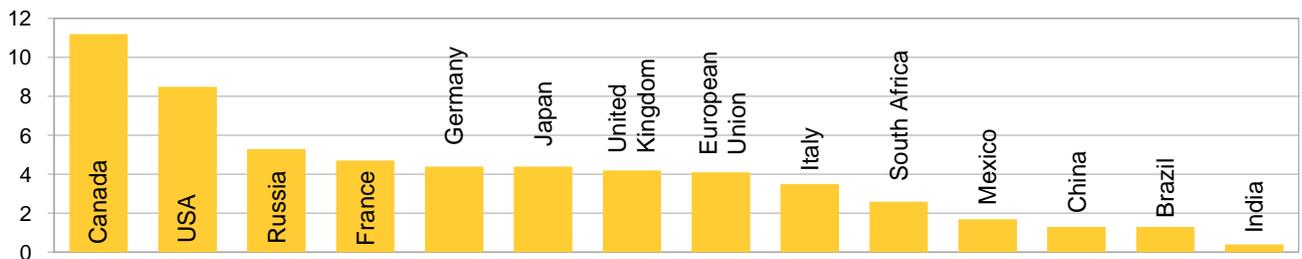


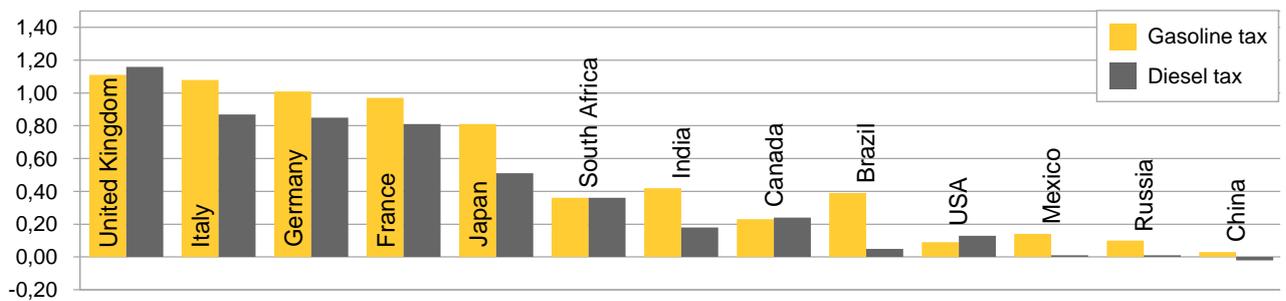
This Fact Sheet shows information and statistics on energy efficiency for 14 selected countries. The data behind these figures are available after the graphics.

Comparative graphics:

Total primary energy consumption per capita, 2005 (in toe)¹



Gasoline and diesel taxes, 2005 (in US\$ per litre)



Automotive fuel-efficiency standards (as of January 2008)

Brazil	No significant initiatives identified in the international literature.
Canada	Canada's voluntary fuel efficiency programme was introduced in 1976, and its standards have historically matched the United States' CAFE Program. The CAFE Program has held fuel economy standards for cars at 27.5 miles per gallon since 1985 (equivalent to 199 gCO ₂ /km). The standard for light trucks has been raised to 22.2 miles per gallon in 2007 (equivalent to 246 gCO ₂ /km). Each manufacturer is required to meet the standard as an average fuel efficiency of its fleet.
China	In 2005, China introduced mandatory fuel efficiency standards that divide automobiles into 16 different weight classes, from <750kg to >2,500kg. In contrast to most other countries, China does not prescribe a fleet standard, instead specifying a maximum allowable fuel consumption for each new automobile in a weight class.
European Union	In 1998, the European Automobile Manufacturers Association (ACEA) entered into a voluntary commitment with the European Commission, setting efficiency goals of 140 gCO ₂ /km by 2008 and 120 gCO ₂ /km by 2012 for new vehicles of the overall light duty fleet. In contrast to the U.S. CAFE standards, the EU does not require single companies to achieve a fleet average standard, but the entire industry must meet one target.
France	See European Union
Germany	See European Union
India	No significant initiatives identified in the international literature.
Italy	See European Union
Japan	Japan's mandatory fuel economy standards are differentiated according to 16 weight classes where each new vehicle has to comply with the standard of its weight class. The revised standards of 2006 aim to achieve an overall fleet average efficiency of 16.8 l/km by 2015 (equivalent to 125 gCO ₂ /km).
Mexico	No significant initiatives identified in the international literature.
Russia	No significant initiatives identified in the international literature.
South Africa	No significant initiatives identified in the international literature.
United Kingdom	See European Union
USA	The 2007 Energy Independence and Security Act requires the Department of Transportation to set new standards so that the average fleet fuel efficiency of cars and light trucks will reach 35 mpg by 2020 (equivalent to 156 gCO ₂ /km). Each manufacturer is required to meet the standard as an average fuel efficiency of its fleet. The new standard replaces the 27.5 mpg standard in effect since 1985.

Energy efficiency standards (as of January 2008)

Brazil	The Brazilian government has adopted several laws on energy efficiency and three national programmes aim at reducing the demand for energy. The most important acts are Law no. 9991 and Law no. 10295 (Energy Efficiency Law). According to these laws, utilities are required to invest 0.25% of their revenues in energy efficiency measures. Furthermore, equipment and buildings have to fulfil certain energy efficiency standards. Three important efficiency programmes in Brazil are PROCEL (electric energy), CONPET (gasoline, natural gas, etc.), and PBE (mandatory efficiency labelling).
Canada	Since 1995, the majority of household appliances are covered by minimum efficiency standards through the Energy Efficiency Act. In 1999, Natural Resources Canada (NRCan) added a mandatory labelling scheme, the EnerGuide Program. The schemes are revised regularly with the long-term goal of harmonising the Canadian energy efficiency labels with the U.S. Energy Star Program.
China	The Chinese government implemented an assortment of energy efficiency programmes in 2006. The Strategic Plan for Industrial Efficiency is directed towards optimising energy efficiency in metallurgical, petro-chemical and chemical industries through planning and technology development. The government also initiated a plan to improve energy efficiency within the government itself, aiming to conserve 10% per unit construction area and per capita compared to 2002 levels. China also set into motion a plan for conserving energy in buildings and promoting high-energy lighting systems. In its 2007 National Climate Change Programme, the Chinese government published its aim to reduce energy consumption per unit of GDP by 20% by 2010.
European Union	In its Action Plan for Energy Efficiency (2007–12), the EU has laid out a comprehensive set of measures aimed at achieving a 20% reduction in energy consumption by 2020. Various directives and regulations following from the Action Plan have established minimum standards and labelling requirements for different sectors. The most important pieces of legislation include the Eco-Design Directive enacting minimum standards to improve the energy yield of 14 groups of products; the mandatory labelling rules for household appliances which aim at harmonisation of European energy efficiency labels; and the minimum performance standards for new and renovated buildings put in place by the Energy Performance of Buildings Directive.
France	In 2006, French Agency for Environment and Energy Management (ADEME) launched the White Certificate Trading Programme, in which energy suppliers must meet government standards for energy savings achieved through their customers or, in the case of non-compliance, buy energy savings certificates. In 2006, France also implemented the EU Directive on the Energy Performance of Buildings and created two building energy efficiency labels, the "High Energy Performance" (Haute Performance énergétique) and the "Very High Energy Performance" (Très Haute Performance Energétique) labels. In addition, minimum efficiency standards exist for boilers and fluorescent lamp ballasts.
Germany	In line with the 2006 EU Directive on energy services and energy end-use efficiency, Germany's federal government issued a national Energy Efficiency Action Plan in November 2007 with the target to double energy productivity by 2020. Germany has also implemented all the current EU standards directives for residential and commercial appliances in the Ordinance on Maximum Energy Consumption and amended the Energy Consumption Labelling Act, which regulates energy efficiency labelling. Germany's Ordinance on Energy Conservation in Buildings (Energieeinsparverordnung), established in 2001, aims to reduce the energy consumption of heating and cooling in new buildings by 25-30% through a series of measures. Starting in mid-2008, those selling and renting certain types of residential real estate must provide certified information on energy use via the so-called "energy passport" (Energiepass).
India	India's Energy Conservation Act of 2001 requires large energy consumers to adhere to energy consumption norms; it establishes an Energy Conservation Building Code for new building, energy performance standards for appliances as well as the duty to display energy consumption labels. The Act also created the Bureau of Energy Efficiency to implement the provisions of the Act. The Bureau also serves as an advisor for the central government regarding energy consumption standards, and promotes innovative financing in energy efficiency projects.
Italy	In 1991, Italy's National Energy Plan established a framework law regulating efficient energy consumption in all end-use categories. Measures include building standards and rules for the performance of heating systems in buildings. A certification scheme for buildings was added in 2006 in order to transpose the European Energy Performance of Buildings Directive. The Energy Plan also requires companies with an annual energy consumption over a certain amount to employ an energy manager and communities with a population over 50,000 to establish energy plans with an emphasis on renewables and efficiency. A 2004 decree of the Ministry for Economic Development obliges all gas and electricity suppliers with more than 100,000 customers to help their customers save a certain amount of energy. Alternatively, they can buy White Certificates for Energy Efficiency Titles (TEE) which represent energy savings achieved by other suppliers.
Japan	The Law concerning the Rational Use of Energy originally established in 1979 has been revised for the 6th time in 2006. It includes rules for factories' energy management and energy conservation measures for residential buildings and the construction sector, including mandatory efficiency plans for large buildings. The Law also obliges energy-equipment retailers to promote and disseminate energy-saving information through labels. Japan's New National Energy Strategy includes the "TopRunner" programme, under which manufacturers of domestic appliances are urged to produce products with an average energy-efficiency rating on par with the best products offered anywhere in the world. The Ministry of Land, Infrastructure and Transport established energy efficiency standards for housing in 2006, aiming for 40% of houses to have energy saving measures such as double-paned windows by 2015.
Mexico	The generic law, Ley Federal Sobre Metrología y Normalización of 1992, laid the foundation for Mexican energy efficiency programmes, enacting both voluntary and mandatory standards for products marketed in Mexico. The 1992 generic law also established a host of public and private organisations to create and enforce the standards, including a national standards commission and advisory committee, accreditation entities, testing laboratories and verification units. Comisión Nacional para el Ahorro de Energía (Conae) is the agency that introduces and operates the standards. Additionally, Conae implements a mandatory comparative labelling programme for appliances and heating/cooling systems.

Russia	In 2003, the Russian government enacted the Federal Code on Thermal Performance of Buildings and building efficiency codes also exist on the regional level. Russia's energy efficiency initiatives to date have been supported by NGOs like the Center for Energy Efficiency (CENEf) and guided by the U.S.-Russian Commission on Economic and Technological Cooperation, U.S. Department of Energy, USAID and the World Bank. For instance, the CENEf has initiated model projects to increase energy efficiency of district heating schemes and helped regional governments to draft building codes.
South Africa	South Africa's Energy Efficiency Strategy of 2005 enumerates a set of possible energy efficiency measures, including efficiency standards and labels. Future rules are to be laid out in Sectoral Implementation Plans. To date, Eskom, South Africa's national electricity producer, is the most active institution in the area of energy efficiency. The utility offers energy audits for companies and distributes millions of compact fluorescent light bulbs (CFLs) to households as a replacement for incandescent light bulbs.
United Kingdom	The UK's Energy Act 2004 implements a range of EU requirements relating to energy efficiency, such as raising building and product standards, and creating an Energy Efficiency Action Plan for the UK. Minimum energy efficiency standards for new housing are laid out in the Building Regulations, which were revised in 2002, 2005 and 2006. They now include an ambitious minimum efficiency standard for boilers. In addition, the Code for Sustainable Homes encourages housebuilders and developers to go beyond compliance with minimum requirements. In line with EU legislation, Energy Performance Certificates (EPCs) were introduced for the marketed sale of domestic homes in 2005. The Energy Efficiency Commitment (EEC) places an obligation on the suppliers of gas and electricity to achieve a determined quantity of energy savings by promoting improvements in energy efficiency through measures provided to domestic consumers. The Carbon Reduction Commitment (CRC) is a similar instrument for industry and the public sector.
USA	Under the National Appliance Energy Conservation Act (NAECA), the U.S. Department of Energy (DOE) sets minimum efficiency standards for a wide range of consumer products, including appliances, home electronics, heating and cooling systems, lighting and office equipment. The Energy Star Program, established in 1992, provides manufacturers an additional incentive to offer more efficient products. To be Energy Star certified, products must be at least 10% more efficient than the minimum performance standards for similar products. Since 2006, Energy Star labels also exist for buildings. Furthermore, a significant portion of energy efficiency policy is established by state and local governments as well as utilities.

Data table:

	Total primary energy consumption per capita, 2005 (in toe)	Gasoline tax, 2005 (in US\$ per litre)	Diesel tax, 2005 (in US\$ per litre)
Brazil	1.3	0.39	0.05
Canada	11.2	0.23	0.24
China	1.3	0.03	-0.02
European Union	4.1	various	various
France	4.7	0.97	0.81
Germany	4.4	1.01	0.85
India	0.4	0.42	0.18
Italy	3.5	1.08	0.87
Japan	4.4	0.81	0.51
Mexico	1.7	0.14	0.01
Russia	5.3	0.10	0.01
South Africa	2.6	0.36	0.36
United Kingdom	4.2	1.11	1.16
USA	8.5	0.09	0.13

¹ toe: metric tons of oil equivalent.

Sources:

Population: UN, Eurostat

Energy consumption: EIA

Gasoline and diesel tax: GTZ

Energy efficiency standards: IEA, EC, Tarso (2006), BEE, U.S. EERE

Automotive fuel-efficiency standards: An & Sauer (2004), ICCT, The Library of Congress, EC

For comprehensive source information, please visit: www.climate-policy-map.econsense.de/datasources.html

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