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G20 Research Group
at Trinity College at the Munk School of Global Affairs in the University of Toronto
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at the National Research University Higher School of Economics, Moscow

present

2013 St. Petersburg G20 Summit Interim Compliance Report

7 September 2013 to 16 June 2014

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7. Energy: Clean Technology

“[We commit] to take steps to support the development of cleaner and more efficient energy technologies to enhance the efficiency of markets and shift towards a more sustainable energy future.”

G20 St. Petersburg Leaders Declaration

Assessment

	Lack of Compliance	Partial Compliance	Full Compliance
Argentina			+1
Australia		0	
Brazil			+1
Canada		0	
China			+1
France			+1
Germany			+1
India			+1
Indonesia			+1
Italy		0	
Japan		0	
Korea		0	
Mexico			+1
Russia			+1
Saudi Arabia			+1
South Africa			+1
Turkey		0	
United Kingdom			+1
United States			+1
European Union			+1
Average		+0.70	

Background

The G20 leaders made their first commitment to develop energy efficiency and clean energy technologies at the 2009 London Summit. At the Pittsburgh Summit also in 2009, the G20 leaders reiterated their commitment to stimulate investment in clean energy, renewables and energy efficiency, as well as to provide financial and technical support for such projects in developing countries. This commitment was reinforced at the 2010 Seoul Summit. At the 2011 Cannes Summit, leaders developed the commitment further by referencing the United Nations Secretary General’s Sustainable Energy for All initiative.⁶⁸⁰ At the 2013 St. Petersburg Summit, the leaders once again reaffirmed their commitment to cleaner and more efficient technologies, but also highlighted the importance of enhancing the efficiency of markets and shifting towards a more sustainable energy future.

Commitment Features

This commitment states that the G20 members will support the development of clean and energy efficient technologies to enhance the efficiency of markets with the long-term goal of contributing to a

⁶⁸⁰ Cannes Summit Final Declaration: Building Our Common Future, G20 Information Center (Toronto) 4 November 2011. Access Date: 4 February 2014. <http://www.g20.utoronto.ca/2011/2011-cannes-declaration-111104-en.html>.

more sustainable future. The United Nations Secretary General’s Sustainable Energy for All initiative suggests the following examples of policies that overcome barriers to energy efficiency:

- Establishment of unified sets of standards for energy efficiency
- Instruments that help overcome the high initial costs of efficiency applications.⁶⁸¹

Examples of policies that assist in spurring innovation and deployment of clean and efficient energy technologies include:

- 1) The establishment of an emission trading mechanism that would enable private companies to sell carbon credits they gained from investing in clean energy technology research and development
- 2) The implementation of credits and tax credits for private investment in clean energy technology research and development
- 3) The establishment of privileged loans for energy efficiency and clean technology research and development
- 4) Setting up a certification system for companies that invest in energy efficiency and clean energy technology research and development

To achieve full compliance with this commitment the G20 member must support the development of clean and energy efficient technologies while also supporting the development of markets. Actions taken to solely support the development to new clean and energy efficient technologies without consideration or additional support to increase the efficiency of the market will result in a score of partial compliance.

Scoring Guidelines

-1	Member does not take measures to support the development of cleaner and more efficient energy technologies AND to enhance the efficiency of energy markets.
0	Member takes measures to support the development of cleaner and more efficient energy technologies OR to enhance the efficiency of energy markets.
+1	Member takes measures to support the development of cleaner and more efficient energy technologies AND to enhance the efficiency of energy markets.

Lead Analyst: Nanayaa Appenteng

Argentina: +1

Argentina has fully complied with its commitment to encourage effective policies that overcome barriers to efficiency, or otherwise spur innovation and development of clean and efficient energy technologies.

On 13 February 2014, the Argentine state-owned enterprise Yacimientos Petrolíferos Fiscales (YPF) purchased reserves of natural gas estimated at 540 billion cubic feet, an expansion of 15 per cent, from Apache Corp.⁶⁸²

On 19 February 2014, Argentina and India announced a bilateral agreement to strengthen renewable energy cooperation.⁶⁸³ Antonio Bonafatti, Governor of Santa Fe, said that increased cooperation would encourage Indian investment in solar and wind energy.

⁶⁸¹ Sustainable Energy for All: A Framework for Action, The Secretary General’s High-level Group on sustainable Energy for All (New York) 1 January 2012. Access Date: 5 February 2014. www.se4all.org/wp-content/uploads/2013/09/SE_for_All_-_Framework_for_Action_FINAL.pdf

⁶⁸² Apache Exits Argentina in \$800 Million Asset Sale to YPF, Bloomberg 13 February 2014. Access Date: 25 February 2014. <http://www.bloomberg.com/news/2014-02-12/apache-exits-argentine-after-800-million-energy-sale-to-ypf-1-.html>

On 25 February 2014, the board of directors of Repsol approved a USD5 billion settlement with the Argentine government regarding its 2012 nationalization of Repsol's controlling interest in YPF. The deal was praised by YPF President Miguel Galuccio, who referred to YPF as "a fundamental tool for the country's energy future."⁶⁸⁴ The deal paves the way for YPF to explore the Vaca Muerta shale oil-and-gas fields, which was the intention behind the initial expropriation.⁶⁸⁵

Therefore, Argentina has received a score of +1 for taking steps to encourage investment in clean and efficient energy technologies.

Compliance Analyst: Colin McEwen

Australia: 0

Australia has partially complied with its commitment to encourage effective policies that overcome barriers to efficiency, or otherwise spur innovation and development of clean and efficient energy technologies.

On 13 November 2014, Prime Minister Tony Abbott introduced legislation to repeal the Clean Energy Act 2011, which established a carbon price to be in place for three years before transitioning to an emissions trading mechanism in 2015.⁶⁸⁶ The legislation also includes a provision to reduce funding to the Australian Renewable Energy Agency, which funds renewable energy projects as well as research and development, by AUD435 million over three years.⁶⁸⁷ The legislation passed the Australian House of Representatives on November 21, but is yet to be considered by the Australian Senate.⁶⁸⁸

On 20 November 2013, Federal Environment Minister Greg Hunt launched a Solar PV Retailer Code of Conduct in cooperation with the Clean Energy Council. The voluntary standard is designed to boost consumer confidence for those planning to purchase photovoltaic systems.⁶⁸⁹

On 23 January 2014, Abbott restated his intent to repeal the Clean Energy Act, saying "to boost private sector growth and employment, the new government is cutting red tape and reducing the tax burden by scrapping the carbon tax and the mining tax."⁶⁹⁰

⁶⁸³ India, Argentina to Strengthen Ties in Renewable Energy, The Hindu Business Line (New Delhi) 19 February 2014. Access Date: 25 February 2014. <http://www.thehindubusinessline.com/economy/india-argentina-to-strengthen-ties-in-renewable-energy/article5705953.ece>

⁶⁸⁴ Spain's Repsol Agrees to \$5-Billion Settlement with Argentina over YPF, The Globe and Mail (Buenos Aires) 25 February 2014. Access Date: 25 February 2014. <http://www.theglobeandmail.com/report-on-business/international-business/latin-american-business/repsol-board-approves-5-billion-argentine-settlement/article17087841/>

⁶⁸⁵ Argentina's YPF: Swallowed Pride, The Economist (where?) 28 November 2013. Access Date: 25 February 2014. <http://www.economist.com/news/americas/21590939-deal-repsol-small-step-towards-reversing-energy-deficit-swallowed-pride>

⁶⁸⁶ Tony Abbott Introduces Legislation to Repeal Carbon Tax After 'Electricity Bill' Row, ABC News (Canberra) 13 November 2013. Access Date: 11 February 2014. <http://www.abc.net.au/news/2013-11-13/abbott-introduces-carbon-tax-repeal-bill/5088524>

⁶⁸⁷ Renewable Energy Cuts a Disappointing Sting in Carbon Tail, Clean Energy Council (Melbourne) 13 November 2013. Access Date: 12 February 2014. <https://www.cleanenergycouncil.org.au/media-centre/media-releases/november-2013/131113-arena.html>

⁶⁸⁸ House of Representatives Votes to Scrap the Carbon Tax, Office of Greg Hunt, Minister for the Environment (Canberra) 21 November 2013. Access Date: 12 February 2014. <http://www.greghunt.com.au/Media/MediaReleases/tabid/86/articleType/ArticleView/articleId/2667/House-of-Representatives-votes-to-scrap-the-Carbon-Tax.aspx>

⁶⁸⁹ Code of Conduct to Raise the Bar in the Solar Industry, Clean Energy Council (Melbourne) 20 November, 2013. Access Date: 12 February 2014. <https://www.cleanenergycouncil.org.au/media-centre/media-releases/november-2013/131120-code-of-conduct.html>

While Australia has launched a new certification system for clean energy companies, its reduction of funds for research and development as well as its ongoing repeal of its emissions trading mechanism results in its partial compliance score of 0.

Compliance Analyst: Colin McEwen

Brazil +1

Brazil fully complied with its commitment to support the development of cleaner and more efficient energy technologies, to enhance the efficiency of markets and shift towards a more sustainable energy future.

Throughout the compliance period, the Brazilian National Electrical Agency (ANEEL) undertook a number of tariff corrections and hearings related to both conventional and clean energy plants. These tariffs were given to industries to promote the development of new plants to add to the nations' energy network, and also to residential consumers to offset the cost of using renewable energies. Auctions are another financial tool ANEEL uses in order to increase competition in, and attractiveness of, renewable energy projects.

In September 2013, at an auction for wind power energy procurement, a savings of 5.55 per cent off the standard megawatt-hour rate for the 66 winning projects was generated.⁶⁹¹ The sales and purchase contracts are viable for 20 years, amounting to savings for the project investors. In November, 15 gigawatts of wind and 3 gigawatts of solar projects were registered and 20 gigawatts were registered for December.⁶⁹²

Solar-only auctions will be used beginning in 2014 as that sector is comparatively underdeveloped in Brazil. Its' first auction on 2 January 2014 generated BRL597million in investments from both national and international bidders and added 122.82 megawatts of solar projects to the energy sector.⁶⁹³

On 10 December 2013, the total value of quotas to fund the Program of Incentive to Alternative Electric Energy Sources (PROINFA), for the upcoming year was announced at BRL2.8 billion.⁶⁹⁴ These funds will be allocated to 131 plants in the clean energy sectors of hydroelectric, wind power and biomass-powered thermoelectric to generate an estimated total energy output of 1.1 million megawatts/hour. PROFINA is a crucial governmental organization that is mandated to increase the use of renewable technologies in Brazil, and has been in operation since 2004.

In order to improve residential energy consumption efficiency and reduce the need to expand the energy network for the future, the Brazilian National Electricity Agency issued a voluntary "White

⁶⁹⁰ Abbott at Davos: Getting the Fundamentals Right, G20 Information Centre (Toronto) 23 January 2014. Access Date: 12 February 2014. <http://www.g20.utoronto.ca/2014/2014-abbott-davos.html>

⁶⁹¹ Wind power auction records an average discount of 5.55%, Brazilian Electricity Regulatory Agency (Brasilia) 2 September 2013. Access Date: 13 April 2014. http://www.aneel.gov.br/aplicacoes/noticias_area/dsp_detalheNoticia.cfm?idNoticia=7333&idAreaNoticia=347

⁶⁹² Renewable Energy Country Attractiveness Index, EY Building a Better Working World November 2013. Access Date: 13 May 2014. [http://www.ey.com/Publication/vwLUAssets/RECAI_39__Nov_2013/\\$FILE/RECAI%20Issue%2039__Nov%202013.pdf](http://www.ey.com/Publication/vwLUAssets/RECAI_39__Nov_2013/$FILE/RECAI%20Issue%2039__Nov%202013.pdf)

⁶⁹³ Brazilian State Approves 123MW of Solar Developments in Energy Auction, PV Tech (London) 2 January 2014. Access Date: 13 April 2014. http://www.pv-tech.org/news/brazil_gains_122mw_of_solar_developments_after_state_energy_auction

⁶⁹⁴ ANEEL Approves Proinfa Funding Value for 2014, Brazilian Electricity Regulatory Agency (Brasilia) 12 December 2013. Date Accessed 13 April 2014. http://www.aneel.gov.br/aplicacoes/noticias_area/dsp_detalheNoticia.cfm?idNoticia=7671&idAreaNoticia=347

Tariff’ mode which residents could opt into, beginning in February 2014. This tariff mode assigns three different energy rates to different times of the day—peak, intermediate and off-peak—during Monday to Friday in which residents can take advantage of the cheaper off-peak rates.⁶⁹⁵ The three different rates replace the flat-rate conventional one and the installation of household meters comes at no cost to the consumer. Taken together this represents a significant financial incentive for households to partake in this new system.

The much-anticipated 2014 FIFA World Cup has given the government of Brazil a unique opportunity to showcase its commitment to sustainable development. The Castellan stadium, in Fortaleza, is the first ever “green” stadium which has been awarded the LEED (Leadership in Energy and Environmental Design) in February 2014. The stadium has compliance certificates for “exemplary sustainable construction in the fields of space, rational water use, energy efficiency, indoor environmental quality, use of low environmental impact materials and encouraging innovation.”⁶⁹⁶ This stadium provides an excellent vehicle for educating enormous numbers of citizens, both national and international, on the importance and ease of increasing their use of renewable energies. It is also a source of inspiration for urban planning and industry on how to incorporate sustainable practices in building construction.

On 11 March 2014, the Brazilian Agency for the Promotion of Exports and Investments (in partnership with the Brazilian Wind Energy Association) held a promotional event in Barcelona, Spain.⁶⁹⁷ The event — Invest in Brazil — Wind Energy — was meant to encourage renewable energy investment in Brazil, disseminate technological expertise and best-practices information and, in general terms, increase Brazil’s attractiveness for international investors. The promotion of wind energy was a particular focal point because of its potential for development in the country.

On 28 March 2014, the President of Eletrobras, Brazil’s national electricity company, Jose de Costa, presented the Master Plan for Business and Management for 2014–2018. This plan will require investments of BRL60.8 billion over the five years to generate BRL55.7 billion with USD8.1 billion. This plan includes green sources of energy, reducing electricity costs by EUR1.2 billion per year. It also calls for studies undertaken in conjunction with the advice of German consultancy Ronald Berger, in order to reduce costs to the electrical network.⁶⁹⁸

In order to offset some of the activation costs associated with thermoelectric plants, as well as the cost of power purchases not already covered by the Existing Energy Auction 2013, the Electric Energy Trading Chamber created a new fund that will be available to distributors on 2 April 2014.⁶⁹⁹ This fund will allocate loans to various distributors in order to increase the attractiveness, and affordability, of thermoelectric plants.

On 7 April 2014, the quota for the Energy Development Account for 2014 was announced by ANEEL as BRL1.6 billion. The Treasury had contributed a further BRL4million in February, bringing the total

⁶⁹⁵ White Tariff Category Will Offer Different Tariff Rates Depending on the Consumption Time, Brazilian Electricity Regulatory Agency (Brasilia) 26 December 2013. Access Date: 13 April 2014. http://www.aneel.gov.br/aplicacoes/noticias_area/dsp_detalheNoticia.cfm?idNoticia=7673&idAreaNoticia=347

⁶⁹⁶ Castellan, the First Green Cup Stadium, Brazil Portal 12 February 2014. Access Date: 13 April 2014. <http://www.brasil.gov.br/esporte/2014/01/castelao-o-primeiro-estadio-verde-da-copa>

⁶⁹⁷ Seminar to Attract Investment is Made in Spain, Brazil Portal 10 February 2014. Access Date: 13 April 2014.

<http://www.brasil.gov.br/economia-e-emprego/2014/03/seminario-para-atrair-investimento-e-realizado-na-espanha>

⁶⁹⁸ Eletrobras plans to invest U.S. \$ 60.8 billion by 2018, Eletrobras: Energia Para Novos Tempos (Rio de Janeiro) 28 March 2014. Access Date: 13 May 2014. <http://www.eletrobras.com/elb/data/Pages/LUMISEB7EA1A1ITEMIDE3EBE1B6647C40D6973A04358A6D2AD1PTBRIE.htm>

⁶⁹⁹ Posted decree on the establishment of ACR Account CCEE, Ministry of Mines and Energy (Brasilia) 2 April 2014. Access Date: 13 April 2014. http://www.mme.gov.br/mme/noticias/destaque2/destaque_399.html

to BRL5.6 billion.⁷⁰⁰ Some of these funds will be used towards granting tariffs, subsidies and other financial incentives to the green energy sector in Brazil.

On 10 April 2014, the Minister of Mines and Energy, Edison Lobao, signed a concession agreement establishing the hydroelectric power plant Hydroelectric Sao Manoel, which will generate 700 megawatts of installed capacity to the National Interconnected System beginning in 2018.⁷⁰¹

Brazil was awarded a score of +1 for its efforts to increase the number of clean energy projects and developments, overcome barriers to efficiency through extensive use of government-sponsored auctions and the provision of new funds, investments and other incentives channelled through governmental organizations.

Analyst: Aurora Hudson

Canada: 0

Canada has partially complied with its commitment to encourage effective policies that overcome barriers to energy efficiency.

The Canadian government has encouraged effective policies that overcome barriers to energy efficiency, as well as a shift towards an energy sustainable future. Since 2009, Canada has invested CAD795 million in various projects to create “a suite of clean energy technologies and the knowledge to ensure uptake of the technologies.”⁷⁰² In the Economic Action Plan 2013, CAD325 million over eight years to Sustainable Development Technology Canada to support the development of new clean technologies, “which can save businesses money, create high-paying jobs and drive innovation.”⁷⁰³ This is a continuation of the Canadian Government’s pledge in May 2013 to support new innovation projects across Canada through the ecoENERGY Innovation Initiative, including 40 research and development projects focusing on “energy efficiency; clean electricity and renewables; [and] bioenergy.”⁷⁰⁴

Prime Minister Stephen Harper has continued efforts to encourage effective policy in building off of previous initiatives. At the 2014 North American Leaders’ Summit in Mexico, Harper reaffirmed Canada’s commitment to developing clean energy and highlighted a future trilateral meeting to discuss “opportunities to promote common strategies on energy efficiency.”⁷⁰⁵ In the Economic Action Plan 2014, the Canadian government has pledged to expand the eligibility for the accelerated capital cost allowance for clean energy generation to water current and other technologies to allow the costs of assets “to be deducted for tax purposes at a rate of 50 per cent per year on a declining-balance basis.”⁷⁰⁶

⁷⁰⁰ ANEEL define quotas da CDE para 2014 no valor de R\$1,6 bilhão, Brazilian Electricity Regulatory Agency (Brasilia) 7 April 2014. Access Date: 13 April 2014. http://www.aneel.gov.br/aplicacoes/noticias/Output_Noticias.cfm?Identidade=7827&id_area=90

⁷⁰¹ Minister signs a contract granting the hydroelectric São Manoel, 700 MW, Ministry of Mines and Energy (Brasilia) 10 April 2014. Access Date: 13 April 2014. http://www.mme.gov.br/mme/noticias/destaque_foto/destaque_480.html

⁷⁰² Clean Energy Fund, Ministry of Finance (Ottawa) 24 July 2013. <http://actionplan.gc.ca/en/initiative/clean-energy-fund>

⁷⁰³ Harper Government Announces Job-Creating Clean Technology Project in Quebec, Natural Resources Canada (Ottawa) 27 September 2013. Access Date: 28 February 2014. <https://www.nrcan.gc.ca/media-room/news-release/2013/11500>

⁷⁰⁴ PM announces energy innovation projects across Canada, Office of the Prime Minister (Ottawa) 3 May 2013. Access Date: 28 February 2014. <http://pm.gc.ca/eng/node/32636>

⁷⁰⁵ Joint Statement by North American Leaders, Office of the Prime Minister (Ottawa) 19 February 2014. Access Date: 28 February 2014. <http://www.pm.gc.ca/eng/news/2014/02/19/joint-statement-north-american-leaders>

⁷⁰⁶ Federal Budget 2014, Ministry of Finance (Ottawa) 11 February 2014. Access Date: 28 February 2014. <http://actionplan.gc.ca/sites/default/files/pdfs/budget2014-eng.pdf>

This builds off of the previous three budget plans to encourage businesses to invest in clean energy and energy efficiency equipment.⁷⁰⁷

Canada has encouraged effective policies that overcome barriers to energy efficiency but has not taken actions to enhance the efficiency of markets and shifts towards an energy sustainable future. Canada has received a score of 0 for partial compliance.

Analyst: Anthony Marchese

China: +1

China has fully complied with the commitment on the development of cleaner, more efficient energy technologies and shift towards a more sustainable energy future.

On 22 September 2013, China's Ministry of Finance announced that it will provide tax breaks to manufacturers of solar products. In an official statement, the ministry declared that producers of solar power products will receive immediate refunds of 50 percent of value-added taxes. The government of China continues to offer support and protection to an industry that is dealing with a grim outlook, massive overcapacity and weak demand.⁷⁰⁸

Under China's new pricing regime introduced in March 2013, the National Development and Reform Commission has the right to adjust domestic fuel prices when international crude prices reflect a change of more than 50 yuan per tonne for gasoline and diesel over within 10 consecutive working days. According to national news reports, multiple raises in retail fuel prices in the country throughout 2013 indicate a fulfillment of this commitment.⁷⁰⁹ In light of severe air pollution, the government has said consumers will need to bear the higher prices that come with tighter fuel standards.⁷¹⁰

China has encouraged effective policies that overcome barriers to efficiency and both enhances the efficiency of markets and shifts toward an energy sustainable future. Thus, China is given a score of +1.

Analyst: Crystal Gao

France: +1

France has fully complied with its commitment to support the development of cleaner and more efficient energy technologies, to enhance the efficiency of markets and shift towards a more sustainable energy future.

In order to meet its green energy needs, the French government created the Investments for the Future Programme (IPA) in 2010, which has four investment sub-programs under the management of the French Agency for the Environment and Energy Management (ADEME.) These sub-programs are development of new technologies in renewable energies, smart grid testing and research, circular economy testing and research, as well as development of new technologies in low carbon vehicle and other transportation. In order to carry out these programs, and encourage competition in the green energy sector, ADEME created specific financial tools, including state aids of refundable, and non-

⁷⁰⁷ Federal Budget 2014, Ministry of Finance (Ottawa) 11 February 2014. Access Date: 28 February 2014. <http://actionplan.gc.ca/sites/default/files/pdfs/budget2014-eng.pdf>

⁷⁰⁸ China to offer tax breaks to solar power manufacturers, Reuters (Shanghai), 29 September 2013. Access Date: 18 March 2013. <http://www.reuters.com/article/2013/09/29/us-china-solar-idUSBRE98SOCJ20130929>

⁷⁰⁹ China raises retail oil prices, Chinese Central Television (Beijing), 28 November 2013. Access Date: 18 March 2013 <http://english.cntv.cn/20131128/104806.shtml>

⁷¹⁰ China Says Consumers Need to Bear Some Costs of Tighter Fuel Standards, Wall Street Journal (Beijing), 23 September 2013. Access Date: 18 March 2013 <http://online.wsj.com/news/articles/SB10001424052702304713704579093110900429>

refundable grants, and equity tools, where the state invests in projects of various sizes in the renewable-energies field.⁷¹¹ These financial tools also importantly serve to overcome barriers to green energy markets, as it the potential for profit increases, and the risk factor decreases, when investors take advantage of these tools.

Throughout the period in question, the French government made progress in many aspects of its IPA programme. In order to increase the energy efficiency across all sectors of the economy, Philippe Martin, Minister of Ecology, Sustainable Development and Energy, announced the creation of three new institutes of energy transition on 29 October 2013. These institutes would focus on; providing research and development, sharing resources, selecting projects based on energy efficiency requirements and advancing the energy technologies used in sustainable construction projects, urban planning in cities and photovoltaic projects.⁷¹²

On 21 October 2013, the Ministry of Territorial Equality and Housing together with the Ministry of Ecology, Sustainable Development and Energy launched the “I eco-renovated, I saved” campaign. Through partnerships with the Agency for Environmental and Energy Management, the National Housing Agency and the National Agency for Housing Information, subsidies, premiums and tax credits are offered to homeowners in order to entice them to refurbish, renovate and build their homes according to energy efficient guidelines. This campaign was created for two reasons: the first was to educate the French public on the importance and economic benefit of incorporating green technologies in the housing market. The second was to achieve the goal of a 38 per cent reduction of energy consumption in the building sector by 2020. It has been updated twice since the beginning of 2014.⁷¹³

Throughout November 2013, the Bonus-Malus system was updated and the scale of penalties and bonuses increased.⁷¹⁴ This system is designed to reward those who purchase vehicles with low carbon emissions and punish those who purchase high emission cars. Although this is a self-contained system, it does promote the creation of a “green-friendly” car market and encourage technological advancements in this field.

Instituting new regulations on cars was not the only advancement made during the month of November. A significant step was also taken by the Regulatory Commission of Energy (CRE) to increase the potential use of Smart Grids. On 14 November 2013, the CRE launched a public consultation to “define the technical, economic and legal smart grids.”⁷¹⁵ Without a unified understand of these various components of smart grids, their use in France would be highly difficult, if not impossible. In addition, a public consultation serves to include the various stakeholders and investors and make it easier for them to construct smart grids when the time comes.

⁷¹¹ Energy Policy Highlights, International Energy Agency (France). November 2013. Access Date: 9 April 2014. http://www.iea.org/publications/freepublications/publication/Energy_Policy_Highlights_2013.pdf

⁷¹² Launch of Three New Institutions of Energy Transition, Ministry of Ecology, Sustainable Development and Technology (France) 20 November 2013. Access Date: 9 April 2014. <http://www.developpement-durable.gouv.fr/Lancement-de-trois-nouveaux.html>

⁷¹³ The Energy Plan Home Renovation Is Launched, Ministry of Ecology, Sustainable Development and Technology (France) 21 October 2013. Access Date: 9 April 2014. <http://www.developpement-durable.gouv.fr/Le-plan-de-renovation-energetique,34265.html>

⁷¹⁴ Bonus-Malus, Ministry of Ecology, Sustainable Development and Technology (France) 27 January 2014. Access Date: 6 April 2014. <http://www.developpement-durable.gouv.fr/Bonus-Malus-2014.html>

⁷¹⁵ Consultation on the Development of Smart Grids in Low Voltage, Ministry of Ecology, Sustainable Development and Technology (France) 14 November 2013. Access Date: 6 April 2014. <http://www.developpement-durable.gouv.fr/Consultation-sur-le-developpement.html>

On 31 December 2013, the Government of France added five new pollutants to the General Tax on Polluting Activities. This tax was instituted in order to promote the use of cleaner energy technologies by industry, and gradually phase out the use of heavy pollutants in large-scale industry.⁷¹⁶

On 23 January 2014, Philippe Martin welcomed the European Commission's proposal for the energy-climate policy in 2030 and reiterated its consistency with previous French renewable energy targets.⁷¹⁷ France also welcomed the third round of the EU Emissions Trading System, initiated on 9 September 2013.⁷¹⁸

On 27 and 28 January 2014, the leaders of France and Turkey met and signed agreements increasing bilateral trade and investment. These agreements focused on expanding France's energy and industrial partnerships with Turkey and included significant sections on renewable energy development, environmental protection, energy efficiency and nuclear project management.⁷¹⁹ France would relay best practices information based on its own research and development (R&D) and would share its technical expertise in the above-mentioned fields in order to expand its markets in clean energy technology development abroad.

The French Government issued a call for expressions of interest related to hydrogen and fuel cells in 2013 in order to increase the storage potential of renewable technologies and natural gas. On 30 January 2014, the winning project — GRHYD — was announced.⁷²⁰ In follow-up, the French government issued another call for expressions of interest for renewable energies, to be completed by early 2015.⁷²¹ These government-sponsored competitions serve to bring the most efficient clean energy technologies to the table, draw attention to the need for these technologies and the market demands they meet, and contribute to R&D in their various fields.

In order to spur innovations in clean photovoltaic technology, the Department of Ecology, Sustainable Development and Energy has issued two rounds of tenders for projects dedicated to large photovoltaic systems. The requirements also specify various aspects of clean technology, including “tak[ing] into account the carbon balance of projects, their impact on the environment and their contribution to research and development.”⁷²² On 27 February and 28 March 2014, the rounds of winners were announced amounting to 177 and 121 projects respectively, for a total installed capacity of 40.3 and 380

⁷¹⁶ Finance Act 2013: 5 New Pollutants Subject to TGAP, Ministry of Ecology, Sustainable Development and Technology (France) 7 February 2014. Access Date: 9 April 2014. <http://www.developpement-durable.gouv.fr/Les-seuils-d-assujettissement-des.html>

⁷¹⁷ Climate-Energy Package, Proposals of the European Commission, Ministry of Ecology, Sustainable Development and Technology (France) 23 January 2014. Access Date: 9 April 2014. <http://www.developpement-durable.gouv.fr/Paquet-Energie-Climat-2030,37298.html>

⁷¹⁸ Exchange System EUA's, Ministry of Ecology, Sustainable Development and Technology (France) 9 September 2013. Access Date: 6 April 2014. <http://www.developpement-durable.gouv.fr/-Systeme-d-echange-de-quotas-.html>

⁷¹⁹ State Visit to Turkey, Energy and Transport at the Heart of Trade, Ministry of Ecology, Sustainable Development and Technology (France) 20 February 2014. Access Date: 6 April 2014. <http://www.developpement-durable.gouv.fr/Visite-d-Etat-en-Turquie-l-energie.html>

⁷²⁰ Energy Storage, Ministry of Ecology, Sustainable Development and Technology (France) 28 February 2014. Access Date: 9 April 2014. <http://www.developpement-durable.gouv.fr/Transformer-en-hydrogene-l,30305.html>

⁷²¹ Investments for the Future: Launch of the Call for Expressions of Interest “Renewable Energy”, Ministry of Ecology, Sustainable Development and Technology (France) 6 February 2014. Access Date: 9 April 2014. <http://www.developpement-durable.gouv.fr/Investissements-d-Avenir-lancement,37465.html>

⁷²² Tender for Photovoltaic Systems: Winners Selected, Ministry of Ecology, Sustainable Development and Technology (France) 27 February 2014. Access Date: 6 April 2014. <http://www.developpement-durable.gouv.fr/Appel-d-offres-pour-installations,37642.html>

megawatts.⁷²³ Another round of tenders was also announced for the near future. These tenders are essentially government subsidies issued to the winning projects as one of the financial tools the ADEME created to achieve its Investments for the Future Programme.

France has developed new green energy technologies, overcome barriers to efficiency through government-sponsored competition and the provision of tenders, subsidies and grants, and its incorporation of green technologies in the residential and industrial sectors through taxes, bonuses and other incentives. Therefore France was been awarded a score of +1.

Analyst: Aurora Hudson

Germany: +1

Germany has fully complied with its energy commitment to encourage effective policies that overcome barriers to efficiency, and enhance the efficiency of markets towards an energy sustainable future.

In 2010 and 2011, the German government adopted new comprehensive approaches to its energy strategies, the “Energy Concept” and “Energiewende” respectively, which established principles of long-term, integrated energy pathway to make renewable energy the cornerstone of future supply by 2050.⁷²⁴ The Energy Efficiency Watch tracked the ambitious goals of these policies and determined that subsidies and economic incentives have been underway in the transport, residential, industrial and service sectors.⁷²⁵ Minimum energy performance standards were also set in the public sector.⁷²⁶

On 22 January 2014, Energy Minister Sigmar Gabriel put forward an amendment to the Renewable Energy Sources Act to reduce future development costs in the electricity and energy sectors. The goal of this amendment is to limit future rises in electricity prices to an average of EUR0.12 per kilowatt hour in 2015 from EUR0.17 in the present, and to foster development in energy technology while reducing costs.⁷²⁷ It determines that by 2017 at the latest, support levels for renewable energy development are determined by bidding procedures, and direct selling for renewable energies will be made compulsory to increase competitiveness of energy-intensive industries.⁷²⁸ The German government’s commitment to this was highlighted in a policy speech by Federal Chancellor Angela Merkel on 29 January 2014.⁷²⁹

⁷²³ Bidding for large PV plants: 380 megawatts of new projects, Ministry of Ecology, Sustainable Development and Technology (France) 28 March 2014. Access Date: 9 April 2014. <http://www.developpement-durable.gouv.fr/Appel-d-offres-pour-installations,38317.html>

⁷²⁴ Energy Policy Highlights, IEA and OECD, 2013. Access Date: 26 February 2014. http://www.iea.org/publications/freepublications/publication/Energy_Policy_Highlights_2013.pdf

⁷²⁵ Energy Efficiency in Europe Assessment of Energy Efficiency Action Plans and Policies in EU Member States Country Report Germany, Energy Efficiency Watch, 2013. Access Date: 26 February 2014. http://www.energy-efficiency-watch.org/fileadmin/eew_documents/Documents/EEW2/Germany.pdf

⁷²⁶ Energy Efficiency in Europe Assessment of Energy Efficiency Action Plans and Policies in EU Member States Country Report Germany, Energy Efficiency Watch, 2013. Access Date: 26 February 2014. http://www.energy-efficiency-watch.org/fileadmin/eew_documents/Documents/EEW2/Germany.pdf

⁷²⁷ Merkel Backs Plan to Cut Germany’s Green Energy, The Wall Street Journal World Edition (Berlin), 22 January 2014. Access Date: 26 February 2014.

<http://online.wsj.com/news/articles/SB10001424052702304632204579336220103661350>

⁷²⁸ Annex to the Renewable Energy Sources Act, Ministry of Economic Affairs and Energy (Berlin) 21 January 2014. Access Date: 26 February 2014. <http://www.bmwi.de/English/Redaktion/Pdf/annex-eeeg-reform-eckpunkte-english,property=pdf,bereich=bmwi2012,sprache=en,rwb=true.pdf>

⁷²⁹ Policy Statement by Federal Chancellor Angela Merkel, The Federal Government (Berlin) 29 January 2014. Access Date: 26 February 2014. http://www.bundesregierung.de/Content/EN/Regierungserklaerung/2014-01-29-regierungserklaerung-merkel_en.html?nn=709674

On 12 February 2014, the Federal Ministry for Economic Affairs and Energy released the Annual Economic Report which highlighted the Government's commitment to "sustainable, continuous and affordable expansion, coupled with further market and systems integration, of renewable energy."⁷³⁰ Later this year, the Government of Germany will release a National Energy Efficiency Action Plan which will engage multiple stakeholders in identifying different financing and responsibilities.⁷³¹

Germany has taken actions not only to reduce energy costs and increasing energy efficiency, but also to increase public awareness of its commitment in national campaigns to promote acceptance in the business community.⁷³² Therefore, it has been awarded a score of +1.

Compliance Analyst: Emily Tsui

India: +1

India has fully complied with the commitment on the development of cleaner, more efficient energy technologies and phase out insufficient fossil fuel subsidies.

Shortly after the 2013 St. Petersburg Summit, the Government of India demonstrated its commitment to promote renewable and energy projects. On 25 September 2013, the Ministry of New and Renewable Energy set a target of generation of 10,000 megawatt of power through solar energy by year 2017. This builds on an ambitious target set by the prime minister to install 20,000 megawatts of grid connected solar power, 2,000 new energy initiatives, including the installment of 20,000 megawatts of grid solar power and 2,000 megawatts of off-grid solar applications and 20 million square metres of solar thermal collector area by 31 March 2022.⁷³³

The government announced in August 2013 that it approved generation-based incentives for wind power projects. This scheme would provide an incentive 50 paisa per unit of electricity fed to the grid with a cap of rupees one crore per megawatt of wind power during 4 to 10 years.⁷³⁴

Furthermore, the Indian Ministry of New and Renewable Energy has implemented a policy initiative to develop sixty Indian cities through the use of solar power. A press release from the Government of India outlines 55 cities that have been granted principal approval and 45 cities that have been sanctioned to begin planning renewable energy projects.⁷³⁵

There has been a growing emphasis on promoting favorable conditions for developing solar manufacturing capability and use of off-grid and grid-connected solar energy systems, provided through financial/fiscal initiatives.⁷³⁶ The government has allocated a total amount of INR690 for promotion of

⁷³⁰ Key Elements of a Revised Renewable Energy Sources Act, Ministry of Economic Affairs and Energy (Berlin) 21 January 2014. Access Date: 26 February 2014. <http://www.bmwi.de/English/Redaktion/Pdf/2014-annual-economic-report,property=pdf,bereich=bmwi2012,sprache=en,rwb=true.pdf>

⁷³¹ Key Elements of a Revised Renewable Energy Sources Act, Ministry of Economic Affairs and Energy (Berlin) 21 January 2014. Access Date: 26 February 2014. <http://www.bmwi.de/English/Redaktion/Pdf/2014-annual-economic-report,property=pdf,bereich=bmwi2012,sprache=en,rwb=true.pdf>

⁷³² Energy Transition the German Energiewende, 2014. Access Date: 26 February 2014. <http://energytransition.de/>

⁷³³ Target to develop 10,000 MW Power through Solar Energy by 2017, Government of India, 25 September 2013. Access Date: 19 March 2013. <http://pib.nic.in/newsite/erelease.aspx?relid=77615>

⁷³⁴ Generation Based Incentive Scheme, Government of India, 30 August 2013. Access Date: 19 March 2013. <http://pib.nic.in/newsite/erelease.aspx?relid=77615>

⁷³⁵ Solar Cities, Ministry of New and Renewable Energy, Government of India, 11 December 2013. Access Date: 19 March 2013. <http://pib.nic.in/newsite/erelease.aspx?relid=77615>

⁷³⁶ Initiatives for Promotion of Renewable Energy, Government of India, 17 December 2013. Access Date: 19 March 2013. <http://pib.nic.in/newsite/erelease.aspx?relid=77615>

renewable energy sources through fiscal and financial incentives. INR427.21 has been disbursed for various activities under the Jawaharlal Nehru National Solar Mission (JNNSM) during the current financial year 2013-14. These funds will go towards the setting up of demonstration projects, intensive resource assessment, development of power evacuation and testing facilities, etc.⁷³⁷

India has encouraged effective policies that overcome barriers to efficiency and both enhances the efficiency of markets and shifts towards an energy sustainable future. Thus, India is given a score of +1.

Analyst: Crystal Gao

Indonesia: +1

Indonesia has fully complied with its commitment to support the development of clean and energy efficient technologies and supports the efficiency of the energy market through various actions including policies.

On 4 February 2014, the House of Representatives passed the National Energy Policy, setting renewable energy requirements.⁷³⁸ Indonesian Minister of Energy and Mineral Resources Jero Wacik, said, “the new policy would reduce gasoline dependency and increase the use of renewable energy.”⁷³⁹

The Government of Indonesia announced its plan to build hydroelectric plants at 239 dams owned by the Public Works Ministry, as part of its renewable energy initiative.⁷⁴⁰ As part of the project, the government planned to begin the construction of four hydropower plants in East Java for this year.⁷⁴¹ Director general for new and renewable energy at the Energy and Mineral Resources Ministry, Ridha Mulyana, stated “We will rent the dams to developers so they will only be responsible for building the power generators,” which would lessen developers’ burden for investment costs.⁷⁴² This policy would support the efficiency of the energy market by reducing burden for developers.

Indonesia’s state-owned power company plans to build a 145-kilometre electric line linking customers in West Kalimantan with hydroelectric plants in neighboring Sarawak, Malaysia.⁷⁴³ This project would

⁷³⁷ Promotion of Solar Energy, Government of India, 17 December 2013. Access Date: 19 March 2013. <http://pib.nic.in/newsite/erelease.aspx?relid=77615>

⁷³⁸ House of Representatives Passes National Energy Policy, , Jakarta Globe (Jakarta), 4 February 2014. Access Date: 27 February 2014. <http://www.thejakartaglobe.com/news/house-of-representatives-passes-national-energy-policy/>

⁷³⁹ House of Representatives Passes National Energy Policy, , Jakarta Globe (Jakarta), 4 February 2014. Access Date: 27 February 2014. <http://www.thejakartaglobe.com/news/house-of-representatives-passes-national-energy-policy/>

⁷⁴⁰ Indonesia to Build More Hydropower Plants to Boost Alternative Energy, Jakarta Globe (Jakarta), 27 February 2014. Access Date: 27 February 2014. <http://www.thejakartaglobe.com/business/indonesia-to-build-more-hydropower-plants-to-boost-alternative-energy/>

⁷⁴¹ Indonesia to Build More Hydropower Plants to Boost Alternative Energy, Jakarta Globe (Jakarta), 27 February 2014. Access Date: 27 February 2014. <http://www.thejakartaglobe.com/business/indonesia-to-build-more-hydropower-plants-to-boost-alternative-energy/>

⁷⁴² Indonesia to Build More Hydropower Plants to Boost Alternative Energy, Jakarta Globe (Jakarta), 27 February 2014. Access Date: 27 February 2014. <http://www.thejakartaglobe.com/business/indonesia-to-build-more-hydropower-plants-to-boost-alternative-energy/>

⁷⁴³ ADB to Fund Sarawak-West Kalimantan Hydroelectric Power Project, Jakarta Globe (Jakarta), 28 August 2013. Access Date: 27 February 2014. <http://www.thejakartaglobe.com/news/adb-to-fund-sarawak-west-kalimantan-hydroelectric-power-project/>

provide cheaper electricity and cut carbon emissions by 400,000 tons a year by 2020, as the region has used oil to provide power to the province.⁷⁴⁴

In August 2013, Indonesia introduced a policy to increase the use of biodiesel to reduce oil consumption.⁷⁴⁵ Jakarta's energy ministry issued a new regulation to raise the minimum bio content in diesel to 10 per cent and to 20 per cent especially for power industry.⁷⁴⁶

On 4 February 2014, Tisnaldi, geothermal director at the Energy and Mineral Resources Ministry, said that the government plans to operate three geothermal plants in Patuha and Cibuni in West Java, and Ulumbu in Manggarai, East Nusa Tenggara.⁷⁴⁷ Indonesia seeks to focus on more of the renewable energy source amid rising fuel costs.⁷⁴⁸

Indonesia has supported the development of clean and energy efficient technologies and supports the efficiency of the energy market through various actions including policies. Thus, Indonesia receives a score of +1.

Analyst: HyunAb Heidi Shim

Italy: 0

Italy partially complied with its commitment to support the development of cleaner and more efficient energy technologies to enhance the efficiency of markets and shift towards a more sustainable energy future.

In March 2013, the Italian government published a new strategy that outlined its energy needs, goals and policies through to 2020, in a document entitled New Energy Strategy: For a More Competitive and Sustainable Energy. While the Italian government published the new energy strategy and supported increased energy market efficiency, it did not support the development of cleaner and more efficient energy technologies specifically.

Despite the report, the Italian government scaled back its efforts to develop clean energy technologies throughout the compliance period. Compared to the various investments undertaken in the year, and even months, previously, Italy has done little in the energy sector to help it achieve its energy goals. Instead of developing new technologies, increasing financial incentives, and taking significant steps to improve energy efficiency, it continued policies already in place. Prominent examples are the White Certificates energy trading scheme and subsidizing renewable energy projects. The most significant changes were: calling for "smart meter" prototypes; institutionalizing new gas market mechanisms; and changing tariffs associated with energy use.

⁷⁴⁴ ADB to Fund Sarawak-West Kalimantan Hydroelectric Power Project, Jakarta Globe (Jakarta), 28 August 2013. Access Date: 27 February 2014. <http://www.thejakartaglobe.com/news/adb-to-fund-sarawak-west-kalimantan-hydroelectric-power-project/>

⁷⁴⁵ Government Is Claiming Early Success With Economic Package, Jakarta Globe (Jakarta), 28 August 2013. Access Date: 27 February 2014. <http://www.thejakartaglobe.com/business/government-is-claiming-early-success-with-economic-package/>

⁷⁴⁶ Government Is Claiming Early Success With Economic Package, Jakarta Globe (Jakarta), 28 August 2013. Access Date: 27 February 2014. <http://www.thejakartaglobe.com/business/government-is-claiming-early-success-with-economic-package/>

⁷⁴⁷ Three Geothermal Plants With 62 MW to Go On Line in Indonesia This Year, Jakarta Globe (Jakarta), 4 February 2014. Access Date: 27 February 2014. <http://www.thejakartaglobe.com/business/three-geothermal-plants-with-62-mw-to-go-on-line-in-indonesia-this-year/>

⁷⁴⁸ Three Geothermal Plants With 62 MW to Go On Line in Indonesia This Year, Jakarta Globe (Jakarta), 4 February 2014. Access Date: 27 February 2014. <http://www.thejakartaglobe.com/business/three-geothermal-plants-with-62-mw-to-go-on-line-in-indonesia-this-year/>

In order to enhance the monitoring of water, gas and electricity for distribution and consumption purposes, the Italian Regulatory Authority for Electricity and Gas issued a call for Smart Meter pilot projects on 23 September 2013. The winning projects will be selected based on the number of services offered and the remote monitoring capacity.⁷⁴⁹

In regards to new gas market mechanism, the Italian Gas Exchange Market was launched in October 2013. The exchange will increase market efficiency through by fixing the price of gas to a more reliable European virtual trading point, adopting European codes and regulations on gas management, and undertaking a number of infrastructure improvements that streamline gas delivery, storage and set-up future liquefied natural gas projects.⁷⁵⁰

On 2 April 2014, a second market mechanism was introduced. The authority adopted resolution 137/2014/R/gas to facilitate improved gas bidding mechanisms, efficient allocation of gas “bundles” and defining terms to avoid future misunderstandings.⁷⁵¹ This resolution came over a year in advance of the 1 November 2015 deadline set by the European Union and is intended to improve efficiencies in the gas market.

The authority also changed two financial systems related to energy efficiency and use in January 2014. The first relates to the Energy Efficiency Credits (TEE) and the second to the electrical grid rate. The first change was a redefinition of the tariffs associated with the TEE and a new mechanism to streamline the process of allocating tariffs to make it easier and more efficient to issue them in a timely manner.⁷⁵² The second, which came into effect on 1 January 2014, was meant as an incentive for residents to switch to solar energy, and other renewables that are not tied to the electrical grid. This new rate rewards homes with high energy efficiency by charging for the cost of the grid services, not the volume of electricity itself.⁷⁵³ The authority hopes to encourage the use of heat pumps and other renewable energies in residential homes.

There are three different statistics which show the Government of Italy’s expenditure on financial incentives and renewable energy investments. The Gestore Servizi Energetici (GSE) is a state-owned company which promotes and supports renewable energy sources in Italy. It keeps track of and frequently updates the “yearly indicative cumulative cost of incentives” that the Italian Government issued in relation to renewable energies. These incentives include: feed-in tariffs (for photovoltaic and thermodynamic residential projects); White Certificates (energy efficiency trading scheme); tax incentives to large-scale plants (according to Ministerial Decree of 6 June 2012); and other government-sponsored incentives. According to their statistics, the cost of these incentives had risen from EUR4.51

⁷⁴⁹ Energy: Incentives to Pilot Projects for “Smart” Gas, Electricity and Water Meters, Italian Regulatory Authority for Electricity and Gas (Milan) 23 September 2013. Access Date: 12 April 2014 http://www.autorita.energia.it/inglese/press_releases/13/130923smart.htm

⁷⁵⁰ Energy Policy Highlights, International Energy Agency (France) November 2013. Access Date: 9 April 2014. http://www.iea.org/publications/freepublications/publication/Energy_Policy_Highlights_2013.pdf

⁷⁵¹ Gas: the new European regulations on transmission capacity adopted in advance, Italian Regulatory Authority for Electricity and Gas (Milan) 2 April 2014. Access Date: 12 April 2014 <http://www.autorita.energia.it/inglese/pressnote/14/140402.htm>

⁷⁵² The New Tariffs for Covering the Costs of Energy Efficiency Credits Have Been Redefined, Italian Regulatory Authority for Electricity and Gas (Milan) 28 January 2014. Access Date: 12 April 2014 http://www.autorita.energia.it/inglese/press_note/14/140128.htm

⁷⁵³ Electricity: the 2014 New Network Tariff for ‘Sustainable Heating,’ Italian Regulatory Authority for Electricity and Gas (Milan) 23 December 2013. Access Date: 12 April 2014 http://www.autorita.energia.it/inglese/press_releases/13/131223cs.htm

billion on 31 August 2013 to EUR5.03 billion on 31 January 2014, amounting to a total government spending of EUR52 million in five months.⁷⁵⁴

On 25 March 2014, the consulting firm Eclareon published a study on solar energy which found that the cost of electricity produced by photovoltaic systems had reached parity with other conventional forms of electricity in the beginning of 2014.⁷⁵⁵ This parity will go a long way in helping Italy to achieve its 26.4% renewable energy by 2020 target, and was possible largely because of a government tax credit subsidy system that incentivized solar panel installation in households for residential use.⁷⁵⁶ In fact, advancements in photovoltaic technology and incentivizing their use in both household and commercial sectors has been a key focus of the Italian government, as solar represents the widest renewable energy use in the country at 88 per cent.⁷⁵⁷

The PEW Research Center provides statistics on Italy's investments in renewable energy. It was ranked number nine on PEW's Top Ten Countries in Clean Energy Investment 2013 with an investment intensity of 0.20 (per dollar of gross domestic product). It ranked number seven on Installed Renewable Energy Capacity 2013 at 34 gigawatts and number five on Small-Distributed Capacity Investment (residential and small-commercial projects less than 1 megawatt).⁷⁵⁸

Italy has undertaken efforts to change and update financial mechanisms for energy use and gas markets, its development of solar power to the point where it is now at parity with conventional forms of power and its continued use of financial incentives to utilize green and/or more efficient forms of energy. Thus, Italy was awarded a score of 0.

Analyst: Aurora Hudson

Japan: 0

Japan has partially complied with the commitment to develop cleaner, more efficient energy technologies and phase out insufficient fossil fuel subsidies.

In the fiscal year 2013, Japan installed 73 megawatts of wind capacity, the lowest numbers since 2001.⁷⁵⁹ The government continues to cut subsidies and reduce incentives for solar power.⁷⁶⁰

⁷⁵⁴ Just updated the Renewable-energy support cost Counter, Gestore Servizi Energetici (Rome) 8 April 2014. Access Date 12 April 2014. <http://www.gse.it/en/pressroom/News/Pages/Updated-Renewable-Energy-Cost-Counter.aspx>

⁷⁵⁵ PV is Already Competitive Against Retail Electricity in the Commercial Sector of Major European Markets, Eclareon (Berlin) 25 March 2014. Access Date: 12 March 2014. <http://www.eclareon.com/en/pv-already-competitive-against-retail-electricity-commercial-sector-major-european-markets-0>

⁷⁵⁶ Solar Thermal in Italy: Government Approves New Subsidy Scheme, The Solar Keymark (Belgium) 2 January 2013. Access Date: 12 April 2014 <http://www.estif.org/solarkeymarknew/press-room/news/97-italy-government-approves-new-subsidy-scheme>

⁷⁵⁷ Who's Winning the Clean Energy Race?, The PEW Charitable Trusts (Washington) April 2014. Access Date: 12 April 2014. <http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Report/clen-whos-winning-the-clean-energy-race-2013.pdf>

⁷⁵⁸ Who's Winning the Clean Energy Race?, The PEW Charitable Trusts (Washington) April 2014. Access Date: 12 April 2014. <http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Report/clen-whos-winning-the-clean-energy-race-2013.pdf>

⁷⁵⁹ Wind lobby raps environment reports. The Japan Times (Tokyo) 14 February 2014. Access Date: 12 April 2014. <http://www.japantimes.co.jp/news/2014/02/14/business/wind-lobby-raps-environment-reports/>

⁷⁶⁰ Lessons from Japan: How the Nation Can Super-charge its Clean-energy Economy. Renewable Energy World (Tokyo) 13 November 2013. Access Date: 14 April 2014. <http://www.renewableenergyworld.com/rea/news/article/2013/11/lessons-from-japan-how-the-nation-can-supercharge-its-clean-energy-economy>

On 22 November 2013, Japan enacted the Act on Promotion of Generating Renewable Energy Harmonized with Healthy Development of Agriculture, Forestry and Fishery. This act will “revitalize farming, timber, and fishery villages and create various energy sources by the introduction of renewable energy production in such villages.” This act is expected to increase the range of land potentially available across the country for solar, wind and biomass projects.⁷⁶¹

Japan has not demonstrated adequate measures to promote renewable energy nor have there been efforts to support national vulnerable groups. Thus, it has been awarded a score of 0.

Analyst: Crystal Gao

Korea: 0

Korea has partially complied with its commitment to encourage effective policies that overcome barriers to efficiency, or otherwise spur innovation and development of clean and efficient energy technologies.

On 13 January 2014, the Korean Ministry of Environment announced that the securities exchange Korea Exchange (KRX) will host the trading of carbon permits for its emissions trading mechanism, which is scheduled to launch on 1 January 2015.⁷⁶²

On 6 February 2014, the Korean Ministry of Trade, Industry and Energy announced that, with a recent amendment to the Energy Use Rationalization Act, local automakers and importers of foreign vehicles who fail to meet the fuel consumption efficiency level of 17 kilometers per litre will pay a penalty surcharge. The rate is equal to KRW82,352 per kilometre/litre short of the target per car sold.⁷⁶³

Korean has undertaken ongoing efforts to establish an emission trading mechanism and its increased enforcement of energy efficiency standards. Thus, Korea receives a score of 0.

Analyst: Colin McEwen

Mexico: +1

Mexico has fully complied with its commitment to support the development of clean and energy efficient technologies and supports the efficiency of the energy market through various actions.

On 13 December 2013, Mexico passed the new Energy Reform that ends the 75-year-old oil, gas and electricity monopoly and boosts private investments in energy sector.⁷⁶⁴ This government’s policy not only increased efficiency of the energy market, but also targeted clean energy to occupy 35 per cent of the energy market.⁷⁶⁵

⁷⁶¹ Japan: Renewable Energy Production to Aid Agricultural, Forestry and Fishing Villages. Law Library of Congress (Washington) 18 December 2013. Access Date: 13 April 2014.

http://www.loc.gov/lawweb/servlet/lloc_news?disp3_l205403794_text

⁷⁶² Korean Exchange Wins Bid to Host Nation’s Carbon Trading, Reuters 13 January 2014. Access Date: 11 February 2014. <http://www.reuters.com/article/2014/01/14/south-korea-carbon-idUSL3N0KJ18T20140114>

⁷⁶³ Local Automakers and Importers Subject to Penalty if Fuel Efficiency Standards Not Met, Korean Ministry of Trade, Industry and Energy (Seoul) 6 February 2014. Access Date: 12 February, 2014. http://www.mke.go.kr/language/eng/news/news_view.jsp?seq=1213&srchType=1&srchWord=&tableNm=E_01_01&pageNo=1&ctx=# -

⁷⁶⁴ Mexico Passes Oil Bill Seen Luring \$20 Billion a Year, Bloomberg (New York), 13 December 2013. Access Date: 27 February 2014. <http://www.bloomberg.com/news/2013-12-12/mexico-lower-house-passes-oil-overhaul-to-break-state-monopoly.html>

⁷⁶⁵ Mexico Aims to Be Major Global Wind Energy Player, The Daily Fusion (New York), 5 March 2014. Access Date: 5 March 2014. <http://dailyfusion.net/2014/03/mexico-aims-to-be-major-global-wind-energy-player-27035/>

The Mexican government has set clear targets for wind power sector, generating 2 gigawatts per year for the next decade.⁷⁶⁶ Moreover, the Mexican Wind Energy Association (AMDEE) has set a target of 12,000 megawatts of wind power by 2022, which is 10,000 megawatts more than the current capacity.

Mexico has started another renewable energy program with construction of the biggest solar power plant in Latin America, Aura Solar I — a 30-megawatt solar farm in La Paz, Mexico.⁷⁶⁷ According to Greentech Media, with the solar market's installed base, Mexico is expected to quadruple from 60 megawatts to 240 megawatts by the end of 2014.

After the Energy Reform, Mexico also showed an improvement of clean, efficient technologies by water management for energy sector. Large corporations that engaged in investment of Mexico's energy sector began to adopt water treatment facility at their energy plants, which save substantial amounts of water use in the production process.⁷⁶⁸ Volkswagen planned to construct a new water treatment facility in 2015, which will account for over EUR220,000 of cost savings per year.

Mexico has complied with its commitment to support the development of clean and energy efficient technologies and supports the efficiency of the energy market through various actions including policies. Thus, Mexico receives a score of +1.

Analyst: HyunAb Heidi Shim

Russia: +1

Russia has fully complied with its commitment on clean energy technologies.

On 6 September 2013, Minister of Energy of Russia Alexander Novak signed a decree on reorganizing the Ministerial Department for Energy Efficiency and Fuel and Energy Sector, creating a separate Department for Energy Efficiency. The immediate objectives of this department inter alia include attracting private finance to the energy sector, improving the system of federal subsidies to regional energy projects, and developing programs to enhance the energy efficiency of public energy companies.⁷⁶⁹

On 22 November 2013, in his address to the “All-Russian meeting for increasing energy efficiency in regions: monitoring the research, replication of the successful experience” at Energy Efficiency and Energy Saving forum, Deputy Energy Minister of Russia Anton Inyutsyn said that the state program “Energy conservation and enhancing energy efficiency until 2020” allocates RUB6.1 trillion, including RUB5.6 trillion of extra-budgetary resources, to energy-efficiency projects.⁷⁷⁰

⁷⁶⁶ Mexico Aims to Be Major Global Wind Energy Player, The Daily Fusion (New York), 5 March 2014. Access Date: 5 March 2014. <http://dailyfusion.net/2014/03/mexico-aims-to-be-major-global-wind-energy-player-27035/>

⁷⁶⁷ Mexico Building Latin America's Largest Solar Farm To Replace Old, Dirty Oil-Power Plant, Climate Progress, 25 February 2014. Access Date: 7 March 2014. <http://thinkprogress.org/climate/2014/02/25/3328651/mexico-large-solar-plant-paz/#>

⁷⁶⁸ Private Sector's Contribution to Water Management, Renewable Energy Mexico (Mexico), 7 March 2014. Access Date: 7 March 2014. <http://www.renewableenergymexico.com/?p=965>

⁷⁶⁹ Minister of Energy reorganized the Department for Energy Efficiency and Fuel and Energy Sector, Russian Ministry of Energy 6 September 2013. Access Date: 17 April 2014. http://minenergo.gov.ru/press/min_news/16134.html?sphrase_id=600929.

⁷⁷⁰ The participants of the Energy ministry took part in the second day of the ENES-2013 forum, Russian Ministry of Energy 22 November 2013. Access Date: 17 April 2014.

http://minenergo.gov.ru/press/min_news/17638.html?sphrase_id=600929.

On 25 November 2013, Russian President Vladimir Putin signed a federal law No. 316, which increased penalties for citizens and legal entities violating rules of energy consumption and conservation.⁷⁷¹

In 2014 Russian Ministry of Energy plans to allocate RUB4.9 billion from the federal budget on co-financing energy conservation and energy efficiency projects.⁷⁷²

On 17 February 2014, the Russian government issued decree No. 116 approving measures to stimulate electricity generation using renewable energy sources. Among other things the decree amends the rules for development and approval of the projected electrical energy development projects.⁷⁷³

On 15 April 2014, the Russian government approved a new version of the “Energy efficiency and energy development” program. It provides an increase in government spending by 6.844 billion rubles in 2014-16. Implementation of the program, according to the government, will result in reduction of energy intensity of the Russian economy by 12.7 per cent by 2020 (compared to 2007).⁷⁷⁴

Thus, Russia has been awarded a score of +1 for taking steps to support clean and energy efficient projects financially and increase efficiency of the energy market through policy measures.

Analyst: Andrei Sakbarov

Saudi Arabia: +1

Saudi Arabia has fully complied with the commitment to support the development of clean and energy efficient technologies and supports the efficiency of the energy market through various actions including policies.

In July 2013, Saudi Arabia has begun to support its renewable energy programs by installing 70 stations that will measure the potential for energy production from sun, wind and geothermal sources.⁷⁷⁵ The government targets to install 23.9 gigawatts of renewable power capacity by 2020 and then 54.1 gigawatts by 2032.

On 20 February 2014, the government of Saudi Arabia announced its plan to invest USD173 billion on energy projects between 2014 and 2018, marking the highest amount of investment in the Arab world.⁷⁷⁶

On 28 February 2014, Saudi Basic Industries Corporation (SABIC) and the King Abdullah City for Atomic and Renewable Energy (KACARE) signed a research and development agreement to cooperate

⁷⁷¹ Vladimir Putin signed a law “On amending article 7.19 and 9.11 of the Russian Federation Administrative Offence Code”, President of Russia 25 November 2013. Access Date: 17 April 2014. <http://www.kremlin.ru/acts/19691>.

⁷⁷² Discussion on the implementation of the subprogram “Energy conservation and energy efficiency” took place in the Energy Ministry, Russian Ministry of Energy 10 February 2014. Access Date: 21 April 2014. http://minenergo.gov.ru/press/min_news/17638.html?sphrase_id=600929.

⁷⁷³ On measures to normalize and stimulate generation and use of electric energy based on renewable energy sources, Government of Russia 21 February 2014. Date of Access: 13 August 2014. <http://government.ru/docs/10666>.

⁷⁷⁴ On approval of the new version of the “Energy efficiency and energy development” state program, Government of Russia 15 April 2014. Date of Access: 13 August 2014. <http://government.ru/docs/11951>.

⁷⁷⁵ Saudi Arabia Pushes Renewable Energy Programs, Wants to Become Solar-Powered Efficient and Capable by 2032, International Business Times (Australia), 4 July 2013. Access Date: 7 March 2014. <http://au.ibtimes.com/articles/486391/20130704/saudi-arabia-renewable-energy-solar-power.htm#.UxyTzkKwKdU>

⁷⁷⁶ Saudi five-year energy spend to hit \$173bn, Arabian Business (Dubai), 20 February 2014. Access Date: 7 March 2014. <http://www.arabianbusiness.com/saudi-five-year-energy-spend-hit-173bn-539625.html>.

for technology development.⁷⁷⁷ Under the agreement, SABIC and KACARE, in the focus area of technology and innovation, will develop “a range of protocols for evaluation and feasibility of renewable energies including, solar, wind, and municipal waste, with specific attention given to electricity or steam generation for industrial usage, and energy storage.”

Saudi Arabia has complied with its commitment to support the development of clean and energy efficient technologies and supports the efficiency of the energy market through various actions including policies. Therefore, Saudi Arabia receives a score of +1.

Analyst: HyunAb Heidi Shim

South Africa: +1

South Africa has fully complied with its commitment to encourage effective policies that overcome barriers to energy efficiency. It has also complied both with enhancing the efficiency of markets and shifts towards an energy sustainable future.

South Africa has encouraged effective policies that overcome barriers to energy efficiency, enhanced the efficiency of markets and shifts towards an energy sustainable future.

South Africa has received a score of +1 for full compliance.

Analyst: Nanayaa Appenteng

Turkey: 0

Turkey has partially complied with its commitment to support the increased efficiency of the energy market and to develop clean and efficient energy technologies.

On 25 February 2012, the Government of Turkey released its Energy Efficiency Strategy Paper which committed the government to more stringent energy efficiency targets, in an effort to follow the policy set in the 2007 Energy Efficiency Law.⁷⁷⁸ It indicated a need for a future plan to coordinate between the public, private, and non-governmental sectors. The paper targeted to reduce the energy intensity as a percentage of Turkey’s gross domestic product by 20 per cent less the value of the year 2011 by 2023.⁷⁷⁹ To promote this, the government has committed to regulate the rate of price changes on certain renewable and non-renewable resources.

Notably, Turkey has indicated in its Energy Efficiency Strategy Paper that by 2023, Turkey would be committed to developing its hydroelectric, geothermal, and wind energy to a higher calibre.⁷⁸⁰ The World Bank noted on 23 January 2013 that the Government of Turkey is actively seeking to develop its

⁷⁷⁷ SABIC, KACARE tie up for renewable energy studies, Arab News (Saudi Arabia) 28 February 2014. Dater of Access: 7 March 2014. <http://www.arabnews.com/news/532361>.

⁷⁷⁸ Energy Efficiency Strategy Paper 2012-2013, Ministry of Energy and Natural Resources General Directorate of Renewable Energy. Access Date: 26 February 2014. http://www.eie.gov.tr/verimlilik/document/Energy_Efficiency_Strategy_Paper.pdf

⁷⁷⁹ Statement on Energy Efficiency and Renewable Energy Opening Session 2nd Preparatory Meeting of the 21st OSCE Economic and Environmental Forum, Ministry of Energy and Natural Resources General Directorate of Renewable Energy, 16 April 2013. Access Date: 26 February 2014. <http://www.osce.org/eea/100812>

⁷⁸⁰ Statement on Energy Efficiency and Renewable Energy Opening Session 2nd Preparatory Meeting of the 21st OSCE Economic and Environmental Forum, Ministry of Energy and Natural Resources General Directorate of Renewable Energy, 16 April 2013. Access Date: 26 February 2014. <http://www.osce.org/eea/100812>

wind power potential by government and international incentives and subsidies for sustainable power, and low interest loans from the government.⁷⁸¹

In June 2013, the Supreme Council for Science and Technology, the highest body for determining scientific policies of the country, set energy efficiency to be high on the agenda. This resulted in the following goals: “(1) Develop business model with support package to co-ordinate with Ministry of Energy and Natural Resources; (2) Work on regulatory legislation; (3) Provide support from the relevant institution and ministries.”⁷⁸² A speech by President Abdullah Gül on 12 November 2013 reaffirmed Turkey’s commitment to these policies and developing the connection between the economy and energy development.⁷⁸³

Despite the rhetoric and certain policy measures, Turkey is still actively promoting the exploitation of non-renewable resources which does not encourage the development in the efficiency of certain sectors in the energy market. It has introduced tax breaks and exemptions to encourage the exploitation of non-renewable resources such as oil.⁷⁸⁴

While Turkey has indicated its commitment to increasing the efficiency of energy technologies and the energy market, it is conflicted in its policy execution by supporting both progressive and status quo options. It has specifically lacked in policies pursuant to the development of energy efficient technologies. Therefore, it has been awarded a score of 0.

Analyst: Emily Tsui

United Kingdom: +1

The United Kingdom has fully complied with its commitment to encourage effective policies that overcome barriers to energy efficiency. It has also complied both with enhancing the efficiency of markets and shifts towards an energy sustainable future.

In November 2012, the UK government announced an energy policy agreement that, “will deliver a durable, long term signal to investors,”⁷⁸⁵ including a de-carbonization target range for 2030. After multiple levels of debate and amendments, the Energy Act received Royal Assent on 18 December 2013.⁷⁸⁶ The final statute incorporates various energy initiatives, ranging from consumer protection, to de-carbonization, to nuclear regulation. However, the most pertinent to clean technologies are measures to attract GBP110 billion in investment to upgrade the electricity market. Reforms include: (1) long-term contracts to provide incentives for low-carbon investment; (2) power purchase agreements to ensure the availability of contracts for renewable generators; (3) transition agreements for renewable investments, and (4) limits on carbon dioxide emissions from new fossil fuel power stations.

⁷⁸¹ In Turkey: Building a Market for Energy Efficiency, World Bank, 23 January 2013. Access Date: 26 February 2014.
<http://www.worldbank.org/en/news/feature/2013/01/17/in-turkey-building-market-for-energy-efficiency>

⁷⁸² Energy Policy Highlights, IEA and OECD, 2013. Access Date: 26 February 2014.
http://www.iea.org/publications/freepublications/publication/Energy_Policy_Highlights_2013.pdf

⁷⁸³ Address by President Abdullah Gül at the Atlantic Council Economy and Energy Summit, Presidency of the Republic of Turkey (Istanbul), 12 November 2013. Access Date: 26 February 2014.
<http://www.tccb.gov.tr/news/397/87824/president-gul-delivers-speech-at-economy-and-energy-summit.html>

⁷⁸⁴ Turkey, United States Energy Information Administration, 1 February 2013. Access Date: February 26 2014.
<http://www.eia.gov/countries/cab.cfm?fips=TU>

⁷⁸⁵ Energy Act: Decarbonisation, Department of Energy & Climate Change (London) 18 December 2013. Access Date: 28 February 2014. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/266868/Decarbonisation_Policy_Brief_RA.pdf

⁷⁸⁶ Energy Act, Department of Energy & Climate Change (London) 18 December 2013. Access Date: 28 February 2014.
<https://www.gov.uk/government/collections/energy-act>

In 2014, the United Kingdom also called for shifts towards an energy sustainable future. On 24 January 2014, Prime Minister David Cameron addressed the World Economic Forum in Davos highlighting renewable energy, Britain's GBP16 billion of investment in nuclear energy, and the expanding offshore wind market.⁷⁸⁷ Ed Davey, Secretary of State for Energy and Climate Change, echoed these calls to adapt stewardship to ensure that, "low-carbon energy resources have a secure future"⁷⁸⁸ in the United Kingdom. Both statements are furthered by the creation and actions of the Green Investment Bank, a GBP3 billion initiative to "mobilize private capital to make a significant contribution to the development of a green economy."⁷⁸⁹

The UK has encouraged effective policies that overcome barriers to energy efficiency, enhanced the efficiency of markets and shifts toward an energy sustainable future. It received +1 for full compliance.

Analyst: Anthony Marchese

United States: +1

The United States has fully complied with its commitment to encourage effective policies that overcome barriers to energy efficiency. It has also complied both with enhancing the efficiency of markets and shifts towards an energy sustainable future.

The US has built on previous policies to encourage clean energy investment and development. The American Recovery and Reinvestment Act of 2009 included a 30 per cent tax credit valued at USD2.3 billion for "investments in manufacturing facilities for clean energy technologies."⁷⁹⁰ On 12 December 2013, an additional USD150 million was released for projects of "domestic manufacturing of a wide range of renewable energy and energy efficiency products."⁷⁹¹ These tax credits are in conjunction with the approval of a variety of projects, such as USD7 million for cost-effective hydrogen and fuel cell technologies,⁷⁹² and USD50 million to accelerate development of high-tech, fuel efficient autos.⁷⁹³

In 2014, President Barack Obama has continued to encourage effective energy policies and development. In his 2014 State of the Union Address, he highlighted actions to shift towards a more environmentally sustainable future, such as "new standards on the amount of carbon pollution" that

⁷⁸⁷ World Economic Forum (Davos) 2014: Speech by David Cameron, 10 Downing Street (London) 30 January 2014. Access Date: 28 February 2014. <https://www.gov.uk/government/speeches/world-economic-forum-davos-2014-speech-by-david-cameron--2>

⁷⁸⁸ North Sea Still has Vital Role in Keeping the Lights On, The Daily Telegraph (London) 24 February 2014. Access Date: 28 February 2014. <http://www.telegraph.co.uk/finance/newsbysector/energy/10656808/North-Sea-still-has-vital-role-in-keeping-the-lights-on.html>

⁷⁸⁹ Green Bank Opens for Business, Green Investment Bank (London) 27 November 2012. Access Date: 28 February 2014. <http://www.greeninvestmentbank.com/media-centre/gib-news/green-bank-opens-for-business.html>

⁷⁹⁰ Fact Sheet: 48C Manufacturing Tax Credits, Department of Energy (Washington DC) 7 February 2013. Access Date: 28 February 2014. <http://energy.gov/sites/prod/files/2013/04/f0/FACT%20SHEET%20--%2048C%20MANUFACTURING%20TAX%20CREDITS.pdf>

⁷⁹¹ Energy Department Announces \$150 Million in Tax Credits to Invest in US Clean Energy Manufacturing, Department of Energy (Washington DC) 12 December 2013. <http://www.energy.gov/articles/energy-department-announces-150-million-tax-credits-invest-us-clean-energy-manufacturing>

⁷⁹² Energy Department Invest Over \$7 Million to Commercialize Cost-Effective Hydrogen and Fuel Cell Technologies, Department of Energy (Washington DC) 12 December 2013. Access Date: 28 February 2014. <http://www.energy.gov/articles/energy-department-invests-over-7-million-commercialize-cost-effective-hydrogen-and-fuel>

⁷⁹³ Secretary Moniz Announces Nearly \$50 Million to Advance High-Tech, Fuel Efficient American Autos, Department of Energy (Washington DC) 22 January 2014. Access Date: 28 February 2014. <http://www.energy.gov/articles/secretary-moniz-announces-nearly-50-million-advance-high-tech-fuel-efficient-american-autos>

power plants are permitted to produce.⁷⁹⁴ At the 2014 North American Leaders' Summit in Mexico, Obama reaffirmed the US commitment to developing clean energy and highlighted a future trilateral meeting to discuss "opportunities to promote common strategies on energy efficiency."⁷⁹⁵

The US has encouraged effective policies that overcome barriers to energy efficiency, enhanced the efficiency of markets and shifts towards an energy sustainable future. The United States has received a score of +1 for full compliance.

Analyst: Anthony Marchese

European Union: +1

The European Union has fully complied with its commitment to encourage effective policies that overcome barriers to efficiency, and enhance the efficiency of markets for an energy-sustainable future.

On 4 December 2012, the new Energy Efficiency Directive 2012/27/EU entered into force with its overall goal as establishing a 20 per cent increase in energy efficiency by 2020.⁷⁹⁶ This directive sets the "legal definition and quantification of a European Union energy efficiency target" and obliges each member to set national goals as well. It encourages transparency in the process by mandating a minimum quadrennial energy audit with the first one due by 5 December 2015. The directive also increases energy savings for consumers, and targets buildings to increase energy efficiency through the development of efficient technologies.

On 8 January 2014, a European Commission Report reaffirmed the EU's commitment to the above directive and Directive 2006/32/EC on energy end-use efficiency and energy services to make the end use of energy more economic and efficient by establishing indicative targets.⁷⁹⁷ The deadline set for this goal is 5 June 2014.

The same report indicated a significant reduction of energy expenditures. The forecast in energy savings for the EU is expected to be around 132 million tons of oil.⁷⁹⁸ This can also be seen through the effectiveness of the European Union Emissions Trading Scheme, which puts a financial value on every ton of emission saved.⁷⁹⁹

⁷⁹⁴ President Barack Obama's State of the Union Address, The White House (Washington DC) 28 January 2014. Access Date: 28 February 2014. <http://www.whitehouse.gov/the-press-office/2014/01/28/president-barack-obamas-state-union-address>

⁷⁹⁵ Joint Statement by North American Leaders - 21st Century North America: Building the Most Competitive and Dynamic Region in the World, The White House (Washington DC) 19 February 2014. Access Date: 28 February 2014. <http://www.whitehouse.gov/the-press-office/2014/02/19/joint-statement-north-american-leaders-21st-century-north-america-buildi>

⁷⁹⁶ Energy Efficiency Directive, European Commission. Access Date: 26 February 2014. http://ec.europa.eu/energy/efficiency/eed/eed_en.htm

⁷⁹⁷ Report from the Commission to the European Parliament and the Council COM(2013) 938 Final, European Commission (Brussels) 08 January 2014. Access Date: 26 February 2014. <http://new.eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013DC0938&qid=1392871367931&from=EN>

⁷⁹⁸ Report from the Commission to the European Parliament and the Council COM(2013) 938 Final, European Commission (Brussels) 08 January 2014. Access Date: 26 February 2014. <http://new.eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013DC0938&qid=1392871367931&from=EN>

⁷⁹⁹ The European Union Emissions Trading System, European Commission, 11 February 2014. Access Date: 26 February 2014. http://ec.europa.eu/clima/policies/ets/index_en.htm

On 14 February 2014, at the end of the Berlin Energy Forum, there was a reaffirmation of the EU's acknowledgement of the importance of energy efficiency.⁸⁰⁰ Over 160 stakeholders, including EU members from all energy sectors, attended.

The EU has outlined policy measures and reaffirmed its commitment to increase the efficiency of the energy market. Therefore, it has been awarded a score of +1.

Analyst: Emily Tsui

⁸⁰⁰ Conclusions of the Berlin Energy Forum 2014, European Commission (Berlin), 14 February 2014. Access Date: 26 February 2014. http://ec.europa.eu/energy/events/doc/2014_berlin_forum_conclusions_en.pdf