

**Thinking Through When the World Bank  
Should Fund Coal Projects**

---

Scott Morris and Billy Pizer

---

July 2013

---

[www.cgdev.org/publication/world-bank-coal](http://www.cgdev.org/publication/world-bank-coal)

---



---

**ABSTRACT**

---

The World Bank should be ambitious in working toward clean energy approaches in its development strategies, but it would be a mistake to definitively rule out coal in all circumstances. Such a decision would be bad for development and would also undermine the very goals that the bank's coal critics espouse by further pitting developing and developed countries against each other in the climate debate occurring within the bank. The key challenges are to identify the relevant development needs related to coal-fired generation, to define the role of the bank, and to elaborate guidelines to direct decisions. In this essay, we discuss the broad issues and then summarize what the guidelines likely would mean in practice.

---

The Center for Global Development is an independent, nonprofit policy research organization that is dedicated to reducing global poverty and inequality and to making globalization work for the poor. CGD is grateful to its funders and board of directors for support of this work. The authors thank David de Ferranti, Lawrence MacDonald, Gib Metcalf, Todd Moss, and Jake Schmidt for comments.

Use and dissemination of this essay is encouraged; however, reproduced copies may not be used for commercial purposes. Further usage is permitted under the terms of the Creative Commons License. The views expressed in this paper are those of the author and should not be attributed to the board of directors or funders of the Center for Global Development.

## **Contents**

Energy Needs in the World Bank’s Client Countries.....	2
For Most Developing Countries, There Is No Demonstrated Alternative to Fossil Fuels .	4
Coal versus Gas .....	5
The World Bank’s Role .....	7
Evolving Policies on Coal Investments at the World Bank .....	9
Practical Examples: Kosovo (and Medupi before It).....	10
Defining a World Bank Strategy for Coal .....	12
Concluding Thoughts .....	13

Over the past few months, quite a bit of high-level rhetoric has surrounded World Bank funding of coal projects in developing countries. On one side, Christiana Figueres, the executive secretary of the UN Framework Convention on Climate Change, stated that “it is no longer necessary [for the World Bank to invest in coal projects] because we have many other technologies that can come forward.”<sup>1</sup> On the other side, World Bank president Jim Kim stated that “we will look for everything we can possibly do to avoid [coal projects] but look, poor people should not pay the price with their lives of mistakes that people have been making in the developed world for a very long time.”

More recently, President Obama addressed the issue as part of a broad set of executive actions to combat climate change. His recent remarks call for an end to public financing for coal plants “unless they deploy carbon-capture technologies, or there is no other viable way for the poorest countries to generate electricity.”<sup>2</sup> This position, consistent with guidelines developed and used by the US Treasury since 2009, was lent considerably more weight by the President’s remarks.

These competing positions will be put to the test in the months ahead as two issues come before the bank’s board of directors: an effort to launch a new energy strategy at the bank and the very concrete question of whether the bank will approve a coal project in Kosovo, one of the bank’s poorest clients. It is currently the only coal project in the bank’s pipeline.<sup>3</sup>

In our view, the approach taken by both Obama and Kim is broadly the right one. The bank should be ambitious in working toward clean energy approaches in its development strategies, but it would be a mistake to definitively rule out coal in all circumstances. Such a decision would be bad for development and would also undermine the very goals that the bank’s coal critics espouse by further pitting developing and developed countries against each other in the climate debate occurring within the bank.

The key challenges are to identify the relevant development needs related to coal-fired generation, to define the role of the bank, and to elaborate guidelines to direct decisions. In our view, the latter were well laid out in the US Treasury guidelines, which we helped to develop and launch in 2009. In the remainder of this essay, we discuss the broad issues and then summarize what the guidelines likely would mean in practice.

---

<sup>1</sup> Emily Saari, “Figueres: Time for World bank Coal Investment to End,” blog post April 24, 2013, <http://tckctck.org/2013/04/figueres-time-for-world-bank-coal-investments-to-end/50799>.

<sup>2</sup> “Remarks by the President on Climate Change,” press release June 25, 2013, <http://www.whitehouse.gov/the-press-office/2013/06/25/remarks-president-climate-change>.

<sup>3</sup> Kosovo ranks 143 out of 193 countries based on 2011 GDP, with a per capita income of \$3,510.

## Energy Needs in the World Bank's Client Countries

The debate over coal projects begins with the recognition that electricity supply remains a critical constraint to growth in many poor countries. A majority of the World Bank's client countries, those that borrow from the bank's concessional lending window (the International Development Association, or IDA) are both poor *and* energy poor. These 82 countries are home to 1.8 billion of the world's poorest people (those living on less than \$2 a day) and two-thirds of their populations lack access to electricity. As much as 91 percent of the population lack access to electricity in the poorest countries like Malawi and Uganda.

Energy poverty has profound and direct health effects resulting from poor indoor household air quality associated with the use of solid fuels. Reliance on these fuels for cooking and heat results in 3.5 million premature deaths a year by one estimate.<sup>4</sup> And the lack of electrification for health clinics greatly inhibits the provision of basic health care in the developing world.

However, it is not energy access per se that increases economic well-being, it is the increased productivity that goes along with using it. Providing energy access does very little if people do not have the economic livelihood to pay for it over time. In this way, economic development must focus not just on energy access for the poor, but modern energy services to support economic livelihoods. Below is a plot of electricity production and gross domestic product for all countries in the UN energy statistics database.<sup>5</sup> What we see is a striking relationship: few countries have achieved high levels of income per capita without relatively higher levels of electricity per capita. Electricity production of 100 kwh per person is associated with an average income of about \$800 per person, while electricity production of 1000 kwh per person is associated with an average income of about \$3,200.<sup>6</sup> At 10,000 kwh, the average income is \$31,000. Correlation is not causation, and there are a variety of questions raised even by the correlation—electricity production is not the same as consumption, per capita GDP ignores the distribution of income, and a cross section is not as informative as the history of individual country experiences.<sup>7</sup> It may well be possible to create outcomes with lower electricity use at higher incomes. But as reflected in the plot, there are no examples to date.

---

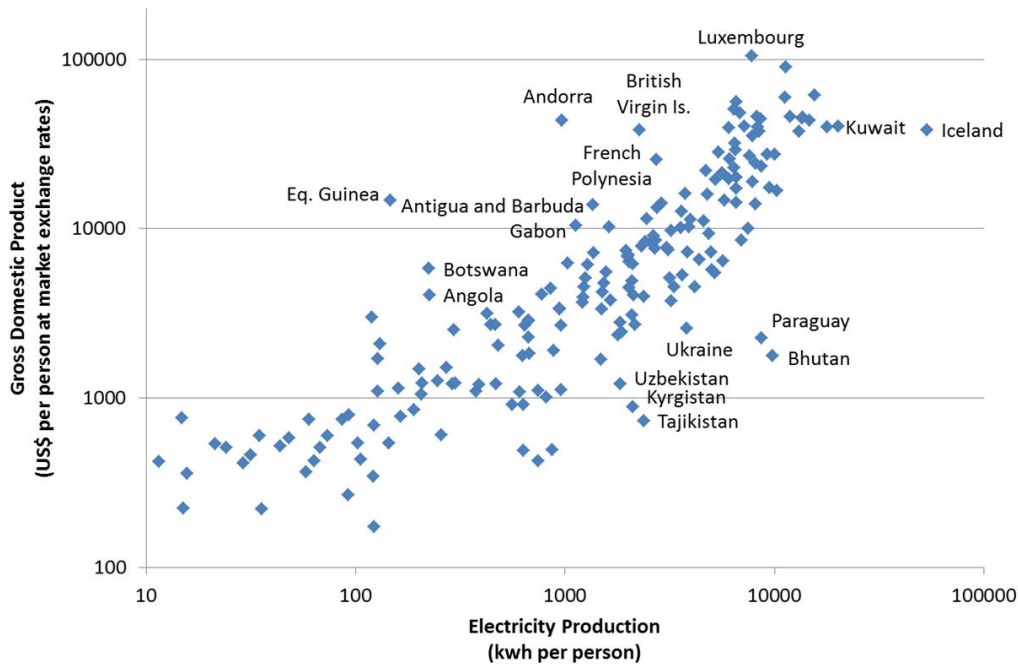
<sup>4</sup> Stephen S. Lim et al., "A Comparative Risk Assessment of Burden of Disease and Injury Attributable to 67 Risk Factors and Risk Factor Clusters in 21 Regions, 1990–2010: A Systematic Analysis for the Global Burden of Disease Study 2010," *The Lancet* 380(9859): 2224–2260.

<sup>5</sup> Available at <http://data.un.org/Explorer.aspx>.

<sup>6</sup> Electricity consumption of 1,000 kwh per person amounts to a 600 megawatt plant for roughly every 5 million people.

<sup>7</sup> Use of production rather than consumption data should average out over countries. Had we looked at median income, there might have been a "flattening out" of the midsection of the figure, as initial average income increases are often inequitable as countries develop. And individual countries might show different relationships between income and electricity use over time. However, none of these issues would change the basic observation that today's high-income countries all have high levels of electricity production and use. A more elaborate analysis could seek to explain this variation with other variables.

**Figure 1: Few Countries Have Achieved High Levels of Income Per Capita without Relatively Higher Levels of Electricity per Capita: GDP and Electricity Production, 2009**



Other analysis can shed additional light on the value of modern energy services—or costs when they are lacking. The African Development Bank estimates the economic cost of the lack of energy, measured as the cost of running backup generation and the foregone production from power outages, at 1 to 4 percent of GDP in African countries.<sup>8</sup> The World Bank’s Enterprise Survey puts electricity at the top of obstacles facing businesses in low income countries, with nearly one in four businesses identifying it as their biggest obstacle.

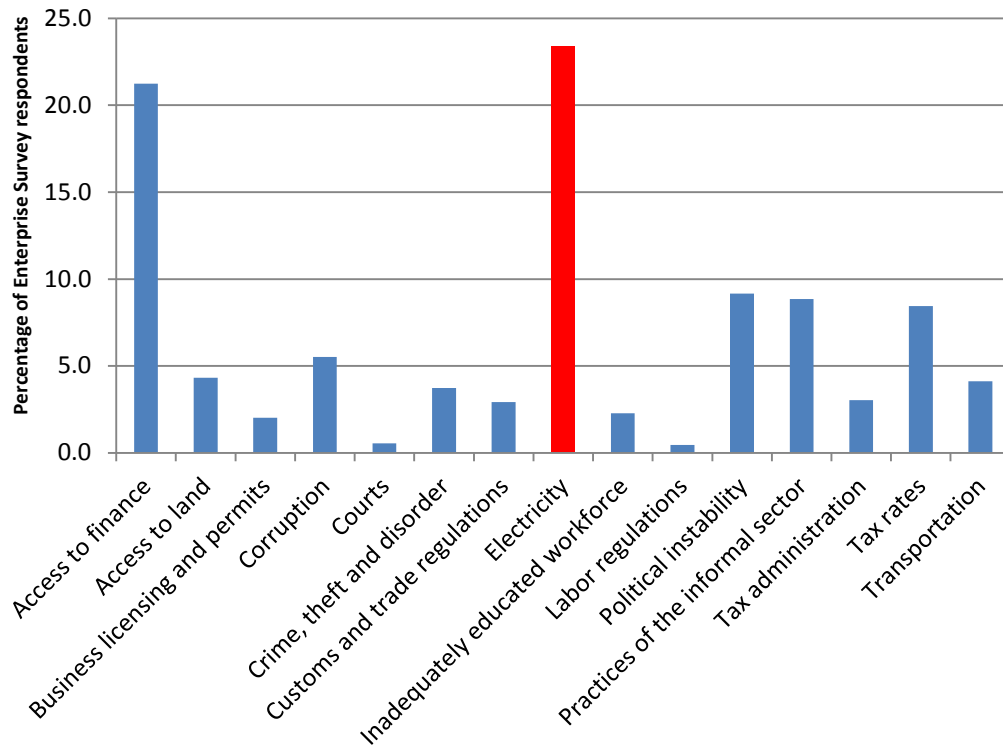
This spring brought renewed focus to the World Bank’s development mandate, with the adoption of two goals for the bank: the elimination of extreme poverty and increasing the incomes of the bottom 40 percent globally. Adoption of these goals by the World Bank’s shareholders has come with a firm embrace of economic growth as the driver of the bank’s strategy going forward.

It’s impossible to imagine a growth-oriented strategy for the World Bank, particularly in the poorest countries, that does not address energy as a binding constraint. The question is what path will the World Bank take in working with its clients to address the energy need.

---

<sup>8</sup> Vivien Foster and Cecilia Briceño-Garmendía, eds., *Africa’s Infrastructure: A Time for Transformation* (Washington: World Bank, 2010), 184 (available at [www.infrastructureafrica.org/system/files/Africa's%20Infrastructure%20A%20Time%20for%20Transformation%20FULL%20TEXT.pdf](http://www.infrastructureafrica.org/system/files/Africa's%20Infrastructure%20A%20Time%20for%20Transformation%20FULL%20TEXT.pdf)).

**Figure 2: Insufficient Electricity Is the Biggest Obstacle Facing Businesses in Low-Income Countries**



Source: The World Bank Enterprise Surveys ([www.enterprisesurveys.org](http://www.enterprisesurveys.org)).

## **For Most Developing Countries, There Is No Demonstrated Alternative to Fossil Fuels**

In poor countries where electricity supply is a constraint to growth and both hydroelectric and geothermal resources are limited, fossil fuels are necessary for “firm capacity.”<sup>9</sup> Depending on the availability of coal and gas resources, coal-fired power generation remains a necessity in many cases. For this reason, influential reports such as MIT’s *Future of Coal* report argue that coal will remain indispensable.<sup>10</sup>

Underlying this view is the fact that no country has yet to demonstrate a development approach that does not rely on either fossil fuels or nuclear power, or a natural endowment of geothermal or hydroelectric energy, for the bulk of its generation. Among the 191

<sup>9</sup> That is, generation capacity that can be guaranteed to be available for production and transmission at a given time.

<sup>10</sup> MIT Coal Energy Study Advisory Committee, *The Future of Coal: Options for a Carbon-Constrained World* (Cambridge, Mass.: MIT, 2007), available at [web.mit.edu/coal/](http://web.mit.edu/coal/).

countries in the UN energy statistics database in 2009,<sup>11</sup> all but five have power sectors that depend on a combination of fossil fuels, nuclear, hydroelectric dams, or geothermal energy for more than 90 percent of their power generation. Those five countries—Denmark, Portugal, Spain, Guadeloupe, and Ireland—all generate between 10 percent and 20 percent of their electricity from wind power. But even among these countries, more than 80 percent of their generation still comes from a combination of fossil fuels, hydroelectric dams and nuclear.

Taking these five countries as models, let's assume that an ambitious renewable program could use wind (or solar) to provide 20 percent of a countries' electricity needs in the next decade. What might be available for the remaining 80 percent, other than fossil fuels, based on experience so far? Nuclear energy remains a controversial power source in poor countries, for both environmental and security reasons. Hydroelectric power is available only in those regions with suitable resources—and even there, human and environmental damage from large-scale dams is controversial.

Geothermal energy holds significant promise in many regions, and currently supplies between 15 percent and 25 percent of electricity in Iceland, El Salvador, Kenya, and the Philippines. The challenge of identifying and developing resources has recently been targeted by the World Bank.<sup>12</sup> However, not all regions possess suitable geothermal resources.

For those regions pursuing economic development without hydroelectric or geothermal resources, and given the constraints on nuclear, there are no existing examples other than fossil-fuel generation. Other pathways may be possible, even desirable not just for environmental but economic reasons: many countries lack fossil resources as well hydroelectric and geothermal. However, those alternative pathways have not been proven by any country to date.<sup>13</sup> This raises several questions: If a poor country has no interest in unproven alternatives to fossil energy, is it reasonable for the international community to demand that such a country experiment with new pathways? If a poor country proceeds with fossil generation, how should they weigh the differences between coal and gas (especially as new developments in the production of shale gas are altering the global energy landscape)? And, finally what is the role of the World Bank and other multilateral development banks in these decisions?

## **Coal versus Gas**

At this point, it is worth briefly considering the relative merits of natural gas versus coal for new generation. From a climate-change perspective (and environmental perspective,

---

<sup>11</sup> Available at <http://data.un.org/Explorer.aspx>.

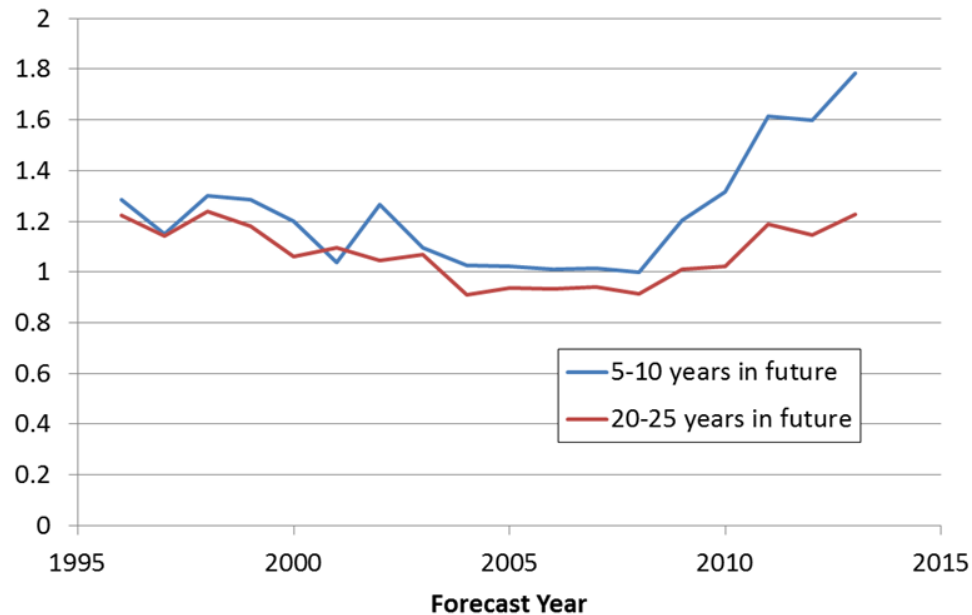
<sup>12</sup> See "World Bank Calls for Global Initiative to Scale Up Geothermal Energy in Developing Countries," press release March 6, 2013, [www.worldbank.org/en/news/press-release/2013/03/06/world-bank-calls-global-initiative-scale-up-geothermal-energy-developing-countries](http://www.worldbank.org/en/news/press-release/2013/03/06/world-bank-calls-global-initiative-scale-up-geothermal-energy-developing-countries).

<sup>13</sup> Among the possibilities are closed-loop biomass and wind and solar coupled with storage technology, but there are no examples of countries pursuing such approaches for the bulk of their electricity needs to date.

generally) natural gas is looked at more favorably than coal: it has roughly one-half the associated carbon dioxide emissions per unit of electricity and fewer associated emissions of particulates, sulfur dioxide, and mercury (though with end-of-pipe treatment or IGCC technology, these non-carbon dioxide emissions can be greatly reduced). A recent National Academy study calculated uncounted or “hidden” environmental damages of 3.2 cents per kilowatt-hour for coal-fired generation and 0.16 cents per kilowatt-hour for natural gas.<sup>14</sup> There is still controversy within the environmental community about whether to support the use of natural gas, but it is far less controversial than coal.<sup>15</sup>

The economics vary greatly on where new generation is located and the relative accessibility of either coal or natural gas supplies. Forecast costs of typical new generation in the United States, for example, have suggested that coal has been somewhere between parity and 25 percent more expensive than natural gas generation over the past two decades. More recently, near-term cost estimates suggest coal is at least 60 percent more expensive than natural gas, though that discrepancy is forecast to drop to a more typical 25 percent further in the future.<sup>16</sup>

**Figure 3: The Cost of New Coal Generation Is Forecast to Be Higher than Natural Gas: Ratio of Coal to Natural Gas, United States.**



<sup>14</sup> See National Research Council, *Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use* (Washington: The National Academies Press, 2010), [www.nap.edu/catalog.php?record\\_id=12794](http://www.nap.edu/catalog.php?record_id=12794).

<sup>15</sup> Among some NGOs, natural gas has been lumped together with coal in calls for World Bank action. See “Letter from Civil Society: World Bank Stop Funding Fossil Fuels,” April 3, 2013, <http://priceofoil.org/worldbankfossilfuels/>. Other NGOs have a more nuanced view.

<sup>16</sup> These are drawn from current and past editions of the US Energy Information Administration’s Annual Energy Outlook, available at [www.eia.gov/forecasts/aeo/archive.cfm](http://www.eia.gov/forecasts/aeo/archive.cfm). Costs are defined as the “levelized cost of new generation,” and include compliance with all relevant federal, state, and local regulations.



Other issues, beyond the environment and simple economics can influence fuel choice. Coal plants have higher up-front capital costs and lower operating costs, making them less vulnerable to fuel price changes over the life of a plant. Natural gas plants are more rapidly switched on and off to deal with peaking daily usage; their lower capital costs also make them a cheaper option to meet seasonal needs. For large countries with ready access to both coal and natural gas, such as the United States, these differences have often led to investment in both types of plants.

Other countries, particularly smaller countries without secure, economical access to both coal and natural gas supplies, are likely to find one or the other more readily accessible and cheaper. In addition to secure supplies and transit routes, which can be important issues for countries in unstable regions, each fuel requires transport infrastructure. Natural gas requires pipelines (or facilities that can re-gasify liquefied natural gas shipments). Coal requires a rail system or barges. In some circumstances, particularly with coal mines, generation facilities can be located at the fuel source and circumvent fuel-related transport infrastructure.

There have been important technology developments over the past few years that have greatly expanded natural gas supplies. Horizontal drilling and fracking have unlocked significant natural gas reserves in the United States and will likely do so elsewhere as the technology diffuses. This has brought down the cost of natural gas, as reflected in the previous figure comparing coal and natural gas prices in the United States, and presents the possibility that the future may not require nearly as much coal use. At the same time, this new technology has raised new and important environmental questions that could ultimately limit its impact.

From this brief discussion, if some type of fossil generation is necessary in a developing country, it seems difficult to rule out the use of coal at this point in time. Natural gas, could, however, be an important focus for the World Bank and its developing-country clients in coming years.

## **The World Bank's Role**

Regardless of the potential need for coal, one possible answer to our earlier question about the appropriate role of the World Bank is that it should focus entirely on clean energy projects and not engage in coal projects at all—leaving countries to pursue advice and financing elsewhere. For the most part, coal-fired power plants are well-understood commercial activities. Construction is not particularly risky, electricity sales provide a reliable revenue stream, and private-sector lenders are familiar with financing such projects. As a result, when it comes to the World Bank's creditworthy client countries (those that have access to the IBRD, the bank's nonconcessional lending window), the bank might be one of a number of potential sources of finance for their coal project.

But the picture is very different for the bank's IDA-only countries, a subset of the IDA borrowers noted earlier. These countries are defined as the poorest on a per capita basis and

as lacking access to commercial credit.<sup>17</sup> While nearly half of the long-term external debt of middle-income countries comes from private sources without any public guarantees,<sup>18</sup> for low-income countries, just under 4 percent of long-term external debt financing comes from these sources. As a result, when it comes to financing expensive large infrastructure in low-income countries, the multilateral development banks are often essential.

Certainly, IDA-only countries have a host of development needs, and one might argue that the bank should prioritize other sectors if financing energy means financing coal. But given the clear constraint that a lack of energy imposes on development progress, and the lack of alternatives for financing, it's not surprising that IDA-only countries themselves often prioritize these projects in their partnerships with the bank.

Meanwhile, the bank has been building a portfolio related to climate change and clean energy. While there is arguably much more to be done to increase bank capacity and expertise on renewables and energy efficiency, there has already been a broad expansion of climate change mitigation and adaptation activities. This includes renewable and energy efficiency investment, finance and knowledge-based services, and improved delivery through both core operations as well as through supplemental trust funds created by donor countries. While environmental groups have at times opposed this expansion based on the bank's past environmental record, it is hard to see how the problem gets tackled without giving the world's largest development institution a clear stake in addressing the climate change problem.<sup>19</sup>

The real challenge to this expansion, particularly into climate change mitigation, has been resistance from many developing countries worried that a strong shift toward a global public goods agenda at the bank will come at the expense of their other development priorities. From their perspective, more World Bank funding explicitly targeted to climate means less funding available for country-directed development priorities.<sup>20</sup> These views go hand in hand with concerns that developed countries are not providing enough additional finance to the climate agenda, despite historically being the biggest polluters. In this way, developing

---

<sup>17</sup> See World Bank, "How We Classify Countries," <http://data.worldbank.org/about/country-classifications> for a description of income and lending categories at the World Bank.

<sup>18</sup> *Global Development Finance: External Debt of Developing Countries, 2012* (Washington: World Bank, 2012).

<sup>19</sup> See Nancy Birdsall and Lawrence McDonald, "Wanted: A Climate Agency for a Bottom-Up World—A Proposal for a New Arm of the World Bank," CGD Brief (Washington: Center for Global Development, 2013), [www.cgdev.org/publication/wanted-climate-agency-bottom-world%E2%80%94proposal-new-arm-world-bank](http://www.cgdev.org/publication/wanted-climate-agency-bottom-world%E2%80%94proposal-new-arm-world-bank).

<sup>20</sup> These concerns are embodied in calls for "additionality" or "new and additional" resources to address climate change measured relative to existing commitments to official development assistance (ODA) or some other notion of a baseline. The degree to which climate change resources should be new and additional has not been agreed, but remains a criteria. See, for example, United Nations, *Report of the Secretary-General's High-level Advisory Group on Climate Change Financing* (United Nations, 2010) and Liane Schalateck and Neil Bird, "The Principles and Criteria of Public Climate Finance—A Normative Framework" (Heinrich Böll Stiftung and Overseas Development Institute, 2011), [www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7467.pdf](http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7467.pdf).

countries see a robust World Bank climate agenda as a direct challenge to the country-ownership principle that is central to the bank's work.

Importantly, current progress and continued efforts to expand the bank's climate change portfolio could be put at risk by calls to limit bank investments with high greenhouse gas emissions. Such calls have the potential to escalate aforementioned developing-country concerns and create an increasingly confrontational stance over these activities. If reductions in coal lending come at the expense of reductions in mitigation finance, the environmental outcome is ambiguous at best. This is one motivation for a particularly careful consideration of the coal debate.

In short, from the perspective of the bank's client countries, not only are developed countries not providing enough new money for climate, they are seeking to raid existing World Bank resources, and on top of that, they want to rule out World Bank financing for coal even when it meets a clear development need.

Given this dynamic, the World Bank's rejection of an outright ban on coal financing and embrace of a thoughtful, well-defined, limited role could support, rather than contradict, greater progress on the broader climate change agenda at the bank.

## **Evolving Policies on Coal Investments at the World Bank**

Before suggesting what a limited role for the World Bank might look like, it is useful to review what the bank's existing policies are. In 2008, the World Bank's Development Committee endorsed a strategic framework for development and climate change that contained six action items. These action items focused on recognizing the added costs and risks of climate change, as well as exploring what the bank can do to facilitate progress, while maintaining the effectiveness of its core mission of supporting growth and overcoming poverty. Within the action item "support climate actions in country-led development processes," the bank commented as follows:

"Reflecting the importance of coal for electricity generation in many developing countries, the WBG could support client countries in developing new coal power projects based on the most appropriate technology and the analysis of alternatives."<sup>21</sup>

Six criteria that might be applied to screen coal projects were listed in a lengthy footnote: (i) there is a demonstrated developmental impact of the project including improving overall energy security, reducing power shortage or access for the poor; (ii) assistance is being provided to identify and prepare low-carbon projects; (iii) optimization of energy sources by considering the possibility of meeting the country's needs through energy efficiency (both supply and demand) and conservation; (iv) after full consideration of viable alternatives to

---

<sup>21</sup> World Bank, *Development and Climate Change: A Strategic Framework for the World Bank Group*, Report to the Development Committee (Washington: IMF and World Bank, 2008), 9.

the least-cost (including environmental externalities) options and when the additional financing from donors for their incremental cost is not available; (v) coal projects will be designed to use the best appropriate available technology to allow for high efficiency and therefore lower intensity of greenhouse gas emissions; and (vi) an approach to incorporate environmental externalities in project analysis will be developed.

In 2010, the bank elaborated on this comment (and footnote) with a 16-page operational guidance document, “Criteria for Screening Coal Projects under the Strategic Framework for Development and Climate Change.”<sup>22</sup> Beyond elaborating how the aforementioned criteria translate into potential impacts, indicators, and assumptions, the guidance document specifies that an external panel of experts would be engaged to ensure the quality of compliance with these criteria. To date, these guidelines have been applied to one project, a proposed coal-fired power plant in Kosovo, described below. It is worth noting that as a practical matter, the bank has not considered a coal plant since 2010 in South Africa, also described below. One observation is that these policies, as they are now, are already diminishing interest in such projects at the bank.

### **Practical Examples: Kosovo (and Medupi before It)**

The bank is considering a coal project in Kosovo designed to address chronic power shortages and to support closure of an old coal-fired power plant, the 350 megawatt Kosovo “A” plant that is the worst single-point source of pollution in Europe. Specifically, the bank would provide a partial risk guarantee for private-sector investments in this operation, which would include a new 600 megawatt lignite-fired plant (Kosovo “C”) and rehabilitation of an existing 600 megawatt plant (Kosovo “B”) to bring it in compliance with EU standards, thereby enabling closure of Kosovo A.

This proposed investment, included in Kosovo’s 2012–2015 country partnership strategy, would mark the first World Bank investment in a coal plant since the 2010 financing of the Medupi plant in South Africa. It is worth noting the sharp distinction between these two projects. The loan for Medupi was brought forward at a time when global capital markets continued to be severely constrained by the post-Lehman crisis, and the World Bank’s role was defined by the extenuating circumstances of crisis response. Middle-income countries such as South Africa, which do not depend on World Bank lending but are relatively influential, suddenly found themselves in more dire straits. This particular project was at a very late stage—the bank’s financing came in to replace other lending that had dried up, and the bank had little role in the project design.<sup>23</sup> While South Africa could have chosen to postpone the project until the private financing returned, this lender-of-last-resort role was

---

<sup>22</sup> Available at [http://siteresources.worldbank.org/EXTENERGY2/Resources/CGN\\_20100331.pdf](http://siteresources.worldbank.org/EXTENERGY2/Resources/CGN_20100331.pdf).

<sup>23</sup> It is worth noting that the United States achieved a number of future policy concessions, despite its difficult position. See Lisa Friedman, “U.S. to Abstain on South Africa Coal Plant,” April 8, 2010, *ClimateWire*, <http://www.eenews.net/climatewire/stories/89576/>.

exactly what the Bank sought to fill as it increased lending nearly threefold during early crisis period from 2009 to 2010.<sup>24</sup>

Unlike South Africa and Medupi, Kosovo has been engaged with the World Bank since 2006 to explore development of a new coal plant to replace Kosovo A, including a relatively detailed analysis of alternatives. And, unlike South Africa and Medupi, Kosovo does not have the same private financing options. Kosovo is an IDA-only country, without access to commercial credit markets. Without support from the World Bank or another development agency, Kosovo's ability to address its energy needs would be significantly hindered.

Critics of the project propose alternative approaches to meet Kosovo's energy needs. A war of technical analysis has targeted assumptions about electricity demand growth, peak and seasonal versus baseload needs, and fuel costs.<sup>25</sup> In some ways the analyses have converged: the proposed new coal plant is smaller than envisioned in 2007; there is an increased focus on clean energy investments; and there is an agreement on the need to reduce theft and price electricity appropriately. All analyses support renovating an existing coal plant (Kosovo B) as well as potentially investing in new natural gas capacity (if natural gas infrastructure were built). However, critics still claim the new coal plant is not needed or is mismatched to Kosovo's needs, arguing that a combination of efficiency, natural gas, hydro, wind, biomass, and imports can meet Kosovo's needs more cheaply and effectively. The World Bank analysis and its external expert review continues to suggest that coal is cheaper, even inclusive of environmental externalities, unless the 2017 price of carbon dioxide exceeds 23 €/tCO<sub>2</sub>.<sup>26</sup> None of the analyses have considered the decision late last year to build an arm of the South Stream gas pipeline into Macedonia, and how that might change the least-cost calculus.<sup>27</sup>

Deciding whether this specific new coal plant is more economical than possible alternatives will hinge critically on questions about capacity factors, fuel costs, and externalities. We believe this is exactly the kind of debate that ought to inform a decision about whether the World Bank invests in this or any other coal project.

---

<sup>24</sup> See World Bank Independent Evaluation Group, *The World Bank Group's Response to the Global Economic Crisis, Phase I* (Washington: World Bank, 2010), [www.worldbank.org/ieg/crisis/index.html](http://www.worldbank.org/ieg/crisis/index.html).

<sup>25</sup> Copies of relevant analyses are available from the World Bank, "Kosovo Energy Sector," <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/0,,contentMDK:23357819~pagePK:146736~piPK:146830~theSitePK:258599,00.html>; Sierra Club, "Kosovo," <http://www.sierraclub.org/international/kosovo/>; and Renewable & Appropriate Energy Laboratory, "Kosovo Energy," <http://rael.berkeley.edu/kosovoenergy>.

<sup>26</sup> The base-case analysis used the path of CO<sub>2</sub> prices from the EIA's medium-term forecast in 2011; 23 €/tCO<sub>2</sub> is 55 percent above that price. The review panel gave three small reservations: that more be done to reduce losses (e.g., stealing and inefficient transmission design), that the bank refine its specifications to encourage a more efficient plant design, and that pollution monitoring be improved.

<sup>27</sup> See Biljana Lajmanovska, "Macedonia Eyes Kosovo, Albania As Gas Markets," November 7, 2012, [http://setimes.com/cocoon/setimes/xhtml/en\\_GB/features/setimes/features/2012/07/11/feature-03](http://setimes.com/cocoon/setimes/xhtml/en_GB/features/setimes/features/2012/07/11/feature-03).

Ultimately, the decision is not entirely an economic one: just as environmental externalities might sway a decision-maker in one direction, security or other externalities (about natural gas supplies or electricity imports) might sway a decision-maker in the other direction. Some flexibility is necessary.

## **Defining a World Bank Strategy for Coal**

The World Bank does need to minimize lending for coal-fired generation, and the bank's new energy strategy should articulate an approach to coal that makes bank financing extremely rare. There are a number of key elements that should guide the bank's strategy so that a restrictive posture on coal is consistent with the institution's development mission:

- **Financing for coal should be limited almost exclusively to IDA-only countries.** IDA-only countries generally lack alternative means of financing their energy needs. These countries should neither be hindered in their access to energy resources necessary for economic development, nor mistakenly led to invest in coal-fired capacity that is a less economical choice.
- **Financing for coal should be limited to circumstances in which no economically comparable alternatives exist.** This will require a compelling economic analysis, including a clear examination of alternatives, as the basis for any approach to future World Bank coal investments in poorer countries. Such analysis should provide the basis for ruling out coal definitively (in cases where economically viable alternatives are identified) or pursuing it under appropriate conditions. An important question is how to provide that analysis in a way that is—and is perceived to be—accurate.
- **Environmental externalities, including climate change, should be a factor in decisions.** However, such costs do not determine the financial impact on end users, which is driven by actual outlays. When an alternative to coal has a lower cost inclusive of environmental externalities, but higher financial cost, multilateral development banks (MDBs) should help borrowers identify funding to cover these incremental financial costs and avoid the use of coal.
- **However, if incremental funding is unavailable, and alternatives to coal entail higher costs to end users, poor countries should not be compelled by MDB policies to put a higher burden on poor constituents.**
- **Outside of IDA-only countries, consideration of coal financing within the World Bank should be virtually nil.** For IDA-only countries, the World Bank (along with the other MDBs) typically plays an irreplaceable role in financing energy projects, either directly or through guarantees. Absent bank engagement, IDA-only countries are unable to finance their projects. In contrast, the bank's middle-income clients mostly have some degree of access to private capital for energy projects. For these countries, any consideration of coal financing should come with significant strings attached—if at all. For political reasons, we believe it makes sense to think about where such an investment could arguably fit into a mitigation plan,

highlighting opportunities for middle-income countries to lead in this arena rather than solely implementing restrictions.<sup>28</sup>

All of these elements were included in the approach we helped to articulate at the US Treasury in 2009, and are consistent with President Obama's recent statements.<sup>29</sup> In practice, we expect that an energy strategy that relies on this approach would lead to few World Bank financed coal projects overall, and virtually none in middle-income countries.

## **Concluding Thoughts**

With appropriate policies and procedures in place, the World Bank and other multilateral development banks are in the best position to help poorer countries seek out alternatives to coal, to build and refurbish only the coal-fired generation that is needed, and to do so with the highest degree of environmental and social safeguards.

Beyond adoption of procedures to consider coal projects, the bank should pursue an ambitious agenda to help countries pursue low- and no-carbon energy strategies. This could include substantial technical assistance, as well as the use of development policy loans aimed at addressing inefficiencies and distortions in the energy market that bias investment decisions against low-and no-carbon investments.

In the alternative, a choice by the World Bank to rule out coal investments in all circumstances could undercut this broader supporting agenda and put the bank on the sidelines of the energy agenda in too many developing countries. In a country like Kosovo, the decision about whether to build a new coal plant may be unclear, but the value of bank engagement is not: hydroelectric resources are being developed, efficiency is being increased, and a particularly dirty coal plant is slated to be shut down. Meanwhile, the proposed coal plant is smaller and competing alternatives are being hotly debated in various analyses. And, ultimately, Kosovo is addressing a serious impediment to economic development. What happens if coal investments are ruled out in poor countries, and is that fair to those countries?

---

<sup>28</sup> At Treasury, this led to the idea of a clear and enforceable commitment to pursue offsetting actions. In this case, the Bank would only contemplate coal projects in middle-income countries where the investment is tied to actions that reduce the country's emissions by an amount equivalent to the emissions being added by the coal project. This sets a very high bar, but it is conceivable that that the bank would finance a new coal facility in a MIC even under these standards, and to good environmental and development effect. The president, in his remarks, called for coal projects (outside of the poorest countries) to include carbon capture and storage, a more specific and restrictive approach compared to the Treasury guidelines. While these nuances need to be ironed out, the reality should be either no coal investment in MICs or coal investment with compelling environmental benefits.

<sup>29</sup> See US Treasury, "Guidance to Multilateral Development Banks for Engaging with Developing Countries on Coal-fired Power Generation," updated December 1, 2010, <http://www.treasury.gov/resource-center/international/development-banks/Pages/guidance.aspx> and Executive Office of the President, "The President's Climate Action Plan," <http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf>.

World Bank president Jim Yong Kim has forcefully defined a renewed development agenda for the bank, even as he has sought to position the institution at the center of the global climate agenda. Yet, his ambitions are threatened by the polarized debate around financing for coal. Both sides have sought to make the coal issue front and center: no institution that continues to fund coal can possibly be credible on the climate agenda; and no institution that rules out coal can be a credible partner in addressing the energy needs that are central to development.

But the issue need not be so polarizing. A carefully crafted approach to coal finance will ensure that the World Bank's engagement is very limited but available when necessary. If both sides can accept this approach, then the bank will be well positioned to move aggressively on development *and* climate.