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

Chancellor Angela Merkel, Schloss Elmau, 8 June 2015

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

Achim Steiner, Administrator, United Nations Development Programme, in G7 Canada: The 2018 Charlevoix Summit
17. Energy: Energy Security

“We commit to ongoing action to strengthen our collective energy security and demonstrate leadership in ensuring that our energy systems continue to drive sustainable economic growth.”

G7 Charlevoix Summit Communiqué

Assessment

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Background

With growing concerns over climate change in the sphere of global governance, global energy security has been brought to the forefront as a significant challenge. At the 2006 G8 Summit in St. Petersburg, G8 members outlined an extensive framework to address the issue of global energy security. This framework, titled the Plan of Action on Global Energy Security, included the following priority challenges to address:

- High and volatile oil prices;
- Growing demand for energy (estimated to rise by more than 50 percent by 2030, approximately 80 percent of which would still be met by fossil fuels, which are limited resources);
- Increasing import dependence in many countries;
- Enormous investment requirements along the entire energy chain;
- The need to protect the environment and to tackle climate change;
- The vulnerability of the critical energy infrastructure;
- Political instability, natural disasters and other threats.

Furthermore, G8 leaders agreed at the St. Petersburg Summit to commit to the following:

- Strong global economic growth, effective market access, and investment in all stages of the energy supply chain;

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• Open, transparent, efficient and competitive markets for energy production, supply, use, transmission and transit services as a key to global energy security;

• Transparent, equitable, stable and effective legal and regulatory frameworks, including the obligation to uphold contracts, to generate sufficient, sustainable international investments upstream and downstream;

• Enhanced dialogue on relevant stakeholders’ perspectives on growing interdependence, security of supply and demand issues;

• Diversification of energy supply and demand, energy sources, geographical and sectoral markets, transportation routes and means of transport;

• Promotion of energy saving and energy efficiency measures through initiatives on both national and international levels;

• Environmentally sound development and use of energy, and deployment and transfer of clean energy technologies which help to tackle climate change;

• Promotion of transparency and good governance in the energy sector to discourage corruption;

• Cooperative energy emergency response, including the coordinated planning of strategic stocks;

• Safeguarding critical energy infrastructure; and

• Addressing the energy challenges for the poorest populations in developing countries.

In order to adhere to these commitments, the G8 leaders agreed to take action in the following areas:

• Increasing transparency, predictability and stability of global energy markets;

• Improving the investment climate in the energy sector;

• Enhancing energy efficiency and energy saving;

• Diversifying energy mix;

• Ensuring the physical security of critical energy infrastructure;

• Reducing energy poverty

• Addressing climate change and sustainable development.

Energy security has been on the agenda of G7 summitry since its inception. In fact, the creation of the G7 was partly prompted by the Organization of the Petroleum Exporting Countries energy crisis. 3762 Several energy-related commitments made at the 2006 St. Petersburg summit were reiterated at the 2018 Charlevoix Summit. However, not all G7 members agreed to all the energy-
related commitments addressed in the final communiqué, the United States being a notable exception.\textsuperscript{3763}

**Commitment Features**

The first part of the commitment specifies that energy security must be strengthened collectively through ongoing action. “Strengthen” is defined as “to make or become stronger,” which indicates that the G7 members must act to reinforce and enhance existing energy security-related measures. “Collective” reflects that this commitment binds G7 members to strengthen collective energy security through collaboration with other G7 members or international organizations. Examples of actions that count towards compliance for the first portion of the commitment include contributing to improving the global energy security framework, bilateral or multilateral energy security treaties; addressing energy security issues in the Global South; and increasing international energy transparency. Actions taken domestically or independently of other countries or international organizations do not count towards compliance. Moreover, the word “ongoing” reflects that the G7 member must act in a way that demonstrates consistent, continuous action or long-term consideration.

The second part of the commitment specifies that G7 members must “demonstrate leadership in ensuring that its energy systems contribute to sustainable economic growth.” Actions to ensure that energy systems contribute to sustainable economic growth include efforts to address renewable energy systems domestically, or to ensure that domestic systems are in line with the basic framework outlined in the Plan of Action on Global Energy Security, adopted the 2006 St. Petersburg Summit. Actions such as diversifying energy sources, investing in renewable and/or clean energy, strengthening the transparency of domestic regulations in the energy sector, and promoting energy efficiency count towards compliance for the second portion of the commitment.

Some actions can simultaneously serve as evidence for compliance towards both sections of the commitment. For example, the international transfer of clean energy technology qualifies for both the latter and former parts of compliance.

To achieve full compliance, the G7 member must comply with both components of this commitment: the former referring to international action, and the latter referring to domestic action. For a score of full compliance, or +1, the G7 member needs to have taken continuous policy action to support energy security with its G7 or global counterparts, while taking ambitious strides to achieve sustainable growth via solutions such as clean and renewable energy.

A G7 member will be assigned partial compliance if it only completes the former or latter portion of the commitment. In the scenario where a G7 member acts in a temporary and minimal way to collaborate with other G7 partners in the field of energy security while driving its domestic economy with substantial technological breakthroughs in the renewable energy sector, the G7 member will receive a score of 0. For example, attending a conference or a verbal reiteration of support is considered less strong than policy actions that constitute “strengthen[ing]” collective energy security. Additionally, if the G7 member takes only some action in both areas, it will also receive a 0.

Non-compliance, or a score of −1, will be attributed to G7 members who have failed to demonstrate action that fulfils either portion of the commitment during the compliance period.

\textsuperscript{3763} The Charlevoix G7 Summit Communiqué, G7 Information Centre (Toronto) 9 June 2018. Access Date: 7 September 2018. http://www.g7.utoronto.ca/summit/2018charlevoix/communique.html
Scoring Guidelines

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</tr>
<tr>
<td>+1</td>
<td>The G7 member has taken ongoing action to strengthen collective energy security AND demonstrate leadership in ensuring that its energy systems continue to drive sustainable economic growth.</td>
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Canada: +1

Canada has fully complied with its commitment to strengthen collective energy security and demonstrate leadership in ensuring that its energy systems continue to drive sustainable economic growth.

On 10 July 2018, Kim Rudd, the Parliamentary Secretary to Minister of Natural Resources Jim Carr, announced that Canada invested CAD2.2 billion in two research projects on reducing the methane emissions of oil and gas.  

On 17 August 2018, Minister of Natural Resources Amarjeet Sohi launched the Sky’s the Limit Challenge, an initiative to encourage the domestic development of sustainable aviation fuels. The government noted that “while the Canadian aviation sector has made significant investments in a fuel-efficient fleet, other measures such as sustainable aviation fuel will be required to achieve industry targets of carbon-neutral growth by 2020 and a 50 per cent reduction in carbon dioxide emissions by 2050.”

On 20 September 2018, Minister Sohi announced that Canada will be diversifying its energy inputs by investing in renewable tidal energy in Nova Scotia. Minister Sohi indicated that the investment will “support a low-carbon future while encouraging businesses to innovate.” The initiative is a part of a broader plan, the Emerging Renewable Power Program, which aims to fund “large size, utility-scale electricity generation projects from renewable energy resources that have not yet been commercially deployed in Canada.” CAD29.8 billion has been earmarked for the project.

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On 28 September 2018, Minister of Innovation, Science and Economic Development Navdeep Bains announced that Canada will invest CAD1 million in the University of Lethbridge for research on green polymer technologies. These technologies aim to “help make biodegradable plastics more competitive and efficient to produce and further help reduce the impact of consuming plastics on the environment.”

On 16 October 2018, Minister Sohi jointly announced the Power Forward Challenge initiative with the UK High Commissioner to Canada Jane le Jeune d’Allegrerseequite. This initiative is “a 30-month transatlantic competition challenging Canadian and British innovators to create new technology solutions to transform [Canada’s] traditional power grids into smart energy systems.” Of the initiative’s CAD20 million in total funding, Canada is committing CAD10 million to the project. Minister Sohi stated that “technology is affording us an unprecedented opportunity to create a smarter, more resilient energy system. Canada is investing in smart grid technology and working with industry — in Canada and in the United Kingdom — to build a cleaner, safer, better-connected electricity systems.”

On 26 October 2018, Minister Bains and Minister of National Defense Harjit Singh Sajjan jointly announced a CAD49.3 million investment in General Fusion, a clean energy firm researching the application of nuclear fusion, via the federal Strategic Innovative Fund. Bains stated that “[the project] has the real potential to transform how the world generates abundant clean energy, [helping Canada] reduce [its] environmental impacts.”

On 28 November 2018, the National Research Council of Canada and Natural Resources Canada announced that the National Energy Code of Canada for Buildings of 2017 (NECB 2017) will be provided free of charge for the first time, “building on Canada’s commitment [to] the Pan-Canadian Framework on Clean Growth and Climate Change to meet emission reduction targets, grow the

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economy, and build resilience to a changing climate.”3776 Minister Sohi stated that NECB 2017 “helps improve Canada’s economy while protecting the environment … and stimulating innovation in [Canada’s] growing building sector.”3777 Minister Bains expressed that “this will reduce the cost to business [and] encourage innovation … while reducing pollution.”3778

On 12 December 2018, the government announced final regulations and plans to phase out coal and natural gas-fired electricity by 2030.3779

On 13 December 2018, in the wake of the 24th Conference of the Parties, the Powering Past Coal Alliance, jointly established by Canada and the UK in 2017, admitted several new members.3780 Canada also reiterated its commitment of CAD275 million to the World Bank to phase out coal and invest in renewable energy alternatives in developing countries, and an additional CAD2.65 billion in climate finance for developing countries from 2020-21.3781

On 9 January 2019, Canada joined the International Renewable Energy Agency (IRENA), and it was the final G7 member state to do so.3782 Minister Sohi stated that “becoming an IRENA member will accelerate Canada’s efforts to build a clean energy future that will bring new economic growth and thousands of new, well-paying jobs.”3783 IRENA Director-General Adnan Z. Amin welcomed Canada’s accession, stating that “Canada has vast renewable energy resource potential and longstanding experience in low-carbon development that it can share through international cooperation.”3784

On 28 January 2019, Paul Lefebvre, Parliamentary Secretary to Minister Sohi, announced an investment of CAD4.2 million in two alternative energy projects in Nunavut and Quebec run by the

TUGLIQ Energy Corporation. The first investment aims to increase the use of wind energy in a mine in Nunavut and reduce reliance on diesel. The second is focused on expanding renewable energy production and storage across several mines in Nunavik, Quebec. Lefebvre noted that “today’s investments will help reduce reliance on diesel fuel and transform the energy landscape in Canada’s Arctic region. Our government is proud to support projects that will improve the region’s long-term economic stability and energy security, while reducing pollution and the environmental footprint of Canada’s northern mining operations and communities.”

On 12 February 2019, Minister of Infrastructure and Communities François-Philippe Champagne announced CAD2.1 million in funding for forty-two new Federation of Canadian Municipalities (FCM) initiatives. This funding is aimed at reducing pollution and improving energy efficiency at the municipal level. The initiatives, covered under the FCM Green Municipal Fund (CAD625 million) and Municipal Asset Management Program (CAD50 million), strive to improve existing infrastructure assets and encourage further cooperation with the private sector.

On 13 February 2019, Minister Sohi announced the Generating New Opportunities: Indigenous Off-Diesel Initiative, which aims to reduce reliance on diesel among indigenous communities. In addition to the previously committed CAD700 million, an additional CAD20 million has been earmarked for the initiative, which focuses on the development of clean energy projects at the community level. Minister Sohi stated that “moving away from diesel means less pollution, cleaner air, lower energy costs, and local job opportunities. We are proud to partner with Indigenous communities as they develop innovative clean energy projects that will have benefits for generations to come.” Minister of Intergovernmental and Northern Affairs and Internal Trade Dominic Leblanc expressed that “this initiative will reduce the environmental, social and economic impacts of diesel reliance, provide economic opportunities, and enable Indigenous communities to harness cleaner energy.”

On 29 May 2019, Canada hosted the 10th Clean Energy Ministerial (CEM) and the 4th Mission Innovation Ministerial, at which 25 countries, including all G7 member states, were present. During the conferences, Canada announced several initiatives including increased public investments in clean energy production and storage across several mines in Nunavik, Quebec.
energy innovation, which are projected to reach CAD775 million by 2020. First, the Breakthrough Energy Solutions Canada is a program that will provide up to CAD30 million to Canadian entrepreneurs in clean energy. Second, Canada signed a memorandum of understanding with Chile for further cooperation on energy security and climate change. Third, several CEM programs were designed to support renewable energy industries domestically.3793 Minister Sohi expressed that Canada would be committed to “continued collaboration with our international partners [so as to] advance the development of global clean energy policy, technology and innovation.”3794

On 30 May 2019, Minister of the Environment and Climate Change Catherine McKenna announced two programs aimed at helping small and medium-sized businesses attain greater energy efficiency. The first program is the Climate Action Incentive Fund, which will offer refunds and funding for costs incurred in the pursuit of new equipment and retrofitting. The second program entails the establishment of an External Advisory Committee to complement the former in providing guidance. Furthermore, Canada will reduce its small business tax rate to 9 per cent, the lowest such rate amongst all G7 member states. Close to CAD10 million will be earmarked for helping small businesses further improve energy efficiency.3795

On 4 June 2019, Minister McKenna announced that the Canadian government will invest in modernizing the heating and cooling systems of its National Capital Area via a partnership with Innovate Energy. Innovative Energy is an initiative slated for completion by 2025, and it is projected to reduce carbon pollution in the Ottawa-Gatineau area by 63 per cent while improving access to clean energy.3796

Canada has fully complied with this commitment by launching initiatives to diversify the national energy mix, investing in renewable energy and demonstrating a commitment to ensuring sustainable economic growth. Furthermore, it has taken steps towards strengthening collective energy security leadership with internal and external partners.

Thus, Canada receives a score of +1.

Analyst: Trevor Yip

France: +1

France has fully complied with its commitment to strengthen collective energy security and demonstrate leadership in ensuring that its energy systems continue to drive sustainable economic growth.

On 26 July 2018, the European Commission approved a French project to build a tidal energy demonstration plant by Raz Blanchard, near the English Channel. The plant is intended to be a pilot experiment for the viability of using tidal energy to diversify France’s energy mix and achieve France’s goal to have 23 percent of the country’s energy produced from renewable sources by 2020.

On 26 July 2018, Finance Minister Bruno Le Maire indicated that nuclear energy, currently accounting for 75 percent of France’s energy mix and previously declared to be cut to 50 percent by 2035, will remain central to France’s energy policy. Minister Le Maire declared that “we will diversify the French energy mix by boosting renewable energy, but we will do this without weakening the nuclear sector.”

On 12 August 2018, Secretary of State for Ecological Transition Brune Poirson announced that beginning in 2019, France will introduce a penalty system aimed at discouraging the use of non-recycled plastic in packaging.

On 5 September 2018, Prime Minister Édouard Philippe reaffirmed the government’s support for its Climate Plan. Initially promulgated in 2017, the plan calls for a review of all policies under its purview to ensure that France attains its goal of keeping climate change below 2°C (also known as the “zero carbon” policy).

On 22 October 2018, the European Commission approved EUR200 million in public support for the production of renewable energy in France until 2020, financed by France’s state budget. This allocation will “support the deployment of 490MW of additional generation capacity.” European Commissioner for Competition Policy Margrethe Vestager noted that “this scheme will stimulate competition between renewable energy sources for self-suppliers and will further increase the share of renewables in France’s energy mix. The technology-neutral tenders will contribute to France’s transition to [a] low carbon and environmentally sustainable energy supply, in line with the EU environmental objectives and our state aid rules.”

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3800 La guerre au plastique est déclarée, announce Brune Poirson, France 24 (Paris) 12 August 2018. Access Date: 14 December 2018 https://www.france24.com/fr/20180812-la-guerre-au-plastique-
On 28 November 2018, President Emmanuel Macron announced plans to phase out France’s last four coal reactors and 14 of its 58 nuclear reactors by 2022, in keeping with earlier initiatives to reduce the share of nuclear power in the national energy mix to 50 percent by 2025. President Macron expressed that France will continue to abide by its obligations under 21st Conference of the Parties while exploring opportunities in geothermal energy and biogas production, both of which “have a lot of potential in many territories [and will] play an important role in [France’s] energy mix.”

On 16 December 2018, France and India held a comprehensive review of their bilateral partnership across several issue areas, including civil nuclear energy. Both states have since adopted an action plan for the Jaitapur Nuclear Power Project, for which French Energy company EDF submitted a techno-commercial proposal.

On 21 January 2019, France opened bids for a 300-megawatt solar power project as part of its conversion plan for the country’s oldest nuclear power plant Fessenheim. The conversion is part of the government’s plan to increase the development of renewable energies. Minister of Ecology François de Rugy stated that “the launch of the tender shows the commitment of the government on the conversion of Fessenheim. It will help develop local electricity production from renewable energies.” The European Commission has approved the EUR250 million project, stating that “the aid … will contribute to the French and European objectives of energy efficiency and energy production from renewable sources, in line with the EU’s environmental objectives, with possible distortions of competition state support being reduced to a minimum.”

On 25 January 2019, the Ministry of Ecology published a draft of its multi-year energy program plan known as PPE, outlining metropolitan France’s energy policy for 2019–2023 and 2024–2028. The plan outlines key issue areas to be addressed in order to attain carbon neutrality by 2030. These issue areas include doubling national renewable energy capacity via public tenders, reducing energy distortions of competition state support being reduced to a minimum.

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consumption by seven per cent by 2023 and 14 per cent by 2028, diversifying France’s energy mix to 27 per cent in renewables by 2023, 32 per cent by 2028, the decommissioning of 14 nuclear reactors by 2035, and an ultimate reduction of the share of nuclear power in the energy mix to 50 per cent by 2035.  

On 11 February 2019, France and Qatar concluded a ‘strategic pact’ focusing on economic, energy and security matters. Qatari Deputy Prime Minister and Minister of Foreign Affairs Mohammed bin Abdulrahman bin Jassim Al-Thani hailed the deal as a “new phase [for bilateral relations] … This platform will include cooperation in different areas between the two countries, including defense security, regional security as well as energy, economy and culture.” French Minister of Europe and External Affairs Jean-Yves Le Drian noted that the deal would ‘oblige’ Paris and Doha to have regular meetings.

On 25 February 2019, the European Commission approved state aid for four floating demonstration offshore wind farms in France, with one to be situated in the Atlantic Ocean and three others in the Mediterranean. Each wind farm is projected to have a total installed capacity of 24 megawatts despite different construction, with “the objective [being] to test these different technological solutions, with the long-term goal to test [sic] this technology before deploying it on a larger scale.” The European Commission noted that “the four projects will promote the use of electricity generated from renewable sources and will help France meet its climate targets, without unduly distorting competition.”

On 14 March 2019, at the One Planet Summit held in Nairobi, President Macron announced that France will increase its contributions to the International Solar Alliance by EUR500 million. France is a founding member of the International Solar Alliance, and this increase in funding strives to better...

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aid the alliance’s 121 member states in developing their solar energy capacities, with Africa being a major focus.\textsuperscript{3824}

On 30 April 2019, the French Council of Ministers began deliberation and consideration of a new draft energy and climate change bill. The bill aims for zero net emissions and carbon neutrality by 2050, as opposed to the previous fourfold reduction and capping of operating times and emissions for thermal power plants, especially coal-fired plants.\textsuperscript{3825} The Senate is set to receive the draft bill for consideration by the end of June 2019.\textsuperscript{3826}

On 2 May 2019, Minister Le Maire and the German Federal Minister for Economic Affairs and Energy Peter Altmaier announced a new Franco-German consortium in light of the third meeting of the EU’s European Battery Alliance, where EUR5.6 billion will be invested in the development of better electric car batteries. The German Economic Affairs Ministry called for funding applications for battery cell projects. These projects focus on sustainable methods in all stages of battery development. Minister Altmaier stated that the development and production of these cells would take place in Germany, France and other EU Member States.\textsuperscript{3827} The EU is expected to contribute EUR1.2 billion in subsidies for the project, pending member state approval, and European companies will contribute EUR4 billion.\textsuperscript{3828} The European Commission noted the importance of the technology for the “decarbonization of the European mobility sector” and its importance for the EU’s long-term industrial competitiveness.\textsuperscript{3829}

On 7 May 2019, France and Ireland announced that a bilateral 700-megawatt power link, the first of its kind for the two states, was approved and due for commission in 2026. The French government will cover 35 per cent of the EUR930 million cost. The European Commission declared that the project is eligible for EU financial support, with 60 per cent of its costs being covered. Ireland has expressed that the prospect of Brexit has made it imperative to establish Ireland’s energy security and connections to Europe.\textsuperscript{3830}

France has enacted initiatives to diversify its domestic energy mix and sustainable economic growth, and demonstrated leadership in pursuing collective energy security with external partners.

Thus, France receives a score of +1.

\textit{Analyst: Trevor Yip}


Germany: +1

Germany has fully complied with its commitment to strengthen collective energy security and demonstrate leadership in ensuring that its energy systems continue to drive sustainable economic growth.

On 11 July 2018, the Federal Cabinet adopted the 2018 Federal Report on Energy Research. The report provides a comprehensive overview of the federal government’s energy research promotion policy and outlines progress made and current trends in the field of research promotion for modern energy technologies. Federal Minister for Economic Affairs and Energy Peter Altmaier stated: “by funding energy research, the Federal Government makes a vital contribution towards implementing the energy transition … such as forward-looking solutions for the energy transition in the transport sector via synthetic fuels, or research projects on energy supply for urban neighbourhoods.”

On 12 July 2018, the Ministry of Economic Affairs and Energy adopted a joint declaration of Franco-German energy co-operation. The declaration outlines areas of future cooperation, including renewable energies, energy efficiency, and industry.

On 17 July 2018, Federal Minister for Economic Affairs and Energy Peter Altmaier held the first Russian-Ukrainian energy talks at the Ministry of Economic Affairs and Energy in Berlin, Germany with European Commission Vice-President Maroš Šefčovič, Ukraine’s Foreign Minister Pavlo Klimkin and Russia’s Energy Minister Alexander Novak. The talks revolved around the future of Russian gas transits through Ukraine. The aims of the meeting were to create long-term solutions that meet the interests of all parties and discuss Ukraine’s security interests.

On 27 July 2018, on behalf of the Federal Government, Kreditanstalt fur Wiederaufbau acquired a 20 percent share of the currently-for-sale German transmission systems operator 50Hertz. The acquisition was made to protect critical energy infrastructure and security in Germany. The government has the intention of selling these shares again in the future.

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On 14 August 2018, the Ministry of Economic Affairs and Energy released the “Electricity Grid Action Plan.” In order to accelerate grid expansion, the plan focuses on improved internal auditing and the simplification of planning procedures. It also focuses on optimising existing grids by using new technologies and operating systems. The release of the revised Grid Expansion Acceleration Act is expected to simplify the planning procedures for this plan.

On 24 September 2018, the Federal Cabinet adopted the 7th Energy Research Programme after a year and a half of research and consultation. The programme builds on its predecessor by addressing emerging problems and focusing on the next steps of the energy transition. The government plans to spend 45 percent more on energy research and innovation to accelerate the integration of new technologies into the energy market. The program also focuses on creating more robust renewable energy systems, including the digitalization of the energy sector, in order to minimize macroeconomic risks for the country.

On 26 October 2018, Federal Minister Altmaier opened the second German-Turkish Energy Forum with the Turkish Energy Minister. The two ministers signed a Letter of Intent on future cooperation in the field of energy, referencing working groups in renewable energy, energy efficiency, infrastructure and sector coupling, and regulation.

On 26 November 2018, Federal Minister Altmaier met with the Energy Ministers of the Länder to discuss new grid expansions and their emphasis on the increased use of renewable energies in the grid. The ministers agreed on a package of measures for grid expansion, which will soon be implemented.

On 12 December 2018, the Federal Cabinet endorsed an act to accelerate power grid expansion. The act aims to accelerate authorisation procedures for power grids. Energy Minister Altmaier stated: “the power grids are the backbone of the energy transition ... The revision aims to accelerate the

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procedures without lowering environmental standards.\textsuperscript{3845} The act makes it easier for grid operators to plan in a forward-looking way, such that power lines can be easily pulled when grids need to be expanded as the energy transition continues.\textsuperscript{3846}

On 18 January 2019, Minister Altmaier travelled to The Hague for economic and energy policy talks. The Energy Minister engaged in talks regarding economic policy issues with German and Dutch representatives.\textsuperscript{3847} These meetings aimed to exchange views on energy challenges and solutions.\textsuperscript{3848} The Minister delivered the 16th Norbert Schmelzer Lecture on the political challenges of integrating the economy and ecology.\textsuperscript{3849}

On 21 January 2019, the Federal Network Agency completed the Federal Sectoral Planning for the first section of the Ultrinet power line. Ultrinet will be one of the five high-voltage direct current transmission lines that serve as high capacity power highways.\textsuperscript{3850} This is a product of the Electricity Grid Action Plan to accelerate the optimization and expansion of electricity grids in the future.\textsuperscript{3851}

On 29 January 2019, the Federal Ministry for Economic Affairs and Energy and the Federal Office for Information Security jointly published a Standardisation Strategy for Cross-sector Digitalisation of the Energy Transition.\textsuperscript{3852} This strategy aims to integrate renewables and electric mobility into the grid by digitising the energy grid and making it ’smart.’\textsuperscript{3853} A key feature of this strategy is the introduction of smart metering gateways, which will provide suppliers with information regarding


energy generation and consumption.\textsuperscript{3854} The strategy also includes steps to develop the relevant standards needed for smart metering gateways to be continuously developed in the future.\textsuperscript{3855}

On 9 April 2019, Minister Maas and Minister Altmaier opened the fifth Berlin Energy Transition Dialogue. Representatives from more than 50 countries convened to discuss the global shift to green energy. Minister Maas stated that “using renewable energy enables states to improve their own energy security.”\textsuperscript{3856}

On 30 April 2019, State Secretary Dörr-Voß attended a meeting in Brussels to discuss the European Battery Alliance. She talked about how efficient batteries are vital for the future of electric mobility and renewable energy. She stated that the Economic Affairs Ministry has put aside EUR1 billion for financing German sub-projects.\textsuperscript{3857}

On 2 May 2019, Minister Altmaier and French Finance Minister Le Maire announced a new Franco-German consortium in light of the third meeting of the EU’s European Battery Alliance, where EUR5-6 billion will be invested in the development of better electric car batteries. The German Economic Affairs Ministry called for funding applications for battery cell projects. These projects focus on sustainable methods in all stages of battery development. Minister Altmaier stated that the development and production of these cells would take place in Germany, France and other EU Member States.\textsuperscript{3858} The EU is expected to contribute EUR1.2 billion in subsidies for the project, pending member state approval, and European companies will contribute EUR4 billion.\textsuperscript{3859} The European Commission noted the importance of the technology for the “decarbonization of the European mobility sector” and its importance for the EU’s long-term industrial competitiveness.\textsuperscript{3860}

On 13 May 2019, the Federal Economic Affairs Ministry presented selected projects from its “Innovation through Research” report. Many of the projects centered around links between the


electricity, heating, cooling, and mobility sectors. The projects come after the government provided funding for 4036 energy research projects in 2018.3861

Through its consistent support of renewable energy research and innovation and its collaboration with other countries on energy transitions and security, Germany has committed to strengthening collective energy security and demonstrated leadership in ensuring that its energy systems continue to drive sustainable economic growth.

Thus, Germany receives a score of +1.

Analyst: Alexandra Johnston

Italy: +1

Italy has fully complied with its commitment to strengthen collective energy security and demonstrate leadership in ensuring that its energy systems continue to drive sustainable economic growth.

On 19 July 2018, Chairman of the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) Federico Testa and the CEO of Eni, Claudio Descalzi, signed a memorandum of understanding (MOU) to initiate a cooperative research partnership on circular economy, renewable energy sources, decarbonization and environmental protection.3862 Mr Descalzi stated that the agreement “is evidence of our strategic commitment to decarbonisation, reducing emissions and developing renewable energies.”3863

On 2 August 2018, Prime Minister Giuseppe Conte announced that the government will conduct an in-depth assessment of the Trans Adriatic Pipeline, an international gas pipeline that will bring Azerbaijan’s gas to Georgia, Turkey, Greece, Albania, and under the Adriatic Sea before reaching Italy’s southern corridor.3864 Local objections have arisen due to fears of environmental risk and damage to tourism.3865 Prime Minister Conte has stated that the project can be scrapped if the government finds any procedural irregularities.3866


On 26 October 2018, Prime Minister Conte announced Italy’s final approval of the TAP.\textsuperscript{3867} He also stated that no legal irregularities with the project were found.\textsuperscript{3868}

On 14 November 2018, the government unilaterally cut support to geothermal energy, a renewable resource in the country.\textsuperscript{3869} The draft decree, known as FER1, includes negotiation for a new draft supporting renewable energy schemes.\textsuperscript{3870}

On 29 November 2018, ENEA signed an MOU with the Region of Lazio, outlining a EUR25 million commitment by the Region of Lazio to the ENEA Research Centre in Frascati. The financial contribution will be used towards the Divertor Tokamak Test Facility for international nuclear fusion energy research.\textsuperscript{3871}

On 29 November 2018, ENEA announced the completion of a major component of the ITER experimental nuclear fusion project in southern France.\textsuperscript{3872} Director of the ENEA Nuclear Fusion and Safety Department Aldo Pizzuto stated: “This result is a great success for Italian research and industry and shows once again how the country is globally competitive in a strongly high-tech sector, with important scientific, economic and employment effects.”\textsuperscript{3873}

On 13 December 2018, ENEA and Italian research consortium Cineca won an international competition to create a supercomputer for European research on fusion energy.\textsuperscript{3874} From 2019 to 2024, the ENEA and Cineca will provide “high-performance computing services” to EUROfusion, a European nuclear fusion energy research group. Computing services will also be provided to the DTT project in Italy.\textsuperscript{3875}

On 3 January 2019, ENEA signed a contract with Algeria, in partnership with Greece, Austria and Belgium to provide technical assistance on renewable energy and energy efficiency, including...
legislation and sector regulation.\textsuperscript{3876} The contract will aid the transfer of knowledge and expertise concerning the legislation and regulation of energy efficiency for buildings, thermal insulation criteria and energy recovery from existing buildings in Algeria.\textsuperscript{3877}

On 29 January 2019, in Cyprus, at the Summit of Southern European Union Countries (comprising of Cyprus, France, Italy, Greece, Portugal, Malta and Spain), member states released the Nicosia Declaration. Members agreed to enhance energy efficiency, promote renewable energy sources, increase diversification of energy sources, and commit to completing a fully integrated and interconnected energy market and European Energy Union.\textsuperscript{3878} The European Energy Union aims to integrate and connect Member States with Western Mediterranean and Atlantic regions.\textsuperscript{3879} On 21 February 2019, ENEA launched an online survey to promote the use of Business Information Modelling by professionals to improve the energy efficiency of buildings throughout their life cycle.\textsuperscript{3880} The survey is carried out alongside seven European countries as part of the European Net-UBIEP project.\textsuperscript{3881}

On 4 April 2019, ENEA published a position paper submitted to the European Commission for developing a common EU-wide definition on energy poverty.\textsuperscript{3882} This position paper also advocated for common parameters to take into account local dimensions and “national peculiarities,” while assisting in evaluating long-term measures to combat energy poverty.\textsuperscript{3883}

On 9 May 2019, ENEA and EcoAzioni organized the second Thematic Workshop on Wind Energy policy roundtable in Rome. The discussions were joined by 25 stakeholders, including local


authorities, energy utility companies, research institutes, environmental and non-profit organizations, and government ministries responsible for the energy planning process.\textsuperscript{3884}

On 9 May 2019, ENEA signed a collaborative partnership with Società Gasdotti Italia to carry out a pilot project using Power to Gas technology.\textsuperscript{3885} This technology will create an alternative energy storage process for the production of alternative gases through surplus energy from renewable sources.\textsuperscript{3886} The project will firstly focus on the production of “non-natural gases such as hydrogen and synthetic methane” produced with the reuse of carbon dioxide from industrial processes and/or natural sources to produce renewable sources of energy to “support existing national energy networks.”\textsuperscript{3887}

On 23 May 2019, Giorgio Graditi of ENEA was elected President of the Mediterranean Association of National Agencies for Energy Management (MEDENER) from 2019-20. President Graditi will take on a leadership role within the association to promote and support energy efficiency and renewable sources in Mediterranean Countries. Specifically, he will implement global and integrated energy policies, stimulate the exchange of information, experiences and best practices, execute projects, partnerships and cross-border cooperative strategies to accelerate energy transition and sustainable economic development.\textsuperscript{3888}

On 6 June 2019, ENEA and energy company Eni signed an MOU for collaborative research on magnetic confinement fusion.\textsuperscript{3889} The MOU aims to develop a new company, manage collaboration on the Divertor Tokmak Test (DTT) project, and test and develop clean, safe sustainable energy using magnetic confinement fusion.\textsuperscript{3890} The MOU also sets out steps to develop a “joint strategy” for the DTT project and a “joint assessment” of how best to structure the new company.\textsuperscript{3891}


Italy has demonstrated leadership in strengthening collective energy security and ensuring that its energy systems continue to drive sustainable economic growth.

Thus, Italy receives a score of +1.

Analyst: Wing Ka Tsang

Japan: +1

Japan has fully complied with its commitment to strengthen collective energy security and demonstrate leadership in ensuring that its energy systems continue to drive sustainable economic growth.

On 3 July 2018, the Cabinet approved the new Strategic Energy Plan for Japan’s new energy policy towards 2030. The plan will direct Japan’s energy policy based on fundamental principles of “safety,” “energy security,” “improvement of economic efficiency,” and “environmental suitability.” The plan aims to achieve an optimal energy mix by 2030, including the promotion and expansion of renewable energy.3892 By 2050, Japan aims to achieve the energy transition and decarbonization targets of the Paris Agreement.3893

On 22 October 2018, at the Arctic Circle Assembly held in Reykjavik, Iceland, Minister of Foreign Affairs Taro Kano welcomed cooperation between the Japan Oil, Gas, and Metals National Corporation and Russia’s Novatek with a recently signed Memorandum of Understanding to explore energy development opportunities in the Arctic.3894 The project will aim to develop transport links via the North Sea for liquid natural gas deliveries to the Japanese and Asia Pacific markets.3895 Minister Kano reaffirmed the commitment and need to developing energy resources in a sustainable manner by taking into account the needs of the environment.3896

On 15 November 2018, the Ministry of Economy, Trade, and Industry, in cooperation with Thailand’s Ministry of Energy, hosted the joint Private Workshop on Clean Energy Technology in Bangkok, Thailand.3897 The workshop focused on Japan-Thailand cooperation in energy and climate change under the framework of the Japan-Thailand Energy Policy Dialogue.3898

On 13 November 2018, Japan and the United States announced a memorandum of cooperation (MOC) Concerning Research and Development and Industrial Cooperation in the Nuclear Energy

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3895 Japan is entering the Arctic energy sector, High North News (Bodø) 22 October 2018. Access Date: 3 December 2018. https://www.highnorthnews.com/en/node/48740
Sector. The MOC enhances bilateral cooperation via the Japan-United States Strategic Energy Partnership and reaffirms the importance of Japan-U.S. cooperation in nuclear energy and the development of solutions to address climate change and energy security. The MOC covers commitments to “innovative” nuclear research and development, advancement of the global use of nuclear energy, and increased safety through industrial cooperation.

On 19 November 2018, Minister of Economy, Trade and Industry, Hiroshige Seko held bilateral meetings with the Minister for Resources and Northern Australia Matt Canavan in Darwin, Australia. The ministers discussed energy cooperation and agreed to promote Japan-Australia energy production cooperation in the fields of liquid natural gas, hydrogen, and the development of energy infrastructure in the Global South.

On 25 November 2018, the Ministry of Economy, Trade and Industry and the Japan-China Economic Association held the 12th Japan-China Energy Conservation and Environmental Forum in Beijing, China. The forum was jointly hosted by the National Development and Reform Commission and the Chinese Ministry of Commerce. At the forum, Minister Seko stated the importance of harmonising regulations for hydrogen energy among private and private sectors under the Japan-China energy dialogues. Japan and China signed cooperative agreements in 24 project areas including energy conservation, new energy development and pollution control.

On 28 November 2018, Parliamentary Vice-Minister of Economy, Trade and Industry, Akimasa Ishikawa, attended the International Energy Agency’s global summit with 39 representatives from global companies, NGOs and financial institutes, and ministers and officials from 9 countries on Carbon Capture, Utilization and Storage (CCUS) in Edinburgh, UK. During the summit, Vice-Minister Ishikawa explained Japan’s effort to accelerate deployment of CCUS technologies and promoted technological innovation and forming public private collaboration. Vice-Minister Ishikawa also held bilateral meetings to exchange views on future approaches to energy cooperation with the ministers and officials of participating countries.

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On 27 December 2018, the Ministry of Economy, Trade and Industry (METI) submitted a partial revision to the Ordinance for Enforcement of the Electricity Business Act. Starting in April 2020, the revisions will introduce new regulations targeting general electricity transmission and distribution businesses.\textsuperscript{3908}

On 15 February 2019, the Minister of Economy, Trade and Industry and Parliamentary Vice-Minister Ishikawa attended an International CCUS roundtable in Washington D.C..\textsuperscript{3909} The discussion was attended by a range of participants, including think-tanks, governments, private companies, NGOs and G20 member countries. Vice Minister Ishikawa delivered a keynote speech stressing the importance of environmentally friendly CCUS technologies that will drive economic growth, improve global energy security and further global energy transition and low-carbonization.\textsuperscript{3910} Vice Minister Ishikawa also proposed that member countries take action to disseminate and expand CCUS technologies.\textsuperscript{3911}

On 27 February 2019, in cooperation with the Ministry of Industry and Trade of Vietnam, METI hosted a workshop on Clean Energy Technology in Hanoi, Vietnam. The workshop brought together government and the private sector as part of its cooperation commitments in the field of energy and climate change.\textsuperscript{3912} Participants shared their knowledge of clean energy to help Vietnam formulate its policies and regulations.\textsuperscript{3913} Japan also encouraged Vietnam to intensify efforts involving the creation of the clean energy market and related business activities, and deepen cooperation between the two countries.\textsuperscript{3914}

Japan has demonstrated its commitment to strengthening energy security, promoting sustainable economic growth and building collective security with its counterparts.

Thus, Japan receives a score of +1.

\textit{Analyst: Wing Ka Tsang}
United Kingdom: +1

The United Kingdom has fully complied with its commitment to strengthen collective energy security and demonstrate leadership in ensuring that its energy systems continue to drive sustainable economic growth.

On 14 June 2018, the Department for Business, Energy and Industrial Strategy launched phase seven of the Energy Entrepreneurs Fund. The fund aims to support the development and demonstration of innovative technologies and processes in the areas of energy efficiency, power generation, and heat and energy storage. The fund will provide up to GBP10 million to entrepreneurs in support of the development of their projects.3915

On 2 July 2018, the Department for Business, Energy and Industry Strategy released the Security of Network and Information Systems Regulation 2018 as guidelines for the regulation of the energy sector in Great Britain. The document specifically focuses on the integration of security measures for Operators of Essential Services (OES) and the types of resources available for OES. Additionally, it outlines requirements for OES and a timeline for implementation.3916

On 20 July 2018, the Department for Business, Energy and Industry Strategy amended the Renewables Obligation Order to strengthen cost control measures for certain biomass conversion and co-firing stations. The amendment implements annual flexible caps on the amount of support that units not protected by the grandfathering policy can receive. The caps came into operation on 1 September 2018.3917

On 15 October 2018, the government released a report titled “Delivering Clean Growth: Progress against meeting our carbon budgets” in response to the Committee on Climate Change’s 2018 Progress Report. The response offers updated action and milestones to previous goals in an effort to guide the Clean Growth Strategy for the future years, and it includes fourteen goals for “Clean, Smart, Flexible Power.”3918

On 16 October 2018, the Department for Business, Energy and Industrial Strategy released a low-carbon export toolkit. The toolkit is aimed at promoting the UK’s green technology and resources to companies seeking to expand their green energy infrastructure.3919

On 17 October 2018, the Department for Business, Energy and Industry requested proposals from prospective fund managers to raise and manage the Clean Growth Fund. The fund aims to speed up the deployment of innovative, clean technologies that reduce greenhouse gas emissions by making

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direct investments in these technologies.\textsuperscript{3920} The government aims to provide up to GBP20 million to start-up technologies.\textsuperscript{3921}

On 5 November 2018, the Department for Business, Energy and Industrial Strategy announced measures to require landlords to install energy efficiency measures in homes with the lowest energy performance ratings.\textsuperscript{3922} This is part of the government’s efforts to eradicate fuel poverty and reduce carbon emissions.\textsuperscript{3923} With energy efficiency upgrades, the cost and energy required to heat a home will decrease.\textsuperscript{3924}

On 6 November 2018, the Department for Business, Energy, and Industrial Strategy hosted the first small nuclear reactor (SMR) conference to explore investment opportunities in SMRs.\textsuperscript{3925} The aim of the conference was to garner interest into the future economic opportunities of SMRs and to create a foundation from which this industry can grow.\textsuperscript{3926} Clean and secure nuclear energy can provide a reliable source of low-carbon electricity and may strengthen the UK’s competitiveness in the green energy economy.\textsuperscript{3927}

ON 11 December 2018, the Department for Business, Energy, and Industrial Strategy announced an additional GBP100 million in funding for the Renewable Energy Performance Platform, which will support up to 40 new renewable energy projects in sub-Saharan Africa.\textsuperscript{3928} These projects are intended to help reduce carbon emissions in the region and provide hundreds of thousands of people in sub-Saharan Africa electricity for the first time.\textsuperscript{3920} Minister of Energy and Clean Growth Claire
Perry stated that this project should give “countries a helping hand to shift to greener, cleaner economies.”

On 8 January 2019, the Department for Business, Energy and Industrial Strategy created a proposal for a “Smart Export Guarantee” where electricity suppliers would pay new small-scale energy producers for excess electricity from homes and businesses being put back into the energy grid. This system combines the existing technologies like smart meters to build a more efficient energy system. This system would contain more green energy and reduce strain on energy networks.

On 7 March 2019, Minister Perry announced that green offshore wind is set to power 30 per cent of British electricity by 2030 with the launch of the joint government-industry Offshore Wind Sector Deal. The deal seeks to maximize advantages for industry from the global shift to clean growth and prompt the expansion of the green energy sector in the UK.

On 2 May 2019, the Committee on Climate Change released a report that advised a net zero emissions target by 2050 for the UK. This report was published based on research done by the Intergovernmental Panel on Climate Change, the European Commission and international climate change groups. The report stated that every sector of the economy must reach net zero emissions by 2050, a goal that will push the country to adopt more clean energy technologies. During the same week, the UK went a week without burning coal for electricity for the first time in 137 years.

The United Kingdom has consistently supported renewable energy research and sustainable economic growth by providing funding opportunities for the private sector and updating the goals and regulations on the energy sector. The UK has also taken action to strengthen collective energy security through its energy development initiative in sub-Saharan Africa, and cooperate with Member States and international organisations.

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

*Analyst: Alexandra Johnston*

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United States: +1
The United States has fully complied with its commitment to strengthen collective energy security and demonstrate leadership in ensuring that its energy systems continue to drive sustainable economic growth.

On 25 June 2018, the Department of Energy (DOE) and the Israeli Energy Ministry signed an agreement to establish a joint research centre. The aims of the centre are to advance energy research and energy security between the U.S. and Israel by diversifying energy supply. The centre will also facilitate educational programs and act as an addition to the existing Binational Industrial Research and Development Foundation.

On 25 July 2018, the DOE finalized a deregulatory measure to expedite the approval process for small-scale natural gas exports. This measure eliminates the need for the DOE to conduct public interest reviews before authorizing such exports, asserting that all small-scale exports of natural gas are in public interest.

On 13 September 2018, Secretary of Energy Rick Perry met with Russian Minister of Energy Alexander Novak. They discussed how the bilateral relationship between the U.S. and Russia as the world’s leading producers of natural gas and oil can be used to strengthen energy stability, transparency and sustainability. The United States also condemned Russia’s use of energy as an economic weapon.

On 15 November 2018, the DOE announced USD98 million in funding for 40 transformative energy projects. The projects aim to transform the domestic energy system by enhancing energy security, electrical efficiency and manufacturing efficiency.

On 15 December 2018, at the 24th Conference of the Parties held under the United Nations Framework Convention on Climate Change in Katowice, Poland, the U.S. maintained that it intends...
to withdraw from the Paris Agreement. The U.S. stated that it hopes to promote a balanced approach to the environment, energy security, and economic growth. Principal Deputy Assistant Secretary of the Office of International Affairs of the Department of Energy Wells Griffith stated that “no country should have to sacrifice economic prosperity or energy security in pursuit of environmental sustainability.”

On 13 January 2019, Deputy Secretary of Energy Dan Brouillette attended the second Qatar-U.S. Strategic Dialogue in Doha, Qatar. The conversation focused on Liquified Natural Gas (LNG) and addressed a potential interest in solar technology development.

On 12 February, Deputy Secretary Brouillette attended the German LNG Conference in Berlin. He discussed strategies to diversify Germany’s natural gas supply as a means of furthering energy security. The U.S. encouraged the construction of two new LNG import terminals in Germany as a means of achieving this objective.

On 16 February 2019, Deputy Secretary Brouillette discussed energy security at the Munich Security Conference. At the conference, Secretary Brouillette emphasized the importance of diversifying supply and sources for energy security, condemning “over-reliance on Russian gas.” The U.S. discussed with EU states various ways to further energy security through collective action.

On 28 February 2019, Secretary Perry announced a USD24 million initiative to research carbon capture technologies. The objective of the research is to reduce the cost of carbon capture, and “use both coal and natural gas with near-zero emissions.”

On 19 March 2019, President Trump and Brazilian President Jair Bolsonaro announced their intent to establish the United States-Brazil Energy Forum. This bilateral framework aims to increase cooperation in energy, trade and mutually beneficial energy policies that facilitate investment.

On 25 March 2019, the DOE selected USD36 million worth of solar energy research projects to strengthen domestic energy security. Through increasing solar generation, the DOE hopes to

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augment the reliability and resilience of American energy infrastructure. The following day, the DOE also announced up to USD130 million in funding for the advancement of early-stage solar research that contributes to greater energy security and economic growth.

On 3 May 2019, the DOE announced USD79 million in funding to support bioenergy research that seeks to diversify American energy supplies. The funding will support research that produces renewable energy from urban and suburban waste. Projects will also include research on reducing emissions in bioenergy.

On 13 May 2019, at the Concordia Americas Summit in Bogotá, Colombia, Secretary Perry held bilateral meetings with Latin American government leaders. At the summit, he expressed the Trump administration’s hopes to expand energy partnerships in Latin America and further cooperation on energy security. Secretary Perry addressed furthering energy partnerships with Colombia, supporting the rebuilding of Venezuela’s energy sector, and the United States-Brazil Energy Forum.

On 28 May 2019, the DOE increased the export capacity of Freeport LNG Terminal in Quintana Island, Texas. This decision is expected to increase energy security through diversification. This decision also offers an alternative and affordable source of clean energy.

On 29 May 2019, the 10th Clean Energy Ministerial announced an international hydrogen initiative to promote cooperation between countries in the development and deployment of hydrogen technologies. Amongst the leaders of this initiative is the United States. The initiative hopes to ease the transformation towards greater reliance on clean energy.

The United States has launched several domestic initiatives to diversify the national energy mix and improve cooperation with international members in collective energy leadership. The US has also demonstrated leadership in supporting sustainable economic growth.

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

Analyst: Emi Yasuda


European Union: +1

The European Union has fully complied with its commitment to strengthen collective energy security and demonstrate leadership in ensuring that its energy systems continue to drive sustainable economic growth.

On 11 June 2018, the European Commission announced EUR500 million in funding for cross-border energy infrastructure under the Projects of Common Interest framework. Furthermore, the projects, which include studies and construction works, will “strengthen the EU’s internal energy market, enhance the security of energy supply, and help provide clean, sustainable energy for Europe.”

On 14 June 2018, the European Commission, Parliament, and Council came to an agreement with regards to increasing the use of renewable energy in Europe. Commissioner for Climate Action and Energy Miguel Arias Cañete stated: “this new ambition will help us meet our Paris Agreement goals and will translate into more jobs, lower energy bills for consumers and fewer energy imports.” He said that “this will put us on the right path towards the Long-Term Strategy that the Commission intends to present by the end of this year.”

On 15 June 2018, the EU announced its approval of the acquisition of Uniper by Fortum under the EU Merger Regulation. Commissioner Margrethe Vestager stated: “ensuring competition in European power markets is essential since electricity is a good that everyone uses. Fortum and Uniper are important players in the generation of electricity in the Nordic countries, in particular, Sweden.”

On 19 June 2018, the European Commission announced a EUR45 million investment to upscale electricity and wind energy production on the island of Madeira, an autonomous region of Portugal. Commissioner for Regional Policy Corina Cretu noted that: “the new, highly innovative and sustainable power station will help Madeira reduce its greenhouse gas emissions as well as its reliance on imported electricity.”
dependence on fossil fuels — this is good news for the environment and the local economy at the same time.” 

On 19 June 2018, the European Commission, Parliament, and Council came to an agreement on new rules and regulations for improving energy efficiency in Europe. Commissioner Cañete stated that “this deal is a major push for Europe’s energy independence. Much of what we spend on imported fossil fuels will now be invested at home in more efficient buildings, industries and transport. The new target of 32.5 percent will boost industrial competitiveness, create jobs, reduce energy bills, help tackle energy poverty and improve air quality.”

On 20 June 2018, the European Commission, Parliament, and Council came to an agreement on the governance of the Energy Union. The deal will equip EU member with the ability to govern the Energy Union, enabling the EU “to realise its goals of becoming a world leader on renewables, putting energy efficiency first, provide a fair deal for consumers and set the course for the EU’s strategy long-term greenhouse gas reduction.”

On 25 June 2018, the European Commission announced its participation in the World Nuclear Exhibition in Paris, France. The event is “a forum for the global nuclear sector, it is an opportunity for high-level panel discussions and networking sessions.”

On 28 June 2018, European Commission President Juncker, alongside the Heads of State and Governments of Poland, Lithuania, and Latvia signed a roadmap for the “synchronisation of the Baltic States electricity grid with the continental European System” with a target date of 2025. The discussion concluded with the agreement that “the decision will guarantee the safe operation of the Baltic States’ electricity grid at the same level as in the continental European electricity networks.”

On 29 June 2018, the European Commission announced the publication of its latest reports on gas and electricity markets. The reports contain “a wide range of data about the supply and usage of electricity and gas in the EU.”

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On 29 June 2018, the EU made a statement in support of the “swift implementation of the Greece-Bulgaria gas interconnector project (IGB).” The approval of the project by the Prime Minister of Bulgaria Boyko Borissov and the Prime Minister of Greece Alexis Tsipras will provide greater energy security for the EU. President Juncker “recognised that the construction of the IGB project will be an important step towards bringing diversification to the energy systems of South Eastern Europe.”

On 3 July 2018, the European Commission welcomed the completion of the Peer Review Report of the EU Stress Test in Belarus carried out by the European Nuclear Safety Regulators Group. The Commission stated that “all parties worked together constructively during this peer review with the commitment to increase transparency and improve nuclear safety.”

On 6 July 2018, the European Commission announced its approval of reductions of the nuclear levy for electro-intensive users in Slovakia. The Commission concluded that “the Slovakian measure to grant reductions to the nuclear levy to electro-intensive users is in line with State aid rules because they will contribute to the competitiveness of these companies.”

On 9 July 2018, the EU’s Energy Performance of Buildings Directive (EU) 2018/844 entered into force. The directive includes measures to “accelerate the rate of building renovation towards more energy efficient systems and strengthen the energy performance of new buildings.” The directive requires and expects member states to implement new elements of the directive within 20 months.
On 10 July 2018, the European Parliament announced its endorsement of the European Commission’s Clean Energy for All Europeans proposal. The Committee on Industry, Research, Telecoms and Energy and the Committee on Environment, Public Health and Food Safety voted in favour of the proposal on the governance of the Energy Union. Commissioner Cañete stated that “such strong support by Parliament is highly welcome and shows that all EU institutions are determined to get the clean energy transition right and strengthen our fight against climate change.”

On 16 July 2018, the EU announced an investment of EUR48.4 million in multiple key European energy infrastructure projects. The Commission stated: “these are important projects with major cross-border benefits and by implementing them the energy resilience of EU members will be strengthened.”

On 16 July 2018, the President Juncker, President of the Council Donald Tusk, and Chinese Prime Minister Li Keqiang reaffirmed their collective commitment to “advance the implementation of the Paris Agreement and intensify their cooperation on climate change and clean energy.”

On 17 July 2018, the European Commission announced the launch of a public consultation on a strategy for long-term EU greenhouse gas emissions reduction. The consultation will “feed into the Commission’s deliberations for a strategy that will reflect on a long-term vision for a modern European economy for all Europeans and the opportunities and challenges that a long-term decarbonisation implies.”

On 27 July 2018, the Lisbon Declaration was signed at the Second Energy Interconnections summit. Signed by the Prime Minister of Portugal, the President of France, the President of

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government of the Kingdom of Spain, and President Juncker and Commissioner Cañete, the declaration “aims to strengthen regional cooperation in the framework of the Energy Union and better integrate the Iberian Peninsula into the internal energy market.”

On 14 August 2018, the European Investment Bank (EIB) announced the signing of a EUR100 million financing agreement with TenneT, in order to support an electricity interconnector between Norway and Germany. Vice-President Maroš Šefčovič stated: “we need forward-looking investments into modern energy infrastructure with adequate interconnections, in particular, to integrate renewables into the grid. It is a vital element of our energy security as well as our climate action.”

On 9 August 2018, President Juncker and U.S. President Donald Trump agreed to strengthen EU-U.S. strategic cooperation on energy. The EU will import more liquid natural gas from the U.S. to diversify and secure its energy supply. Commissioner Cañete stated: “diversification is an important element for ensuring the security of gas supply in the EU. Increasing imports of competitively priced liquefied natural gas from the U.S. is, therefore, to be welcomed.”

On 17 August 2018, the European Commission announced its approval of support for three schemes of electricity production from wind and solar in Denmark in 2018 and 2019. The three schemes include a multi-technology tender scheme for onshore and offshore wind turbines and solar installations, an aid scheme for onshore wind technology tests and demonstrations, and a transitional aid scheme for onshore wind energy. The Commission concluded that “the three Danish schemes will encourage the development of offshore and onshore wind and solar technologies, in line with the requirements of the Guidelines.”

On 1 September 2018, the EU implemented lightbulb regulations that enable household energy savings and reductions in greenhouse gas emissions. Standard halogen light bulbs will no longer...

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be sold across the EU. Moving forward, halogen light bulbs will be replaced by LED light bulbs, which are safer, more affordable, and more energy efficient.

On 13 September 2018, at the Global Climate Action Summit in San Francisco, Commissioner Cañete and Michael R. Bloomberg promised to collaborate to lead the “global transition away from coal.” Bloomberg Philanthropies, together with the European Commission, will facilitate the development of viable strategies for a low-carbon transition in Europe.

On 25 September 2018, the European Commission approved plans to support the modernisation of a German cogeneration plant in Herne. The Commission “found that Germany’s support to the two plants will contribute to the EU’s energy and environmental objectives without unduly distorting competition in the Internal Market.”

On 27 September 2018, the European Commission approved a maximum of EUR3.5 billion support to three offshore wind farm projects located in Belgian territorial waters. Despite none of the projects reaching the 300MW individual threshold set out in the 2014 Guidelines on State Aid for Environmental Protection and Energy, the Commission concluded that “the projects will increase the share of electricity produced from renewable sources in Belgium and reduce pollution” and that the “decision complements the Commission’s Energy Union Strategy to deliver secure, sustainable and competitive energy in Europe.”

On 4 October 2018, the European Commission made EU energy statistics publicly available. The document “provides energy statistics for all EU countries and the EU as a whole, covering areas

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including energy production and consumption, socio-economic indicators, and the impact of the energy sector on the environment. 

On 5 October 2018, the Northwester 2 wind energy project off the coast of Belgium secured a loan of EUR210 million through the EIB. The wind farm is estimated to deliver 219MW of green energy to around 220,000 Belgian families. European Commission Vice-President Šefčovič stated that “this new wind farm off the Belgian coast — with a strong innovative and cross-border component — is yet another proof how committed we are to investing into the energy of tomorrow.”

On 12 October 2018, the EU implemented a fuel labelling policy, which requires public filling stations to provide clear information about fuel and environmental impacts on consumers, operators and businesses.

On 19 October 2018, the European Commission announced its support for a loan of EUR60 million by the Portuguese company Windplus through the EIB. Commissioner of Research, Science and Innovation Carlos Moedas stated: “today’s deal is another example of how EU financing is helping to lower the risk of rolling out innovative energy solutions.”

On 19 October 2018, the European Commission announced an update to its emergency oil stocks directive. The changes update minimum EU stocks of crude oil and petroleum products, which will ensure the security of energy supplies in Europe.

On 22 October 2018, the European Commission announced the approval of a new measure to support France until 2020 in electricity production from renewable sources. The measure includes EUR200 million of funding to support the self-consumption of renewable sources, in line with the

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EU’s energy framework and climate objectives.\textsuperscript{4027} Commissioner Vestager stated that “this scheme will stimulate competition between renewable energy sources for self-suppliers and will further increase the share of renewables in France’s energy mix.”\textsuperscript{4028}

On 31 October 2018, the European Commission approved support for the construction and operation of a liquid natural gas terminal at the Klaipėda seaport in Lithuania.\textsuperscript{4029} The seaport will “contribute to the EU’s Energy Union objective to reduce energy import dependency by diversifying supply and creating a fuller, interconnected, EU wide energy market.”\textsuperscript{4030}

On 8 November 2018, the European Commission approved public support for a natural gas interconnector between Greece and Bulgaria. This project will contribute to the security and diversification of EU energy supplies.\textsuperscript{4031} Commissioner Vestager stated: “the new gas interconnector between Greece and Bulgaria will increase the security of energy supply and enhance competition.”\textsuperscript{4032}

On 8 November 2018, the European Commission made the formal decision to send letters of notice to Austria, Finland, Germany, Hungary, Romania, Slovakia and Spain due to their failure in adequately implementing certain requirements of the Energy Efficiency Directive.\textsuperscript{4033}

On 13 November 2018, the European Commission welcomed the European Parliament’s new rules on renewables, energy efficiency, and governance of the Energy Union.\textsuperscript{4034} Vice-President Šefčovič stated: “with today’s vote, we unlock the true potential of Europe’s clean energy transition, helping us meet our Paris Agreement goals and translating into more jobs, lower energy bills for consumers and less energy imports.”\textsuperscript{4035}

On 13 November 2018, the European Commission adopted the decision to amend the EU’s energy efficiency legislation in consideration of the United Kingdom’s withdrawal from the European Union.\textsuperscript{4036}

The energy consumption figures in the Energy Efficiency Directive and the Regulation on the Governance of the Energy Union were changed to reflect a union of 27 members.

On 19 November 2018, the European Commission announced its efforts to strengthen the EU-Algeria Energy Dialogue, which covers natural gas, renewable energy, and energy efficiency. Commissioner Cañete and Minister of Energy of Algeria Mustapha Guitouni met on 20 November 2018 to restart the EU-Algeria energy partnership.

On 22 November 2018, the European Commission welcomed a political agreement by co-legislators of the Regulation on Risk Preparedness to improve the EU’s crisis preparedness in the electricity sector. Commissioner Cañete stated that “today’s deal is another major delivery in our transition to a clean and secure energy system.”

On 4 December 2018, the European Commission formally adopted the revised Renewable Energy Directive and the new Governance Regulation, legislative acts that make up the “Clean Energy for All Europeans Package” of 2016. Commissioner Cañete stated: “Today’s adoption sends a further strong signal to climate talks in Katowice underlining the EU’s commitment to meeting our Paris Agreement objectives.”

On 7 December 2018, the European Commission adopted a policy to force German grid operator TenneT to significantly increase cross-border electricity flows between Denmark and Germany.
The newly adopted policies will allow more electricity producers to access the German wholesale market, thereby making the European energy market more competitive and integrated.\textsuperscript{4045}

On 11 December 2018, the EU and the International Solar Alliance signed a Joint Declaration. The declaration will provide a platform for cooperation between solar resource-rich countries, multilateral organizations, industries and other stakeholders, with the aim of achieving an increase in global solar energy use.\textsuperscript{4046} Commissioner Cañete noted: “it will showcase European businesses leading in the solar energy sector and contribute to the efforts of internationalisation of our companies and to the Commission's priority of growth and job creation.”\textsuperscript{4047}

On 18 December 2018, the European Commission approved reductions granted to energy-intensive companies in Greece with the aim of financing renewable electricity production and efficient cogeneration.\textsuperscript{4048} The policy aims to “promote EU energy and climate goals, and to ensure the global competitiveness of energy-intensive industries.”\textsuperscript{4049}

On 8 January 2019, the European Commission approved support for electricity production from renewable energy sources and a measure to back electro-intensive companies in Lithuania.\textsuperscript{4050} Commissioner Margrethe Vestager stated: “these two schemes will allow Lithuania to both continue supporting the development of renewable energy sources in the country and to preserve the competitiveness of electricity-intensive companies.”\textsuperscript{4051}

On 8 January 2019, the European Commission approved a EUR320 million plan to support biomass energy installations located in Portugal that are considered “critical” due to the risk of fires.\textsuperscript{4052}


new installations will produce energy and incentivize forest owners to clean the forest by using excess biomass, thereby preventing future forest fires in Portugal.4053

On 21 January 2019, France opened bids for a 300-megawatt solar power project as part of its conversion plan for the country’s oldest nuclear power plant Fessenheim.4054 The conversion is part of the government’s plan to increase the development of renewable energies.4055 Minister of Ecology François de Rugy stated that “the launch of the tender shows the commitment of the government on the conversion of Fessenheim. It will help develop local electricity production from renewable energies.”4056 The European Commission has approved the EUR250 million project, stating that “the aid … will contribute to the French and European objectives of energy efficiency and energy production from renewable sources, in line with the EU’s environmental objectives, with possible distortions of competition state support being reduced to a minimum.”4057

On 23 January 2019, the European Commission announced a further investment of EUR800 million in priority energy infrastructure that has major cross-border benefits.4058 Vice-President Maroš Šefčovič stated: “today’s approved list showcases that Energy Union is an efficient tool to modernise and green our economies, to make them future proof in line with climate and environmental goals.”4059

On 28 January 2019, the European Commission approved a EUR36 million investment in Polish chemical company LG Chem for a new electric vehicle battery plant. The new plant will contribute to the region’s development while also preserving and facilitating competition.4060

On 14 February 2019, the European Commission launched a consultation that will explore views on ways to apply the Commission Recommendation on the international role of the Euro in the energy sector.4061 Commissioner Cañete stated: “strengthening the international role of the Euro in the field

of energy investment and trade will help reduce the risk of supply disruptions and promote the autonomy of European businesses.\textsuperscript{4062}

On 18 February 2019, the European Commission announced the official launch of a clean energy transition initiative by 26 European islands.\textsuperscript{4063} Director-General for Energy at the European Commission Dominique Ristori stated: “the 26 islands selected display a remarkable potential and enthusiasm for developing strong and lasting multi-stakeholder collaborations around the clean energy transition.”\textsuperscript{4064}

On 25 February 2019, the European Commission approved state aid for four floating demonstration offshore wind farms in France, with one to be situated in the Atlantic Ocean and three others in the Mediterranean.\textsuperscript{4065} Each wind farm is projected to have a total installed capacity of 24 megawatts despite different construction, with “the objective [being] to test these different technological solutions, with the long-term goal to test [sic] this technology before deploying it on a larger scale.”\textsuperscript{4066} The European Commission noted that “the four projects will promote the use of electricity generated from renewable sources and will help France meet its climate targets, without unduly distorting competition.”\textsuperscript{4067}

On 26 February 2019, the European Commission announced an investment programme for low-carbon technologies with the aim of increasing global competitiveness.\textsuperscript{4068} Worth over EUR10 billion, the investment programme aims to create local green jobs and growth, energy-efficient homes, cleaner air, more efficient public transport systems, and secure supplies of energy.\textsuperscript{4069}

On 8 March 2019, the European Commission welcomed the provisional agreement reached by the European Parliament and the Council Europe Facility (CEF) to fund high-performance energy infrastructure and enhance Europe’s connectivity.\textsuperscript{4070} Commissioner Cañete stated: “today’s

agreement will enable us to build the infrastructure needed for the clean energy transition and help achieve our ambitious 2030 climate and energy targets.\textsuperscript{4071}

On 8 March 2019, the European Commission approved an increase in the budget of a plan to compensate energy-intensive companies in Spain.\textsuperscript{4072} The budget increase will directly benefit companies active in sectors facing heightened electricity costs, especially those that are unprotected from international competition.\textsuperscript{4073}

On 18 March 2019, the European Commission approved plans to support the increase of regasification capacity and the development of additional functionalities of an LNG terminal in Poland.\textsuperscript{4074} The project will receive EUR128 million in funding from the European Regional Development Fund and the Cohesion fund to ensure the security of gas supplies in Poland and in the overall Baltic region.\textsuperscript{4075}

On 19 March 2019, the European Commission launched the first edition of the RESponsible Island Prize, allotted to islands with innovative and sustainable, local and renewable energy production for electricity, heating, cooling and transport.\textsuperscript{4076}

On 20 March 2019, the EU awarded a EUR323 million grant to Baltic synchronisation projects that will support the Baltic States’ electricity network and the European system.\textsuperscript{4077} Commissioner for Climate Action and Energy Miguel Arias Cañete stated: “today marks another important milestone for the European Energy Union and in the Baltic States’ ambition to truly integrate their electricity system with continental Europe, improving energy security in the Baltic region and reinforce European solidarity.”\textsuperscript{4078}

On 20 March 2019, the European Commission released EUR750 million in funding for key European energy infrastructure projects with the intention to support programming and initiatives for trans-European energy infrastructure.\(^{4079}\)

On 3 April 2019, the European Commission adopted a recommendation that provides guidance on how to address and prevent challenges of cybersecurity in the energy sector. This is indicative of the measures being taken to ensure European energy and grid resilience.\(^{4080}\)

On 15 April 2019, the European Commission approved a EUR5 billion Polish scheme that will support high-efficiency cogeneration and reduce financing surcharges for energy-intensive users.\(^{4081}\) Commissioner Margrethe Vestager stated: “the Polish support scheme approved today will provide an important contribution to EU environmental and climate goals without unduly distorting competition.”\(^{4082}\)

On 15 April 2019, the European Commission signed an agreement regarding the EUR214.9 million Connecting Europe Facility grant for the Baltic Pipe project, which will connect Poland and Denmark with Norway.\(^{4083}\) The Baltic Pipe Project is an infrastructure project that aims to allow the shipment of gas from the North Sea to the Polish market and broader Baltic States and neighbouring countries.\(^{4084}\)

On 16 April 2019, the European Commission approved EUR64 million in funding for a highly efficient waste-to-energy cogeneration plant in Olsztyn, Poland.\(^{4085}\) Cogeneration increases energy

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efficiency by recycling heat from power generation for other purposes, and this plant contribute to
the EU’s energy and environmental objectives without unduly distorting competition.4086

On 16 April 2019, the European Commission approved Irish plans in support of heat energy
generation through biomass and anaerobic digestion.4087 These renewable technologies will be open
to various users across commercial, agricultural, industrial, district heating sectors and other non-
domestic heat users.4088

On 23 April 2019, the European Commission approved EUR386 million in support of renewable
electricity production in Lithuania, which will contribute largely to Lithuania’s transition to a low-
carbon, resilient and sustainable energy supply.4089

On 10 May 2019, the European Commission approved compensation granted by Slovakia to the
electric utility company Slovenské Elektrárne a.s. in response to a national plan to entrust the utility
company with ensuring the security of energy supply in regions insufficiently connected to the rest of
Slovakia’s national electricity grid.4090

On 7 May 2019, France and Ireland announced that a bilateral 700-megawatt power link, the first of
its kind for the two states, was approved and due for commission in 2026. The French government
will cover 35 per cent of the EUR930 million cost. The European Commission declared that the
project is eligible for EU financial support, with 60 per cent of its costs being covered. Ireland has
expressed that the prospect of Brexit has made it imperative to establish Ireland’s energy security and
connections to Europe.4091

On 22 May 2019, the EU formally adopted four new pieces of legislation that restructures the EU
electricity market.4092 This legislation builds on the previously introduced “Clean energy for all
Europeans package” to provide a “modern, stable legal environment and setting a clear and common
sense of direction … to stimulate necessary public and private investment” in ensuring a clean and

4086 State aid: Commission approves €54 million support for a waste-to-energy highly efficient cogeneration plant in
https://ec.europa.eu/info/news/state-aid-commission-approves-eu54-million-support-waste-energy-highly-efficient-
4087 State aid: Commission approves Irish scheme for renewable heat generation, European Commission (Brussels) 16
4088 State aid: Commission approves Irish scheme for renewable heat generation, European Commission (Brussels) 16
4089 State aid: Commission approves €385 million support for production of electricity from renewable sources in
4090 State aid: Commission approves provisional measure ensuring security of local electricity supply in Slovakia,
2469_en.htm.
4092 Clean energy for all Europeans package completed: good for consumers, good for growth and jobs, and good for
fair energy transition while reinforcing consumer rights.\textsuperscript{4093} Commissioner Cañete stated: “this is the most ambitious set of energy proposals ever presented by the European Commission... I truly believe it will accelerate the clean energy transition and give all Europeans access to secure, competitive and sustainable energy.”\textsuperscript{4094}

On 29 May 2019, the European Commission, the European Investment Bank, and Breakthrough Energy Ventures established a EUR100 million investment fund that will support the development of innovative European companies and bring cutting-edge clean energy solutions to the market.\textsuperscript{4095}

The European Union has demonstrated compliance with its commitment by consistently developing sustainable economic growth, demonstrating leadership in collective energy security, and cooperating with other members on energy transition.

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

\textit{Analyst: Benson Ompoc}

