

6. Energy Efficiency [59]

Commitment:

“We recognize the importance of setting mid-term, aspirational goals for energy efficiency. In national goals and objectives, as well as in country specific action plans, we will maximize implementation of the IEA’s 25 recommendations on energy efficiency.”

G8 Leaders Declaration on the Environment and Climate Change

Assessment:

Interim Compliance Score

Country	Lack of Compliance	Work in Progress	Full Compliance
	-1	0	+1
Canada	-1		
France			+1
Germany		0	
Italy		0	
Japan	-1		
Russia			+1
United Kingdom			+1
United States			+1
European Union			+1
Average Score			+0.33

Background:

Established in 1973, the International Energy Agency (IEA) is an autonomous body within the OECD.³²⁷ The IEA was founded to coordinate international action during energy supply crises, but its mandate has since broadened.³²⁸ The Agency now carries out energy research, collects and analyzes data, and advises its member countries on energy policy.³²⁹ All G8 member states are also members of the IEA.³³⁰

At the 2005 Gleneagles Summit, G8 leaders released a Plan of Action on climate change, energy and sustainable development.³³¹ They asked for the IEA to “advise on alternative energy scenarios and strategies aimed at a clean, clever and competitive energy

³²⁷ IEA Member Countries, International Energy Agency (Paris). Date of Access: 22 January 2009.

<http://www.iea.org/about/membercountries.asp>.

³²⁸ About the IEA, International Energy Agency (Paris). Date of Access: 22 January 2009.

<http://www.iea.org/about/index.asp>.

³²⁹ About the IEA, International Energy Agency (Paris). Date of Access: 22 January 2009.

<http://www.iea.org/about/index.asp>.

³³⁰ IEA Member Countries, International Energy Agency (Paris). Date of Access: 22 January 2009.

<http://www.iea.org/about/membercountries.asp>.

³³¹ Climate Change, Clean Energy and Sustainable Development, IEA’s G8 Gleneagles Programme. Date of Access: 22 January 2009. http://www.iea.org/G8/docs/G8_Leaflet.pdf.

future.”³³² The G8 and IEA would focus on six areas: alternative energy scenarios and strategies; energy efficiency in buildings, appliances, transport and industry; cleaner fossil fuels; carbon capture and storage; renewable energy; and enhanced international cooperation.³³³ The IEA was to deliver recommendations to the Hokkaido-Toyako Summit on how to achieve improved energy efficiency.

The G8 reaffirmed their commitment to the Gleneagles Plan of Action at both the St Petersburg and the Heiligendamm Summits, in 2006 and 2007 respectively. In the St Petersburg communiqué on Global Energy Security, the G8 promised to “move forward with timely implementation of the Gleneagles Plan of Action” and to report the outcomes of the Dialogue on Climate Change, Clean Energy and Sustainable Development to the G8 Summit in 2008.³³⁴ A year later, the G8 once again stated their dedication to the Gleneagles Action Plan, also noting the importance of “retaining and supporting the IEA’s close involvement.”³³⁵

At the Hokkaido-Toyako Summit, the IEA recommended 25 domestic policies that could improve energy efficiency and reduce energy use. The recommendations span several sectors of the economy, and concern buildings, appliances, equipment, lighting, transport, industry, and energy utilities. Based on IEA analysis, as of July 2008, no country appears to have fully implemented the energy efficiency policy recommendations, so there is significant progress to be made.³³⁶

Commitment Features:

G8 members have agreed to implement the IEA’s 25 recommendations. The commitment does not specify exactly how many policies should be implemented, but the first part of the commitment says that goals for energy efficiency are to be “mid-term” and “aspirational.” The commitment, therefore, does not call for full and immediate implementation of all 25 IEA recommendations. Rather, each member state must take steps to implement some IEA recommendations, moving closer to full implementation.

The recommendations are diverse and comprehensive, and it is not feasible to evaluate compliance with all 25 in one year. We will evaluate compliance based on five representative policy recommendations. For specifics on each of these policies, refer to the IEA’s recommendations directly, available at http://www.iea.org/G8/2008/G8_EE_recommendations.pdf.

³³² Climate Change, Clean Energy and Sustainable Development, IEA’s G8 Gleneagles Programme. Date of Access: 22 January 2009. http://www.iea.org/G8/docs/G8_Leaflet.pdf.

³³³ 2005 Gleneagles Plan of Action on Climate Change, Clean Energy and Sustainable Development, G8 Information Centre (Toronto) 8 July 2005. Date of Access: 12 December 2008. <http://www.g7.utoronto.ca/summit/2005gleneagles/climatechangeplan.pdf>.

³³⁴ 2006 St Petersburg Summit Plan of Action on Global Energy Security, G8 Information Centre (Toronto) 16 July 2006. Date of Access: 20 December 2008. <http://www.g7.utoronto.ca/summit/2006stpetersburg/energy.html>.

³³⁵ G8 Summit 2007 Heiligendamm Growth and Responsibility in the World Economy, G8 Information Centre (Toronto) February 2007. Date of Access: 20 December 2008. <http://www.g7.utoronto.ca/evaluations/2007heiligendamm/2007-leaked-doc.pdf>.

³³⁶ Report to the G8 Summit, International Energy Agency (Hokkaido) 8 July 2008. Date of Access: 12 December 2008. http://www.iea.org/g8/2008/G8_IEAwork_2008.pdf.

- 1.1 Increased investment in energy efficiency
- 2.1 Building codes for new buildings
- 4.1 Best practice lighting and the phase-out of incandescent bulbs
- 5.2 Mandatory fuel efficiency standards for light-duty vehicles
- 7.0 Energy utilities and energy efficiency

Scoring:

-1	Member implements none of the five IEA recommendations highlighted above.
0	Member implements one OR two of the five IEA recommendations highlighted above.
+1	Member implements three OR four OR five of the five IEA recommendations highlighted above.

Lead Analyst: Denitza Koev

Canada: -1

Canada has failed to comply with the IEA recommendations assessed in this report. While a number of energy efficiency initiatives were pursued in 2007, Canada has not made progress in these areas in the current compliance cycle.

In 2007, Canada undertook a range of actions to help its citizens, businesses and industry make energy-efficient choices. Actions included upgrading the efficiency of equipment sold in Canada, progress on codes for buildings and houses, and improving the energy efficiency of large vehicles.³³⁷

On 9 September 2008, the Council of Energy Ministers discussed Canada’s efforts on energy efficiency. The ministers agreed to explore energy efficiency opportunities for low-income households.³³⁸ One way to do this would be to implement IEA recommendation 7.0, which suggests that governments should stimulate energy utilities to deliver effective low-cost energy savings schemes for end-uses. The ministers, however, did not identify this option.

Thus, Canada has been awarded a score of -1. Canada has failed to take concrete action towards implementing the IEA’s policy recommendations on energy efficiency.

Analyst: Fatima Ul-Haq

³³⁷ News Releases: Report on 2008 Meeting of Canada’s Energy Ministers, Natural Resources Canada (Ottawa) 24 November 2008. Date Accessed: 8 December 2008. <http://www.nrcan-nrcan.gc.ca/media/newcom/2008/200870-eng.php>.

³³⁸ News Releases: Report on 2008 Meeting of Canada’s Energy Ministers, Natural Resources Canada (Ottawa) 24 November 2008. Date Accessed: 8 December 2008. <http://www.nrcan-nrcan.gc.ca/media/newcom/2008/200870-eng.php>.

France: +1

France has fully complied with the IEA recommendations assessed in this report.

On 21 October 2008, the National Assembly adopted a bill proposed by the Grenelle Environment Roundtable to stimulate sustainable development.³³⁹ Known as Grenelle 1, the bill contains amendments to incentives for investment in energy efficiency.³⁴⁰ The state has agreed to develop tools to increase investments in energy savings, such as agreements with banks and the financial sector. This move is in compliance with IEA recommendation 1.1.

France has also agreed to apply the “low-usage building” (BBC) law to all new buildings by the end of 2012.³⁴¹ The BBC law sets a maximum consumption of primary energy at 50 kWh per square meter per annum.³⁴² The amendment is expected to strengthen mandatory energy efficiency standards for new buildings, corresponding with IEA recommendation 2.1. The government has further agreed to enforce energy consumption standards through the use of “white certificates,” which certify that a certain level of energy reduction has been attained, ultimately providing energy savings for end-users.³⁴³ The certificates are consistent with IEA recommendation 7.0.

In October 2008, a voluntary agreement aimed at phasing out inefficient lighting was signed by the Ministry of Ecology, Energy, Sustainable Development and Planning; home improvement/DIY retailers; the organization responsible for collecting and recycling used lamps; *Électricité de France* (EDF); and French energy management agency ADEME.³⁴⁴ The agreement strives to promote efficient lighting, halt sales of incandescent light bulbs, improve the quality of efficient lighting available in the market, and promote the collection and recycling of lamps.³⁴⁵ Under the phase-out calendar in the agreement, incandescent bulbs greater than or equal to 100 W are to be removed by 30 June 2009, with 25 W bulbs to be phased-out by 31 December 2015.³⁴⁶ Through this measure, France has implemented IEA recommendation 4.1.

³³⁹ *Vote de la loi Grenelle 1: un formidable moment d'unité nationale*, Ministry of Ecology, Energy, Sustainable Development and Planning (Paris) 21 October 2008. Date of Access: 18 December 2008 http://www.developpement-durable.gouv.fr/article.php3?id_article=3795.

³⁴⁰ *Mesures phrases due projet et principaux points adoptés en séance à l'Assemblée nationale*, Ministry of Ecology, Energy, Sustainable Development and Planning (Paris) 20 October 2008. Date of Access: 18 December 2008. http://www.developpement-durable.gouv.fr/article.php3?id_article=3791.

³⁴¹ *Mesures phrases due projet et principaux points adoptés en séance à l'Assemblée nationale*, Ministry of Ecology, Energy, Sustainable Development and Planning (Paris) 20 October 2008. Date of Access: 18 December 2008. http://www.developpement-durable.gouv.fr/article.php3?id_article=3791.

³⁴² Sustainable Building in France: Progress Report, Association HQE (Paris) May 2008. Date of Access: 18 December 2008. <http://www.assohqe.org/docs/sb08.pdf>.

³⁴³ *Mesures phrases due projet et principaux points adoptés en séance à l'Assemblée nationale*, Ministry of Ecology, Energy, Sustainable Development and Planning (Paris) 20 October 2008. Date of Access: 18 December 2008. http://www.developpement-durable.gouv.fr/article.php3?id_article=3791.

³⁴⁴ Incandescent lamp phase-out, International Energy Agency (Paris) 23 October 2008. Date of Access: 16 December 2008. <http://www.iea.org/Textbase/pm/?mode=pm&id=4218&action=detail>.

³⁴⁵ Incandescent lamp phase-out, International Energy Agency (Paris) 23 October 2008. Date of Access: 16 December 2008. <http://www.iea.org/Textbase/pm/?mode=pm&id=4218&action=detail>.

³⁴⁶ Incandescent lamp phase-out, International Energy Agency (Paris) 23 October 2008. Date of Access: 16 December 2008. <http://www.iea.org/Textbase/pm/?mode=pm&id=4218&action=detail>.

Thus, France has been awarded a score of +1 for pursuing at least three IEA policy recommendations on energy efficiency.

Analyst: Denitza Koev

Germany: 0

Germany has partially complied with the IEA recommendations assessed in this report. It has introduced measures to encourage investment in energy efficiency, but action in other areas has been limited.

On 8 August 2008, Federal Minister of Transport Wolfgang Tiefensee announced that EUR500 million will be made available in investment grants for housing companies committed to energy efficiency.³⁴⁷ The funding will be distributed through the CO2 building modernization program designed to reduce carbon dioxide emissions from buildings. On 5 November 2008, the Federal government agreed on an investment package, which will supply an additional EUR3 billion for the program between 2009-2011.³⁴⁸ This initiative constitutes compliance with recommendation 1.1, because it encourages private sector investment in energy efficiency.

Before the Hokkaido-Toyako Summit Germany became partially compliant with IEA recommendation 1.1. On 6 June 2008, the German Parliament adopted an amendment to the Renewable Energy Sources Act (EEG), which creates new incentives for investment in energy efficiency, including EUR500 million for energy-efficient heating technologies.³⁴⁹ These funds, while significant, were not initiated in this compliance cycle, and therefore do not constitute compliance.

On 8 December 2008, the EU declared its decision to phase out incandescent light bulbs in order to increase the bloc's energy efficiency.³⁵⁰ Under the EU directive, Germany is compelled to phase out traditional light bulbs (100 W and up) by 2010.³⁵¹ Germany has yet to take independent action to implement this EU directive, however, so it does not constitute compliance.

³⁴⁷ Press Release: An extra 500 million euros for the successful programme to reduce CO2 emissions from buildings, Federal Ministry of Transport, Building and Urban Affairs (Berlin) 8 August 2008. Date of Access: 18 December 2008. <http://www.bmvbs.de/en/-,1872.1049432/Tiefensee-An-extra-500-million.htm>.

³⁴⁸ Government agrees on investment packages, Die Bundesregierung (Berlin) 5 November 2008. Date of Access: 18 December 2008. http://www.bundesregierung.de/Content/EN/Artikel/2008/11/2008-11-05-investitionspaket_en.html.

³⁴⁹ PVSEC Europe 2008: Germany Solidifies Leading Position in PV Energy, Invest In Germany (Berlin) 29 August 2008. Date of Access: 17 December 2008. <http://www.invest-in-germany.com/homepage/info-service/press-releases/press-releases-2008/july-august/pvsec-europe-2008-germany-solidifies-leading-position-in-pv-energy/?backlink=0>.

³⁵⁰ EU to shut off old-fashioned light bulbs, The German Federal Foreign Office (Berlin) 9 December 2008. Date of Access: 18 December 2008. <http://www.auswaertiges-amt.de/diplo/en/WillkommeninD/D-Informationen/Nachrichten/081209-3.html>.

³⁵¹ EU to shut off old-fashioned light bulbs, The German Federal Foreign Office (Berlin) 9 December 2008. Date of Access: 18 December 2008. <http://www.auswaertiges-amt.de/diplo/en/WillkommeninD/D-Informationen/Nachrichten/081209-3.html>.

Thus, Germany has been awarded a score of 0 for pursuing only one IEA policy recommendation on energy efficiency.

Analyst: Denitza Koev

Italy: 0

Italy has partially complied with the IEA recommendations assessed in this report. Italy's action in this area has been uneven.

On 3 December 2008, the Italian government allocated EUR380 million to its Energy Efficiency and Sustainable Mobility initiatives.³⁵² The funds are expected to attract private sector involvement in energy efficiency investments.³⁵³ Thus, the government's financial contribution is in accordance with IEA recommendation 1.1, which suggests that governments should review their current subsidies and fiscal incentive programs to "create more favourable grounds for private energy efficiency investments."³⁵⁴

However, the Italian government has also discouraged household investment in energy efficiency by cancelling a 55 per cent rebate on the Imposta sul Reddito delle Persone Fisiche (Irpef) tax on 28 November 2008.³⁵⁵ The rebate granted homeowners who had installed energy-efficient utilities, such as solar panels, a reduced income tax rate. All energy-efficient, environmentally-friendly home heating and cooling systems were included under the rebate.³⁵⁶ The removal of this subsidy undermines compliance with this commitment.

Prior to the publication of the IEA's 25 policy recommendations, on 24 December 2007, the Italian government banned the sale of incandescent light bulbs after 2011.³⁵⁷ On 8 December 2008, the EU declared its decision to phase out incandescent light bulbs. Under a new EU directive, Italy will have to ban the sale of incandescent light bulbs by 2010.³⁵⁸ Italy has yet to update its legislation accordingly, and has not taken any further action in this compliance cycle, so its existing ban cannot constitute compliance with recommendation 4.1.

³⁵² Successo del bando Made in Italy: 429 progetti di innovazione presentati da tremila imprese e mille centri di ricerca, Department of Economic Development (Rome) 3 December 2008. Date of Access: 8 December 2008. http://www.industria2015.ipi.it/file/com_stampa_madeinitaly.pdf.

³⁵³ Finalità del PII sull'Efficienza Energetica, Department of Economic Development (Rome). Date of Access: 8 December 2008. <http://www.industria2015.ipi.it/index.php?id=4>.

³⁵⁴ Energy Efficiency Policy Recommendations, International Energy Agency (Paris) 2008. 9 December 2008. http://www.iea.org/G8/2008/G8_EE_recommendations.pdf.

³⁵⁵ Energia: la questione degli incentivi per l'efficienza, Unine Provincie d'Italia (Rome) 2 December 2008. Date of Access: 10 December 2008. http://www.upinet.it/upinet/contr_edit.bfr.

³⁵⁶ Energia: la questione degli incentivi per l'efficienza, Unine Provincie d'Italia (Rome) 2 December 2008. Date of Access: 10 December 2008. http://www.upinet.it/upinet/contr_edit.bfr.

³⁵⁷ La Legge finanziaria 2008, Department of Economic Development (Rome). Date of Access: 11 December 2008. <http://efficienzaenergetica.acs.enea.it/fin2007.htm>.

³⁵⁸ EU to shut off old-fashioned light bulbs, The German Federal Foreign Office (Brussels) 9 December 2008. Date of Access: 18 December 2008. <http://www.auswaertiges-amt.de/diplo/en/WillkommeninD-Informationen/Nachrichten/081209-3.html>.

Thus, Italy has been awarded a score of 0 for its limited implementation of IEA policy recommendations on energy efficiency. Italy has taken steps to encourage private sector investment in energy efficiency, but it has also backtracked through its cancellation of the IRPEF rebate. In addition, the Italian government has yet to implement the EU directive on incandescent light bulbs.

Analyst: Vanessa Bertone

Japan: -1

Japan has failed to comply with the IEA recommendations assessed in this report.

In December 2008, the Japanese Energy Conservation Centre published an Energy Conservation Handbook outlining Japan's actions on energy efficiency. The Handbook shows that Japan has had mandatory energy-efficient standards for new buildings since 30 March 2006. The Evaluation Criteria for Building on Rational Use of Energy specifies that those who intend to construct or modify buildings must take appropriate measures to utilize energy-efficiently.³⁵⁹ These building codes fall under IEA recommendation 2.1. However, Japan has not strengthened its energy efficiency standards for new buildings during the current G8 compliance cycle.

Similarly, the Handbook outlines tax incentives, which seek to promote private sector investment in energy efficiency. These incentives are in line with IEA recommendation 1.1, but Japan has not implemented new initiatives to encourage private sector investment since the summit in July 2008.

Thus, Japan has been given a score of -1. Japan has taken significant steps towards increasing its energy efficiency between 2006 and 2008. However, no actions have been undertaken to implement the IEA's policy recommendations since the 2008 Summit.

Analyst: Fatima Ul-Haq

Russia: +1

Russia has fully complied with the IEA recommendations assessed in this report.

In late July 2008, the Russian government agreed to cooperate with the International Finance Corporation (IFC) on promoting long-term investments into energy efficient projects.³⁶⁰ The IFC has signed a loan agreement with Russia's MDM Bank to help expand energy efficiency financing to local companies. A USD35 million loan for IFC's own account will support MDM Bank's energy efficiency lending, while a USD500 million syndicated loan will support the trade finance projects of the bank's clients.³⁶¹

³⁵⁹ Japan Energy Conservation Handbook 2008, Energy Conservation Centre Japan (Tokyo) December 2008. Date Accessed: 8 December 2008. <http://www.eccj.or.jp/databook/2008e/pdf/all.pdf>.

³⁶⁰ "The interview with vice-president of IFC" Date of access: 6.12.2008 <http://www.prime-tass.ru/news/show.asp?id=726&ct=interviews>

³⁶¹ "IFC Expands Energy Efficiency Program in Russia in Partnership with MDM Bank" Date of access: 6.12.2008 <http://www.ifc.org/ifcext/media.nsf/content/SelectedPressRelease?OpenDocument&UNID=64EDCE2662AC3D7F8525748D004B0C27>

This is in accordance with IEA recommendation 1.1 on increased investment in energy efficiency.

On 17 October 2008, a draft law on energy saving and energy efficiency was submitted to the Russian Parliament.³⁶² The draft proposes government subsidies for development companies and municipalities that implement energy-efficient technologies.³⁶³ If implemented, the subsidies will provide incentives for the private sector to invest in energy efficiency.³⁶⁴ The law includes fines for companies that build energy-inefficient buildings.³⁶⁵ This is in compliance with recommendation 2.1.

On 3 December 2008, the Russian Corporation of Nanotechnologies, the ONEXIM Group, and the Ural Optical and Mechanical Plant joined forces to establish a company that will manufacture new generation lighting products. The new company intends to produce final product light emitting diode (LED) chips, LED lamps and lighting systems. LED lamps are energy-efficient substitutes for traditional incandescent and fluorescent light bulbs.³⁶⁶ While the Russian government has not moved to phase out incandescent light bulbs, it has invested in good quality higher efficiency alternative lamps. Thus, Russia has partially complied with IEA recommendation 4.1 on best-practice lighting.

Thus, Russia has been awarded a score of +1 for pursuing three of the IEA policy recommendations on energy efficiency.

Analyst: Yulia Ovchinnikova

United Kingdom: +1

The United Kingdom has fully complied with the IEA recommendations assessed in this report.

On 11 September 2008, The Department for Environment, Food and Rural Affairs (DEFRA) announced that the government will draft legislation that will require energy companies to invest an estimated GBP910 in making homes more energy-efficient.³⁶⁷

³⁶² Moscow will develop energy-efficient buildings, Renewable Energy and Energy Efficiency Partnership (Moscow) 24 October 2008. Date of access: 6 December 2008.

<http://www.reeep.org/index.php?assetType=news&assetId=172>.

³⁶³ Moscow will develop energy-efficient buildings, Renewable Energy and Energy Efficiency Partnership (Moscow) 24 October 2008. Date of access: 6 December 2008.

<http://www.reeep.org/index.php?assetType=news&assetId=172>.

³⁶⁴ Moscow will develop energy-efficient buildings, Renewable Energy and Energy Efficiency Partnership (Moscow) 24 October 2008. Date of access: 6 December 2008.

<http://www.reeep.org/index.php?assetType=news&assetId=172>.

³⁶⁵ Moscow will develop energy-efficient buildings, Renewable Energy and Energy Efficiency Partnership (Moscow) 24 October 2008. Date of access: 6 December 2008.

<http://www.reeep.org/index.php?assetType=news&assetId=172>.

³⁶⁶ RUSNANO, ONEXIM and the Ural Optical and Mechanical Plant establish the joint company to manufacture the new generation lighting products, Russian Corporation of Nanotechnologies (Moscow) 3 December 2008. Date of access: 9 December 2008.

<http://en.rusnano.com/Publication.aspx?PublicationId=1072>.

³⁶⁷ 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>.

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 savings measures.³⁶⁸ The program constitutes compliance with IEA recommendation 7.0 on energy utilities and energy efficiency.

On 26 November 2008, the UK passed Energy Act 2008 to update the legislative framework on renewable energy and energy savings. The Act calls for a Smart Metering system by which the Secretary of State can require electricity and gas utilities to install, or facilitate the installation of, smart meters – devices that measure energy consumption – for customers.³⁶⁹ The system will allow utilities to better monitor end-user energy consumption and provide strategies for energy efficiency. The system is also in line with IEA recommendation 7.0.

On 24 November 2008, Chancellor of the Exchequer Alistair Darling presented the Pre-Budget Report 2008 before the House of Commons. The report reveals plans for GBP3 billion in spending, some of which will be invested “in energy efficiency measures.”³⁷⁰ The precise nature of these measures is still unknown.

On 8 October 2008, Secretary of State for Energy and Climate Change Ed Miliband met with other EU energy ministers and approved the phase-out of incandescent light bulbs by 2010.³⁷¹ Earlier, on 28 September, the British government and major retailers agreed to ban the sale of incandescent light bulbs by 2011.³⁷² Under the EU directive, the UK will have to implement the phase-out a year earlier than it had intended. The UK’s existing initiative, still to be revised, constitutes compliance with IEA implementation 4.1.

Thus, UK has been awarded a score of +1 for implementing several key IEA policy recommendations on energy efficiency.

Analyst: Marianne Madeline Lau

United States: +1

The United States has fully complied with the IEA recommendations assessed in this report.

³⁶⁸ 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>.

³⁶⁹ Energy Act 2008, Department for Business Enterprise and Regulatory Reform (London) 26 November 2008. Date of Access: 6 December 2008. <http://www.berr.gov.uk/whatwedo/energy/act/page40931.html>.

³⁷⁰ Pre-Budget Report statement to the House of Commons delivered by the Rt Hon Alistair Darling MP, HM Treasury (London) 24 November 2008. Date of Access: 6 December 2008. http://www.hm-treasury.gov.uk/prebud_pbr08_speech.htm.

³⁷¹ Gray, Louise, Traditional Light Bulbs Banned by EU, Telegraph (London) 10 October 2008. Date of Access: 6 December 2008. <http://www.telegraph.co.uk/news/worldnews/europe/3174452/Traditional-lightbulbs-banned-by-EU.html>.

³⁷² Russell, Ben, Benn announces phasing out of all high-energy bulbs, The Independent (London) 28 September 2008. Date of Access: 7 December 2008. <http://www.independent.co.uk/news/uk/politics/benn-announces-phasing-out-of-all-highenergy-bulbs-403755.html>.

On 22 August 2008, the US Department of Energy (DOE) allocated USD26 million to the cost-shared development of energy-efficient industrial processes in energy-intensive industries, such as the steel industry.³⁷³ The development of such processes supports the Energy Policy Act of 2005, which aims to reduce the energy intensity of manufacturing industries by 25 per cent by 2015.³⁷⁴ DOE Principal Deputy Assistant Secretary John Mizroch said that the move towards energy-efficient industrial processes demonstrates “a shared public-private commitment to advance development of energy-efficient industrial technologies.”³⁷⁵ Thus, the US government has acted to facilitate the private sector’s involvement in energy efficiency investment, complying with recommendation 1.1.

On 26 September 2008, the DOE awarded USD15 million in technical assistance for the Zero-Net Energy Commercial Building Initiative (CBI).³⁷⁶ Twenty-one major retailers, financial institutions, and real estate firms work under the CBI to employ energy-efficient technologies for new construction and retrofits in commercial buildings.³⁷⁷ The CBI was launched by the DOE on 5 August 2008 along with the National Laboratory Collaborative on Building Technologies Collaborative (NLCBT).³⁷⁸ The NLCBT aims to support the DOE’s effort to develop energy-saving commercial buildings. On 26 September 2008, the DOE also requested proposals from its National Labs and private-sector companies that aim to achieve energy savings of 50 per cent above the standard set by the American Society of Heating, Refrigerating and Air-Conditioning Engineers.³⁷⁹ Thus, the US government has taken measures to strengthen energy efficiency standards of new buildings.

On 22 April 2008, under the Energy Star Program, the DOE and the US Department of Defence launched Operation Change Out. The campaign aimed to replace incandescent light bulbs with qualified compact fluorescent light bulbs (CFLs) in military bases. On 1 October 2008, a progress report on the campaign announced that over 100 million kilowatt hours have been saved.³⁸⁰ Due to its success, the campaign has been extended to

³⁷³ DOE Announces \$26 Million to Develop Energy-efficient Processes for US Industry, US Department of Energy (Washington D.C.) 22 August 2008. Date of Access: 11 December 2008.

<http://www.energy.gov/news/6486.htm>.

³⁷⁴ DOE Announces \$26 Million to Develop Energy-efficient Processes for US Industry, US Department of Energy (Washington D.C.) 22 August 2008. Date of Access: 11 December 2008.

<http://www.energy.gov/news/6486.htm>.

³⁷⁵ DOE Announces \$26 Million to Develop Energy-efficient Processes for US Industry, US Department of Energy (Washington D.C.) 22 August 2008. Date of Access: 11 December 2008.

<http://www.energy.gov/news/6486.htm>.

³⁷⁶ 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 (Washington D.C.) Date of Access: 9 December 2008. <http://www.energy.gov/news/6577.htm>.

³⁷⁷ 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 (Washington D.C.) Date of Access: 9 December 2008. <http://www.energy.gov/news/6577.htm>.

³⁷⁸ DOE to Pursue Zero-Net Energy Commercial Buildings, US Department of Energy (Washington D.C.) 26 September 2008. Date of Access: 11 December 2008. <http://www.energy.gov/6454.htm>.

³⁷⁹ 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 (Washington D.C.) 5 August 2008. Date of Access: 9 December 2008. <http://www.energy.gov/news/6577.htm>.

³⁸⁰ Energy Star Operation Change Out: Eighty-Four Military Bases Shift to Compact Fluorescents, Cut Nearly \$11 Million in Energy Costs, Energy Star (Washington D.C.) 1 October 2008. Date of Access:

22 April 2009.³⁸¹ The US government's phase-out of incandescent bulbs is in accordance with IEA recommendation 4.1 on best-practice lighting.

In November 2008, over 60 energy, environmental and state policy leaders updated the National Action Plan for Energy Efficiency. Initiated in 2005, the plan seeks to create a private-public commitment to energy efficiency through the collaborative actions of gas and electric utilities, and utility regulators.³⁸² The update outlines strategies that could help reduce the growth in energy demand by more than 50 per cent nationwide.³⁸³ The update continues to encourage states and utilities to develop energy-saving tools. To date, the National Action Plan for Energy Efficiency has allowed energy utilities to provide cost-effective energy saving that has saved energy customers approximately USD6 billion per year.³⁸⁴ The update has increased the energy efficiency obligations on states and utilities. Such government action is consistent with IEA recommendation 7.0.

Thus, the US has been awarded with a score of +1. The US has successfully implemented several of the IEA's policy recommendations on energy efficiency.

Analyst: Marianne Madeline Lau

European Union: +1

The European Union has fully complied with the IEA recommendations assessed in this report.

On 13 November 2008, the EU launched a recast of its Energy Performance of Buildings Directive. The scope of the original 2002/91/EC Buildings Directive was enlarged in order to help citizens improve the energy efficiency of their houses and the construction industry to construct energy-efficient buildings.³⁸⁵ The directive stipulates that all existing buildings will have to meet new energy efficiency standards when they are renovated. In addition, EU member states agreed to develop plans to increase the number

December 6, 2008.

http://www.energystar.gov/ia/products/lighting/cfls/oco/pdfs/OCO_Oct1_Announcement_PressRelease.pdf

³⁸¹ Energy Star Operation Change Out: Eighty-Four Military Bases Shift to Compact Fluorescents, Cut Nearly \$11 Million in Energy Costs, Energy Star (Washington D.C.) 1 October 2008. Date of Access: December 6, 2008.

http://www.energystar.gov/ia/products/lighting/cfls/oco/pdfs/OCO_Oct1_Announcement_PressRelease.pdf

³⁸² National Action Plan for Energy Efficiency, US Environmental Protection Agency (Washington D.C.) 18 November 2008. Date of Access: 9 December 2008. <http://www.epa.gov/cleanenergy/energy-programs/napee/index.html>.

³⁸³ Changing the Climate: Looking Towards a More Cost Effective, Energy-efficient Future, US Department of Energy (Washington D.C.) 18 November 2008. Date of Access: December 8 2008. <http://www.energy.gov/news/6748.htm>.

³⁸⁴ Changing the Climate: Looking Towards a More Cost Effective, Energy-efficient Future, US Department of Energy (Washington D.C.) 18 November 2008. Date of Access: December 8 2008. <http://www.energy.gov/news/6748.htm>.

³⁸⁵ Press Release: Energy-efficient buildings save money: Recast of the Energy Performance of Buildings Directive, European Union (Brussels) 13 November 2008. Date of Access: 9 December 2008. <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/693&format=HTML&aged=0&language=EN&guiLanguage=en>.

of low or zero energy and carbon buildings.³⁸⁶ New awareness and financing schemes will be introduced to promote this Directive in 2009. The directive is in accordance with IEA recommendation 2.1 on new building codes.

On 8 December 2008, at the Ecodesign Regulatory Committee meeting, the EU member states decided to phase out the use of incandescent light bulbs by 2012.³⁸⁷ Under the EU directive, light bulbs that are 100 W or greater will be phased out by 2010.³⁸⁸ This action is in accordance with IEA recommendation 4.1.

On 1 December 2008, The EU Council of Ministers and the European Parliament reached an agreement to limit CO₂ emissions to 120 g/km of all new cars by 2015.³⁸⁹ The agreement also set fines against automakers that breach the limit. Between 2012 and 2018, automakers will be fined EUR5, EUR15, EUR25, and EUR95 for the first four grams over the limit.³⁹⁰ From 2019, manufacturers will have to pay a fine of EUR95 for each extra gram of CO₂.³⁹¹ The agreement forces car manufacturers to produce more fuel-efficient vehicles and is thus in accordance with IEA recommendation 5.2.

The European Union has successfully implemented several key IEA recommendations on energy efficiency. Thus, it has been awarded a score of +1.

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³⁸⁶ Press Release: Energy-efficient buildings save money: Recast of the Energy Performance of Buildings Directive, European Union (Brussels) 13 November 2008. Date of Access: 9 December 2008. <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/693&format=HTML&aged=0&language=EN&guiLanguage=en>.

³⁸⁷ Press Release: Member States approve the phasing-out of incandescent bulbs by 2012, European Union (Brussels) 8 December 2008. Date of Access: 8 December 2008. <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/1909&format=HTML&aged=0&language=EN&guiLanguage=en>.

³⁸⁸ EU to shut off old-fashioned light bulbs, The German Federal Foreign Office (Brussels) 9 December 2008. Date of Access: 18 December 2008. <http://www.auswaertiges-amt.de/diplo/en/WillkommeninD/D-Informationen/Nachrichten/081209-3.html>.

³⁸⁹ EU clinches deal on CO₂ emissions from cars, EurActiv Network (Brussels) 2 December 2008. Date of Access: 9 December 2008. <http://www.euractiv.com/en/transport/eu-clinches-deal-co2-emissions-cars/article-177675>.

³⁹⁰ EU clinches deal on CO₂ emissions from cars, EurActiv Network (Brussels) 2 December 2008. Date of Access: 9 December 2008. <http://www.euractiv.com/en/transport/eu-clinches-deal-co2-emissions-cars/article-177675>.

³⁹¹ EU clinches deal on CO₂ emissions from cars, EurActiv Network (Brussels) 2 December 2008. Date of Access: 9 December 2008. <http://www.euractiv.com/en/transport/eu-clinches-deal-co2-emissions-cars/article-177675>.