

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 Final Compliance Report**

8 July 2017 to 30 October 2018

Prepared by

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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*

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## 17. Energy: Sustainable Energy

“Foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.”

*Hamburg Update: Taking Forward the G20 Action Plan on the 2030 Agenda*

### Assessment

	No Compliance	Partial Compliance	Full Compliance
Argentina			+1
Australia			+1
Brazil			+1
Canada			+1
China			+1
France			+1
Germany			+1
India			+1
Indonesia			+1
Italy			+1
Japan			+1
Korea			+1
Mexico			+1
Russia		0	
Saudi Arabia			+1
South Africa		0	
Turkey		0	
United Kingdom			+1
United States			+1
European Union			+1
Average		+0.85	

### Background

The G20 leaders made their first commitment to develop energy efficiency and clean energy technologies at the 2009 London Summit.<sup>5958</sup> Since then, energy has been a constant element of every subsequent summit agenda.

At the 2009 Pittsburgh Summit, 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.<sup>5959</sup> This commitment was reiterated at the 2010 Seoul Summit.<sup>5960</sup> At the 2011 Cannes Summit, G20 leaders developed the commitment further by referencing the UN Secretary General’s Sustainable Energy for All Initiative.<sup>5961</sup> At the 2013 St.

<sup>5958</sup> Global Plan for Recovery and Reform, G20 Information Center 2 April 2009. Access Date: 10October 2017. <http://www.g20.utoronto.ca/2009/2009communique0402.html>.

<sup>5959</sup> G20 Leaders Statement: The Pittsburgh Summit, G20 Information Center 25 September 2009. Access Date: 10October 2017. <http://www.g20.utoronto.ca/2009/2009communique0925.html>.

<sup>5960</sup> The G20 Seoul Summit Leaders’ Declaration, G20 Information Center 12 November 2010. Access Date: 10October 2017. <http://www.g20.utoronto.ca/2010/g20seoul.html>.

<sup>5961</sup> Cannes Summit Final Declaration: Building Our Common Future, G20 Information Center (Toronto) 4 November 2011. Access Date: 10October 2017. <http://www.g20.utoronto.ca/2011/2011-cannes-declaration-111104-en.html>.

Petersburg Summit, G20 leaders 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.<sup>5962</sup>

In Brisbane in 2014, G20 leaders adopted the Action Plan for Voluntary Collaboration on Energy Efficiency, which addressed related issues including “vehicles performance, networked devices; buildings; industrial processes; and electricity generation; as well as work on financing for energy efficiency.”<sup>5963</sup> At the 2015 Antalya Summit, the G20 committed to increase investments in clean energy technologies and support research in this field.<sup>5964</sup> Under the Chinese presidency in 2016, G20 leaders in Hangzhou adopted the Action Plan on the 2030 Agenda for Sustainable Development, which expressed their “vision of a world of sustainable energy for all” and pledged to ensure universal access to affordable, reliable, sustainable, and modern energy services while promoting “investment in innovative energy technologies including clean energy technologies.”<sup>5965</sup>

**Commitment Features**

The G20 commitment requires G20 members to promote investment in sustainable energy projects and ensure their integration into regional efforts including through existing institutions and programs.

Thus, to achieve full compliance with this commitment, G20 members must:

- a) Direct public funds towards projects which foster sustainability of energy sector (increasing energy efficiency, reducing residual waste, and/or promoting the use of renewables) domestically and/or internationally, and/or provide incentives to private investors to do so; and
- b) Participate in regional initiatives which promote sustainable use of energy resources on bilateral, multilateral, or institutional basis.

**Scoring Guidelines**

-1	Member does not provide/stimulate investment in sustainable energy projects and does not participate in regional initiatives to that end.
0	Member provides/stimulates investment in sustainable energy projects OR participates in regional initiatives to that end.
+1	Member provides/stimulates investment in sustainable energy projects AND participates in regional initiatives to that end.

**Argentina: +1**

Argentina has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

<sup>5962</sup> St. Petersburg Summit Leaders’ Declaration, G20 Information Center 6 September 2013. Access Date: 10 October 2017. <http://www.g20.utoronto.ca/2013/2013-0906-declaration.html>.

<sup>5963</sup> G20 Leaders' Communiqué Brisbane, G20 Information Center 16 November 2014. Access Date: 10 October 2017. <http://www.g20.utoronto.ca/2014/2014-1116-communiqué.html>.

<sup>5964</sup> G20 Leaders' Communiqué Antalya, G20 Information Center 16 November 2015. Access Date: 10 October 2017. <http://www.g20.utoronto.ca/2015/151116-communiqué.html>.

<sup>5965</sup> G20 Action Plan on the 2030 Agenda for Sustainable Development, G20 Information Center 8 September 2016. Access Date: 10 October 2017. <http://www.g20.utoronto.ca/2016/g20-action-plan-on-2030-agenda.pdf>.

On 22 August 2017, the Ministry of Energy published regulations on renewable energy contracts to simplify the signing process between large electric power users, customers, and producers.<sup>5966</sup>

On 31 August 2017, the Biomasa Pindó Project in Puerto Esperanza, Misiones began its operations. The 2 MegaWatt project was awarded in Round 1 of the RenovAr Program and will deliver energy produced from forest biomass to the National Interconnected System. The system was financed by the national company Pindó S.A. The total sum of investment was more than USD5 million.<sup>5967</sup>

On 20 October 2017, Minister of Energy and Mining Juan J. Aranguren and Minister of Environment and Sustainable Development Sergio Bergman participated in the procedure of opening of offers of Round 2 of the RenovAr program. 228 bids were submitted for a total capacity of 9403 MW. The process of national and international selection of renewable generation electric energy projects (RenovAr Round 2 Program) had been launched on August 17, 2017 by Resolution 275.<sup>5968</sup>

On 1 November 2017, the Chamber of Renewable Energies (CADER) and Embassy of Belgium organized a seminar to study policies that promote the development of renewable technologies. The event was attended by more 30 key Argentinian bio-energy producers, representatives of the Embassy of Belgium, and CADER. The synergy between the Argentinian and Belgian producers was noted for its importance in building partnerships.<sup>5969</sup>

On 1 December 2017, over 90 projects in the renewable energy sphere that are receiving contributions from the Sustainable Environmental Management Funds, provided by the Unit for Rural Change, were presented. The projects will be co-financed by the Inter-American Development Bank (IDB).<sup>5970</sup>

On 4-7 December 2017, Argentina hosted Energy Week in Buenos Aires. Events throughout the week aimed to exchange experiences and knowledge in the energy sector to contribute to sub-regional and regional integration in energy transition. The event was organized by the Latin American Energy Organization (OLADE), Ministry of Energy and Mining, and IDB. The week concluded with the OLADE XLVII Meeting of Ministers that brought together 27 energy ministers from Latin America and the Caribbean.<sup>5971</sup> Executive Secretary Alfonso Blanco also made a speech that briefly reviewed Argentina's progress and transformation in the energy sector, particularly in the framework of RenoVar program to increase national energy efficiency.<sup>5972</sup>

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<sup>5966</sup> El Ministerio de Energía publicó reglamentación sobre contratos de energías renovables. Access Date: 26 December 2017. <http://www.cader.org.ar/el-ministerio-de-energia-publico-reglamentacion-sobre-contratos-de-energias-renovables/>.

<sup>5967</sup> Entró en operaciones el primer proyecto de biomasa forestal del programa "RenovAr". Access Date: 26 December 2017. <http://www.cader.org.ar/entro-en-operaciones-el-primer-proyecto-de-biomasa-forestal-del-programa-renovar/>.

<sup>5968</sup> Se presentaron ofertas por 9.403 MW en la licitación de energías renovables "Ronda 2". Access Date: 26 December 2017. <http://www.cader.org.ar/se-presentaron-ofertas-por-9-403-mw-en-la-licitacion-de-energias-renovables-ronda-2/>.

<sup>5969</sup> Empresarios y funcionarios analizaron el potencial del biogás en Argentina: proponen construir 10.000 plantas. Access Date: 26 December 2017. <http://www.cader.org.ar/empresarios-y-funcionarios-analizaron-el-potencial-del-biogas-en-argentina-proponen-construir-10-000-plantas/>.

<sup>5970</sup> Los productores se interesan en financiamiento para promover gestión ambiental sustentable. Access Date: 18 December 2017.

[http://www.agroindustria.gob.ar/sitio/areas/prensa/index.php?accion=noticia&id\\_info=171201143228](http://www.agroindustria.gob.ar/sitio/areas/prensa/index.php?accion=noticia&id_info=171201143228).

<sup>5971</sup> SEMANA DE LA ENERGÍA. Access Date: 26 December 2017. <https://semanadelaenergia.olade.org/>.

<sup>5972</sup> XLVII Reunión de Ministros encuentro de 21 delegaciones de Países Miembros de Olade. Access Date: 26 December 2017. <http://www.olade.org/noticias/xlvii-reunion-ministros-encuentro-18-delegaciones-paises-miembros-olade/>.

On 15 May 2018, the Ministry of Environment and Sustainable Development of Argentina signed a framework cooperation agreement with the Ministry of Energy and Mining of Argentina and Ecological Coordination Society of the State Metropolitan Area (CEAMSE) with the aim of advancing energy recovery of urban solid waste in the Metropolitan Area of Buenos Aires. The agreement seeks to promote projects in energy recovery and environmentally adequate final disposal of urban solid waste generated in the Metropolitan Region of Buenos Aires.<sup>5973</sup>

During the compliance period Argentina has provided investment in sustainable energy projects and participated in regional initiatives in the sustainable energy sphere.

Thus, Argentina has received a score of +1.

*Analyst: Elizaveta Safonkina*

### **Australia: +1**

Australia has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 6 October 2017, the government-owned Clean Energy Finance Corporation announced a USD750,000 investment from the Clean Energy Innovation Fund in Melbourne to start up a business, Reelectrify, for its new ground-breaking technology to repurpose used batteries from electric vehicles for extended use, including in behind-the-meter household energy storage.<sup>5974</sup>

On 14 November 2017, the Australian Government, through the Australian Renewable Energy Agency (ARENA), provided USD5 million to support information sharing on renewable energy technology with researchers and industry leaders from around the world. Funding had been awarded to activities that helped to create, collect, analyze, and store knowledge, as well as strengthen industry partnerships and collaboration through the Mission Innovation and International Energy Agency.<sup>5975</sup>

On 13 December 2017, ARENA announced it had awarded USD29.2 million for 20 research projects to propel the development of solar photovoltaic (PV) technology. ARENA's third round of funding for research and development supports early-stage research to reduce the cost and improve the efficiency of solar PV, from creating flexible solar devices to making semi-transparent, high-efficiency solar cells for integrating into windows.<sup>5976</sup>

19 June 2018, Clean Energy Regulator announced the results of the seventh Emissions Reduction Fund auction. At this auction, the Regulator awarded 32 carbon abatement contracts to deliver over 6.7 million tonnes of abatement, at an average price of AUD13.52 per tonne. Newly contracted

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<sup>5973</sup> Cooperación Nación - CEAMSE para la valorización energética de los residuos sólidos urbanos. Access Date: 2 November 2018. <https://www.argentina.gob.ar/noticias/cooperacion-nacion-ceamse-para-la-valorizacion-energetica-de-los-residuos-solidos-urbanos>.

<sup>5974</sup> Innovation Fund backs second life for electric vehicle batteries, Clean Energy Finance Corp 4 October 2017. Access Date: 18 December 2017. <https://www.cefc.com.au/media/files/innovation-fund-backs-second-life-for-electric-vehicle-batteries.aspx>

<sup>5975</sup> Taking Australian clean energy expertise to the world, Australian Renewable Energy Agency 14 November 2017. Access Date: 5 January 2018. <https://arena.gov.au/news/taking-australian-clean-energy-expertise-world/>

<sup>5976</sup> Funding boost for world-leading solar PV research, Australian Renewable Energy Agency 13 December 2017. Access Date: 5 January 2018. <https://arena.gov.au/news/solar-pv-funding-boost/>

activities are spread across energy efficiency, agriculture and vegetation projects. The average price across all seven auctions is now AUD11.97 per tonne.<sup>5977</sup>

On 6 July 2017, the Clean Energy Regulator developed guidance exploring how the Native Title Act 1993 interacts with requirements of the Emissions Reduction Fund, including obtaining legal right and consents from all eligible interest-holders to undertake a project. The guidance sets out background on Native Title interactions with carbon farming, what is required by law, as well as best practice approaches for undertaking genuine, early engagement with Indigenous communities and native title holders affected by a project.<sup>5978</sup>

On 27 July 2018, the Government released draft amendments to the National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015, and an accompanying explanatory document to assist with understanding the draft amendments.<sup>5979</sup>

The exposure draft amendments and the explanatory document should be read in conjunction with the consultation outcomes paper, which sets out the Government's position for updating the Safeguard Mechanism, taking into account the views expressed in submissions in response to the consultation paper, released earlier this year.

Australia has provided/stimulated investment in sustainable energy projects and has participated in regional initiatives to that end. Thus, it receives a score of +1.

*Analyst: Arkadiy Khudyakov*

#### **Brazil: +1**

Brazil has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 1 September 2017, Chairman of the Global Energy Interconnection Development and Cooperation Organization Liu Zhenya and the President of China Electricity Council met with Minister of Ministry of Minerals and Energy Fernando Coelho Filho. The parties signed a joint statement of cooperation to promote renewable energy exploitation and sustainable energy development.<sup>5980</sup>

On 13 November 2017, the Central Bank announced that it will change the National Bank for Economic and Social Development's (BNDES) rates on its long-term loans in order to end the bank's subsidized lending, improve Brazil's money supply, and encourage alternative project

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<sup>5977</sup> CER announces seventh Emissions Reduction Fund auction results, Department of Environment and Energy 19 June 2018. Access Date: 1 November 2018. <http://www.environment.gov.au/climate-change/publications/emissions-reduction-fund-update>

<sup>5978</sup> New guidance on Native title, legal right and eligible interest-holder consent, Department of Environment and Energy 6 July 2018. Access Date: 1 November 2018. <http://www.environment.gov.au/climate-change/publications/emissions-reduction-fund-update>

<sup>5979</sup> Public consultation on amendments to the Emissions Reduction Fund Safeguard Mechanism, Department of Environment and Energy 27 July 2018. Access Date: 1 November 2018. <http://www.environment.gov.au/climate-change/publications/emissions-reduction-fund-update>

<sup>5980</sup> Deepen China-Brazil Cooperation and Promote Renewable Energy Development, GEIDCO, 5 September 2017, Access Date: 26 December 2017. [http://www.geidco.org/html/qnyhlwen/col2017080776/2017-10/13/20171013163726852830321\\_1.html](http://www.geidco.org/html/qnyhlwen/col2017080776/2017-10/13/20171013163726852830321_1.html)

financing for energy projects. Banco do Nordeste do Brazil provides financing for renewable energy projects.<sup>5981</sup>

On 27 November 2017, BNDES announced new financing conditions for energy auctions. The new financing conditions for electric power generation (A-4 and A-6) and transmission projects that win the public auctions to be held by the Brazilian government in December 2017 can already be found on the BNDES website. The new rules bring changes that offer more flexibility in the financing structuring to entrepreneurs.<sup>5982</sup>

On 5 December 2017, the National Agency for Oil, Natural Gas, and Biofuels announced the areas for the exploration and production of oil and natural gas to be made available as part of a new, permanent-offer system.<sup>5983</sup>

On 5 December 2017, Bolivian President Evo Morales met with President Michel Temer in Brasilia to strengthen bilateral relations between the two countries. The main trade agreement between the two countries concerns Brazil's import of Bolivian natural gas.<sup>5984</sup>

On 13 June 2018, it was announced that Banco do Brasil and WWF-Brasil launched the Photovoltaic Projects Calculator. The tool, digital and open to the public, analyzes the consumption of electricity and locality of a user, the potential savings in the electricity bill and the reduction of emissions of greenhouse gases provided by a photovoltaic system.<sup>5985</sup>

On 10 July 2018, Petrobras signed a memorandum of understanding with the French companies Total and Total Eren to analyze the feasibility of wind and solar power business in Brazil. The agreement seeks to determine the existing potential, especially in northeastern Brazil, to develop renewable energy projects.<sup>5986</sup>

On 27 September 2018, BNDES a credit line of BRL 2.2 billion to boost investments in projects for the generation of renewable energy in Brazil, it targets individuals and small and medium-sized enterprises. The BNDES Finame Renewable Energy line will finance the acquisition of photovoltaic generation systems, wind turbines, installation services, among other equipment.<sup>5987</sup>

Brazil has stimulated investment in sustainable energy projects and has participated in regional initiatives to that end. Thus, it receives a score of +1.

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<sup>5981</sup> Brazil International Renewable Energy Congress — Financing in the spotlight, IHS Markit, November 2017, Access Date: 26 December 2017. <https://technology.ihs.com/596977/brazil-international-renewable-energy-congress-financing-in-the-spotlight>

<sup>5982</sup> BNDES announces new financing conditions for energy auctions, BNDES Portal, 27. November 2017, Access Date: 26 December 2017

[https://www.bndes.gov.br/SiteBNDES/bndes/bndes\\_en/Institucional/Press/Noticias/2017/20171127\\_bndes\\_energy.html](https://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/Press/Noticias/2017/20171127_bndes_energy.html)

<sup>5983</sup> Brazil opens areas for exploration and production of oil and gas, MercoPress, 5 December 2017, Access Date: 26 December 2017. <http://en.mercopress.com/2017/12/05/brazil-opens-areas-for-exploration-and-production-of-oil-and-gas>

<sup>5984</sup> Brazil and Bolivia to strengthen strategic partnership in energy, Portal Brazil, 5 December 2017, Access Date: 26 December 2017. <http://www.brazilgovnews.gov.br/news/2017/12/brazil-and-bolivia-to-strengthen-strategic-partnership-in-energy>

<sup>5985</sup> Lançada calculadora para viabilizar projetos de energia fotovoltaica, WWF 13 June 2018. Access Date: 1 November 2018. <https://www.wwf.org.br/informacoes/?uNewsID=65983>

<sup>5986</sup> Petrobras e Total assinam parceria para projetos de energia renovável, Veja 10 July 2018. Access Date: 1 November 2018. <https://veja.abril.com.br/mundo/petrobras-e-total-assinam-parceria-para-projetos-de-energias-renovaveis/>

<sup>5987</sup> Investimentos em energia renovável terão linha de crédito de R\$ 2,2 bl, Site of Brazilian President 27 September 2018. Access Date: 1 November 2018. <http://www2.planalto.gov.br/acompanhe-planalto/noticias/2018/09/investimentos-em-energia-renovavel-terao-linha-de-credito-de-r-2-2-bi>



*Analyst: Dmitry Logvinenko*

### **Canada: +1**

Canada has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 21 July 2017, Minister of Natural Resources Jim Carr announced a call for expressions of interest for funding to drive an innovative and sustainable economy. Natural Resources Canada received funding in the 2017 federal budget to implement new national programs, including projects to support next-generation smart grid systems, reduce the reliance of northern and Indigenous communities on diesel fuel, increase the number of electric vehicle stations, and help build new net-zero buildings across Canada.<sup>5988</sup>

On 31 August 2017, Minister of Innovation, Science and Economic Development Navdeep Bains, who is also responsible for Canadian Northern Economic Development Agency, announced an investment of USD467,200 to support a feasibility study to assess the potential for natural gas development in the Beaufort Delta region of the Northwest Territories.<sup>5989</sup>

On 18 September 2017, the Canadian Trade Commissioner Service held a webinar on market information and intelligence, which prepared participants to take advantage of the 2017-2018 request for proposals procurement programme and opportunities in the Jamaican renewable energy market. The target audience was Canadian companies who are either active or interested in exporting to the Jamaican market and/or attending the Caribbean Renewable Energy Forum in October 2017.<sup>5990</sup>

On 6 November 2017, engineering partner PurLucid Treatment Solutions was awarded a non-repayable contribution of up to CAD8.2 million in federal government funding to support the commercialization of a low energy water treatment system for the oil and gas industry. Specifically, Sustainable Development Technology Canada and Emissions Reduction Alberta agreed to fund up to CAD3.2 million and CAD5 million, respectively.<sup>5991</sup>

On 20 November 2017, Minister of Environment and Climate Change Catherine McKenna met with Rwandan Minister of Environment Vincent Biruta to sign a memorandum of understanding on environmental cooperation. The memorandum identifies five areas where the two countries will

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<sup>5988</sup> Government Advances Clean Growth Economy With Call for Expressions of Interest for Next-Generation Clean Energy Infrastructure Projects, Natural Resources Canada. Access Date: 21 July 2017. <http://www.newswire.ca/news-releases/government-advances-clean-growth-economy-with-call-for-expressions-of-interest-for-next-generation-clean-energy-infrastructure-projects-635832813.html>

<sup>5989</sup> Government of Canada supports clean energy feasibility study, Inuvik, NT — Canadian Northern Economic Development Agency (CanNor). Access Date: 31 August 2017. [https://www.canada.ca/en/northern-economic-development/news/2017/08/government\\_of\\_canadasupportscleanenergyfeasibilitystudy.html](https://www.canada.ca/en/northern-economic-development/news/2017/08/government_of_canadasupportscleanenergyfeasibilitystudy.html)

<sup>5990</sup> Renewable Energy Procurement Opportunities in Jamaica, The Canadian Trade Commissioner Service 13 September 2017. Access Date: 19 December 2017. <http://tradecommissioner.gc.ca/webinars-webinaires/0000362.aspx?lang=eng>

<sup>5991</sup> MGX Minerals Engineering Partner PurLucid Awarded CUSD8.2M to Manufacture and Deploy Wastewater Treatment Systems Central to MGXs Petrolithium Recovery Process, MGX Mineral Inc. 6 November 2017. Access Date: 19 December 2017. <https://www.mgxminerals.com/investors/news/2017/288-mgx-minerals-engineering-partner-purlucid-awarded-c-8-2m-to-manufacture-and-deploy-wastewater-treatment-systems-central-to-mgx-petrolithium-recovery-process.html>

work together: climate change, the green economy, environmental compliance and enforcement, sustainable urban wetland management, and other environmental issues of mutual interest.<sup>5992</sup>

On 16 November 2017, Minister Bains announced a USD2.4 million investment in clean ocean technology to provide sustainable power solutions.<sup>5993</sup>

On 27 November 2017, the Sustainable Development Technology Canada announced the investment of CAD9.5 million in two Toronto companies for the development of solar power and energy storage technologies. The investment will go towards products by Morgan Solar Inc., based on the company's planar optical technology, which reduces the amount of expensive material needed in solar panels. One such product is a translucent high-efficiency solar panel for buildings, and another could become the lowest cost panel globally for utility-scale plants. The other company to receive funding is NRStor Inc., which proposed to store energy as compressed air and heat.<sup>5994</sup>

On 12 December 2017, Minister Carr announced the creation of a diverse, 14-member Generation Energy Council to provide recommendations on how Canada can prepare for a reliable, affordable, and low-carbon economy in the future. The Council's work will be informed by the takeaways from October's two-day Generation Energy Forum in Winnipeg, which was the culmination of a six-month engagement with more than 380,000 people through online participation, in-person panels, workshops, and the Citizen Dialogues on Canada's Energy Future, run by Simon Fraser University.<sup>5995</sup>

On 15 December 2017, Minister McKenna announced that the Government of Canada will provide over USD1 billion from the Low Carbon Economy Leadership Fund over the next five years to the provinces of British Columbia, Alberta, Ontario, Quebec, New Brunswick, and Nova Scotia. The Low Carbon Economy Fund is an important investment under Canada's clean growth and climate plan, which will help Canada hit its 2030 Paris Agreement target. The fund has two components: 1) a USD1.4 billion Leadership Fund, which will help provinces and territories deliver on their commitments to reduce carbon pollution as part of Canada's climate plan, and 2) the Low-Carbon Economy Challenge, which will support ambitious projects that can be submitted by all provinces and territories, as well as municipalities, Indigenous governments and organizations, businesses, and not-for-profit organizations.<sup>5996</sup>

On 22 December 2017, CanNor announced USD950,000 to foster renewable energy source and offset the use of diesel in Inuvik, Northwest Territories. CanNor's investment will assist with the design, engineering, and geotechnical work related to the potential installation of commercial-size

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<sup>5992</sup> Canada and Rwanda agree to cooperate on environmental protection and climate change, Cision 20 November 2017. Access Date: 19 December 2017. <http://www.newswire.ca/news-releases/canada-and-rwanda-agree-to-cooperate-on-environmental-protection-and-climate-change-658912313.html>

<sup>5993</sup> Investing in clean energy technology to create jobs and help the environment, Cision 16 November 2017. Access Date: 19 December 2017. <http://www.newswire.ca/news-releases/investing-in-clean-energy-technology-to-create-jobs-and-help-the-environment-658033873.html>

<sup>5994</sup> Canadian govt invests USD7.5m in solar, energy storage tech, Renewables Now 27 November 2017. Access Date: 19 December 2017. <https://renewablesnow.com/news/canadian-govt-invests-usd-75m-in-solar-energy-storage-tech-592486/>

<sup>5995</sup> Generation Energy Council Created to Give Shape to Canada's Energy Future, Markets Insider 12 December 2017. Access Date: 10 January 2018. <http://markets.businessinsider.com/news/stocks/Generation-Energy-Council-Created-to-Give-Shape-to-Canadas-Energy-Future-456302>

<sup>5996</sup> The Government of Canada announces new funding for energy efficiency and climate action in six provinces, Cision 15 December 2017. Access Date: 19 December 2017. <http://www.newswire.ca/news-releases/the-government-of-canada-announces-new-funding-for-energy-efficiency-and-climate-action-in-six-provinces-664402123.html>

turbines at High Point, located ten kilometers outside of Inuvik. It is also supporting consultations with local stakeholders, including the Mayor and Council, the Gwich'in Tribal Council, and the Inuvialuit Regional Corporation.<sup>5997</sup>

On 1 December 2017, Canada launched the ASEAN-Canada Scholarships and Educational Exchanges for Development (SEED), a scholarship programme for students to study areas related to the United Nations Sustainable Development Goals, including renewable energy, in Canada.<sup>5998</sup>

On 17 May 2018, Member of Parliament for Montarville, Quebec, on behalf of the Honourable Jim Carr, Canada's Minister of Natural Resources, announced an investment of \$949,000 for a next-generation smart grid project that will promote the rapid adoption of new renewable energy sources to bolster the electricity grid. The goal of the project is to develop and implement technology to integrate new sources of clean energy without compromising the stability and reliability of our grids.<sup>5999</sup>

On 11 October 2018, the Minister of Environment and Climate Change, Catherine McKenna, joined the Minister of Infrastructure, Wally Schumann, and the Minister of Environment and Natural Resources, Robert C. McLeod, to announce a federal investment of over \$23 million for programs that will support energy efficiency retrofits, renewable energy, and forest regeneration<sup>6000</sup>.

On 16 October 2018, Canada's Minister of Natural Resources, the Honourable Amarjeet Sohi, Anita Vandenbeld, Member of Parliament for Ottawa West–Nepean, and Susan Jane le Jeune d'Allegeershecque, U.K. High Commissioner to Canada, launched a 30-month transatlantic competition challenging Canadian and British innovators to create new technology solutions to transform our traditional power grids into smart energy systems with investments of C\$20 million. The Power Forward Challenge responds to the ever-growing need for smart energy systems that can integrate renewable energy and support increasing demands on our electricity grids — driving electric vehicles, relying on smart devices, using energy storage systems — while helping mitigate the effects of unexpected outages caused by weather events or otherwise<sup>6001</sup>.

Canada has provided and stimulated investment in sustainable energy projects and has participated in regional initiatives to that end. Thus, it receives a score of +1.

*Analysts: Angelina Belichenko and Uliana Koptukh*

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<sup>5997</sup> Canada supports wind-energy study in its arctic, Windpower 22 December 2017. Access Date: 10 January 2018.

<https://www.windpowerengineering.com/financing/canada-supports-wind-energy-study-arctic/>

<sup>5998</sup> Canada launches SEED scholarship programme, Borneo Bulletin 1 December 2017. Access Date: 4 December 2017.

<https://borneobulletin.com.bn/canada-launches-seed-scholarship-programme/>

<sup>5999</sup> Government of Canada Invests in Next-Generation Smart Grid Technology. Natural Resources Canada. Access Date: 28 October 2018. <https://www.canada.ca/en/natural-resources-canada/news/2018/05/government-of-canada-invests-in-next-generation-smart-grid-technology.html>

<sup>6000</sup> Governments of Canada and Northwest Territories announce funding to fight climate change and save money for homeowners, businesses, and communities. Environment and Climate Change Canada. Access Date: 26 October 2018. <https://www.canada.ca/en/environment-climate-change/news/2018/10/governments-of-canada-and-northwest-territories-announce-funding-to-fight-climate-change-and-save-money-for-homeowners-businesses-and-communities.html>

<sup>6001</sup> Canada and U.K. Launch \$20-Million Transatlantic Challenge to Develop the Smart Energy Systems of the Future. Natural Resources Canada. Access Date: 26 October 2018. <https://www.canada.ca/en/natural-resources-canada/news/2018/10/canada-and-uk-launch-20-million-transatlantic-challenge-to-develop-the-smart-energy-systems-of-the-future.html>

**China: +1**

China has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 9 July 2017, China completed a 60-day trial of mining gas hydrates, commonly known as combustible ice, in the South China Sea, marking breakthroughs in human's search for alternative clean energy sources.<sup>6002</sup>

On 3 August 2017, China started construction on the Baihetan project, the world's soon-to-be second-largest hydropower station. The power station is located on the lower reach of the Jinsha River.<sup>6003</sup>

On 8 August 2017, the China-Africa Renewable Energy Cooperation and Innovation Alliance (CARECIA) was established to boost cooperation between China and Africa on clean energy. It implies wider application of Chinese standards in Africa that will promote renewable energy in both China and Africa.<sup>6004</sup>

On 13 September 2017, the National Development and Reform Commission and National Energy Administration (NEA) stated that China plans to use ethanol gasoline across the country by 2020. According to a senior NEA official, "the plan was unveiled as the country is pushing the use of biofuel, which is renewable, applicable, environmentally friendly and tech-savvy. It is an ideal alternative to fossil fuel."<sup>6005</sup>

On 3 March 2018, National Energy Administration issued a guideline according to which China has set specific targets on non-hydroelectric renewable energy consumption for local governments in a bid to improve its energy structure. By 2020, non-hydroelectric renewable energy should account for between 5 percent and 13 percent of total electricity consumption for provinces, municipalities and autonomous regions, according to the guideline. Local energy authorities are also encouraged to set higher targets and offer incentives for local enterprises to produce renewable energy. Power companies, with the exception of some non-fossil energy companies, should produce at least 9 percent of total electricity from non-hydroelectric renewable energy by 2020. China has also vowed to increase non-fossil fuel sources for primary energy consumption to 15 percent by 2020 and 20 percent by 2030.<sup>6006</sup>

On 1 June 2018, the National Development and Reform Commission, the Ministry of Finance and the National Energy Administration implemented new rules to reduce government tariffs for the photovoltaic industry. The new policy is designed to encourage more sustainable and efficient

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<sup>6002</sup> China wraps up combustible ice mining trial, setting world records, Xinhua 10 July 2017.  
[http://english.gov.cn/state\\_council/ministries/2017/07/10/content\\_281475718743236.htm](http://english.gov.cn/state_council/ministries/2017/07/10/content_281475718743236.htm)

<sup>6003</sup> China starts work on world's second-largest hydropower station, Site of Central People's Government of the People's Republic of China (English version) 3 August 2017.  
[http://english.gov.cn/news/top\\_news/2017/08/03/content\\_281475769180534.htm](http://english.gov.cn/news/top_news/2017/08/03/content_281475769180534.htm)

<sup>6004</sup> China, Africa to strengthen cooperation, innovation on renewable energy, Xinhua 8 August 2017.  
[http://english.gov.cn/news/top\\_news/2017/08/08/content\\_281475776986433.htm](http://english.gov.cn/news/top_news/2017/08/08/content_281475776986433.htm)

<sup>6005</sup> China plans nationwide use of bioethanol fuel by 2020, Xinhua 13 September 2017.  
[http://english.gov.cn/news/top\\_news/2017/09/13/content\\_281475855558766.htm](http://english.gov.cn/news/top_news/2017/09/13/content_281475855558766.htm)

<sup>6006</sup> China sets targets for local renewable energy use, Xinhua 3 March 2018. Access Date: 30.10.2018.  
[http://www.xinhuanet.com/english/2016-03/03/c\\_135153183.htm](http://www.xinhuanet.com/english/2016-03/03/c_135153183.htm)

development of the solar power sector, the National Energy Administration said, adding that it will speed up the launch of a quota system obliging regions to buy more renewable power.<sup>6007</sup>

On 9 August 2018, a renewable energy power plant went into operation in Tongzhou District, Beijing's subsidiary administrative center, on Wednesday. The power plant can dispose of 2,250 tonnes of garbage daily with its three incinerators, sources with the company said. It can generate 200 million kilowatt-hours (kWh) of electricity annually, which is equivalent to the energy from 100,000 tonnes of coal. The power plant, with an investment of 1.24 billion yuan (about 182 million U.S. dollars), covers 19.7 hectares.<sup>6008</sup>

On 10 October 2018, the Delingha solar thermal power station, located in the northwestern province of Qinghai, was officially put into operation. It has a 50 megawatt capacity and can generate nearly 200 million kilowatt hours of electricity annually.<sup>6009</sup>

China has provided or stimulated investment in sustainable energy projects and has participated in regional initiatives to that end. Thus, it receives a score of +1.

*Analyst: Tsvetkova Anna*

### **Germany: +1**

Germany has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 7 August 2017, the Federal Ministry for the Environment sanctioned a project on the use of the energy surplus in Landsberg am Lech. Under the project, a mobile system of energy supply, which was designed in the form of containers functioning on energy surplus, will provide public institutions in the region with energy. The Ministry provided EUR1.3 million from the National Initiative on Environmental Protection to implement this project.<sup>6010</sup>

On 30 August 2017, the Governments of India and Germany agreed to collaborate on enhancing India's ability to absorb renewable power under the Indo-German Energy Programme — Green Energy Corridors.<sup>6011</sup>

On 7 September 2017, the Federal Ministry for Environment agreed to provide 1100 extra electric cars for the German public mail service to help deliver mail, to be used primarily in cities with the

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<sup>6007</sup> Policy change to strengthen solar sector, Xinhua 9 August 2018. Access Date: 30.10.2018. [http://english.gov.cn/policies/policy\\_watch/2018/08/09/content\\_281476254826970.htm](http://english.gov.cn/policies/policy_watch/2018/08/09/content_281476254826970.htm)

<sup>6008</sup> Renewable energy power plant opens in Beijing's sub-center, Xinhua 9 August 2018. Access Date: 30.10.2018. [http://www.xinhuanet.com/english/2018-08/09/c\\_137379125.htm](http://www.xinhuanet.com/english/2018-08/09/c_137379125.htm)

<sup>6009</sup> Large commercial solar thermal power station put into operation, Xinhua 10 October 2018. Access Date: 30.10.2018. [http://www.xinhuanet.com/english/2018-10/11/c\\_137523874.htm](http://www.xinhuanet.com/english/2018-10/11/c_137523874.htm).

<sup>6010</sup> Wärme wird mobil, Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit 7 August 2017. Access Date: 12.12.2017. <https://www.bmub.bund.de/pressemitteilung/waerme-wird-mobil/>.

<sup>6011</sup> Germany and India connect on renewable grid integration project, PV Tech 30 August 2017. Access Date: 30 August 2017. <https://www.pv-tech.org/news/germany-and-india-connect-on-renewable-grid-integration-project>

highest levels of air pollution. The budget of the program was also increased from EUR7.7 million to EUR17 million.<sup>6012</sup>

On 13 September 2017 the Round Table Against Marine Litter took place for the second time in Germany. The working groups of the round table made recommendations on how responsible action on marine litter can be integrated into business and commercial enterprises. One of the measures to combat marine litter is the Fishing for Litter Initiative, which involves distributing large bags to commercial fisheries to collect the waste caught in their nets and transporting it to the ports. The project also intends to raise awareness among the fishermen and be integrated as a training module at the vocational school for commercial fishers in Rendsburg.<sup>6013</sup>

On 18 September 2017, the Federal Ministry for the Environment supported the project of the Gelinova GmbH company in Heidelberg. The project assumes the production of bio-packaging from agar-agar and gelatin with the help of a new technology, which saves on energy and resources, particularly water. The application of the gelatin technology made it possible to save an extra 93,000 kilowatts of energy and almost 62 tons of gas per year. Gelinova received EUR2.3 million budget to help implement the project.<sup>6014</sup>

On 13 November 2017, Germany supported the Marshall Islands to develop ships with low gas emissions. Marshall Islands are among the countries most affected by climate change, and their greatest energy consuming branch of industry is shipping. The essence of Germany's support is for a project to reduce the use of coal for energy production in navigation. The project is a part of the initiatives developed at the Bonn Climate Conference. The Federal Ministry for Environment provided EUR9.5 million to support the project.<sup>6015</sup>

On 18 November 2017, the European Week for Waste Reduction took place in Germany with the motto "Giving objects a new life — encouraging repair in Germany." The week sought to raise awareness among all Germans to be more mindful in their consumption of appliances and resources to avoid waste, where possible. Germany financed the campaign with funds from the European Climate Initiative.<sup>6016</sup>

On 27 November 2017, at the invitation of the Federal Minister for Environment Barbara Hendricks, G20 met in Berlin to attend the first meeting of the G20 Resource Efficiency Dialogue. The new dialogue platform aims to develop the efficient ways to use resources, including energy. According to

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<sup>6012</sup> Emissionsfreie Post- und Paketzustellung für Städte mit hoher Luftbelastung, Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit 7 September 2017. Access Date: 12.12.2017. <https://www.bmub.bund.de/pressemitteilung/emissionsfreie-post-und-paketzustellung-fuer-staedte-mit-hoher-luftbelastung/>.

<sup>6013</sup> "Round Table Against Marine Litter goes into round two", the Federal Ministry for Environment 13 September 2017. Access Date: 5 January 2018. <https://www.umweltbundesamt.de/en/press/presinformation/round-table-against-marine-litter-goes-into-round>

<sup>6014</sup> Energiesparende Gelatineproduktion, Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit 18 September 2017. Access Date: 12.12.2017. <https://www.bmub.bund.de/pressemitteilung/energiesparende-gelatineproduktion/>.

<sup>6015</sup> Deutschland unterstützt Marshall Islands bei der Entwicklung von emissionsarmer Seeschifffahrt, Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit 13 November 2017. Access Date: 12.12.2017. <https://www.bmub.bund.de/pressemitteilung/deutschland-unterstuetzt-marshall-islands-bei-der-entwicklung-von-emissionsarmer-seeschifffahrt/>.

<sup>6016</sup> "It pays to repair", Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety 20 November 2017. Access Date: 20 December 2017. <https://www.bmub.bund.de/en/pressrelease/repapieren-lohnt-sich/>

the propositions made at the meeting, by 2050 it will be possible to reduce resource consumption by 28 per cent, while simultaneously increasing economic efficiency by 1 per cent.<sup>6017</sup>

On 13 December 2017, the Federal Ministry of Finance announced the prolongation of an initiative to reduce taxes on companies reducing energy consumption, as based on a report conducted by the RWI - Leibniz-Institut für Wirtschaftsforschung e. V.<sup>6018</sup>

Germany has provided/stimulated investment in sustainable energy projects and has participated in regional initiatives to that end. Thus, it receives a score of +1.

*Analysts: Alena Zhogol and Daria Evreeva*

### **France: +1**

France has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 6 September 2017, the Minister of the Ecological and Solidary Transition presented a draft bill to the Council of Ministers to end to the research and exploitation of conventional and unconventional hydrocarbons. Specifically, the bill prohibits the research and exploitation of shale gas and lays the groundwork for eliminating oil and gas production in France by 2040.<sup>6019</sup>

On 26 September 2017, Prime Minister Édouard Philippe presented the 2018-2022 investment plan. The plan recognizes the fact that buildings are responsible for 20 per cent of greenhouse gas emissions. Thus, it will launch a major thermal renovation project aimed at building renovation. EUR9 billion will be mobilized to improve the energy efficiency of low-income housing and public buildings. One-quarter of the public buildings will be upgraded to meet environmental standards.<sup>6020</sup>

On 13 October 2017, Minister for an Ecological and Solidarity Transition Nicolas Hulot welcomed the European Union Environment Council's progress in implementing the Paris Agreement, which largely focused on switching to renewable energy.<sup>6021</sup>

On 13 October 2017, Secretary of State Sebastien Lecornu inaugurated the first French floating wind turbine in Saint-Nazaire. The turbine will produce the equivalent of annual electrical consumption of 5000 inhabitants. The energy produced will be injected into the electricity grid. The Floatgen wind project is the result of a collaboration between seven European partners, three of which are French: Idéol, a start-up company specializing in offshore wind turbines that designed the floating foundation;

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<sup>6017</sup> Erstes G20-Treffen zur Ressourceneffizienz, Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit 27 November 2017. Access Date: 19.12.2017. <https://www.bmub.bund.de/pressemitteilung/erstes-g20-treffen-zur-ressourceneffizienz/>.

<sup>6018</sup> Unternehmen sparen erneut Energie und erhalten eine Teillastung von Strom- und Energiesteuer, Bundesministerium der Finanzen 13 December 2017. Access Date: 13 December 2017. <http://www.bundesfinanzministerium.de/Content/DE/Pressemitteilungen/Finanzpolitik/2017/12/2017-12-13-PM24.html>.

<sup>6019</sup> Plan Climat. Le site du Gouvernement français, 21 September 2017. Access Date: 29 November 2017. <http://www.gouvernement.fr/action/plan-climat>

<sup>6020</sup> Grand Plan d'Investissement: 5 milliards d'euros pour l'agriculture. Site du Ministère de l'Agriculture et de l'Alimentation, 26 September 2017. Access Date: 29 November 2017. <http://agriculture.gouv.fr/grand-plan-dinvestisment-5-milliards-deuros-pour-lagriculture>

<sup>6021</sup> Conseil des ministres européens de l'Environnement : Nicolas Hulot rappelle que l'ambition c'est la solution, Ministère de la Transition écologique et solidaire 13 October 2017. Access Date: 20 December 2017. <https://www.ecologique-solidaire.gouv.fr/conseil-des-ministres-europeens-lenvironnement-nicolas-hulot-rappelle-lambition-cest-solution>

Bouygues Travaux Publics, which led to the construction of the floating foundation in the form of a square concrete ring; and the Central School of Nantes, a public engineering school.<sup>6022</sup>

On 19 October 2017, the French government created the Label for the Energy and Ecological Transition to ensure that investment funds contribute to the financing of energy and ecological transition. The label comprises demanding list of specifications and constitutes a benchmark for investors wishing to participate in financing the green economy. Complementing the range of financing tools provided by the Law of 17 August 2015 on energy transition for green growth, the TEEC label aims to increase investments that benefit the ecological transition and the fight against pollution. It will be done either by highlighting existing green investment funds or by creating new ones. 15 investment funds have already been created.<sup>6023</sup>

On 12 December 2017, President Emmanuel Macron organized the One Planet Summit in Paris. The event was organized around 4 discussion panels, the second of which focused on the importance of involving all finance actors in the fight against climate change and transition towards an economy emitting less greenhouse gases.<sup>6024</sup>

On 10-19 July 2017, France took part at high-level political forum on sustainable development, convened under the auspices of the United Nations Economic and Social Council. At the forum France presented its action plan for implementing Sustainable Development Goals. France also stated it invest up to EUR6 million in renewable energy programs in Africa.<sup>6025</sup>

France has provided/stimulated investment in sustainable energy projects and has participated in regional initiatives to that end. Thus, it receives a score of +1.

*Analysts: Ekaterina Rosolovskaya and Anastasiia Shkrebo*

### **India: +1**

India has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 30 August 2017, the Governments of India and Germany agreed to collaborate on enhancing India's ability to absorb renewable power under the Indo-German Energy Programme — Green Energy Corridors.<sup>6026</sup>

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<sup>6022</sup> Inauguration de « Floatgen », la première éolienne flottante française, Ministère de la Transition écologique et solidaire 13 October 2017. Access Date: 20 December 2017. <https://ecologique-solidaire.gouv.fr/inauguration-floatgen-premiere-eolienne-flottante-francaise>

<sup>6023</sup> Label Transition Énergétique et Ecologique pour le Climat pour les investisseurs qui s'engagent. Site du Ministère de la Transition Ecologique et Solidaire, 19 October 2017. Access Date: 29 November 2017. <https://www.ecologique-solidaire.gouv.fr/sites/default/files/Le%20label%20transition%20énergétique%20et%20écologique%20pour%20le%20climat%20pour%20les%20investisseurs%20qui%20s'engagent.pdf>

<sup>6024</sup> One Planet Summit. France Diplomatie, 12 December 2017. Access Date: 1 December 2017. <https://www.diplomatie.gouv.fr/en/french-foreign-policy/climate/one-planet-summit/>

<sup>6025</sup> Point d'étape de la France dans la mise en œuvre des ODD à l'occasion du Forum politique de haut niveau à l'ONU en juillet 2017, Gouvernement français July 2017. Access Date: 20 December 2017. [https://ecologique-solidaire.gouv.fr/sites/default/files/ODD\\_Point%20d%27%C3%A9tape%20HLPF%202017.pdf](https://ecologique-solidaire.gouv.fr/sites/default/files/ODD_Point%20d%27%C3%A9tape%20HLPF%202017.pdf)

<sup>6026</sup> Germany and India connect on renewable grid integration project, PV Tech 30 August 2017. Access Date: 30 August 2017. <https://www.pv-tech.org/news/germany-and-india-connect-on-renewable-grid-integration-project>



On 16 August 2017, Prime Minister Narendra Modi proposed building model cities where power demand is met only by solar energy, and further stated that bio-ethanol refinery projects should be accelerated to control India's dependency on fossil fuels.<sup>6027</sup>

On 6 October 2017, the EU-India Leaders' Statement on Energy and Climate was issued. The statement underlined the EU and India's resolve to promote global clean and low greenhouse gas emissions energy transition towards sustainable, affordable, reliable, and modern energy services. The EU and India claimed to be committed to jointly further the objectives of the International Solar Alliance, including through synergies with other international initiatives to promote renewable energy under the framework of the International Renewable Energy Agency.<sup>6028</sup>

On 10 March 2018, the International Solar Alliance (ISA), the African Development Bank (AfDb), the Asian Development Bank (ADB), the Asian Infrastructure Investment Bank (AIIB), the Green climate fund (GCF) and the New Development Bank (NDB) signed Joint financial partnership Declarations. The objective of the agreements is to deepen cooperation in renewable energy.<sup>6029</sup>

On 17 April 2018, Minister of Petroleum and Natural Gas Dharmendra Pradhan and U.S. Secretary of Energy Rick Perry co-chaired inaugural meeting of the U.S.—India Strategic Energy Partnership. In their joint statement, the parties pointed out several pillars of cooperation including Sustainable Growth and Renewable Energy.<sup>6030</sup>

On 4 October 2018, 21 countries of the Indian Ocean Rim Association including India adopted the Delhi Declaration on Renewable energy. The parties agreed to promote regional capacity building and develop common renewable regional agenda.<sup>6031</sup>

India has provided/stimulated investment in sustainable energy projects and has participated in regional initiatives to that end. Thus, it receives a score of +1.

*Analyst: Polina Shtanko*

### **Indonesia: +1**

Indonesia has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

As of 15 September 2017, the Asian Development Bank approved two loans jointly worth USD1.1 billion to finance projects increasing access to renewable-energy sources in eastern Indonesia.<sup>6032</sup> With these loans, the Indonesian government will develop various reforms to improve fiscal

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<sup>6027</sup> Prime Minister of India proposed building model cities where power demand is met only by solar energy, Embassy of India in Tokyo 16 August 2017. Access Date: 28 March 2018. [https://www.indembassy-tokyo.gov.in/pdf/Newsletter%20\(September%202017\)%20-%20EOI%20Tokyo%20\(2\)%20-.pdf](https://www.indembassy-tokyo.gov.in/pdf/Newsletter%20(September%202017)%20-%20EOI%20Tokyo%20(2)%20-.pdf)

<sup>6028</sup> EU-India joint statement on clean energy and climate change, European Commission 6 October 2017. Access Date: 2 December 2017. [https://ec.europa.eu/clima/sites/clima/files/news/20171006\\_statement\\_en.pdf](https://ec.europa.eu/clima/sites/clima/files/news/20171006_statement_en.pdf).

<sup>6029</sup> ISA-ADB, NDB, GCF, AfDB and AIIB joint declarations of Financial partnership. Access Date: 01 November 2018. <http://www.pib.nic.in/Pressreleaseshare.aspx?PRID=1523641>

<sup>6030</sup> India-US Strategy Energy Partnership Joint Statement. Access Date: 01 November 2018. <http://pib.nic.in/newsite/PrintRelease.aspx?relid=178727>

<sup>6031</sup> 21 IORA Countries adopt the Delhi Declaration on Renewable Energy; To Collaborate with ISA Member Countries. Access Date: 01 November 2018. <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1548667>

<sup>6032</sup> ADB to boost Indonesia's energy sector, spur renewable-energy access with over US\$1 billion in loans, PV Tech 15 September 2017. Access Date: 24 January 2018. <https://www.pv-tech.org/news/adb-to-boost-indonesias-energy-sector-spur-renewable-energy-access-with-ove>

sustainability, such as rationalizing tariffs, introduce measures to improve private investment in electricity and gas and support the scale-up of renewable energy and energy efficiency measures.

In October 2017, the Ministry of Energy and Mineral Resources announced that the Indonesian government would not approve any new coal-fired power plants on Java in an effort to open more opportunities for the development of renewable energy and gas-fired power plants.<sup>6033</sup>

On 23 December 2017, the House of Representatives Energy Commission called for elaborating on a specific law on renewable energy, since current law on renewable energy development is based on the 2007 Energy Law and 2014 Government Regulation on the National Energy Policy. This elaboration will help to boost the share of renewable energy sources electricity generation and enable Indonesia to meet its commitment on cutting greenhouse gas emissions under the Paris Agreement.<sup>6034</sup>

As of 4 January 2018, the Ministry of Energy and Mineral Resources intended “to immediately use the loan funds disbursed by the World Bank ... for the development of renewable energy.” The World Bank has allocated approximately USD600 million in “soft loans” with a 1.5 per cent interest rate to develop five geothermal working areas in different regions of the country.<sup>6035</sup>

On 10 October 2018, it was announced Indonesia’s state-owned holding company PT Indonesia Asahan Aluminium joined the MIT Energy Initiative and would support research of the Initiative’s Low-Carbon Energy Center for Materials in Energy and Extreme Environments<sup>6036</sup>.

On 11 October 2018, the government of Indonesia organized the Conference on Low Carbon Development and Green Economy, as part of the annual meetings of the IMF and World Bank in Bali; the Conference presented Indonesia’s Low Carbon Development Initiative report that outlines Indonesia’s framework for low carbon development to be incorporated into Indonesia’s National Medium-Term Development Plan 2020-2024.<sup>6037</sup>

On 11 October 2018, it was reported that the government of Indonesia jointly with the Asian Development Bank would implement a micro and mini-grid program for the Indonesia’s less electrified areas of Maluku-Papua utilizing local solar and micro-hydro resources; the program will be incorporated into Indonesia’s National Medium-Term Development Plan 2020-2024.<sup>6038</sup>

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<sup>6033</sup> Corporate demands as starting point for renewable energy revolution, Jakarta Post 1 November 2017. Access Date: 24 January 2018. <http://www.thejakartapost.com/academia/2017/11/01/corporate-demands-as-starting-point-for-renewable-energy-revolution.html>

<sup>6034</sup> Indonesia needs renewable energy law, lawmaker says, Jakarta Post 23 December 2017. Access Date: 24 January 2018. <http://www.thejakartapost.com/news/2017/12/23/indonesia-needs-renewable-energy-law-lawmaker-says.html>

<sup>6035</sup> Five projects of up to 370 MW to profit from World Bank funding in Indonesia, Think GeoEnergy 4 January 2018. Access Date: 24 January 2018. <http://www.thinkgeoenergy.com/five-projects-of-up-to-370-mw-to-profit-from-world-bank-funding-in-indonesia/>

<sup>6036</sup> INALUM collaborates with MIT Energy Initiative to advance low-carbon energy technologies, MIT News 12 October 2018. Access Date: 18 October 2018. <http://news.mit.edu/2018/inalum-collaborates-with-mit-energy-initiative-to-advance-low-carbon-energy-1012>

<sup>6037</sup> Indonesia Unveils Low Carbon Development Framework, IPS News Agency 12 October 2018. Access Date: 18 October 2018. <http://www.ipsnews.net/2018/10/indonesia-unveils-low-carbon-development-framework/>

<sup>6038</sup> Micro and mini-grids to bring power to Indonesia’s off-grid communities, PV Magazine 11 October 2018. Access Date: 18 October 2018. <https://www.pv-magazine.com/2018/10/11/indonesia-reveals-national-plan-for-micro-and-mini-grids/>

Indonesia has provided/stimulated investment in sustainable energy projects and has participated in regional initiatives to that end. Thus, it receives a score of +1.

*Analyst: Pavel Doronin*

### **Italy: +1**

Italy has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 10 November 2017, the Ministers of Economic Development and the Environment and Economy approved the 2017 National Energy Strategy. One of the strategy's primary objectives is to make the national energy system more sustainable by increasing energy efficiency. The quantitative goals set by the strategy include reducing of Italy's total energy consumption from 118 million tonnes of oil equivalent (Mtoe) to 108 Mto and increase the renewable energy sources share in energy mix to 28 per cent by 2030.<sup>6039</sup>

On 22 December 2017, the Ministers of Economic Development and the Environment and Economy signed a decree on the National Fund for Energy Efficiency.<sup>6040</sup> The fund will attract both government and private finance for energy efficiency projects in Italy. The Ministry of Economic Development allocated an initial EUR150 million for the fund with additional EUR35 million annually from 2018 to 2020.<sup>6041</sup>

On 2 March 2018, the Ministry of Economic Development issued decrees on the promotion of biomethane use in transportation and the benefits for natural gas consumption by businesses. The decree on biomethane aims to achieve a 10 per cent share of renewable energy sources in the transportation sector by 2020.<sup>6042</sup>

On 2 March 2018, the Italian Ministry of Economic Development issued decrees on the promotion of biomethane use in transportation and the benefits for natural gas consumption by businesses. The decree on biomethane sets the objective of achieving a 10 percent share of renewable energy sources in transportation sector by 2020.<sup>6043</sup>

On 14 June 2018, the Italian Minister of Economic Development took part in the discussion of the new European targets on renewable energy consumption share in the for the upcoming years, supporting the more ambitious goal of 35 percent by 2030, while the European Commission

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<sup>6039</sup> Ecco la Strategia Energetica Nazionale 2017, Ministry of Economic Development 10 November 2017. Access Date: 28 March 2018. <http://www.sviluppoeconomico.gov.it/index.php/it/194-comunicati-stampa/2037349-ecco-la-strategia-energetica-nazionale-2017>.

<sup>6040</sup> Decreto 22 dicembre 2017 Modalita' di funzionamento del Fondo nazionale per l'efficienza energetica, Ministry of Economic Development 22 December 2017. Access Date: 28 March 2018. <http://www.gazzettaufficiale.it/eli/id/2018/03/06/18A01498/sg>.

<sup>6041</sup> Fondo nazionale per l'efficienza energetica: firmato il decreto attuativo, Ministry of Economic Development 28 December 2017. Access Date: 28 March 2018. <http://www.sviluppoeconomico.gov.it/index.php/it/198-notizie-stampa/2037585-fondo-nazionale-per-l-efficienza-energetica-firmato-il-decreto-attuativo>.

<sup>6042</sup> Firmati decreti su uso biometano e agevolazioni imprese "gasivore", Ministry of Economic Development 2 March 2018. Access Date: 28 March 2018. <http://www.sviluppoeconomico.gov.it/index.php/it/194-comunicati-stampa/2037831-firmati-decreti-su-uso-biometano-e-agevolazioni-imprese-gasivore>.

<sup>6043</sup> Firmati decreti su uso biometano e agevolazioni imprese "gasivore", Ministry of Economic Development 2 March 2018. Access Date: 28 March 2018. <http://www.sviluppoeconomico.gov.it/index.php/it/194-comunicati-stampa/2037831-firmati-decreti-su-uso-biometano-e-agevolazioni-imprese-gasivore>

proposed the 27 percent target.<sup>6044</sup> Ultimately the compromise was reached at the 32 percent by 2030 target, with an upwards revision possible in 2023.<sup>6045</sup>

The Italian Government showed commitment to promote the aforementioned European initiative and to attain the corresponding national goals under the Agenda 2030, through the development of national incentives for renewable energy production. On 14 September 2018, the Ministry of Economic Development organized a meeting with the representatives of the Ministry of the Environment and trade associations to discuss the modalities of such incentivizing mechanisms to be adopted within the Ministerial Decree on Incentives for Renewable Energy Production currently under consideration by the Ministry.<sup>6046</sup>

Italy has taken steps to promote sustainable energy domestically and regionally. Thus, Italy receives a score of +1.

*Analyst: Andrei Sakharov*

### **Japan: +1**

Japan has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 29 June 2017, the Development Bank of Japan and the US GE Energy Financial Services established a fund for investments in operating solar power plants, which is expected to become Japan's largest fund in the domain.<sup>6047</sup>

On 9 November 2017, a memorandum of cooperation in the energy field was signed between the Governments of Japan and Vietnam, establishing a joint Energy Working Group to exchange information and hold discussions concerning cooperation on energy policies, data and statistics, coal, liquefied natural gas, grid development, renewable energy, and energy efficiency and conservation.<sup>6048</sup>

On 22 November 2017, the Japanese government signed a grant agreement with the Marshall Islands in which Japan will contribute to a stable supply of power and reduced fuel consumption in the Marshall Islands by supporting the introduction of a solar power generation system.<sup>6049</sup>

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<sup>6044</sup> Unione europea, accordo al rialzo sulle rinnovabili, Italian Ministry of Economic Development 14 June 2018. Access Date: 31 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/it/198-notizie-stampa/2038260-unione-europea-accordo-al-rialzo-sulle-rinnovabili>.

<sup>6045</sup> Europe leads the global clean energy transition: Commission welcomes ambitious agreement on further renewable energy development in the EU, European Commission 14 June 2018. Access Date: 31 October 2018. [http://europa.eu/rapid/press-release\\_STATEMENT-18-4155\\_en.htm](http://europa.eu/rapid/press-release_STATEMENT-18-4155_en.htm).

<sup>6046</sup> Decreto Rinnovabili Elettriche incontro al MISE, Italian Ministry of Economic Development 13 September 2018. Access Date: 31 October 2018. <http://www.sviluppoeconomico.gov.it/index.php/it/198-notizie-stampa/2038601-decreto-rinnovabili-elettriche-incontro-al-mise>.

<sup>6047</sup> Japan state-backed bank, GE team on solar power fund, Nikkei Asian Review 29 June 2017. Access Date: 10 January 2018. <https://asia.nikkei.com/Business/Deals/Japan-state-backed-bank-GE-team-on-solar-power-fund>

<sup>6048</sup> Japan and Viet Nam Signed a Memorandum of Cooperation on Energy Fields, Japan's Ministry of Economy, Trade and Industry 9 November 2017. Access Date: 10 January 2018. [http://www.meti.go.jp/english/press/2017/1109\\_001.html](http://www.meti.go.jp/english/press/2017/1109_001.html)

<sup>6049</sup> Signing of Grant Agreement with the Marshall Islands: Contributing to a stable supply of power and reduced fuel consumption through the introduction of a solar power generation system, Japan International Cooperation Agency 7 December 2017. Access Date: 10 January 2018. [https://www.jica.go.jp/english/news/press/2017/171207\\_02.html](https://www.jica.go.jp/english/news/press/2017/171207_02.html)

On 23 November 2017, the Japanese government signed an official development assistance loan agreement with Jamaica to promote energy conservation through improvements in public facilities with energy-saving devices.<sup>6050</sup>

On 11 December 2017, the Japanese government signed corporate finance loan agreement with Indonesia to support the development of renewable energy and infrastructure acceleration facilities.<sup>6051</sup>

On 24 December 2017, Japan and China signed agreements to promote cooperation in 23 energy saving and environment preservation projects.<sup>6052</sup>

Japan has taken steps to boost investment in sustainable energy both at home and abroad. Thus, Japan is awarded a score of +1.

*Analyst: Pavel Doronin*

### **Korea: +1**

Korea has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 5 September 2017, the Korea Energy Agency (KEA) announced that it will support the established Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE) which focuses on development of regional mini-grid programme for the Pacific Island Countries and Territories under the auspices of UNIDO. The parties met in Vienna, Austria, to sign a \$120.000 trust-fund agreement.<sup>6053</sup>

On 14 December 2017, the Ministry of Trade, Industry and Energy presented the Eighth Basic Plan for Electricity Supply and Demand for 2017-2031 during a session of the National Assembly. The new plan prioritizes the development of liquefied natural gas as a substitute for coal due to lower development costs and more comparative pricing.<sup>6054</sup>

Korea has taken steps to boost investment in sustainable energy both at home and abroad. Thus, Japan is awarded a score of +1.

*Analyst: Alexander Ignatov*

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<sup>6050</sup> Signing of Dollar-Denominated Japanese ODA Loan Agreement with Jamaica: Contributing to the promotion of energy conservation through improvements to public facilities with energy-saving devices, Japan International Cooperation Agency 24 November 2017. Access Date: 10 January 2018.

[https://www.jica.go.jp/english/news/press/2017/171124\\_01.html](https://www.jica.go.jp/english/news/press/2017/171124_01.html)

<sup>6051</sup> Signing of Private Sector Investment Finance (Corporate Finance) Loan Agreement for “Renewable Energy and Infrastructure Acceleration Facilities” in the Republic of Indonesia, Japan International Cooperation Agency 11 December 2017. Access Date: 10 January 2018. [https://www.jica.go.jp/english/news/press/2017/171211\\_01.html](https://www.jica.go.jp/english/news/press/2017/171211_01.html)

<sup>6052</sup> Japan and China sign 23 energy-saving, environmental cooperation projects at Tokyo meet, Japan Times 24 December 2017. Access Date: 10 January 2018. [https://www.japantimes.co.jp/news/2017/12/24/national/japan-china-sign-23-energy-saving-environmental-cooperation-projects-tokyo-meet/#.WITV\\_IVI-po](https://www.japantimes.co.jp/news/2017/12/24/national/japan-china-sign-23-energy-saving-environmental-cooperation-projects-tokyo-meet/#.WITV_IVI-po)

<sup>6053</sup> The Republic of Korea supports renewables energy mini-grid solutions in the Pacific region. Access Date: 30 October 2018. <https://www.unido.org/news/republic-korea-supports-renewable-energy-mini-grid-solutions-pacific-region>

<sup>6054</sup> LNG as a substitute for coal...Major changes in development policy. Access Date: 18 December 2017.

[http://www.keei.re.kr/main.nsf/index\\_mobile.html?open&p=%2Fweb\\_keei%2Fd\\_dataroom.nsf%2F0%2F19AFEB3EAE1A48C3492581F70001C157&s=%3FOpenDocument%26is\\_popup%3D1](http://www.keei.re.kr/main.nsf/index_mobile.html?open&p=%2Fweb_keei%2Fd_dataroom.nsf%2F0%2F19AFEB3EAE1A48C3492581F70001C157&s=%3FOpenDocument%26is_popup%3D1)

**Mexico: +1**

Mexico has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 13 September 2017, the UN Industrial Development Organization (UNIDO) and the Secretariat of Energy (SENER) agreed to expand cooperation and promote energy efficiency to achieve an inclusive and sustainable industrial development. SENER and UNIDO will establish a general framework to disseminate best practices for the development of renewable energy and energy efficiency policies in the industrial sector, taking advantage of existing policies and programs in Mexico, as well as the services offered by UNIDO to its member countries in this field.<sup>6055</sup>

On 16 November 2017, evaluations of the economic offers made at the 2017 Third Long Term Electric Auction occurred. The auction aimed to encourage investment in new sources of electricity generation in Mexico as well as to promote the increased production of clean energy and internationally competitive prices.<sup>6056</sup>

On 19 December 2017, the Secretary of Energy presented a proposal for the New Project for Renewable Energies and Energy Efficiency. The project will be funded with World Bank resources to promote the use of renewable energy, provide energy efficiency, and increase the competitiveness of the agri-food sector.<sup>6057</sup>

On 17 February 2018, Mexico became the 30th member country of the International Energy Agency Membership when the Mexican Senate signed, ratified, and deposited the Agreement on an International Energy Program.<sup>6058</sup>

On 25-27 June 2018, the Workshop “Small Wind Turbines” was held. The event was held within the framework of the project “Optimization of small wind turbines and their promotion in the market” carried out by the National Institute of Electricity and Clean Energy supported by the Fund for International Cooperation in Science and Technology of the National Council of Science and Technology. Some of the objectives of the workshop were: to promote the development and implementation of wind turbines in small and medium scale for their operation in isolated systems and in weak electrical networks, as well as to promote multinational collaboration between research centers and industry to identify and increase knowledge about the potential of technology.<sup>6059</sup>

On 27-28 September 2018, the Workshop on Energy Topics for the Museography of the National Museum of Energy and Technology (MUNET) was held at the facilities of the National Institute of

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<sup>6055</sup> La ONUDI y la Secretaría de Energía fortalecen la cooperación en materia de energía sostenible, Government of Mexico 13 September 2017. Access Date: 30 March 2018. <https://www.gob.mx/sener/prensa/la-onudi-y-la-secretaria-de-energia-de-mexico-fortalecen-la-cooperacion-en-materia-de-energia-sostenible>

<sup>6056</sup> Anuncian SENER y CENACE, resultados preliminares de la Subasta de Largo Plazo de 2017, Government of Mexico 16 November 2017. Access Date: 30 March 2018. <https://www.gob.mx/sener/prensa/anuncian-sener-y-cenace-resultados-preliminares-de-la-subasta-de-largo-plazo-de-2017>

<sup>6057</sup> Proyecto de Agro-Energía para la Sostenibilidad, Government of Mexico 19 December 2017. Access Date: 30 March 2018. <https://www.gob.mx/sener/documentos/marco-de-gestion-ambiental-y-social-y-evaluacion-de-impacto-ambiental-paes>

<sup>6058</sup> México se une oficialmente a la Agencia Internacional de Energía (AIE) como el 30º país miembro, Government of Mexico 18 February 2018. Access Date: 30 March 2018. <https://www.gob.mx/sener/prensa/mexico-se-une-oficialmente-a-la-agencia-internacional-de-energia-aie-como-el-30-pais-miembro>

<sup>6059</sup> El INEEL coordina y expone conferencias en el Workshop: Small Wind Turbines, Government of Mexico 6 July 2018. Access Date: 1 November 2018. <https://www.gob.mx/ineel/articulos/mundo-ii-e-el-ineel-coordina-y-expone-conferencias-en-el-workshop-small-wind-turbines>

Electricity and Clean Energy. The aim of the Museo de MUNET project is to turn this venue into a benchmark for the dissemination of applied science and new technologies in the field of energy.<sup>6060</sup>

Mexico has provided/stimulated investment in sustainable energy projects and has participated in regional initiatives to that end. Thus, it receives a score of +1.

*Analyst: Irina Popova*

### **Russia: 0**

Russia has partially complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 11 December 2017, the Ministry of Natural Resources and Ecology issued Ordinance No. 2770-p concerning the construction of the liquified natural gas terminal in the seaport of Vysotsk, Leningradsky. For the further development of industry, the ordinance re-allocates that 57 hectare must be used as a producing area, thus creating a legal basis for construction.<sup>6061</sup>

In June 2018, a renewable energy capacity auction was held. It has resulted in 39 renewable power projects. Most of the design capacity was awarded to wind projects (853 MW) followed by solar projects (148 MW) and small hydropower projects (40 MW).<sup>6062</sup>

On 1 July 2018, a new solar power plant Volodarovka (Narimanov District of the Astrakhan Region, Russia) was launched. This 15 MW PV plant is the first renewable energy facility built by a consortium of Austrian and German companies. The project is managed by Vershina Development (Russia) and Green Source GmbH (Austria), project financing is provided by VTB Bank (Russia).<sup>6063</sup>

On 3 July 2018, the State Duma approved amendments to the Federal Law on gas supply in Russia. The amendments define responsibilities of the local authorities in households gas provision and introduce new generalized procedures of assessment of efficiency of gas infrastructure development.<sup>6064</sup>

On 3-6 October 2018, Russian Energy Week International Forum organized by the Ministry of Energy of the Russian Federation was launched by the Government of the Russian Federation. The program of the Forum covered future scenarios and trends in the energy sector on a global level and the most significant measures to be taken in order to provide secure energy supplies to individual

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<sup>6060</sup> Taller sobre tópicos de la energía para la museografía del MUNET, Government of Mexico 15 October 2018. Access Date: 1 November 2018. <https://www.gob.mx/ineel/articulos/taller-sobre-topicos-de-la-energia-para-la-museografia-del-munet?idiom=es>

<sup>6061</sup> Facilitating construction of a producing and charging LNG terminal in the sea port of Vysotsk (Leningradsky district). Access Date: 09 January 2018. <http://government.ru/docs/30814/>

<sup>6062</sup> More renewable energy projects to be implemented in Russia, *Realnoye Vremya* 24 September 2018. Access Date: 1 November 2018. <https://realnoevremya.com/articles/2874-more-renewable-energy-projects-to-be-implemented-in-russia>.

<sup>6063</sup> The Austrian-German Consortium Launched Its First 15 MW Solar Power Plant In Russia, *Medium* 10 October 2018. Access Date: 1 November 2018. <https://medium.com/@malafeev/the-austrian-german-consortium-launched-its-first-15-mw-solar-power-plant-in-russia-8d4088f9653e>

<sup>6064</sup> The State Duma passed amendments to the FZ on gasification (in Russian). Access Date: 26 October 2018. <https://minenergo.gov.ru/node/11764>

countries and geographical macro-areas, thereby increasing the competitiveness of national economies and giving millions of citizens a better quality of life.<sup>6065</sup>

On 25 October 2018, the State Duma ratified an agreement on shares purchase and sale transaction of PJSC «Gazprom – South Ossetia». According to the agreement, 100% shares of PJSC «Gazprom – South Ossetia» will be purchased by PJSC «Gazprom», including 25% share owned by the government of South Ossetia. The purpose of the agreement is to increase rate of return of «Gazprom» investments in local infrastructure. Changes in ownership are expected to increase the regional pipe gas consumption rate up to 5 times by 2025.<sup>6066</sup>

Russia has stimulated investment in sustainable energy projects but has not participated in regional initiatives to that end. Thus, it receives a score of 0.

*Analyst: Alexander Ignatov*

### **Saudi Arabia: +1**

Saudi Arabia has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 24 August 2017, Head of the Ministry of Energy's Renewable Energy Project Development Office Turki al-Shehri said that Saudi Arabia aims to exceed its target to generate 9.5 gigawatts (GW) of electricity from renewable energy annually. The Saudi Arabian government plans to generate 9.5 GW of electricity from renewable sources annually by 2023 through 60 projects, involving an estimated investment of between USD30 billion and USD50 billion.<sup>6067</sup>

On 16 January 2018, Saudi Arabia announced that it expects to start up to USD7 billion of renewable energy projects in 2018, primarily using solar plants. Tenders will be issued in 2018 for eight projects totaling 4.125 GW of capacity. The cost of the projects will be between USD5 billion to USD7 billion.<sup>6068</sup>

On 9 March 2018, Saudi Arabia and the United Kingdom signed a memorandum of understanding on clean energy. The parties agreed to promote development of technologies to reduce harmful carbon emissions. The two countries will also exchange expertise and knowledge on smart grids, electric vehicles, and Carbon Capture Usage and Storage techniques.<sup>6069</sup>

Saudi Arabia has provided or stimulated investment in sustainable energy projects and has participated in regional initiatives to that end. Thus, it receives a score of +1.

*Analyst: Irina Popova*

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<sup>6065</sup> #Russian Energy Week 2018 - Sustainable Energy for a Changing World, Enel Russia 10 October 2018. Access Date: 1 November 2018. <https://www.enelrussia.ru/en/stories/a201810-sustainable-energy-for-changing-world.html>.

<sup>6066</sup> The State Duma of the Russian Federation ratified agreement on shares purchase of PJSC «Gazprom – South Ossetia». Access Date: 26 October 2018. <https://minenergo.gov.ru/node/12817>

<sup>6067</sup> Saudi Arabia aims to exceed renewable energy target, Reuters 24 August 2017. Access Date: 28 March 2018. <https://www.reuters.com/article/saudi-renewable/saudi-arabia-aims-to-exceed-renewable-energy-target-idUSL8N1LA456>

<sup>6068</sup> Saudi Arabia Plans Up to USD7 Billion of Renewable Energy Projects This Year, Bloomberg 16 January 2018. Access Date: 28 March 2018. <https://www.bloomberg.com/news/articles/2018-01-16/saudi-arabia-plans-up-to-7-billion-of-renewables-this-year>

<sup>6069</sup> UK and Saudi Arabia sign memorandum of understanding on clean energy. Access Date: 12 November 2018. <https://www.gov.uk/government/news/uk-and-saudi-arabia-sign-memorandum-of-understanding-on-clean-energy>



### **South Africa: 0**

South Africa has partially complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 20 July 2017, Minister of Energy Mmamoloko Kubayi held a meeting with the Board of Governors of the South African Petroleum Industry Association (SAPIA) to discuss key industry issues including supply security, climate change, and clean fuels to ensure the provision of secure, sustainable, and affordable energy.<sup>6070</sup>

On 10 October 2017, the Department of Energy hosted the Policy Group and Expert Group meeting on the margins of the Generation IV International Forum in Cape Town. The meeting was devoted to the development of nuclear energy, in terms of efficiency and safety. Participants discussed various issues including nuclear fuel utilization, financial planning, risk management, and physical protection.<sup>6071</sup>

On 7-8 December 2017, the Department of Energy hosted the Energy Indaba in Johannesburg, a formal meeting gathering key stakeholders and experts in energy policy to discuss ways to drive energy efficiency development and ensure economic growth. The meeting was attended by President Jacob Zuma, who addressed the participants by drawing attention to the necessity of improving the National Energy Strategy to advance overall energy efficiency and investment activity.<sup>6072</sup>

South Africa has stimulated investment in sustainable energy projects but has not participated in regional initiatives to that end. Thus, it receives a score of 0.

*Analyst: Alexander Ignatov*

### **Turkey: 0**

Turkey has partially complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 3 August 2017, Turkey's first wind tender within the framework of the Renewable Energy Resource Zone Project (YEKA) was held. Wind turbines will be built in five regions in Turkey. Factories will require over USD100 million in investments and have a production capacity of at least 150 units per year to activate at least 50 megawatts in each of the five regions.<sup>6073</sup>

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<sup>6070</sup> Minister of Energy, Ms Mmamoloko Kubayi, met with the South African Petroleum Industry Association to strengthen stakeholder relations on 17 July 2017. Access Date: 11 December 2017. <http://www.energy.gov.za/files/media/pr/2017/MediaRelease-Minister-of-Energy-met-with-the-SA-PIA-to-strengthen-stakeholder-relations.pdf>

<sup>6071</sup> MEDIA STATEMENT 44th Policy Group and 38th Expert Group meetings of the Generation IV International Forum, Cape Town, South Africa. Access Date: 11 December 2017. <http://www.energy.gov.za/files/media/pr/2017/MediaStatement-44thPolicy-Group-38th-Expert-Group-meetings-of-GenerationIV-04Oct2017.pdf>

<sup>6072</sup> Address by President Jacob Zuma at the Energy Indaba, Gallagher Convention Centre, Midrand, Johannesburg. Access Date: 11 December 2017. <http://www.thepresidency.gov.za/speeches/address-president-jacob-zuma-energy-indaba%2C-gallagher-convention-centre%2C-midrand%2C>

<sup>6073</sup> Turkish-German consortium awarded USD1B worth wind power plant contract, Daily Sabah 3 August 2017. Access Date: 15 January 2018. <https://www.dailysabah.com/energy/2017/08/03/turkish-german-consortium-awarded-1b-worth-wind-power-plant-contract>

As of 21 December 2017, Turkey's total investment in wind energy in 2017 reached around USD5 billion, while wind energy accounts for 8 per cent of Turkey's generation.<sup>6074</sup>

On 21 December 2017, a ceremony for Turkey's first integrated solar module, cell, and panel production factory was held in Ankara within the framework of YEKA. The project attracted USD500 million in private investment and will produce components for Turkey's biggest solar plant facility, the YEKA project in Karapınar in the Konya province. It will serve the energy needs of over 600,000 households.<sup>6075</sup>

On 25-29 December 2017, the Turkish Government-owned Electricity Transmission Company held another bidding procedure for wind power tenders for plants in eight regions of Turkey, with a capacity of 430 megawatts generation.<sup>6076</sup>

In 2017, Turkey became the world's fourth largest installed geothermal power capacity, which was achieved through total USD1.4 billion investment in facilities that generate around 640 megawatts.<sup>6077</sup>

On 12 January 2018, the Turkish government endorsed the National Energy Efficiency Action Plan, which was developed and will be implemented with support from the European Union and European Bank for Reconstruction and Development.<sup>6078</sup> Under the plan, Turkey will invest USD11 billion in 2018 to 2023 to reduce primary energy consumption by 14 per cent by 2023. The main focus areas include increased use of renewable energy and district heating in buildings and in use of combined heat and power across all industries. A national energy efficiency financing mechanism and regulatory framework for the creation of a heating and cooling market will also be developed. Turkey's energy efficiency standards will also be brought into compliance with that of the EU's.<sup>6079</sup>

On 22 June 2018, it was reported the European Bank for Reconstruction and Development was providing a 50 million EUR loan to Garanti Finansal Kiralama A.S. bank for on-lending to small and medium-sized enterprises (SMEs) in Turkey for energy efficiency investments; the loan is provided under the Turkey Sustainable Energy Financing Facility (in total 400 million EUR of loans to commercial banks and leasing companies for sustainable energy investments).<sup>6080</sup>

On 28 September 2018, it was announced that the Asian Infrastructure Investment Bank approved a loan of up to 200 million USD to the Industrial Development Bank of Turkey, to support long-term

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<sup>6074</sup> Turkey's wind energy sector lures USD12 billion in investments in 11 years, Hurriyet Daily News 21 December 2017. Access Date: 15 January 2018. <http://www.hurriyetdailynews.com/turkeys-wind-energy-sector-lures-12-billion-in-investments-in-11-years-124533>

<sup>6075</sup> Turkey launches first solar cell integrated factory, Hurriyet Daily News 22 December 2017. Access Date: 15 January 2018. <http://www.hurriyetdailynews.com/turkey-launches-first-solar-cell-integrated-factory-124575>

<sup>6076</sup> 2,130 MW wind power plants to be established in 32 locations across Turkey, Daily Sabah 25 December 2017. Access Date: 15 January 2018. <https://www.dailysabah.com/energy/2017/12/26/2130-mw-wind-power-plants-to-be-established-in-32-locations-across-turkey>

<sup>6077</sup> Turkey ranks fourth in global geothermal power, Daily Sabah 11 January 2018. Access Date: 15 January 2018. <https://www.dailysabah.com/energy/2018/01/11/turkey-ranks-fourth-in-global-geothermal-power>

<sup>6078</sup> Turkey invests USD11bn in energy efficiency, Metering and Smart Energy International 12 January 2018. Access Date: 15 January 2018. <https://www.metering.com/news/turkey-energy-efficiency-action-plan/>

<sup>6079</sup> Turkey invests USD11bn in energy efficiency, Metering and Smart Energy International 12 January 2018. Access Date: 15 January 2018. <https://www.metering.com/news/turkey-energy-efficiency-action-plan/>

<sup>6080</sup> EBRD boosts energy efficiency in Turkey, EBRD 22 June 2018. Access Date: 23 October 2018. <https://www.ebrd.com/news/2018/ebrd-boosts-energy-efficiency-in-turkey.html>

financing, primarily for renewable energy and energy efficiency projects (including solar, hydropower, wind, geothermal and biomass projects)<sup>6081</sup>.

Turkey stimulated investment in sustainable energy projects but did not participate in regional initiatives to that end. Thus, it receives a score of 0.

*Analyst: Pavel Doronin*

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

The United Kingdom has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 26 September 2017, the National Grid announced that the electricity powering the UK's homes and businesses in the summer of 2017 was the greenest ever and the UK set a new landmark for clean energy. The record came just as the first subsidy-free large solar power project opened in the UK, in what the UK government described as a significant moment for the energy sector.<sup>6082</sup>

On 11 October 2017, Minister of Energy Richard Harrington confirmed that up to GBP557 million will be made available for less-established renewable electricity projects as part of the UK government's Clean Growth Strategy to drive economic growth and clean the energy system.<sup>6083</sup>

On 1 November 2017, the UK-based solar power developer Lightsource partnered with UK Climate Investments, a joint venture between the Green Investment Bank and Department for Energy and Climate Change, to expand into India's solar power market. UK Climate Investments will provide funds to Lightsource to set up its first solar power project in India.<sup>6084</sup>

On 17 November 2017, the UK government committed USD773 million in funding in 2019 to develop less-established green projects, such as wave energy.<sup>6085</sup>

On 30 November 2017, the UK government confirmed that Coventry will be the home of the UK's first battery development facility, which will help make the UK a world leader in EV technology and innovation.<sup>6086</sup>

On 18 April 2018, the UK submitted its long-term low-emissions strategy (LTS), which aims to reduce greenhouse gas (GHG) emissions by at least 80 per cent by 2050 compared to 1990 levels through legally binding five-year caps. <sup>6087</sup>

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<sup>6081</sup> AIB's First On-lending Facility Supports Renewable Energy Projects in Turkey, AIB 28 September 2018. Access Date: 23 October 2018. [https://www.aib.org/en/news-events/news/2018/20180928\\_003.html](https://www.aib.org/en/news-events/news/2018/20180928_003.html)

<sup>6082</sup> This summer was greenest ever for energy, says National Grid, The Guardian 26 September 2017. Access Date: 18 December 2017. <https://www.theguardian.com/business/2017/sep/26/summer-green-energy-national-grid-carbon-emissions-solar-uk>

<sup>6083</sup> Government confirms up to £557 million for new renewable energy projects, press release of Energy Minister Richard Harrington 11 October 2017. Access Date: 3 December 2017. <https://www.gov.uk/government/news/government-confirms-up-to-557-million-for-new-renewable-energy-projects>

<sup>6084</sup> UK Climate Investments To Help Lighthouse Expand Into Indian Solar Market, Clean Technica, 13 November 2017. Access Date: 12.12.2017. <https://cleantechnica.com/2017/11/13/uk-climate-investments-help-lightsource-expand-indian-solar-market/>

<sup>6085</sup> Wave power is a largely untapped source of green energy, Born2Invest, 30 November 2017. Access Date: 12.12.2017. <https://born2invest.com/articles/wave-power-source-green-energy/>

<sup>6086</sup> Coventry to host UK's first EV battery research centre, Edie.net, 30 November 2017. Access Date: 12.12.2017. <https://www.edie.net/news/8/Coventry-to-host-the-UK-s-first-battery-technology-facility/>

On 15 October 2018, the Green GB Week started. The Green GB Week is an initiative of the Government of the UK that is aimed at promoting public awareness on sustainable growth and ways to achieve it. The occasion attracted various stakeholders including NGOs, other civil society institutions and business. One of focuses of the Green GB Week was financing strategies for low-carbon energy promotion.<sup>6088</sup>

The United Kingdom has provided/stimulated investment in sustainable energy projects and has participated in regional initiatives to that end. Thus, it receives a score of +1.

*Analysts: Nikita Efremov and Angelina Khudoleeva*

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

The United States has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

In 2017, the Office of Energy Efficiency and Renewable Energy announced its investment in the Argonne National Laboratory project in Illinois, called Market and Reliability Opportunities for Wind on the Bulk Power System. The goal of the project is to create a multi-timescale market and reliability modeling framework to better understand the impacts of wind on the electric power system as it is operated today and in the future transition to a modern, clean, and flexible power system.<sup>6089</sup>

On 12 July 2017, the Department of Energy announced USD46.2 million for 48 projects as part of its SunShot Initiative to develop innovative, early-stage solar power technologies, by lowering costs and improving reliability and efficiency.<sup>6090</sup>

On 17 July 2017, Secretary of Energy Rick Perry announced USD40 million for the establishment of four DOE Bioenergy Research Centers (BRCs) to provide the scientific breakthroughs for a new generation of sustainable, cost-effective bioproducts and bioenergy.<sup>6091</sup>

On 20 September 2017, Secretary Perry announced that the Department of Energy selected eight projects to receive up to USD15 million to optimize integrated biorefineries. These projects will work to solve critical research and developmental challenges encountered for the successful scale-up and reliable operations of integrated biorefineries, decrease capital and operating expenses, and focus on the manufacture of advanced or cellulosic biofuels and higher-value bioproducts. These

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<sup>6087</sup> UK Submits Long-term Strategy to Achieve Climate Goals under Paris Agreement. Access Date: 01 November 2018. <http://sdg.iisd.org/news/uk-submits-long-term-strategy-to-achieve-climate-goals-under-paris-agreement/>

<sup>6088</sup> Green GB Week: Landmark action to celebrate Clean Growth. Access Date: 01 November 2018. <https://www.gov.uk/government/news/landmark-week-of-action-to-celebrate-clean-growth>

<sup>6089</sup> Wind Energy Technologies Office Projects Map, U.S. Department of Energy. Access Date: 20 December 2017. <https://energy.gov/eere/wind/wind-energy-technologies-office-projects-map>

<sup>6090</sup> Energy Department Announces USD46.2 Million for 48 Projects to Advance Solar Power Technologies, Department of Energy. Access Date: 12 July 2017. <https://energy.gov/articles/energy-department-announces-462-million-48-projects-advance-solar-power-technologies>

<sup>6091</sup> Department of Energy Provides USD40 Million for 4 DOE Bioenergy Research Centers, Department of Energy. Access Date: 17 July 2017. <https://energy.gov/articles/department-energy-provides-40-million-4-doe-bioenergy-research-centers>

investments support the development of bioproducts, a workforce in bioenergy, and help to spur the creation of a sustainable domestic bioeconomy.<sup>6092</sup>

On 27 September 2017, the Department of Energy announced new funding to develop revolutionary solar desalination technologies that will help create freshwater from otherwise unusable waters. The Solar Energy Technologies Office expects to provide USD15 million for 7 to 10 projects exploring early-stage technologies with the prospect of significantly reducing the cost of desalination through solar thermal energy.<sup>6093</sup>

On 5 October 2017, Deputy Secretary of Energy Dan Brouillette kicked off the highly anticipated Solar Decathlon in Denver, Colorado. This international competition shows consumers how to save money and energy with affordable energy products. Hundreds of collegiate students from the US and Europe assembled to showcase their energy-efficient, innovation-packed solar houses for competition. The Solar Decathlon challenges students to think creatively about energy innovation in the future through design. According to Deputy Secretary Brouillette, “students are actively addressing global energy challenges such as reliability, resiliency, and security by incorporating the use of innovative energy and water efficiency technologies into their professional projects.”<sup>6094</sup>

On 17 October 2017, the Office of Energy Efficiency and Renewable Energy announced a new floating, vertical-axis wind turbine platform design to enable offshore wind developers in the US to access the country’s vast deep-water offshore wind resource. The Department of Energy explores a scenario in which 86 gigawatts of offshore wind turbines will be installed by 2050.<sup>6095</sup>

On 25 October 2017, the Environmental Protection Agency Region 2 Administrator Pete Lopez announced that it installed 4,788 photovoltaic panels at their campus in Edison, New Jersey. The solar array system will generate enough electricity to power 45 per cent of the campus’ electrical demand, based on annual consumption.<sup>6096</sup>

On 1 November 2017, the Department of Energy, in partnership with the Israeli Ministry of Energy and Israel Innovation Authority, announced USD4.8 million for five energy projects as part of the Binational Industrial Research and Development (BIRD) Energy Program. The projects leverage cost-share for a total project value of USD10.5 million in the areas of hydrogen storage, advanced biofuels, sustainable transportation, and energy efficiency. The announcement represents the ninth

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<sup>6092</sup> Secretary of Energy Rick Perry Announces Integrated Biorefinery Optimization Projects, Department of Energy. Access Date: 20 September 2017. <https://energy.gov/articles/secretary-energy-rick-perry-announces-integrated-biorefinery-optimization-projects>

<sup>6093</sup> Energy Department Launches Up to USD15 Million to Tackle Solar Desalination, U.S. Department of Energy 27 September 2017. Access Date: 20 December 2017. <https://energy.gov/eere/articles/energy-department-launches-15-million-tackle-solar-desalination>

<sup>6094</sup> U.S. Deputy Secretary of Energy Dan Brouillette Kicks Off Solar Decathlon 2017, Department of Energy. Access Date: 5 October 2017. <https://energy.gov/articles/us-deputy-secretary-energy-dan-brouillette-kicks-solar-decathlon-2017>

<sup>6095</sup> Offshore Floating Vertical-Axis Wind Turbine Project Identifies Promising Platform Design, U.S. Department of Energy 17 October 2017. Access Date: 20 December 2017. <https://energy.gov/eere/wind/articles/offshore-floating-vertical-axis-wind-turbine-project-identifies-promising>

<sup>6096</sup> Solar Farm Powers EPA Environmental Center, EPA. Access Date: 25 October 2017. <https://www.epa.gov/newsreleases/solar-farm-powers-epa-environmental-center>

annual selection of BIRD Energy projects, which promote energy innovation, economic security, and bilateral cooperation.<sup>6097</sup>

On 9 November 2017, EPA announced USD25,000 for a project to reduce respiratory health problems for residents in northern Berkshire County of Massachusetts through energy efficiency improvements.<sup>6098</sup>

On 19 December 2017, the Department of Energy announced USD12 million in new funding for eight projects to advance predictive modeling capabilities for solar generation. These models will provide more accurate forecasts of solar generation levels, enabling utilities to better manage the variability and uncertainty of solar power and improve grid reliability.<sup>6099</sup>

On 12 December 2017, Secretary Perry announced USD18.5 million in funding for an offshore wind research and development consortium to conduct US-specific research to reduce the cost of offshore wind in the US. The consortium will be a cooperative private-public innovation hub addressing topics including wind plant technology advancement, resource and physical site characterization, installation, operations and maintenance, and supply chain technology solutions.<sup>6100</sup>

On 22 February 2018, the U.S. Department of Energy (DOE) announced selection of six projects to receive \$17.6 million in federal funding under the Office of Fossil Energy's Novel and Enabling Carbon Capture Transformational Technologies funding opportunity. The programme is aimed at reducing operational costs of CO<sub>2</sub> capture technologies.<sup>6101</sup>

On 18 June 2018, the Department of Energy announced \$40 million in funding for 31 projects to advance research in the development of microbes as practical platforms for the production of biofuels and other bioproducts from renewable resources.<sup>6102</sup>

On 23 October 2018, the Department of Energy announced selection for \$53 million financing in new projects to improve solar energy technologies. DOE will fund 53 innovative research projects that will lower solar electricity costs and support a growing solar workforce.<sup>6103</sup>

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<sup>6097</sup> Department of Energy Announces Five New Projects Through BIRD Energy Partnership with Israel, Department of Energy. Access Date: 1 November 2017. <https://energy.gov/articles/department-energy-announces-five-new-projects-through-bird-energy-partnership-israel>

<sup>6098</sup> EPA Grant will help Berkshire County Residents with Energy Efficiency and Air Quality, EPA. Access Date: 9 November 2017. <https://www.epa.gov/newsreleases/epa-grant-will-help-berkshire-county-residents-energy-efficiency-and-air-quality>

<sup>6099</sup> Program teams to partner with system operators to validate new solar forecasting technologies. Access Date: 19 December 2017. <https://energy.gov/articles/department-energy-announces-12-million-advance-early-stage-solar-research>

<sup>6100</sup> Secretary of Energy Rick Perry Announces USD18.5 Million for Offshore Wind Research. Access Date: 12 December 2017. <https://energy.gov/articles/secretary-energy-rick-perry-announces-185-million-offshore-wind-research>

<sup>6101</sup> Department of Energy Invests \$17.6 Million in Technologies Capable of Reducing CO<sub>2</sub> Capture Cost and Energy Penalties

<sup>6102</sup> Department of Energy Announces \$40 Million for Bio-Based Research. Access Date: 31 October 2018. <https://www.energy.gov/articles/department-energy-announces-40-million-bio-based-research>

<sup>6103</sup> Department of Energy Announces \$53 Million in New Projects to Advance Solar Technologies. Access Date: 31 October 2018. <https://www.energy.gov/articles/department-energy-announces-53-million-new-projects-advance-solar-technologies>

The US has provided/stimulated investment in sustainable energy projects and has participated in regional initiatives to that end. Thus, it receives a score of +1.

*Analysts: Anastasia Kataeva and Svetlana Shapovalova*

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

European Union has fully complied with its commitment to foster investment in sustainable energy projects and better regional connection with existing and well-established institutions and programs.

On 28 September 2017, the Central and South-Eastern Europe Gas Connectivity High Level Group, which consists of EU members representatives and the European Commission, agreed to extend its geographical scope to cover the entire Western Balkans region and focus on building an interconnected market for electricity, boosting investment in renewables and energy efficiency. Due to support from the Connecting Europe Facility, the first gas interconnector between Romania and Bulgaria was substantially improved.<sup>6104</sup>

On 6 October 2017, the EU-India Leaders' Statement on Energy and Climate was published. The statement underlined the EU and India's resolve to promote global clean and low greenhouse gas emissions energy transition towards sustainable, affordable, reliable, and modern energy services. The EU and India claimed to be committed to jointly further the objectives of the International Solar Alliance, including through synergies with other international initiatives to promote renewable energy under the framework of the International Renewable Energy Agency.<sup>6105</sup>

On 13 November 2017, the European Investment Bank (EIB) and the Province of Limburg signed a EUR30 million loan agreement to support investments in regional sustainability projects. The loan will be channeled to the Limburgs Energie Fonds (LEF), a fund established by the Province of Limburg and managed by Finquiddity, which invests in small to medium sized projects in Limburg. With these funds, the LEF will boost its financing capacity, allowing it to accelerate the innovative sustainable energy market. EUR9.6 billion has been made available for sustainable projects in the energy sector thus far.<sup>6106</sup>

On 7 November 2017, the EIB signed a EUR180 million financing agreement with a project company sponsored by GE and Green Investment Group Ltd. The agreement supports the construction and operation of the largest onshore wind farm in the EU thus far. Under the agreement, 179 wind turbines will be built near the Northern Swedish city of Piteå, close to the Arctic Circle.<sup>6107</sup>

On 18 May 2018, Vivawest and the European Investment Bank (EIB) concluded a loan contract for €100 million for building energy efficient homes in North Rhine-Westphalia, Germany. The structure

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<sup>6104</sup> Third Report on the State of the Energy Union, European Commission 23 November 2017. Access Date: 2 December 2017. [https://ec.europa.eu/commission/sites/beta-political/files/third-report-state-energy-union\\_en.pdf](https://ec.europa.eu/commission/sites/beta-political/files/third-report-state-energy-union_en.pdf).

<sup>6105</sup> EU-India joint statement on clean energy and climate change, European Commission 6 October 2017. Access Date: 2 December 2017. [https://ec.europa.eu/clima/sites/clima/files/news/20171006\\_statement\\_en.pdf](https://ec.europa.eu/clima/sites/clima/files/news/20171006_statement_en.pdf).

<sup>6106</sup> Investment Plan supports sustainable investments in Limburg, European Commission 13 November 2017. Access Date: 2 December 2017. [https://ec.europa.eu/commission/news/investment-plan-supports-sustainable-investments-limburg-2017-nov-13\\_en](https://ec.europa.eu/commission/news/investment-plan-supports-sustainable-investments-limburg-2017-nov-13_en).

<sup>6107</sup> Investment Plan for Europe: EIB supports largest European onshore windfarm in Northern Sweden, European Commission 7 November 2017. Access Date: 2 December 2017. [https://ec.europa.eu/commission/news/investment-plan-europe-eib-supports-largest-european-onshore-windfarm-northern-sweden-2017-nov-07\\_en](https://ec.europa.eu/commission/news/investment-plan-europe-eib-supports-largest-european-onshore-windfarm-northern-sweden-2017-nov-07_en).

of the unsecured funding provided Vivawest with a high degree of flexibility on very favourable conditions.<sup>6108</sup>

On 19 October 2018, the European Investment Bank (EIB) approved a loan for €60 million to the Portuguese company Windplus. The loan, which was supported by the European Commission under the Horizon 2020 research and innovation programme, was set to serve to install a first-of-its-kind offshore floating wind farm. WindPlus received the loan from the financial instrument for innovative firms under the EU's research and innovation programme and the EIB group. The company additionally benefited from €29.9 million from the EU's programme, and up to €6 million from the Government of Portugal, through the Portuguese Carbon Fund.<sup>6109</sup>

The EU has provided/stimulated investment in sustainable energy projects and has participated in regional initiatives to that end.

Thus, the EU has received a score of +1.

Analyst: Karina Khasanova

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<sup>6108</sup> €100 million under Investment Plan for energy efficient homes in Germany, European Commission 18 May 2018. Access Date: 24 October 2018. [https://ec.europa.eu/commission/news/eu100-million-under-investment-plan-energy-efficient-homes-germany-2018-may-18\\_en](https://ec.europa.eu/commission/news/eu100-million-under-investment-plan-energy-efficient-homes-germany-2018-may-18_en).

<sup>6109</sup> Clean energy: EU supports floating wind farm in Portugal with €60 million loan, European Commission 19 October 2018. Access Date: 27 October 2018. [https://ec.europa.eu/info/news/clean-energy-eu-supports-floating-wind-farm-portugal-eu60-million-loan-2018-oct-19\\_en](https://ec.europa.eu/info/news/clean-energy-eu-supports-floating-wind-farm-portugal-eu60-million-loan-2018-oct-19_en).