ONE: G20 RESEARCH GROUP ASSESSMENTS

Assessment period: 8 July 2017 to 5 March 2018

1. Climate Change: Energy and Energy Efficiency

“We remain collectively committed to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.”

G20 Leaders’ Declaration: Shaping an Interconnected World

Assessment

Country	No Compliance	Partial Compliance	Full Compliance
Argentina			+1
Australia	-1		
Brazil			+1
Canada			+1
China			+1
France			+1
Germany			+1
India			+1
Indonesia		0	
Italy		0	
Japan		0	
Korea		0	
Mexico		0	
Russia		0	
Saudi Arabia		0	
South Africa			+1
Turkey		0	
United Kingdom			+1
United States	-1		
European Union			+1
Average Score		+0.40	

Background

The G20 leaders made their first commitment to develop energy efficiency and clean energy technologies at the 2009 London Summit focusing on low carbon technologies and infrastructure aimed at reducing greenhouse gas.³

At the following 2009 Pittsburgh Summit, the G20 leaders reiterated their commitment to stimulate investment in clean energy, renewables and energy efficiency, as well as to provide financial and technical support for such projects in developing countries.⁴ It was also the first

³ Global Plan for Recovery and Reform, G20 Information Center (Toronto) 2 April 2009. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/2009/2009communique0402.html>.

⁴ G20 Leaders Statement: The Pittsburgh Summit, G20 Information Center (Toronto) 25 September 2009. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/2009/2009communique0925.html>.

year that the G20 acknowledged that eliminating fossil fuel subsidies by 2020 would reduce global greenhouse gas emissions in 2050 by ten per cent.⁵

At the 2010 Seoul Summit, the G20 leaders reaffirmed their commitment to combating the challenges of climate change through the rationalization and phasing-out of inefficient fossil fuel subsidies and to safeguarding global marine environments.⁶

At the 2011 Cannes Summit, the G20 leaders stressed the importance of well-functioning and transparent physical and financial energy markets, reduced excessive price volatility, improved energy efficiency and better access to clean technologies to achieve strong growth that is both sustainable and inclusive.⁷ In addition, the G20 pursued the operationalization of the Green Climate Fund, established within the framework of the UN Framework Convention on Climate Change (UNFCCC) to assist developing countries in adaptation and mitigation practices to counter climate change.⁸

At the 2013 St. Petersburg Summit, the G20 leaders once again reaffirmed their commitment to cleaner and more efficient technologies, but also highlighted the importance of enhancing the efficiency of markets and shifting towards a more sustainable energy future.⁹

At the following 2014 Brisbane Summit, the G20 leaders continued to support strong and effective action to address climate change.¹⁰ This included support for sustainable development, economic growth, and mobilizing finance for adaptation and mitigation like the Green Climate Fund.¹¹

At the 2015 Antalya Summit, the G20 leaders recognized the importance of continuing to improve energy efficiency, and increasing investments in clean energy technologies to tackle climate change and its effects.¹² The G20 leaders stressed the importance of diversifying energy sources and reaffirmed their commitment to phase-out inefficient fossil fuel subsidies to mitigate greenhouse gas emissions.¹³ The G20 also committed to implement their intended nationally determined contributions (INDCs) that are key components of the Paris Agreement.¹⁴

⁵ G20 Leaders Statement: The Pittsburgh Summit, G20 Information Center (Toronto) 25 September 2009. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/2009/2009communiqu0925.html>.

⁶ The G20 Seoul Summit Leaders' Declaration, G20 Information Center (Toronto) 12 November 2010. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/2010/g20seoul.html>.

⁷ Cannes Summit Final Declaration: Building Our Common Future, G20 Information Center (Toronto) 4 November 2011. Access Date: 20 January 2014. <http://www.g20.utoronto.ca/2011/2011-cannes-declaration-111104-en.html>.

⁸ Cannes Summit Final Declaration: Building Our Common Future, G20 Information Center (Toronto) 4 November 2011. Access Date: 20 January 2014. <http://www.g20.utoronto.ca/2011/2011-cannes-declaration-111104-en.html>.

⁹ St. Petersburg Summit Leaders' Declaration, G20 Information Center (Toronto) 6 September 2013. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/2013/2013-0906-declaration.html>.

¹⁰ The 2014 G20 Brisbane Summit Commitments, G20 Information Center (Toronto) 17 December 2014. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/2013/2013-0906-declaration.html>.

¹¹ The 2014 G20 Brisbane Summit Commitments, G20 Information Center (Toronto) 17 December 2014. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/2013/2013-0906-declaration.html>.

¹² 2015 Antalya Summit, G20 Information Center (Toronto) 15-16 November 2015. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/summits/2015antalya.html>.

¹³ 2015 Antalya Summit, G20 Information Center (Toronto) 15-16 November 2015. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/summits/2015antalya.html>.

¹⁴ 2015 Antalya Summit, G20 Information Center (Toronto) 16 November 2015. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/summits/2015antalya.html>.

At the 2016 Hangzhou Summit, the G20 leaders reaffirmed their commitment to sustainable development and strong and effective actions to address climate change and support the Green Climate Fund. The G20 also committed to pursue pro-innovation strategies and policies in green technology.¹⁵

At the 2017 Hamburg Summit, the G20 leaders focused heavily on the development of sustainable and clean energy and collectively agreed to reaffirm their commitment to the mitigation of greenhouse gas.¹⁶ However, they noted the decision of the United States to withdraw from the Paris Agreement and to immediately cease the implementation of their nationally intended contributions (NDCs). In contrast, the leaders of the other G20 members stated that the Paris Agreement is irreversible and remained committed to its full implementation.¹⁷

Commitment Features

This commitment focuses on the reduction of greenhouse gas emissions through increased innovation on energy. This commitment has two components: 1) increased innovation on sustainable and clean energies and energy efficiency and 2) other means to reduce greenhouse gas emissions.

Part One: Sustainable and Clean Energies and Energy Efficiency

The G20's Innovation Action Plan adopted at the 2016 Hangzhou Summit defines innovation as “the embodiment of an idea in a technology, product, or process that is new and creates value. An innovation is the implementation of a new or significantly improved product (good or service), or process which derives from creative ideas, technological progress, a new marketing method or a new organizational method in business practices, workplace organization or external relations.”¹⁸

Sustainable energy is defined as energy that meets the needs of the present without compromising the ability of future generations to meet their own energy needs.¹⁹ For energy to be sustainable, it must comprise of both clean energy sources and ensure that the clean energy is used efficiently.²⁰

Clean energy, otherwise known as renewable energy, is generated from a source that does not result in the depletion of the Earth's resources.²¹ For example, wind power, solar electric, hydro are all clean energies.

¹⁵ 2016 Leader's Communique: Hangzhou Summit, G20 Information Center (Toronto) 5 September 2016. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/2016/160905-communication.html>.

¹⁶ 2016 Leader's Communique: Hangzhou Summit, G20 Information Center (Toronto) 5 September 2016. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/2016/160905-communication.html>.

¹⁷ G20 Leaders' Declaration: Shaping an Interconnected World, G20 Information Center (Toronto) 8 July 2017. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/2017/2017-G20-leaders-declaration.html>.

¹⁸ G20 2016 Innovation Action Plan, G20 Information Center (Toronto) 5 September 2016. Access Date: 29 October 2017. <http://www.g20.utoronto.ca/2016/160905-innovation.html>.

¹⁹ Report of the World Commission on Environment and Development, United Nations (New York) 11 December 1987. Access Date: 1 November 2017. <http://www.un.org/documents/ga/res/42/ares42-187.html>.

²⁰ Glossary of Terms in Sustainable Energy Regulation, SERN (London) 2010. Access Date: 1 November 2017. <http://www.reeep.org/sites/default/files/Glossary%20of%20Terms%20in%20Sustainable%20Energy%20Regulation.pdf>.

²¹ Glossary of Terms in Sustainable Energy Regulation, SERN (London) 2010. Access Date: 1 November 2017. <http://www.reeep.org/sites/default/files/Glossary%20of%20Terms%20in%20Sustainable%20Energy%20Regulation.pdf>.

The European Commission's G20 Energy Efficiency Program defines energy efficiency as the optimum utilization of energy resources.²² Following the adoption of the 2014 G20 Energy Efficiency Action Plan, the G20 members adopted the 2016 G20 Energy Efficacy Leading Programme which builds upon the action plan and creates a comprehensive, flexible and adequately-resourced long term framework to strengthen collaboration between members.²³ The plan sets the ground for voluntary energy efficiency cooperation in six areas: appliances, buildings, industry, electricity generation, transport and cross-sectoral issues, including data and finance.²⁴ Therefore, one method of innovation can be achieved through collaboration between G20 members in one or more of the six areas listed. The collaboration can entail the sharing of knowledge, experience or resource.

Another method of innovation in energy efficiency can be achieved by reducing the amount of energy required to provide the same service or product that will ultimately support economic growth, enhance social development, and advance environmental stability.²⁵ These improvements can be achieved via the reduction of inefficient fossil fuel subsidies, effective management of resources, and technological advances resulting in the optimal use of resources.²⁶

Part Two: Other Ways

The commitment also opens other avenues of mitigating GHG. An example of “among other” ways to mitigate GHG includes, but is not limited to, the implementation of each member's nationally determined contribution (NDCs) and the Paris Agreement. The 2015 Paris Agreement aims to keep global temperatures below 1.5 degrees Celsius and requires all parties to report regularly on their GHG emissions and on their implementation efforts.²⁷ Of the G20 members, only Turkey and Russia have not ratified the agreement and the US announced their withdrawal on 1 June 2017.²⁸

Another general way of mitigating GHG is to phase out fossil fuels and switch to low carbon energy sources. For instance, India's energy minister has recently announced that they will only sell electric cars by 2030.²⁹ Finally, a G20 member could donate to the UNFCCC's Green Climate

²² G20 Energy Efficiency Leading Programme, European Commission (Brussels) 2016. Access Date: 29 October 2017. <https://ec.europa.eu/energy/sites/ener/files/documents/G20%20Energy%20Efficiency%20Leading%20Programme.pdf>.

²³ G20 Energy Efficiency Leading Programme, European Commission (Brussels) 2016. Access Date: 29 October 2017. <https://ec.europa.eu/energy/sites/ener/files/documents/G20%20Energy%20Efficiency%20Leading%20Programme.pdf>.

²⁴ Energy Efficiency at the G20: Collaborating Internationally for a Sustainable Future (New York) 19 June 2017. Access Date: 29 October 2017. <http://sdg.iisd.org/commentary/guest-articles/energy-efficiency-at-the-g20-collaborating-internationally-for-a-sustainable-future/>.

²⁵ Benefits of Energy Efficiency, IEA (Vienna) 2015. Access Date: 1 November 2017. <https://www.iea.org/topics/energyefficiency/benefits/>.

²⁶ Fossil Fuels, Environmental and Energy Study Institute (Washington) 2015. Access Date: 1 November 2017. <http://www.eesi.org/topics/fossil-fuels/description>.

²⁷ The Paris Agreement, UNFCCC (Bonn) 12 October 2017. Access Date: 1 November 2017. http://unfccc.int/paris_agreement/items/9485.php.

²⁸ Status of Ratification, UNFCCC (Bonn) 12 December 2015. Access Date: 1 November 2017. http://unfccc.int/paris_agreement/items/9444.php.

²⁹ India to sell only electric cars by 2030, CNN Money (New York) 3 June 2017. Access Date: 1 November 2017. <http://money.cnn.com/2017/06/03/technology/future/india-electric-cars/index.html>.

Fund to assist developing countries in adaptation and mitigation practices to counter climate change.³⁰

Full compliance is achieved when a G20 member has acted to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency. The word “increased” is defined as to augment or to swell to greater intensity than before.³¹ Levels of innovation i.e. the implementation of new or significantly new ideas must be greater than previous years. In addition, the G20 member must also take strong and effective steps in implementing other ways of mitigating GHG. For example, implementing the NDCs or switching to low carbon energy sources. “Strong” is understood as superior to its kind, powerful in influence, and efficient.³² These actions would likely generate possibility for new strategies, ways to engage others, and create breakthrough results. For example, allocating additional funding to an existing program will not count towards full compliance.

Partial compliance is achieved when a G20 member has not made any new innovations but has maintained previous commitments in mitigating GHG through sustainable and clean energies and in energy efficiency and has taken steps to mitigate GHG in other ways such as through the implementation of NDCs and Paris Agreement.

No compliance is scored when a G20 member enacts policies or actions that ultimately increase greenhouse gas emissions without plans for mitigation.

Scoring Guidelines

-1	The G20 member has enacted policies or actions that have or will increase greenhouse gas emissions without plans for mitigation.
0	The G20 member has not implemented any new innovations in energy but has maintained previous commitments in mitigating greenhouse gas emissions through support on sustainable and clean energies and energy efficiency and has taken steps to mitigate greenhouse gas emissions in other ways.
+1	The G20 member has acted to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency AND has taken strong and effective steps to mitigate greenhouse gas emissions in other ways.

*Compliance Director: Cindy Ou
Lead Analyst: Ethan Tsai*

Argentina: +1

Argentina has fully complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency

On 9 October 2017, Argentina began building a solar farm in Cauchari in the Jujuy province in partnership with China. Argentina and China signed a USD331.5 million-dollar contract to build the largest solar farm in Latin America. It is expected to provide 300MW of power, capable of powering

³⁰ Who We Are, Green Climate Fund (Seoul) 2017. Access Date: 1 November 2017. <http://www.greenclimate.fund/who-we-are/about-the-fund>.

³¹ Increase, Dictionary.com 2010. Access Date: 1 November 2017. <http://www.dictionary.com/browse/increase>.

³² Strong, Merriam-Webster 2017. Access Date: 1 November 2017. <https://www.merriam-webster.com/dictionary/strong>.

300,000 homes.³³ The Chinese Import-Export Bank will fund most of the construction, and it is expected to enter the grid by May 2018.³⁴

In October 2017, Argentina commenced round two of funding for renewable projects RenovAR 2. Argentina plans to contract out 1.1 GW of projects.³⁵ Any wind energy included in these contracts will be manufactured in Argentina, as stipulated by the government. This succeeds the campaign in 2016 in which Argentina awarded 59 projects contributing to more than 2400 MW. This year the government plans to award 1600 MW in projects including wind, solar, biomass, and biogas.³⁶

On 9 November 2017, Argentine President Mauricio Macri signed a decree requiring that all processing and materials involved in producing new renewable resources contain a minimum of 50 per cent Argentine materials or integration. In order to promote this renewable energy growth, Argentina plans to fundraise ARS15,000,000 over the next 8 years. President Macri intends to increase the competitiveness of this sector and turn the northern provinces into a world power in solar energy.³⁷

On 12 November 2017, Argentina attended the 23rd Conference of the Parties meeting in Bonn, Germany, to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the US due to its withdrawal from the Paris Agreement.³⁸

On 13 November 2017, President Mauricio Macri announced that Argentina plans to boost lithium production to 600,000 tonnes a year by 2025. This increase in input material is expected to boost the electric car and electric transportation worldwide and bring USD800 million in exports to Argentina.³⁹

On 21 November 2017, Argentina announced that it would prioritize an increase in the fraction of clean energy being produced from 8 per cent in 2018 to 20 per cent in 2025.⁴⁰

³³ China aprueba financiación de US\$ 331 millones para un parque solar en Jujuy, Clarín (Argentina) 23 November 2017. Access Date: 25 November 2017. https://www.clarin.com/economia/economia/china-aprueba-financiacion-us-331-millones-parque-solar-jujuy_0_Hy6LrDVIM.html.

³⁴ Spotlight on renewables, The Economist Intelligence Unit (Argentina) 21 November 2017. Access Date: 25 November 2017. <http://country.eiu.com/ArticleIndustry.aspx?articleid=1116146095&Country=Argentina&topic=Industry&subtopic=Energy>.

³⁵ Argentina Renewable Energy Auctions — RenovAr Program (Round 2), International Energy Agency (Argentina) 28 August 2017. Access Date: 25 November 2017. <https://www.iea.org/policiesandmeasures/pams/argentina/name-165151-en.php?s=dHlwZT1yZSZzdGF0dXM9T2s,&return=PG5hdiBpZD0iYnJlYWRjcnVtYiIi-PGEgaHJlZj0iLyl-SG9tZTwwYT4gJnJhcXVvOyA8YSBocmVmPSlvcG9saWNpZXNhbmRtZWZfdXJlcy8iPlBvbGljaWVvZlGFuZCBNZWFzdXJlc2wvYT4gJnJhcXVvOyA8YSBocmVmPSlvcG9saWNpZXNhbmRtZWZfdXJlcy9yZW5ld2FibGVlbnVvZ3kvij5SZW5ld2FibGUgRW5lcmd5PC9hPjwvbmF2Pg>.

³⁶ Renewables in Argentina: Opportunities in a new business environment, PriceWaterhouseCoopers (Buenos Aires) September 2017. Access Date: 25 November 2017. <https://www.pwc.com/ar/es/publicaciones/assets/renovar2-i.pdf>.

³⁷ Acuerdo productivo para las energías renovables que beneficia al Norte, Gobierno de Argentina (Argentina) 9 November 2017. Access Date: 25 October 2017. <https://www.argentina.gob.ar/noticias/acuerdo-productivo-para-las-energias-renovables-que-beneficia-al-norte>.

³⁸ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

³⁹ Argentina seeks to overtake Chile in South American lithium race, Reuters (Cauchari Olaroz) 13 November 2017. Access Date: 25 November 2017. <https://www.reuters.com/article/argentina-mining-lithium/corrected-feature-argentina-seeks-to-overtake-chile-in-south-america-lithium-race-idUSL8N1NJ6XJ>.

⁴⁰ Spotlight on Renewables, Economist Intelligence Unit (Argentina) 21 November 2017. Access Date: 14 January 2017. <http://country.eiu.com/article.aspx?articleid=1856143569&Country=Argentina&topic=Economy>.

On 12 January 2018, Subsecretary of Renewable Energy of the Ministry of Energy and Mining of Argentina Sebastian Kind initiated a tender for the supply of Solar PV kits to 120,000 rural households, which includes low-power solar home kits and rechargeable solar lamps. This gives rural areas access to clean energy and equality of opportunity.⁴¹

Argentina has implemented policies and strategies which puts the country on a path towards sustainable development and innovation, aimed at mitigating greenhouse gas emissions. Argentina has mobilized foreign and domestic investment into its energy market and has increased the market share of renewable energies.

Thus, Argentina receives a score of +1.

Analyst: Sebastian Warma

Australia: -1

Australia has not complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency as the country has shifted its focus from investing in renewable energy and increasing the exportation of fossil fuels such as coal.

On 17 October 2017, the Australian government announced a New Energy Guarantee, stating that renewable energies, such as wind, hydro, and solar, will no longer be subsidized. Instead, the government will invest more in coal and gas resources.⁴²

On 12 November 2017, Australia attended the 23rd Conference of the Parties in Bonn, Germany, to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the US due to its withdrawal from the Paris Agreement.⁴³

On 15 February 2018, Australia released the Coalition Plan, which stated that retailers could defer 20 per cent of their emissions, and suggested a new emissions reduction target for the electricity sector of 26 per cent on 2005 levels by 2030. Penalties will be applied if market participants do not comply with the reduction target. Retailers who do not meet their requirement to supply sufficient reliable power to the market will have to meet the costs of the Australian Energy Market Operator.⁴⁴

Australia has not complied with its commitment to mitigate greenhouse gas. It has removed subsidies and investment towards renewable sources and increased gas emissions in 2017.

Thus, Australia receives a score of -1.

Analyst: Ioanna Karcas

⁴¹ Argentina launches tender for supply of 120,000 solar kits, PV magazine (Argentina) 12 January 2018. Access Date: 15 January 2018. <https://www.pv-magazine.com/2018/01/12/argentina-launches-tender-for-supply-of-120000-solar-kits/>.

⁴² Turnbull's new energy plan to reserve on-demand power and abolish subsidies for renewables, SBS News (Canberra) 17 October 2017. Access Date: 21 December 2017. <https://www.sbs.com.au/news/turnbull-s-new-energy-plan-to-reserve-on-demand-power-and-abolish-subsidies-for-renewables>.

⁴³ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

⁴⁴ Electricity retailers could defer emissions reductions under Coalition plan, The Guardian (Canberra) 15 February 2018. Access Date: 1 March 2018. <https://www.theguardian.com/australia-news/2018/feb/15/electricity-retailers-could-defer-emissions-reductions-under-coalition-plan>.

Brazil: +1

Brazil has fully complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency by investing in sustainable energy such as wind power and preserving the Amazon forest.

On 18 September 2017, Brazil's Ministry of Environment, the Global Environment Facility, the World Bank, the Brazilian Biodiversity Fund, Amazonia Live, and Conservation International launched a project to plant and add 73 million native trees to Brazil's Amazon by 2023. This project aims to help Brazil achieve its commitment to the Paris Agreement and mitigate the effects of greenhouse gases.⁴⁵

On 26 September 2017, the Brazilian government retracted an original plan to open the Renca reserve, an area of 17,800 square miles (or 46,000 square kilometers) in the Amazon Rainforest, for mining.⁴⁶

On 12 November 2017, Brazil attended the 23rd Conference of the Parties meeting in Bonn, Germany, to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the US due to its withdrawal from the Paris Agreement.⁴⁷

On 2 December 2017, the Brazilian Development Bank (BNDES) approved a USD144 million fund for investing in sustainable energy. The funds from this program will be administered towards infrastructure projects involved with low carbon economy.⁴⁸

On 12 December 2017, the Brazilian Senate approved *RenovaBio*, a bill that will increase biofuels such as ethanol and biodiesel. The bill is expected to support Brazil's pledge towards the Paris agreement and help cut back on carbon emissions.⁴⁹

On 13 December 2017, the Chamber of Deputies of the Brazilian government rejected an amended bill, passed by the country's Senate on 12 December 2017, which would have resulted in oil companies maintaining a tax break from the government until 2040. The amended bill by the Senate was intended to suspend taxes on exploration, development, and production of fossil fuels for oil companies in Brazil.⁵⁰

On 17 December 2017, the Brazilian government awarded Enel Group, a multinational manufacturer and distributor of electricity and gas, a 20-year power supply contract. This new partnership provides

⁴⁵ Stronger forest protection key to Amazon replanting push — experts, Reuters (Rio de Janeiro) 18 September 2017. Access Date: 5 March 2018. <https://www.reuters.com/article/us-brazil-forest-planting/stronger-forest-protection-key-to-amazon-replanting-push-experts-idUSKCN1BT1NT>.

⁴⁶ Brazil backtracks on plan to open up Amazon forest to mining, The Guardian (Rio de Janeiro) 26 September 2017. Access Date: 10 March 2018. <https://www.theguardian.com/environment/2017/sep/26/brazil-backtracks-on-plan-to-open-up-amazon-forest-to-mining>.

⁴⁷ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

⁴⁸ BNDES green lights USD 144m sustainable energy fund, Renewables Now 2 December 2017. Access Date: 10 March 2018. <https://renewablesnow.com/news/bndes-greenlights-usd-144m-sustainable-energy-fund-549240/>.

⁴⁹ Brazil Senate passes bill to boost ethanol, biodiesel use, Reuters (Sao Paulo) 12 December 2017. Access Date: 10 March 2018. <https://www.reuters.com/article/us-brazil-ethanol-renovabio/brazil-senate-passes-bill-to-boost-ethanol-biodiesel-use-idUSKBN1E62M6>.

⁵⁰ Oil Companies in Brazil Will Keep Tax Breaks Until 2040, Rio Times (Sao Paulo) 14 December 2017. Access Date: 10 March 2018. <http://riotimesonline.com/brazil-news/rio-business/oil-companies-in-brazil-will-get-tax-breaks-until-2040/>.

Enel Group with the rights to supply a new solar power PV project, and conversely, the group expects to invest nearly USD355 million to the construction of the plant.⁵¹

Brazil has implemented policies and strategies which puts the country on a path towards sustainable development and innovation, aimed at mitigating greenhouse gas emissions through increasing investment towards renewable energy, passing bills to support biofuels, and creating plans to preserve the Amazon Forest.

Thus, Brazil receives a score of +1.

Analyst: Mary Nedumthallil

Canada: +1

Canada has fully complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 7 November 2017, Canada announced its participation in the International Energy Agency's "Clean Energy Transitions" Program, along with twelve other countries including Germany, the European Union, and the United Kingdom. The program will involve "deep and sustained partnerships with governments and will include collaborative analytical work, technical co-operation, training and capacity building, strategic dialogues, secondments and implementation of joint work programs."⁵²

On 12 November 2017, Canada attended the 23rd Conference of the Parties meeting in Bonn, Germany, to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the US due to its withdrawal from the Paris Agreement.⁵³

On 14 November 2017, Minister of Natural Resources Jim Carr announced an investment of CAD5.3 million for seven projects to tackle methane emissions.⁵⁴ The investment will help Canada meet its target of reducing greenhouse gas emissions by 30 per cent below 2005 levels by 2030.

On 16 November 2017, Canada joined the "Powering Past Coal" alliance to phase out coal from power generation before 2030 in Bonn in collaboration with 15 other countries including the United Kingdom, Italy, and France.⁵⁵

On 16 November 2017, Minister of Environment and Climate Change, Catherine McKenna, announced a CAD2.4 million investment in marine renewable energy (MRE) at the University of

⁵¹ Enel will build 388 MW of solar capacity in Brazil following renewables tender win, Enel Green Power Media (Rome) 18 December 2017. Access Date: 10 March 2018. <https://www.enelgreenpower.com/media/press/d/2017/12/enel-will-build-388-mw-of-solar-capacity-in-brazil-following-renewables-tender-win>.

⁵² IEA launches the Clean Energy Transitions Programme to support clean-energy development, IEA (Vienna) 7 November 2017. Access Date: 5 March 2018. <https://www.iea.org/newsroom/news/2017/november/iea-launches-the-clean-energy-transitions-programme-to-support-clean-energy-devel.html>.

⁵³ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

⁵⁴ Government of Canada invests in clean energy technology to reduce methane emissions, Natural Resources Canada (Ottawa) 14 November 2017. Access Date: 26 November 2017. https://www.canada.ca/en/natural-resources-canada/news/2017/11/government_of_canadainvestsincleanenergytechnologytoreducemethan.html.

⁵⁵ At least 15 states join global alliance to phase out coal by 2030, Reuters (Bonn) 16 November 2017. Access Date: 26 November 2017. <https://www.reuters.com/article/us-climatechange-accord-coal/at-least-15-states-join-global-alliance-to-phase-out-coal-by-2030-idUSKBN1DG1AI>.

Victoria.⁵⁶ The funding will help support the innovative teaching and technology research on MRE, adoption of alternative technologies and create middle class jobs.⁵⁷

On 20 November 2017, the Ministry of Natural Resources announced a CAD155 million program that will fund clean technology projects in the areas of energy, mining and forestry, helping to reduce greenhouse gas emissions. The Clean Growth Program promotes territorial collaboration.⁵⁸ It focuses on reducing GHG emissions from natural resource operations, efficient energy use and productivity in natural resources operations, as well as the production and development of advanced materials and bio products in natural resource operations.⁵⁹

On 24 November 2017, Minister of Innovation Ahmed Hussen announced a CAD9.5 million investment for two Toronto-based companies to develop new solar power and energy grid technologies, and bring their technologies to market.⁶⁰ The investment is funded through Sustainable Development Technology Canada and is part of Canadian government's Innovation and Skills Plan.⁶¹

On 12 December 2017, Minister of the Environment and Climate Change Catherine McKenna attended the One Planet Summit hosted by French President Emmanuel Macron, the World Bank and the UN. The Summit aimed to mobilize public and private financing to fund the global transition to a carbon-free future. 50 world leaders, 4,000 other participants and 800 organizations attended the meeting.⁶²

On 15 December 2017, the Government of Canada and the Federation of Canadian Municipalities announced CAD45 million contribution to the Green Municipal Fund. This fund will support grants and loans to environmental initiatives led by local governments across Ontario.⁶³

⁵⁶ Investing in clean energy technology to create jobs and help the environment, Western Economic Diversification of Canada (Victoria) 16 November 2017. Access Date: 28 November 2017. https://www.canada.ca/en/western-economic-diversification/news/2017/11/investing_in_cleanenergytechnologytcreatejobsandhelptheenvironm.html.

⁵⁷ Investing in clean energy technology to create jobs and help the environment, Western Economic Diversification of Canada (Victoria) 16 November 2017. Access Date: 28 November 2017. https://www.canada.ca/en/western-economic-diversification/news/2017/11/investing_in_cleanenergytechnologytcreatejobsandhelptheenvironm.html.

⁵⁸ New \$155-million clean growth program launched to address climate change, Natural Resources Canada (Ottawa) 20 November 2017. Access Date: 26 November 2017. https://www.canada.ca/en/natural-resources-canada/news/2017/11/new_155-million_cleangrowthprogramlaunchedtoaddressclimatechange.html.

⁵⁹ New \$155-million clean growth program launched to address climate change, Natural Resources Canada (Ottawa) 20 November 2017. Access Date: 26 November 2017. https://www.canada.ca/en/natural-resources-canada/news/2017/11/new_155-million_cleangrowthprogramlaunchedtoaddressclimatechange.html.

⁶⁰ Investing in Ontario's clean tech industry will improve energy efficiency and cut greenhouse gases, Innovation, Science, and Economic Development Canada (Toronto) 24 November 2017. Access Date: 28 November 2017. https://www.canada.ca/en/innovation-science-economic-development/news/2017/11/investing_in_ontarioscleantechindustrywillimproveenergyefficienc.html.

⁶¹ Investing in Ontario's clean tech industry will improve energy efficiency and cut greenhouse gases, Innovation, Science, and Economic Development Canada (Toronto) 24 November 2017. Access Date: 28 November 2017. https://www.canada.ca/en/innovation-science-economic-development/news/2017/11/investing_in_ontarioscleantechindustrywillimproveenergyefficienc.html.

⁶² 50 World Leaders Gather in Paris for Climate Summit, Huffington Post (Paris) 12 December 2017. Access Date: 8 January 2018. https://www.huffingtonpost.ca/entry/one-planet-summit-trump-macron_us_5a2f8435e4b01598ac478e15.

⁶³ Communities across Ontario are taking action on climate change with \$45 million in funding from the Government of Canada and FCM, Federation of Canadian Municipalities (London) 15 December 2017. Access Date: 28 February 2018. <https://fcm.ca/home/programs/green-municipal-fund/gmf-news/2017/communities-across-ontario-are-taking-action-on-climate-change-with-45-million-in-funding-from-the-government-of-canada-and-fcm.html>.

On 24 January 2018, Minister Jim Carr announced a CAD182 million investment to increase energy efficiency and address climate change by improving, renovating, and constructing sustainable and energy efficient infrastructures.⁶⁴

On 24 January 2018, Prime Minister Justin Trudeau expressed support for the construction of the Keystone XL pipeline that will transport bitumen from Alberta to refineries in Texas.⁶⁵

On 23 February 2018, the Government of Canada invested CAD4.3 million in British Columbia to bolster the electric vehicle charging and refueling infrastructure available around urban centers and apartment buildings.⁶⁶

Canada has taken actions to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency, and has taken effective measures to mitigate greenhouse gas emissions. It does, however, support the construction of the Keystone XL pipeline.

Thus, Canada receives a score of +1.

Analysts: Adolphus Lau and Alok Herath

China: +1

China has fully complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 9 October 2017, Argentina began building a solar farm in Cauchari in the Jujuy province in partnership with China. Argentina and China signed a USD331.5 million-dollar contract to build the largest solar farm in Latin America. It is expected to provide 300MW of power, capable of powering 300,000 homes.⁶⁷ The Chinese Import-Export Bank will fund most of the construction, and it is expected to enter the grid by May 2018.⁶⁸

On 18 October 2017, at the 19th National Congress, President Xi Jinping announced China's Five-Year Plan to strengthen China's environmental reform, including structural plans to foster green innovation and green economy.⁶⁹ The strategy outlined four categories. Under the first category, "Promoting Green Development," the government established a legal and policy framework that promotes green production and consumption, and an economic structure that facilitates green, low-

⁶⁴ Government of Canada Invests in Healthier, Energy-efficient Homes and Buildings for Canadians, Newswire (Ottawa) 24 January 2018. Access Date: 25 January 2018. <https://www.newswire.ca/news-releases/government-of-canada-invests-in-healthier-energy-efficient-homes-and-buildings-for-canadians-670935893.html>.

⁶⁵ Trudeau welcomes Trump's Keystone XL decision, CBC (Ottawa) 24 January 2018. Access Date: 7 March 2018. <http://www.cbc.ca/news/politics/trudeau-cabinet-keystone-xl-1.3949754>.

⁶⁶ Government of Canada Supports Electric and Alternative Fuel Vehicle Infrastructure in B.C., Government of Canada (Burnaby) 23 February 2018. Access Date: 2 March 2018. <https://www.canada.ca/en/natural-resources-canada/news/2018/02/government-of-canada-supports-electric-and-alternative-fuel-vehicle-infrastructure-in-bc.html>.

⁶⁷ China aprueba financiación de US\$ 331 millones para un parque solar en Jujuy, Clarín (Argentina) 23 November 2017. Access Date: 25 November 2017. https://www.clarin.com/economia/economia/china-aprueba-financiacion-us-331-millones-parque-solar-jujuy_0_Hy6LrDVIM.html.

⁶⁸ Spotlight on renewables, The Economist Intelligence Unit (Argentina) 21 November 2017. Access Date: 25 November 2017. <http://country.eiu.com/ArticleIndustry.aspx?articleid=1116146095&Country=Argentina&topic=Industry&subtopic=Energy>.

⁶⁹ Full text of Xi Jinping's report at 19th CPC National Congress, China Daily (Beijing) 4 November 2017. Access Date: 25 November 2017 http://www.chinadaily.com.cn/china/19thcpcnationalcongress/2017-11/04/content_34115212.html.

carbon and circular development.⁷⁰ The report also mentioned efforts to create a market-based system for green technology innovation, green finance, the development of energy-saving and environmental protection industries, and clean production and clean energy industries. The second category, “Solving prominent environmental problems,” enforces stricter pollutants discharge standards and increases the nation’s involvement in global environmental governance and fulfillment on emissions reduction.⁷¹

On 12 November 2017, China attended the 23rd Conference of the Parties meeting in Bonn, Germany, to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the US due to its withdrawal from the Paris Agreement.⁷²

On 13 November 2017, the National Energy Administration (NEA) stated that China aims to reduce power waste generated by renewable energy sector by 2020.⁷³ It expects the utilization rate of hydropower plants should reach 90 per cent by 2017 and the wind power curtailment rate to drop to about 30 per cent in northwestern provinces in 2017.⁷⁴ The statement also said the NEA will promote power trade market and improve its cross-region power transmission capacity to boost renewable energy consumption and cut its coal dependence.⁷⁵

On 13 November 2017, the Government of China and the Indonesian Minister Ignasius Jonan signed an agreement at the fifth Indonesia-China Energy Forum (ICEF V) in Jakarta to bolster cooperation in the energy sector.⁷⁶ China and Indonesia both established a working group on new renewable energy, and electricity as well as a working group on oil, gas, and coal. Chinese companies have invested in oil and gas in Indonesia and have taken part in a 35,000 megawatt (MW) electricity program.⁷⁷

On 19 November 2017, China and Ukraine reached an agreement on increasing their cooperation in renewable energy by establishing joint factories for production of equipment and materials for renewable energy infrastructure and creating financing mechanisms for clean energy.⁷⁸

⁷⁰ Full text of Xi Jinping's report at 19th CPC National Congress, China Daily (Beijing) 4 November 2017. Access Date: 25 November 2017 http://www.chinadaily.com.cn/china/19thcpcnationalcongress/2017-11/04/content_34115212.html.

⁷¹ Full text of Xi Jinping's report at 19th CPC National Congress, China Daily (Beijing) 4 November 2017. Access Date: 25 November 2017 http://www.chinadaily.com.cn/china/19thcpcnationalcongress/2017-11/04/content_34115212.html.

⁷² Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

⁷³ China aims to stop renewable energy being wasted by 2020, Reuters (Beijing) 13 November 2017. Access Date: 28 November 2017. <https://www.reuters.com/article/us-china-renewables-waste/china-aims-to-stop-renewable-energy-being-wasted-by-2020-idUSKBN1DD136>.

⁷⁴ China aims to stop renewable energy being wasted by 2020, Reuters (Beijing) 13 November 2017. Access Date: 28 November 2017. <https://www.reuters.com/article/us-china-renewables-waste/china-aims-to-stop-renewable-energy-being-wasted-by-2020-idUSKBN1DD136>.

⁷⁵ China aims to stop renewable energy being wasted by 2020, Reuters (Beijing) 13 November 2017. Access Date: 28 November 2017. <https://www.reuters.com/article/us-china-renewables-waste/china-aims-to-stop-renewable-energy-being-wasted-by-2020-idUSKBN1DD136>.

⁷⁶ Indonesia, China sign agreement on energy, The Jakarta Post (Jakarta) 13 November 2017. Access Date: 25 November 2017. <http://www.thejakartapost.com/news/2017/11/13/indonesia-china-sign-agreement-on-energy.html>.

⁷⁷ Indonesia, China sign agreement on energy, The Jakarta Post (Jakarta) 13 November 2017. Access Date: 25 November 2017. <http://www.thejakartapost.com/news/2017/11/13/indonesia-china-sign-agreement-on-energy.html>.

⁷⁸ China, Ukraine agree to deepen cooperation in renewable energy, Xinhua (Kiev) 18 November 2017. Access Date: 28 November 2017. http://news.xinhuanet.com/english/2017-11/18/c_136761193.html.

On 18 December 2017, the National Development and Reform Commission launched an Emissions Trading Scheme (ETS) seeking to integrate prior ETS pilot projects across 9 provinces. It aims to limit the carbon output of businesses operating within these 9 regions via carbon trading.⁷⁹

On 28 December 2017, the Vehicle Technology Service Center stated that the country will suspend and halt the production of 553 passenger vehicles that do not meet the government's fuel consumption standards. The suspension is part of the effort to push for green vehicles and transport.⁸⁰

On 5 March 2018, Premier Li Keqiang said that China would cut energy consumption per unit of gross domestic product by 3 per cent and continue to target emissions of sulphur dioxide and other greenhouses across all industries.⁸¹

China has taken actions to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency, and has taken effective measures to mitigate greenhouse gas emissions.

Thus, China receives a score of +1.

Analysts: Adolphus Lau and Alok Herath

France: +1

France has fully complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 4-5 September 2017, the Secretary of State to the Ministry for Ecological and Solidarity Transition met with the State Secretary of the German Federal Ministry for the Environment, Nature Conservation, Construction and Nuclear in Berlin to discuss the swift implementation of the Paris Agreement at the European level. They shared the desire to see the facilitative dialogue of the 24th Conference of the Parties (COP) to raise ambition.⁸²

On 6 September 2017, Minister for the Ecological and Inclusive Transition Nicolas Hulot presented a bill putting an end to the exploration and exploitation of conventional and unconventional hydrocarbons.⁸³

On 12 November 2017, France attended the 23rd COP meeting in Bonn, Germany, to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the

⁷⁹ China aims for emission trading scheme in big step vs. global warming, Reuters (Beijing) 19 December 2017. Access Date: 3 March 2018. <https://www.reuters.com/article/us-china-carbon/china-aims-for-emission-trading-scheme-in-big-step-vs-global-warming-idUSKBN1ED0R6>.

⁸⁰ China stops producing 553 auto models over fuel consumption, China Daily (Beijing) 2 January 2018. Access Date: 25 January 2018. <http://www.chinadaily.com.cn/a/201801/02/WS5a4afc5fa31008cf16da4a17.html>.

⁸¹ NPC 2018: China to step up fight against emissions, pollution in bid to protect 'blue skies', 'green land', Straits Times (Beijing) 5 March 2018. Access Date: 8 March 2018. <http://www.straitstimes.com/asia/east-asia/npc-2018-chinas-ramps-up-coal-steel-output-cuts-to-defend-blue-skies>.

⁸² Seminar of work between the French and German Ministries of the Environment in Berlin, Ministère de la Transition écologique et solidaire (Paris) September 4, 2017. Access Date: December 13, 2017. <https://www.ecologie-solidaire.gouv.fr/seminaire-travail-entre-ministeres-francais-et-allemand-lenvironnement-berlin>.

⁸³ France, the first country to prohibit exploitation of hydrocarbons, République Française (France) 7 September 2017. Access Date: November 14, 2017. <http://www.gouvernement.fr/en/france-the-first-country-to-prohibit-exploitation-of-hydrocarbons>.

US due to its withdrawal from the Paris Agreement.⁸⁴ President Emmanuel Macron stated that France aims to close down all coal-fired power plants by 2021 so as to reduce France's greenhouse gas levels.⁸⁵

On 16 November 2017, France joined the "Powering Past Coal" alliance to phase out coal from power generation before 2030 in Bonn in collaboration with 15 other countries including the United Kingdom, Italy, and Canada.⁸⁶

On 12 December 2017, President Macron hosted the One Planet Summit with 50 heads of state and government in attendance to "explore ways of innovating, supporting and accelerating" the common fight against climate change.⁸⁷ President Macron, President of the World Bank Group, Jim Yong Kim, and the Secretary-General of the UN, Antonio Guterres, each promoted one section of climate change during the summit: Adaptation, Mitigation, Mobilization. The final summit declarations include decisions on three main areas: "financing adaptation of our lifestyles to inevitable transformations, further speeding up the reduction of greenhouse gas emissions, and ensuring that climate issues are central to the finance sector."⁸⁸

On 12 December 2017, President Macron announced "Make Our Planet Great Again" grants of up to EUR1.5 million to eighteen climate scientists from the United States and elsewhere to continue climate research.⁸⁹

On 5 March 2018, France called on European Union nations to adopt a regional carbon price floor for power generators to promote a shift away from coal to climate-friendly fuels.⁹⁰

On 11 March 2018, President Macron pledged over USD850 million for solar projects in emerging economies as both India and France called for affordable solar technology for emerging nations at the first conference of the International Solar Alliance held in New Delhi, which was co-founded by both countries in 2016 on the sidelines of the Paris climate summit to boost the use of solar power, countering the impact of climate change.⁹¹

⁸⁴ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

⁸⁵ France and UK vow to make up for Trump's withdrawal of climate change funding, The Independent (Germany) 15 November 2017. Access Date: 13 December 2017. <http://www.independent.co.uk/news/world/europe/trump-climate-change-funding-france-uk-vow-make-up-money-paris-agreement-a8057546.html>.

⁸⁶ At least 15 states join global alliance to phase out coal by 2030, Reuters (Bonn) 16 November 2017. Access Date: 26 November 2017. <https://www.reuters.com/article/us-climatechange-accord-coal/at-least-15-states-join-global-alliance-to-phase-out-coal-by-2030-idUSKBN1DG1AI>.

⁸⁷ One Planet Summit, France Diplomatie (Paris) 12 December 2017. Access Date: 21 March 2018. <https://www.diplomatie.gouv.fr/en/french-foreign-policy/climate/one-planet-summit/>.

⁸⁸ 12 International Commitments, France Diplomatie (Paris) 12 December 2017. Access Date: 21 March 2018. https://www.diplomatie.gouv.fr/IMG/pdf/oneplanetsummit-dp-engagements-en_cle88d5e4.pdf.

⁸⁹ France awards US climate scientists grants to 'Make Our Planet Great Again', CBC News (Paris) 12 December 2017. Access Date: 21 March 2018. <http://www.cbc.ca/news/technology/french-climate-grants-1.4444207>.

⁹⁰ France calls on EU nations to adopt carbon price floor, Reuters (Brussels) 5 March 2018. Access Date: 7 March 2018. <https://www.reuters.com/article/us-eu-carbon/france-calls-on-eu-nations-to-adopt-carbon-price-floor-idUSKBN1GH2QA>.

⁹¹ India, France Call for Affordable Solar Technology to Address Climate Change, VOA (New Delhi) 11 March 2018. Access Date: 21 March 2018. <https://www.voanews.com/a/french-president-pokes-at-trump-for-leaving-paris-accord/4291604.html>.

France has taken actions to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency, and has taken effective measures to mitigate greenhouse gas emissions.

Thus, France receives a score of +1.

Analyst: Ioanna Karcas

Germany: +1

Germany has fully complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 10 July 2017, the Government of Germany announced that Jochen Flasbarth, Deputy Environment Minister, will hold talks with Turkey about acquiring money for the UN Green Climate Fund, in an effort to help Turkey adapt to climate change and encourage the ratification of the 2015 Paris Agreement.⁹²

On 3 August 2017, the Wind Energy Renewable Energy Resource Areas (YEKA), a Turkish-German consortium, under the leadership of Minister of Energy and Natural Resources Berat Albayrak, won the bid to provide energy for a 1000-megawatt wind power plant, and invest over USD1 billion into wind facilities. Additional wind turbines will be built in Turkey for a reduced cost.⁹³

On 28 August 2017, the energy ministers of India and Germany signed an agreement under the Indo-German Energy Programme (IGEN) on technical cooperation.⁹⁴ Both ministries committed to work together to advance integration of renewable energies by improving market mechanisms, use human capacities in integrating renewable energies more efficiently, and develop “technical and institutional conditions” at a regional and national level.⁹⁵

In September 2017, the German Research Centre for Geosciences worked with Indonesia’s Agency for the Assessment and Application of Technology and Pertamina Geothermal Energy to commission a geothermal low-temperature demonstration power plant in North Sulawesi, Indonesia.⁹⁶ The demonstration plant will efficiently generate electric power by cooling the

⁹² German official to hold talks with Turkey on climate issue, Associated Press (Berlin) 10 July 2017. Access Date: 24 November 2017. <https://www.apnews.com/c35d50875b31473e8760f3798723fb06>.

⁹³ Turkish-German consortium awarded \$1B worth wind power plant contract, Daily Sabah (Istanbul) 3 August 2017. Access Date: 24 November 2017. <https://www.dailysabah.com/energy/2017/08/03/turkish-german-consortium-awarded-1b-worth-wind-power-plant-contract>.

⁹⁴ MNRE & GIZ Signs Agreement to Improve Framework Conditions for Grid Integration of Renewable Energies, Ministry of New and Renewable Energy (New Delhi) 28 August 2016. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

⁹⁵ MNRE & GIZ Signs Agreement to Improve Framework Conditions for Grid Integration of Renewable Energies, Ministry of New and Renewable Energy (New Delhi) 28 August 2016. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

⁹⁶ Commissioning of the geothermal low-temperature demonstration power plant in Lahendong, Indonesia, GFZ German Research Centre for Geosciences (Potsdam) 16 October 2017. Access Date: 25 November 2017. <http://www.gfz-potsdam.de/en/media-communication/news/details/article/inbetriebnahme-des-geothermischen-niedertemperatur-demonstrationskraftwerks-in-lahendong-indonesien/>.

temperature of unused geothermal brine. Its aim is to provide wide-range energy application in Indonesia. The Ministry of Education and Research funded the demonstration power plant.⁹⁷

On 4-5 September 2017, the State Secretary of the Federal Ministry for the Environment, Nature Conservation, Construction and Nuclear met with the Secretary of State to the French Ministry for Ecological and Solidarity Transition in Berlin, to discuss the swift implementation of the Paris Agreement at the European level.⁹⁸ They shared the desire to see the facilitative dialogue of COP24 to raise ambition.⁹⁹

On 23 October 2017, German state-owned rail company Deutsche Bahn, which is the largest energy consumer in Germany, announced plans to reduce CO₂ emissions by 50 per cent by 2030.¹⁰⁰

On 6 November 2017, the German government added an additional EUR100 million of funding “to support developing countries in climate change adaptation.”¹⁰¹ The Federal Environment Ministry also pledged EUR50 million to the Adaptation Fund, and the Federal Ministry for Economic Cooperation and Development pledged the contribution of a further EUR50 million to the Least Developed Countries Fund to support adaptation.¹⁰²

On 7 November 2017, Germany announced its participation in the International Energy Agency’s “Clean Energy Transitions” Program, along with twelve other members including Canada, the European Union, and the United Kingdom.¹⁰³ Germany will contribute EUR3.5 million.¹⁰⁴ The program will involve “deep and sustained partnerships with governments and will include

⁹⁷ Commissioning of the geothermal low-temperature demonstration power plant in Lahendong, Indonesia, GFZ German Research Centre for Geosciences (Potsdam) 16 October 2017. Access Date: 25 November 2017. <http://www.gfz-potsdam.de/en/media-communication/news/details/article/inbetriebnahme-des-geothermischen-niedertemperatur-demonstrationskraftwerks-in-lahendong-indonesien/>.

⁹⁸ Seminar of work between the French and German Ministries of the Environment in Berlin, Ministre de la Transition écologique et solidaire (Paris) 4 September 2017. Access Date: 13 December 2017. <https://www.ecologique-solidaire.gouv.fr/seminaire-travail-entre-ministeres-francais-et-allemand-lenvironnement-berlin>.

⁹⁹ Seminar of work between the French and German Ministries of the Environment in Berlin, Ministre de la Transition écologique et solidaire (Paris) 4 September 2017. Access Date: 13 December 2017. <https://www.ecologique-solidaire.gouv.fr/seminaire-travail-entre-ministeres-francais-et-allemand-lenvironnement-berlin>.

¹⁰⁰ German rail company ratchets up climate ambition ahead of UN climate conference, Clean Wire Energy (Berlin) 24 October 2017. Access Date: 25 November 2017. <https://www.cleanenergywire.org/news/german-rail-ratchets-climate-ambition-morals-climate-policy/german-rail-company-ratchets-climate-ambition-ahead-un-climate-conference>.

¹⁰¹ UN Climate Change Conference begins: Germany supports developing countries in climate change adaptation, BMU (Berlin) 6 November 2017. Access Date: 25 November 2017. <https://www.bmub.bund.de/en/pressrelease/weltklimakonferenz-startet-deutschland-unterstuetzt-entwicklungslaender-bei-klima-anpassung/>.

¹⁰² UN Climate Change Conference begins: Germany supports developing countries in climate change adaptation, BMU (Berlin) 6 November 2017. Access Date: 25 November 2017. <https://www.bmub.bund.de/en/pressrelease/weltklimakonferenz-startet-deutschland-unterstuetzt-entwicklungslaender-bei-klima-anpassung/>.

¹⁰³ IEA launches the Clean Energy Transitions Programme to support clean-energy development, IEA (Vienna) 7 November 2017. Access Date: 5 March 2018. <https://www.iea.org/newsroom/news/2017/november/iea-launches-the-clean-energy-transitions-programme-to-support-clean-energy-devel.html>.

¹⁰⁴ IEA launches the Clean Energy Transitions Programme to support clean-energy development, IEA (Vienna) 7 November 2017. Access Date: 5 March 2018. <https://www.iea.org/newsroom/news/2017/november/iea-launches-the-clean-energy-transitions-programme-to-support-clean-energy-devel.html>.

collaborative analytical work, technical co-operation, training and capacity building, strategic dialogues, secondments and implementation of joint work programs.”¹⁰⁵

On 11 November 2017, the German government announced a new initiative with the Marshall Islands “intended to advance the development of low-emission maritime shipping.”¹⁰⁶ The German Environment Ministry will contribute EUR9.5 million to this initiative.¹⁰⁷

On 12 November 2017, Germany attended the 23rd Conference of the Parties in Bonn, Germany to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the US due to its withdrawal from the Paris Agreement.¹⁰⁸

On 15 November 2017, the German government announced a new program with Spain, the European Commission and the UN Development Program to “support countries in making progress on their commitments under the Paris Agreement.”¹⁰⁹ The program aims to fortify “a global alliance assisting developing countries and emerging economies to implement their NDCs and related development objectives, fast and effectively.”¹¹⁰

On 16 November 2017, the German government renewed its commitment to the Kyoto Protocol second commitment period.¹¹¹ This step made the greenhouse gas emission targets “binding in European and international law.”¹¹²

On 16 November 2017, the German International Climate Initiative and Miguel Arias Canete, European Commissioner for Climate Action and Energy, launched new EU strategic partnerships for the implementation of the Paris Agreement to scale up European climate policy collaboration with

¹⁰⁵ IEA launches the Clean Energy Transitions Programme to support clean-energy development, IEA (Vienna) 7 November 2017. Access Date: 5 March 2018. <https://www.iea.org/newsroom/news/2017/november/iea-launches-the-clean-energy-transitions-programme-to-support-clean-energy-devel.html>.

¹⁰⁶ Germany supports the Marshall Islands in development of low-emission shipping, BMU (Berlin) 13 November 2017. Access Date: 8 March 2018. <https://www.bmub.bund.de/en/pressrelease/deutschland-unterstuetzt-marshall-islands-bei-der-entwicklung-von-emissionsarmer-seeschiffahrt/>.

¹⁰⁷ Germany supports the Marshall Islands in development of low-emission shipping, BMU (Berlin) 13 November 2017. Access Date: 8 March 2018. <https://www.bmub.bund.de/en/pressrelease/deutschland-unterstuetzt-marshall-islands-bei-der-entwicklung-von-emissionsarmer-seeschiffahrt/>.

¹⁰⁸ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

¹⁰⁹ UNDP, Germany, Spain and EU launch EUR 42 million programme at UN Climate Summit to help countries deliver on the Paris Agreement, UNDP (Bonn) 15 November 2017. Access Date: 8 March 2018. <http://www.undp.org/content/undp/en/home/presscenter/pressreleases/2017/undp-germany-spain-eu-launch-eur-42-million-programme-un-climate-summit.html>.

¹¹⁰ UNDP, Germany, Spain and EU launch EUR 42 million programme at UN Climate Summit to help countries deliver on the Paris Agreement, UNDP (Bonn) 15 November 2017. Access Date: 8 March 2018. <http://www.undp.org/content/undp/en/home/presscenter/pressreleases/2017/undp-germany-spain-eu-launch-eur-42-million-programme-un-climate-summit.html>.

¹¹¹ Germany ratifies the Kyoto Protocol’s second commitment period, BMU (Berlin) 16 November 2017. Access Date: 25 November 2017. <https://www.bmub.bund.de/en/pressrelease/deutschland-ratifiziert-zweite-verpflichtungsperiode-des-kyoto-protokolls/>.

¹¹² Germany ratifies the Kyoto Protocol’s second commitment period, BMU (Berlin) 16 November 2017. Access Date: 25 November 2017. <https://www.bmub.bund.de/en/pressrelease/deutschland-ratifiziert-zweite-verpflichtungsperiode-des-kyoto-protokolls/>.

other major economies.¹¹³ The program will be co-funded by EU's Partnership Instrument. Germany will provide EUR5 million while the European commission will provide EUR20 million.¹¹⁴

On 27 November 2017, Germany hosted the first meeting of G20 Resource Efficiency Dialogue.¹¹⁵ At the meeting, representatives of large companies and research institutes outlined how they plan to “significantly reduce the consumption of their own raw materials in certain production processes and in the design of their range of products by applying the principles of circular economy.”¹¹⁶

On 12 December 2017, Federal Environment Minister Barbara Hendricks attended the One Planet Summit hosted by French President Emmanuel Macron, the World Bank and the UN. The Summit aimed to mobilize public and private financing to fund the global transition to a carbon-free future. 50 world leaders, 4,000 other participants and 800 organizations attended the Summit.¹¹⁷

On 17 January 2018, European Union members reached an agreement with the European Parliament with relation to the implementation of the Paris agreement.¹¹⁸ Under the effort sharing regulation, a binding climate target trajectory will be set out for each member state that will culminate in their national 2030 target.¹¹⁹ The new regulation provides Germany with a target for a 38 per cent reduction in carbon dioxide emissions by 2030 relative to 2005 levels. The German target is consistent with the Climate Action Plan 2050, which seeks a 55 per cent reduction by 2030 relative to 1990.¹²⁰

Germany has taken real steps in working to reduce greenhouse gas emissions and contribute to the development of clean, sustainable, efficient energy policy.

Thus, Germany receives a score of +1.

Analyst: Joshua F. Rossetti

¹¹³ EU scales up cooperation with other major economies to implement Paris Agreement, promote global energy transition, European Commission (Brussels) 16 November 2017, Access Date: 25 November 2017. https://ec.europa.eu/clima/news/eu-countries-trigger-entry-force-kigali-amendment-montreal-protocol_en.

¹¹⁴ EU scales up cooperation with other major economies to implement Paris Agreement, promote global energy transition, European Commission (Brussels) 16 November 2017, Access Date: 25 November 2017. https://ec.europa.eu/clima/news/eu-countries-trigger-entry-force-kigali-amendment-montreal-protocol_en.

¹¹⁵ First Meeting of G20 Resource Efficiency Dialogue, BMU (Berlin) 27 November 2017. Access Date: 14 January 2018. <https://www.bmub.bund.de/en/pressrelease/erstes-g20-treffen-zur-ressourceneffizienz/>.

¹¹⁶ First Meeting of G20 Resource Efficiency Dialogue, BMU (Berlin) 27 November 2017. Access Date: 14 January 2018. <https://www.bmub.bund.de/en/pressrelease/erstes-g20-treffen-zur-ressourceneffizienz/>.

¹¹⁷ 50 World Leaders Gather in Paris for Climate Summit, Huffington Post (Paris) 12 December 2017. Access Date: 8 January 2018. https://www.huffingtonpost.ca/entry/one-planet-summit-trump-macron_us_5a2f8435e4b01598ac478e15.

¹¹⁸ Europe is moving forward with the implementation of the Paris Agreement, BMU (Berlin) 17 January 2018. Access Date: 6 March 2018. <https://www.bmub.bund.de/en/pressrelease/europa-geht-voran-bei-der-umsetzung-des-pariser-abkommens/>.

¹¹⁹ Europe is moving forward with the implementation of the Paris Agreement, BMU (Berlin) 17 January 2018. Access Date: 6 March 2018. <https://www.bmub.bund.de/en/pressrelease/europa-geht-voran-bei-der-umsetzung-des-pariser-abkommens/>.

¹²⁰ Europe is moving forward with the implementation of the Paris Agreement, BMU (Berlin) 17 January 2018. Access Date: 6 March 2018. <https://www.bmub.bund.de/en/pressrelease/europa-geht-voran-bei-der-umsetzung-des-pariser-abkommens/>.

India: +1

India has fully complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 21 July 2017, Minister of Power, Coal, New and Renewable Energy and Mines Shri Piyush Goyal signed Power Purchase Agreements (PPAs) for the purchase of 1050 megawatts (MW) of wind power.¹²¹ The PPAs were signed by PTC India Ltd, a power trading solutions company, and the Government of India. This was conducted under the Ministry of New and Renewable Energy's first wind auction plans scheme.¹²² Minister Goyal proposed monthly wind energy bids to induce "healthy competition and affordable power for all through increase in sale."¹²³ He noted the merit of renewable power generated in India with greater job creation relative to power generated through conventional energy.¹²⁴

On 27 July 2017, the Government of India issued a press release stating that it is implementing the Ethanol Blended Petrol Programme as part of its national policy on biofuels.¹²⁵ The program requires oil-marketing companies to sell ethanol-blended petrol consisting of up to 10 per cent of ethanol.¹²⁶

On 27 July 2017, the Indian Renewable Energy Development Agency Ltd. (IREDA) announced that it would utilize USD100 million provided by the World Bank for the "development of internal infrastructure of solar parks."¹²⁷ The Ministry of New and Renewable Energy stated that this loan would be directed to interested solar power park developers through IREDA.¹²⁸ The World Bank is also providing roof-top solar developers with low cost financing under a USD625 million Programme for Results to be allocated to the State Bank of India.¹²⁹ This plan is aimed "to significantly expand the programme of rooftop [solar panels] across India" by expanding the capacity of the solar panel industry.¹³⁰

On 8 August 2017, Minister Goyal stated that the Government of India is planning for the entire country to replace conventional cars with electric cars.¹³¹ He stated that the Indian government planned for the country to have "only electric [cars] by 2030...existing cars may take a longer to

¹²¹ PPAs Signed for First Wind Auction Totalling 1050 MW, Ministry of New and Renewable Energy (New Delhi) 21 July 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹²² PPAs Signed for First Wind Auction Totalling 1050 MW, Ministry of New and Renewable Energy (New Delhi) 21 July 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹²³ PPAs Signed for First Wind Auction Totalling 1050 MW, Ministry of New and Renewable Energy (New Delhi) 21 July 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹²⁴ PPAs Signed for First Wind Auction Totalling 1050 MW, Ministry of New and Renewable Energy (New Delhi) 21 July 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹²⁵ Implementation of Bio-Fuel Scheme, Ministry of New and Renewable Energy (New Delhi) 27 July 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹²⁶ Implementation of Bio-Fuel Scheme, Ministry of New and Renewable Energy (New Delhi) 27 July 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹²⁷ World Bank Loan for Solar Projects, Ministry of New and Renewable Energy (New Delhi) 27 July 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹²⁸ World Bank Loan for Solar Projects, Ministry of New and Renewable Energy (New Delhi) 27 July 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹²⁹ World Bank Loan for Solar Projects, Ministry of New and Renewable Energy (New Delhi) 27 July 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹³⁰ World Bank Loan for Solar Projects, Ministry of New and Renewable Energy (New Delhi) 27 July 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹³¹ India to sell only electric cars by 2030, The Hindu (India) 18 August 2017. Date of Access: 1 November 2017. <http://www.thehindu.com/news/national/karnataka/india-to-sell-only-electric-vehicles-by-2030-piyush-goyal/article19516175.ece>.

replace. But the government is working on a framework to see what we can do on promoting electric [vehicles].”¹³² To facilitate this, Sri Piyush Goyal stated that the Indian government will subsidize electric cars for several years before “the cost of electric vehicle will start paying for themselves.”¹³³

On 10 August 2017, Minister Goyal stated that the Government of India increased the national solar mission target of grid connected solar power projects from 20 GW by 2022 to 100 GW by 2022.¹³⁴ To achieve this, the Indian government launched a number of planned targets to advance solar energy including the development of solar parks, grid-connected solar panel power projects, and grid-connected solar rooftop power plants.¹³⁵

On 28 August 2017, the energy ministers of India and Germany signed an agreement under the Indo-German Energy Programme (IGEN) on technical cooperation.¹³⁶ Both ministries committed to work together to advance integration of renewable energies by improving market mechanisms, use human capacities in integrating renewable energies more efficiently, and develop “technical and institutional conditions” at a regional and national level.¹³⁷

On 11 October 2017, India and Japan announced a deal that will create long term liquefied natural gas (LNG) deals more affordable to their consumers. This deal will allow India’s state-run GAIL India Ltd. swap a part of its 5.8 million tons of LNG with Japanese power groups, which will lead to better terms.¹³⁸

On 4 November 2017, the Ministry of Renewable Energy funded the construction of the Biaras Small Hydro Power Project.¹³⁹ The project was funded by the Ministry as part of India’s Ladakh

¹³² Aiming all electric car fleet in country by 2030: Goyal, The Times of India (Mumbai) 8 August 2017. Access Date: 25 November 2017. <https://timesofindia.indiatimes.com/business/india-business/aiming-all-electric-car-fleet-in-country-by-2030-goyal/articleshow/59971593.cms>.

¹³³ India to sell only electric cars by 2030, The Hindu (India) 18 August 2017. Date of Access: 1 November 2017. <http://www.thehindu.com/news/national/karnataka/india-to-sell-only-electric-vehicles-by-2030-piyush-goyal/article19516175.ece>.

¹³⁴ Solar Energy Installed Capacity Touched 13652 MW, Ministry of New and Renewable Energy (New Delhi) 10 August 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹³⁵ Solar Energy Installed Capacity Touched 13652 MW, Ministry of New and Renewable Energy (New Delhi) 10 August 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹³⁶ MNRE & GIZ Signs Agreement to Improve Framework Conditions for Grid Integration of Renewable Energies, Ministry of New and Renewable Energy (New Delhi) 28 August 2016. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹³⁷ MNRE & GIZ Signs Agreement to Improve Framework Conditions for Grid Integration of Renewable Energies, Ministry of New and Renewable Energy (New Delhi) 28 August 2016. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹³⁸ India, Japan to team up to get more flexible LNG deals, Reuters (New Delhi) 11 October, 2017. Access Date: 5 November, 2017. <https://www.reuters.com/article/us-india-japan-lng/india-japan-to-team-up-to-get-more-flexible-lng-deals-idUSKBN1CG2DD>.

¹³⁹ 1.5 MW Small Hydro Power Plant in Biaras Drass, Kargil (J&K) becomes first project to be commissioned under Prime Minister’s Ladakh Renewable Energy Initiative, Ministry of New and Renewable Energy (New Delhi) 10 November 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

Renewable Energy Initiative.¹⁴⁰ The purpose of the hydro power plant is to generate renewable energy for the town of Drass in Kargil.¹⁴¹

On 12 November 2017, India attended the 23rd Conference of the Parties meeting in Bonn, Germany to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the United States due to its withdrawal from the Paris Agreement.¹⁴²

On 17 and 18 January 2018, Minister of Power and New and Renewable Energy Shri Raj Kumar Singh attended the International Solar Alliance (ISA) Forum at the World Future Energy Summit (WFES) 2018 in Abu Dhabi.¹⁴³ WFES 2018 aimed to foster collaboration and knowledge-sharing among energy ministers of ISA member countries to advance “solar energy for universal energy access.”¹⁴⁴ During his keynote address, Minister Singh announced USD350 million in funding by the Government of India for solar projects.¹⁴⁵

On 31 January 2018, IREDA signed an agreement with Rewa Ultra Mega Solar Limited (RUMSL) to fund two solar parks in Madhya Pradesh, India.¹⁴⁶ The development of solar parks will contribute to the Indian government’s goal of achieve its target of adding 100 GW of solar capacity by 2022.¹⁴⁷

On 10 March 2018, IREDA signed a loan agreement with the European Investment Bank for a second line of credit.¹⁴⁸ The EUR150 million line of credit will be allocated towards funding “renewable energy and energy efficiency projects in India.”¹⁴⁹

¹⁴⁰ 1.5 MW Small Hydro Power Plant in Biaras Drass, Kargil (J&K) becomes first project to be commissioned under Prime Minister's Ladakh Renewable Energy Initiative, Ministry of New and Renewable Energy (New Delhi) 10 November 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹⁴¹ 1.5 MW Small Hydro Power Plant in Biaras Drass, Kargil (J&K) becomes first project to be commissioned under Prime Minister's Ladakh Renewable Energy Initiative, Ministry of New and Renewable Energy (New Delhi) 10 November 2017. Access Date: 25 November 2017. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹⁴² Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

¹⁴³ International Solar Alliance Forum at World Future Energy Summit, Abu Dhabi, Ministry of New and Renewable Energy (New Delhi) 18 January 2018. Access Date: 10 March 2018. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹⁴⁴ International Solar Alliance Forum at World Future Energy Summit, Abu Dhabi, Ministry of New and Renewable Energy (New Delhi) 18 January 2018. Access Date: 10 March 2018. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹⁴⁵ International Solar Alliance Forum at World Future Energy Summit, Abu Dhabi, Ministry of New and Renewable Energy (New Delhi) 18 January 2018. Access Date: 10 March 2018. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹⁴⁶ Ireda and RumsI Signs Agreement for Large-Scale Solar Parks in Madhya Pradesh, Ministry of New and Renewable Energy (New Delhi) 31 January 2018. Access Date: 10 March 2018. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹⁴⁷ Ireda and RumsI Signs Agreement for Large-Scale Solar Parks in Madhya Pradesh, Ministry of New and Renewable Energy (New Delhi) 31 January 2018. Access Date: 10 March 2018. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹⁴⁸ IREDA & European Investment Bank sign Eur 150 million Loan Agreement for Renewable Energy Financing in India, Ministry of New and Renewable Energy (New Delhi) 10 March 2018. Access Date: 10 March 2018. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

¹⁴⁹ IREDA & European Investment Bank sign Eur 150 million Loan Agreement for Renewable Energy Financing in India, Ministry of New and Renewable Energy (New Delhi) 10 March 2018. Access Date: 10 March 2018. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

India has acted to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency and has taken steps in implementing other ways of mitigating greenhouse gas emissions.

Thus, India receives a score of +1.

Analyst: Sharika Khan

Indonesia: 0

Indonesia has partially complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

In September 2017, the Agency for the Assessment and Application of Technology and Pertamina Geothermal Energy partnered with the GFZ German Research Centre to commission a geothermal low-temperature demonstration power plant in North Sulawesi, Indonesia.¹⁵⁰ The demonstration plant will efficiently generate electric power by cooling the temperature of unused geothermal brine. Its aim is to provide wide-range energy application in Indonesia. The German Ministry of Education and Research funded the demonstration power plant.¹⁵¹

On 12 October 2017, Minister of Energy and Mineral Resources Ignasius Jonan announced that Indonesia “will not approve any new coal-fired power stations” on the island of Java.¹⁵² The Government of Indonesia resumed strategies of establishing “high voltage undersea power cables” between the islands of Sumatra, Java, and Bali. This is aimed to allow the islands to share power sources.¹⁵³

On 12 November 2017, Indonesia attended the 23rd Conference of the Parties meeting in Bonn, Germany, to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the United States due to its withdrawal from the Paris Agreement.¹⁵⁴

On 13 November 2017, Minister Jonan signed an agreement with the Government of China at the fifth Indonesia-China Energy Forum (ICEF V) in Jakarta to bolster cooperation in the energy sector. Indonesia and China both established a working group on new renewable energy, and electricity as

¹⁵⁰ Commissioning of the geothermal low-temperature demonstration power plant in Lahendong, Indonesia, GFZ German Research Centre for Geosciences (Potsdam) 16 October 2017. Access Date: 25 November 2017. <http://www.gfz-potsdam.de/en/media-communication/news/details/article/inbetriebnahme-des-geothermischen-niedertemperatur-demonstrationskraftwerks-in-lahendong-indonesien/>.

¹⁵¹ Commissioning of the geothermal low-temperature demonstration power plant in Lahendong, Indonesia, GFZ German Research Centre for Geosciences (Potsdam) 16 October 2017. Access Date: 25 November 2017. <http://www.gfz-potsdam.de/en/media-communication/news/details/article/inbetriebnahme-des-geothermischen-niedertemperatur-demonstrationskraftwerks-in-lahendong-indonesien/>.

¹⁵² No new coal power stations in Java, Indonesia energy minister says, Reuters (Jakarta) 12 October 2017. Access Date: 25 November 2017. <https://www.reuters.com/article/indonesia-power-coal/no-new-coal-power-stations-in-java-indonesia-energy-minister-says-idUSL4N1MN4ZI>.

¹⁵³ No new coal power stations in Java, Indonesia energy minister says, Reuters (Jakarta) 12 October 2017. Access Date: 25 November 2017. <https://www.reuters.com/article/indonesia-power-coal/no-new-coal-power-stations-in-java-indonesia-energy-minister-says-idUSL4N1MN4ZI>.

¹⁵⁴ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

well as a working group on oil, gas, and coal. Chinese companies have invested in oil and gas in Indonesia and have taken part in a 35,000 megawatt (MW) electricity program.¹⁵⁵

On 27 January 2018, Indonesia signed an intergovernmental agreement with Pakistan to secure exports of liquefied natural gas (LNG). Indonesia's state-owned energy company, Pertamina, and Pakistan's state-owned energy company, Pakistan LNG Ltd., signed the agreement.¹⁵⁶ The value of the agreement is USD6.4 billion.¹⁵⁷

On 28 January 2018, Indonesia signed a letter of intent with Bangladesh to secure exports of LNG.¹⁵⁸ Indonesia's state-owned energy company, Pertamina, and Bangladesh's state-owned energy company, Petrobangla, signed the agreement.¹⁵⁹ Indonesia is expected to export about 17.5 million tonnes of LNG to Bangladesh by 2025.¹⁶⁰

Indonesia has acted to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency. However, Indonesia has also taken steps to secure the exportation of LNG to Pakistan and Bangladesh.

Thus, Indonesia receives a score of 0.

Analyst: Sharika Khan

Italy: +1

Italy has fully complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency

On 24 October 2017, the Italian government announced that the country will aim to phase out all coal-fire power by 2025.¹⁶¹

On 10 November 2017, Italy released its National Energy Strategy, which sets a number of targets including 28 per cent total renewable energy consumption by 2030, 55 per cent renewable electricity consumption by 2030, total decarbonization by 2050, and increase of investment in clean energy

¹⁵⁵ Indonesia, China sign agreement on energy, The Jakarta Post (Jakarta) 13 November 2017. Access Date: 25 November 2017. <http://www.thejakartapost.com/news/2017/11/13/indonesia-china-sign-agreement-on-energy.html>.

¹⁵⁶ Pertamina to distribute LNG to Bangladesh, Pakistan, Antara News (Jakarta) 1 February 2018. Access Date: 10 March 2018. <https://en.antaranews.com/news/114472/pertamina-to-distribute-lng-to-bangladesh-pakistan>.

¹⁵⁷ Pertamina to distribute LNG to Bangladesh, Pakistan, Antara News (Jakarta) 1 February 2018. Access Date: 10 March 2018. <https://en.antaranews.com/news/114472/pertamina-to-distribute-lng-to-bangladesh-pakistan>.

¹⁵⁸ Bangladesh signs deal with Indonesia for LNG imports, Reuters (Dhaka) 28 January 2018. Access Date: 10 March 2018. <https://in.reuters.com/article/bangladesh-lng-indonesia/bangladesh-signs-deal-with-indonesia-for-lng-imports-idINKBN1FH0IO>.

¹⁵⁹ Bangladesh signs deal with Indonesia for LNG imports, Reuters (Dhaka) 28 January 2018. Access Date: 10 March 2018. <https://in.reuters.com/article/bangladesh-lng-indonesia/bangladesh-signs-deal-with-indonesia-for-lng-imports-idINKBN1FH0IO>.

¹⁶⁰ Bangladesh signs deal with Indonesia for LNG imports, Reuters (Dhaka) 28 January 2018. Access Date: 10 March 2018. <https://in.reuters.com/article/bangladesh-lng-indonesia/bangladesh-signs-deal-with-indonesia-for-lng-imports-idINKBN1FH0IO>.

¹⁶¹ Italy sets sights on 2025 coal power phase-out, business green (Italy) 24 October 2017. Access Date: 20 January 2018. <https://www.businessgreen.com/bg/news/3019766/italy-sets-sights-on-2025-coal-power-phase-out>.

technology research and development.¹⁶² Italy aims to invest EUR444 million by 2021 and an additional EUR175 billion by 2030 in renewable energy.¹⁶³

On 12 November 2017, Italy attended the 23rd Conference of the Parties meeting in Bonn, Germany, to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the United States due to its withdrawal from the Paris Agreement.¹⁶⁴

On 16 November 2017, Italy joined the “Powering Past Coal” alliance to phase out coal from power generation before 2030 in Bonn in collaboration with 15 other countries including the United Kingdom, France, and Canada.¹⁶⁵

On 1 February 2018, Rome’s La Sapienza University and Mohammed V University in Morocco, with the sponsorship of the Italian renewable energy company, Green Power Energy Group, signed an agreement that will have engineering students’ focus on research for alternative sources of energy.¹⁶⁶

On 22 February 2018, the Italian government implemented an EU directive on the reduction of national emissions and atmospheric pollutants.¹⁶⁷

Italy has acted to reduce greenhouse gas emissions by increasing investments in renewable energy, increasing energy output from renewable sources and increased federal funding for climate research.

Thus, Italy receives a score of +1.

Analyst: Joshua F. Rossetti

Japan: 0

Japan has partially complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 8 August 2017, the Ministry of Economy, Trade and Industry announced that it will collaborate with the Ministry of the Environment to run carbon offset campaigns in National Parks and World Natural Heritage Sites.¹⁶⁸ This campaign offsets carbon dioxide emissions from visitor centers and sightseeing ships, and authorized vehicles that substitute private car use in the National Parks by

¹⁶² National Energy Strategy 2017, Ministero Dell’ambiente (Rome) 10 November 2017. Access Date: 24 November 2017. <http://www.minambiente.it/comunicati/strategia-energetica-nazionale-2017>.

¹⁶³ National Energy Strategy 2017, Ministero Dell’ambiente (Rome) 10 November 2017. Access Date: 24 November 2017. <http://www.minambiente.it/comunicati/strategia-energetica-nazionale-2017>.

¹⁶⁴ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

¹⁶⁵ At least 15 states join global alliance to phase out coal by 2030, Reuters (Bonn) 16 November 2017. Access Date: 26 November 2017. <https://www.reuters.com/article/us-climatechange-accord-coal/at-least-15-states-join-global-alliance-to-phase-out-coal-by-2030-idUSKBN1DG1AI>.

¹⁶⁶ Morocco-Italy agreement on renewable energy research, Ansa Med (Rabat) 1 February 2018. Access Date: 5 March 2018. http://www.ansamed.info/ansamed/en/news/regions/lazio/2018/02/01/morocco-italy-agreement-on-renewable-energy-research_711fe0af-32db-4954-988e-42d440ff6697.html.

¹⁶⁷ Approvato in CDM lo Schema di Decreto di Riduzione delle Emissioni Inquinanti, Ministero Dell’ambiente (Rome) 22 February 2018. Access Date 6 March 2018. <http://www.minambiente.it/comunicati/approvato-cdm-lo-schema-di-decreto-di-riduzione-delle-emissioni-inquinanti>.

¹⁶⁸ Carbon offset campaigns targeting Japan’s National Parks and World Natural Heritage sites start this summer, the Ministry of Economy (Japan) 8 August 2017. Access Date: 8 March 2018. http://www.meti.go.jp/english/press/2017/0808_001.html.

using carbon dioxide emission reduction credits produced near the National Parks.¹⁶⁹ The first campaign will run during August 2017 in six national parks in Hokkaido Prefecture, and a series of similar campaigns will continue across Japan.¹⁷⁰

On 11 October 2017, Japan and India announced a deal that will create long term liquefied natural gas (LNG) deals more affordable to their consumers. This deal will allow India's state-run GAIL India Ltd. To swap a part of its 5.8 million tons of LNG with Japanese power groups, which will lead to better terms.¹⁷¹

On 17 October 2017, Japan announced that it will offer USD10 billion to support joint private enterprises and government projects that will create LNG infrastructure and supply more LNG.¹⁷² This budget will also go towards other developing countries within Asia, in hopes of spurring demand for LNG.¹⁷³

On 12 November 2017, Japan attended the 23rd Conference of the Parties (COP) meeting in Bonn, Germany, to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the United States due to its withdrawal from the Paris Agreement.¹⁷⁴

On 15 November 2017, Minister of the Environment Masaharu Nakagawa announced Japan's Assistance Initiatives to Address Climate Change 2017 at COP23 in Bonn.¹⁷⁵ To improve transparency of information on climate change measures taken by each country and to provide driving force for implementing the Paris Agreement, Japan proposed the establishment of the "Partnership to increase Transparency for Co-Innovation" joined by developing countries and international organizations.¹⁷⁶ In addition, he stated that Japan will contribute USD5 million to the "Capacity-building Initiative for Transparency," launch "GOSAT-2," a satellite to monitor the amount of greenhouse gas emissions worldwide in 2018, and establish "the Asia-Pacific Climate

¹⁶⁹ Carbon offset campaigns targeting Japan's National Parks and World Natural Heritage sites start this summer, the Ministry of Economy (Japan) 8 August 2017. Access Date: 8 March 2018. http://www.meti.go.jp/english/press/2017/0808_001.html.

¹⁷⁰ Carbon offset campaigns targeting Japan's National Parks and World Natural Heritage sites start this summer, the Ministry of Economy (Japan) 8 August 2017. Access Date: 8 March 2018. http://www.meti.go.jp/english/press/2017/0808_001.html.

¹⁷¹ India, Japan to team up to get more flexible LNG deals, Reuters (New Delhi) 11 October, 2017. Access Date: 5 November, 2017. <https://www.reuters.com/article/us-india-japan-lng/india-japan-to-team-up-to-get-more-flexible-lng-deals-idUSKBN1CG2DD>.

¹⁷² Japan to offer \$10 billion to back Asia LNG infrastructure push. Reuters. 17 October, 2017. Access Date: 5 November, 2017. <https://www.reuters.com/article/us-lng-japan-meti/japan-to-offer-10-billion-to-back-asia-lng-infrastructure-push-idUSKBN1CN01M?il=0>.

¹⁷³ Japan to offer \$10 billion to back Asia LNG infrastructure push, Reuters (Tokyo) 17 October, 2017. Access Date: 5 November, 2017. <https://www.reuters.com/article/us-lng-japan-meti/japan-to-offer-10-billion-to-back-asia-lng-infrastructure-push-idUSKBN1CN01M?il=0>.

¹⁷⁴ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

¹⁷⁵ Statement by Masaharu Nakagawa, Minister of the Environment of Japan, at COP 23, Ministry of the Environment, Government of Japan (Tokyo) 15 November 2017. Access Date: 23 November 2017. <http://www.env.go.jp/en/focus/171115.html>.

¹⁷⁶ Statement by Masaharu Nakagawa, Minister of the Environment of Japan at COP 23, Ministry of the Environment, Government of Japan (Tokyo) 15 November 2017. Access Date: 23 November 2017. <http://www.env.go.jp/en/focus/171115.html>.

Change Adaptation Platform,” which provides the basis for information on climate change risks and adaptation measures.¹⁷⁷

On 12 January 2018, the Japanese government allowed Chugoku Electric Power to build of a new coal power plant, challenging Japan’s abilities to meet its climate goals.¹⁷⁸

On 5 March 2018, 11 companies, including three major automakers such as Toyota Motor Corp., and six major energy companies such as JXTG Nippon Oil & Energy, jointly founded the government-backed Japan H2 Mobility (JHyM).¹⁷⁹ This government-backed initiative aims to establish 80 new hydrogen refueling stations for carbon dioxide emission-free fuel cell vehicles by 2021, with the support of state-owned Development Bank of Japan.¹⁸⁰ The Japanese government also hopes to increase the number of fuel cell vehicles from 2,000 to 40,000 by 2020, shifting to a carbon-free society.¹⁸¹

Japan has acted to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency. However, Japan has also increased funding and demand for LNG related projects.

Thus, Japan receives a score of 0.

Analyst: Ayana Sunami

Korea: 0

Korea has partially complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 22 October 2017, President Moon Jae In announced that the Korean government would continue to phase out nuclear energy, stop all constructions for nuclear plants, and increase usage of natural gas and renewables.¹⁸²

On 12 November 2017, Korea attended the 23rd Conference of the Parties meeting in Bonn, Germany, to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the United States due to its withdrawal from the Paris Agreement.¹⁸³

¹⁷⁷ Statement by Masaharu Nakagawa, Minister of the Environment of Japan, at COP 23, Ministry of the Environment, Government of Japan (Tokyo) 15 November 2017. Access Date: 23 November 2017. <http://www.env.go.jp/en/focus/171115.html>.

¹⁷⁸ Japan to allow new coal power plant but demand cuts elsewhere, Nikkei Review (Tokyo) 12 January 2018. Access Date: 13 January 2018. <https://asia.nikkei.com/Politics-Economy/Policy-Politics/Japan-to-allow-new-coal-power-plant-but-demand-cuts-elsewhere>.

¹⁷⁹ Fuel cell cars in for a lift as Japan looks to expand infrastructure, Nikkei Asian Review (Tokyo) 8 March 2018. Access Date: 8 March 2018. <https://asia.nikkei.com/Business/Trends/Fuel-cell-cars-in-for-a-lift-as-japan-looks-to-expand-infrastructure>.

¹⁸⁰ Japan's top auto and energy firms tie up to promote development of hydrogen stations, Japan Times (Tokyo) 5 March 2018. Access Date: 8 March 2018. <https://www.japantimes.co.jp/news/2018/03/05/business/japans-top-auto-energy-firms-tie-promote-development-hydrogen-stations/#.WqAO2GZ1BE5>.

¹⁸¹ Japan's top auto and energy firms tie up to promote development of hydrogen stations, Japan Times (Japan) 5 March, 2018. Access Date: 8 March 2018. <https://www.japantimes.co.jp/news/2018/03/05/business/japans-top-auto-energy-firms-tie-promote-development-hydrogen-stations/#.WqAO2GZ1BE5>.

¹⁸² South Korea’s Moon Jae In says will continue phasing out nuclear power, Straits Times (Seoul) 22 October 2017. Access Date: 5 November 2017. <http://www.straitstimes.com/asia/east-asia/south-koreas-moon-jae-in-says-will-continue-phasing-out-nuclear-power>.

On 20 December 2017, Paik Ungyu, the Minister of Trade, Industry and Energy announced detailed plans for a KRW110 trillion project that aims to increase the ratio of renewable energy from the current 7 per cent to 20 per cent by 2030.¹⁸⁴ With this project, the government plans to invest KRW18 trillion in providing loans to small power providers and subsidies for solar panel operators, while state energy firms and private sectors will invest KRW51 trillion and KRW41 trillion, respectively, to build new facilities.¹⁸⁵ Minister Paik further explained that over 60 per cent of the fund will be spent on installing solar panels in rural areas, while 34 per cent will go into building wind farms, mostly in the coastal regions.¹⁸⁶ As part of the first stage implementation, provincial governments will also designate eco-friendly energy complexes to add 5GW power capacity in the next five years.¹⁸⁷

On 4 January 2018, President Moon announced a pledge to revive Korea's shipbuilding sector, starting with liquified natural gas (LNG) carriers.¹⁸⁸ This will effectively create more orders and demand for LNG within Korea.¹⁸⁹

On 21 January 2018, the Northern Economic Cooperation Committee and Russia's Ministry for the Development of Russian Far East agreed to boost the import of Russian LNG in Korea.¹⁹⁰

On 12 February 2018, state-run company Korea Hydro & Nuclear Power (KHNP) announced that it will build the country's largest floating solar farm on Hwaseong Lake in the west coast as an eco-friendly energy source.¹⁹¹ This KRW220 billion project is part of KHNP's KRW10 trillion investment in renewable energy sources by 2030.¹⁹²

On 28 February 2018, the Ministry of Trade, Industry and Energy announced that it will temporarily close five coal power plants from March to June 2018 as part of the Moon administration's energy plan, which aims to shift from coal and nuclear power sources to renewable energy.¹⁹³

¹⁸³ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

¹⁸⁴ Korea to invest W110tr in renewable energy sources by 2030, The Korea Herald (Seoul) 20 December 2017. Access Date: 21 March 2018. <http://www.koreaherald.com/view.php?ud=20171220000593>.

¹⁸⁵ Korea to invest W110tr in renewable energy sources by 2030, The Korea Herald (Seoul) 20 December 2017. Access Date: 21 March 2018. <http://www.koreaherald.com/view.php?ud=20171220000593>.

¹⁸⁶ Korea to invest W110tr in renewable energy sources by 2030, The Korea Herald (Seoul) 20 December 2017. Access Date: 21 March 2018. <http://www.koreaherald.com/view.php?ud=20171220000593>.

¹⁸⁷ Korea to invest W110tr in renewable energy sources by 2030, The Korea Herald (Seoul) 20 December 2017. Access Date: 21 March 2018. <http://www.koreaherald.com/view.php?ud=20171220000593>.

¹⁸⁸ South Korea offers backing for LNG-fuelled newbuilds, LNG World Shipping (Seoul) 4 January 2018. Access Date: 10 January 2018. http://www.lngworldshipping.com/news/view,south-korea-offers-backing-for-lngfuelled-newbuilds_50351.html.

¹⁸⁹ South Korea offers backing for LNG-fuelled newbuilds, LNG World Shipping (Seoul) 4 January 2018. Access Date: 10 January 2018. http://www.lngworldshipping.com/news/view,south-korea-offers-backing-for-lngfuelled-newbuilds_50351.html.

¹⁹⁰ South Korea plans to boost LNG imports from Russia, China Daily (Vladivostok) 24 January 2018. Access Date: 27 January 2018. <http://www.chinadaily.com.cn/a/201801/24/WS5a6824b6a3106e7dcc1364b3.html>.

¹⁹¹ S. Korea to build floating solar farm on western coast, Yonhap News (Seoul) 12 February 2018. Access Date: 7 March 2018. <http://english.yonhapnews.co.kr/national/2018/02/12/0302000000AEN20180212005900320.html>.

¹⁹² S. Korea to build floating solar farm on western coast, Yonhap News (Seoul) 12 February 2018. Access Date: 7 March 2018. <http://english.yonhapnews.co.kr/national/2018/02/12/0302000000AEN20180212005900320.html>.

¹⁹³ S. Korea to suspend aged coal plants in spring, Yonhap News (Seoul) 28 February 2018. Access Date: 7 March 2018. <http://english.yonhapnews.co.kr/news/2018/02/28/0200000000AEN20180228003300320.html>.

Korea has acted to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency. However, Korea has also increased funding and demand for LNG related projects which will increase greenhouse gas emissions.

Thus, Korea receives a score of 0.

Analyst: Ayana Sunami

Mexico: 0

Mexico has partially complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On October 18, 2017, Mexico hosted the 11th annual Latin American and Caribbean Carbon Forum in Mexico City.¹⁹⁴ This forum aims to solidify the agreements made at the Paris Climate Conference by bringing together private and public-sector entities looking to spur investment and innovation in combating climate change in Latin America and the Caribbean.¹⁹⁵

On 12 November 2017, Mexico attended the 23rd Conference of the Parties meeting in Bonn, Germany, to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the United States due to its withdrawal from the Paris Agreement.¹⁹⁶

On 23 November 2017, the Mexican government awarded the Enel Group a number of contracts in supplying energy and clean certificates for wind projects for a total of 593 megawatts.¹⁹⁷

On 12 December 2017, President Enrique Peña Nieto attended the One Planet Summit hosted by French President Emmanuel Macron, the World Bank, and the United Nations. The Summit aimed to mobilize public and private financing to fund the global transition to a carbon-free future. 50 world leaders, 4,000 other participants and 800 organizations attended the Summit.¹⁹⁸

On 19 January 2018, the Mexican government announced its plans to sell licenses to drill in 29 blocks in the Gulf of Mexico.¹⁹⁹ The government seeks to attract investment from large international firms and boost its energy sector after operating losses in 2016.²⁰⁰

¹⁹⁴ Mexico Climate Forum to Feed International Climate Process, UNFCCC (Mexico City) 18 October 2017. Access Date: 15 January 2018. <http://newsroom.unfccc.int/unfccc-newsroom/mexico-climate-forum-to-feed-international-climate-process/>.

¹⁹⁵ Mexico Climate Forum to Feed International Climate Process, UNFCCC (Mexico City) 18 October 2017. Access Date: 15 January 2018. <http://newsroom.unfccc.int/unfccc-newsroom/mexico-climate-forum-to-feed-international-climate-process/>.

¹⁹⁶ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

¹⁹⁷ Enel will build 593MW of wind capacity in Mexico following renewable tender win, Enel Group (Mexico City) 23 November 2017. Access Date: 5 March 2018. <https://www.enelgreenpower.com/media/press/d/2017/11/enel-will-build-593-mw-of-wind-capacity-in-mexico-following-renewable-tender-win>.

¹⁹⁸ 50 World Leaders Gather in Paris for Climate Summit, Huffington Post (Paris) 12 December 2017. Access Date: 8 January 2018. https://www.huffingtonpost.ca/entry/one-planet-summit-trump-macron_us_5a2f8435e4b01598ac478e15.

¹⁹⁹ Mexico's energy opening faces test in deepwater oil auction, Reuters (Mexico City) 19 January 2018. Access Date: 8 March 2018. <https://www.reuters.com/article/us-mexico-oil/mexicos-energy-opening-faces-test-in-deepwater-oil-auction-idUSKBN1F82G5>.

²⁰⁰ Pemex Results as of March, 2017, Pemex (Mexico City) 31 March 2017. Access Date: 8 March 2018. http://www.pemex.com/en/investors/financial-information/Reporte%20de%20Resultados%20no%20Dictaminados%20%20Archivos/Reporte_1Q17.pdf

On 31 January 2018, Mexico announced that it would hold its first shale oil and gas auction by the end of 2018.²⁰¹ The Mexican government is looking to increase its output of shale oil and gas in order to compete with rapidly emerging markets such as those in the United States.²⁰²

On 1 March 2018, the Mexican government announced that it is on track to reach 12GW of installed wind capacity by 2024.²⁰³

Mexico has acted to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency. However, Mexico has also increased its output of shale oil and gas which will increase greenhouse gas emissions.

Thus, Mexico receives a score of 0.

Analyst: Sebastian Warma

Russia: 0

Russia has partially complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 6 September 2017, Russia invested RS5.1 billion on a 30MW PK Hydropower project in Nepal.²⁰⁴

On 2 October 2017, the governments of Saudi Arabia and Russia agreed to invest up to USD1 billion into energy projects. The deal will allow Russian firms to provide drilling services in Saudi Arabia, and increase crude trading. Furthermore, plans to build additional petrochemical plants in both countries were also discussed.²⁰⁵

On 11 October 2017, Russia and Morocco signed a memorandum of understanding between the Ministry of Energy of the Russian Federation and the Ministry of Energy, Mines and Sustainable Development of the Kingdom of Morocco on cooperation in renewable energy sources.²⁰⁶

On 1 November 2017, Russia and Iran signed a strategic energy deal worth USD30 billion. The deal will help develop Iran's oil and gas projects as well as supply natural gas to India.²⁰⁷

²⁰¹ Exclusive: Mexico regulator hopes for first shale auction by end 2018, Reuters (Mexico City) 31 January 2018. Access Date: 8 March 2018. <https://www.reuters.com/article/us-mexico-oil-shale/exclusive-mexico-regulator-hopes-for-first-shale-auction-by-end-2018-idUSKBN1FK280>.

²⁰² Exclusive: Mexico regulator hopes for first shale auction by end 2018, Reuters (Mexico City) 31 January 2018. Access Date: 8 March 2018. <https://www.reuters.com/article/us-mexico-oil-shale/exclusive-mexico-regulator-hopes-for-first-shale-auction-by-end-2018-idUSKBN1FK280>

²⁰³ Clear path to tripling of Mexican wind by 2024: energy secretary, Recharge News (Mexico City) 1 March 2018. Access Date: 8 March 2018. <http://www.rechargenews.com/wind/1444141/clear-path-to-tripling-of-mexican-wind-by-2024-energy-secretary>.

²⁰⁴ Russia to invest RS 5.10 billion in PK hydel project, The Himalayan Times (Kathmandu) 6 September 2017. Access Date: 5 March 2018. <https://thehimalayantimes.com/business/russia-invest-rs-5-10-billion-pk-hydel-project/>.

²⁰⁵ Saudi Arabia, Russia to set up \$1 billion energy fund: Novak, Reuters (Khobar) 2 October 2017. Access Date: 24 November 2017. <https://www.reuters.com/article/us-saudi-russia-energy/saudi-arabia-russia-to-set-up-1-billion-energy-fund-novak-idUSKCN1C70PN>.

²⁰⁶ Russia-Morocco Talks, The Russian Government (Rabat) 11 October 2017. Access Date: 8 March 2018. <http://government.ru/en/news/29598/>

²⁰⁷ Russia and Iran sign \$30bn energy agreements, Financial Times (Moscow) 1 November 2017. Access Date: 8 March 2018. <https://www.ft.com/content/141e6662-bf11-11e7-9836-b25f8adaa111>.

On 12 November 2017, Russia attended the 23rd Conference of the Parties meeting in Bonn, Germany, to discuss further implementation guidelines for the Paris Agreement with other G20 members, apart from the United States due to its withdrawal from the Paris Agreement.²⁰⁸

On 30 November 2017, Russia led Organization of the Petroleum Exporting Countries (OPEC) producers and non-OPEC producers in an agreement to extend crude oil cuts until 2018, in hopes of increasing the market price, preventing another collapse of oil price, and sustaining the demand of oil at a profitable price.²⁰⁹

On 6 December 2017, Russia approved a draft Agreement between the Governments of Russia and the United Arab Emirates on Scientific, Technical and Production Cooperation of Companies in Civilian Industries which included joint collaboration in the field of renewable energy.²¹⁰

On 21 January 2018, the Ministry for the Development of Russian Far East and Korea's Northern Economic Cooperation Committee agreed to boost the import of Russian LNG in Korea.²¹¹

On 3 April 2018, President Vladimir Putin and Turkish President Recep Tayyip Erdogan launched the construction of the Akkuyu Nuclear Power Plant, to be built under a Russian-Turkish agreement signed in May 2010.²¹² Russia is fully financing the nuclear power plant and will operate it.²¹³

Russia has acted to reduce greenhouse gas emissions by signing cooperation agreements with other countries with regards to renewable energies and is funding a nuclear power plant in Turkey. However, Russia has also it has increased investments in oil and gas projects which will increase greenhouse gas emissions.

Thus, Russia receives a score of 0.

Analyst: Ethan Tsai

Saudi Arabia: 0

Saudi Arabia has partially complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 24 August 2017, Turki al-Shehri, head of the Renewable Energy Project Development Office within the Ministry of Energy, stated that Saudi Arabia is on track to generate more than their

²⁰⁸ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

²⁰⁹ OPEC, Russia agree oil cut extension to end of 2018, Reuters (Vienna) 30 November 2017. Access Date: 8 March 2018. <https://www.reuters.com/article/us-pec-meeting/pec-russia-agree-oil-cut-extension-to-end-of-2018-idUSKBN1DU0WW>.

²¹⁰ Russia's approval of the draft Agreement between the Governments of Russia and the United Arab Emirates on Scientific, Technical and Production Cooperation of Companies in Civilian Industries, The Russian Government (Moscow) 6 December 2017. Access Date: 27 January 2018. <http://government.ru/en/docs/30415/>

²¹¹ South Korea plans to boost LNG imports from Russia, China Daily (Beijing) 24 January 2018. Access Date: 27 January 2018. <http://www.chinadaily.com.cn/a/201801/24/WS5a6824b6a3106e7dcc1364b3.html>.

²¹² Akkuyu Nuclear Power Plant ground-breaking ceremony, The Kremlin (Moscow) 3 Paril 2018. Access Date: 2 May 2018. <http://en.kremlin.ru/events/president/news/57190>

²¹³ Akkuyu Nuclear Power Plant ground-breaking ceremony, The Kremlin (Moscow) 3 Paril 2018. Access Date: 2 May 2018. <http://en.kremlin.ru/events/president/news/57190>

projected goal of 9.5GW of electricity from renewable sources.²¹⁴ This goal extends to 2023 and involves over 60 projects estimated between USD30 billion to USD50 billion.²¹⁵

On 2 October 2017, the Governments of Saudi Arabia and Russia agreed to invest up to USD1 billion into energy projects. The deal will allow Russian firms to provide drilling services in Saudi Arabia, and increase crude trading. Furthermore, plans to build additional petrochemical plants in both countries were also discussed.²¹⁶

On 8 October 2017, Saudi Aramco, Saudi Arabia's largest state-owned oil company, established an office in India to expand its venture and meet rising demand for oil in the country. The venture will look to take opportunities in oil refining and projects in the petrochemical industry.²¹⁷

On 12 November 2017, Saudi Arabia attended the 23rd Conference of the Parties meeting in Bonn, Germany, and along with other G20 members, apart from the US due to its withdrawal, met to further discuss implementation guidelines for the Paris Agreement.²¹⁸

On 16 January 2018, Saudi Arabia announced its plans to seek USD7 billion worth of investments in renewable energy projects in the year of 2018. These projects will include 3.3 gigawatts of solar photovoltaic power and 800 megawatts of wind.²¹⁹

On 5 February 2018, AWCA Power, a Saudi state energy company, was awarded a contract to build a solar farm that will cost USD300 million and power 40,000 homes.²²⁰

On 7 March 2018, the United Kingdom and Saudi Arabia launched a multi-billion dollar economic and investment partnership. The partnership involves over USD90 million, with a focus of investing in renewable energy.²²¹

Saudi Arabia has acted to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency. However, Saudi Arabia has also it has increased its investments in energy sources that will increase greenhouse emissions.

²¹⁴ Saudi Arabia aims to exceed renewable energy target, Reuters (Jeddah) 24 August 2017. Access Date: 24 November 2017. <https://www.reuters.com/article/saudi-renewable/saudi-arabia-aims-to-exceed-renewable-energy-target-idUSL8N1LA456>.

²¹⁵ Saudi Arabia aims to exceed renewable energy target, Reuters (Jeddah) 24 August 2017. Access Date: 24 November 2017. <https://www.reuters.com/article/saudi-renewable/saudi-arabia-aims-to-exceed-renewable-energy-target-idUSL8N1LA456>.

²¹⁶ Saudi Arabia, Russia to set up \$1 billion energy fund: Novak, Reuters (Khobar) 2 October 2017. Access Date: 24 November 2017. <https://www.reuters.com/article/us-saudi-russia-energy/saudi-arabia-russia-to-set-up-1-billion-energy-fund-novak-idUSKCN1C70PN>.

²¹⁷ Saudi Aramco expands in India, Reuters (New Delhi) 8 October 2017. Access Date: 24 November 2017. <https://www.reuters.com/article/india-aramco/saudi-aramco-expands-in-india-idUSL4N1MJ09U>.

²¹⁸ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

²¹⁹ Saudi Arabia plans up to \$7 billion of Renewable Energy Projects this year, Bloomberg (Riyadh) 16 January 2017. Access Date: 16 January 2017. <https://www.bloomberg.com/news/articles/2018-01-16/saudi-arabia-plans-up-to-7-billion-of-renewables-this-year>.

²²⁰ From Oil to Solar: Saudi Arabia Plots a Shift to Renewables, New York Times (Dharan) 5 February 2018. Access Date: 8 March 2018. <https://www.nytimes.com/2018/02/05/business/energy-environment/saudi-arabia-solar-renewables.html>.

²²¹ Saudi Crown Prince and UK Eye Billion-Dollar Deals, CNBC (Saudi Arabia) 7 March 2018. Access Date: 8 March 2018. <https://www.cnbc.com/2018/03/08/saudi-crown-prince-and-uk-eye-billion-dollar-deals.html>.

Thus, Saudi Arabia receives a score of 0.

Analyst: Emily Chiu

South Africa: +1

South Africa has fully complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 12 October 2017, the Department of Environmental Affairs granted environmental authorization for the construction and operation of a nuclear power station and associate infrastructure at Duynefontein.²²²

On 16-20 October 2017, South Africa hosted the 38th Expert Group Meeting and the 44th Policy Group meeting of the Generation IV International Forum in Cape Town.²²³ The forum is an international co-operation initiative which was set up to carry out the research and development needed to establish the feasibility and performance capabilities of the next generation nuclear energy systems to promote the use of renewable energies.²²⁴

On 12 November 2017, South Africa attended the 23rd Conference of the Parties meeting in Bonn, Germany, and along with other G20 members, apart from the United States due to its withdrawal, met to further discuss implementation guidelines for the Paris Agreement.²²⁵

On 16-17 March 2018, the government of South Africa conducted a two-day sustainability workshop with local stakeholders including the municipality, co-operative members and employees, provincial development agencies, national bodies, as well as sponsors. The aim of the workshop is to provide plans that will result in efficient, effective and sustainable energy access, poverty alleviation and rural enterprise development.²²⁶

On 4 April 2018, the Minister of Energy, Jeff Radebe, announced that South Africa signed agreements for 27 projects procured under the Renewable Energy Independent Power Producer Programme Bid Windows 3.5 and 4.²²⁷ The procurement of the 27 new projects is the biggest

²²²Department of Environmental Affairs grants Environmental Authorization for the proposed construction and operation of the Eskom Nuclear Power station at Duynefontein in Western Cape, Department of Environmental Affairs (Pretoria) 18 October 2017. Access Date: 25 November 2017.

<https://www.environment.gov.za/mediarelease/deagrantsenvironmentalauthorisatioeskom>.

²²³ 44th Policy Group and 38th Expert Group meetings of the Generation IV International Forum, Cape Town, South Africa, South Africa Energy Department (Cape Town) 4 October 2017. Access Date: 21 March 2018.

<http://www.energy.gov.za/files/media/pr/2017/MediaStatement-44thPolicy-Group-38th-Expert-Group-meetings-of-GenerationIV-04Oct2017.pdf>

²²⁴ 44th Policy Group and 38th Expert Group meetings of the Generation IV International Forum, Cape Town, South Africa, South Africa Energy Department (Pretoria) 4 October 2017. Access Date: 21 March 2018.

<http://www.energy.gov.za/files/media/pr/2017/MediaStatement-44thPolicy-Group-38th-Expert-Group-meetings-of-GenerationIV-04Oct2017.pdf>

²²⁵ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

²²⁶ NGWAABE Integrated Energy Centre Sustainability Workshop, South Africa Energy Department (Cape Town) 28 March 2017. Access Date: 29 March 2018. <http://www.energy.gov.za/files/media/pr/2017/Media-Release-Ngwaabe-leC-Workshop-28March2017.pdf>

²²⁷ Speech by the Minister of Energy, Hon Jeff Radebe, MP at the Renewable Energy Independent Power Producer Programme (REIPPPP) Bid Windows 3.5 and 4 Contractual, South Africa Energy Department (Cape Town) 4 April 2018. Access Date: 10 April 2018. <http://www.energy.gov.za/files/media/speeches/2018/Speech-by-Minister-at-the-REIPPPP-Bid-Windows3.5-and4Contractual-Close-signing-ceremony-04042018.pdf>

independent power producer procurement by the Department of Energy to date, representing a total of ZAR56 billion of investment and about 2300 MW of generation capacity to be added to the grid over the next 5 years.²²⁸ The 27 projects are expected to offset 8.1 million tonnes of CO₂ per annum.²²⁹

South Africa has acted to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency.

Thus, South Africa receives a score of +1.

Analyst: Chen Ou Yang

Turkey: 0

Turkey has partially complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 10 July 2017, the Government of Germany announced that Turkey would meet with Jochen Flasbarth, the German Deputy Environment Minister, and hold talks with Turkey about acquiring money from the Green Climate Fund, in an effort to help Turkey adapt to climate change and encourage the ratification of the 2015 Paris Agreement.²³⁰

On 11 July 2017, Berat Albayrak, Minister of Energy and Natural Resources, announced plans to increase natural gas storage capacity at the 22nd World Petroleum Congress in Istanbul.²³¹ At the Congress, Turkish President Recep Erdogan reiterated the importance of oil and natural gas pipelines to Turkey's security.²³²

On 3 August 2017, the Wind Energy Renewable Energy Resource Areas (YEKA), a Turkish-German consortium, under the leadership of Minister Albayrak, won the bid to provide energy for a 1000-megawatt wind power plant, and invest over USD1 billion into wind facilities. Additional wind turbines will be built in Turkey for a reduced cost.²³³

²²⁸ Speech by the Minister of Energy, Hon Jeff Radebe, MP at the Renewable Energy Independent Power Producer Programme (REIPPPP) Bid Windows 3.5 and 4 Contractual, South Africa Energy Department (Cape Town) 4 April 2018. Access Date: 10 April 2018. <http://www.energy.gov.za/files/media/speeches/2018/Speech-by-Minister-at-the-REIPPPP-Bid-Windows3.5-and4Contractual-Close-signing-ceremony-04042018.pdf>

²²⁹ Speech by the Minister of Energy, Hon Jeff Radebe, MP at the Renewable Energy Independent Power Producer Programme (REIPPPP) Bid Windows 3.5 and 4 Contractual, South Africa Energy Department (Cape Town) 4 April 2018. Access Date: 10 April 2018. <http://www.energy.gov.za/files/media/speeches/2018/Speech-by-Minister-at-the-REIPPPP-Bid-Windows3.5-and4Contractual-Close-signing-ceremony-04042018.pdf>

²³⁰ German official to hold talks with Turkey on climate issue, Associated Press (Berlin) 10 July 2017. Access Date: 24 November 2017. <https://www.apnews.com/c35d50875b31473e8760f3798723fb06>.

²³¹ Turkey voices energy ambitions at World Petroleum Congress, Euractiv (Istanbul) 11 July 2017. Access Date: 24 November 2017. <https://www.euractiv.com/section/energy/news/turkey-voices-energy-ambitions-at-world-petroleum-congress/>.

²³² Turkey voices energy ambitions at World Petroleum Congress, Euractiv (Istanbul) 11 July 2017. Access Date: 24 November 2017. <https://www.euractiv.com/section/energy/news/turkey-voices-energy-ambitions-at-world-petroleum-congress/>.

²³³ Turkish-German consortium awarded \$1B worth wind power plant contract, Daily Sabah (Istanbul) 3 August 2017. Access Date: 24 November 2017. <https://www.dailysabah.com/energy/2017/08/03/turkish-german-consortium-awarded-1b-worth-wind-power-plant-contract>.

On 10 August 2017, Minister Albayrak announced the Akkuyu Nuclear Power Plant, funded by Russia, will be ready for construction in early 2018.²³⁴ He also announced that two other nuclear power plants are planned for construction between 2023 and 2030.²³⁵

On 12 November 2017, Turkey attended the 23rd Conference of the Parties meeting in Bonn, Germany, and along with other G20 members, apart from the United States due to its withdrawal, met to further discuss implementation guidelines for the Paris Agreement.²³⁶ However, Turkey has yet to ratify the Paris Agreement.²³⁷

On 16 January 2018, the Government of Turkey launched its plan to invest USD11 billion in energy efficient plans as part of its National Energy Efficiency Action Plan.²³⁸ Through this plan, the government will also develop potential in solar, wind, hydro, and geothermal energy.²³⁹

On 22 February 2018, Minister Albayrak announced that Turkey is finalizing new tenders for 1000-megawatt solar and wind power plants by this summer.²⁴⁰ Additionally, he announced Turkey is currently working on the world's largest offshore wind plant.²⁴¹

Turkey has acted to reduce greenhouse gas emissions through increased innovation in sustainable and clean energies and in energy efficiency. However, Turkey has also it has increased its investments in energy sources that will increase greenhouse emissions.

Thus, Turkey receives a score of 0.

Analyst: Emily Chiu

United Kingdom: +1

The United Kingdom has fully complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 26 July 2017, the UK government announced that it will ban selling new diesel and petrol cars starting in 2040.²⁴² The action is aimed to reduce greenhouse gas emissions and integrate electric vehicles as the primary form of automotive vehicle.²⁴³

²³⁴ Turkey to expand capacity to meet energy needs with 3 nuclear power plants in action, Daily Sabag (Istanbul) 10 August 2017. Access Date: 24 November 2017. <https://www.dailysabah.com/energy/2017/08/11/turkey-to-expand-capacity-to-meet-energy-needs-with-3-nuclear-power-plants-in-action-1502395900>.

²³⁵ Turkey to expand capacity to meet energy needs with 3 nuclear power plants in action, Daily Sabag (Istanbul) 10 August 2017. Access Date: 24 November 2017. <https://www.dailysabah.com/energy/2017/08/11/turkey-to-expand-capacity-to-meet-energy-needs-with-3-nuclear-power-plants-in-action-1502395900>.

²³⁶ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

²³⁷ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

²³⁸ Turkey Launches \$11bn energy efficiency plan, Power Technology (Ankara) 16 January 2018. Access Date: 16 January 2018. <https://www.power-technology.com/news/turkey-launches-11bn-energy-efficiency-plan/>.

²³⁹ Turkey Launches \$11bn energy efficiency plan, Power Technology (Ankara) 16 January 2018. Access Date: 16 January 2018. <https://www.power-technology.com/news/turkey-launches-11bn-energy-efficiency-plan/>.

²⁴⁰ Turkey plans to hold new big tenders for wind, solar plants by summer 2018: Minister, Hurriyet Daily News (Istanbul) 22 February 2018. Access Date: 8 March 2018. <http://www.hurriyetdailynews.com/turkey-plans-to-hold-new-big-tenders-for-wind-solar-plants-by-summer-2018-minister-127769>.

²⁴¹ Turkey plans to hold new big tenders for wind, solar plants by summer 2018: Minister, Hurriyet Daily News (Istanbul) 22 February 2018. Access Date: 8 March 2018. <http://www.hurriyetdailynews.com/turkey-plans-to-hold-new-big-tenders-for-wind-solar-plants-by-summer-2018-minister-127769>.

On 26 July 2017, the UK government released its plan to reduce roadside nitrogen dioxide concentrations.²⁴⁴ The government plan includes essential funding for clean air projects at the local level.²⁴⁵ An emphasis will be placed on transportation, aiming to retrofit buses to be more fuel efficient while developing more efficient modes of transportation including cycling or infrastructure changes.²⁴⁶

On 11 October 2017, the UK government announced up to GBP557 million for renewable energy projects.²⁴⁷ The funds are meant to accelerate the UK into a renewable energy state.²⁴⁸

On 12 October 2017, the UK government announced GBP2.5 billion for developing technologies that will reduce carbon emissions and increase sustainability.²⁴⁹ The government funds will be aimed at various industries including low carbon energy, transport, agriculture and waste.²⁵⁰

On 23 October 2017, the Automated and Electric Vehicles Bill passed its Second Reading in Parliament.²⁵¹ The bill aims to increase the accessibility of electric charging ports across UK gas

²⁴² Britain to ban sale of all diesel and petrol cars and vans from 2040, The Guardian (London) 25 July 2017. Access Date: 15 November 2017. <https://www.theguardian.com/politics/2017/jul/25/britain-to-ban-sale-of-all-diesel-and-petrol-cars-and-vans-from-2040>.

²⁴³ Britain to ban sale of all diesel and petrol cars and vans from 2040, The Guardian (London) 25 July 2017. Access Date: 15 November 2017. <https://www.theguardian.com/politics/2017/jul/25/britain-to-ban-sale-of-all-diesel-and-petrol-cars-and-vans-from-2040>.

²⁴⁴ UK plan for tackling roadside nitrogen dioxide concentrations, Department for Environment Food & Rural Affairs and the Department of Transport (London) 27 July 2017. Access Date: 27 February 2018. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/633269/air-quality-plan-overview.pdf.

²⁴⁵ UK plan for tackling roadside nitrogen dioxide concentrations, Department for Environment Food & Rural Affairs and the Department of Transport (London) 27 July 2017. Access Date: 27 February 2018. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/633269/air-quality-plan-overview.pdf.

²⁴⁶ UK plan for tackling roadside nitrogen dioxide concentrations, Department for Environment Food & Rural Affairs and the Department of Transport (London) 27 July 2017. Access Date: 27 February 2018. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/633269/air-quality-plan-overview.pdf.

²⁴⁷ Government confirms up to £557 million for new renewable energy projects, Department for Business, Energy & Industrial Strategy (London) 11 October 2017. Access Date: 27 February 2018. <https://www.gov.uk/government/news/government-confirms-up-to-557-million-for-new-renewable-energy-projects>.

²⁴⁸ Government confirms up to £557 million for new renewable energy projects, Department for Business, Energy & Industrial Strategy (London) 11 October 2017. Access Date: 27 February 2018. <https://www.gov.uk/government/news/government-confirms-up-to-557-million-for-new-renewable-energy-projects>.

²⁴⁹ Government reaffirms commitment to lead the world in cost-effective clean growth, Department for Business, Energy & Industrial Strategy (London) 12 October 2017. Access Date: 27 February 2018. <https://www.gov.uk/government/news/government-reaffirms-commitment-to-lead-the-world-in-cost-effective-clean-growth>.

²⁵⁰ Government reaffirms commitment to lead the world in cost-effective clean growth, Department for Business, Energy & Industrial Strategy (London) 12 October 2017. Access Date: 27 February 2018. <https://www.gov.uk/government/news/government-reaffirms-commitment-to-lead-the-world-in-cost-effective-clean-growth>.

²⁵¹ Automated and Electric Vehicles Bill: Commons Second Reading, UK Parliament (London) 23 October 2017. Access Date: 18 November 2017. <https://www.parliament.uk/business/news/2017/october/automated-and-electric-vehicles-bill/>.

stations. It hopes to help encourage citizens to transition from petrol and diesel vehicles towards electric vehicles.²⁵²

On 7 November 2017, the UK announced GBP8 million in funding for the International Energy Agency's initiative to support clean energy development around the globe.²⁵³ The initiative will provide technical support to international governments wanting to transition towards renewable energy sources.

On 8 November 2017, the UK government announced GBP68 million for artificial intelligence and smart energy.²⁵⁴ The funding is aimed to generate more innovative projects for a low carbon future and renewable energy future.²⁵⁵

On 12 November 2017, the UK attended 23rd Conference of the Parties meeting in Bonn, Germany, and along with other G20 members, apart from the United States due to its withdrawal, met to further discuss implementation guidelines for the Paris Agreement.²⁵⁶

On 16 November 2017, the UK joined the "Powering Past Coal" alliance to phase out coal from power generation before 2030 in Bonn in collaboration with 15 other countries including the Italy, France, and Canada.²⁵⁷

On 12 December 2017, Prime Minister Theresa May attended the One Planet Summit hosted by French President Emmanuel Macron, the World Bank and the UN. The Summit aimed to mobilize public and private financing to fund the global transition to a carbon-free future. 50 world leaders, 4,000 other participants and 800 organizations attended the Summit.²⁵⁸

On 4 January 2018, Environment Minister Michael Gove announced government subsidies for farmers to turn their lands into wildflower meadows.²⁵⁹ The plan is expected to increase wildlife

²⁵² Automated and Electric Vehicles Bill: Commons Second Reading, UK Parliament (London) 23 October 2017. Access Date: 18 November 2017. <https://www.parliament.uk/business/news/2017/october/automated-and-electric-vehicles-bill/>.

²⁵³ IEA launches the Clean Energy Transitions Programme to support clean-energy development, International Energy Agency (Vienna) 7 November 2017. Access Date: 27 February 2018. <https://www.iea.org/newsroom/news/2017/november/iea-launches-the-clean-energy-transitions-programme-to-support-clean-energy-devel.html>.

²⁵⁴ Funding for £84 million for artificial intelligence and robotics research and smart energy innovation announced, Department for Business, Energy & Industrial Strategy (London) 8 November 2017. Access Date: 27 February 2018. <https://www.gov.uk/government/news/funding-for-84-million-for-artificial-intelligence-and-robotics-research-and-smart-energy-innovation-announced>.

²⁵⁵ Funding for £84 million for artificial intelligence and robotics research and smart energy innovation announced, Department for Business, Energy & Industrial Strategy (London) 8 November 2017. Access Date: 27 February 2018. <https://www.gov.uk/government/news/funding-for-84-million-for-artificial-intelligence-and-robotics-research-and-smart-energy-innovation-announced>.

²⁵⁶ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

²⁵⁷ At least 15 states join global alliance to phase out coal by 2030, Reuters (Bonn) 16 November 2017. Access Date: 26 November 2017. <https://www.reuters.com/article/us-climatechange-accord-coal/at-least-15-states-join-global-alliance-to-phase-out-coal-by-2030-idUSKBN1DG1AI>.

²⁵⁸ 50 World Leaders Gather in Paris for Climate Summit, Huffington Post (Paris) 12 December 2017. Access Date: 8 January 2018. https://www.huffingtonpost.ca/entry/one-planet-summit-trump-macron_us_5a2f8435e4b01598ac478e15.

²⁵⁹ Farmland could turn into meadows after Brexit, says Michael Grove, The Guardian (Oxford) 4 January 2018. Access Date: 8 January 2018. <https://www.theguardian.com/environment/2018/jan/04/farmland-could-be-turned-into-meadows-post-brexit-says-michael-gove>.

along with cleaner air and water.²⁶⁰ Farmers will emit less fossil fuels due to the decrease in land they will have to harvest crops.²⁶¹

On 7 March 2018, the UK and Saudi Arabia launched a multi-billion dollar economic and investment partnership. The partnership involves over USD90 million, with a focus of investing in renewable energy.²⁶²

The United Kingdom has made significant advancements to reduce greenhouse gas emissions through increased innovation on sustainable and clean energies and energy efficiency. Recent government initiatives have aimed to promote renewable energy consumption among the energy and transportation sector. As well, private corporations in the UK have gained the opportunity to start significant renewable energy projects in solar power.

Thus, the UK receives a score of +1.

Analyst: Arshia Hassani

United States: -1

The United States has not complied with its commitment to mitigate greenhouse gas emissions through, among others, increased innovation on sustainable and clean energies and energy efficiency.

On 10 October 2017, Secretary of the Environmental Protection Agency Scott Pruitt announced plans to rescind the Clean Power Plan without offering any replacement.²⁶³ The Obama-era regulation was designed to reduce carbon emissions. Pruitt's plan allows for an increase in emissions.²⁶⁴

On 16 October 2017, President Donald Trump approved plans to expand the Enbridge Energy Line 67 oil pipeline through the US.²⁶⁵ The pipeline carries oil sand petroleum used for energy, and is expected to further strengthen the fossil fuel industry.²⁶⁶

On 2 November 2017, the Republican Party released its national tax plan to eliminate the USD7,500 tax credit for hybrids and electric vehicles.²⁶⁷ The tax credit elimination is designed to transition

²⁶⁰ Farmland could turn into meadows after Brexit, says Michael Grove, The Guardian (Oxford) 4 January 2018. Access Date: 8 January 2018. <https://www.theguardian.com/environment/2018/jan/04/farmland-could-be-turned-into-meadows-post-brexit-says-michael-gove>.

²⁶¹ Farmland could turn into meadows after Brexit, says Michael Grove, The Guardian (Oxford) 4 January 2018. Access Date: 8 January 2018. <https://www.theguardian.com/environment/2018/jan/04/farmland-could-be-turned-into-meadows-post-brexit-says-michael-gove>.

²⁶² Saudi Crown Prince and UK Eye Billion-Dollar Deals, CNBC (Riyadh) 7 March 2018. Access Date: 8 March 2018. <https://www.cnbc.com/2018/03/08/saudi-crown-prince-and-uk-eye-billion-dollar-deals.html>.

²⁶³ Trump admin avoids discussing climate change while rolling back emissions rule, CNN (Washington DC) 10 October 2017, Access Date: 20 November 2017. <http://www.cnn.com/2017/10/10/politics/epa-cpp-climate-change/index.html>.

²⁶⁴ Trump admin avoids discussing climate change while rolling back emissions rule, CNN (Washington DC) 10 October 2017, Access Date: 20 November 2017. <http://www.cnn.com/2017/10/10/politics/epa-cpp-climate-change/index.html>.

²⁶⁵ Trump approves oil pipeline expansion across Canadian border, The Hill (Washington DC) 16 October 2017, Access Date: 20 November 2017. <http://thehill.com/policy/energy-environment/355706-trump-approves-oil-pipeline-expansion-across-canadian-border>.

²⁶⁶ Trump approves oil pipeline expansion across Canadian border, The Hill (Washington DC) 16 October 2017, Access Date: 20 November 2017. <http://thehill.com/policy/energy-environment/355706-trump-approves-oil-pipeline-expansion-across-canadian-border>.

²⁶⁷ House GOP Tax Bill Would End Electric-Car Tax Credits, Bloomberg Politics (New York) 2 November 2017, Access Date: 20 November 2017. <https://www.bloomberg.com/news/articles/2017-11-02/tax-credit-for-electric-cars-said-to-be-axed-in-gop-tax-proposal>.

consumer interest away from low-emissions electric and hybrid vehicles and towards high-emission petrol vehicles.²⁶⁸

On 12 November 2017, the US government attended the 23rd Conference of the Parties meeting in Bonn, Germany, to promote the burning of coal for energy. G20 members, except the US, have committed to reduce greenhouse gas emissions by phasing out fossil fuels and implementing the Paris Agreement.²⁶⁹

On 17 December 2017, the US government placed two solar power stations into service.²⁷⁰ A total of 1,797 acres of solar panels across federal land are meant to power large data centers in Las Vegas and Reno Nevada.²⁷¹

On 31 January 2018, the US government announced plans to cut funding for the renewable energy office by 75 per cent. This action is part of the Trump administration's intentions to transition away from green energy and towards fossil fuels.²⁷²

On 31 January 2018, the Trump administration reduced policies meant to environmentally review land before being used to extract fossil fuels from. It is part of an initiative relieve as many burdens from the fossil fuel industry as possible in order to increase emissions.²⁷³

The US has enacted policies and actions that have and will increase greenhouse gas emissions without plans for mitigation.

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

Analyst: Arshia Hassani

European Union: + 1

The European Union has fully complied with its commitment to increase innovation on sustainable and clean energies and energy efficiency as well as to reduce greenhouse gas emissions.

On 11 July 2017, the European Commission approved a new Hungarian support scheme for renewable energy. The European Commission will provide aid based on the 2014 Guidelines on State

²⁶⁸ House GOP Tax Bill Would End Electric-Car Tax Credits, Bloomberg Politics (New York) 2 November 2017, Access Date: 20 November 2017. <https://www.bloomberg.com/news/articles/2017-11-02/tax-credit-for-electric-cars-said-to-be-axed-in-gop-tax-proposal>.

²⁶⁹ COP23: UN summit shows how Donald Trump is doing more damage to world's climate than we ever realized, The Independent (Bonn) 18 November 2017. Access Date: 5 March 2018. <http://www.independent.co.uk/news/world/politics/cop23-un-climate-change-summit-bonn-donald-trump-paris-agreement-us-pope-francis-a8061256.html>.

²⁷⁰ Big Solar Projects Are Quietly Happening Under Trump, Big Think (Las Vegas) 20 December 2017. Access Date: 8 January 2018. <http://bigthink.com/philip-perry/not-all-green-energy-projects-have-halted-under-the-trump-administration>.

²⁷¹ Big Solar Projects Are Quietly Happening Under Trump, Big Think (Las Vegas) 20 December 2017. Access Date: 8 January 2018. <http://bigthink.com/philip-perry/not-all-green-energy-projects-have-halted-under-the-trump-administration>.

²⁷² Trump administration to 'cut renewable energy office budget by nearly three-quarters, Independent (New York) 31 January 2018. Access Date: 27 February 2018. <http://www.independent.co.uk/news/world/americas/us-politics/trump-climate-change-global-warming-budget-cuts-renewable-energy-a8188391.html>.

²⁷³ Updating Oil and Gas Leasing Reform — Land Use Planning and Lease Parcel Reviews, US Department of the Interior (Washington D.C.) 31 January 2018. Access Date: 27 February 2018. <https://www.blm.gov/policy/im-2018-034>.

Aid for Environmental Protection and Energy. The scheme will help Hungary reduce carbon dioxide emissions while maintaining energy market competition.²⁷⁴

On 28 September 2017, the European Commission approved an investment package of EUR222 million from the EU budget to support transition to a more sustainable and low-carbon EU future.²⁷⁵ This investment is under the LIFE program for the Environment and Climate Action.²⁷⁶ This program will allow the European Union to further its support for sustainable energy development and green technology innovation.²⁷⁷

On 19 October 2017, the European Investment Bank and Spanish Ministry of Energy, Tourism and the Digital Agenda, in conjunction with the Instituto de Credito Oficial, a state-owned bank attached to the Spanish Ministry of Economic Affairs, Industry and Competitiveness, sign an agreement to provide EUR100 million for energy efficiency improvement projects in the hospitality sector and for small and medium-sized enterprises and large companies in the industrial and commercial sectors.²⁷⁸

On 7 November 2017, the European Commission announced its participation in the International Energy Agency's "Clean Energy Transitions" Program, along with twelve other countries including Germany, Canada, and the United Kingdom.²⁷⁹ The European Commission will contribute EUR3.5 million. The program will involve "deep and sustained partnerships with governments and will include collaborative analytical work, technical co-operation, training and capacity building, strategic dialogues, secondments and implementation of joint work programs."²⁸⁰

On 8 November 2017, the European Commission proposed to enforce and increase incentives within the EU to transit to low and zero emission vehicles.²⁸¹ The new clean mobility package includes new CO2 standards for manufacturers, clean vehicles directive, action plan and investment solutions for the trans-European deployment of alternative fuels infrastructure.²⁸² The proposed

²⁷⁴State aid: Commission approves Hungarian support scheme for renewable electricity, European Commission (Brussels) 11 July 2017. Access Date: 25 November 2017. http://europa.eu/rapid/press-release_IP-17-1983_en.htm.

²⁷⁵Member States to benefit from over €222 million investments for environment, nature and climate action, European Commission (Brussels) 28 September 2017. Access Date: 25 November 2017. http://europa.eu/rapid/press-release_IP-17-3429_en.html.

²⁷⁶Member States to benefit from over €222 million investments for environment, nature and climate action, European Commission (Brussels) 28 September 2017. Access Date: 25 November 2017. http://europa.eu/rapid/press-release_IP-17-3429_en.html.

²⁷⁷Member States to benefit from over €222 million investments for environment, nature and climate action, European Commission (Brussels) 28 September 2017. Access Date: 25 November 2017. http://europa.eu/rapid/press-release_IP-17-3429_en.html.

²⁷⁸Energia in conjunction with ICO and the EIB launches energy efficiency credit line for hospitality SMEs and large companies in the industrial and commercial sectors, European Investment Bank (Luxembourg) 19 October 2017. Access Date: 3 November 2017. <http://www.eib.org/infocentre/press/releases/all/2017/2017-280-energia-in-conjunction-with-ico-and-the-eib-launches-energy-efficiency-credit-line-for-hospitality-smes-and-large-companies-in-the-industrial-and-commercial-sector.html>.

²⁷⁹IEA launches the Clean Energy Transitions Programme to support clean-energy development, IEA (Vienna) 7 November 2017. Access Date: 5 March 2018. <https://www.iea.org/newsroom/news/2017/november/iea-launches-the-clean-energy-transitions-programme-to-support-clean-energy-devel.html>.

²⁸⁰IEA launches the Clean Energy Transitions Programme to support clean-energy development, IEA (Vienna) 7 November 2017. Access Date: 5 March 2018. <https://www.iea.org/newsroom/news/2017/november/iea-launches-the-clean-energy-transitions-programme-to-support-clean-energy-devel.html>.

²⁸¹Energy Union: Commission takes action to reinforce EU's global leadership in clean vehicles, European Commission (Brussels) 8 November 2017. Access Date: 20 November 2017. http://europa.eu/rapid/press-release_IP-17-4242_en.html.

²⁸²Proposal for post-2020 CO2 targets for cars and vans, European Commission (Brussels) 25 November 2017, Access Date: 25 November 2017. https://ec.europa.eu/clima/policies/transport/vehicles/proposal_en.

framework would require manufacturers of more than 1000 registered vehicles per year to reach a 30 per cent decrease in new car emissions by 2030 compared to 2021.²⁸³ The proposal is under consideration at the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions.²⁸⁴

On 12 November 2017, the EU attended the 23rd Conference of the Parties meeting in Bonn, Germany, and along with other G20 members, apart from the United States due to its withdrawal, met to further discuss implementation guidelines for the Paris Agreement.²⁸⁵

On 16 November 2017, Miguel Arias Canete, Commissioner for Climate Action and Energy, launched new EU strategic partnerships for the implementation of the Paris Agreement to scale up European climate policy collaboration with other major economies.²⁸⁶ The program will be co-funded by EU's Partnership Instrument, which will provide EUR20 million, and the German International Climate Initiative, which will provide EUR5 million.²⁸⁷

On 16 November 2017, the EIB and the Svenska Cellulosa Aktiebolaget signed a EUR150 million loan agreement to support renewable energy and energy efficiency measures in Swedish forestry as well as forest restoration.²⁸⁸

On 17 November 2017, the European Commission ratified the Kigali Amendment to the Montreal Protocol and triggered its entry into force.²⁸⁹ The Kigali Amendment to the Montreal Protocol aims at the phase-down of hydrofluorocarbons (HFCs) and will take effect in January 2019.²⁹⁰ HFCs are mainly used in refrigeration and air-conditioning equipment, and as propellant in foams. This amendment aims at the reduction of carbon dioxide emissions, and may create further incentives for energy efficient appliances.²⁹¹

On 23 November 2017, the EU and Switzerland signed an agreement to link their emissions trading system. This cap-and-trade system will allow participants in the EU's Emissions Trading System (EU

²⁸³ Proposal for post-2020 CO2 targets for cars and vans, European Commission (Brussels) Last Updated: 25 November 2017. Access Date: 25 November 2017. https://ec.europa.eu/clima/policies/transport/vehicles/proposal_en.

²⁸⁴ Proposal for post-2020 CO2 targets for cars and vans, European Commission (Brussels) 25 November 2017, Access Date: 25 November 2017. https://ec.europa.eu/clima/policies/transport/vehicles/proposal_en.

²⁸⁵ Analysis: Which countries have sent the most delegates to COP23, Carbon Debrief 6 November 2017. Access Date: 21 March 2018. <https://www.carbonbrief.org/analysis-which-countries-sent-most-delegates-cop23>.

²⁸⁶ EU scales up cooperation with other major economies to implement Paris Agreement, promote global energy transition, European Commission (Brussels) 16 November 2017. Access Date: 25 November 2017. https://ec.europa.eu/clima/news/eu-countries-trigger-entry-force-kigali-amendment-montreal-protocol_en.

²⁸⁷ EU scales up cooperation with other major economies to implement Paris Agreement, promote global energy transition, European Commission (Brussels) 16 November 2017. Access Date: 25 November 2017. https://ec.europa.eu/clima/news/eu-countries-trigger-entry-force-kigali-amendment-montreal-protocol_en.

²⁸⁸ EIB supports SCA's energy efficiency and forestry investment, European Investment Bank (Luxemburg) 16 November 2017. Access Date: 25 November 2017. <http://www.eib.org/infocentre/press/releases/all/2017/2017-318-eib-supports-scas-energy-efficiency-and-forestry-investments.html>.

²⁸⁹ EU countries trigger entry force Kigali amendment to Montreal protocol, European Commission (Brussels) 17 November 2017. Access Date: 25 November 2017. https://ec.europa.eu/clima/news/eu-countries-trigger-entry-force-kigali-amendment-montreal-protocol_en.

²⁹⁰ EU countries trigger entry force Kigali amendment to Montreal protocol, European Commission (Brussels) 17 November 2017. Access Date: 25 November 2017. https://ec.europa.eu/clima/news/eu-countries-trigger-entry-force-kigali-amendment-montreal-protocol_en.

²⁹¹ EU countries trigger entry force Kigali amendment to Montreal protocol, European Commission (Brussels) 17 November 2017. Access Date: 25 November 2017. https://ec.europa.eu/clima/news/eu-countries-trigger-entry-force-kigali-amendment-montreal-protocol_en.

ETS) to use allowances from the Swiss system for compliance and vice versa.²⁹² The EU ETS allows the EU to reduce greenhouse gas emissions from power plants, certain energy-intensive industry, and flights within the EU.²⁹³

On 11 December 2017, the EU launched the Platform for Coal Regions in Transition to facilitate the development of projects and long-term strategies in coal-regions.²⁹⁴ This initiative will facilitate the development of projects and long-term strategies in coal regions to start the transition process and respond to environmental and social challenges.²⁹⁵

On 12 December 2017, the European Commission unveiled its Action Plan for the Planet.²⁹⁶ This plan includes ten initiatives for a modern and clean economy.²⁹⁷ The initiatives target EU's internal and external commitments.²⁹⁸ It aims at putting the financial sector at the service of the climate, mobilizing youth on the topic of climate change, supporting urban investment in European cities, structural support action for coal and carbon intensive regions, investing in smart buildings, investing in clean industrial technology as well as mobility.²⁹⁹ Furthermore, the plan aims at investing in opportunities for Africa and the EU neighborhood as well as clean energy for islands.³⁰⁰ There will also be a EU rulebook for investment in energy performance of buildings.³⁰¹

On 19 December 2017, negotiators from the European Council, the European Parliament and the European Commission reached a new agreement on rules for improving the energy performance of buildings.³⁰² The new rules aim at strengthening energy performance of new buildings as well as accelerate the rate of building renovation towards more energy efficient systems.³⁰³ This could result

²⁹² EU and Switzerland sign agreement to link emissions trading systems, European Commission (Brussels) 23 November 2017. Access Date: 25 November 2017. https://ec.europa.eu/clima/news/eu-and-switzerland-sign-agreement-link-emissions-trading-systems_en.

²⁹³ EU and Switzerland sign agreement to link emissions trading systems, European Commission (Brussels) 23 November 2017. Access Date: 25 November 2017. https://ec.europa.eu/clima/news/eu-and-switzerland-sign-agreement-link-emissions-trading-systems_en.

²⁹⁴ No region left behind: launch of the platform for coal regions in transition, European Commission (Strasbourg) 11 December 2017. Access Date: 9 January 2018. http://europa.eu/rapid/press-release_IP-17-5165_en.html.

²⁹⁵ No region left behind: launch of the platform for coal regions in transition, European Commission (Strasbourg) 11 December 2017. Access Date: 9 January 2018. http://europa.eu/rapid/press-release_IP-17-5165_en.html.

²⁹⁶ Commission unveils action plan for the planet, European Commission (Paris) 12 December 2017. Access Date: 9 January 2018. http://europa.eu/rapid/press-release_IP-17-5163_en.html.

²⁹⁷ Commission unveils action plan for the planet, European Commission (Paris) 12 December 2017. Access Date: 9 January 2018. http://europa.eu/rapid/press-release_IP-17-5163_en.html.

²⁹⁸ Commission unveils action plan for the planet, European Commission (Paris) 12 December 2017. Access Date: 9 January 2018.

http://europa.eu/rapid/press-release_IP-17-5163_en.html.

²⁹⁹ Commission unveils action plan for the planet, European Commission (Paris) 12 December 2017. Access Date: 9 January 2018.

http://europa.eu/rapid/press-release_IP-17-5163_en.html.

³⁰⁰ Commission unveils action plan for the planet, European Commission (Paris) 12 December 2017. Access Date: 9 January 2018. http://europa.eu/rapid/press-release_IP-17-5163_en.html.

³⁰¹ Commission unveils action plan for the planet, European Commission (Paris) 12 December 2017. Access Date: 9 January 2018. http://europa.eu/rapid/press-release_IP-17-5163_en.html.

³⁰² Commission welcomes agreement on energy performance of buildings, European Commission (Brussels) 19 December 2019. Access Date: 9 November 2018. http://europa.eu/rapid/press-release_IP-17-5129_en.html.

³⁰³ Commission welcomes agreement on energy performance of buildings, European Commission (Brussels) 19 December 2019. Access Date: 9 November 2018. http://europa.eu/rapid/press-release_IP-17-5129_en.html.

in significant increase in energy efficiency as the building sector is the single largest energy consumer.³⁰⁴

On 17 January 2018, EU members reached an agreement with the European Parliament with relation to the implementation of the Paris agreement.³⁰⁵ Under the effort sharing regulation, a binding climate target trajectory will be set out for each member state that will culminate in their national 2030 target.³⁰⁶

On 8 February 2018, the European Commission approved an investment package of EUR98.2 million to Europe's transition to low-carbon, circular economy under the LIFE program for the Environment and Climate Action.³⁰⁷ A mid-term evaluation of the LIFE program in December 2017 found that this program is efficient and effective to the EU's objective to protect the environment as well as fight and adapt to climate change.³⁰⁸

On 10 March 2018, the European Investment Bank signed a loan agreement with India for a second line of credit.³⁰⁹ The EUR150 million line of credit will be allocated towards funding "renewable energy and energy efficiency projects in India."³¹⁰

The European Union has taken decisive steps towards incentivizing green technology and sustainable energy innovation, improving energy efficiency as well as the mitigation of the greenhouse gas emissions.

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

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³⁰⁴ Commission welcomes agreement on energy performance of buildings, European Commission (Brussels) 19 December 2019. Access Date: 9 November 2018. http://europa.eu/rapid/press-release_IP-17-5129_en.html.

³⁰⁵ Europe is moving forward with the implementation of the Paris Agreement, BMU (Berlin) 17 January 2018. Access Date: 6 March 2018. <https://www.bmub.bund.de/en/pressrelease/europa-geht-voran-bei-der-umsetzung-des-pariser-abkommens/>.

³⁰⁶ Europe is moving forward with the implementation of the Paris Agreement, BMU (Berlin) 17 January 2018. Access Date: 6 March 2018. <https://www.bmub.bund.de/en/pressrelease/europa-geht-voran-bei-der-umsetzung-des-pariser-abkommens/>.

³⁰⁷ Annex: 10 new projects under the LIFE funding programme for the Environment and Climate Action, European Commission (Brussels) 8 February 2018. Access Date: 26 February 2018. http://europa.eu/rapid/press-release_MEMO-18-672_en.html.

³⁰⁸ LIFE programme enhances environmental and climate benefits and provides value for money, European Commission (Brussels) 20 December 2017. Access Date: 26 February 2018.

http://ec.europa.eu/environment/pdf/20_12_2017_news_en.pdf.

³⁰⁹ IREDA & European Investment Bank sign Eur 150 million Loan Agreement for Renewable Energy Financing in India, Ministry of New and Renewable Energy (New Delhi) 10 March 2018. Access Date: 10 March 2018. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.

³¹⁰ IREDA & European Investment Bank sign Eur 150 million Loan Agreement for Renewable Energy Financing in India, Ministry of New and Renewable Energy (New Delhi) 10 March 2018. Access Date: 10 March 2018. <http://pib.nic.in/newsite/pmreleases.aspx?mincode=28>.