EUROPEAN UNION
DELEGATION OF THE EUROPEAN COMMISSION TO THE USA

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THE EUROPEAN UNION

Energy Security & Transatlantic Cooperation

With present trends, world energy demand will increase over 50 percent by 2030, and global oil consumption is projected to grow by 1.6 percent a year with Chinese and Indian needs playing an increasing role. As the world's largest energy consumers, the European Union and the United States must lead the way and help build an energy economy that is secure, protective of the environment, and conducive to economic growth and prosperity around the globe.

At Home in Europe: A Common EU Energy Policy

In Europe, the global energy situation is influencing how the EU approaches energy policy and energy security, with Member States facing challenges and uncertainties that call for a common European response.

Historically, the nations of Europe have regarded energy policy as a domestic prerogative, but today the EU is engaged in a broad-ranging energy debate aimed at building an integrated approach. Pressure is growing for Europe to speak with a common voice through a competitive internal energy market and a strong external energy policy in order to ensure sustainable development, competitiveness, and security of supply.

Europe & Energy Imports. Europe, like the United States, is heavily dependent on oil and gas from external sources. Fifty percent of European energy is imported, mainly from Russia, the Middle East, Norway, and Algeria. However, new investments in energy infrastructure by the EU and individual Member States are laying the groundwork for diversification of energy sources.

EU Energy Use: 20 Percent Less by 2020. Europe has set an ambitious goal to reduce its overall energy use by 20 percent by the year 2020, even as its total energy needs are projected to increase by one to two percent each year. Major new investments in energy infrastructure by the EU, individual Member States, and the private sector are playing a prominent role in the development of innovative energy technologies that will help realize the goal. Meanwhile, citizens are changing the way they live and work to increase energy efficiency all across European society.

Oil Consumption of Leading World Economies *(millions of barrels per day)*

	2002	2030	Projected Growth
U.S./Canada	19.7	26.3	34%
European Union (25)	13.0	14.9	15%
Japan/Korea	7.1	7.9	11%
China	4.9	12.7	157%
India	2.4	5.3	124%

Europe & America: Largest Energy Consumers, Strategic Partners

Together, the EU and the United States represent about 40 percent of the world's energy consumption and almost 40 percent of CO_2 emissions, although the U.S. uses considerably more energy both in total and on a per capita basis. With energy models that are unsustainable from both an environmental and energy security perspective, the EU and the U.S. are developing a strategic partnership to change current trends.

Transatlantic Cooperation. With energy security at the forefront of political debate on both sides of the Atlantic, European Commission President José Manuel Barroso has called for a Strategic Energy Dialogue between Europe and America. In a February 2006 speech at Georgetown University in Washington, D.C., President Barroso highlighted the potential for increased EU-U.S. energy collaboration across the globe, including development of hydrocarbon resources in the Caspian and Central Asian regions, formulation of global market rules and standards for the energy sector, cooperation to improve energy efficiency, and creation of a permanent network of EU and U.S. energy experts to work on common policies and responses to energy crises.

Energy cooperation was prominent on the agenda of the 2006 G8 Summit in Russia and the 2006 EU-U.S. Summit, where Europe and America recognized the "strategic role of security of supply, competitiveness and sustainability in the energy sector" and agreed to reinforce strategic energy cooperation.

Common Path Forward

Together, the European Union and the United States can help shape the post-petroleum world of the 21st century. On the basis of shared values and common interests, Europe and America must lead the way and help build an energy economy that is secure, protective of the environment, and conducive to economic growth and prosperity around the globe.

continued

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"Where the transatlantic marketplace leads, the global economy will follow…. Together, the EU and the United States must send a clear signal on the need for a paradigm shift on energy."

—José Manuel Barroso, President of the European Commission

Energy Alternatives

By 2010, Europe aims to satisfy 12 percent of its overall energy needs, and over one-fifth of the demand for electricity, through renewable energy sources. Among major ongoing efforts:

Wind Power. Wind energy is a notable EU success story: the EU boasts four-fifths of global production capacity of wind power while European companies supply 90 percent of the world market for wind turbines. The installed capacity of wind turbines in the EU has increased by over 150 percent since 2000 and represents more than half the Union's new generating capacity. Substantial technological improvements in recent years have increased turbine output 100-fold and substantially reduced noise and weight levels. Costs have plummeted by 600 percent between 1980 and 2004, and 200,000 jobs have been created in the sector.

Biofuels. As in the U.S., ethanol is used as a gasoline additive, while biodiesel is used in fleets such as city bus systems. The EU is promoting the rapid development and production of synthetic biofuels during the coming decade. By 2010, the EU aims to raise the share of biofuels in the transportation fuel market to 5.75 percent.

Fusion Energy: ITER. The EU is host to the ITER project, the seven-nation collaborative fusion energy research project that aims to demonstrate the potential of nuclear fusion as a large-scale, safe, and abundant energy source with negligible impact on the environment.

Hydrogen. The EU established the European Hydrogen & Fuel Cell Technology Platform in 2004 to accelerate technological development in the sector. Today, hydrogen fuel cells power public bus systems that carry more than three million European citizens without noise or harmful emissions in the world's most successful demonstration project of its kind.

Other Initiatives. The EU is a leader in promoting energy efficiency in buildings, energy services, eco-design, and eco-labeling. Many more measures designed to reduce energy waste include increasing fuel efficiency in automobiles and transport systems, reducing air traffic congestion through better airport management, increasing co-generation, and encouraging "green" architectural design and building construction.

Oil Consumption Per Capita
(barrels of oil per capita/year)

	2002	2030 (proj.)
U.S./Canada	22.8	23.8
Japan/Korea	15.0	16.9
EU (25)	10.4	11.6

EU Goals: Renewables & Energy Savings

- **Double proportion of renewable energy in national gross energy consumption from 6 percent to 12 percent by 2010.**
- **Increase share of green electricity in total electricity consumption from 14 percent to 21 percent by 2010.**
- **Raise share of biofuels in transportation fuel market to 5.75 percent by 2010.**
- **Reduce EU energy consumption by 20 percent by 2020.**

Energy Sources: Nuclear & Coal

Nuclear. With one-third of EU electricity generated in nuclear power plants, the sector will remain an important part of Europe's energy mix in years to come as the EU seeks to reduce fossil fuel dependency.

Since the 1950s, the European Commission has acted as a supranational regulatory authority in this field, overseeing radiation protection for industry workers and civilian populations, ensuring a supply of nuclear fissile materials, and developing and enforcing nuclear safeguards. The EU has an outstanding record of nuclear energy safety.

Coal. Coal has been a reliable energy source for Europe at stable prices for many decades, and the continent has abundant coal reserves. Some EU countries still derive as much as 60 percent of their electricity from coal today. As recently as 1990, coal provided about a quarter of Europe's overall energy needs, though that share is projected to fall to approximately 15 percent by 2030.

As in the U.S., clean coal technologies and the development of carbon capture and storage are critical to the future of this solid fuel. Future research and investment will help reduce CO_2 emissions, develop coal-to-liquid fuels and chemical products, and complement the use of renewable biomass.

Europe & Energy: Public Opinion

- **A significant percentage of Europeans (40%) would be willing to pay more for energy from renewable sources.**
- **Eight in 10 Europeans take energy consumption into consideration when purchasing energy-consuming appliances and devices.**

Source: Eurobarometer Poll, January 2006

For more information: www.eurunion.org/euinsight

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