

## 5. Energy Intensity [99]

### Commitment:

“consider national goals for reducing energy intensity of economic development to be reported by the end of the year”

*Global Energy Security*<sup>184</sup>

### Background

Energy intensity has not featured prominently at past G8 Summits, but it is an issue of increasing importance as the industrialized world considers the double pressures of increased energy demand from transition economies and volatile oil prices. At the 2005 G8 Summit in Gleneagles, leaders sought to examine mechanisms that might isolate their economies from energy price shocks in the international market. In St. Petersburg attention was shifted away from price stabilization to input substitution.<sup>185</sup> Energy intensity or efficiency essentially refers to the amount of energy used per production of a unit of output. That is, how much oil or electricity is required to heat houses, propel motor vehicles and manufacture goods.<sup>186</sup> At the heart of energy intensity, however, is the desire to switch input dependence of economic activities from fossil fuels – of which many G8 nations are net importers – to renewable sources of energy whose prices are not subject to the volatility of energy markets. To this end, the G8 nations and the European Union sought to explore various opportunities to encourage private individuals to adopt technologies and techniques less intensive in fossil fuels.<sup>187</sup> G8 heads of state agreed that public consultations on the issue of energy intensity should be confirmed before 31 December 2006. Although many governments have long considered energy intensity or efficiency as priorities in national development, only public consultations established on or after 17 July 2006 will be considered actions taken towards compliance with the St. Petersburg commitment on energy intensity.

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### Assessment

<b>Interim Compliance Score</b>			
	<b>Lack of Compliance</b>	<b>Work in Progress</b>	<b>Full Compliance</b>
Canada		0	
France		0	
Germany		0	
Italy		0	
Japan		0	
Russia			+1
United Kingdom			+1
United States		0	
European Union			+1
<b>Overall</b>			<b>+0.33</b>

### Canada: 0

Canada has partially complied with its St. Petersburg energy intensity commitment. The Government of Canada does undertake several outreach programs on energy efficiency through its Office of Energy

<sup>184</sup> Global Energy Security, G8 Research Group, (Toronto), 16 July 2006. Date of Access: 2 January 2007. <http://www.g7.utoronto.ca/summit/2006stpetersburg/energy.html>.

<sup>185</sup> Global Economy and Oil, G8 Gleneagles Summit (Gleneagles, Scotland) 8 July 2005. Date of Access: 12 January 2007. <http://www.g8.utoronto.ca/summit/2005gleneagles/globaleconomy.pdf>

<sup>186</sup> Économies d'énergie: Présentation générale, Ministère de l'Économie, des Finances et de l'Industrie (Paris) 08 August 2005. Date of Access : 14 January 2007. [http://www.industrie.gouv.fr/portail/secteurs/index\\_energie.html](http://www.industrie.gouv.fr/portail/secteurs/index_energie.html)

<sup>187</sup> St. Petersburg Summit Documents – Global Energy Security, G8 Research Group (Toronto) 16 July 2006. Date of Access: 2 January 2007. <http://www.g7.utoronto.ca/summit/2006stpetersburg/energy.html>.

Efficiency within the Department of Natural Resources. The purpose of the outreach, however, is to educate individuals about the need for conservation, rather than to consult the public about how energy efficiency might be improved.<sup>188</sup> Indeed, at a meeting of the Federal and Provincial Energy Ministers on 19 August 2006, the participants noted the need to better inform a public concerned with energy efficiency about Canada's energy strategy, but they did not establish consultations with the public on the issue.<sup>189</sup> Despite several information campaigns instituted before the St. Petersburg Summit, a lack of tangible changes regarding the energy intensity commitment since the last G8 Summit has earned Canada a score of 0.

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### **France: 0**

France has partially complied with its St. Petersburg energy intensity commitment. France has pushed for greater efforts to address energy related issues in the context of the European Union (EU). In September 2006, France's Prime Minister, Dominique de Villepin, proposed the creation of the post of special energy representative in the EU.<sup>190</sup> The objective of the new post would be to relay the joint positions as decided upon by the appropriate Council formations so as to enable the EU to "speak with a single voice" in regards to energy issues.<sup>191</sup> Prime Minister Villepin's proposal is in keeping with a 24 January 2006 memorandum issued by the French government to "re-launch European energy policy in a perspective of sustainable development." The memorandum discusses the need to implement integrative energy policies in Europe and encourage more efficient energy consumption and production which, in part, entails the reduction of energy intensity.<sup>192</sup>

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### **Germany: 0**

Germany has partially complied with its St. Petersburg energy intensity commitment. At the annual meeting of the Energy Efficiency Initiative of DENA (German Energy Agency), Federal Minister of Economics and Technology Michael Glos stated that "[i]t is necessary to reduce noticeably the energy needs of industry, of private and public consumers through the most efficient and intelligent use possible of the available energy."<sup>193</sup>

Angel Merkel stated that security of supply, economic efficiency and environmental sustainability are central to energy policy. Chancellor Merkel commented that "[i]t is clear that there should be an increase in exporting technology and that Germany must be a leader in energy efficiency".<sup>194</sup> She also stressed the need to expand the availability of vehicles powered by biofuels.<sup>195</sup> Despite the German government's continued public support of energy efficiency measures, and its extensive programs to encourage energy efficiency in the private sector, no new consultations on the issue have been established since the St. Petersburg Summit. For this reason, Germany has been awarded a score of 0.

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<sup>188</sup> The State of Energy Efficiency in Canada, Office of Energy Efficiency, Natural Resources Canada (Ottawa) 16 March 2006. Date of Access: 25 January 2007. [www.nrcan.gc.ca/Publications/statistics/see06/outreach.cfm?attr=0](http://www.nrcan.gc.ca/Publications/statistics/see06/outreach.cfm?attr=0)

<sup>189</sup> Energy Ministers' Conference Focuses on Energy Collaboration, Natural Resources Canada (Ottawa) 29 August 2006. Date of Access: 25 January 2007. [http://www.nrcan-rncan.gc.ca/media/newsreleases/2006/200622\\_e.htm](http://www.nrcan-rncan.gc.ca/media/newsreleases/2006/200622_e.htm)

<sup>190</sup> Comments by France on the Proposals of the Green Paper, Ministry of Finance, Economy and Industry, (Paris) 17 October 2006. Date of Access: 3 January 2007. [http://www.industrie.gouv.fr/cgi-bin/industrie/frame23e\\_loc.pl?bandeau=/energie/anglais/be\\_us.htm&gauche=/energie/anglais/me\\_us.htm&droite=/energie/anglais/accueil.htm](http://www.industrie.gouv.fr/cgi-bin/industrie/frame23e_loc.pl?bandeau=/energie/anglais/be_us.htm&gauche=/energie/anglais/me_us.htm&droite=/energie/anglais/accueil.htm)

<sup>191</sup> Comments by France on the Proposals of the Green Paper, Ministry of Finance, Economy and Industry, (Paris) 17 October 2006. Date of Access: 3 January 2007. [http://www.industrie.gouv.fr/cgi-bin/industrie/frame23e\\_loc.pl?bandeau=/energie/anglais/be\\_us.htm&gauche=/energie/anglais/me\\_us.htm&droite=/energie/anglais/accueil.htm](http://www.industrie.gouv.fr/cgi-bin/industrie/frame23e_loc.pl?bandeau=/energie/anglais/be_us.htm&gauche=/energie/anglais/me_us.htm&droite=/energie/anglais/accueil.htm)

<sup>192</sup> France's Energy Situation, General Directorate for Energy and Raw Materials (Paris) 20 November 2006. Date of Access: 2 January 2007. <http://www.industrie.gouv.fr/energie/anglais/politique-energetique.htm>

<sup>193</sup> Energy efficiency policy in the face of Germany's upcoming EU Presidency in the first half of 2007, Federal Ministry of Economics and Technology (Berlin) 19 September 2006. Date of Access: 11 January 2007. <http://www.bmwi.de/English/Navigation/Press/speeches-and-statements,did=165098.html>

<sup>194</sup> The Second Stage Begins, Bundesregierung (Berlin) 29 March 2006. Date of Access: 04 January 2007. [http://www.bundesregierung.de/nn\\_6516/Content/EN/Artikel/2006/03/2006-03-29-the-second-stage-begins.html](http://www.bundesregierung.de/nn_6516/Content/EN/Artikel/2006/03/2006-03-29-the-second-stage-begins.html)

<sup>195</sup> The Second Stage Begins, Bundesregierung (Berlin) 29 March 2006. Date of Access: 04 January 2007. [http://www.bundesregierung.de/nn\\_6516/Content/EN/Artikel/2006/03/2006-03-29-the-second-stage-begins.html](http://www.bundesregierung.de/nn_6516/Content/EN/Artikel/2006/03/2006-03-29-the-second-stage-begins.html)

## Italy: 0

The Italian government has partially complied with its St. Petersburg energy intensity commitment. The Ministry of the Environment maintains a website that provides the public with information on ways in which it may help conserve energy.<sup>196</sup> The Ministry of Economic Development likewise runs several programs aimed at encouraging the public and industry in particular to be more conscious of energy efficiency.<sup>197</sup> On 23 October 2006, the Italian government also approved new European directives on decreasing energy consumption as complementary to its policies on energy efficiency.<sup>198</sup> Nevertheless, no new consultations on the issue have been introduced since the St. Petersburg Summit. For this reason, Italy has been awarded a score of 0.

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## Japan: 0

Japan has partially complied with its St. Petersburg energy intensity commitment. To this end, it has established the Meeting of the Council of Ministers for Global Environmental Conservation with the aim of securing close communication among all administrative agencies concerned with energy use and conservation. The Meeting also aims to promote the implementation of measures for addressing global environmental issue.<sup>199</sup> For this reason, Japan has been awarded a score of +1.

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## Russia: +1

Russia has fully complied with its St. Petersburg energy intensity commitment. Goals for reducing energy intensity of economic development are set in Russia's Energy Strategy (approved in 2003) and in the Federal Special Program "Energy Efficient Economy in 2002-2005 and till 2010". In September 2006 the Russian government took a decision to reconsider and to develop a new Energy Strategy. The new Strategy should change thoroughly the federal government's attitude towards increasing energy efficiency. Russia plans to make changes to legislation to determine structures responsible for the development and policy for increasing energy efficiency; to create a new program "Energy efficiency of the economy" and to determine the sources of its financing; to create new technical standards on energy efficiency of buildings and equipment; to begin programs of power demand management; to allow to use the received savings from utility resource payments for investments into repairing of public facilities.<sup>200</sup>

The public will be involved in considerations of national goals for reducing energy intensity. Director of the Department on Economic Analysis and Prospective Planning of the Ministry of Industry and Energy Stanislav Naumov announced that his department welcomes the proposal of the Public Chamber to form the Public Council under the Ministry of Industry and Energy. He said that the Council will discuss questions of energy efficiency and energy safety and will be formed soon.<sup>201</sup> The first session of the Working Group of the Public chamber "Perspectives of Russian Energy Development" took place on the 20<sup>th</sup> of November, 2006. This analytical group will amend Russian energy strategy and work out measures on reducing energy intensity.<sup>202</sup>

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<sup>196</sup> Efficienza energetica in breve, Ministero dell'Ambiente (Rome). Date of Access: 25 January 2007.  
<http://www.minambiente.it/st/Ministero.aspx?doc=pubblico/fontir/efenergetica.xml>

<sup>197</sup> 'Bioedilizia': Per consumare meno energia, Ministero dello Sviluppo Economico (Rome). Date of Access: 25 November 2006.  
[http://www.attivitaproduttive.gov.it/pdf\\_upload/documenti/php6MRQx.pdf](http://www.attivitaproduttive.gov.it/pdf_upload/documenti/php6MRQx.pdf)

<sup>198</sup> Bersani: With cogeneration complete a further step towards efficiency, green light today from the Minister, Ministero dello Sviluppo Economico (Rome) 27 October 2006. Date of Access: 25 January 2007.  
[http://www.attivitaproduttive.gov.it/pdf\\_upload/comunicati/php6GlvuLU.pdf](http://www.attivitaproduttive.gov.it/pdf_upload/comunicati/php6GlvuLU.pdf)

<sup>199</sup> Meeting of the Council of Ministers for Global Environmental Conservation, Prime Minister of Japan and his Cabinet (Tokyo). Date of Access: 27 November 2006. [http://www.kantei.go.jp/foreign/policy/index/environment/index\\_e.html](http://www.kantei.go.jp/foreign/policy/index/environment/index_e.html)

<sup>200</sup> Energy Strategy: Future map, Vedomosti (Moscow) 14 September 2006. Date of access: 25 December 2006.  
<http://www.vedomosti.ru/newspaper/article.shtml?2006/09/14/112560>

<sup>201</sup> Velikhov knocks at the White House, Vedomosti (Moscow) 25 August 2006. Date of access: 25 December 2006.  
<http://www.vedomosti.ru/newspaper/article.shtml?2006/08/25/111588>

<sup>202</sup> Russian energy under public control, Public Chamber of the RF (Moscow) 21 November 2006. Date of Access: 25 December 2006. <http://www.oprf.ru/rus/news/chamber/5751ec3e9a4feab575962e78e006250d/>

## United Kingdom: +1

The United Kingdom registered full compliance with its St Petersburg commitment on energy intensity, successfully establishing a number of public consultations to address reductions in energy intensity. On 11 July 2006, the Department of Trade and Industry published their Energy Review to focus on the challenges of meeting the UK's long-term goals set out in the 2003 Energy White Paper.<sup>203</sup> The Energy Review included a package of policy proposals and public consultations that will feed into the 2007 Energy White Paper.<sup>204</sup>

On 8 November 2006, DEFRA, the Welsh Assembly Government, the Northern Ireland Administration, and the Scottish Executive launched a joint consultation on measures to reduce carbon emissions in large non-energy intensive business and public sector organizations by 1.2 million tonnes of carbon per year by 2020.<sup>205</sup> The consultation particularly invites comments on the proposals for a mandatory cap and trade (Energy Performance Commitment), and a system of voluntary benchmarking and reporting.<sup>206</sup> In addition, the Government has scheduled a series of public workshops throughout the UK for January 2007, to provide further information.<sup>207</sup> On 14 November 2006, the Department for Trade and Industry issued a consultation on energy billing and metering in domestic and business sectors to help reduce energy consumption.<sup>208</sup> The consultation seeks responses on the billing and metering proposals outlined in the Energy Review, as well as on the implementation of the EU Energy Services Directive, which contains provisions on metering and billing.<sup>209</sup>

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## United States: 0

The United States has partially complied with its St. Petersburg commitment on energy intensity. In keeping with its 2005 Energy Policy Act, the US federal government continues to make efforts to reduce its energy intensity by 2 percent per year.<sup>210</sup> As outlined in the US Department of Energy's 2006 Strategic Plan, the department is investing in alternative fuels and energy efficient technologies to reduce energy intensity in the American economy.<sup>211</sup> The US Department of Energy's Energy Efficiency and Renewable Energy's Industrial Technologies Program is currently working with key sectors in the US economy (i.e. aluminum, chemicals, forest products, glass, metal casting, mining, petroleum refining, and steel) to improve energy efficiency.<sup>212</sup>

On 6 October 2006, Assistant Secretary for Energy Efficiency and Renewable Energy Alexander Karsner commented that "[t]hrough the President's Advanced Energy Initiative as well as with help from the Energy Policy Act of 2005, we are working to lead energy efficiency efforts across the nation".<sup>213</sup> It is therefore obvious that the Bush administration is serious about implementing in full the energy intensity policies outlines in the 2005 Energy Policy Act. For these reasons, the United States has been awarded a score of 0

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<sup>203</sup> UK Energy Policy Shapes up to New Global Energy Landscape, Government News Network (London) 11 July 2006. Date of Access: 5 January 2007.

<sup>204</sup> UK Energy Policy Shapes up to New Global Energy Landscape, Government News Network (London) 11 July 2006. Date of Access: 5 January 2007.

<sup>205</sup> Consultation On Measures to Reduce Carbon Emissions in Large Non-Energy Intensive Businesses and Public Sector Organizations, Department for Environment, Food, and Rural Affairs (London) 8 November 2006. Date of Access: 5 January 2007. <http://www.defra.gov.uk/corporate/consult/carbon-emissions/index.htm>

<sup>206</sup> Consultation On Measures to Reduce Carbon Emissions in Large Non-Energy Intensive Businesses and Public Sector Organizations, Department for Environment, Food, and Rural Affairs (London) 8 November 2006. Date of Access: 5 January 2007. <http://www.defra.gov.uk/corporate/consult/carbon-emissions/index.htm>

<sup>207</sup> Energy Performance Commitment, Voluntary Benchmarking and Reporting, and Other Options, Department for Environment, Food, and Rural Affairs (London) 22 December 2006. Date of Access: 5 January 2006. <http://www.defra.gov.uk/environment/climatechange/trading/epc/index.htm>

<sup>208</sup> Billing and Metering, Department of Trade and Industry (London) 14 November 2006. Date of Access: 5 January 2007. <http://www.dti.gov.uk/energy/review/implementation/billing-metering/page35269.html>

<sup>209</sup> Billing and Metering, Department of Trade and Industry (London) 14 November 2006. Date of Access: 5 January 2007. <http://www.dti.gov.uk/energy/review/implementation/billing-metering/page35269.html>

<sup>210</sup> Energy Policy Act of 2005, United States Government (Washington) 8 August 2005. Date of Access: 4 January 2007. [http://www.epa.gov/swrust1/fedlaws/publ\\_109-058.pdf](http://www.epa.gov/swrust1/fedlaws/publ_109-058.pdf)

<sup>211</sup> Energy Security, US Department of Energy (Washington) September 2006. Date of Access: 2 January 2007. <http://www.energy.gov/media/2006StrategicPlanSection5.pdf>

<sup>212</sup> Industrial Technologies Program, US Department of Energy (Washington) 23 October 2006. Date of Access: 2 January 2007. <http://www.eere.energy.gov/industry>

<sup>213</sup> White House Honors Federal Agency Teams For Saving Energy and Reducing Energy Costs, Department of Energy (Washington) 06 October 2006. Date of Access: 14 January 2007. <http://www.energy.gov/news/4326.htm>

## **European Union: +1**

The European Union has fully complied with its St Petersburg commitment on Energy Intensity. The Green Paper on a European Strategy for Sustainable, Competitive and Secure Energy, published on 8 March 2006, was a consultation document designed to open debate on developing a common, coherent European Energy Policy.<sup>214</sup> In addition to the open debate, a public hearing was organized in Brussels on 22 September 2006.<sup>215</sup> The consultation period ended on 24 September 2006.<sup>216</sup> The results of the Green Paper's consultations combined with the results from the consultation period of the Green Paper on Energy Efficiency from 2005 were collectively evaluated to form the priority measures of the European Commission's Action Plan on Energy Efficiency.<sup>217</sup>

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<sup>214</sup> The Green Paper – Energy, Directorate-General for Energy and Transportation (Brussels) 5 December 2006. Date of Access: 5 January 2007. [ec.europa.eu/energy/green-paper-energy/index\\_en.htm](http://ec.europa.eu/energy/green-paper-energy/index_en.htm)

<sup>215</sup> Public Hearing on the Strategic EU Energy Review, Directorate-General for Energy and Transportation (Brussels) 22 September 2006. Date of Access: 5 January 2007. [ec.europa.eu/energy/green-paper-energy/doc/2006\\_09\\_22\\_hearing/2006\\_09\\_22\\_hearing\\_en.pdf](http://ec.europa.eu/energy/green-paper-energy/doc/2006_09_22_hearing/2006_09_22_hearing_en.pdf)

<sup>216</sup> The Green Paper – Energy, Directorate-General for Energy and Transportation (Brussels) 5 December 2006. Date of Access: 5 January 2007. [ec.europa.eu/energy/green-paper-energy/index\\_en.htm](http://ec.europa.eu/energy/green-paper-energy/index_en.htm)

<sup>217</sup> Saving 20% by 2020: European Commission Unveils its Action Plan on Energy Efficiency, Europa Press Releases (Brussels) 19 October 2006. Date of Access: 5 January 2006. [ec.europa.eu/energy/action\\_plan\\_energy\\_efficiency/index\\_en.htm](http://ec.europa.eu/energy/action_plan_energy_efficiency/index_en.htm)