

## 2. Energy: Efficiency and Diversification [26]

### Commitment:

“On the demand side, it is important to make further efforts to improve energy efficiency as well as pursue energy diversification.”

*G8 Leaders Declaration on the World Economy*

### Assessment:

#### Compliance Score

Country	Lack of Compliance -1	Work in Progress 0	Full Compliance +1
Canada			+1
France		0	
Germany			+1
Italy			+1
Japan			+1
Russia			+1
United Kingdom			+1
United States			+1
European Union			+1
<b>Average Score</b>			<b>+0.89</b>

### Background:

Energy efficiency and diversification have been primary concerns for G8 members since the 2005 Gleneagles Summit, where emphasis was placed on the urgency of climate change. As part of the Gleneagles Plan of Action on Climate Change, Clean Energy and Sustainable Development, G8 members committed to “promote innovation, energy efficiency, conservation, improve policy, regulatory and financing frameworks.”<sup>184</sup> Leaders agreed to take comprehensive action toward integrating renewable sources of energy into national power grids, calling for greater research and development and international cooperation.

At the 2006 St Petersburg Summit, the G8 reaffirmed the principles of the Gleneagles Plan through the St Petersburg Plan of Action: Global Energy Security, and emphasized the need to: 1) “strengthen and elaborate the system of national and multilateral energy efficiency statistics;” 2) “undertake necessary measures, including financial and tax incentives at home for the promotion of energy-efficient technologies, and the actual use of those available technologies on a wide-scale basis;” and 3) encourage further

<sup>184</sup> Climate Change, Clean Energy and Sustainable Development, Gleneagles Summit (Gleneagles) 8 July 2005. Date of Access: 15 January 2009.

<http://www.g8.utoronto.ca/summit/2005gleneagles/climatechange.html>.

developments in nuclear technology, hydrogen fuels and renewable sources of energy such as wind, solar, hydro, biomass and geothermal.<sup>185</sup>

Due to the surge in oil and food prices in early 2008, there was an even greater emphasis on energy efficiency and diversification at the Hokkaido-Toyako Summit. G8 leaders welcomed the formation of the International Partnership for Energy Efficiency Cooperation.”<sup>186</sup> Further, they suggested “the enhancement of WTO negotiations on the elimination of tariff and non-tariff barriers to environmental goods and services” and emphasized the importance of investing in the development and commercialization of renewable sources of energy.<sup>187</sup>

**Commitment Features:**

There are two components to this commitment: improving energy efficiency and pursuing energy diversification. For full compliance, members must pursue both objectives. Measures to encourage energy efficiency or energy diversification may take a variety of forms, including research funding, government-funded or initiated pilot projects, or innovative power generation projects.

**Scoring:**

-1	Member implements no new measures to encourage energy efficiency <b>AND</b> no new measures to encourage energy diversification.
0	Member implements new measures to encourage energy efficiency <b>OR</b> new measures to encourage energy diversification.
+1	Member implements new measures to encourage energy efficiency <b>AND</b> implements new measures to encourage energy diversification.

*Lead Analyst: Kenta Hatamochi*

**Canada: +1**

Canada has fully complied with its commitment to encourage energy efficiency and diversification.

The Canadian Government promotes energy diversification with its ecoENERGY for Renewable Power Program, unveiled in early 2007. Canada has committed to invest

<sup>185</sup>Gleneagles Plan of Action: Climate Change, Clean Energy and Sustainable Development, G8 Information Centre (Toronto), 8 July 2005. Date of Access: 19 November 2008.  
<http://www.g8.utoronto.ca/summit/2006stpetersburg/energy.html>.

<sup>186</sup> 2008 Hokkaido-Toyako G8 Summit Issue Area Assessment Report, G8 Information Center (Toronto), 9 July 2008. Date of Access: 12 November 2008.  
<http://www.g8.utoronto.ca/evaluations/2008hokkaido/2008-issues-080709.pdf>.

<sup>187</sup> 2008 Hokkaido-Toyako G8 Summit Issue Area Assessment Report, G8 Information Center (Toronto), 9 July 2008. Date of Access: 12 November 2008.  
<http://www.g8.utoronto.ca/evaluations/2008hokkaido/2008-issues-080709.pdf>.

CAD1.48 billion over ten years in subsidies for renewable or low-impact electricity generation.<sup>188</sup> On 22 August 2008, Member of Parliament James Lunney announced CAD1.1 million in government funding for the Cypress Creek Hydroelectric Project in British Columbia.<sup>189</sup> The project was described as low-impact, generating “clean, emissions-free electricity.”<sup>190</sup>

On 11 December 2008, Canada’s Minister of the Environment Jim Prentice delivered a statement to delegates at the United Nations Climate Change Conference. In his speech, Minister Prentice stressed the importance of “increasing global supplies of secure, affordable, and clean energy.”<sup>191</sup> Furthermore, he highlighted Canada’s recent commitment to “meet 90 per cent of its electricity needs from non-emitting sources such as hydro, nuclear, clean coal or wind power by 2020.”<sup>192</sup>

On 30 March 2009, the Minister of Natural Resources Lisa Raitt announced a 25 per cent increase in grants for a limited time under the ecoENERGY Retrofit Homes program. This program allows homeowners to make energy efficient improvements to their homes by “providing [them with] grants of up to CAD5,000.”<sup>193</sup>

On 7 May 2009, the House of Commons passed amendments to the Energy Efficiency Act, which “solidifies Canada’s position as an international leader in energy-efficiency standards.”<sup>194</sup> This legislation allows the government to “introduce comprehensive standards to regulate the amount of standby power consumed by many products – such as computers, battery chargers, CD players and televisions – when they are not in use.”<sup>195</sup> This regulation of standby power is expected to reduce the average household’s electricity consumption by three to five per cent. This amendment also allows the government to establish energy efficiency standards for other products such as doors, windows, and thermostats.<sup>196</sup>

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<sup>188</sup> ecoENERGY for Renewable Power, Government of Canada (Ottawa). Date of Access: 12 January 2009. <http://www.ecoaction.gc.ca/ECOENERGY-ECOENERGIE/power-electricite/index-eng.cfm>.

<sup>189</sup> Government of Canada Invests in British Columbia Renewable Energy Projects, Government of Canada (Vancouver Island) 22 August 2008. Date of Access: 12 January 2009.

<http://ecoaction.gc.ca/news-nouvelles/20080822-eng.cfm>.

<sup>190</sup> Government of Canada Invests in British Columbia Renewable Energy Projects, Government of Canada (Vancouver Island) 22 August 2008. Date of Access: 12 January 2009.

<http://ecoaction.gc.ca/news-nouvelles/20080822-eng.cfm>.

<sup>191</sup> Canada’s Environment Minister Delivers National Statement at UNCCC (Poznan), 11 December 2008. Date of Access: 20 December 2008. <http://news.gc.ca/web/article-eng.do?m=/index&nid=427589>.

<sup>192</sup> Canada’s Environment Minister Delivers National Statement at UNCCC (Poznan), 11 December 2008. Date of Access: 20 December 2008. <http://news.gc.ca/web/article-eng.do?m=/index&nid=427589>.

<sup>193</sup> Save Money on Home Renovations Now, Government of Canada (Toronto), 30 March 2009. Date of Access: 11 May 2009. <http://www.ecoaction.gc.ca/news-nouvelles/20090330-eng.cfm>.

<sup>194</sup> Amendments to the Energy Efficiency Act Pass in the House of Commons, Government of Canada (Ottawa), 7 May 2009. Date of Access: 15 May 2009.

<http://www.ecoaction.gc.ca/news-nouvelles/20090507-eng.cfm>.

<sup>195</sup> Amendments to the Energy Efficiency Act Pass in the House of Commons, Government of Canada (Ottawa), 7 May 2009. Date of Access: 15 May 2009.

<http://www.ecoaction.gc.ca/news-nouvelles/20090507-eng.cfm>.

<sup>196</sup> Amendments to the Energy Efficiency Act Pass in the House of Commons, Government of Canada (Ottawa), 7 May 2009. Date of Access: 15 May 2009.

On 17 October 2008, Canadian and the European Union leaders met in Quebec City to discuss energy use and the environment.<sup>197</sup> Canada agreed to promote the use of clean coal technologies, integrate further renewable sources of energy, and strengthen research being conducted in the area of energy efficiency and diversification.<sup>198</sup>

Thus, Canada has been awarded a score of +1 for implementing new measures to encourage both energy efficiency and diversification.

*Analyst: Kenta Hatamochi*

## **France: 0**

France has partially complied with its commitment to encourage energy efficiency and diversification.

On 23 October 2008, the French government approved a plan to phase out inefficient lighting. The plan seeks to: (1) encourage the use of efficient lamps; (2) increase the quality of efficient lamps already in the marketplace; and (3) provide better information and education to consumers.<sup>199</sup>

France is pushing for “more demanding EU rules to reduce energy consumption in buildings” at the European Council, where it held the presidency until December 2008.<sup>200</sup> In a briefing note released before an EU energy ministers’ meeting in October, the French Presidency called energy efficiency a “top priority [...] the cornerstone of our ambitious policy to combat global warming, while enhancing business competitiveness and reducing the consumer energy bill.”<sup>201</sup>

At the G8 Environment Ministers’ Meeting on 24 April 2009, the French Minister for Ecology, Jean-Louis Borloo called for the stimulus plans in face of the current global economic crisis “to be made even greener.”<sup>202</sup> He believes that G8 countries have been putting “the right emphasis on green jobs and the renewable energy sector,” but there is still much progress to be made. Furthermore, he proposed that developing countries

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<http://www.ecoaction.gc.ca/news-nouvelles/20090507-eng.cfm>.

<sup>197</sup> 2008 Canada-EU Summit Statement, Government of Canada (Quebec City), 17 October 2008. Date of Access: 19 December 2008.

[http://www.international.gc.ca/missions/eu-ue/summits\\_sommets/summit\\_quebec-2008\\_joint-declaration-eng.asp](http://www.international.gc.ca/missions/eu-ue/summits_sommets/summit_quebec-2008_joint-declaration-eng.asp).

<sup>198</sup> 2008 Canada-EU Summit Statement, Government of Canada (Quebec City), 17 October 2008. Date of Access: 19 December 2008.

[http://www.international.gc.ca/missions/eu-ue/summits\\_sommets/summit\\_quebec-2008\\_joint-declaration-eng.asp](http://www.international.gc.ca/missions/eu-ue/summits_sommets/summit_quebec-2008_joint-declaration-eng.asp).

<sup>199</sup> Incandescent Lamp Phase Out, 23 October 2008. Date of Access: 19 December 2008.

<http://www.iea.org/Textbase/pm/?mode=pm&id=4218&action=detail>.

<sup>200</sup> France pushes for energy savings as ‘security’ issue, 9 October 2008. Date of Access: 20 December 2008.

<http://www.euractiv.com/en/energy-efficiency/france-pushes-energy-savings-security-issue/article-176200>.

<sup>201</sup> Presidency Note, Council of the European Union (Brussels) 6 October 2008. Date of Access: 15 January 2009. <http://register.consilium.europa.eu/pdf/en/08/st13/st13827.en08.pdf>.

<sup>202</sup> G8 Environment Ministers’ Meeting Communique, Ministry for Ecology (Paris). 24 April 2009. Date of Access: 12 May 2009. <http://www.ambafrance-uk.org/Communique-on-G8-Environment.html>.

should fund 100 per cent of the cost to make Africa “the first continent with genuinely renewable energy” since only 25 per cent of Africans currently have access to electricity.<sup>203</sup> As a step toward this goal, on 5 May 2009, France hosted an energy efficiency conference in Rosebank to “share South African and French expertise in energy efficiency.”<sup>204</sup>

Thus, France has been awarded a score of 0 for implementing some measures to encourage energy efficiency, but not taking any new actions toward energy diversification.

*Analyst: Kenta Hatamochi*

### **Germany: +1**

Germany has fully complied with its commitment to encourage energy efficiency and diversification.

At a conference in Madrid with representatives from 51 countries, Germany, in collaboration with Spain and Denmark, announced that it would launch the International Renewable Energy Agency in January 2009.<sup>205</sup> The agency assists both industrialized and developing countries in promoting renewable energies, including aiding with financing and technology transfer.<sup>206</sup>

On 3 October 2008, Germany increased funding for the UN Environment Programme (UNEP) by USD18 million for “funding projects supporting developing countries in clean energy; energy efficiency; adaptation to climate change in developing countries and boosting the capacity of developing economies for international negotiations.”<sup>207</sup> German Environment Minister Sigmar Gabriel met with United Nations Under-Secretary General and UNEP Executive Director Achim Steiner at the UNEP Headquarters in Nairobi to make this announcement.<sup>208</sup>

On 26 January 2009, Germany founded the International Renewable Energy Agency (IRENA). IRENA promotes capacity building and energy diversification by supporting

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<sup>203</sup> G8 Environment Ministers’ Meeting Communique, Ministry for Ecology (Paris). 24 April 2009. Date of Access: 12 May 2009. <http://www.ambafrance-uk.org/Communique-on-G8-Environment.html>

<sup>204</sup> France to host energy efficiency conference in SA, Creamer Media Reporter. 13 March 2009. Date of Access: 15 May 2009.

<http://www.engineeringnews.co.za/article/france-to-host-energy-efficiency-conference-in-sa-2009-03-13>

<sup>205</sup> Breakthrough for the expansion of renewable energies;

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 25 October 2008. Date of Access: 12 December 2008. [http://www.bmu.de/english/current\\_press\\_releases/pm/42463.php](http://www.bmu.de/english/current_press_releases/pm/42463.php).

<sup>206</sup> Breakthrough for the expansion of renewable energies;

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 25 October 2008. Date of Access: 12 December 2008. [http://www.bmu.de/english/current\\_press\\_releases/pm/42463.php](http://www.bmu.de/english/current_press_releases/pm/42463.php).

<sup>207</sup> German Government Invests \$18 Million to Support Clean Energy and Climate Change Adaptation, United Nations Environment Programme (Nairobi) 3 October 2008. Date of Access: 12 December 2008. <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=548&ArticleID=5935&l=en>.

<sup>208</sup> German Government Invests \$18 Million to Support Clean Energy and Climate Change Adaptation, United Nations Environment Programme (Nairobi) 3 October 2008. Date of Access: 12 December 2008. <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=548&ArticleID=5935&l=en>.

“both industrialised and developing countries in increasing the use of renewables.”<sup>209</sup> Further, Germany is promoting the “transfer [and exchange] of knowledge on efficiency and renewable energies in developing and newly industrialising countries” through its Transfer Renewable Energy and Efficiency (TREE) project.<sup>210</sup> The International Climate Protection Initiative subsidizes the TREE project, which is part of a EUR120 million fund that the Initiative provides annually for international projects. The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety noted that “this innovative financing mechanism underlines Germany’s leading role in international climate protection.”<sup>211</sup>

Thus, Germany has been awarded a score of +1 for introducing new measures to encourage both energy efficiency and diversification.

*Analyst: Daniel Gatto*

### **Italy: +1**

Italy has fully complied with its commitment to encourage energy efficiency and diversification.

Italy has launched a number of initiatives on energy diversification. On 3 October 2008, the Italian government allocated funding to retrofit public buildings for solar energy: EUR2 million for government agencies and EUR5 million for schools.<sup>212</sup> In a statement made in September 2008, Italy’s Prime Minister Silvio Berlusconi said that Italy is working with the UK to develop nuclear and alternative sectors.<sup>213</sup> Finally, on 26 November 2008, Minister Prestigiacomo approved the use of biodegradable waste as a renewable energy source, in an initiative to turn waste from “problem to resource.”<sup>214</sup>

On 3 December 2008, the Italian government allocated EUR190 million in incentives to foster investment in the development of new technologies that would advance energy

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<sup>209</sup> Federal Environment Ministry promotes capacity building for sustainable energy supply, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 19 February 2009. Date of Access: 9 May 2009. [http://www.bmu.de/english/current\\_press\\_releases/pm/43263.php](http://www.bmu.de/english/current_press_releases/pm/43263.php).

<sup>210</sup> Federal Environment Ministry promotes capacity building for sustainable energy supply, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 19 February 2009. Date of Access: 9 May 2009. [http://www.bmu.de/english/current\\_press\\_releases/pm/43263.php](http://www.bmu.de/english/current_press_releases/pm/43263.php).

<sup>211</sup> Federal Environment Ministry promotes capacity building for sustainable energy supply, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Berlin) 19 February 2009. Date of Access: 9 May 2009. [http://www.bmu.de/english/current\\_press\\_releases/pm/43263.php](http://www.bmu.de/english/current_press_releases/pm/43263.php).

<sup>212</sup> Solar announcement for public buildings, Ministry of the Environment and the Protection of Land and Sea (Rome) 3 October 2008. Date of Access: 12 December 2008. [http://www.minambiente.it/index.php?id\\_doc=636&id\\_oggetto=3](http://www.minambiente.it/index.php?id_doc=636&id_oggetto=3).

<sup>213</sup> Berlusconi: ‘Solid economy in Italy’, Corriere della Sera (Milan) 10 September 2008. Date of Access: 12 December 2008. [http://www.corriere.it/politica/08\\_settembre\\_10/berlusconi\\_brown\\_economia\\_76f4ca64-7f48-11dd-a664-00144f02aabc.shtml](http://www.corriere.it/politica/08_settembre_10/berlusconi_brown_economia_76f4ca64-7f48-11dd-a664-00144f02aabc.shtml).

<sup>214</sup> Environment; Prestigiacomo: “More biodegradable waste and less CO<sub>2</sub> to produce energy”; Ministry of the Environment and the Protection of Land and Sea (Rome) 26 November 2008. Date of Access: 12 December 2008. [http://www.minambiente.it/index.php?id\\_doc=1238&id\\_oggetto=2](http://www.minambiente.it/index.php?id_doc=1238&id_oggetto=2).

efficiency and diversification.<sup>215</sup> Italy is also putting EUR380 million towards its Energy Efficiency and Sustainable Mobility initiatives.<sup>216</sup> The funds will provide grants for private companies and research labs that work to improve the production and distribution of energy from renewable resources.<sup>217</sup>

On 15 December 2008, the Italian Economic Development Minister Claudio Scajola announced EUR180 million in funding for sustainable mobility research projects to develop eco-friendly steamboats fueled by hydrogen cells and photovoltaic panels, as well as low emission busses.<sup>218</sup> On 21 January 2009, Minister Scajola also announced EUR200 million in incentives for 30 energy efficiency projects through the Italian government's Industria 2015 initiative, expected to attract about EUR500 million in R&D investments. Projects include: 1) the development of innovative materials for bioclimatic construction; 2) industrial low consumption electric engines; 3) the transformation of plastic waste into hydrocarbons for the production of electric energy; and 4) ventures to make advancements in photovoltaics, wind energy systems, and biofuels.<sup>219</sup>

Further, Minister Scajola has issued the Triennial Plan 2009-2011 for research in the energy sector, providing EUR210 million for research organizations and universities. The Plan focuses on developing a national electric system that is integrated with a renewable sources of energy, including nuclear energy.<sup>220</sup> Minister Scajola has also signed a protocol of intention with the Serbian Minister of Energy Petar Skundric to cooperate in constructing hydroelectric, thermal equipment, and in the development of renewable sources.<sup>221</sup>

On 31 December 2009, the Italian Government announced that in cooperation with the Tunisian Ministry of Industry, Energy and of Small and Medium Businesses, it is launching a solar energy research and development pilot project for heating water,

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<sup>215</sup> Success of the Made in Italy announcement: 429 innovative projects presented by three thousand companies and one thousand research centers, Ministry of Economic Development (Rome) 3 December 2008. Date of Access: 8 December 2008. [http://www.industria2015.ipi.it/file/com\\_stampa\\_madeinitaly.pdf](http://www.industria2015.ipi.it/file/com_stampa_madeinitaly.pdf).

<sup>216</sup> PII Target on Energy Efficiency, Ministry of Economic Development (Rome). Date of Access: 8 December 2008. <http://www.industria2015.ipi.it/index.php?id=4>.

<sup>217</sup> PII Target on Energy Efficiency, Ministry of Economic Development (Rome). Date of Access: 8 December 2008. <http://www.industria2015.ipi.it/index.php?id=4>.

<sup>218</sup> Industria 2015: partono i finanziamenti (180 milioni) per i progetti di innovazione sulla Mobilità sostenibile, Ministry of Economic Development (Rome) 15 December 2009. Date of Access: 9 May 2009. [http://www.industria2015.ipi.it/file/com\\_stampa\\_15-12-08\\_2.pdf](http://www.industria2015.ipi.it/file/com_stampa_15-12-08_2.pdf).

<sup>219</sup> Industria 2015: 200 milioni di incentivi per progetti di efficienza energetica; Il Sole 24 Ore (Milan) 21 January 2009. Date of Access: 9 May 2009. <http://www.ilsole24ore.com/art/SoleOnLine4/Economia%20e%20Lavoro/2009/01/industria-2015-progetti-efficienza-energetica.shtml?uuid=2f7bad98-e7b1-11dd-a71c-25f5a50cc5ff&DocRulesView=Liberio&fromSearch>.

<sup>220</sup> Firmato il piano triennale per la ricerca energetica. Scajola: "rilevanti risorse a sostegno dell'innovazione", Ministero dello Sviluppo Economico. Roma. 20 March 2009. Date of Access: 10 May 2009. [http://www.sviluppoeconomico.gov.it/primopiano/dettaglio\\_primopiano.php?sezione=primopiano&tema\\_d\\_ir=tema2&id\\_primopiano=198](http://www.sviluppoeconomico.gov.it/primopiano/dettaglio_primopiano.php?sezione=primopiano&tema_d_ir=tema2&id_primopiano=198)

<sup>221</sup> Settore energetico: collaborazione Italia – Serbia, Governo italiano, Presidenza del Consiglio dei Ministri, 10 Marzo 2009. Date of Access: 8 May 2009. <http://www.governo.it/Notizie/Ministeri/dettaglio.asp?d=42269>

desalination and producing electric energy.<sup>222</sup> Pilot projects will be conducted in Tunisia by Italian experts and with the help of Algeria's *Agence Nationale pour la Maîtrise de l'Énergie*.<sup>223</sup>

On 24 December 2008, Minister Prestigiacomo made a call for proposals for the financing of energy efficiency and renewable energy projects in urban areas.<sup>224</sup> A total of EUR10 million has been allocated for this initiative.<sup>225</sup>

Further, on 20 October 2008, the EU Council of Environment Ministers met in Luxemburg to discuss the 20-20-20 plan.<sup>226</sup> The 20-20-20 package commits the European Union to reduce CO2 emissions by 20 per cent, increase energy efficiency by 20 per cent and increase the proportion of renewable energy to 20 per cent. Italy has agreed to its part of the package, including a 17 per cent increase in renewable energy.<sup>227</sup>

Thus, Italy has been awarded a score of +1 for introducing new measures to encourage both energy efficiency and diversification.

*Analyst: Daniel Gatto and Anna Vekshina*

### **Japan: +1**

Japan has fully complied with its commitment to encourage energy efficiency and diversification.

On 11 November 2008, the Japanese Government formulated a new Action Plan for Promoting the Introduction of Solar Power Generation.<sup>228</sup> Furthermore, on 9 December

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<sup>222</sup> Tecnologia dello "stagno solare" in Tunisia, Ministry of the Environment and the Protection of Land and Sea (Rome), 31 December 2008. Date of Access: 9 May 2009.

[http://www.minambiente.it/index.php?id\\_doc=661&id\\_oggetto=3](http://www.minambiente.it/index.php?id_doc=661&id_oggetto=3).

<sup>223</sup> Tecnologia dello "stagno solare" in Tunisia, Ministry of the Environment and the Protection of Land and Sea (Rome), 31 December 2008. Date of Access: 9 May 2009.

[http://www.minambiente.it/index.php?id\\_doc=661&id\\_oggetto=3](http://www.minambiente.it/index.php?id_doc=661&id_oggetto=3).

<sup>224</sup> Bando Ricerca per le Energie Rinnovabili e l'Efficienza Energetica, Ministry of the Environment and the Protection of Land and Sea (Rome) 24 December 2008. Date of Access: 9 May 2009.

[http://www.minambiente.it/index.php?id\\_doc=660&id\\_oggetto=3](http://www.minambiente.it/index.php?id_doc=660&id_oggetto=3).

<sup>225</sup> Bando Ricerca per le Energie Rinnovabili e l'Efficienza Energetica, Ministry of the Environment and the Protection of Land and Sea (Rome) 24 December 2008. Date of Access: 9 May 2009.

[http://www.minambiente.it/index.php?id\\_doc=660&id\\_oggetto=3](http://www.minambiente.it/index.php?id_doc=660&id_oggetto=3).

<sup>226</sup> Costs, capabilities and the role of China are why Rome and the EU disagree; *La Repubblica* (Rome) 19 October 2008. Date of Access: 12 December 2008.

<http://www.repubblica.it/2008/10/sezioni/ambiente/clima-vertice-ue-2/clima-vertice-ue-2/clima-vertice-ue-2.html>.

<sup>227</sup> The challenge of clean energy Made in Italy, *Il Sole 24 Ore* (Milan) 12 December 2008. Date of Access: 12 December 2008.

<http://www.ilsole24ore.com/art/SoleOnLine4/Economia%20e%20Lavoro/2008/12/energia-rinnovabileaper-20-2020-europa.shtml?uuid=958a9b10-c86e-11dd-baf9-fbc7a4fc4e23&DocRulesView=Libero>.

<sup>228</sup> Action Plan for Promoting the Introduction of Solar Power Generation, Ministry of Economy, Trade and Industry (Tokyo), 11 November 2008. Date of Access: 7 December 2008.

[http://www.meti.go.jp/english/press/data/nBackIssue20081111\\_01.html](http://www.meti.go.jp/english/press/data/nBackIssue20081111_01.html).



2008, the Ministry of Economy, Trade, and Industry set up the Study Group on Solar System Industry Strategy to discuss further directions of the national energy policy.<sup>229</sup>

In February 2009, Japan carried out its 33<sup>rd</sup> Energy and Environment Exhibition. Since in recent years, in Japan, the consumption of energy in the commercial/residential sector has increased more than in the industrial sector, the goal of the Exhibition was to educate the public and provide them “with a broad range of information concerning energy-saving.”<sup>230</sup>

Moreover, in February 2009, the Japanese government organized an international symposium with the theme “International Dissemination of Energy Efficiency Standard and Labeling Systems” in order to spread Japan’s energy conservation systems across Asia.<sup>231</sup>

Japan has a good record of government support for energy-efficient technological innovations. It also has an efficient and well-funded renewable energy research and development program.<sup>232</sup> The Japanese government has continued its support of the country’s ongoing commitments to energy conservation and diversification and has introduced new initiatives since the Hokkaido-Toyako Summit.

Thus, Japan has been awarded a score of +1 for introducing new measures to encourage both energy efficiency and diversification.

*Analyst: Danara Dourdoussova*

### **Russia: +1**

Russia has fully complied with its commitment to improve energy efficiency and encourage energy diversification. It has implemented a number of new government programs to address both energy efficiency and diversification.

On 4 June 2008, President Dmitry Medvedev signed a decree that encouraged the Russian government to adopt energy-efficient measures. The legislation called for the allocation of “funds in the 2009-2011 federal budget for renewable energy technologies and [the provision of] subsidies for specific projects.”<sup>233</sup> This initiative promotes both energy efficiency and diversification. On 16 January 2009, Vladimir Putin signed a

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<sup>229</sup> Establishment of the Study Group on Solar System Industry Strategy, the Ministry of Economy, Trade and Industry (Tokyo), 9 December 2008. Date of Access: 11 December 2008.

[http://www.meti.go.jp/english/press/data/nBackIssue20081209\\_03.html](http://www.meti.go.jp/english/press/data/nBackIssue20081209_03.html).

<sup>230</sup> Thirty third Energy and Environment Exhibition Official Guide, the Energy Conservation Center (Tokyo). Date of Access: 24 May 2009. <http://www.enex.info/language/index.html>.

<sup>231</sup> “Cooling Asia, Heating Asian Economics,” a Symposium on the International Dissemination of Energy Efficiency Standard and Labeling Systems, to be Held - A Symposium to Spread Japanese Energy Conservation Systems Across Asia, the Ministry of Economy, Trade and Industry (Tokyo) 9 February 2009. Date of Access: 16 May 2009. [http://www.meti.go.jp/english/press/data/20090209\\_01.html](http://www.meti.go.jp/english/press/data/20090209_01.html).

<sup>232</sup> Executive Summary of the Energy Policies of the IEA Countries – Japan, International Energy Agency, 2008 (Tokyo) Date of Access: 9 December 2008. <http://www.iea.org/Textbase/npsum/Japan2008SUM.pdf>.

<sup>233</sup> Renewable Energy in Russia’s Future, 9 August 2008. Date of Access: 6 December 2008.

<http://eng.globalaffairs.ru/numbers/24/1219.html>.

further decree on renewable energy. According to this decree, any company investing into renewables will receive a subsidy for each kWh produced.<sup>234</sup>

Russia has taken further action on energy diversification. In September 2008, Rosnanotekh (Russian State Corporation for Nanotechnologies) signed a strategic cooperation agreement with Oerlikon, a major producer of equipment for manufacturing solar cells.<sup>235</sup> Further, in October 2008, Prime Minister Vladimir Putin supported a proposal made by Rosatom (Russian Federal Agency for Atomic Energy) to invest in polysilicon production and to construct a solar equipment plant in Krasnoyarsk Region to produce solar modules.<sup>236</sup> Finally, in May 2009 RusHydro JSK, Russia's state-owned hydropower utility, signed USD90 million memorandum on cooperation with Japan's Mitsui and J-Power to develop wind plants of Russky Island near Vladivostok.<sup>237</sup>

In order to carry out the decree by President Medvedev, which aims to increase energy efficiency by at least 40 percent by 2020, Russia will promote a closer cooperation with Norway. The Russian Minister of Energy Sergey Shmatko and Norwegian Minister of Oil and Energy Terje Riis-Johansen met in Moscow on 27 April 2009 to discuss this cooperation on energy efficiency.<sup>238</sup>

Thus, Russia has been awarded a score of +1 for implementing new measures to encourage both energy efficiency and diversification.

*Analyst: Yulia Ovchinnikova*

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

The United Kingdom has fully complied with its commitment to improve energy efficiency and diversification. New initiatives have addressed both energy efficiency and diversification.

Much of the action taken for this commitment supports energy diversification. On 26 November 2008, the UK government passed the Energy Act 2008, which implements the legislation from the 2007 Energy White Paper.<sup>239</sup> The Act includes measures to promote energy diversification.<sup>240</sup> In part, it strengthens an existing initiative, the Renewables

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<sup>234</sup> Consumers will pay for renewables, newspaper Kommersant №8(4063), 20 January 2009. Date of access: 1 February 2009. <http://www.kommersant.ru/doc.aspx?DocsID=1105596>.

<sup>235</sup> Solar Power Projects in Russia: Private and State Initiatives, ClimateIntel, 5 May 2009. Date of access: 10 May 2009. <http://climateintel.com/category/renewable-energy/>

<sup>236</sup> Prime Minister Vladimir Putin toured the Mining and Chemical Combine during a visit to Krasnoyarsk Territory. Prime Minister of the Russian federation (Moscow). 21 October 2008. Date of access: 18 May 2009. <http://premier.gov.ru/eng/visits/ru/76/890.html>.

<sup>237</sup> Wind steps up to the plate as alternative energy comes of age, RT (Moscow) 8 May 2009. Date of access: 10 May 2009. [http://www.russiatoday.com/Business/2009-05-08/Wind\\_steps\\_up\\_to\\_the\\_plate\\_as\\_alternative\\_energy\\_comes\\_of\\_age.html](http://www.russiatoday.com/Business/2009-05-08/Wind_steps_up_to_the_plate_as_alternative_energy_comes_of_age.html).

<sup>238</sup> Russia-Norway Cooperation On Energy Efficiency, Energy Tribune (Houston) 27 April 2009. Date of access: 10 May 2009. <http://www.energytribune.com/articles.cfm?aid=1669>.

<sup>239</sup> Consumers will pay for renewables, newspaper Kommersant №8(4063), 20 January 2009. Date of access: 1 February 2009. <http://www.kommersant.ru/doc.aspx?DocsID=1105596>.

<sup>240</sup> Energy Act 2008, Department for Business Enterprise and Regulatory Reform (London) 2008. Date of Access: 7 December 2008. <http://www.berr.gov.uk/whatwedo/energy/act/page40931.html>.

Obligation, which requires energy suppliers to sell renewable power, in a percentage of their business that increases each year.<sup>241</sup> The UK Government has also announced a trial program to distribute 3,000 “intelligent” refrigerators. The fridges will use “dynamic demand technology,” designed to be compatible with some sources of renewable energy, including wind and wave, which are generated intermittently.”<sup>242</sup>

On 24 February 2009, the government approved the construction of a green energy plant in South Yorkshire and allotted GBP12 million for the initiative. The plant will generate electricity for up to 4,000 homes.<sup>243</sup>

On 30 March 2009, the UK government agreed to provide additional financial support to develop offshore energy initiatives. The additional funding aims to improve sea-based renewable technologies. In total, up to GBP10 million will be given to develop the “next generation of offshore wind technology.”<sup>244</sup>

Other policies support energy efficiency. On 11 September 2008, The Department for Environment, Food and Rural Affairs announced that the government would draft legislation to require energy companies to invest an estimated GBP910 in making homes more energy-efficient.<sup>245</sup> GBP350 million of the funding from energy suppliers will be dedicated towards a new Community Energy Saving Programme. The program will require local councils, voluntary organizations, and energy companies to ensure that low-income households have access to energy saving measures.<sup>246</sup>

Thus, the UK has been awarded a score of +1 for introducing new measures that encourage both energy efficiency and diversification.

*Analyst: Yinsey Wang*

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

The United States has fully complied with its commitment to improve energy efficiency and diversification.

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<sup>241</sup> What is the Renewables Obligation? Department for Business Enterprise and Regulatory Reform. Date of Access: 15 January 2009.

<http://www.berr.gov.uk/whatwedo/energy/sources/renewables/policy/renewables-obligation/what-isrenewables-obligation/page15633.html>.

<sup>242</sup> UK set to trial ‘smart fridges,’ The Guardian, 2 December 2008. Date of Access: 9 December 2008.

<http://www.guardian.co.uk/environment/2008/dec/02/energy-efficient-dynamic-demand-fridges>.

<sup>243</sup> Approval for green energy plant, BBC News (London), 24 February 2009. Date of Access 28 June 2009. [http://news.bbc.co.uk/2/hi/uk\\_news/england/south\\_yorkshire/7907389.stm](http://news.bbc.co.uk/2/hi/uk_news/england/south_yorkshire/7907389.stm).

<sup>244</sup> Offshore renewables financial boost kicks in, Department of Energy and Climate Change (London), 30 March 2009. Date of Access: 7 May 2009.

<http://www.decc.gov.uk/en/content/cms/news/pn037/pn037.aspx>.

<sup>245</sup> Save Money, Save Energy: Government takes action on family fuel bills, Department for Environment, Food and Rural Affairs (London) 11 September 2008. Date of Access: 11 December 2008

<http://www.defra.gov.uk/news/2008/080911a.htm>.

<sup>246</sup> Save Money, Save Energy: Government takes action on family fuel bills, Department for Environment, Food and Rural Affairs (London) 11 September 2008. Date of Access: 11 December 2008

<http://www.defra.gov.uk/news/2008/080911a.htm>.

On 6 October 2008, the US Department of Energy (DOE) established awards “for research, development, and demonstration of Enhanced Geothermal Systems (EGS) for next-generation geothermal energy technologies.”<sup>247</sup> The Department of Energy has committed to provide up to USD43.1 million over a period of four years to award recipients in the public and private sectors.<sup>248</sup> This funding promotes energy diversification.

On 17 February 2009, the Obama Administration directed over USD60 billion into the clean energy investments projects under the umbrella of the American Recovery and Reinvestment Act.<sup>249</sup> These investments are expected to stimulate the economy as well supporting energy diversification.<sup>250</sup>

On 22 April 2009, President Barack Obama set forward a new program to develop renewable energy projects on the Outer Continental Shelf. This program will allow the U.S. “to tap into the ocean’s vast sustainable resources to generate clean energy in an environmentally sound and safe manner.”<sup>251</sup>

A number of new initiatives will tackle energy efficiency. On 22 August 2008, the DOE announced that it would provide over USD26 million to the development of energy-efficient industrial processes in the steel and other energy-intensive industries.<sup>252</sup> The project’s main goal is to reduce the energy intensity of the US manufacturing sector.<sup>253</sup>

On 26 September 2008, the DOE Office of Energy Efficiency and Renewable Energy announced the first phase of awards, valued at USD15 million, for the Net-Zero Energy Commercial Building Initiative (CBI). The award will come in form of technical assistance. American companies will work together with the Department’s laboratories to bring energy-saving technologies to the market and produce design solutions to yield energy savings in their commercial buildings.<sup>254</sup>

Thus, the United States has been awarded a score of +1 for undertaking a variety of energy efficiency and diversification initiatives.

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<sup>247</sup> DOE Funds 21 Research, Development and Demonstration Projects for up to \$78 Million to Promote Enhanced Geothermal Systems, US Department of Energy. (Reno) October 6 2008. Date of Access: 11 December 2008. <http://www.energy.gov/news/6624.htm>.

<sup>248</sup> DOE Funds 21 Research, Development and Demonstration Projects for up to \$78 Million to Promote Enhanced Geothermal Systems, US Department of Energy. (Reno) October 6 2008. Date of Access: 11 December 2008. <http://www.energy.gov/news/6624.htm>.

<sup>249</sup> Issues, Energy and Environment, The White House (Washington D.C.). Date of Access: 16 May 2009. [http://www.whitehouse.gov/issues/energy\\_and\\_environment/](http://www.whitehouse.gov/issues/energy_and_environment/)

<sup>250</sup> Issues, Energy and Environment, The White House (Washington D.C.). Date of Access: 16 May 2009. [http://www.whitehouse.gov/issues/energy\\_and\\_environment/](http://www.whitehouse.gov/issues/energy_and_environment/)

<sup>251</sup> Issues, Energy and Environment, The White House (Washington D.C.). Date of Access: 16 May 2009. [http://www.whitehouse.gov/issues/energy\\_and\\_environment/](http://www.whitehouse.gov/issues/energy_and_environment/)

<sup>252</sup> DOE Announces \$26 Million to Develop Energy-efficient Processes for US Industry, US Department of Energy, 22 August 2008. Date of Access: 12 December 2008. <http://www.energy.gov/news/6486.htm>.

<sup>253</sup> DOE Announces \$26 Million to Develop Energy-efficient Processes for US Industry, US Department of Energy, 22 August 2008. Date of Access: 12 December 2008. <http://www.energy.gov/news/6486.htm>.

<sup>254</sup> DOE Awards \$15 Million in Technical Assistance to Support Major Retailers, Financial Institutions and Real Estate Firms to Adopt Energy-Efficient Technologies, US Department of Energy, 26 September 2008. Date of Access: 11 December 2008. <http://www.energy.gov/news/6577.htm>.

## European Union: +1

The European Union has fully complied with its commitment to improve energy efficiency and diversification.

After a long period of negotiation, in December EU leaders approved part of the 20-20-20 climate change plan.<sup>255</sup> They agreed to boost the EU's use of renewables to 20 per cent of consumption by 2020.<sup>256</sup> The third component of the 20-20-20 plan, to reduce energy consumption by 20 per cent through efficiency improvements, has not yet been formally approved.<sup>257</sup>

On 8 December 2008, member states of the European Union agreed to phase out incandescent light bulbs by 2012. By switching to energy saving bulbs, EU citizens will save 40TWh, which is equivalent to the energy consumption of 11 million European households. Furthermore, the European Commission seeks to impose restrictions on other products such as consumer electronics, white goods, and heating appliances.<sup>258</sup> This addresses energy efficiency.

In November 2008, the European Commission launched court proceedings against Luxemburg due to its failure to comply with the 2002 Energy Performance of Buildings Directive. This Directive aims at "reducing energy consumption in buildings," which will "improve overall energy efficiency."<sup>259</sup> This action represents a step towards improved accountability on energy efficiency.

The European Commission recently announced plans to expand its Energy Labelling Directive to: (1) "energy-using products used in the industrial and commercial sectors" and (2) "other energy-related products which have an impact on energy consumption during use, such as insulated windows."<sup>260</sup> The new labels will inform customers on the

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<sup>255</sup> EU leaders agree on climate-change deal, CBC, 12 December 2008. Date of Access: 15 January 2009. <http://www.cbc.ca/world/story/2008/12/12/eu-climate.html>.

<sup>256</sup> EU leaders agree on climate-change deal, CBC, 12 December 2008. Date of Access: 15 January 2009. <http://www.cbc.ca/world/story/2008/12/12/eu-climate.html>.

<sup>257</sup> Russia and Ukraine's gas dispute should be a chance to tackle fossil fuel consumption. What happened? The Guardian, 14 January 2009. Date of Access: 15 January 2009. <http://www.guardian.co.uk/commentisfree/2009/jan/14/eu-energy>.

<sup>258</sup> Member States approve the phasing-out of incandescent bulbs by 2012, Rapid EUROPA (Brussels), 8 December 2008. Date of Access: 10 December 2008. <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/1909&format=HTML&aged=0&language=EN&guiLanguage=en>.

<sup>259</sup> Energy Performance of Buildings: Commission launches Court proceedings against Luxemburg, Rapid EUROPA (Brussels), 27 November 2008. Date of Access: 9 December 2008. <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/1824&format=HTML&aged=0&language=EN&guiLanguage=en>.

<sup>260</sup> Towards more energy-efficient products: extending the scope of energy labelling, Rapid EUROPA (Brussels), 13 November 2008. Date of Access: 10 December 2008. <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/700&format=HTML&aged=0&language=EN&guiLanguage=en>.

energy consumption of a product before purchase. This initiative should provide incentives for firms to produce more energy-efficient products.<sup>261</sup>

On 11 March 2009, EU member states agreed to support regulation on the electricity consumption of industrial motors. The new restrictions will save the equivalent of Sweden's annual electricity consumption. The European Parliament and the Council are currently scrutinizing the draft Regulation and its formal adoption is scheduled for June 2009.<sup>262</sup>

On 27 March 2009, EU member states agreed on rules to reduce the energy use of circulators, which could make electricity savings of EUR2.2 billion by 2020. This is scheduled for formal adoption in July 2009.<sup>263</sup>

On 12 March 2009, the European Commission called on member states to use information communications technologies (ICT) to improve energy efficiency. This could reduce total CO2 emissions in the EU by up to 15 per cent by 2020. ICT will not only improve the way energy use is monitored and managed but it could also spread awareness to the public as to how they can use energy more efficiently. For example, the installation of smart metering in homes could reduce individuals' energy consumption by 10 per cent.<sup>264</sup>

On 31 March 2009, the European Commission adopted the 2009 Work Programme of Intelligent Energy-Europe (IEE) which aims to co-finance non-technology projects that will promote energy efficiency. The IEE budget consists of EUR96 million, of which EUR15 million will be used to develop the "potential of municipalities and regions" in promoting energy sustainability, such as by introducing electric cars. The IEE programme attempts to remove market barriers, to change behaviour, to create market incentives for energy efficient businesses, and to make urban residents more aware of the EU energy policies.<sup>265</sup>

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<sup>261</sup>Towards more energy-efficient products: extending the scope of energy labelling, Rapid EUROPA (Brussels), 13 November 2008. Date of Access: 10 December 2008.  
<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/700&format=HTML&aged=0&language=EN&guiLanguage=en>.

<sup>262</sup>Energy Savings: Member States support rules to reduce the energy use of industrial motors, Rapid EUROPA (Brussels), 11 March 2009. Date of Access: 6 May 2009.  
<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/391>.

<sup>263</sup>Energy savings: Member States support rules to reduce the energy use of circulators, Rapid EUROPA (Brussels), 27 March 2009. Date of Access: 5 May 2009.  
<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/491&format=HTML&aged=0&language=EN&guiLanguage=en>.

<sup>264</sup>Commission pushes ICT for a greener Europe, Rapid EUROPA (Brussels), 12 March 2009. Date of Access: 7 May 2009.  
<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/393&format=HTML&aged=0&language=EN&guiLanguage=en>.

<sup>265</sup>Commission earmarks 15 million euro to promote sustainable investments in cities, Rapid EUROPA (Brussels), 31 March 2009. Date of Access: 8 May 2009.  
<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/513&format=HTML&aged=0&language=EN&guiLanguage=en>.

Thus, the EU has been awarded a score of +1 for its initiatives and policy changes to encourage both energy efficiency and diversification.

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