The World Bank Group Energy Sector Strategy

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Summary

One in five people worldwide lack access to electricity. This is among the many challenges that financial institutions face when providing assistance to lower-income countries in order to promote economic and social development. Filling the need for access to modern energy sources has the potential to substantially increase world-wide economic growth, creating markets in the developing world for products from the developed world, and vice versa. Filling this need may also result in environmental problems that could threaten development, including an increase in pollution that damages fisheries, reduces farm fertility, poses health risks, and contributes to climate change. In response to these risks, the World Bank Group (WBG) has reported its intentions to revise its strategy for energy and infrastructure lending to better address energy poverty alleviation and environmentally sustainable development. After releasing an *Energy Strategy Approach Paper* in October 2009, and consulting with government and civil society stakeholders from January 2010 to July 2010, a strategy document, *Energizing Sustainable Development: Energy Sector Strategy of the World Bank Group* (ESS), was presented to the WBG Committee on Development Effectiveness (CODE) on April 11, 2011, for consent and subsequent delivery to the WBG Board of Executive Directors for a vote during the summer of 2011. A decision is pending.

The impetus for the World Bank Group's revision of its energy strategy rests on many factors. Over the past several decades, sustainable energy and environmental issues have gained an increasing level of attention in international humanitarian and development assistance, as countries have tried to integrate poverty reduction and economic growth initiatives with a shared concern for the global environment. Further, lack of access to modern energy resources, recurrent supply disruptions, and increased exposure to the risks of global climate change have hindered social and economic development in many lower-income countries. The ESS comprises an overarching initiative to support energy poverty alleviation and environmentally sustainable development with provisions that include deemphasizing coal-fired power generation, developing large-scale hydropower where appropriate, establishing greenhouse gas emissions analysis programs, increasing lending for clean energy projects, promoting energy efficiency initiatives, expanding access to modern energy services, improving household fuel and distributed energy programs, encouraging local community engagement and empowerment, and supporting innovative energy policy.

While some observers of the WBG have applauded provisions in the revised strategy, many claim that the history of the WBG's energy and infrastructure lending undermines its credibility as an institution committed to combating the impacts of environmental degradation and climate change. The United States—through its role as financial contributor to the WBG and as member on the WBG governing boards—has influence on WBG policy. This influence manifests itself through Board votes, general advocacy, reporting requirements, and financial leverage. While the U.S. Administration oversees the day-to-day participation in WBG operations, the U.S. Congress—through its role in WBG appointments, appropriations, and legislative guidance—retains significant input. U.S. guidance to the WBG has focused on the institution's lending practices as a means to induce greater environmental sustainability in multilateral development assistance. The ESS thus becomes another potential vehicle for the U.S. Congress and the U.S. Administration to further address concerns regarding energy and infrastructure lending in lower-income countries.

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Introduction

Over the past several decades, sustainable energy and environmental issues[1] have gained an increasing level of attention in international humanitarian and development assistance, as countries have tried to integrate poverty reduction and economic growth initiatives with a shared concern for the global environment. This integration is reflected in several international conventions including the 1972 United Nations Conference on the Human Environment (the Stockholm Convention), the 1992 United Nations Conference on Environment and Development (the Rio Convention), the 1992 United Nations Framework Convention on Climate Change (UNFCCC),[2] and the 2002 World Summit on Sustainable Development (the Johannesburg Summit), among others.[3] Donor countries, including the United States, that provide financial assistance to lower-income countries to aid in their economic development, have increasingly targeted projects that address the full range of economic growth indicators. These indicators include financial viability, social inclusivity, and environmental sustainability at both the local and the global level. The World Bank Group (WBG),[4] as the world's largest multilateral lending institution for development assistance, sits at the nexus of these efforts.

As an international organization, the WBG is generally exempt from U.S. law. However, the United States—through its role as a financial contributor to the WBG and as a member on the various WBG governing boards—has influence on WBG policy. This influence manifests itself through voting power on the Board,[5] general advocacy, reporting requirements, and financial

[1] "Sustainability," in reference to energy and environmental activities, is often defined as provisions that meet the needs of the present without compromising the ability of future generations to meet their needs. Sustainable energy sources are most often identified with renewable energies, such as hydroelectric, solar, wind, geothermal, biomass, and tidal, as well as technologies that improve energy efficiency.

[2] United Nations Framework Convention on Climate Change, Treaty Number: 102-38, October 7, 1992, the resolution of advice and consent to ratification agreed to in the Senate by Division Vote.

[3] The United States participated in all these conventions, and others like them. For texts and declarations of the conventions, see UNCHE at http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=1503 (accessed June 30, 2011); UNCED at http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm (accessed June 30, 2011); UNFCCC at http://unfccc.int/resource/docs/convkp/conveng.pdf (accessed June 30, 2011); and UN at http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POI_PD.htm (accessed June 30, 2011).

[4] The World Bank Group is an umbrella term for a set of international financial institutions that provide assistance, typically in the form of loans and grants, to lower-income countries in order to promote economic and social development. The WBG is composed of five institutions: the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), and the International Centre for Settlement of Investment Disputes (ICSID), each with different foci and mandates. The WBG provides non-concessional financial assistance to middle-income countries and some creditworthy low-income countries on market-based terms to help fund large infrastructure and other development projects. It also provides concessional assistance, including grants and loans at below-market interest rates and with extended grace periods, to low-income countries for similar purposes. The United States is a member of the WBG, contributes to its funding, and provides guidance through its seats on the WBG Board of Governors and Board of Executive Directors. For overview information on the World Bank Group, see CRS Report R41170, *Multilateral Development Banks: Overview and Issues for Congress*, by Rebecca M. Nelson. For more detailed information, see the World Bank Group website at http://www.worldbank.org/ (accessed June 30, 2011). Watchdog and analysis organizations include the Bretton Woods Project at http://www.brettonwoodsproject.org/ (accessed June 30, 2011), and the Bank Information Center at http://www.bicusa.org/ (accessed June 30, 2011).

[5] U.S. voting share at the IBRD is based on the current U.S. subscription rate to the IBRD. As of June 30, 2011, subscription and voting share was 16.05%. See World Bank website (accessed July 12, 2011) at http://siteresources.worldbank.org/BODINT/Resources/278027-1215524804501/IBRDCountryVotingTable.pdf.

leverage. Through these efforts, various U.S. Administrations have focused on the institution's lending practices as a means to induce greater environmental sustainability in multilateral development assistance. Similarly, the U.S. Congress—through its role in WBG appointments, appropriations, and legislative guidance—has significant input on these issues.[6]

Congressional debate over the WBG's environmental practices is long-running. As early as 1983, a campaign to call attention to environmental problems caused by WBG projects was undertaken by several U.S. environmental groups, including the Sierra Club, Environmental Defense Fund, National Wildlife Federation, Natural Resources Defense Council, and others. The U.S. Congress subsequently held hearings on the issues documented by these groups, and began a process that saw annual investigations by a wide range of committees, including those on banking, foreign affairs and foreign relations, appropriations, environment, and others. Witnesses included environmental groups from the United States and affected countries and the U.S. officials charged with directing U.S. participation in the WBG institutions. When asked by Congress to look into the problems identified by environmental groups, U.S. Treasury officials also became concerned about possible negative environmental impacts of WBG projects—a subject that had received little or no official attention at that time.

Beginning in the mid-1980s and continuing to the present, Congress has passed a succession of laws that aim to influence environmental practices at the WBG. Legislative guidance to help direct the U.S. officials in encouraging and promoting sustainability goals at WBG institutions has been included in many authorizing legislations and annual foreign operations appropriations bills. The primary legislative vehicle for U.S. interaction with the WBG has been the International Financial Institutions Act of 1977, as amended (P.L. 95-118), as well as various annual appropriations acts, provisions of which are found in the U.S. Code, Title 22, Chapter 7. The U.S. Code has several sections related to energy and environmental issues at the WBG, including guidance for the sustainable use of natural resources and the protection of the environment, public health, and the status of indigenous peoples in developing countries; requirements for environmental impact assessments and the identification of proposals likely to have adverse impacts; mandates for the creation of information exchange systems among countries and civil society organizations related to the environment; promotions for loans supporting environmentally beneficial policies, projects, and project components; and directives to adopt and implement greenhouse gas accounting in analyzing the benefits and costs of individual projects and ensure the expansion of activities supporting climate change mitigation.[7]

[6] For a detailed explanation of the roles of the U.S. Executive Branch and Congress in the development and implementation of policy at the WBG, please see CRS Report R41537, *Multilateral Development Banks: How the United States Makes and Implements Policy*, by Rebecca M. Nelson and Martin A. Weiss.

[7] For examples of mandates regarding the environment, see "A Selection of Legislative Mandates" box.

A Selection of Legislative Mandates: Energy and Environmental Issues Applying to U.S. Participation in the International Financial Institutions

Environmental Reform Measures

Foreign Assistance and Related Programs Appropriations Act, 1987 (§101(f) in Continuing Appropriations, 1987) (P.L. 99-591, Title V, §539, October 30, 1986, 100 Stat. 3341-214, 3341-232) (22 U.S.C. §262l). The 1987 Appropriations Act directs the Secretary of the Treasury to instruct U.S. Executive Directors of the multilateral development banks to (1) increase environmental staffing at the banks; (2) involve environment and public health ministers in the preparation of projects; (3) develop environmental management plans in developing economies; (4) increase the proportion of lending programs supporting environmentally beneficial projects; (5) provide training in environment and natural planning and program development; and (6) improve overall environmental performance at the banks. The act instructs relevant U.S. agencies to prepare reports analyzing the effects of proposed projects in advance of approval and to compile a categorized list of projects likely to adversely affect the environment, natural resources, or indigenous peoples. Requires U.S. Executive Directors to seek changes in projects if such report identifies adverse effects of such projects. Committees of jurisdiction: House, Senate Appropriations.

Debt-for-Nature Exchanges

International Development and Finance Act, 1989 (P.L. 101-240, Title V, §512, December 19, 1989, 103 Stat. 2508) (22 U.S.C. §262p-4i). The International Development and Finance Act of 1989 amends the International Financial Institutions Act to direct the Secretary of the Treasury to support sustainable development and conservation projects when negotiating or facilitating exchanges or reductions of the commercial and/or official public debt of foreign countries. The act requires the Secretary to instruct U.S. Executive Directors of the multilateral development banks to (1) encourage assistance to countries in reducing and restructuring debt through environmental loans which enable them to buy back debt at discount rates, at auctions in the secondary market, or through creditor negotiations; and (2) facilitate countries' collaboration with local and international nongovernmental or private organizations in implementing debt-for-nature exchanges. Committees of jurisdiction: House Banking, Finance, and Urban Affairs; Senate Foreign Relations.

Environmental Impact Assessments (The Pelosi Amendment)

International Development and Finance Act, 1989 (P.L. 101-240, Title V, §521, December 19, 1989, 103 Stat. 2511, renumbered §1307, P.L. 101-240, Title V, §541(f)(4), December 19, 1989, 103 Stat. 2519) (22 U.S.C. §262m7). The International Development and Finance Act of 1989 amends the International Financial Institutions Act to require U.S. Executive Directors of the multilateral development banks to abstain from voting, or to vote no, on any project likely to have significant environmental impact if it has not been properly assessed by either the borrower or the bank, or if the assessments have not been made public at least 120 days before the vote. Committees of jurisdiction: House Banking, Finance, and Urban Affairs; Senate Foreign Relations.

Greenhouse Gas Accounting and Low Carbon Technologies

Supplemental Appropriations Act, 2009 (P.L. 111-32, Title XI, §1111, June 24, 2009, 123 Stat. 1903) (22 U.S.C. 262m-8). The Supplemental Appropriations Act of 2009 amends the International Financial Institutions Act to direct the Secretary of the Treasury to instruct the U.S. Executive of each bank to (1) promote greenhouse gas accounting in analyzing project benefits and costs; and (2) expand climate change mitigation activities. Committees of jurisdiction: House, Senate Appropriations.

Clean Technology

Consolidated Appropriations Act, 2010 (P.L. 111-117, §7081(g), December 16, 2009, 123 Stat. 524). The Consolidated Appropriations Act of 2010 authorizes and appropriates funds for new environment and energy programs, including the Clean Technology Fund, a trust fund housed at the World Bank. The act defines "clean energy technology" as "technology that, as compared with technologies being deployed at that time for widespread commercial use in the country involved—(1) achieves substantial reductions in greenhouse gas emissions; (2) does not result in significant incremental adverse effects on public health or the environment; and (3) does one or more of the following: (I) generates electricity or useful thermal energy from a renewable resource; (II) substantially increases the energy efficiency of buildings, industrial, or agricultural processes, or of electricity transmission, distribution, or end-use consumption; or (III) substantially increases the energy efficiency of the transportation system or increases utilization of transportation fuels that have lifecycle greenhouse gas emissions that are substantially lower than those attributable to fossil fuel-based alternatives." Committees of jurisdiction: House, Senate Appropriations.

Through the years, the WBG has incorporated guidance provided by the U.S. Congress via the U.S. Executive Directors in various lending reforms and operational policies. In 2009, U.S. environmental guidance—as well as other internal and external pressures—led to the WBG reporting its intentions to revise its decade-old strategy for energy and infrastructure lending.[8] After releasing an *Energy Strategy Approach Paper*[9] in October 2009, and consulting with government and civil society stakeholders from January 2010 to July 2010, a strategy document, *Energizing Sustainable Development: Energy Sector Strategy of the World Bank Group* (ESS),[10] dated March 16, 2011, was presented to the WBG Committee on Development Effectiveness (CODE) on April 11, 2011, for consent and subsequent delivery to the WBG Board of Executive Directors for a vote during the summer of 2011. A decision is still pending.

This report summarizes the provisions of the proposed *Energy Sector Strategy of the World Bank Group*. It situates the strategy within current WBG lending practices and in response to various stakeholder critiques. A final section outlines issues for Congress.

Energy Sector Lending at the World Bank

The core mission of the World Bank Group, as stated in its literature and outreach, is poverty alleviation and environmentally sustainable development.[11] Research[12] shows an estimated 1.4 billion people worldwide (i.e., 20% of the world population) are without access to electricity or modern energy resources, and many more face recurrent supply disruptions. Demand for primary energy is estimated to increase by 80% in lower-income countries by 2035, and achieving universal access to electricity is estimated to require an additional annual average investment of $36 billion. Also, approximately 3 billion people continue to rely on traditional solid fuels for heating and cooking, with estimates that nearly 2 million die annually, and many more fall ill, from indoor air pollution caused by this practice. Further, it is speculated that lower-income countries may bear up to 80% of the cost of future damages caused by global climate change.

[8] These pressures include such items as (1) findings presented in WBG internal audits from evaluation offices on project performance and project results, (2) guidance directed from both donor and recipient governments, such as those submitted by the U.S. Congress (mentioned above) and by the U.S. Administration (see Appendix C), and (3) pressures exerted by environmental NGOs and other civil society organizations.

[9] The *Energy Strategy Approach Paper* can be found on the WBG website at http://siteresources.worldbank.org/EXTESC/Resources/Approach-paper.pdf (accessed June 30, 2011).

[10] As of the release of this report, the draft version of the *Energy Sector Strategy of the World Bank Group* has not been made public on the WBG website. A version dated March 16, 2011, was acquired and distributed through media channels by Environment & Energy Publishing on March 30, 2011. This report refers to the March 16 draft. See Lisa Friedman, "World Bank plans to ban future loans to more than 80 nations for coal-fired power plants," *ClimateWire*, March 30, 2011, at http://www.eenews.net/climatewire/2011/03/30/archive/2 (accessed June 30, 2011).

[11] The WBG defines "energy poverty" and "environmentally sustainable development" in alignment with the Millennium Development Goals, a U.N. adopted global action plan to achieve eight anti-poverty goals. The WBG states that its mission is to "help developing countries and their people reach the goals by working with international partners to advance an inclusive and sustainable globalization—that overcomes poverty, enhances growth with care for the environment, and creates individual opportunity and hope." See the WBG mission statement at http://go.worldbank.org/DM4A38OWJ0 (accessed June 30, 2011) or CRS Report R41410, *The Millennium Development Goals: The September 2010 U.N. High-level Meeting*, by Luisa Blanchfield and Marian Leonardo Lawson.

[12] Studies cited by the ESS include World Bank, *World Development Report 2010: Development and Climate Change*, Washington, DC: WBG; International Energy Association, *World Energy Outlook 2010*, Paris: OECD/IEA; the Enterprise Survey Database 2011; and United Nations Development Program and World Health Organization, *The Energy Access Situation in Developing Countries 2009*, New York: UN.

Research suggests that energy-saving policies and low-emission technologies could be ways for meeting future energy needs in a globally sustainable manner as well as for mitigating local environmental problems associated with energy production and use. The WBG claims that achieving these goals could contribute significantly to eradicating poverty and hunger, supporting primary education, promoting gender equity, combating disease, and ensuring environmental stability, as well as increasing entrepreneurial business activities and economic development in lower-income countries.

But World Bank environmental strategies are not without their critics. Throughout the years, many of the WBG's lending practices have supported projects with potentially negative environmental implications. Road construction, large dams, fossil-fuel power generation, mining and extractive industries, and agricultural and forestry projects sponsored by WBG lending have been criticized by many who believe they are not only environmentally destructive, but are often harmful to large segments of the population in the societies they are intended to help (e.g., farm fertility may be harmed by unsustainable agriculture practices, soil may be contaminated by adjacent energy or mining industries, fisheries may be affected by pollution from excess fertilizer use or industrial runoff).[13]

Current Practices

World Bank Group lending for energy infrastructure projects totaled $13 billion in 2010. Projects included investment in upstream exploration, new and retrofitted facilities for power generation, transmission and distribution systems, demand side management and energy efficiency programs, and policy and technical advice. Energy lending currently accounts for 17% of the WBG's investment portfolio (see **Figure 1**), and has grown steadily over the past decade (e.g., energy sector lending averaged approximately $2.4 billion annually from 2000-2004, and accounted for roughly 4%-6% of the WBG's investment portfolio during those years).[14] In 2003, at the request of the Board of Executive Directors, WBG management established an Infrastructure Action Plan[15] to revitalize the WBG's engagement with the energy sector. Further, in response to the global financial and economic crisis, the WBG launched the Infrastructure Recovery and Assets Platform in April 2009 (to support counter-cyclical spending on infrastructure) and the Infrastructure Crisis Facility in December 2009 (to ensure the availability of long-term debt to support private infrastructure projects affected by capital shortages).[16] Due in part to these initiatives, total commitments in the sector have grown significantly. **Figure 2** presents recent lending figures by energy sector. See also **Appendix B** for numerical data related to lending by sector, by financing institution, and by geographic region.

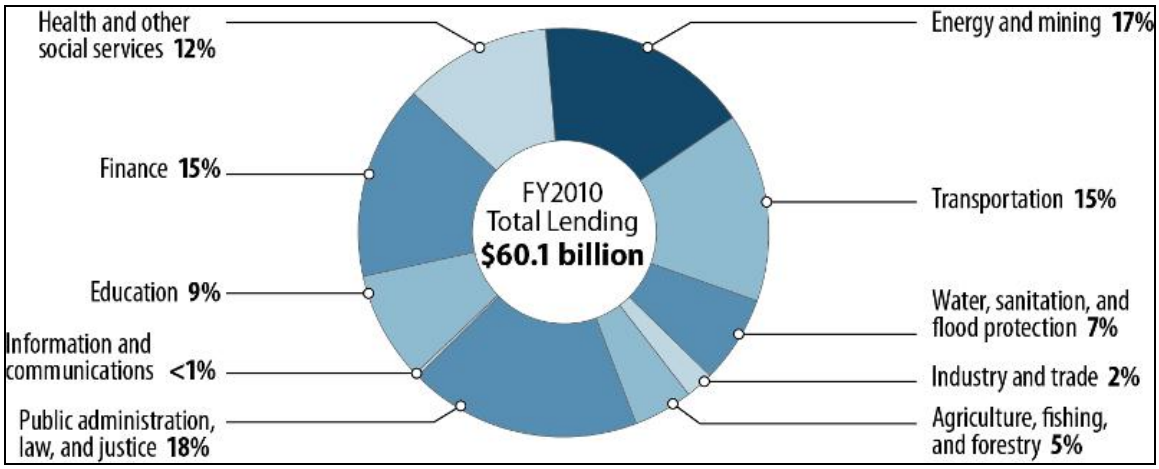
[13] Some examples of WBG projects and policies criticized for potential negative impacts on the environment can be found on the Bretton Woods Project website, at http://www.brettonwoodsproject.org/topic/environment/index.shtml (accessed June 30, 2011).

[14] Other lending sectors that may be affected by the ESS provisions include Transportation (15% of total portfolio), Water and Sanitation (7%), Agriculture, Fishing, and Forestry (5%), and Industry and Trade (2%). For more detail, see the WBG website at http://go.worldbank.org/SH36X77BF0 (accessed June 30, 2011).

[15] For more information about this program, see the WBG website at http://siteresources.worldbank.org/INTTRM/Resources/InfrastructureActionPlan.pdf (accessed June 30, 2011).

[16] For more information about these programs, see the WBG website at http://go.worldbank.org/6IA4GMHBA0 and http://www.ifc.org/ifcext/about.nsf/0/07670A1E06A3A3538525751600585FBC?OpenDocument (accessed June 30, 2011).

Figure 1. World Bank Group Total Lending Portfolio, FY2010



Source: World Bank project database at http://go.worldbank.org/KTPE1WKU20.

Notes: Figures include only IBRD, IDA, GEF, and CTF lending as reported on the World Bank website. Figures do not include IFC or MIGA lending. See **Appendix B**, **Table B-1**, for numerical data.

The WBG reported that 2010 marked an all-time record in renewable energy and energy efficiency financing, as well as a new record in low carbon financing. Figures for new investment showed a 62% increase in low carbon commitments to $5.5 billion compared to 2009, and low carbon energy financing accounted for 42% of all 2010 commitments. Additionally, 30 out of 34 country assistance and partnership strategies prepared in 2010 addressed climate change and sustainable development.[17] However, critics noted that the WBG's "low carbon financing" category funded fossil fuel projects that supported increased use of "cleaner" fuels to displace more carbon intensive ones.[18] Similarly, focusing solely on the categories for "renewable energy" and "energy efficiency," rather than the broader category for "low carbon," showed a decrease in these sectors' shares of total energy investment, from 39% in 2009 to 26% in 2010. Likewise, while renewable energy and energy efficiency financing established all-time highs in 2010, at $1.6 billion and $1.8 billion respectively, so did new fossil fuel thermal power generation, up to $4.3 billion, a fourfold increase over 2009.[19]

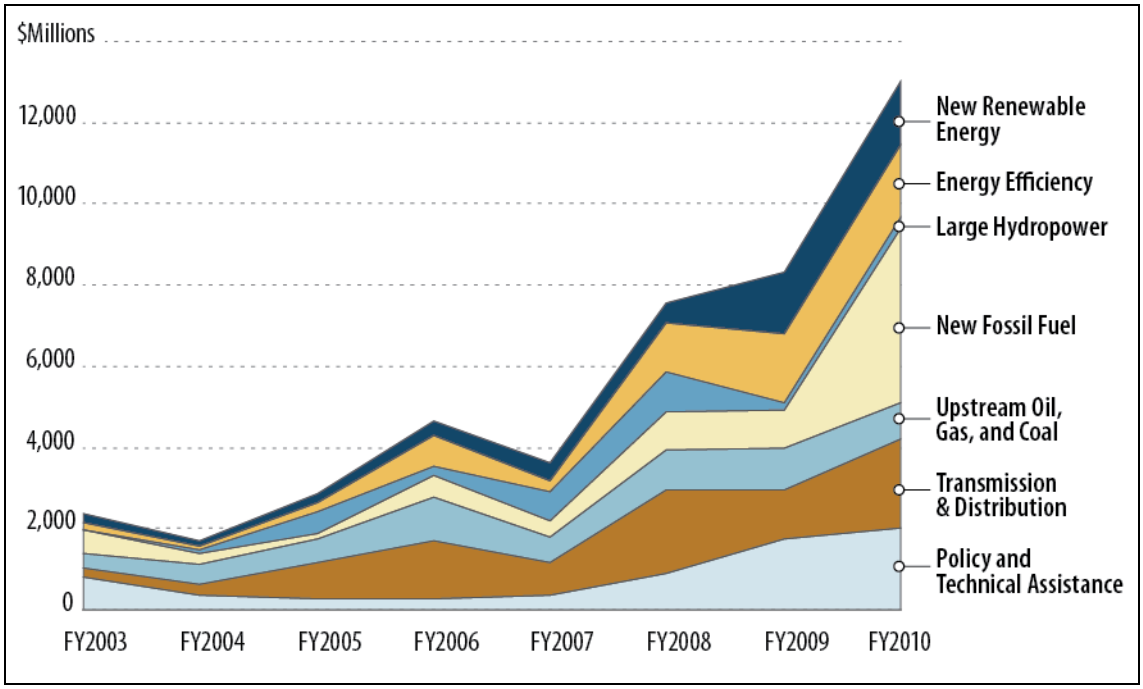
[17] See "Climate Change: Sector Results Profile" at http://go.worldbank.org/DKRVOUZSM0 (accessed June 30, 2011).

[18] For WBG definitions of categories, see **Appendix B**, **Table B-1**, footnotes.

[19] A significant portion of this increase is tied to the $3.75 billion loan requested by the South African government for Eskom Holdings, Ltd., the state-owned utility company, and approved by the World Bank Board of Executive Directors on April 8, 2010 (the United States, the United Kingdom, the Netherlands, and Italy abstained during the WBG vote on the project). The Medupi Power Station project is a coal-fired power plant currently under construction in Lephalale, South Africa. The project comprises six 800 megawatt (MW) units and a total installed capacity of 4,800 MW. The plant is projected to emit 32 million tons of carbon dioxide equivalent a year. The WBG supported the Medupi Power Station project after the investment was stranded by the private sector during the 2008 economic downturn.

Figure 2. World Bank Group Energy Portfolio by Sector, FY2003-FY2010

(US$ in millions, nominal)



Source: World Bank Group Energy Portfolio Data at http://go.worldbank.org/ERF9QNT660.

Note: See **Appendix B**, **Table B-1**, for numerical data. Figures include IBRD, IDA, GEF, CTF, IFC, and MIGA.

The WBG promoted additional initiatives during 2010 as having supported increased energy access and environmentally sustainable development. These included (1) the World Bank Carbon Finance Unit, which backed 250 projects through the purchase of carbon credits representing a monitored 141 million tons of greenhouse gas emissions; (2) the Climate Investment Funds, a trust-funded global partnership hosted by the World Bank, which assisted countries' transitions toward low carbon and climate-resilient development; (3) the World Bank Forest Carbon Partnership Facility, which mobilized $165 million for capacity building and performance-based payments to pilot projects in forest and land management; (4) the Global Facility for Disaster Risk Reduction and Recovery, another trust-funded global partnership hosted by the World Bank, which promoted the integration of climate risk management into the WBG's development efforts; and (5) the Global Environment Facility, another trust-funded global partnership hosted in part by the World Bank since 1991, which assisted countries with environmental projects related to six areas: biodiversity, climate change, international waters, the ozone layer, land degradation, and persistent organic pollutants.

Critiques

Developing Countries

Many lower-income countries continue to view the WBG primarily as a financial institution to assist in poverty alleviation and economic development, not as an organization to address environmental issues. They may be interested in low-cost, high-growth energy and infrastructure technologies that can rapidly and reliably deliver benefits to their target populations over short

time periods. For this reason, they may be concerned that an emphasis on renewable energy, such as solar power, wind, and biofuels, may not sufficiently meet the growing demand for electricity in an affordable and reliable manner. They may view renewable alternatives with skepticism—especially if they are not widely used in industrialized economies—and they may likely prefer more traditional fossil fuel-based options, even if the consequences on long-term sustainability are more damaging. Additionally, they may see efforts by industrialized countries to require measurement, reporting, and verification of greenhouse gas emissions and other environmental pollutants as an unnecessary burden on short-term project development, economic growth, and national sovereignty.

Developed Countries

There are some segments in higher-income countries that support the economic growth arguments of developing countries, and see little need for investment in low-carbon or renewable energy technologies. Further, some observers are opposed to the practice of foreign aid in general. They argue that grant and loan-based financial assistance is a detriment to economic growth in developing countries because it removes incentives, institutes dependency, and fuels corruption.[20]

Other segments, including recent U.S. Administrations, have generally supported the environmental efforts of the WBG and have followed its progress on such initiatives as (1) the updating and consolidating of its environmental and social safeguard policies into an integrated environmental and social policy framework, (2) the updating of its energy sector strategy, and (3) the development of the "World Bank Framework and IFC Strategy for Engagement in the Palm Oil Sector," which would guide future engagement in the sector following the September 2009 moratorium on new investments. The United States is also seeking to strengthen the IFC's environmental and social performance standards as well as its Policy and Performance Standards on Environmental and Social Sustainability and its Access to Information Policy. The United States continues to work with the World Bank to ensure that its lending practices reinforce efforts to promote lower carbon development pathways, and has recently provided a policy document which suggests baseline requirements for fossil-fuel projects, *Guidance to Multilateral Development Banks for Engaging with Developing Countries on Coal-fired Power Generation*.[21] (See **Appendix C** for provisions in the U.S. guidance.) The greatest concern of developed countries often tends to be the dislocation between the WBG's stated policies and its subsequent actions—a dislocation often characterized as a split between its visionary or aspirational flagship studies for external audiences and its internally operational practices. In this regard, some countries suggest that any practical guidance for the WBG's engagement in the energy and environment sector should be grounded in regional and country programs, as well as in its Strategic Framework for Development and Climate Change.[22]

[20] For further discussion on perspectives against multilateral lending, see the section on "Perspectives on the U.S. Role in International Climate Change Financial Assistance" in CRS Report R41808, *International Climate Change Financing: Needs, Sources, and Delivery Methods*, by Richard K. Lattanzio and Jane A. Leggett; or, also, examples such as Ana Eiras, "IMF and World Bank intervention: a problem not a solution," Heritage Foundation Backgrounder #1689, September 17, 2003, or Doug Bandow and Ian Vasquez, eds. *Perpetuating Poverty: The World Bank, the IMF, and the Developing World.* Washington: Cato Institute, 1994.

[21] U.S. Treasury, "Guidance to Multilateral Development Banks for Engaging with Developing Countries on Coal-fired Power Generation," December 2009, at http://www.treasury.gov/resource-center/international/development-banks/Pages/guidance.aspx (accessed June 30, 2011).

[22] Development and Climate Change: A Strategic Framework for the World Bank Group, World Bank, 2008.

Environmental Groups

Many environmental observers claim that the history of the WBG's energy and infrastructure lending wholly undermines its credibility as an institution committed to combating the impacts of environmental degradation and climate change. Environmental groups often highlight the inconsistencies between the WBG's rhetoric on climate change and sustainable development and its operational policies and practices. They emphasize that while the WBG may have increased financing for renewable energy and energy efficiency in recent years, its fossil fuel lending still accounts for a large portion of its portfolio (see **Appendix B** for a comparison of energy sector investments). They argue that the controversy is compounded by the WBG's inability to reach a consensus on the definition of "clean energy technology," retaining provisions for natural gas and ultra-supercritical coal-fired power generation[23] in its sustainability strategies.

Further, some environmental groups contend that the WBG misrepresents its practices when reporting information on energy access, environmentally sustainable development, and clean energy projects. They claim that WBG investment is more heavily weighted in favor of fossil fuels than officially reported because the institutions do not provide accurate accounting for fossil fuel development in such lending categories as "transmission and distribution" and "policy and technical assistance."[24] Likewise, critics claim that the WBG fails to account for fossil fuel investments that are taking place through financial intermediaries (i.e., arrangements for loans or equity financing to a foreign entity such as a local commercial bank, private equity fund, or special government managed fund). Critics suggest that financial intermediary arrangements may represent a substantial portion of WBG funding. For example, the Bank Information Center[25] reports that financial intermediary funding comprises over 40% of investments by the International Finance Corporation, the WBG's private sector lending arm. Finally, critics argue that the WBG misrepresents its lending for energy efficiency and renewable energy technologies, contending that the greater part of these programs are financed through specific donor funds, such as the Global Environment Facility and the Climate Investment Funds, that are not structurally a part of the WBG.[26]

Many observers agree that continued investment by the WBG in fossil fuel energy and infrastructure may have several unintended effects, including (1) counteracting any gains made with the WBG's renewable portfolio, (2) directing resources toward large-scale power generation

[23] Ultra-supercritical coal-fired power generation is defined as "new pulverised coal combustion systems ... [that] operate at increasingly higher temperatures and pressures and therefore achieve higher efficiencies than conventional PCC units and significant CO_2 reductions. Supercritical steam cycle technology has been used for decades and is becoming the system of choice for new commercial coal-fired plants in many countries." See World Coal Institute website at http://www.worldcoal.org/coal-the-environment/coal-use-the-environment/improving-efficiencies/ (accessed June 30, 2011).

[24] For example, the WBG provided $1 billion to India's Fifth Power System Development Project primarily to finance a high-power transmission network to handle the transfers from two newly commissioned thermal coal plants. This and other such projects were unreported by the WBG as fossil fuel-related, according to a review of projects done by the Bank Information Center from July 2008 to 2009. See Bank Information Center, World Bank Group Energy Sector Lending Trends—FY2009, December 2009 at http://www.bicusa.org/en/Issue.Resources.48.aspx (accessed June 30, 2011).

[25] The Bank Information Center is an independent, non-profit, non-governmental organization that monitors World Bank activities and advocates on behalf of developing and transition countries. See BIC website at http://www.bicusa.org/en/index.aspx.

[26] For critique, see, for example, Heike Mainhardt-Gibbs, et al., "Fuelling Contradictions: The World Bank's Energy Lending and Climate Change," the Bretton Woods Project, CRBM & URGEWALD, 2010.

for industrial use rather than energy access and poverty reduction in poor urban and rural communities, and (3) drawing the WBG's professional and technical staff away from a concentration on energy efficiency and renewable energy activities to remain involved with fossil fuel generation.[27]

The World Bank Group's "Energy Sector Strategy"

Timeline for the Strategy

The core mission of the World Bank Group is poverty alleviation and environmentally sustainable development, as introduced through the Millennium Development Goals. As a reflection of this mission statement, the WBG has sought to devise a strategy for financing energy and infrastructure projects that could best address these two concerns. Over the past few years, through research and analysis both internal and external,[28] the WBG has surmised that a departure from existing energy policy and lending approaches would be required in order to (1) provide adequate, equitable, and reliable energy for future economic development and poverty reduction; (2) extend energy access and support household energy programs; (3) ensure the long-term environmental sustainability of the energy sector; and (4) address global climate change. For these purposes, the WBG set forth to prepare an updated energy sector strategy, as the existing framework—provided in a 1999 document, *Fuel for Thought* (FFT), and an informal 2001 paper entitled *The World Bank Group's Energy Program: Poverty Alleviation, Sustainability, and Selectivity*—dated back over a decade.[29] An *Energy Strategy Approach Paper* was released in the fall of 2009. The WBG held a series of meetings, videoconferences, and other events during a consultations phase from January 2010 to July 2010 in which a reported 2,100 participants from government, civil society, the private sector, and academia were surveyed through 50 face-to-face meetings and 170 written submissions.

The revised strategy, *Energizing Sustainable Development: Energy Sector Strategy of the World Bank Group* (ESS), was presented to the WBG Board Committee on Development Effectiveness (CODE) on April 11, 2011, for consent and subsequent delivery to the WBG Executive Board for a vote. Prior WBG statements had mentioned a proposed second consultation phase between the presentation to CODE and delivery to the Executive Board. The ESS, however, stalled during

[27] For discussion of further debate on this issue, see CRS Report RS22989, *The World Bank's Clean Technology Fund (CTF)*, by Martin A. Weiss; as well as the World Bank's issue brief on "Energy," available at http://go.worldbank.org/E084GP3GQ0 (accessed June 30, 2011).

[28] Several sources that the WBG lists in the ESS as guidance for and/or analysis of energy access and sustainable development issues include the 2002 World Summit on Sustainable Development in Johannesburg, at which the WBG launched the Global Gas Flaring Reduction partnership; the 2004 Bonn International Conference on Renewable Energies, at which the WBG made a commitment to scale up energy efficiency and renewable energy by 20% a year for five years over the average 2002-2004 commitments; the 2005 G-8 Summit in Gleneagles, Scotland, at which the WBG was asked to facilitate the creation of an investment framework on clean energy development and contribute to fostering a global dialogue around access, mitigation, and adaptation; as well as reports such as *An Investment Framework for Clean Energy and Development*, World Bank, September 5, 2006; *Sustainable Infrastructure Action Plan*, World Bank, July 2008; *Development and Climate Change: A Strategic Framework for the World Bank Group*, World Bank, 2008; among others.

[29] These papers can be found on the WBG website at http://go.worldbank.org/92RT0XPT30 and http://siteresources.worldbank.org/INTENERGY/Publications/20269216/energybrochure.pdf respectively (accessed June 30, 2011).

debate in CODE. According to the WBG's website, as of April 11, 2011, "The World Bank Group's Board Committee on Development Effectiveness is now reviewing a draft energy sector strategy for the organization. The strategy document will be posted on the website when this review is completed."[30] Posting of the draft strategy is still pending. Some WBG observers have reported that the ESS is to be modified as necessary to reach consensus in CODE, with little or no external consultation, before an informal Board date in July or later.[31] Media reports indicate that the interruption was caused by a stalemate in CODE over provisions in the ESS for coal-fired power generation (i.e., the ESS no longer supports new coal-fired power generation in middle-income countries). Sources report that China and some other countries claimed that the ESS's coal provisions were "discriminatory."[32]

Provisions in the Strategy

The WBG states that the ESS is a 10-year strategy document. Provisions are to cover lending and investment activities in all five WBG sub-institutions: the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), and the International Centre for Settlement of Investment Disputes (ICSID). The ESS, however, would not cover activities at the regional development banks (i.e., Inter-American Development Bank, African Development Bank, Asian Development Bank, and European Bank for Reconstruction and Development), the International Monetary Fund, or other independent, international financial institutions.

The March 16 draft text of the ESS contains the following provisions, among others:

- **Focusing on Alternatives to Coal-Fired Power Generation.** The ESS aims to focus on ways to help countries identify alternatives to coal. The strategy calls for eliminating loans for all new coal-based power generation projects (i.e., "greenfield" projects) in middle-income countries (i.e., IBRD and Blend countries). (See **Appendix A** for WBG "IBRD," "Blend," and "IDA" country classifications; the distinction reflects the level of income and the credit-worthiness of a country). The strategy supports consideration for new coal-based power generation projects in IDA countries under strict compliance with WBG guidelines.[33] The strategy also maintains financing to increase the efficiency of existing coal plants (i.e., "brownfield" projects), to be undertaken only after considering the impact of greenhouse gas emissions over the lifetime of the power plant. Further, the strategy approves natural gas projects that can demonstrate a lower emissions potential compared to available alternatives and

[30] WBG web page for Energy Strategy Consultations at http://go.worldbank.org/U5WIWMPUV0 (accessed July 12, 2011).

[31] CRS informal discussions with U.S. Administration officials and WBG watchdog group representatives.

[32] The countries critical of the strategy were the G11 group — nine developing countries including China, India and Brazil, as well as the high-income countries Saudi Arabia and Kuwait. See also Lisa Friedman, "Developing countries denounce restrictions on coal loans," *ClimateWire*, April 12, 2011.

[33] IDA guidelines for greenfield coal projects address the extent to which a given project (1) can significantly increase electricity access, reliability, or both; (2) is the least-cost option after incorporating externalities; and (3) substitutes for the lack of concessionally financed low-emission alternatives.

that can serve as a base-load complement to intermittent renewable energy generation.

- **Developing Large-Scale Hydropower Where Appropriate.** The ESS allows consideration of large-scale hydropower projects in developing countries that conform to environmentally and socially sustainable criteria.[34] The WBG describes its support for hydropower as a means to provide low-emissions electricity, expand markets, facilitate interconnected power systems, and tap the potentially large and cost-efficient resources available to lower-income countries, particularly in Sub-Saharan Africa and South Asia.
- **Establishing Greenhouse Gas Emissions Analysis Programs.** The ESS proposes to begin a greenhouse gas emissions analysis program for all new power generation projects starting in 2012 and for all other energy investment projects once methodologies have been developed. The WBG describes its support for greenhouse gas monitoring as a means to address global climate change, generate and transfer knowledge, identify opportunities for energy diversification, and help access low carbon financing.
- **Increasing Lending for Clean Energy Projects.** The ESS aims to substantially and steadily increase lending for clean energy projects, raising its share of investment in projects classified as "energy efficiency," "renewable energy," "energy policy," and "electricity transmission and distribution" from an average of 67% in 2008-2010 to over 75% by 2015. Currently the number of governments that have set policy targets or introduced incentives for renewable energy has doubled since 2005 and now exceeds 100; half of these are in lower-income countries. The WBG describes its support for a shift toward low carbon energy technologies as a means to address sustainable development and global climate change.
- **Prioritizing Energy Efficiency Initiatives.** The ESS aims to assist countries in designing incentives and removing technical and non-technical barriers to increase energy efficiency in all economic sectors. Estimates show that considerable scope exists for energy efficiency improvements in all countries, with the International Energy Association supporting scenarios wherein efficiency improvements could provide 67% of energy-related greenhouse gas reductions in 2020, and 47% in 2035.[35] The WBG describes its support for improving energy efficiency as a means to address global climate change, lower energy demand, enhance reliability, potentially make energy more affordable to the poor, and reduce the vulnerability of the energy sector to external shocks and supply constraints.
- **Expanding Access to Modern Energy Services.** The ESS aims to provide reliable access to modern energy services at the lowest price financially viable

[34] The environmentally and socially sustainable criteria for large-scale hydropower are not elaborated in detail in the ESS. The WBG points to its experience in the sector as a foundation to provide future guidance: "Over the past few decades, the WBG and its clients have learned important lessons about how to minimize adverse upstream and downstream social and environmental impacts, use new technologies to strengthen flood and drought management, and involve communities throughout the design and implementation phases of hydropower development to ensure the evolving challenges and impacts are properly addressed." ESS, p. 7.

[35] IEA, op. cit.

and sustainable for energy suppliers. Current WBG projects in the energy sector between 2012 and 2015 are targeted to extend access to 25 million to 30 million people. The ESS proposes to extend additional access to 65 million to 80 million people through commitments made between 2012 and 2020, including construction of 8-12 gigawatts of additional generation capacity in Sub-Saharan Africa. The WBG describes its support for expanding access as a means to provide basic services, enhanced opportunities for education and health care, and greater entrepreneurial opportunities for developing economies.

- **Improving Household Fuel and Distributed Energy Programs.** The ESS aims to expand programs in household energy to increase the quality of energy services and decrease the impacts of energy poverty. The ESS proposes to promote initiatives such as solar-based energy services, high-performance cook-stoves, sustainable production of biomass-based energy, and other distributed energy supply options. The WBG describes its support for improving household fuel sources as a means to free families and communities from the debilitating health burdens exacted by indoor air pollution and to alleviate the impacts of energy poverty on women, children, and socioeconomic groups that may pay higher costs (in terms of time, labor, and finances) for these services.
- **Encouraging Local Community Engagement and Empowerment.** The ESS aims to harness the benefits of local community participation in terms of improving design, mobilizing contributions, and increasing local ownership and operational sustainability. Gender equity is also promoted.
- **Promoting Innovative Policy.** High and volatile fuel prices, energy shortages, and a continuing inability to finance essential energy infrastructure continue to affect development finance in lower-income countries. The ESS aims to promote innovative policy tools, transparent market designs, new financial models and instruments (including carbon markets), strengthened governance across energy supply chains, and private sector participation to address investment barriers.

Reactions to the Strategy

While the World Bank Group may function independently as a lending institution and technical consultant, its funding remains tied to the financial contributions of donor country governments.[36] This fact necessarily puts a limit on the WBG's resources. Due to these limitations, questions regarding the ways and means of financial disbursements become substance for debate among the lending institutions, contributing governments, recipient countries, and civil society stakeholders (e.g., questions include: How best to use scarce resources? Which countries and which projects receive funding? Why?). Policies such as the ESS position the WBG between outspoken environmental groups that advocate for substantial reform, higher-income countries like the United States that support raising the bar for environmental and social safeguards, and lower-income countries that insist on having the ability to address poverty alleviation and economic

[36] This support takes several forms, depending on the type of assistance provided: the WBG uses money contributed or "subscribed" by its member countries to support its assistance programs; it funds its operating costs from money earned on non-concessional loans to borrower countries; and occasionally, transfers a portion of its surplus net income annually to help fund its concessional aid programs. For further information, see CRS Report R41170, *Multilateral Development Banks: Overview and Issues for Congress*, by Rebecca M. Nelson.

development as they see fit. Some of the critiques by various stakeholders regarding the WBG's energy lending practices in general and the ESS in particular are as follows:

Developing Countries

The media report that reactions by lower- and middle-income countries to the March 16 draft of the WBG ESS centered primarily around the language on coal. Sources report that China and some other countries claimed the ESS's coal provisions were "discriminatory."[37] In a recent interview with Environment & Energy Publishing, Rogério Studart, the World Bank Executive Director for Brazil, is reported as stating that the agency's plan to prevent middle-income countries from accessing loans for new coal plants, while still allowing them for the poorest countries, is "a dangerous precedent."[38] He claims that banning coal would only hurt the poorest countries that currently cannot afford cleaner or renewable alternatives. He argues that "some countries cannot provide energy access, particularly in Africa, without coal, and the Bank knows that." Some countries also raised concerns over the WBG's reliance on markets and the private sector as the principal means of developmental assistance delivery, and said the WBG should do more to promote technology transfer for renewable energy and energy efficiency.[39]

Developed Countries

Most of the provisions outlined in the March 16 draft of the WBG ESS are consistent with policy guidance that has been provided by higher-income, donor country governments. With respect to the United States government, the IDA-only criteria for new coal-fired power generation, and the provisions for more efficient brownfield coal retrofits, are consistent with the December 2009 U.S. Treasury *Guidance to Multilateral Development Banks for Engaging with Developing Countries on Coal-fired Power Generation*.[40] (See **Appendix C** for provisions in the U.S. guidance.) Further, the greenhouse gas accounting is consistent with legislative mandates given in the Supplemental Appropriations Act of 2009 (P.L. 111-32). Language on increased energy access and promotion of renewable energy alternatives is also consistent with many previously legislated mandates. The United States has commonly supported large-scale hydropower projects if they are accompanied by substantial upstream and downstream environmental and social accounting.

Environmental Groups

Media and nongovernmental organizations report that reactions to the March 16 draft of the WBG ESS by environmental groups has been generally positive. The coal provisions are seen as a victory by many (although some have advocated for eliminating coal investments entirely). Other groups have stated they remain concerned about possible loopholes in the strategy. These include (1) a failure to define "brownfield," leaving open the possibility for wider coal lending; (2) a push to fund "emerging technologies," causing concern over whether that definition would allow the WBG to loan money for carbon capture and storage development (an implicit support for coal);

[37] Lisa Friedman, "Developing countries denounce restrictions on coal loans," *ClimateWire,* April 12, 2011.

[38] Ibid.

[39] "World Bank energy strategy stalled," Bretton Woods Project Newswire, June 14, 2011.

[40] U.S. Treasury, "Guidance to Multilateral Development Banks for Engaging with Developing Countries on Coal-fired Power Generation," December 2009, at http://www.treasury.gov/resource-center/international/development-banks/Pages/guidance.aspx (accessed June 30, 2011).

and (3) continued emphasis on hydropower, prompting concerns over the environmental and social impacts of more large dams. Continued stakeholder engagement is also desired by the environmental community.

Issues for Congress

The proposed Energy Sector Strategy before the World Bank Group Committee on Development Effectiveness and the Board of Executive Directors is a potential vehicle for the U.S. Congress and the U.S. Administration to address concerns regarding energy and infrastructure lending in lower-income countries and its effect on poverty alleviation and environmentally sustainable development. Whether the provisions in the March 16 draft of the ESS are retained in the final version depends upon negotiations currently taking place in CODE and in the subsequent vote by the Board of Executive Directors. WBG debate on the ESS also coincides with several other institutional initiatives, including (1) the drafting of a coordinated set of environmental and social safeguards, (2) the introduction of a new results-based lending platform, and (3) the request for increases in its capital base to fund the continued expansion of its development lending programs. The final version of the ESS may influence negotiations on any of these initiatives, and vice versa. Further, authorizations and appropriations for U.S. participation in the capital increases at the WBG are currently included in the U.S. Administration's FY2012 budget request.[41] Levels of U.S. funding for the capital increase may likewise influence negotiations on these initiatives.

The United States carries one—albeit a significant—voice and vote in the policies of the WBG.[42] The U.S. Congress retains the role of deciding the overall terms of U.S. involvement in the WBG by setting the level of U.S. contributions and by influencing how the United States votes on policies and projects. The House Committee on Financial Services (Subcommittee on International Monetary Policy and Trade) and the Senate Committee on Foreign Relations (Subcommittee on International Development and Foreign Assistance, Economic Affairs, and International Environmental Protection) are responsible for managing WBG authorization legislation. The U.S. House and Senate Committees on Appropriations (Subcommittees on State, Foreign Operations, and Related Programs) manage the relevant appropriations legislation. Congress can enact legislative mandates that oversee and regulate U.S. participation in the WBG. These mandates fall into one of four main categories. First, legislative mandates direct how the U.S. representatives at the WBG can vote on various policies and projects. Second, legislative mandates direct the U.S. representatives at the WBG to advocate for specific policies. Third, Congress may require the Secretary of the Treasury to submit reports on WBG activities. Fourth, Congress may attempt to influence policies at the WBG through the "power of the purse," that is, by withholding funding from the WBG or attaching stipulations on the WBG's use of funds.

[41] See CRS Report R41672, *Multilateral Development Banks: General Capital Increases*, by Martin A. Weiss.

[42] For a full analysis of ways by which Congress can shape U.S. policy and influence the activities of the WBG, see CRS Report R41537, *Multilateral Development Banks: How the United States Makes and Implements Policy*, by Rebecca M. Nelson and Martin A. Weiss.

Appendix A. World Bank Group Classifications

WBG institutions base their lending on levels of economic development.

Table A-1. World Bank Group Country Classifications

As of July 2009

Classification	Countries
IDA	The International Development Association (IDA) offers assistance to the poorest countries that have a per capita income of less than $1,165 in FY2009 and lack the financial ability to borrow from the International Bank for Reconstruction and Development (IBRD). IDA provides deeply concessional (i.e., "soft") interest-free loans with extended grace periods, grants, technical assistance, and policy advice. At present, 64 countries are eligible to borrow from IDA. Countries include: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Comoros, Congo, Congo, Democratic Republic, Cote d'Ivoire, Djibouti, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Kenya, Kiribati, Kosovo, Kyrgyz, Lao, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Moldova, Mongolia, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Nigeria, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sri Lanka, Sudan, Tajikistan, Tanzania, Timor-Leste, Togo, Tonga, Uganda, Vanuatu, Vietnam, Yemen, Zambia.
Blend	Blend countries are IDA classified countries which are also credit-worthy enough to borrow from the IBRD. Countries include: Armenia, Azerbaijan, Bolivia, Bosnia and Herzegovina, Cape Verde, Dominica, Georgia, Grenada, India, Pakistan, Papua New Guinea, St. Lucia, St. Vincent and the Grenadines, Uzbekistan, Zimbabwe.
IBRD	International Bank for Reconstruction and Development (IBRD) lends to middle-income countries that are not covered under IDA terms. IBRD provides non-concessional (i.e., "hard" or "market-based") loans with terms that usually specify 30 year maturities and an average of 18 years repayment. Countries include: Albania, Algeria, Antigua and Barbuda, Argentina, Belarus, Belize, Botswana, Brazil, Bulgaria, Chile, China, Colombia, Costa Rica, Croatia, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Fiji, Gabon, Guatemala, Indonesia, Iran, Iraq, Jamaica, Jordan, Kazakhstan, Korea, Lebanon, Libya, Macedonia, Malaysia, Marshall Islands, Mauritius, Mexico, Micronesia, Montenegro, Morocco, Namibia, Palau, Panama, Paraguay, Peru, Philippines, Poland, Romania, Russian Federation, Serbia, Seychelles, South Africa, St. Kitts and Nevis, Suriname, Swaziland, Syria, Thailand, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Ukraine, Uruguay, Venezuela.

Source: The World Bank Operations Manual, OP 3.10 - Annex D, July 2009, at http://siteresources.worldbank.org/OPSMANUAL/Resources/July07OP310_AnnexD_FY10_updatedDEC&CFPIR.pdf (accessed June 30, 2011).

Notes: The World Bank Group Energy Sector Strategy states that "[n]o new coal-based power generation projects will be financed in IDA-blend or IBRD countries ... In IDA countries, the WBG will consider supporting new coal power generation projects in strict compliance with WBG guidelines."

Appendix B. World Bank Group Energy Portfolio, FY2003-FY2010

Table B-1. World Bank Group Energy Portfolio by Sector, FY2003-FY2010

(US$ in millions)

Sector	2003	2004	2005	2006	2007	2008	2009	2010
Policy and Technical Assistance[a]	$816	$370	$278	$248	$375	$903	$1,752	$2,019
Transmission and Distribution	216	248	906	1,465	809	2,031	1,204	2,171
Upstream Oil, Gas, and Coal	333	496	578	1,074	627	981	1,032	914
New Fossil Fuel[b]	599	272	100	511	360	957	936	4,270
Large Hydropower[c]	23	106	538	250	751	1,007	177	284
Energy Efficiency	177	92	217	761	262	1,192	1,711	1,771
New Renewable Energy[d]	206	115	246	344	421	473	1,517	1,584
Total Energy Financing	**2,370**	**1,699**	**2,864**	**4,653**	**3,604**	**7,545**	**8,328**	**13,013**
Total Low Carbon[e]	406	350	1,237	1,660	1,440	3,003	3,405	5,516
Total Access[f]	794	537	986	1,018	1,239	1,889	2,201	1,025

Source: World Bank Group Energy Portfolio Data at http://go.worldbank.org/ERF9QNT660 (accessed June 30, 2011).

a. Termed "Other Energy" by the WBG, and includes energy policy support and technical assistance projects.

b. Termed "Thermal Generation" by the WBG, and includes all new fossil-fuel power plants, including new high efficiency fossil-fuel power plants (super- and ultra-critical power plants).

c. Large Hydropower refers to hydropower projects that generate more than 10MW per facility.

d. New Renewable Energy refers to all renewable energy, excluding hydropower projects larger than 10MW per facility.

e. Low Carbon projects include renewable energy projects, energy efficiency projects, and projects that support increased use of cleaner fuels to displace more carbon intensive ones.

f. Access includes projects aimed at increasing access to electricity services. "Access" and "Low Carbon" are not mutually exclusive, as some projects are classified as blended Low Carbon and Access.

Table B-2. World Bank Group Energy Portfolio by Financing Source, FY2003-FY2010

(US$ in millions)

Institution	2003	2004	2005	2006	2007	2008	2009	2010
WB: IBRD[a]	$467	$239	$593	$1,565	$504	$2,674	$3,569	$8,140
WB: IDA[b]	560	545	712	1,441	1,070	1,420	2,155	1,356
WB: GEF[c]	55	62	105	51	128	145	84	19
WB: CTF[d]	-	-	-	-	-	-	100	500
WB: Others[e]	93	64	458	98	314	272	740	353
IFC[f]	638	705	764	1,308	1,170	2,923	1,647	2,421
MIGA[g]	556	73	232	190	417	110	33	225
Total Energy Financing	**2,370**	**1,699**	**2,864**	**4,653**	**3,604**	**7,545**	**8,328**	**13,013**

Source: World Bank Group Energy Portfolio Data at http://go.worldbank.org/ERF9QNT660 (accessed June 30, 2011).

Notes: Click here and type the notes, or delete this paragraph

a. World Bank: International Bank for Reconstruction and Development.

b. World Bank: International Development Association.

c. World Bank: Global Environment Facility provides grants and concessional loans to help developing countries meet the costs of measures designed to achieve global environmental benefits. The World Bank is one of the three implementing agencies and serves as trustee.

d. World Bank: Clean Technology Fund, one of two Climate Investment Funds, promotes scaled-up financing for demonstration, deployment, and transfer of low carbon technologies with significant potential for long-term greenhouse gas emissions savings. The World Bank serves as trustee.

e. World Bank: "Others" include Guarantees, Special Financing, Recipient-Executed activities, and Carbon Finance (i.e., the World Bank Carbon Finance Unit uses finance contributed by governments and companies in OECD countries to purchase project-based greenhouse gas emission reductions in developing countries and countries with economies in transition).

f. The International Finance Corporation (IFC) provides loans, equity, and technical assistance to stimulate private sector investment in developing countries.

g. The Multilateral Investment Guarantee Agency (MIGA) provides guarantees against losses caused by non-commercial risks to investors in developing countries.

Table B-3. World Bank Group Energy Portfolio by Region, FY2003-FY2010

(US$ in millions)

Region	2003	2004	2005	2006	2007	2008	2009	2010
Sub-Saharan Africa	$343	$384	$656	$637	$1,138	$1,160	$1,766	$5,281
East Asia and the Pacific	498	174	779	593	302	1,491	1,255	965
Europe and Central Asia	785	307	716	1,573	255	1,133	2,247	1,182
Latin America and the Caribbean	488	435	460	792	472	1,171	801	1,966
Middle East and North Africa	50	20	61	393	368	423	806	1,050
Southern Asia	196	253	167	666	804	2,131	1,454	2,569
Multi-Region Projects	10	125	25	-	65	35	-	-
Total Energy Financing	**2,370**	**1,699**	**2,864**	**4,653**	**3,604**	**7,545**	**8,328**	**13,013**

Source: World Bank Group Energy Portfolio Data at http://go.worldbank.org/ERF9QNT660 (accessed June 30, 2011).

Appendix C. U.S. Department of the Treasury Guidance to the Multilateral Development Banks on Coal

In December 2009, the U.S. Treasury Department transmitted to the senior management of the multilateral development banks (MDBs) guidance for engaging with developing countries on coal-fired power generation.[43] The guidance is intended to be adapted by individual MDBs and incorporated into their respective operational policies, country and sector strategies, and other procedures that are related to the public or private project cycle for coal-powered generation operations. It covers a range of issues including alternatives analysis, power sector policy reform, and capacity building. It is intended to supplement rather than supersede other MDB operational policies (e.g., environmental impact assessment, other environmental and social safeguards, procurement) and to be used to help determine U.S. interactions with the MDBs as they update relevant sector strategies and operational policies. Provisions in the guidance include the following, among others:

- having the MDBs incorporate procedures to ensure full consideration of no or low carbon options before appraising a proposed new or retrofit coal-fired power generation project;
- identifying "no or low carbon options" as including (1) more carbon efficient fossil fuel generation, (2) renewable resources, (3) supply side efficiency improvements in other plants, and (4) demand side management;
- supporting the use of best internationally available technology for reducing GHG emissions if proceeding with appraisal of a new or retrofit coal generation project;
- for projects in IBRD and Blend countries, incorporating offsetting actions (i.e., a package of significant and measurable actions elsewhere in the power sector that, in the aggregate, are intended to reduce emissions by an amount equivalent to the emissions to be added by the proposed project); and,
- for projects in IDA-only countries, proceeding with appraisal of a coal project that does not meet the above best available technology criteria, if the project (1) addresses critical national energy security needs, (2) responds to national short-term emergencies, or (3) overcomes binding constraints on national economic development when no viable alternatives exist.

[43] U.S. Treasury, "Guidance to Multilateral Development Banks for Engaging with Developing Countries on Coal-fired Power Generation," December 2009, at http://www.treasury.gov/resource-center/international/development-banks/Pages/guidance.aspx (accessed June 30, 2011).

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