

5. Energy: Diversification [90]

Commitment

“We will make efforts to integrate renewables into the power grid.”⁴⁹¹
Growth and Responsibility in the World Economy

Assessment

Country	Final Compliance Score		
	Lack of Compliance -1	Work in Progress 0	Full Compliance +1
Canada		0	
France			+1
Germany			+1
Italy			+1
Japan			+1
Russia			+1
United Kingdom			+1
United States			+1
European Union		0	
Average Score			+0.78

Background

Energy diversification is seen as a solution to two problems facing many G8 states, particularly those in Europe. First, increasing the use of renewable energy sources responds to domestic demands for action on climate change. Secondly, greater emphasis on sources like wind, solar and geothermal power reduces dependence on imported hydrocarbon fuels and thus helps to “secure” the national energy sector.

The topic of renewable energy sources first appeared in official G8 Summit documents at the Evian Summit in 2003. There, the members agreed to take measures to encourage an increase in the percentage of global energy use attributed to renewable sources and advance research on these sources.⁴⁹² At Sea Island in 2004, the topic of renewables was merged into a commitment on energy efficiency and called only for increased international cooperation on the matter.⁴⁹³ It was not until the *Gleneagles Plan of Action: Climate Change, Clean Energy and Sustainable Development*, however, that G8 leaders agreed to take comprehensive action on renewables, calling for greater research and development, international cooperation and initiatives to integrate renewable sources of energy into respective national power grids. Emphasis was also placed on the issue of technology transfers to the developing world and support for research into hydrogen as a source of energy.⁴⁹⁴ Diversification was again a major component of the *St. Petersburg Plan of Action: Global Energy Security*, in which nations agreed to encourage further developments in nuclear technology, hydrogen fuels and renewable sources of energy such as wind, solar, hydro, biomass and geothermal. At the Heiligendamm Summit the G8 countries reiterated their commitment in expanding renewable energy production and integrating these sources into their power

⁴⁹¹ Growth and Responsibility in the World Economy, G8 Information Centre (Toronto) 7 June 2007. Date of Access: 17 January 2008. <<http://www.g8.utoronto.ca/summit/2007heiligendamm/g8-2007-economy.html>>

⁴⁹² Science and Technology for Sustainable Development: A G8 Action Plan, G8 Information Centre (Toronto) 2 June 2003. Date of Access: 19 January 2008. <http://www.g8.utoronto.ca/summit/2003evian/sustainable_development_en.html>

⁴⁹³ Science and Technology for Sustainable Development: “3r” Action Plan and Progress On Implementation, G8 Information Centre (Toronto) 10 June 2004. Date of Access: 19 January 2008. <<http://www.g8.utoronto.ca/summit/2004seaisland/sd.html>>

⁴⁹⁴ Gleneagles Plan of Action: Climate Change, Clean Energy and Sustainable Development, G8 Information Centre (Toronto) 8 July 2005. Date of Access: 19 January 2008. <<http://www.g8.utoronto.ca/summit/2005gleneagles/climatechangeplan.html>>

grids.⁴⁹⁵ Commitments on renewable sources of energy, however, amounted to a reiteration of promises made at the Gleneagles Summit and did not include new international or domestic initiatives for the integration of renewables into national power grids.⁴⁹⁶

Team Leader: Erin Haines

Canada: 0

Canada has partially complied with its energy diversification commitment. Although Canada has made investments in the development of renewable energy sources, it has not taken significant measures to integrate these sources of power generation into the grid.

On 25 June 2007, Member of Parliament for Lethbridge Rick Casson, on behalf of Minister of Agriculture and Agri-Food and Minister for the Canadian Wheat Board Gerry Ritz, announced an investment of over CAD416 000 in three Alberta biofuel projects.⁴⁹⁷ On 4 July 2007, Minister of Natural Resources Gary Lunn announced that the Kettles Hill Wind Energy Inc. would receive CAD16.5 million, as the first company to be funded under the ecoENERGY for Renewable Power Initiative.⁴⁹⁸ On 1 October 2007, Minister Lunn announced that the Baie-des-Sables Wind Energy Project would receive more than CAD31 million over ten years.⁴⁹⁹ On 4 October 2007, the Canadian government invested CAD5 million to boost the biofuels sector.⁵⁰⁰

On 6 November 2007, the Canadian government invested CAD150 000 to build an alternative energy research and training center at the Dawson Creek campus of Northern Lights College.⁵⁰¹ The next day, Minister of Health Tony Clement, on behalf of Minister Lunn, announced an investment of over CAD53 million over 10 years for Canada's largest wind energy project.⁵⁰² On 19 November 2007, Minister Lunn announced CAD1.1 million of funding for demonstration projects promoting photovoltaic and solar thermal power technology for commercial and residential use.⁵⁰³ On 1 December 2007, Minister Ritz announced CAD1.5 billion in biofuel production incentives.⁵⁰⁴

On 3 December 2007, the Renewable Fuels Bill was introduced in Parliament. If passed, the Bill will allow the Government of Canada to regulate the renewable content in fuels.⁵⁰⁵ On 5 December 2007, Minister of

⁴⁹⁵ Growth and Responsibility in the World Economy, G8 Information Centre (Toronto) 7 June 2007. Date of Access: 17 January 2008. <<http://www.g8.utoronto.ca/summit/2007heiligendamm/g8-2007-economy.html>>

⁴⁹⁶ Global Energy Security, Summit Declaration, G8 Information Centre (Toronto) 16 July 2006. Date of Access: 19 January 2008. <<http://www.g8.utoronto.ca/summit/2006stpetersburg/energy.html>>

⁴⁹⁷ Canada's New Government Invests Over \$416,000 in Alberta's Emerging Biofuels Industry, Natural Resources Canada (Ottawa) 25 June 2007. Date of Access: 18 January 2008.

<<http://news.gc.ca/web/view/en/index.jsp?articleid=326369&keyword=energy&page=25>>

⁴⁹⁸ Canada's Government Announces \$16.5 Million to Kettles Hill Wind Energy Project, Natural Resources Canada (Ottawa) 4 July 2007. Date of Access: 18 January 2008.

<<http://news.gc.ca/web/view/en/index.jsp?articleid=333559&keyword=energy&page=24>>

⁴⁹⁹ Canada's New Government Invests In Largest Wind Energy Project in the Province of Quebec, Transport Canada (Ottawa) 1 October 2007. Date of Access: 18 January 2008.

<<http://news.gc.ca/web/view/en/index.jsp?articleid=351919&keyword=energy&page=16>>

⁵⁰⁰ Canada's New Government Gives \$5M to Boost Biofuels Sector, Agriculture and Agri-Food Canada (Ottawa) 4 October 2007. Date of Access: 18 January 2007.

<<http://news.gc.ca/web/view/en/index.jsp?articleid=352629&keyword=energy&page=15>>

⁵⁰¹ Federal Government Invests in Renewable Energy Research Facility, Western Economic Diversification Canada (Ottawa) 6 November 2007. Date of Access: 18 January 2007.

<<http://news.gc.ca/web/view/en/index.jsp?articleid=359289&keyword=energy&page=10>>

⁵⁰² Government of Canada Invests in Canada's Largest Wind Energy Project, Government of Canada (Ottawa) 7 November 2007. Date of Access: 18 January 2008.

<<http://news.gc.ca/web/view/en/index.jsp?articleid=359919&keyword=energy&page=9>>

⁵⁰³ Government of Canada Invests in Clean Solar Energy, Natural Resources Canada (Ottawa) 19 November 2007. Date of Access: 18 January 2008. <<http://news.gc.ca/web/view/en/index.jsp?articleid=362439&keyword=energy&page=8>>

⁵⁰⁴ Government of Canada Calls on Industry to Participate in New Biofuels Initiative, Natural Resources Canada (Ottawa) 1 December 2007. Date of Access: 18 January 2008.

<<http://news.gc.ca/web/view/en/index.jsp?articleid=365219&keyword=energy&page=6>>

⁵⁰⁵ Renewable Fuels Bill Clears the Way for Renewable Fuel Content, Agriculture and Agri-Food Canada (Ottawa) 3 December 2007. Date of Access: 18 January 2008.

<<http://news.gc.ca/web/view/en/index.jsp?articleid=365619&keyword=energy&page=6>>

the Environment John Baird emphasized Canada's commitment to renewable energy in a speech made to the Economic Club of Toronto.⁵⁰⁶

On 17 January 2008, Canadian Prime Minister Stephen Harper announced that the Government of Canada would provide the Province of Saskatchewan with CAD36.4 million in support of objectives compatible with the Community Development Trust, such as biofuels and sustainable energy development.⁵⁰⁷ Later that month, on 22 January 2008, the Government of Canada and the Province of Alberta agreed to invest more than CAD2.6 million in projects to demonstrate the effectiveness of renewable diesel fuels.⁵⁰⁸ A week later, Western Canada's biodiesel industry received an investment of CAD330 000 from Western Economic Diversification Canada.⁵⁰⁹

From 4 March 2008 to 6 March 2008, representatives from the Canadian government attended the Washington International Renewable Energy Conference. They joined other participants in making pledges on the expansion of production and integration of renewable energies in national power grids.⁵¹⁰ On 10 March 2008, the Government of Canada publicized additional details of its climate change plan developed in April 2007 entitled "Turning the Corner", which outlines, among other initiatives, the government's plans for increasing the usage of renewable energies.⁵¹¹ On 28 March 2008, Member of Parliament Joe Preston, Member of Parliament for Elgin-Middlesex-London, on behalf of the Minister of Agriculture and Agri-Food and Minister for the Canadian Wheat Board, announced an investment of nearly CAD4 million in funding under the federal ecoAgriculture Biofuels Capital (ecoABC) initiative.⁵¹² Also in March 2008, Minister Lunn announced that the Government of Canada would be investing CAD500 000 in an outdoor lighting project in Kelowna, B.C. This one-year project will install a network of 100 self-contained solar power systems to light public spaces in Kelowna.⁵¹³

On 18 April 2008, the Government of Canada announced an investment of CAD619 117 in four projects that will help Ontario producers participate in the biofuels industry.⁵¹⁴ On 1 May 2008, the Environment Minister, John Baird, announced that the proposed Waneta Hydroelectric Expansion Project in British Columbia would not require further assessment. This project involves the construction of a new 435 megawatt hydroelectric power plant at the existing Waneta Dam and, if completed, will be interconnected with the BC Hydro transmission grid.⁵¹⁵

Thus, Canada has been awarded a score of 0 for its continued investment in renewable energies and its lack of initiatives to address connections to the electricity grid.

Analyst: Erin Haines

⁵⁰⁶ Speech by the Honourable John Baird, Minister of the Environment, at the Economic Club of Toronto. Environment Canada (Ottawa) 5 December 2007. Date of Access: 18 January 2008:

<<http://news.gc.ca/web/view/en/index.jsp?articleid=366139&keyword=energy&page=6>>

⁵⁰⁷ PM Announces Funding for Saskatchewan Under New National Community Development Trust, Office of the Prime Minister (Ottawa) 17 January 2008. Date of Access: 18 January 2008.

<<http://news.gc.ca/web/view/en/index.jsp?articleid=372719&keyword=energy>>

⁵⁰⁸ Government of Canada and Province of Alberta Announce Investment in Canada's emerging Renewable Diesel Industry, Agriculture and Agri-Foods Canada (Ottawa) 22 January 2008. Date of Access: 5 May 2008.

<<http://news.gc.ca/web/view/en/index.jsp?articleid=373879>>

⁵⁰⁹ Government of Canada Investment to Expand British Columbia Biodiesel Industry, Western Economic Diversification Canada (Ottawa) 1 February 2008. Date of Access: 11 May 2008.

<<http://news.gc.ca/web/view/en/index.jsp?articleid=376069>>

⁵¹⁰ Pledge Display, 2008 Washington International Renewable Energy Conference (Washington DC) 4 March 2008. Date of Access: 11 May 2008. <http://www.usda.gov/documents/Pledge_Display_Web.pdf>

⁵¹¹ Government of Canada Delivers Details of Greenhouse Gas Regulatory Framework, Environment Canada (Ottawa) 10 March 2008. Date of Access: 11 May 2008. <<http://news.gc.ca/web/view/en/index.jsp?articleid=384589>>

⁵¹² Government of Canada Gives \$3.9 Million Boost to Biofuels in Ontario, Agriculture and Agri-Foods Canada (Ottawa) 28 March 2008. Date of Access: 11 May 2008. <<http://news.gc.ca/web/view/en/index.jsp?articleid=388749>>

⁵¹³ Government of Canada Shows Commitment to Renewable Power With Investment in Solar Power Project for Kelowna, Government of Canada (Ottawa) 13 March 2008. Date of Access: 11 May 2008.

<<http://news.gc.ca/web/view/en/index.jsp?articleid=385099>>

⁵¹⁴ Government of Canada Invests in Ontario's Biofuels Industry, Agriculture and Agri-Foods Canada (Ottawa) 18 April 2008. Date of Access: 11 May 2008. <<http://news.gc.ca/web/view/en/index.jsp?articleid=392619>>

⁵¹⁵ Environment Minister Announces Decision on the Waneta Hydroelectric Expansion Project in British Columbia, Canadian Environmental Assessment Agency (Ottawa) 1 May 2008. Date of Access: 11 May 2008

<<http://news.gc.ca/web/view/en/index.jsp?articleid=395969>>

France: +1

France has fully complied with its energy diversification commitment.

On 23-25 October 2007, the French government convened the Grenelle de L'Environnement. The conference involved a series of discussions on climate change between government and stakeholder groups including environmental, labour, agricultural, and industry organizations.⁵¹⁶ In his remarks, French President Nicolas Sarkozy indicated that the recommendations of the conference would form the basis of a new energy policy for France. In addition, President Sarkozy stated that France would undertake a new national renewable energy program and earmark one billion euros over four years for investment in renewable energy.⁵¹⁷ President Sarkozy also called for priority to be given to the development of second-generation biofuels in France.⁵¹⁸

On 12 October 2007, Minister of Ecology and Sustainable Development Jean-Louis Borloo approved projects for the capture of methane produced by the effluents of farm animals, and for the reduction of HFC emissions in commercial refrigeration, the food supply industry and in skating rinks, in an effort to reduce GHG emissions by 5 million tons over the period of 2008-2012.⁵¹⁹

France has announced specific targets directly relating to the generation, distribution and consumption of renewable energy. In January 2008, France declared that it would increase the percentage of renewable energy in its total energy consumption from 6.7% in 2004 to 20% by 2020.⁵²⁰ In particular, plans have been introduced to increase wind power generation from 810 MW in 2006 to 25 000 MW by 2020 and photovoltaic power capacity from 32.7 MW in 2006 to 3 000 MW by 2020.⁵²¹ France also intends to install 5 million solar thermal units in buildings by 2020, 80% of them in homes.⁵²²

At the Washington International Renewable Energy Conference held in Washington D.C. on 4-6 March 2008, France and other participating states made a commitment to increase renewable energy production by 20 Mtep reaching a level of over 36 Mtep by 2020 to achieve a total level of 20% in energy consumption from renewable sources.⁵²³ In 2008 in the French Parliament will vote on a new law designed to increase energy efficiency and consumption of energy from renewable sources that implements strict energy efficiency guidelines for buildings, requiring new buildings to be “energy positive” by using renewable energies by 2020.⁵²⁴

Thus, France has been awarded a score of +1, for its comprehensive policies promoting renewable energy.

⁵¹⁶ Speech by the President of the French Republic at the Concluding Session of the Grenelle De L'Environnement, La Présidence de la République (Paris) 25 October 2007. Date of Access: 8 May 2008.
<http://www.elysee.fr/search?q=renewable+energy&btnG.x=0&btnG.y=0&site=elyseev2&proxystylesheet=v2&output=xml_no_dtd&client=v2&lr=lang_fr&ie=utf8&oe=utf8&mode=html>

⁵¹⁷ Speech by the President of the French Republic at the Concluding Session of the Grenelle De L'Environnement, La Présidence de la République (Paris) 25 October 2007. Date of Access: 8 May 2008.
<http://www.elysee.fr/search?q=renewable+energy&btnG.x=0&btnG.y=0&site=elyseev2&proxystylesheet=v2&output=xml_no_dtd&client=v2&lr=lang_fr&ie=utf8&oe=utf8&mode=html>

⁵¹⁸ Speech by President of the French Republic at the Concluding Session of the Grenelle De L'Environnement, Présidence de la République (Paris) 25 October 2007. Date of Access: 12 January 2008.
<http://www.elysee.fr/search?q=renewable+energy&btnG.x=0&btnG.y=0&site=elyseev2&proxystylesheet=v2&output=xml_no_dtd&client=v2&lr=lang_fr&ie=utf8&oe=utf8&mode=html>

⁵¹⁹ Projets domestiques CO2, Ministère de l'Écologie, du Développement et de l'Aménagement durables (Paris) 12 October 2007. Date of Access: 6 January 2008.
<http://www.developpement-durable.gouv.fr/affiche_article.php3?id_article=2583>

⁵²⁰ France Sets Ambitious Renewable Energy Targets, Renewable Energy Access (Vienna) 2 January 2008. Date of Access: 6 January 2008.
<<http://www.renewableenergyaccess.com/rea/news/story?id=50971>>

⁵²¹ France Sets Ambitious Renewable Energy Targets, Renewable Energy Access (Vienna) 2 January 2008. Date of Access: 6 January 2008.
<<http://www.renewableenergyaccess.com/rea/news/story?id=50971>>

⁵²² France Sets Ambitious Renewable Energy Targets, Renewable Energy Access (Vienna) 2 January 2008. Date of Access: 9 May 2008. <<http://www.renewableenergyworld.com/rea/news/story?id=50971>>

⁵²³ WIREC 2008 Pledge, REN21 (Eschborn) April 2008. Date of Access: 9 May 2008.
<<http://www.ren21.net/wiap/detail.asp?id=74>>

⁵²⁴ WIREC 2008 Pledge, REN21 (Eschborn) April 2008. Date of Access: 9 May 2008.
<<http://www.ren21.net/wiap/detail.asp?id=74>>

Analyst: Matthew Chomyn

Germany: +1

Germany has fully complied with its energy diversification commitment.

On 23-24 August 2007, the German Cabinet met at Meseberg to discuss an integrated climate and energy program. The Cabinet resolved to increase the share of renewable energies in power production to 25-30% by 2020. It further recommended improving the “feed-in, generation and grid management for power from renewable energies and incentives for the demand-oriented feed-in of power from renewable energies to the electricity grid.”⁵²⁵ Minister for Environment, Nature Conservation and Nuclear Safety Sigmar Gabriel welcomed the announcement of new legislation from the European Commission regarding the liberalization of European energy markets. The legislation calls for energy suppliers to give up ownership of transmission networks or allow an independent system operator to manage them.⁵²⁶

On 4 December 2007, the governments of Germany, Denmark, and Sweden entered into an agreement entitled “Joint Declaration on Cooperation in the Field of Research on Offshore Wind Energy Deployment.”⁵²⁷ The governments agreed to “collaborate on integration of large amounts of offshore wind energy into the electrical system and to study the concerted development of offshore grids in the adjacent seas”.⁵²⁸

Under the provisions of Germany’s Renewable Energy Sources Act, a progress report was submitted to the German Bundestag by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and was adopted by Cabinet on 7 November 2007.⁵²⁹ The report stated that Germany is likely to surpass its target level of 12.5% of electricity generation from renewable energy sources by 2010 in 2007, thus necessitating an adjustment of national renewable energy expansion targets.⁵³⁰ The ministries further recommended that the German Government create a fund to help offset the risk of exploration and investment in renewable energy sources such as geothermal energy.⁵³¹ In addition, a revision of the Renewable Energy Sources Act is scheduled to take place in 2008.⁵³²

On 5 December 2007 Germany released a report on the implementation of the Integrated Energy and Climate Programme. The report specifically made recommendations to increase use of renewable sources to 25-30% of total generation by 2020 and an expansion of German electricity grids will to facilitate the

⁵²⁵ Key Elements of an Integrated Energy and Climate Programme, Decision of German Cabinet Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 24 August 2007. Date of Access: 11 January 2008. <http://www.bmu.de/files/pdfs/allgemein/application/pdf/klimapaket_aug2007_en.pdf>

⁵²⁶ Gabriel welcomes European Commission’s legislative package for the EU electricity and gas markets, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 19 September 2007. Date of Access: 11 January 2008. <<http://www.erneuerbareenergien.de/inhalt/40019/40149/>>

⁵²⁷ Joint Declaration on Cooperation in the Field of Research on Offshore Wind Energy Deployment, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 4 December 2007. Date of Access: 9 May 2008. <http://www.bmu.de/files/pdfs/allgemein/application/pdf/joint_decl_d_dk_se.pdf>

⁵²⁸ Joint Declaration on Cooperation in the Field of Research on Offshore Wind Energy Deployment, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 4 December 2007. Date of Access: 11 January 2008. <http://www.bmu.de/files/pdfs/allgemein/application/pdf/joint_decl_d_dk_se.pdf>

⁵²⁹ Renewable Energy Sources Act (EEG) Progress Report 2007, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 12 December 2007. Date of Access: 11 January 2008. <http://www.bmu.de/files/pdfs/allgemein/application/pdf/erfahrungsbericht_eeg_2007_zf_en.pdf>

⁵³⁰ Renewable Energy Sources Act (EEG) Progress Report 2007, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 12 December 2007. Date of Access: 11 January 2008. <http://www.bmu.de/files/pdfs/allgemein/application/pdf/erfahrungsbericht_eeg_2007_zf_en.pdf>

⁵³¹ Renewable Energy Sources Act (EEG) Progress Report 2007, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 12 December 2007. Date of Access: 11 January 2008. <http://www.bmu.de/files/pdfs/allgemein/application/pdf/erfahrungsbericht_eeg_2007_zf_en.pdf>

⁵³² Renewable Energy Sources Act (EEG) Progress Report 2007, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 12 December 2007. Date of Access: 11 January 2008. <http://www.bmu.de/files/pdfs/allgemein/application/pdf/erfahrungsbericht_eeg_2007_zf_en.pdf>

integration of renewable sources.⁵³³ This report also indicates that the German government will pursue the introduction of an Energy Grid Expansion Act, which will define priority needs for the installation of new transmission lines to carry electricity from renewable sources, particularly offshore wind energy, to the existing electricity grid.⁵³⁴

In December 2007, the German Ministry of Environment, Nature Conservation, and Nuclear Safety (BMU) announced it intends to boost funding for research and development of new renewable energy sources, providing approximately €400 million between 2008 and 2011.⁵³⁵

The German government introduced the new Renewable Energies Heating Law, which, effective 1 January 2009, will require all new homes to include renewable energy heating systems that can provide up to 14% of their total energy requirements for heating and hot water.⁵³⁶ The law also stipulates that older homes must incorporate renewable energy heating systems beginning in 2010, requiring that at least 10% of heating and hot water needs are met by renewable energy sources.⁵³⁷ The Renewable Energies Heating Law also sets a target for an increase in the use of renewable energy for heating in Germany to 14% by 2020.⁵³⁸ In order to meet these targets, the German government has allocated €350 million each year to provide grants to homeowners who install renewable energy systems in their homes.⁵³⁹

On 4-6 March 2008 at the Washington International Renewable Energy Conference (WIREC) in Washington D.C., Germany declared its intentions to “facilitate the feed of biogas from domestically produced biomass into the natural gas network.”⁵⁴⁰ In addition, the German government proposed a “commercially viable, sustainable expansion of bioenergy,” establishing the German Biomass Research Centre in Leipzig and providing €45 million for bioenergy research between 2008 and 2011.⁵⁴¹

Thus, Germany has been awarded a score of +1 for its comprehensive action on the integration of renewable energies into the national energy mix.

Analyst: Matthew Chomyn

Italy: +1

Italy has fully complied with its commitment on energy diversification. Italy has demonstrated a concerted action to better integrate the use of renewable energy in its national energy infrastructure.

Former Italian Prime Minister Romano Prodi hosted a major climate change conference on 12-13 September 2007. In the run-up to the conference, then Italian Environment Minister Pecoraro stressed that “clean and renewable energy sources, energy and water efficiency and sustainable mobility” were on the

⁵³³ Report on implementation of the key elements of an integrated energy and climate programme adopted in the closed meeting of the Cabinet on 23/24 August 2007 in Meseberg (Berlin) 5 December 2007. Date of Access: 9 May 2008. <http://www.bmu.de/files/pdfs/allgemein/application/pdf/gesamtbericht_iekp_en.pdf>

⁵³⁴ Report on implementation of the key elements of an integrated energy and climate programme adopted in the closed meeting of the Cabinet on 23/24 August 2007 in Meseberg (Berlin) 5 December 2007. Date of Access: 9 May 2008. <http://www.bmu.de/files/pdfs/allgemein/application/pdf/gesamtbericht_iekp_en.pdf>

⁵³⁵ Report on implementation of the key elements of an integrated energy and climate programme adopted in the closed meeting of the Cabinet on 23/24 August 2007 in Meseberg (Berlin) 5 December 2007. Date of Access: 9 May 2008. <http://www.bmu.de/files/pdfs/allgemein/application/pdf/gesamtbericht_iekp_en.pdf>

⁵³⁶ Germany To Require Renewables in New Homes in 2009, Renewable Energy World (Berlin) 10 December 2007. Date of Access: 9 May 2008. <<http://www.renewableenergyworld.com/rea/news/story?id=50746>>

⁵³⁷ Germany To Require Renewables in New Homes in 2009, Renewable Energy World (Berlin) 10 December 2007. Date of Access: 9 May 2008. <<http://www.renewableenergyworld.com/rea/news/story?id=50746>>

⁵³⁸ Germany To Require Renewables in New Homes in 2009, Renewable Energy World (Berlin) 10 December 2007. Date of Access: 9 May 2008. <<http://www.renewableenergyworld.com/rea/news/story?id=50746>>

⁵³⁹ Germany To Require Renewables in New Homes in 2009, Renewable Energy World (Berlin) 10 December 2007. Date of Access: 9 May 2008. <<http://www.renewableenergyworld.com/rea/news/story?id=50746>>

⁵⁴⁰ Highlights of Pledges Received, Washington International Renewable Energy Conference (Washington DC). 2008. Date of Access: 9 May 2008. <http://www.usda.gov/documents/Pledge_Display_Web.pdf>

⁵⁴¹ Report on implementation of the key elements of an integrated energy and climate programme adopted in the closed meeting of the Cabinet on 23/24 August 2007 in Meseberg (Berlin) 5 December 2007. Date of Access: 9 May 2008. <http://www.bmu.de/files/pdfs/allgemein/application/pdf/gesamtbericht_iekp_en.pdf>

agenda, and especially important for Italy.⁵⁴² At the close of the conference, former Prime Minister Prodi promised to “support far-reaching and costly EU policies for the environment.” He also spoke of the need for an observatory to “coordinate and monitor the scientific, industrial and environment aspects of a long term strategy [for] renewable energy sources.”⁵⁴³ On 25 September 2007, the European Parliament adopted a road map for renewable energy in Europe. If the report, which is a renewable energy legislative framework, is drafted into a directive by the European Commission as proposed, it would make adherence to National Action Plans and grid access key priorities.⁵⁴⁴ In December 2007, former PM Prodi reiterated his intention to comply with EU policy and stated that “Italy’s energy policy is moving towards alternative energy.”⁵⁴⁵

On 21 December 2007, then Minister for the Environment, Land and Sea Alfonso Pecoraro Scanio announced that Italy would be investing €40 million to promote the production of electricity from solar thermal energy.⁵⁴⁶ The Ministry is keeping investment in this project open to the public and private sectors.⁵⁴⁷

In December 2007, then Prime Minister Prodi announced plans to increase photovoltaic capacity in Italy to 400 MW by 2010.⁵⁴⁸ Thus far, over €2.6 million has been assigned to outfitting buildings with photovoltaic panels.⁵⁴⁹

On 11-15 November 2007, former Prime Minister Prodi hosted the World Energy Congress in Rome, and in his opening ceremony address called for “more eyes on energy supply, energy efficiency and the development of renewable energy.”⁵⁵⁰

In late January 2008, Italy committed itself to a new European Commission plan requiring a 5% reduction in greenhouse emission reductions and a target of 20% of energy production from renewable sources by 2020.⁵⁵¹ In fact, the EU will transfer €1.85 billion in Cohesion Funds towards renewable energy and energy efficiency projects in Italy over the 2007-2013 period.⁵⁵²

Some of the EU funding will be directed towards the projects described in the *Development Plan 2008*, published by the Italian Ministry of Economic Development and released on 15 February 2008. The document announces a plan to integrate renewable sources of energy into the mass distribution electricity grid in order to meet the European Commission target of 20% of member state’s energy from renewable sources by 2020. The report argues that this justifies greater investment in the distribution networks in

⁵⁴² Italy seeks ways to handle climate change, XinhuaNet (Beijing) 12 September 2007. Date of Access: 9 January 2008. <http://news.xinhuanet.com/english/2007-09/12/content_6707511.htm>

⁵⁴³ Intervento del Presidente del Consiglio Romano Prodi alla Conferenza nazionale sui cambiamenti climatici, Portale del Governo Italiano (Rome) 13 September 2007. Date of Access: 23 January 2008. <http://www.governo.it/Presidente/Interventi/testo_int.asp?d=36328>

⁵⁴⁴ A roadmap for renewable energy in Europe, Europe Parliament (Strasbourg) 25 September 2007. Date of Access: 23 January 2008. <http://www.europarl.europa.eu/news/expert/infopress_page/051-10638-267-09-39-909-20070823IPR09781-24-09-2007-2007-false/default_en.htm>

⁵⁴⁵ Italy to reach Europe’s carbon cuts targets, Reuters UK (London) 3 December 2007. Date of Access: 10 January 2008. <<http://uk.reuters.com/article/oilRpt/idUKL0310113720071203>>

⁵⁴⁶ La Finanziaria e la promozione del solare termodinamico, Isoleatrecentosessantagradi (Rome) 21 December 2007. Date of Access: 8 January 2008.

<http://www.ilsolatecentosessantagradi.it/index.php?option=com_content&task=view&id=156&Itemid=93>

⁵⁴⁷ La Finanziaria e la promozione del solare termodinamico, Isoleatrecentosessantagradi (Rome) 21 December 2007. Date of Access: 8 January 2008.

<http://www.ilsolatecentosessantagradi.it/index.php?option=com_content&task=view&id=156&Itemid=93>

⁵⁴⁸ Il mercato globale del fotovoltaico stimato oltre i 2,3 GWp nel 2007, Isoleatrecentosessantagradi (Rome) 17 December 2007. Date of Access: 8 January 2008.

<http://www.ilsolatecentosessantagradi.it/index.php?option=com_content&task=view&id=136&Itemid=222>

⁵⁴⁹ Bando “Il fotovoltaico nell’architettura”, Ministero dell’Ambiente e della Tutela del Territorio e del Mare (Rome) 27 July 2007. Date of Access: 8 January 2008. <http://www.minambiente.it/index.php?id_doc=493&id_oggetto=3>

⁵⁵⁰ Prodi: World economy jeopardized by soaring oil prices, Xinhuanet English (Beijing) 11 November 2007. Date of Access: 10 January 2008. <http://news.xinhuanet.com/english/2007-11/12/content_7053275.htm>

⁵⁵¹ Gatta: Italian Renewables Target ‘Unreachable’, EurActive (London) 7 February 2008. Date of Access: 29 May 2008. <<http://www.euractiv.com/en/energy/gatta-italian-renewables-target-unreachable/article-170176>>

⁵⁵² Sustainable energy a keystone for local development, Hübner tells conference in Southern Italy, European Union (Brussels) 24 January 2008. Date of Access: 29 May 2008.

<<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/84&format=HTML&aged=0&language=EN&guiLanguage=en>>

Sicily and Sardinia and in the electricity networks that link their islands' networks to mainland Italy. There are also plans for three waste-to-energy power plants in Sicily to be built in 2009.⁵⁵³

In March 2008, Italy sent a delegation to the Washington International Renewable Energy Conference, whose attendees sought to "realize the full benefits of renewable energy" on a multilateral basis. At the conference, Italy committed to a 55% tax deduction over three years for solar heating, a tax credit on heating from geothermal sources and biomass used for district heating, and an incentive program for the construction of efficient buildings.⁵⁵⁴

Italy is reportedly in the process of introducing a feed-in tariff that would allow households and businesses that produce renewable energy to sell it back to the mass distribution power grid at multiple times the normal market prices.⁵⁵⁵ Once in effect, this tariff would promote the production of renewable energy.

Thus, Italy has been awarded a score of +1 for its comprehensive progress on PV and wind power technology and its plans for their better integration into existing distribution networks.

Analyst: Stephanie Gan

Japan: +1

Japan has fully complied with its energy diversification commitment. Japan has taken action on both the development of renewable energy and investment in infrastructure and technology that facilitates its wide-scale distribution.

Soon after the 2007 Heiligendamm Summit, the Japanese Ministry of the Environment established the "Program to Support Initiatives Introducing Measures against Climate Change in the Public Service Sector," in order to accelerate the use of energy-saving and renewable energy-based equipment in the public service sector, including in public and private hospitals and schools. In FY2007, the programs of eight applicant facilities were selected as FY2007 Model Projects.⁵⁵⁶ At the same time, the Ministry of Economy, Trade and Industry and the Ministry of the Environment agreed to support the Renewable Energy 2008 Tokyo Fair, to be hosted from 30 July to 1 August 2008 by the Japan Council for Renewable Energy. The Council is a non-governmental organization dedicated to promoting renewable energy, its technology and the emerging industry.⁵⁵⁷

On 12 September 2007, Japanese Prime Minister Yasuo Fukuda was one among the 10 ASEAN leaders who produced a collective declaration promoting sustainable environmental policies. The leaders also expressed their intention to promote renewable and alternative energy sources such as solar, hydro, wind and civilian nuclear power.⁵⁵⁸

In November 2007, Japan, in subsidizing wind farm construction, set a target to boost wind power to 3 GW of installed capacity by 2010, slightly more than double its 2007 wind power capacity.⁵⁵⁹

At the World Economic Forum in January 2008, Prime Minister Fukuda announced US\$30 billion in funding over five years towards the development of new environment technology at home and an additional

⁵⁵³ Piano di Sviluppo 2008. Ministero dello Sviluppo Economico (Rome) 15 February 2008. Date of Access: 7 May 2008. <http://www2.minambiente.it/pdf_www2/dsa/vas/retn_piano2008/piano_sviluppo_2008.pdf>

⁵⁵⁴ Bush: America Must Get Off Oil, Environmental News Service (London) 8 March 2008. Date of Access: 29 May 2008. <<http://www.ens-newswire.com/ens/mar2008/2008-03-05-01.asp>>

⁵⁵⁵ Endless Possibility, The Guardian (London) 16 April 2008. Date of Access: 29 May 2008. <http://www.guardian.co.uk/environment/2008/apr/16/renewableenergy_windpower>

⁵⁵⁶ Adoption of Eight Programs as FY 2007 Model Projects that Introduce Measures against Climate Change in the Public Service Sector, Ministry of the Environment (Tokyo) 2 August 2007. Date of Access: 9 December 2007. <<http://www.env.go.jp/en/headline/headline.php?serial=500>>

⁵⁵⁷ Introducing Japan's latest products, technology, and information concerning new energy to the world, Japan Council for Renewable Energy (Tokyo) Date of Access: 10 January 2008. <<http://www.renewableenergy.jp/english/index.html>>

⁵⁵⁸ Southeast Asian nations pledge to strengthen environmental efforts in region, International Herald Tribune (Paris) 20 November 2007. Date of Access: 8 January 2008. <<http://southeast-asian-news.newslib.com/story/1556-3218539/>>

⁵⁵⁹ M'bishi Heavy sees Japan offshore wind power drive, Reuters UK (London) 7 November 2007. Date of Access: 1 January 2008. <<http://uk.reuters.com/article/oilRpt/idUKT2516220071107?pageNumber=1&virtualBrandChannel=0>>

US\$10 billion for developing countries.⁵⁶⁰ The Japanese government also committed to a target of a 30% of energy from renewable sources by 2020 in contrast to the EU target of just 20% by the same year.⁵⁶¹

In early March 2008, Japan sent a delegation to the Washington International Renewable Energy Conference (WIREC), whose attendees sought to “realize the full benefits of renewable energy” on a multilateral basis. At the conference, Japan committed to set a renewable energy introduction target of 19 100 000 kl (crude oil equivalent), accounting for close to 3% of the total primary energy supply, by 2010. Additionally, Japan pledged to set the new renewable energy usage target for 2014 at 16 billion kWh.⁵⁶²

In January 2008, the Ministry of Economy, Trade and Industry launched a panel to study ways to promote the construction of small to medium-size hydroelectric plants. The panel will also review the Renewable Portfolio Standard Law which requires Tokyo Electric Power Co. and other companies to use hydropower and other alternative energy resources to produce some of the electricity they sell.

On 13 March 2008 the Japanese Ministry of Economy, Trade and Industry announced the “Cool Earth Promotion Program”. Its goal is to coordinate international efforts to halve global greenhouse gas emissions by the year 2050 through the development of 21 innovative technologies and renewable sources of energy.⁵⁶³

Thus, Japan has been awarded a score of +1 for its multi-layered approach to renewable energies in both the public and private sectors as well as for showing leadership by investing in alternative energy and new technology.

Analysts: Stephanie Gan and Katya Prokhorova

Russia: +1

Russia has fully complied with its commitment on energy diversification.

The State Duma is considering a bill in support of alternative energy sources in the Russian Federation, which was submitted in March 2007.⁵⁶⁴ The bill aims to increase the share of renewable energy in national energy production to 3-5% by 2015 and to 10% by 2020.⁵⁶⁵

At the International Energy week in Moscow in October 2007, Deputy Minister of Industry and Energy Anatoly Yanovsky stated that the Russian Government had agreed to a general scheme for energy project location until 2020, including active hydro energy development.⁵⁶⁶ On 26 October 2007, the Russian Federation Council approved the Federal Law introducing alterations to several laws in order to reform the Russian energy system, which included some important initiatives for renewables development.⁵⁶⁷ This law contains incentives for renewable generation, including assigning top-priority status to integrating

⁵⁶⁰ Special Address by H.E. Mr. Yasuo Fukuda, Prime Minister of Japan, On the Occasion of the Annual Meeting of the World Economic Forum, Prime Minister of Japan and his Cabinet (Tokyo) 26 January 2008. Date of Access: 29 May 2008. <http://www.kantei.go.jp/foreign/hukudaspeech/2008/01/26speech_e.html>

⁵⁶¹ At Davos, Japan and Denmark set climate goals for world, International Herald Tribune (Paris) 26 January 2008. Date of Access: 29 May 2008. <<http://www.iht.com/articles/ap/2008/01/26/europe/EU-GEN-World-Economic-Forum.php>>

⁵⁶² Bush: America Must Get Off Oil, Environmental News Service (Washington D.C.) 8 March 2008. Date of Access: 29 May 2008. <<http://www.ens-newswire.com/ens/mar2008/2008-03-05-01.asp>>

⁵⁶³ Establishment of the Cool Earth Energy Innovative Technology Plan, METI (Tokyo) 5 March 2008. Date of Access: 29 May 2008. <http://www.meti.go.jp/english/newtopics/data/nBackIssue20080305_04.html>

⁵⁶⁴ Renova will invest billion in wind and sun, Kommersant (Moscow) 5 March 2007. Date of Access: 23 January 2008. <<http://www.kommersant.ru/doc.html?docId=747436>>

⁵⁶⁵ In the small hydro energy we are the first, Ministry of Industry and Energy of the RF (Moscow) 6 March 2007. Date of Access: 23 January 2008. <<http://www.minprom.gov.ru/appearance/interview/53>>

⁵⁶⁶ Main Directions of Russian Energy Strategy and Global Energy Safety, Ministry of Industry and Energy (Moscow) 23 October 2007. Date of Access: 18 December 2007.

<<http://www.minprom.gov.ru/appearance/showAppearanceIssue?url=appearance/report/54>>

⁵⁶⁷ Federal Law of the RF №250-FZ of 4 November 2007, Rossiyskaya Gazeta (Moscow) 8 November 2007. Date of Access: 11 May 2008. <<http://www.rg.ru/2007/11/08/energosistema-izmenenia-dok.html>>

renewables into the power grid, and compensation from a special public fund for integrating renewables, among other initiatives. Necessary sublaws are expected to be developed in the nearest future.⁵⁶⁸

On 22 February 2008, the Russian Government approved the General Scheme of Energy Objects Location till 2020 which calls for the development of hydroelectric generation capacity of about 26 Mw (about 58% of current capacity) including wind and tidal energy.⁵⁶⁹

During the World Energy Congress in Rome on 11-15 November 2007, the Minister of Industry and Energy of the Russian Federation Vladimir Khristenko declared that Russia would promote the development of renewable energy.⁵⁷⁰ In addition, the Russian Ministry of Industry and Energy has already financed several research projects on renewables.⁵⁷¹ Also in November 2007, Deputy Minister of Industry and Energy Anatoly Yanovsky met with Representative of the Minister of Innovations, Science, Research and Technologies of the Land North Rhein-Vestfal, Rainer Hertz, regarding a partnership on energy saving. One of the major themes of this discussion was renewable energy sources.⁵⁷² On 15 February 2008 the Russian Ministry of Foreign Affairs and Ministry of Industry and Energy took part in the International Forum "Alternative Energy" in Verona where national policies and international coordination of policies on renewable energy were discussed.⁵⁷³

Thus, Russia has been awarded a score of +1 for its progress on a law to encourage the development of renewable energy sources and to address the integration of such sources into the electricity grid.

Analyst: Natalia Churkina

United Kingdom: +1

The United Kingdom has fully complied with its energy diversification commitment. The UK has made efforts to address the implementation of renewable energy sources into the grid, and has been active in advancing renewable energy production.

On 26 July 2007, Energy Minister Malcolm Wicks acknowledged the delay in linking clean electricity and wind power to the national grid and launched a joint BERR/Ofgem review, the Transmission Access Review, to assess challenges and recommend necessary changes to the framework.⁵⁷⁴

On 17 September 2007, Secretary of State for Business John Hutton approved a Wave hub socket off of North Cornwall and a 30 turbine project in Teeside. These projects will provide energy for almost 80 000 homes through an additional 110MW of clean power fed into the grid. The projects will save up to 60 000 tons of carbon emissions.⁵⁷⁵

⁵⁶⁸ Report of Executive Director of Sustainable Energy Development Center S. Koblov at the International Forum "Alternative Energy" in Verona on 15 February, Sustainable Energy Development Centre (Moscow) 15 February 2008. Date of Access: 11 May 2008.

<http://www.sedc.ru/files/Image/Verona_15.02.08/Presentation_Koblov_rus.ppt#307,3,2>

⁵⁶⁹ General Scheme of Energy Objects Location till 2020, Agency for the Prognostication of Balance in Electric Energy (Moscow) 22 February 2008. Date of Access: 11 May 2008. <<http://www.e-apbe.ru/scheme/gs.doc>>

⁵⁷⁰ Forum in the Eternal City, Ministry of Industry and Energy (Moscow) 12 November 2007. Date of Access: 18 December 2007. <<http://www.minprom.gov.ru/activity/inter/news/185>>

⁵⁷¹ Forum in the Eternal City, Ministry of Industry and Energy (Moscow) 12 November 2007. Date of Access: 18 December 2007. <<http://www.minprom.gov.ru/activity/inter/news/185>>

⁵⁷² Moscow-Düsseldorf, Ministry of Industry and Energy (Moscow) 21 November 2007. Date of Access: 18 December 2007. <<http://www.minprom.gov.ru/press/release/356>>

⁵⁷³ "Alternative Energy", Sustainable Energy Development Center (Moscow) 15 February 2008. Date of access: 11 May 2008. <http://www.sedc.ru/page_pid_12_news_80_lang_1_p_5.aspx>

⁵⁷⁴ Ending Gridlock on the Grid, GNN (Government News Network), Department for Business, Enterprise and Regulatory Reform (London) 26 July 2007. Date of Access: 10 January 2008.

<<http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=302935&NewsAreaId=2&NavigatedFromDepartment=False>>

⁵⁷⁵ Snails pace' planning system produces millions of additional tonnes of carbon, Department for Business, Enterprise and Regulatory Reform (London) 17 September 2007. Date of Access: 10 January 2008.

<<http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=315057&NewsAreaId=2&NavigatedFromDepartment=False>>

On 9 October 2007, the British Government announced an additional GBP170 million for the Environmental Transformation Fund (ETF). This pledge, added to the GBP800 million already allotted to the ETF, brings total funding to GBP1.2 billion between 2008 and 2011. Energy Secretary Hilary Benn explained that “Britain must be at the forefront of developing and deploying this technology – whether it be LED lighting for people’s homes, biomass boilers for small business, or major sources of renewable electricity from wind and the sea to reduce our dependence on fossil fuels.”⁵⁷⁶ On the same day, in a keynote address at the British Wind Energy Association’s annual conference in Glasgow, Energy Minister Wicks approved Devon Wind Power’s 66MW Fullbrook Down project, which will be based in North Devon and consist of 22 turbines. This project should meet the needs of 30 000 of domestic users (80% of domestic electricity consumption or 30% of total electricity consumption) in North Devon.⁵⁷⁷ Also in October 2007, upon receiving the approval of the Department for Business and Enterprise and UK Trade and Investment, Regional Development Agency ONE NorthEast pledged a GBP5 million funding package for Project Britannica to develop and expand offshore wind technology.⁵⁷⁸ Additional renewable energy projects were approved in November 2007.⁵⁷⁹

On 19 November 2007, British Prime Minister Gordon Brown promised that a new Energy Bill and a revised Planning Bill would be introduced in order to reform the renewables obligation and to speed up the planning system for major infrastructure.⁵⁸⁰ In addition, the Prime Minister announced that, while it would be up to the private sector to make the “necessary investment,” the “government will do more to remove the planning and other obstacles that are currently holding renewable back.”⁵⁸¹

On 31 December 2007, Minister Wicks announced a “go green” New Year’s resolution to encourage homeowners, schools and businesses to use the remaining phase one funds (GBP11 million for homes and GBP44 million for schools, charitable bodies and public organizations) of the Low Carbon Building Program launched in 2006. The grants fund installation of solar panels, biomass boilers and ground-source heat pumps.⁵⁸²

On 21 February 2008, as a part of the Department for Environment, Food And Rural Affairs (Defra) 2008/09 budget settlement, Secretary Hilary Benn announced an increase in funding for clean energy technologies, investments and enterprises to more than GBP400 million over the next three years. In addition, the Carbon Trust will receive GBP47.4 million to bring forward new energy technologies such as offshore wind, third-generation photovoltaic power, marine energy and biomass heating.⁵⁸³ On 28 February 2008, Energy Minister Malcolm Wicks granted permission for three new wind farms to be built in

⁵⁷⁶ £170 million boost for low-carbon energy technology, Department for Business, Enterprise and Regulatory Reform (London) 9 October 2007. Date of Access: 10 January 2008. <<http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=321124&NewsAreaId=2&NavigatedFromDepartment=False>>

⁵⁷⁷ We are committed to wind power, Department for Business, Enterprise and Regulatory Reform (London) 9 October 2007. Date of Access: 10 January 2008. <<http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=320736&NewsAreaId=2&NavigatedFromDepartment=False>>

⁵⁷⁸ UK is a magnet for renewable energy investment, Department for Business, Enterprise and Regulatory Reform (London) 5 October 2007. Date of Access: 10 January 2008. <<http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=319949&NewsAreaId=2&NavigatedFromDepartment=False>>

⁵⁷⁹ Wicks consents to Wanley, GNN (Government News Network), Department for Business, Enterprise and Regulatory Reform (London) 7 November 2007. Date of Access: 10 January 2008. <<http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=328771&NewsAreaId=2&NavigatedFromDepartment=False>>

⁵⁸⁰ Prime Minister’s Speech on Climate Change, Number 10 Downing St. (London) 19 November 2007. Date of Access: 9 January 2008. <<http://www.number-10.gov.uk/output/Page13791.asp>>

⁵⁸¹ Prime Minister’s Speech on Climate Change, Number 10 Downing St. (London) 19 November 2007. Date of Access: 9 January 2008. <<http://www.number-10.gov.uk/output/Page13791.asp>>

⁵⁸² Wicks calls for a ‘go’ green’ new year resolution, GNN (Government News Network), Department for Business, Enterprise and Regulatory Reform (London) 31 December 2007. Date of Access: 10 January 2008. <<http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=341605&NewsAreaId=2&NavigatedFromDepartment=False>>

⁵⁸³ £400 million for low-carbon Britain - Defra announces 2008/09 budget settlement, Defra (London) 21 February 2008. Date of Access: 11 May 2008. <<http://nds.coi.gov.uk/content/detail.asp?ReleaseID=354425&NewsAreaID=169&NavigatedFromSearch=True>>

Keadby, North Lincolnshire, in Thorne, South Yorkshire and in the Thames Estuary; these projects will add a further 215 Megawatts of green energy.⁵⁸⁴

As part of the Washington International Renewable Energy Conference, held in Washington D.C. on 4-6 March 2008, the government of the UK joined other participating states in making a new renewable energy policy commitment. The government of the UK pledged to obtain 10% of electricity from renewable sources by 2010 and 20% by 2020; to build six new offshore wind farms that will raise capacity to 1 GW and to raise an additional 7 to 8 GW from offshore wind power. In addition, the UK pledged to assess the possibility of an additional increase of 25 GW by 2020, which would be sufficient to power all residences in the UK.⁵⁸⁵

On 13 March 2008, Planning Minister Caroline Flint announced amendments to allow homeowners to install solar photovoltaics (PV), solar thermal, ground and water source heat pumps, and biomass heating without needing to obtain planning permission.⁵⁸⁶

On 20 March 2008, Energy Minister Malcolm Wicks announced GBP2.5 million in funding for the Renewable Energy and Energy Efficiency Partnership (REEEP). Environment Minister Phil Woolas explained that the funding will be part of a 3 year extended commitment to REEEP. REEEP is an international alliance of governments, NGOs and businesses which work to expand renewable energy and energy efficiency technologies, and whose work has been recognized and highlighted in G8 communiqués.⁵⁸⁷

On 7 April 2008, Secretary of State for Energy John Hutton granted planning permission to a prototype tidal stream generator, which was developed by Pulse Tidal Ltd. and supported with government funds totaling GBP878 000, to be tested in the Humber Estuary. The generator can produce up to .15MW of energy and will be one of the first tidal power machines to supply the national grid.⁵⁸⁸

The UK has also promoted efforts to support the biomass energy production. On 9 April 2008, applications opened for a GBP4 million fund to support biomass-fuelled heating installation and combined heat and power projects.⁵⁸⁹

Thus, the UK has been awarded a score of +1 for its comprehensive approach to the use of renewable energy.

Analyst: Jen MacDowell

United States: +1

The United States has fully complied with its energy diversification commitment. The United States has made great strides in energy diversification through research and development and subsidization, and is making efforts to integrate renewable energy into the grid.

⁵⁸⁴ Powering on: Three new wind farms granted consent by Energy Minister, Department for Business, Enterprise and Regulatory Reform (London) 28 February 2008. Date of Access: 11 May 2008. <<http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=356205&NewsAreaID=2&NavigatedFromDepartment=True>>

⁵⁸⁵ Pledge Display, 2008 Washington International Renewable Energy Conference (Washington D.C.) 4 March 2008. Date of Access: 11 May 2008. <http://www.usda.gov/documents/Pledge_Display_Web.pdf>

⁵⁸⁶ Solar power homes get the go-ahead for April start, Communities and Local Government (London) 13 March 2008. Date of Access: 11 May 2008. <<http://www.communities.gov.uk/news/housing/721557>>

⁵⁸⁷ GBP2.5 million in UK Funding for Renewable Energy Partnership, M2 Presswire (London) 20 March 2008. Date of Access 11 May 2008. <<http://q8live.org/2008/03/20/gbp25-million-in-uk-funding-for-renewable-energy-partnership/>>

⁵⁸⁸ Hutton waves ahead tidal energy project in the Humber, Department for Business, Enterprise and Regulatory Reform (London) 7 April 2008. Date of Access: 11 May 2008. <<http://nds.coi.gov.uk/environment/fullDetail.asp?ReleaseID=364658&NewsAreaID=2>>

⁵⁸⁹ Woolas invites applications to £4m bio-energy grant fund, Defra (London) 9 April 2008. Date of Access: 11 May 2008. <<http://www.defra.gov.uk/news/2008/080409a.htm>>

On 26 June 2007, the Department of Energy (DOE) announced its intention to invest US\$375 million in biomass, solar and wind projects.⁵⁹⁰ Later, in July 2007, the Solar America initiative for research and development revealed a number of concepts developed to address grid reliability and economic issues associated with PV market penetration on grid distribution systems.⁵⁹¹ The DOE will also seek to develop local markets for PV installations in 13 cities and will work with the Solar Energy Industry Association to assess supply/demand and cost/pricing projections.⁵⁹²

On 27 August 2007, the DOE launched a Funding Opportunity Announcement of up to US\$38 million for the development of enzymes to convert cellulosic biomass.⁵⁹³ On 1 October 2007, the DOE invested US\$30 million in three Bioenergy Research Centers, allowing immediate research into cellulosic ethanol and other biofuels.⁵⁹⁴ On 6 November 2007, the Department of the Interior released an Environmental Impact Statement in support of the Minerals Management Service (MMS) program, which organizes the development of renewable energy projects on the outer continental shelf (OCS). The OCS has been proposed for offshore wind power as well as wave and tidal energy projects. The MMS will begin creating a comprehensive set of regulations for the program in the spring of 2008, and will establish an interim policy to allow testing activities until then.⁵⁹⁵ On 8 November 2008, the DOE announced that US\$21.7 million would be available for research in photovoltaic (PV) solar cell technology to be divided among 25 projects, each of which will receive approximately US\$900 000 over the next three years. The projects are expected to yield prototypes for commercialization by 2015.⁵⁹⁶ On 29 November 2007, the DOE provided US\$5.2 million in funds to be divided among 12 projects for the development of concentrating solar power (CSP). CSP helps to lower component costs and develop storage technologies.⁵⁹⁷ The DOE will also divide a US\$7.2 million commercialization fund for prototype development demonstration, market research and deployment, to be divided among three national laboratories as of 29 November 2007.⁵⁹⁸

On 19 December 2007, United States President George Bush signed the Energy Independence and Securities Act of 2007, which calls for accelerated research and development, deployment, program expansion, and workforce training in renewable energy technology sectors, such as solar, geothermal, hydrokinetic and marine energy.⁵⁹⁹ Also on 19 December 2007, the largest solar photovoltaic system in North America, installed at Nellis Air Force Base in Nevada under the Solar Energy Technologies Program, was completed.⁶⁰⁰

⁵⁹⁰ DOE Awards \$375 Million for Three Bioenergy Research Centers, Biomass Program, Department of Energy (Washington D.C.) 26 June 2007. Date of Access: 12 January 2008.

<http://www1.eere.energy.gov/biomass/news_detail.html?news_id=11063>

⁵⁹¹ Key R&D Accomplishments, Solar Energy Technologies Program – Solar America Initiative, Department of Energy (Washington D.C.) July 2007. Date of Access: 12 January 2008.

<http://www1.eere.energy.gov/solar/solar_america/printable_versions/accomplishments.html>

⁵⁹² Key R&D Accomplishments, Solar Energy Technologies Program – Solar America Initiative, Department of Energy (Washington D.C.) July 2007. Date of Access: 12 January 2008.

<http://www1.eere.energy.gov/solar/solar_america/printable_versions/accomplishments.html>

⁵⁹³ DOE Offers up to \$33.8 million to Support Cellulosic Biofuel Process, Biomass Program, Department of Energy (Washington D.C.) 27 August 2007. Date of Access: 12 January 2008.

<http://www1.eere.energy.gov/biomass/news_detail.html?news_id=11209>

⁵⁹⁴ DOE Invests \$30 million to Launch Bioenergy Research Centers, Solar Energy Technologies Program, Department of Energy (Washington D.C.) 1 October 2007. Date of Access: 12 January 2008.

<http://www1.eere.energy.gov/biomass/news_detail.html?news_id=11317>

⁵⁹⁵ Interior Department Moves Forward on Offshore Renewable Energy, Wind and Hydropower Technologies Program, Department of Energy (Washington D.C.) 7 November 2007. Date of Access: 12 January 2008.

<http://www1.eere.energy.gov/windandhydro/news_detail.html?news_id=11410>

⁵⁹⁶ DOE Invests \$21 Million in Next-Generation Solar Cell Research, Solar Energy Technologies Program, Department of Energy (Washington D.C.) 14 November 2007. Date of Access: 12 January 2008.

<http://www1.eere.energy.gov/solar/printable_versions/news_detail.html?news_id=11422>

⁵⁹⁷ DOE Provides \$5.2 Million for Concentrating Solar Power, Solar Energy Technologies Program, Department of Energy (Washington D.C.) 29 November 2007. Date of Access: 12 January 2008.

<http://www1.eere.energy.gov/solar/printable_versions/news_detail.html?news_id=11453>

⁵⁹⁸ DOE Creates a \$7.2 Million Clean Energy Commercialization Fund, Solar Energy Technologies Program, Department of Energy (Washington D.C.) 5 December 2007. Date of Access: 12 January 2008.

<http://www1.eere.energy.gov/solar/printable_versions/news_detail.html?news_id=11459>

⁵⁹⁹ New Energy Act Calls for Increased Renewable Energy Research, Wind and Hydropower Technologies Program, Department of Energy (Washington D.C.) 2 January 2008. Date of Access: 12 January 2008.

<http://www1.eere.energy.gov/windandhydro/news_detail.html?news_id=11501>

⁶⁰⁰ Nellis Air Force Base Hosts the Largest U.S. Solar PV System, Solar Energy Technologies Program, Department of Energy (Washington D.C.) 19 December 2007. Date of Access: 12 January 2008.

<http://www1.eere.energy.gov/solar/printable_versions/news_detail.html?news_id=11486>

On 8 February 2008, the US Internal Revenue Service (IRS) announced an interest free financing project through an allocation of US\$406 million in Clean Renewable Energy Bonds for 312 renewable energy projects. Allocations will support projects for 139 solar facilities, 102 wind power installations, 45 landfill gas facilities, 18 hydropower plants, 5 biomass, and 3 trash combustion facilities, and range from US\$15,000 to US\$30 million.⁶⁰¹

On 4 March 2008, the US Department of Agriculture (USDA), in partnership with the Department of Energy (DOE) announced its intention to invest up to US\$18.4 million (US\$13.2 million will be provided by USDA and US\$5.2 million will be provided by DOE) in 31 research, development and demonstration projects for biomass over the next 3 years.⁶⁰²

From 4 to 6 March 2008, the United States hosted the Washington International Renewable Energy Conference in Washington D.C. and joined other participating states in making a new renewable energy policy commitment. The United States made numerous pledges including: issuance of US\$10 billion in loan guarantees for renewable energy; to make solar energy cost competitive by 2015; to complete an assessment of geothermal resources capable of producing electricity by October 2008; and to increase the share of renewable sources in federal government electricity to 5% by 2010 and 7.5% by 2013.⁶⁰³

On 6 March 2008, the USDA further announced that it is accepting applications for US\$220.9 million in grants for agricultural producers and rural small businesses that wish to purchase and install renewable energy systems. On the same day, the USDA announced that it would award US\$4.1 million to 17 small businesses and college groups that are undertaking innovative use of woody biomass and renewable energy projects.⁶⁰⁴

On 12 March 2008, the US Department of Energy announced its intention to invest US\$13.7 million over three years in 11 university-led solar projects.⁶⁰⁵ At the New Frontiers in Energy Summit on 28 March 2008, the DOE's Secretary Bodman announced the 2008 Solar America Cities initiative, which will make up to US\$2.4 million available to 12 cities to advance solar energy.⁶⁰⁶ These projects fall under the President's Solar America Initiative (SAI), which aims to make solar electricity cost competitive with conventional forms of electricity in the utility grid by 2015.⁶⁰⁷

The DOE is also funding biomass projects and research into hydrokinetic technologies. On 17 April 2008 the DOE announced the issuance of a Funding Opportunity Announcement (FOA) for up to US\$7 million in federal funding over two years for advanced research and development in converting non-food based biomass to advanced biofuels.⁶⁰⁸

On 5 May 2008, the DOE announced an available US\$7.5 million to industries and universities researching and developing technologies that generate power from free flowing water such as ocean waves, tides or currents (hydrokinetic energy), and for projects that will facilitate market penetration for marine and hydrokinetic technologies.⁶⁰⁹ The research and funding funded by the DOE and the USDA is intended to

⁶⁰¹ GEA Weekly Update, Geothermal Energy Association (Washington D.C.) 19 February 2008. Date of Access: 11 May 2008. <http://www.geo-energy.org/publications/updates/2008/GFAUpdateFeb19_2008.pdf>

⁶⁰² USDA, DOE To Invest up to \$18.4 million for Biomass Research, Development and Demonstration Projects, US Department of Energy (Washington) 4 March 2008. Date of Access: 11 May 2008. <<http://www.innovations.harvard.edu/news/87441.html>>

⁶⁰³ Pledge Display, 2008 Washington International Renewable Energy Conference (Washington D.C.) 4 March 2008. Date of Access: 11 May 2008. <http://www.usda.gov/documents/Pledge_Display_Web.pdf>

⁶⁰⁴ GEA Weekly Update, Geothermal Energy Association (Washington D.C.) 17 March 2008. Date of Access: 11 May 2008. <<http://www.geo-energy.org/publications/updates/2008/GEA%20Weekly%20Update%20March%2017%202008.pdf>>

⁶⁰⁵ U.S. Department of Energy to Invest up to \$13.7 Million for Breakthrough Solar Energy Projects, Department of Energy (Washington D.C.) 12 March 2008. Date of Access: 11 May 2008. <<http://www.doe.gov/news/6071.htm>>

⁶⁰⁶ U.S. Department of Energy to Provide up to \$2.4 Million to Advance Solar Energy in 12 U.S. Cities, Department of Energy (Washington D.C.) 28 March 2008. Date of Access: 11 May 2008. <<http://www.doe.gov/6099.htm>>

⁶⁰⁷ U.S. Department of Energy to Provide up to \$2.4 Million to Advance Solar Energy in 12 U.S. Cities, Department of Energy (Washington D.C.) 28 March 2008. Date of Access: 11 May 2008. <<http://www.doe.gov/6099.htm>>

⁶⁰⁸ DOE Announces US \$7 Million for Biomass, Department of Energy (Washington D.C.) 17 April 2008. Date of Access: 11 May 2008. <<http://www.energy.gov/news/6161.htm>>

⁶⁰⁹ DOE Offers \$7.5 Million for Advanced Water Power Technologies, EERE (Washington D.C.) 5 May 2008. Date of Access: 11 May 2008. <http://www.eere.energy.gov/news/news_detail.cfm/news_id=11752>

create reliable energy sources that may be connected to the grid. On 12 May 2008, the DOE released a report entitled “20 Percent Wind Energy by 2030.” The report identifies requirements to achieve the goal of producing 20% of US electricity needs from wind energy by 2030, including the need to reduce the cost of wind technologies.⁶¹⁰

Thus, the United States has been awarded a score of +1 for its extensive support of renewable energy production and distribution.

Analyst: Jen MacDowell

European Union: 0

The European Union has partially complied with its energy diversification commitment.

On 24 September 2007, the European Parliament debated the Thomson Report. The Saryusz-Wolski Report was debated on 25 September 2007. Both reports outline a series of suggestions with regards to renewable energy and a common European energy policy.⁶¹¹ On 25 September 2007, the European Parliament adopted an ‘own-initiative’ report on a roadmap for renewable energy. The Parliament also emphasized support for the European Commission’s proposal for the inclusion of renewable energy within Member States’ National Action Plans (NAP).⁶¹² However, the European Parliament stated that each state should be able to decide, according to its specific needs, which renewable energy sources should be taken into account within its NAP.⁶¹³ The road map would make adherence to NAPs and grid access key priorities.⁶¹⁴

On 21 November 2007, the European Parliament’s temporary Climate Change Committee held a hearing on the prospects for renewable energy in Europe. The Committee heard from MPs and experts on investment in areas such as solar, underground, and sea energy.⁶¹⁵

In December 2007, the EU attended the UN Climate Change Conference in Bali. At the Conference, the European Commission garnered international support for the Global Energy Efficiency and Renewable Energy Fund (GEEREF), a global risk capital fund that attempts to spur renewable energy growth through the sub-financing of private global investors that wish to transfer renewable energy technology in developing countries.⁶¹⁶ The European Commission pledged €80 million to GEEREF over four years. Other public finance institutions, including the Europe Investment Bank and Europe Investment Fund, and partner countries are expected to inject additional funding that would amount to €1 billion in financial support.⁶¹⁷

⁶¹⁰ Wind Energy Could Produce 20 Percent of U.S. Electricity By 2030, Department of Energy (Washington D.C.) 12 May 2008. Date of Access: 15 May 2008. <<http://www.energy.gov/news/6253.htm>>

⁶¹¹ MPs to Debate Renewable Energy and Foreign Energy Policy, European Parliament (Strasbourg) 24 September 2007. Date of Access: 18 January 2007. <http://www.europarl.europa.eu/news/public/story_page/051-10564-267-09-39-909-20070921STO10534-2007-24-09-2007/default_en.htm>

⁶¹² A roadmap for renewable energy in Europe, European Parliament (Strasbourg) 25 September 2007. Date of Access: 23 January 2008. <http://www.europarl.europa.eu/news/expert/infopress_page/051-10638-267-09-39-909-20070823IPR09781-24-09-2007-2007-false/default_en.htm>

⁶¹³ A roadmap for renewable energy in Europe, European Parliament (Strasbourg) 25 September 2007. Date of Access: 23 January 2008. <http://www.europarl.europa.eu/news/expert/infopress_page/051-10638-267-09-39-909-20070823IPR09781-24-09-2007-2007-false/default_en.htm>

⁶¹⁴ A roadmap for renewable energy in Europe, European Parliament (Strasbourg) 25 September 2007. Date of Access: 23 January 2008. <http://www.europarl.europa.eu/news/expert/infopress_page/051-10638-267-09-39-909-20070823IPR09781-24-09-2007-2007-false/default_en.htm>

⁶¹⁵ Renewable Technology – the key to our future?, European Parliament (Strasbourg) 21 November 2007. Date of Access: 18 January 2008. <http://www.europarl.europa.eu/news/public/story_page/064-13235-323-11-47-911-20071115STO13223-2007-19-11-2007/default_en.htm>

⁶¹⁶ Bali: Side-event on Global Energy Efficiency and Renewable Energy Fund, Commissioner for the Environment (Brussels) 13 December 2007. Date of Access: 25 December 2007. <<http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/07/821&format=HTML&aged=0&language=EN&language=en>>

⁶¹⁷ Bali: Side-event on Global Energy Efficiency and Renewable Energy Fund, Commissioner for the Environment (Brussels) 13 December 2007. Date of Access: 25 December 2007. <<http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/07/821&format=HTML&aged=0&language=EN&language=en>>

From 28 January 2008 to 1 February 2008, the European Union held the second Sustainable Energy Week, which is now to become an annual event. The week brought together European institutions, civil society and actors on the energy market. Key events included the official launch of the mayors' covenant, binding a hundred European towns (including 15 capital cities) to do even better than the European target of reducing greenhouse gas emissions by 20%, and the presentation of sustainable energy awards.⁶¹⁸

As part of the Washington International Renewable Energy Conference, held in Washington D.C. on 4-6 March 2008, the European Union joined other participating states in making a new renewable energy policy commitment. The European Union pledged to reach a minimum 20% share of renewable energies in final energy consumption and a 10% minimum target for the share of biofuels in overall transport petrol and diesel consumption by 2020.⁶¹⁹

On 6 March 2008, the European Parliament held a workshop on the efficiency of biofuels and began negotiations for a possible agreement on a revised fuel quality directive.⁶²⁰ Also on 6 March 2008, the Committee on Industry, Research and Energy proposed its own-initiative report, focusing in part on the diversification of energy supplies. Members of the committee also expressed regrets that the suggested minimum funding target of €100 million is woefully inadequate as the GEEREF's contribution when the goal is to "boost the share of energy efficiency and renewable energy projects." They urged the Commission to increase its contribution while at the same time encouraging Member States to do the same.⁶²¹

On 13 March 2008, the European Parliament adopted a report welcoming the Commission's proposal for the GEEREF. Among the factors stressed in the report adopted by the Parliament were the promotion of energy efficiency, energy saving and renewable energies.⁶²² In addition, this spring, the European Parliament will be continuing to consider a new Commission directive on renewable energy.⁶²³

Thus, the EU has been awarded a score of 0 for its progress on energy diversification.

Analyst: Erin Haines

⁶¹⁸ European Sustainable Energy Week Program, European Union Sustainable Energy Week 2008 (Brussels) 1 February 2008. Date of Access: 11 May 2008. <http://www.eusew.eu/pdf/eusew_programme2008.pdf>

⁶¹⁹ Pledge Display, 2008 Washington International Renewable Energy Conference (Washington D.C.) 4 March 2008. Date of Access: 11 May 2008. <http://www.usda.gov/documents/Pledge_Display_Web.pdf>

⁶²⁰ Workshop on Biofuels – Eco Saviours or Destroyers?, European Union (Brussels) 6 March 2008. Date of Access: 11 May 2008. <http://www.europarl.europa.eu/news/public/story_page/064-22625-064-03-10-911-20080229STO22603-2008-04-03-2008/default_en.htm>

⁶²¹ Global Energy Efficiency and Renewable Energy, European Parliament (Brussels) 6 March 2008. Date of Access: 11 May 2008. <http://www.europarl.europa.eu/news/expert/briefing_page/21799-070-03-11-20080219BRI21798-10-03-2008-2008/default_p001c013_en.htm>

⁶²² Global Energy Efficiency and Renewable Energy, European Parliament (Brussels) 13 March 2008. Date of Access: 11 May 2008. <http://www.europarl.europa.eu/news/expert/infopress_page/051-23873-070-03-11-909-20080312IPR23863-10-03-2008-2008-false/default_en.htm>

⁶²³ Laws to Stop Climate Change: Step One – Renewable Energy, European Parliament (Brussels) 1 April 2008. Date of Access: 11 May 2008. <http://www.europarl.europa.eu/news/public/story_page/051-25223-092-04-14-909-20080331STO25142-2008-01-04-2008/default_en.htm>