



# U.S. COAL PLANT FINANCING POLICY: A THREAT TO LONG-TERM U.S. INTERESTS IN THE DEVELOPING WORLD

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The role of the federal government in the international financing of coal plants has become controversial in recent years. Some policymakers as well as environmental activists oppose the use of any public funds for any overseas coal plant, including highly-efficient units, while some fiscal conservatives want an end to all government financing of exports and projects. At the same time, the developing world is seeking financial assistance from the United States and other major economies to provide basic electricity access, which is indispensable to poverty eradication and improvements in environmental quality and health care. Current U.S. policy—backed by a number of European countries—places unrealistic conditions on power generation projects in developing countries. As a result, other nations, some of which openly seek to displace U.S. influence, are moving to fill the gap, putting at risk long-term U.S. interests. Ironically, U.S. policy, if adopted by major Western suppliers, would result in an increase in greenhouse gas emissions as developing countries deployed older, less efficient coal technology from non-OECD sources.

## Setting the Scene

Today, U.S. foreign policy prioritizes climate change mitigation over expanding access to affordable and reliable energy in developing countries—as demonstrated by the Obama Administration’s push to eliminate most financing of overseas coal plants.<sup>2</sup> The White House has moved to limit U.S. funds for coal projects, lobbied other developed countries to join its position, and leveraged U.S. influence in multilateral development banks to achieve this goal. These efforts have the indirect effect of imposing a carbon cap on poor countries, despite U.S. recognition, as a party to the United Nations Framework Convention on Climate Change (UNFCCC), that developing countries

have the right to increase their greenhouse gas (GHG) emissions to meet social and economic needs.<sup>3</sup>

On the political right, some fiscal conservatives oppose government-backed financing of overseas projects and exports (e.g., reauthorization of the Export-Import Bank of the United States (Ex-Im)), citing the unreasonable risk of default, the availability of private financing, and opposition to corporate welfare.<sup>4</sup> Although most free market advocates support the use of coal, overseas coal projects would suffer collateral damage by shutting down the very institutions that would help fund them. Locking the doors of Ex-Im and

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<sup>2</sup>Some Democrats on Capitol Hill have also been very active in limiting coal investments in the developing world. In 2009, Senate Democrats required the Overseas Private Investment Corporation (OPIC) to reduce the GHG impact of its portfolio an additional 30 percent in 10 years and 50 percent in 15 years – on top of a previous court settlement that resulted in a commitment to reduce GHG emissions by 20 percent by 2018. As a result, OPIC annual investment in the power sector, in practice, is limited to the equivalent of one 280 megawatt natural gas-fired simple cycle power project, according to an unpublished industry estimate.

<sup>3</sup>The UNFCCC also embraces the principle of a “supportive and open international economic system” that results in economic development in all parties, particularly in developing economies, thereby increasing the resilience of those countries to climate impacts. The type of restrictions on coal plant financing promoted by the United States in poor countries does not appear consistent with this principle or its spirit. See Principle 5 at [http://unfccc.int/files/essential\\_background/background\\_publications\\_htmlpdf/application/pdf/conveng.pdf](http://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf)

<sup>4</sup>Goldfarb, Zachary and Holly Yeager, “Long-Building Conservative Anger at Export-Import Bank Reaches Boiling Point,” Washington Post, June 28, 2014 at [http://www.washingtonpost.com/business/economy/long-building-conservative-anger-at-export-import-bank-reaches-boiling-point/2014/06/27/cce4a87a-fe01-11e3-b1f4-8e77c632c07b\\_story.html](http://www.washingtonpost.com/business/economy/long-building-conservative-anger-at-export-import-bank-reaches-boiling-point/2014/06/27/cce4a87a-fe01-11e3-b1f4-8e77c632c07b_story.html).

the Overseas Private Investment Corporation (OPIC) would threaten development goals in poor countries—where private capital markets are not well established.

U.S. policymaking across the political spectrum is certainly influenced by the fact that most Americans take electricity for granted and have little understanding of how power is produced and how it is delivered to their homes. Many also lack the appreciation for the plight of the developing world, which suffers from inadequate access to the electricity needed to provide clean water, health care services, and sanitation.

**The International Energy Agency (IEA) reports that 1.3 billion people remain without electricity (about 20 percent of the global population—the majority of which are located in Sub-Saharan Africa and developing Asia, particularly in rural areas).**<sup>5</sup> In addition, 2.8 billion people use solid fuels to cook in their home stoves (e.g., dung, biomass, and coal), a practice that produces harmful particulate emissions, resulting in the estimated global loss of 370,000 lives (roughly the population of New Orleans) and 9.9 million disability-adjusted life years in 2010.<sup>6</sup> More recently, the World Health Organization has argued that the lack of reliable electricity at health treatment facilities proved to be a major barrier to containment of the Ebola outbreak.<sup>7</sup> In general, the poorest of the poor countries, which account for 12 percent of the world's population, only consume about 1 percent of global energy.

Investments in on- and off-grid electrification, including generation, transmission, and distribution, are desperately needed in those countries, particularly to electrify rural communities and increase power consumption levels in urban zones. Distributed generation and renewable energy technologies are part of the answer, given the lack of grid infrastructure. However, coal-fired generation, which

can provide affordable baseload electricity 24/7, is indispensable to attracting industry and manufacturing that requires a dependable supply of power.<sup>8</sup>

**Unfortunately, much of the developing world suffers from the lack of private capital markets, which necessitates government or multilateral-backed financing.**

Few energy infrastructure projects actually can win private financing in these markets for a variety of reasons – most notably because of political, devaluation, and regulatory hazards. Accordingly, multilateral development banks play a critical role. In 2009, those institutions accounted for more than \$3 billion spent to provide impoverished countries access to electricity—around 34 percent of total funding for that effort.<sup>9</sup>

## U.S. International Position Linked to Domestic Policy Concerns

In June 2013, President Barack Obama announced that the United States would no longer provide public funding for construction of new coal fired power plants overseas, except under very limited circumstances.<sup>10</sup> In his speech rolling out his Climate Action Plan (CAP), the President emphasized the U.S. obligation to be a global leader in reducing carbon emissions, challenging Americans to innovations that would usher in a clean energy economy for the United States and the rest of the world.<sup>11</sup> The following month, the World Bank—in which the United States has the largest voting share—joined the White House in its coal ban, favoring instead to finance cleaner natural gas and hydro plants.<sup>12</sup>

In the autumn of 2013, the U.S. Treasury Department issued detailed guidance implementing the CAP, reinforcing the coal ban and laying out the specifics on the limited circumstances under which international financing of new coal plants would be considered. Moving forward, the United

<sup>5</sup>See <http://www.iea.org/publications/worldenergyoutlook/resources/energydevelopment/accesselectricity/>. For example, only about 31 percent of the Sub-Saharan population has access to electricity. Nearly 600 million people live without it.

<sup>6</sup>Chafe, Zoe, Michael Brauer, Zbigniew Klimont et al, "Household Cooking with Solid Fuels Contributes to Ambient PM<sub>2.5</sub> Air Pollution and the Burden of Disease," Environmental Health Perspectives at <http://ehp.niehs.nih.gov/1206340/>.

<sup>7</sup>See <http://www.who.int/csr/disease/ebola/overview-august-2014/en/>.

<sup>8</sup>Nuclear power is also baseload generation, but most developing countries are not good candidates for a commercial nuclear program because of the significant capital costs, as well as required regulations for safety, security, and non-proliferation. Of course, political risk and insecurity, which is a challenge in many poor countries, creates a strong argument against nuclear deployment in those countries.

<sup>9</sup>Energy for All – Financing Access for the Poor," International Energy Agency and the Organization for Economic Cooperation and Development, October 2011, pg. 13. See [http://www.iea.org/papers/2011/woe2011\\_energy\\_for\\_all.pdf](http://www.iea.org/papers/2011/woe2011_energy_for_all.pdf)

<sup>10</sup>"Today, I'm calling for an end of public financing for new coal plants overseas – (applause) – unless they deploy carbon-capture technologies, or there's no other viable way for the poorest countries to generate electricity. And I urge other countries to join this effort." – President Barack Obama, June 25, 2013. See <http://www.whitehouse.gov/the-press-office/2013/06/25/remarks-president-climate-change>

<sup>11</sup>See <http://www.whitehouse.gov/sites/default/files/image/president27climateactionplan.pdf>. "Leading Global Sector Public Financing Towards Cleaner Energy: Under this Administration, the United States has successfully mobilized billions of dollars for clean energy investments in developing countries, helping to accelerate their transition to a green, low-carbon economy. Building on these successes, the President calls for an end to U.S. government support for public financing of new coal plants overseas, except for (a) the most efficient coal technology available in the world's poorest countries in cases where no other economically feasible alternative exists, or (b) facilities deploying carbon capture and sequestration technologies. As part of this new commitment, we will work actively to secure the agreement of other countries and the multilateral development banks to adopt similar policies as soon as possible."

<sup>12</sup>See <http://www.worldbank.org/en/news/feature/2013/07/16/world-bank-group-direction-for-energy-sector> and "Toward a Sustainable Energy Future for All: Directions for the World Bank Group's Energy Sector" at <http://documents.worldbank.org/curated/en/2013/07/18016002/toward-sustainable-energy-future-all-directions-world-bank-group%C2%92s-energy-sector>.

States would only consider coal financing for the world's poorest countries, with no other economically feasible alternatives, or for facilities deploying carbon capture and storage (CCS), *which is not even commercially available*.<sup>13</sup>

The U.S. Export-Import Bank (Ex-Im) then revised its guidelines in December, eliminating support for high carbon intensity projects, except for the poorest.<sup>14</sup> The Bank's new guidelines were amended soon afterward by Congress, including the addition of more poor countries to the list (See Table 1).<sup>15</sup> Expectedly, Republican lawmakers were criticized by a number of environmental organizations for this act.<sup>16</sup>

**With its focus on climate policy, the Obama Administration has redefined the primary purpose of U.S. international financing for energy projects – from access to reliable and affordable energy to climate mitigation.** This shift was best exemplified in December 2013 when the United States—albeit unsuccessfully—opposed Asian Development Bank (ADB) funding for a *supercritical* coal-fired plant in Pakistan.<sup>17</sup> In overcoming U.S. disapproval, ADB officials claimed that the power plant would help address acute power shortages of up to 20 hours per day and save the Pakistani economy \$535 million by replacing imported oil with coal. Power shortages cost the Pakistani economy an estimated 2 percent of its annual economic growth.<sup>18</sup>

Energy security and development goals do not appear to be major concerns of the White House. Administration officials have aggressively lobbied other developed countries to restrict international coal financing. The United Kingdom, Denmark, Finland, Iceland, Norway and Sweden joined the U.S. position quickly, followed late last year by France and Germany.<sup>19,20</sup> However, U.S. efforts to persuade other major developed economies outside of Europe have stalled. In July 2014, Japan announced that it would increase its support for coal-fired power plants in develop-

ing countries, arguing that U.S. policy would force those nations to deploy cheaper, more polluting technologies. That month, Tokyo's Japan Bank for International Cooperation (JBIC) approved a \$200 million-credit line to Vietnam to purchase Japanese coal pollution-control technology.<sup>21</sup> Australia has also opposed U.S. efforts, given the importance of coal exports to the Australian economy.<sup>22</sup>

Few proponents for funding overseas coal plants actually question the need to impose certain environmental conditions—such as the need to install highly-efficient technology to mitigate greenhouse gas emissions and traditional pollutants. However, these requirements should take into account the circumstances of the country in question, including ambient environmental conditions and coal quality (i.e., not all coal projects should be ultra-supercritical). The determination should also consider what current feedstock a coal plant would be displacing, including solid fuels and petroleum. **Furthermore, carbon capture and storage (CCS) technology should not be imposed as a standard on any part of the developing world, including India, which has roughly 300 million people without access to electricity.**

It is doubtful, however, that the Obama Administration will voluntarily take a more practical approach because of overriding domestic policy goals. As part of the implementation of the President's Climate Action Plan, the Environmental Protection Agency (EPA) has put forward a regulatory proposal covering carbon dioxide emissions from new power plants. That plan would require carbon capture and storage (CCS) on all new coal plants built in the United States.

The Administration is already under pressure from Republicans and a number of Democrats to drop the CCS standard for new U.S. plants. In May of 2014, seven Democratic Senators, citing the commercial unavailability of CCS, re-

<sup>13</sup>See <http://www.treasury.gov/press-center/press-releases/Pages/jl2195.aspx> and [http://www.treasury.gov/resource-center/international/development-banks/Documents/CoalGuidance\\_2013.pdf](http://www.treasury.gov/resource-center/international/development-banks/Documents/CoalGuidance_2013.pdf).

<sup>14</sup>See <http://www.exim.gov/newsandevents/releases/2013/EXPORT-IMPORT-BANK-BOARD-ADOPTS-REVISED-ENVIRONMENTAL-GUIDELINES-TO-REDUCE-GREENHOUSE-GAS-EMISSIONS.cfm> and "Supplemental Guidelines for High Carbon Intensity Projects" at <http://www.exim.gov/newsandevents/releases/2013/SUPPLEMENTAL-GUIDELINES-FOR-HIGH-CARBON-INTENSITY-PROJECTS.cfm>

<sup>15</sup>Adragna, Anthony, "Climate Agenda Intact with Limited Riders in Appropriations Bill, White House Says," Bloomberg, January 15, 2014 at <http://www.bloomberg.com/news/2014-01-15/climate-agenda-intact-with-limited-riders-in-appropriations-bill-white-house-says.html>. Specifically, the provision would prevent Ex-Im and the Overseas Private Investment Corporation "from blocking coal-fired or other power-generation projects that increase the export of U.S. goods or services or prevent the loss of U.S. jobs."

<sup>16</sup>See <http://blog.nwf.org/2014/01/dirty-business-congress-seeks-to-export-u-s-fossil-fuels-and-carbon-pollution/> and [http://switchboard.nrdc.org/blogs/jschmidt/spending\\_bill\\_shouldnt\\_change.html](http://switchboard.nrdc.org/blogs/jschmidt/spending_bill_shouldnt_change.html).

<sup>17</sup>Fortunately, the plant was approved by the ADB. See <http://www.adb.org/news/pakistan/adb-provides-900-million-jamshoro-power-project>. Although restrictions on U.S. Ex-Im financing for coal-related exports to Pakistan were relaxed by Republican lawmakers, the White House can still oppose development bank funding.

<sup>18</sup>Blocking funding to the plant would have reduced Pakistan's access to affordable power that is needed for job creation, increasing the odds of political instability – a risk that the United States should seek to reduce, particularly given Pakistan's nuclear weapons stockpile. See <http://www.law360.com/articles/494317/pakistan-secures-900m-loan-for-coal-power-plant>.

<sup>19</sup>See <http://www.ebrd.com/pages/sector/powerenergy/the-switch-from-coal.shtml> and <http://www.bna.com/netherlands-joins-bid-b1719889127/>.

<sup>20</sup>See [http://www.new-york-un.diplo.de/Vertretung/newyorkvn/en/\\_pr/speeches-statements/2014/20140923-hendricks-un-climate-summit.html?archive=3759636](http://www.new-york-un.diplo.de/Vertretung/newyorkvn/en/_pr/speeches-statements/2014/20140923-hendricks-un-climate-summit.html?archive=3759636) and <http://www.reuters.com/article/2014/11/27/us-france-energy-coal-idUSKCN0JB1720141127>.

<sup>21</sup>Iwata, Mari, "Japan to Step Up Support for Overseas Use of Coal," Wall Street Journal, July 23, 2014 at <http://online.wsj.com/articles/japan-to-step-up-support-for-overseas-use-of-coal-1406114037>

<sup>22</sup>In 2012-13, coal accounted for 13 percent of total goods and services exported by Australia. See <http://www.minerals.org.au/resources/coal/exports>.

questioned that President Obama support a standard in the near term that could be achieved by high-efficiency coal technologies.<sup>23</sup> Proponents for the efficiency standard also argue that a CCS requirement would irreparably damage U.S. investments and research and development in coal combustion, thus undermining the longer term goal of commercializing and exporting cleaner coal technologies.

The White House is probably concerned that adopting an energy efficiency standard for overseas coal plants would strengthen opposition to the President's domestic plan for CCS. The stakes are definitely high for proponents of future carbon regulation. If EPA carbon regulation survives legal challenges and makes it to the next round of U.S. GHG emissions cuts, the Agency will need the CCS standard for natural gas to force a fuel switch to zero emissions sources.<sup>24</sup> In the end, the courts may reject the CCS standard in the EPA proposal, which could force the Agency to support an efficiency standard for new U.S. coal plants. In turn, this development would obviously have a major impact on U.S. international financing policy of coal projects.

## Developing Countries Need Coal-Fired Generation

Electricity investments in the developing world mainly seek to achieve three goals: to provide affordable power to people who do not have *any* access, to increase current consumption levels to achieve modern usage, or to generate affordable and reliable electricity to attract industry and power public buildings (e.g., schools and hospitals). According to a joint study by the IEA and the Organization for Economic Cooperation and Development (OECD), the world will spend an average of \$14 billion annually between now and 2030 to provide access to modern power services, which will still leave nearly 1 billion people without electricity. To close this gap, the IEA and OECD propose an additional \$34 billion spending in energy infrastructure per year by 2030, for a total investment of about \$1 trillion.<sup>25</sup>

The IEA and the OECD acknowledge that meeting this universal objective would require on-grid, mini-grid and off-grid solutions. **Of the on-grid power generation, the study estimates that over 60 percent would be delivered using fossil fuels, predominantly coal—resulting in a global increase of GHG emissions by an estimated 0.7 percent by 2030.** Some part of this growth in emissions would be offset by fuel switching from solid fuels to electric stoves (*i.e.*, reduction in global warming particulates) and reduced deforestation (*i.e.*, increased sequestration).<sup>26</sup> In comparison, China's carbon pollution will increase substantially in the same timeframe—to a point where its level surpasses the combined total of the countries of the OECD.<sup>27</sup>

Table 1 (see next page) illustrates the vast disparity in electricity consumption between the countries that oppose coal plant financing and energy-poor countries, including those that are viewed by the Obama Administration as being too wealthy to be considered for efficient coal plants. As a point of reference, developing country household access to 250 kWh per year can provide electric light for five hours per day, the usage of one floor fan, and the charge for one cell phone. Increasing to 500 kWh allows for the addition of an efficient refrigerator, a second cell phone, and an appliance, such as small television or computer.<sup>28</sup>

The White House's Power Africa campaign, launched in the summer of 2013, targets six of the continent's poorest countries—Ethiopia, Ghana, Kenya, Liberia, Nigeria, and Tanzania—and seeks to add 10,000 megawatts of clean energy generation capacity. Washington has committed to more than \$7 billion of public funding over a five-year period, leveraging it with \$18 billion in private sector funding from a variety of U.S. and global companies.<sup>30,31</sup> With collaboration from a dozen U.S. government agencies, African governments, and private sector investment, the initiative is assisting with on-grid, mini-grid and off-grid projects fueled by wind, solar, geothermal, and biomass energy.<sup>32</sup> Consistent with the President's Climate Action Plan, none of the support will involve construction of coal

<sup>23</sup>See [http://www.heitkamp.senate.gov/public/\\_cache/files/e14328e8-94a5-4b6a-8c18-10b1545f9e30/5-21-nsps-letter.pdf](http://www.heitkamp.senate.gov/public/_cache/files/e14328e8-94a5-4b6a-8c18-10b1545f9e30/5-21-nsps-letter.pdf).

<sup>24</sup>EPA and environmental activists will seek U.S. reductions in greenhouse gases that they feel are necessary to avoid abrupt climate change – at least an 80 percent reduction by 2050. Because of the emissions profile of natural gas, the 2050 goal cannot be met as long as natural gas plays a dominant role in the American economy.

<sup>25</sup>The "additional \$34 billion" was derived from subtracting \$14 billion from the IEA/OECD estimate that universal access would require \$48 billion annually. Ibid, Energy for All, pg. 7.

<sup>26</sup>Ibid, pg. 27.

<sup>27</sup>The Obama Administration recognized this reality in its November 2014 agreement with Beijing. See <http://www.whitehouse.gov/the-press-office/2014/11/11/us-china-joint-announcement-climate-change>.

<sup>28</sup>Ibid, Energy for All, pg. 12.

<sup>29</sup>CIA World Fact Book 2013: [http://www.photius.com/rankings/energy/electricity\\_consumption\\_per\\_capita\\_2013\\_0.html](http://www.photius.com/rankings/energy/electricity_consumption_per_capita_2013_0.html).

<sup>30</sup>On August 5, 2014 at the US-Africa Business Forum, President Obama announced an increased financial commitment of public and private sector funding, and tripled the power connections target to 60 million households and businesses. <http://www.whitehouse.gov/the-press-office/2014/08/05/remarks-president-us-africa-business-forum> and See <http://www.usaid.gov/powerafrica/partners/private-sector>

<sup>31</sup>As a point of reference, the ABD provided \$900 million to help build the 600 megawatt supercritical coal plant in Pakistan. Supercritical coal plants typically run around 70 percent of the time, while wind power has a capacity rate of about 15 to 30 percent. Thus, 10,000 megawatts of wind power capacity – at best – would be roughly equivalent to 2,000 to 4,000 megawatts of supercritical coal-fired generation capacity.

<sup>32</sup>See <http://www.whitehouse.gov/the-press-office/2013/06/30/fact-sheet-power-africa>.

TABLE 1: SELECT COUNTRIES, ELECTRICITY CONSUMPTION, 2013 (KWH PER CAPITA)

| Countries Supporting Severe Restrictions on Coal Plant Investments | Ex-Im List of Poorest Countries (Coal Plant Investments Allowed in Limited Circumstances) | Countries Added to the Ex-Im List by Republican Lawmakers in 2014 |
|--|---|---|
| Norway (23,538)  | Bangladesh (216)  | Vietnam (1,103)   |
| Sweden (13,961)  | Cote d'Ivoire (162)   | India (529)   |
| United States (12,391)   | Congo, Republic (128)   | Bolivia (612)   |
| Germany (6,753)  | Cambodia (117)  | Sri Lanka (431)   |
| Netherlands (6,419)  | Congo, Dem. Rep. (89)   | Pakistan (368)  |
| Denmark (5,848)  | Ethiopia (40)   | Cameroon (250)  |
| United Kingdom (5,167)   | Eritrea (39)  | Nigeria (103)   |

29

TABLE 2: U.S. GOVERNMENT AGENCY FINANCIAL COMMITMENTS FOR POWER AFRICA

| Federal Agency                                    | Funding             | Type of Commitment  |
|---|---------------------|---|
| U.S. Agency for International Development (USAID) | \$285 million       | Technical and regulatory assistance, grants and risk mitigation |
| Millennium Challenge Corporation (MCC)            | Up to \$1 billion   | Investments in infrastructure, reform, and capacity             |
| Overseas Private Investment Corporation (OPIC)    | Up to \$1.5 billion | Financing, loan guarantees, and political risk insurance        |
| U.S. Export-Import Bank (Ex-Im)                   | Up to \$5 billion   | Potential loan guarantees                                       |

33

plants, despite the recommendations of development policy experts from the IEA and OECD.

One year later, criticism is spreading that Power Africa is *powerless* in providing real help to Africa. Detractors argue that President Obama's plan and focus on intermittent renewable energy sources will not deliver the type of consistent, baseload power that African countries need to build an industrial economy. Certain practical goals, such as increasing access to refrigeration and consistent operation of machinery for manufacturing, cannot be achieved solely with renewable power generation.

African governments understand fully that fossil fuel exploitation is essential to meeting those basic needs. **At the August 2014 U.S.-Africa Leader Summit, African senior officials were vocal in opposing the U.S. position. Tanzanian Minister of Power Sospeter Muhongo argued that his country would build coal plants, "Why shouldn't we use coal when there are other countries where their [carbon pollution] per capita is so high? . . . We will just go ahead."** Nigeria's Minister of Power Chinedu Ositadinma Nebo agreed, "I think Africa should be allowed to develop its coal potential. This is very critical."<sup>34</sup>

<sup>33</sup>"Power Africa: Annual Report July 2014" See [http://www.usaid.gov/sites/default/files/documents/1860/USAID\\_PowerAfrica\\_AR\\_July2014.pdf](http://www.usaid.gov/sites/default/files/documents/1860/USAID_PowerAfrica_AR_July2014.pdf)

<sup>34</sup>Friedman, Lisa, "Africa Needs Fossil Fuels to End Energy Apartheid," *ClimateWire*, August 5, 2014.

In response to African government concerns, World Bank President Jim Kim appears to have taken a more nuanced position, despite the Bank's formal position on coal plant financing. Kim announced at the Summit in August, "Where the only option is coal, we have said that we're going to have to look at that, and look at that seriously." On the ability of renewables to meet Africa's basic power needs, he further commented, "The minute it gets there, we will be the first to celebrate. But it's not there yet."<sup>35</sup>

## U.S. Policy Opens Up Opportunities for Foreign Competitors

The U.S. position is unlikely to gain much traction outside of Europe for one incredibly important reason: the climate agenda is not a top political priority in most other areas of the world.<sup>36</sup> In fact, developing countries are likely to surmise that the motivation behind U.S. policy is to limit their economic growth or worse yet—to offset the growth of carbon dioxide emissions in the United States and the European Union.<sup>37</sup> In the best-case scenario, poor countries will ascertain that Washington policymakers are simply removed from reality or insensitive to their needs. In either case, developing nations are likely to seek funding for coal projects from bilateral sources and other development banks not under the influence of the United States and its coalition partners.

China and Russia, in particular, will be eager to exploit this gap by offering financing at better terms and with fewer environmental conditions. Beijing and Moscow both seek to realign the global financial system, which they view as a relic of Bretton Woods and providing unwarranted influence to the West. Moreover, affordable and reliable energy resources that are often politically incorrect in Washington, including coal and hydro, will become increasingly important as the world further industrializes. **By financing power projects that can last decades, China and Russia both will gain greater political influence in the developing world, which will increase in geopolitical importance over the course of this century.**

Recent research indicates that China is by far the largest funder of overseas coal projects in developing countries (See Table 3). Last year, Beijing approved a deal to finance a 1,320 megawatt coal plant in Bangladesh—one of the countries most cited as being vulnerable to climate impacts.<sup>38</sup> And even in the EU's backyard, China is building coal power. A Chinese consortium won a bid in 2014 to build a 450 megawatt plant in Bosnia, a country hoping to achieve EU membership. China's Ex-Im Bank plans to finance 85 percent of the \$1 billion project, including contracts with European equipment providers, Alstom and Siemens.<sup>39</sup>

China is also pursuing the creation of multilateral financing mechanisms that give it greater control over decision making, in contrast with its limited influence in the World Bank and Asian Development Bank. In this effort, Beijing is focusing on infrastructure development, in part because of lessons learned from its own economic development history. According to the World Bank, a 10 percent increase in infrastructure investment contributes to 1 percent GDP growth in developing countries.<sup>40</sup> Unencumbered by carbon restrictions, it is expected that China's new initiatives will provide substantial funding for coal projects in poor countries.

Last year, the BRICS group (Brazil, Russia, India, China, and South Africa) agreed to create the New Development Bank (NDB), headquartered in Shanghai, China, to be in operation by 2016.<sup>41</sup> Focusing primarily on infrastructure projects, the NDB will have initial starting capital of \$50 billion, increased over time to \$100 billion. Although the Bank will focus on BRICS projects initially, the NDB plans to fund projects in low and middle income countries as well.

In addition to the NDB, China, joined by 20 other countries in November 2014, launched another \$50 billion development bank—the Asian Infrastructure Investment Bank (AIIB).<sup>42</sup> Widely viewed as a rival to the World Bank

<sup>35</sup>See [http://www.eenews.net/special\\_reports/global\\_climate\\_debate/stories/1060004061/print](http://www.eenews.net/special_reports/global_climate_debate/stories/1060004061/print)

<sup>36</sup>A number of environmental activists will dispute this point, relying in particular on statements from small island developing states (SIDS). However, SIDS climate change policy is defined largely by Western environmental groups. In fact, it is not uncommon to find environmental activists representing SIDS in the international climate negotiations. See <http://www.worldwatch.org/node/6360>

<sup>37</sup>This narrative may be fed in particular by Germany's recent actions to bring new coal plants on line. See <http://www.bloomberg.com/news/2014-06-26/germany-s-new-coal-plants-push-power-glut-to-4-year-high.html>

<sup>38</sup>"China, Bangladesh Sign Power Plant Deal," Xinhua, April 29, 2014 at <http://english.people.com.cn/90883/8613419.html>

<sup>39</sup>"Chinese Group Wins Approval for Bosnia Power Plant," Reuters, July 24, 2014 at <http://www.reuters.com/article/2014/07/24/bosnia-energy-china-idUSL6N0PZ4W520140724>

<sup>40</sup><http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTINFRA/0,contentMDK:23136173~menuPK:8497173~pagePK:64168445~piPK:64168309~theSitePK:8430730,00.html>

<sup>41</sup>Sharkov, Damien, "Russia, China, India Ready to Launch Rival to World Bank," Newsweek, July 9, 2014 at <http://www.newsweek.com/russia-china-india-ready-launch-rival-world-bank-258058>

<sup>42</sup>See Perlez, Jane, "U.S. Opposing China's Answer to World Bank," New York Times, October 9, 2014 at <http://www.nytimes.com/2014/10/10/world/asia/chinas-plan-for-regional-development-bank-runs-into-us-opposition.html> and <http://www.reuters.com/article/2014/11/05/us-china-aiib-idUSKCN0ID08U20141105>.

and Asian Development Bank (ADB), the AIIB will focus on infrastructure development as well. The high level of interest across the region indicates that governments believe that a new bank is needed because existing multilateral banks have not been able to provide adequate low-cost financing for infrastructure creation.<sup>43</sup> Certainly, carbon conditions pushed aggressively by the United States have raised concerns that Western development banks have lost focus in helping provide developing countries the energy systems they actually want and need.

**TABLE 3: SELECT COUNTRIES, PUBLIC FINANCING OF OVERSEAS COAL POWER PLANTS IN ASIA (2007 TO 2013)<sup>45</sup>**

| Country       | Billions (U.S. Dollars) |
|---------------|-------------------------|
| China         | \$13.1 to \$20.6        |
| Japan         | \$7.66                  |
| South Korea   | \$4.3                   |
| Germany       | \$3.66                  |
| France        | \$1.71                  |
| United States | \$1.46                  |

44

The United States, despite its reported diplomatic efforts to undermine the Asian Infrastructure Development Bank, cannot stop China and other countries from creating new financial institutions nor can Washington stop those governments from funding overseas coal plants. More importantly, the United States *should* not block Beijing's desire to provide more money for infrastructure development, given the enormous gap between the capital that is currently available and what is required, particularly for global access to electricity and modern energy usage.

Obstructing China only reinforces the belief in impoverished countries that the United States has no real understanding of poverty issues and will do anything to preserve its own influence, even to the detriment of the world's poor.

This insensitivity has associated political costs, likely resulting in greater resentment towards the United States and declining U.S. influence in large parts of the world relative to China and other BRICS countries.

## Finding the Right Balance

Washington should take caution in imposing climate policies on poor countries, particularly those that are built on a mythology in which renewable energy systems can replace baseload generation in economic development. While developing countries benefit from deployment of distributed generation, especially in rural areas, they also need coal units to reduce power shortages in urban zones and to help attract factories that require reliable power.

Climate activists argue that the United States has a moral responsibility to reduce its greenhouse gas emissions—in part to save poor countries from climate impacts. While developing countries would agree with that statement, they would argue that the greater moral responsibility is for Washington to help improve their quality of life—even if that means building coal plants in poor countries and offsetting those emissions by further reducing carbon pollution in the industrialized world. Further, they would emphasize that increasing access to electricity enhances resilience to climate impacts—a point reflected in the UNFCCC.

Given their influence in multilateral development banks, the United States and its partners in Europe can undoubtedly slow down the deployment of coal plants, but they cannot stop them. Beijing and other governments will continue to fund coal projects throughout the developing world, and they will earn political goodwill for it. Over time, poor countries will learn to go to the Chinese and others first when discussing energy infrastructure—if they have not already—leaving the United States and its climate allies on the sidelines.

This development will have negative implications for the environment. IEA Executive Director Maria van der Hoeven recently warned that too many inefficient coal plants are being built in Africa and Asia already, necessitating greater investment in highly efficient plants in those areas.<sup>45</sup> **Chinese displacement of Japanese boiler technology exports, for example, would have a non-trivial impact on greenhouse gas emissions. According to research at the University of Tokyo, roughly 35 percent of**

<sup>43</sup>"India Likely to Join Asian Infrastructure Bank," Sidhartha, October 6, 2014 at <http://timesofindia.indiatimes.com/business/india-business/India-likely-to-join-Asian-infrastructure-bank/articleshow/44455632.cms>

<sup>44</sup>Data taken from Takahiro Ueno, Mike Yanagi, and Jane Nakano. "Quantifying Chinese Public Financing for Foreign Coal Power Plants," GraSPP Working Paper Series, University of Tokyo, November 2014, pp. 14 - 18.

<sup>45</sup>See <http://www.eenews.net/climatewire/stories/1060010523>.

<sup>46</sup>Takahiro Ueno, Mike Yanagi, and Jane Nakano. "Quantifying Chinese Public Financing for Foreign Coal Power Plants," GraSPP Working Paper Series, University of Tokyo, November 2014, pp. 22 and 23.

**boiler technology supplied by Chinese manufacturers to Asian markets after 2007 was supercritical, compared to 62 percent exported by Japanese firms.<sup>46</sup> Accordingly, U.S. efforts to obtain an OECD consensus on severely limiting coal financing for the sake of climate mitigation, if successful, would actually result in an increase in GHG emissions over the longer term—an unintended but foreseeable consequence.**

Fortunately, there is time for a policy correction that protects long-term U.S. interests. The Obama Administration should abandon the requirement of carbon capture and storage (CCS) on any coal plant in the developing world—choosing instead a flexible efficiency standard. Washington should also weigh the positive environmental and health benefits of coal generation when new builds result in energy efficiency upgrades or fuel switching from oil or solid fuels, such as wood and charcoal. Reducing dependence on solid fuels not only reduces potent, short-lived global warming agents but also saves lives. If needed to produce a carbon neutral transaction, the United States should consider attaching domestic or foreign offset requirements, including land use and forests, to a new coal plant.

For their part, fiscal conservatives should support a role for the U.S. government in helping finance infrastructure, including power projects, where there is a heightened perception of risk, private capital markets are not well developed, and U.S. national interests are at stake. Unmistakably, U.S. taxpayers face a real risk in the U.S. financing of these projects. There remains a strong public policy argument to back electricity investments, however. A more prosperous world, fueled by affordable power, reduces the probability of conflict, humanitarian crises, terrorism, and instability—issues about which the United States and its public cares deeply. In this effort, both Ex-Im and OPIC can be important U.S. foreign policy tools if used correctly.<sup>47</sup>

The United States still has substantial leverage that it can use to promote its objectives. Developing countries need U.S. assistance, particularly from its private sector which offers knowledge, training, transparency, and world-class technology. Washington, however, cannot overplay its hand; it must seek a balance—in coordination with other creditors, including China and Russia—that weighs economic development goals, including global energy access, and the need to improve air quality and health systems in the developing world.

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<sup>47</sup>The ability to provide government financing can determine if a U.S. company's bid is even competitive. According to an industry survey, some procurement tenders give up to 30 percent weight to government-backed financing in evaluation of bids.