

EXTREME INVESTMENTS

U.S. Banks and the Coal Industry
Coal Finance Report Card 2013



RAINFOREST ACTION NETWORK

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EXTREME INVESTMENTS

U.S. Banks and the Coal Industry Coal Finance Report Card 2013



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EXECUTIVE SUMMARY

In this fourth annual Coal Finance Report Card, Rainforest Action Network, Sierra Club, and BankTrack evaluated the largest U.S. banks based on their financing of coal, which is the top source of U.S. greenhouse gas emissions. We ranked and assessed the largest U.S. banks according to their lending and underwriting of companies that engage in mountaintop removal coal mining or operate coal-fired power plants in the U.S. We also graded banks based on their mountaintop removal and coal-fired power financing policy commitments. Ungraded sections of the report card highlight bank financing of companies involved with coal exports and coal transportation.

In spite of the human and environmental costs of coal as well as the growing financial risks associated with investments in the coal industry, banks continued to finance a combined \$20.8 billion for the worst of the worst companies in the coal industry in 2012. Bank of America, Citigroup, and JPMorgan Chase had the most exposure to coal among U.S. banks in 2012, financing \$3.03 billion, \$2.75 billion, and \$2.17 billion respectively in loan and underwriting transactions with companies that engage in mountaintop removal coal mining or electrical utilities that are expanding or extending the lives of their coal-fired power plant fleets. To date, the environmental policies and due diligence processes at these banks have had little measurable effect on their financing practices, and report card grades for 2013 show little improvement from 2012. It is imperative that U.S. banks go beyond symbolic policies and take measurable steps to phase out their coal lending. Therefore, more stringent, performance-based grading criteria will be phased in for the 2014 report card.

2013 Coal Finance Report Card Bank Grades

BANK	2013 MOUNTAINTOP REMOVAL GRADE	2013 COAL-FIRED POWER PLANT GRADE
Bank of America	C-	D
BNY Mellon	F	F
Citigroup	C-	D
Goldman Sachs	D	D
HSBC North America	D+	C-
JPMorgan Chase	D+	D
Morgan Stanley	C-	D
PNC Financial	C-	F
US Bank	D	D
Wells Fargo	C	D

INTRODUCTION



Background

Coal has become an extreme investment. The extraction and combustion of coal impose immense human and environmental costs, and the economic viability of coal-fired power in a carbon-constrained future is increasingly uncertain. In 2012, record droughts and other extreme weather events in the U.S. and around the world served as clear warnings of the escalating threat posed by climate change and coal-fired power, which is a key source of global greenhouse gas emissions.

But even as Superstorm Sandy brought the impacts of climate disruption home to New York in the form of a storm surge that inundated Wall Street, the largest U.S. banks continued to provide tens of billions of dollars in loans and bond financing to companies involved with the extraction, transport, and combustion of coal in 2012.

A growing body of environmental and public health literature has documented the staggering environmental and human costs of coal.

For example, a **2011 Harvard School of Public Health study found that coal mining and combustion in the U.S. imposes between a third to over a half of a trillion dollars in externalized environmental and health costs each year.**¹

These costs hit American families hard and range from asthma and other cardiovascular diseases caused by coal plant emissions to cancer and chronic disease in communities impacted by mountaintop removal (MTR) coal mines.



U.S.COAL

An Industry in Decline
From 2011 to 2012

-11% drop in coal transported (726,000 carloads)

-7.3% drop in coal produced

-11.3% drop in coal consumed

-11.6% drop in coal used for generation

TOP 3

Financiers of Mountaintop Removal
and Coal-Fired Power, 2012

#1 Bank of America **\$3.03 billion** { down from \$5.81 billion in 2011

#2 Citigroup **\$2.75 billion** { down from \$5.94 billion in 2011

#3 JPMorgan Chase **\$2.17 billion** { down from \$6.01 billion in 2011

*Based on combined MTR and coal-fired power lending and underwriting transactions according to Bloomberg league tables methodology.²

METHODOLOGY

Starting with the 12 largest U.S. banks by assets, we selected ten of these that had major investment banking operations.³ Our A-through-F grades evaluate bank policy commitments on lending and underwriting transactions with companies that engage in mountaintop removal (MTR) or operated coal-fired power plants.

Grades also reflect bank exposure to MTR and coal-fired power through their participation in loans and bond or equity underwriting transactions with these companies in 2012. For MTR, the report evaluated financing of the top producers of MTR coal by tonnage mined in 2012. For coal-fired power, the report looked at companies that are significantly dependent on coal, that still have plans to build new coal plants, or that intend to invest significant amounts of money to extend the lives of existing coal-fired power plants. In some instances, grades were adjusted with a “+” or “-” based on a bank’s level of lending and underwriting exposure to one or both sectors, or the strength or weakness of a bank’s policy commitments.

As RAN and the Sierra Club have done for previous coal report cards, we informed each bank of our assessments and gave them opportunity to provide further information that might affect the preliminary grades received. Five banks (Citigroup, Goldman Sachs, HSBC, U.S. Bank, and Wells Fargo) responded with clarifying information.

This year’s report card also highlights risks associated with companies that transport coal or are involved with coal export terminals. This year, we did not grade or rank banks based on their financing exposure to these companies. However, the 2014 report card will assign bank grades based on involvement with and policy commitments addressing transactions with these companies.



MOUNTAINTOP REMOVAL COAL MINING



Photo: Vivian Stockman / OHVEC

INTRODUCTION

All methods of coal mining pose serious risks for human health and the environment. However, mountaintop removal (MTR) coal mining—which involves blasting the tops off mountains to expose coal seams, and dumping the resulting waste into streams—has uniquely devastating impacts on communities and ecosystems. The Appalachian region of the U.S. has already lost 500 mountains and over 2,000 miles of stream to this practice.⁴

Environmental damage caused by mountaintop removal mining includes air pollution from blasting, contamination of streams and groundwater from toxic mine runoff, and the destruction of entire mountaintop and valley ecosystems. A 2011 survey of peer-reviewed studies on mountaintop removal mining published in *Science* concluded that the practice causes “pervasive and irreversible”⁵ environmental damage “that mitigation practices cannot successfully address.”⁶

The survey also concluded that public health studies of mountaintop removal mining found that it has a “high potential for human health impacts.”⁷ Other studies have documented links between mountaintop removal and elevated risks of cancer, heart disease, kidney disease, birth defects, asthma, chronic obstructive pulmonary disease, and premature mortality in nearby communities.⁸

Due to these and other impacts, coal companies that engage in MTR face acute legal, regulatory, and reputational risks. **In 2012, the coal industry struggled in the face of declining domestic coal demand. As a result, several of the largest coal companies that have MTR operations saw their credit ratings fall and their stock prices slide.**

An equal-weighted stock portfolio of the 13 companies with MTR production profiled in this report would have lost 40% of its value between April 2012 and April 2013. As of April 2013, only one had a Standard & Poor’s credit rating above “junk.”⁹

List of Companies with Significant MTR Production in 2012

(See Appendix 1 for full profiles)

ALPHA NATURAL RESOURCES

ARCELORMITTAL

ARCH COAL

CLIFFS NATURAL RESOURCES

CONSOL ENERGY

ESSAR GROUP

JAMES RIVER COAL COMPANY

LIPARI ENERGY

PATRIOT COAL

RHINO RESOURCE PARTNERS

TECO ENERGY

WALTER ENERGY

XINERGY

CASE STUDIES

Patriot Coal's Bankruptcy

Feeling the weight of shrinking coal demand, rising costs of mine operation, outdated plants, and more stringent environmental enforcement by citizen groups, Patriot Coal Corporation filed for Chapter 11 bankruptcy in July of 2012. Four months later, the company reached a settlement with Sierra Club, Ohio Valley Environmental Coalition, and West Virginia Highlands Conservancy in which it agreed to phase out its MTR mining operations as well as all other forms of large scale surface mining. This was offered in exchange for an extension to its deadlines for installing expensive selenium treatment equipment at several mines, part of agreements reached in previous lawsuits that left Patriot with hundreds of millions of dollars in treatment liability.

In a statement released by Patriot following the settlement, it announced that surface mining was no longer in its business interest, while also officially acknowledging the impacts of mountaintop removal on communities and the environment.

The settlement was agreed to while the bankruptcy proceedings provided Citi, Barclays and Bank of America with oversight of Patriot's decision-making process. This is a move that we would like to see emulated by other banks that finance MTR, and all of the environmental, health, and economic risks that come along with it.

Arch Coal and Human Rights

In January 2013, Arch Coal received final permit approval for a new mountaintop removal mine in Blair, West Virginia. If approved, Arch's proposed Adkins Fork mine is poised to destroy a central part of the Blair Mountain battlefield, the site of the largest armed conflict in the U.S. since the Civil War, which has been acknowledged to be historically significant by both the National Register of Historic Places and the National Trust for Historic Preservation.

For residents of Blair, the health and environmental costs of the new MTR mine will be severe. The town used to be a thriving community of 700 people, but now has fewer than 50 residents because of the extreme dangers posed by existing mountaintop removal mines near the town.

The people who have stayed live with dynamite blasts, dust from mine sites, and water that is no longer safe to drink. **Arch's proposed mine would further harm Blair's residents, while obliterating an irreplaceable piece of history.**

For Arch's lenders, including Bank of America, Citigroup, and Morgan Stanley, several 2012 transactions with Arch should have raised red flags due to human rights and environmental concerns, including the following:

- The potential water, noise, and air pollution impacts from the mine, which threaten the human rights to water and health of Blair's residents
- Arch's past mining operations near Blair, which raise concerns about the human right to housing in light of testimony of Arch officials that MTR operations "would make life so miserable for many Blair residents that they would want to sell their homes and move"¹⁰
- Human rights norms that proscribe the intentional destruction of cultural heritage sites such as the Blair Mountain battlefield.¹¹

Arch's lenders should, at a minimum, overhaul or establish lending policies and due diligence processes that are robust, verifiable, and capable of screening out similarly egregious transactions in the future. Ultimately, unless they are implemented effectively, lending policy commitments are merely paper promises.



Photo: Paul Corbit Brown

MTR GRADING CRITERIA AND RECOMMENDATIONS FOR BANKS

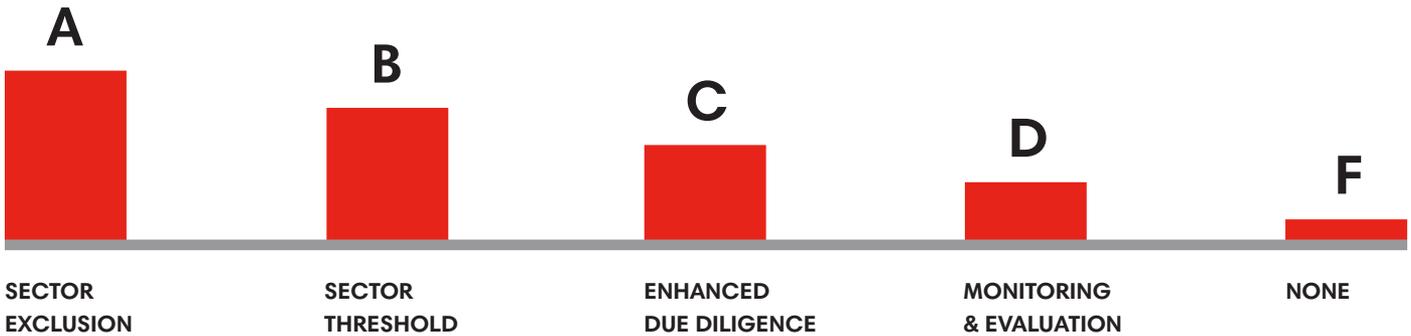
As in previous years, Rainforest Action Network and Sierra Club have graded the mountaintop removal lending policies and practices of U.S. banks on an A-through-F scale. The grading system reflects the conclusions of a growing body of peer-reviewed environmental and public health studies that have found the environmental and health costs of MTR to be severe and irreversible. Therefore, to earn an A, a bank must commit to phasing out its lending and credit underwriting to companies that engage in MTR. The grading system also recognizes progress towards this goal by awarding B and C range grades to banks that commit to a threshold performance standard by prohibiting lending to companies with more than a certain level of coal production from MTR. Banks also earn credit for subjecting transactions with companies that engage in MTR to enhanced due diligence processes.

For 2013, the grading criteria are unchanged from 2012, but the 2014 coal report card will phase in more stringent requirements for banks to earn credit for a threshold performance standard. Banks are currently awarded credit for prohibiting financing of companies that produce more than 50% of their coal tonnage from MTR. However, due to industry consolidation, such a threshold no longer excludes any of the major coal companies with significant MTR involvement. Therefore, in 2014, to earn credit for a threshold performance standard, banks must exclude companies with more than one million tons of annual coal production from MTR mines (this threshold will be reduced further in future years).

In addition, while a number of banks have established enhanced due diligence processes for MTR, in 2014, banks will not earn credit for due diligence processes unless the processes address all legal, environmental, and social risk areas listed below and are accompanied by annual public reporting on policy implementation. Had we used 2014 criteria for this year's report card grading, we would have expected bank due diligence processes to exclude, at a minimum, transactions with highest-concern MTR companies such as Arch Coal (see the Arch Coal case study for context).

Finally, to penalize banks that do not improve their policies over time, banks that receive grades lower than a C in multiple years and do not indicate an intention to improve their practices will have their grades reduced starting in 2014.

Grading Rubric for Banks Funding Mountaintop Removal



Sector Exclusion (A)

The bank has developed its own policy: complete sector exclusion (all MTR mining companies) in its lending and investment banking as well as its asset management.

Sector Threshold and Enhanced Due Diligence with Reporting (B)

The bank has developed MTR policies and practices that include:

- A threshold performance standard that prohibits financing companies whose surface mining activities are more than a stated percentage of their total coal extraction activities in KY, TN, VA and WV. *(To earn credit in 2014, bank threshold performance standards must exclude companies with more than one million tons of annual MTR production)*
- Due diligence processes for transactions with companies that engage in MTR. Due diligence should include a review of legal compliance, potential legal liabilities, environmental risks, environmental performance, and community engagement practices. *(To earn credit in 2014, bank due diligence processes must include review of all of these issues and screen out transactions with highest-concern MTR companies)*
- Public disclosure of policies
- Regular, public reporting on policy implementation with case studies

Sector Threshold (C)

The bank has developed MTR policies and practices that include:

- A threshold performance standard that prohibits financing companies whose surface mining activities are more than a stated percentage of their total coal extraction activities in KY, TN, VA and WV. *(To earn credit in 2014, bank threshold performance standards must exclude companies with more than one million tons of annual MTR production)*
- Public disclosure of policies

Enhanced Due Diligence with Reporting (C)

The bank has developed MTR policies and practices that include:

- Due diligence processes for transactions with companies that engage in MTR. Due diligence should include a review of legal compliance, potential legal liabilities, environmental risks, environmental performance, and community engagement practices. *(To earn credit in 2014, bank due diligence processes must include review of all of these issues and screen out transactions with highest-concern MTR companies)*
- Public disclosure of policies
- Regular, public reporting on policy implementation with case studies

Enhanced Due Diligence without Reporting (D)

- Due diligence processes for transactions with companies that engage in MTR.
- Due diligence should include a review of legal compliance, potential legal liabilities, environmental risks, environmental performance, and community engagement practices. *(Banks will not earn credit for due diligence without reporting in 2014)*

Monitoring & Evaluation (D)

The bank has made a public commitment to monitor and evaluate companies in the MTR mining sector. *(Banks will not earn credit for monitoring and evaluation in 2014)*

None (F)

The bank is active in the MTR sector, but has no specific investment policy to address environmental and social risks.



Bank of America

Policy Excerpt: Bank of America's Coal Policy states that the bank "is particularly concerned about surface mining conducted through mountain top removal in locations such as central Appalachia. We therefore will phase out financing of companies whose predominant method of extracting coal is through mountain top removal."¹²

Total MTR involvement: Bank of America shared the top spot in this report's 2012 MTR league table by providing approximately \$1.35 billion in financing as a lead arranger or lead manager in transactions for companies with significant coal production from MTR.

MTR companies financed: Alpha Natural Resources, ArcelorMittal, Arch Coal, Cliffs Natural Resources, CONSOL Energy, Patriot Coal, and Walter Energy, which collectively mined 47.8% of all MTR coal produced in Appalachia in 2012.

Comments: Bank of America's grade is unchanged from last year, as its exposure to MTR remained very high in 2012.

Although the company's coal policy includes a commitment to a sector threshold performance standard, its coal policy lacks clear due diligence processes for transactions with companies that engage in MTR. Bank of America could improve its grade by tightening its threshold performance standard for company MTR involvement, and by developing and reporting on the implementation of a comprehensive due diligence process for MTR transactions that has a demonstrable impact on its financing practices.

Grade: C-

BNY Mellon

Policy Excerpt: Although BNY Mellon has an environmental sustainability policy and a human rights statement, neither document addresses the company's exposure to MTR or the environmental and social impacts of its financing activities.¹³

Total MTR involvement: BNY Mellon was a lead manager and underwrote \$69 million as part of a bond transaction for a subsidiary of MTR producer TECO Energy in 2012.

MTR companies financed: TECO Energy was responsible for 3.92% of Appalachian MTR production in 2012.

Comments: BNY Mellon had a low level of exposure to MTR transactions in 2012. However, the company's existing environmental and human rights policies do not address the impacts of its lending and underwriting activities. In the absence of either a public-facing policy statement addressing the environmental and social risks associated with MTR or MTR-specific due diligence practices, BNY Mellon receives a failing grade.

Grade: F

Citigroup

Policy Excerpt: Citigroup has both an environmental and social risk management process for lending and underwriting transactions as well as a specific environmental due diligence process for transactions with clients that have MTR operations. The company notes that "[p]rior to new transactions, Citi will conduct appropriate due diligence and evaluate companies that engage in MTR extraction in Central Appalachia."¹⁴

Total MTR involvement: Citigroup tied for first in this report's 2012 MTR league table with approximately \$1.35 billion in financing as a lead arranger or lead manager in transactions for companies with significant coal production from MTR.

MTR companies financed: Alpha Natural Resources, ArcelorMittal, Arch Coal, Cliffs Natural Resources, Patriot Coal, TECO Energy, and Walter Energy, which produced 50.66% of MTR coal mined in Appalachia in 2012.

Comments: Citigroup has a due diligence process for MTR transactions and reported in its 2011 Citizenship Report that it had reviewed five such transactions in 2011 and that one of these transactions did not proceed.¹⁵ However, its grade is unchanged from last year due to its very high level of exposure to MTR transactions and the failure of its due diligence process to screen out transactions with worst-of-the-worst MTR companies such as Arch Coal.

Grade: C-



Goldman Sachs

Policy Excerpt: Goldman Sachs has a due diligence policy for MTR transactions: “For potential transactions for companies engaged in mountaintop removal, we perform enhanced due diligence before making business selection decisions. Among other factors, we review companies’ environmental, health and safety (EHS) track record, regulatory compliance, litigation and local community issues, remediation methods, and impact on water quality.”¹⁶

Total MTR involvement: In 2012, Goldman Sachs participated in bond underwriting syndicates for two companies that produced MTR coal, although it did not serve as a lead manager for transactions with either company.

MTR companies financed: Alpha Natural Resources and Walter Energy, which produced 29.42% of MTR coal mined in Appalachia in 2012.

Comments: In 2013, Goldman Sachs disclosed information about its MTR due diligence practices, resulting in an improvement of its grade from an F to a D. The bank’s due diligence policy language addresses several key environmental and social impacts of MTR. To improve its grade, Goldman Sachs could report on MTR transactions reviewed under this policy or adopt a sector threshold for MTR lending and underwriting.

Grade: D



JPMorgan Chase

Policy Excerpt: JPMorgan Chase has an enhanced diligence process for MTR transactions that “includes considerations of a company’s regulatory compliance history, exposure to future regulation, litigation risk, and operational performance related to valley fills and water quality issues. The firm will continue to apply the enhanced review until the key controversies surrounding MTR are thoroughly addressed.” In its 2011 Corporate Responsibility report, JPMorgan Chase reported that “[a]s a result of our enhanced diligence process, in 2011 we substantially reduced our financing for coal producers that use MTR mining.”¹⁷

Total MTR involvement: JPMorgan Chase ranked fourth in 2012 MTR financing, committing \$616.7 million in financing as a lead arranger or lead manager of transactions with MTR companies.

MTR companies financed: Alpha Natural Resources, ArcelorMittal, Cliffs Natural Resources, and TECO Energy, which produced 34.67% of MTR coal mined in Appalachia in 2012

Comments: Although JPMorgan Chase’s exposure to MTR remains high, it has fallen significantly since 2010. The company could improve its grade by disclosing details of how it has implemented its enhanced diligence process for MTR or by adopting a sector threshold for MTR lending, strengthening and reporting on the implementation of due diligence process for MTR, or demonstrably reducing its aggregate exposure to MTR transactions.

Grade: D+



HSBC North America

Policy Excerpt: Although HSBC does not have a policy specific to MTR, it does have a mining and metals sector policy that addresses water contamination and human rights risks associated with its mining sector clients.¹⁸

Total MTR involvement: HSBC served as a lead manager for five ArcelorMittal bond transactions in 2012.

MTR companies financed: ArcelorMittal, which produced 0.23% of MTR coal mined in Appalachia in 2012

Comments: HSBC has a low level of exposure to MTR transactions. The bank’s mining and metals sector policy addresses some of the environmental and social risks posed by MTR and the bank reported on the number and value of transactions reviewed according to this policy in 2011.¹⁹

To improve its grade, HSBC could explicitly address MTR-specific environmental and social risks in its mining and metals policy, report on transactions with MTR companies reviewed according to the policy, or adopt a sector threshold for MTR financing.

Grade: D+

Morgan Stanley

Policy Excerpt: Morgan Stanley's Environmental Policy Statement notes: "Our enhanced due diligence analyzes the company's policy framework regarding mining techniques, operating practices and track record of legal compliance, reclamation, and litigation. The escalation process includes subject matter experts, the risk division and ultimately, as appropriate, the Franchise Committee. We will not finance companies for which a predominant portion of their annual coal production is from MTR activities as an extraction method."²⁰

Total MTR involvement: Morgan Stanley ranked sixth in 2012 MTR financing, committing \$437.5 million in financing as a lead arranger or lead manager of transactions with MTR companies.

MTR companies financed: Alpha Natural Resources, Arch Coal, Patriot Coal, TECO Energy, and Walter Energy, which produced 48.6% of MTR coal in Appalachia.

Comments: Morgan Stanley has reported on the implementation of its MTR due diligence process. In its 2011 sustainability report, the company reported that it had subjected 20 transactions to its MTR review process in 2011 and that 11 of these transactions did not proceed.²¹ However, the bank remains highly exposed to MTR through its financing transactions. To improve its grade, Morgan Stanley should tighten its threshold performance standard for company MTR involvement, disclose case studies of the impact of its due diligence standards on transactions as per its Environmental Policy Statement, and strengthen its due diligence process to exclude worst-actor companies such as Arch Coal.

Grade: C-

PNC Financial

Policy Excerpt: PNC reports that it reviews transactions involving extractive industries, including the coal industry, by evaluating "any significant environmental impacts" associated with a transaction, although it does not have a due diligence process that addresses environmental and social risks associated with MTR. PNC's policy commitments on MTR also include a commitment not to "extend credit to individual MTR mining projects or to a coal producer that receives a majority of its production from MTR mining."

Total MTR involvement: PNC ranked third in the 2012 MTR league table with a 10.7% market share and \$687.5 million in financing as a lead arranger or lead manager in transactions with companies that have MTR operations.

MTR companies financed: Alpha Natural Resources, Arch Coal, CONSOL Energy, and Patriot Coal, which were responsible for 44.97% of Appalachian MTR production.

Comments: PNC's grade remains unchanged from last year. The company has committed to an MTR performance standard, but remains highly exposed to the MTR sector. To improve its grade, PNC should develop a robust, transparent, and effective MTR-specific due diligence process and adopt a tighter sector threshold for companies involved with MTR.

Grade: C-



US Bank

Policy Excerpt: US Bank has an environmental sustainability policy, but the document does not address the company's exposure to MTR or other environmental and social risks associated with its financing activities.²²

Total MTR involvement: US Bank ranked eighth in this report's 2012 MTR league table. The company provided \$350 million in financing as a lead arranger or lead manager in transactions with companies that engage in MTR.

MTR companies financed: Alpha Natural Resources, Arch Coal, CONSOL Energy, and Cliffs Natural Resources, which were responsible for 39.20% of 2012 Appalachian MTR production.

Comments: In its correspondence with report authors in March 2013, US Bank wrote that its Environmental Stewardship Committee would evaluate policy issues related to coal mining and coal-fired power by June 30, 2013.

The bank's "D" grade reflects this commitment to consider potential MTR lending policies later in 2013. To avoid a failing grade next year, US Bank should adopt an enhanced due diligence process for MTR transactions and/or commit to reducing or phasing out its lending to companies that engage in mountaintop removal.

Grade: D



Wells Fargo

Policy Excerpt: "As a result of our deliberate approach and the broader movement of the industry towards other mining methods, our involvement with the practice of MTR is limited and declining. Wells Fargo will not extend credit to individual MTR mining projects or to a coal producer that receives a majority of its production from MTR mining."²³

Total MTR involvement: In 2012, Wells Fargo participated in lending and underwriting syndicates for two companies that produced MTR coal, although it did not serve as a lead arranger or lead manager for transactions with either company.

MTR companies financed: Cliffs Natural Resources and CONSOL Energy, which were responsible for 3.92% of MTR coal mined in Appalachia in 2012.

Comments: Wells Fargo's grade improved from a D to a C this year due to lending policy and performance improvements. The bank's lending to companies that engage in MTR fell significantly in 2012, indicating that the company is making progress towards its stated goal of a "limited and declining" involvement with the practice. The bank's February 2013 revision of its Environmental and Social Risk Management statement added a commitment not to lend to companies that produce a majority of their coal from MTR and strengthened its MTR due diligence practices by adding a mining company's community engagement and environmental performance to existing due diligence criteria. Wells Fargo could improve its grade next year by continuing to make progress towards phasing out its involvement with MTR, tightening its threshold performance standards for lending to MTR companies, and by reporting on the implementation of its MTR due diligence processes.

Grade: C

MTR League Table: Top Ten MTR Lenders and Underwriters, 2012 ²⁴

2012 RANKING	UNDERWRITER	RANK	MARKET SHARE (%)	AMOUNT USD (MILLIONS)
1	Citigroup	1	21	1,345.83
2	Bank of America	1	21	1,345.83
3	PNC Financial	3	10.7	687.5
4	JPMorgan Chase	4	9.6	616.67
5	Barclays	5	7.7	491.67
6	Morgan Stanley	6	6.8	437.5
7	RBS	7	5.7	362.5
8	US Bank	8	5.5	350
9	Mitsubishi UFJ Financial	9	4.1	262.5
10	BMO Capital Markets	10	3.1	200

Bank Exposure to MTR Mining, 2012 ²⁵

	BANK OF AMERICA	BNY MELLON	CITIGROUP	GOLDMAN SACHS	HSBC	JPMORGAN CHASE	MORGAN STANLEY	PNC FINANCIAL	US BANK	WELLS FARGO	% OF 2012 MTR PRODUCTION
Alpha Natural Resources	x		x	x		x	x	x	x		28.69%
ArcelorMittal	x		x		x	x					0.23%
Arch Coal	x		x				x	x	x		7.20%
Cliffs Natural Resources	x		x			x			x	x	2.06%
CONSOL Energy	x							x	x	x	1.02%
Essar Group											3.88%
James River Coal Company											1.59%
Lipari Energy											1.63%
Patriot Coal	x		x				x	x			7.83%
Rhino Resource Partners											1.06%
TECO Energy		x	x			x	x				3.92%
Walter Energy	x		x	x			x				0.73%
Xinergy											1.84%
% Exposure to MTR production	47.76%	3.92%	50.66%	29.42%	0.00%	34.67%	48.60%	44.97%	39.20%	3.08%	



COAL-FIRED POWER

INTRODUCTION

Coal combustion is the largest contributor to carbon pollution in the United States, accounting for almost a third of all carbon emissions. The soot and smog released into the air by the coal-burning process causes a range of impacts on human health, including asthma, heart attacks, lung disease, and other illnesses. Coal-fired power plants are the single largest source of toxic mercury pollution, which is known to cause nervous system damage, especially in infants and young children.

In addition to their devastating impact on human and environmental health, coal-fired power plants are increasingly a bad financial investment. In the last couple of years, three utility companies – Dynegy, AES Eastern Energy, and Midwest Generation – filed for bankruptcy, and more are expected to follow soon, including Energy Future Holdings – the largest power generator in Texas – which was \$52 billion in debt as of September 2012 and presented a potential bankruptcy plan to its creditors in April 2013. Across the country, utility companies are being forced to choose between financial instability and moving beyond their outdated and money-draining coal-fired power plants, relics from a different economic and regulatory environment.



CASE STUDIES

Brayton Point Power Plant's Troubled Future

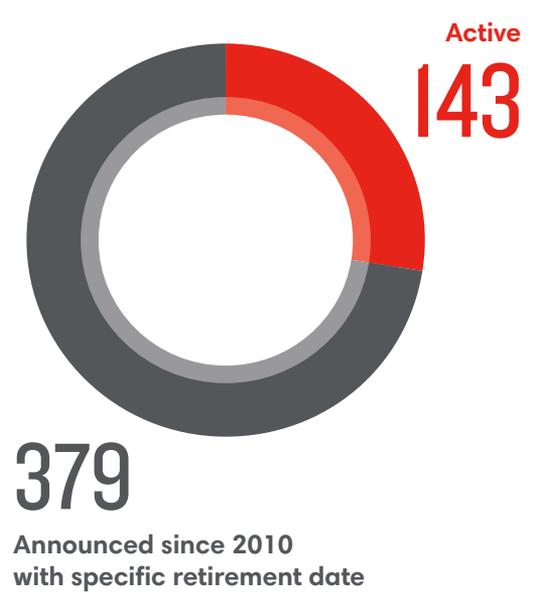
In 2005, Dominion Resources bought the 50-year old Brayton Point power plant, located in Somerset, MA. Brayton Point is the largest coal-fired power plant in New England. Of its four units, three are coal-fired. In a 2011 EPA ranking of Massachusetts' biggest toxic emissions producers, Brayton Point came in at number one.

Despite spending \$1 billion on emissions control upgrades, Dominion announced last year that it was planning to sell Brayton Point and get out of the coal-fired power plant business. In March of 2013, Dominion sold the plant to Energy Capital Partners as part of a package that included two other plants in Illinois. Although the sale price of Brayton Point alone has not yet been disclosed, the combined price of the three plants in after-tax proceeds was a mere \$650 million.

Dominion's decision to sell Brayton Point came at the end of years of steady decline in earnings and low energy prices. An independent analysis released this year by Conservation Law Foundation painted a grim picture for the financial future of Brayton Point, concluding that **“even the most optimistic scenario shows that Brayton Point cannot produce earnings that would cover its costs and produce a return for equity investors at any time through 2020.”**²⁶

Stricter environmental regulations and decreased demand for energy from coal are making more and more coal-fired power plants like Brayton Point financially unfeasible.

RETIREMENT OF U.S. COAL-FIRED POWER PLANTS





CASE STUDIES

DTE's Aging Coal Fleet

Declining demand for coal-fired energy and tightening environmental standards will likely take an especially heavy toll on Detroit Edison (DTE). One of the nation's top 25 largest producers of electricity, the company is uniquely reliant on coal, getting 75% of its production from coal-fired power plants. However, DTE has lagged behind other utilities in keeping up with pollution reduction, operating five of the seven highest mercury-producing plants in Michigan. Sierra Club recently filed a lawsuit against DTE based on over 1,400 violations of opacity limits on coal-fired power plants prescribed by the Clean Air Act. Compliance with new EPA regulations and response to a shifting market will undoubtedly create financial trouble in the future for this coal-guzzling utility.

These realities have not escaped shareholders. Last year, the company's New York shareholders filed a resolution requesting that DTE "adopt quantitative goals for the reduction of greenhouse gas and other air emissions in anticipation of emerging EPA regulations," as well as produce a report on the associated financial risks of such compliance, including plans to "retrofit or retire its existing coal plants." In November of 2012, the Union of Concerned Scientists produced an economic and environmental assessment of Michigan's coal-fired power plants. Entitled "Ripe for Retirement", the report argues that for many of Michigan's plants – including six owned by DTE – it "simply makes no economic sense to keep them running."²⁷ These mounting pressures are making DTE's outdated coal-fired power plants a financial risk not worth taking.



TVA's \$1.2 Billion Mistake

In 1953, the Tennessee Valley Authority (TVA) began construction of the Gallatin coal-fired power plant in Gallatin, Tennessee. Fifty years later, Gallatin is the 17th heaviest polluter in the country, and one of TVA's coal plants is required to be retired, retrofitted, or replaced by 2017 according to a 2011 settlement with the EPA, four states, and three environmental groups.

TVA recently announced its decision to pay \$1.2 billion to retrofit Gallatin with four scrubbers and a selective catalytic reduction system in order to comply with the new EPA emissions standards. The decision came despite significant public opposition and a report by Synapse Energy Economics which concluded that TVA could reduce pollution, cut customer rates over the long-term and retire one power plant in the next three years while still meeting demand by focusing instead on a modest goal of increasing energy efficiency by 1.2%.²⁸

Retrofitting Gallatin and other outdated coal-fired power plants will cost TVA at least \$11 billion and will only postpone the inevitable fate of these dirty dinosaurs whose continued operation no longer makes economic or environmental sense.

List of Coal-Fired Power Plant Companies

(See Appendix 2 for full profiles)

AMEREN

AMERICAN ELECTRIC POWER

AES CORPORATION

BERKSHIRE HATHAWAY

MidAmerican Energy and PacifiCorp subsidiaries

DTE ENERGY

DUKE

ENERGY FUTURE HOLDINGS

FIRSTENERGY

LEUCADIA NATIONAL CORPORATION

NRG ENERGY

PUBLIC SERVICE ENTERPRISE GROUP

SOUTHERN COMPANY

TENNESSEE VALLEY AUTHORITY

Grading Criteria and Recommendations for Banks

We graded the coal-fired power plant financing policies and practices of U.S. banks on an A-through-F scale, for which the 2013 grading criteria are unchanged from 2012.

Over the past few years, several of the largest European banks have released public policies that address their financing of both new and existing coal-fired power plants. These include HSBC (2011), WestLB (now Portigon) (2010 and 2012), Société Générale (2011), BNP Paribas (2011), and Crédit Agricole (2012). In 2007, the U.S. Overseas Private Investment Corporation (OPIC) announced a major initiative to reduce the climate impact of U.S. overseas investment, including a commitment to reduce the direct emissions associated with OPIC-supported projects by 30% over a ten-year period from the 2008 baseline and by 50% over a fifteen-year period.²⁹ OPIC has already made significant progress towards these goals:

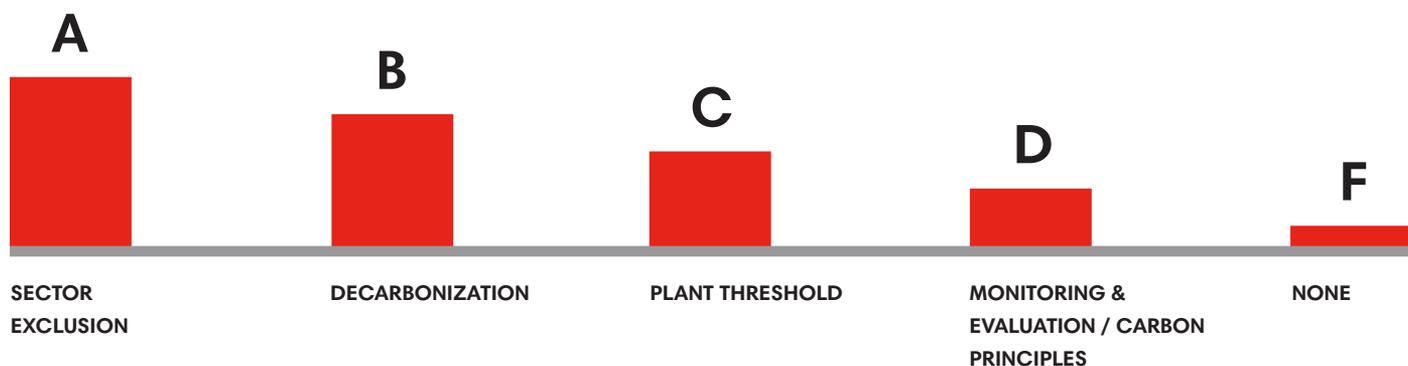
In 2012, OPIC provided \$1.55 billion in financing for clean energy and sustainable agriculture while avoiding financing fossil fuel projects entirely.³⁰

A best-practice coal-fired power plant policy for banks would aim to make bank lending to the power sector carbon-neutral over the long term by (among other things) phasing out financing to power sector clients with coal-fired generating assets. For most major banks, this aspirational policy would require a foundation of incremental policy commitments over time. Therefore, U.S. banks should follow the lead of OPIC, and other banks by:

- Adopting carbon intensity or absolute carbon emissions targets for new power plant finance that meets or exceeds the stringency of the UK Committee on Climate Change's 2030 limit of 50 g. CO₂/KwH;³¹
- Committing to disclose greenhouse gas emissions from bank lending and underwriting portfolios (financed emissions) based on guidelines under development by the World Resources Institute and the UN Environment Programme Finance Initiative;
- Setting a target to reduce financed emissions from lending and underwriting by 20% by 2020;
- Expanding due diligence processes to evaluate environmental and health risks from coal plants, including air emissions-related risk, coal ash disposal risk, and water extraction risk;
- Engaging with power sector clients on climate risk and encouraging them to develop and report on greenhouse gas emissions reduction targets.

Finally, in 2014, grading criteria will be tightened by reducing the grades of banks that are not making progress towards, at a minimum, disclosing financed emissions based on guidelines under development by the World Resources Institute and the UN Environment Programme Finance Initiative.

Grading Rubric for Banks Funding Coal-Fired Power



Sector Exclusion (A)

The bank has developed a policy with complete sector exclusion of all companies operating coal-fired power plants from its lending and investment banking.

Zero Emissions (A)

The bank has developed policies and practices that include:

- A commitment to zero carbon emissions across its portfolio
- Public disclosure of policies
- Regular, public reporting on policy implementation

Decarbonization (B)

The bank has developed policies and practices that include:

- A commitment to reduce carbon emissions across its portfolio
- Public disclosure of policies
- Regular, public reporting on policy implementation

Plant Threshold (C)

The bank has developed policies and practices that include:

- A stated emissions performance standard: Specific limits for the quantity of CO₂ emissions per unit of electricity generated by coal-fired power plants in the operating company's fleet (for 2014, limit must be 50 g. CO₂/KwH by 2030, or a more stringent target)
- Public disclosure of policies
- Regular, public reporting on policy implementation with case studies

Carbon Principles (D)

The bank is a signatory to the Carbon Principles.

Monitoring & Evaluation (D)

The bank has made a public commitment to monitor and evaluate financing of coal-fired power plants. *(Banks will not receive credit for this in 2014)*

None (F)

The bank is active in this sector, but has no specific investment policy for coal-fired power plant financing



Bank of America

Policy excerpt: Bank of America has signed the Carbon Principles. Its Coal Policy states: “Through our partnerships we will promote the necessary conditions for implementing carbon capture and storage on a global scale. We will employ our resources as a financial institution to promote the development and deployment of these advanced technologies to reduce the carbon emissions produced by the burning of fossil fuels.”³²

Total coal-fired power involvement:

Bank of America was the top underwriter in the 2012 coal-fired power league table. The company provided \$1.68 billion in financing as a lead arranger or lead manager in transactions with coal-fired power companies profiled in this report.

Coal-fired power companies financed: Ameren, AES Corporation, Berkshire Hathaway, Duke Energy, NRG Energy, Southern Company, and Tennessee Valley Authority

Comments: Bank of America’s coal policy includes a problematic commitment to carbon capture and storage as a core strategy for addressing carbon emissions from the power sector. In addition, the bank remains the leading financier of U.S. coal-fired power.

Grade: D



BNY Mellon

Policy excerpt: Although BNY Mellon has an environmental sustainability policy and a human rights statement, neither document addresses the company’s exposure to coal-fired power or the environmental and social impacts of its financing activities.³³

Total coal-fired power involvement: BNY Mellon was involved with several transactions with coal-fired power companies in 2012, but did not serve as a lead arranger or lead manager.

Coal-fired power companies financed:

Ameren, American Electric Power, Duke Energy, FirstEnergy, NRG Energy, Southern Company, and Tennessee Valley Authority.

Comments: BNY Mellon’s existing environmental policies do not address the impacts of its lending and underwriting activities. In the absence of either a publicly disclosed policy statement or performance target for its power sector lending, BNY Mellon receives a failing grade.

Grade: F



Citigroup

Policy excerpt: Citigroup’s Guidelines for Environmental Practices state: “Through collaboration with peers, clients, and stakeholders, the [Carbon Principles] signatories developed an Enhanced Diligence framework to help lenders better understand and evaluate the potential carbon risks associated with US-based coal plant investments. The Principles recognize the benefits of a portfolio approach to meeting the power needs of consumers, without prescribing how power companies should act to meet these needs.”³⁴

Total coal-fired power involvement: Citigroup ranked sixth in the 2012 coal-fired power league table. The company provided \$1.4 billion in financing as a lead arranger or lead manager in transactions with coal-fired power companies profiled in this report.

Coal-fired power companies financed: American Electric Power, Berkshire Hathaway, Duke Energy, Energy Future Holdings, FirstEnergy, NRG Energy, and the Southern Company.

Comments: Citigroup goes beyond its obligations as a Carbon Principles signatory by disclosing both the number of transactions subject to the Carbon Principles that it conducted each year (one in 2011) and the estimated lifetime carbon emissions of power plants for which it provides project finance.³⁵ However, Citigroup remained highly exposed to coal-fired power transactions in 2012 and its grade is unchanged from last year.

Grade: D



Goldman Sachs

Policy excerpt: Goldman Sachs has an enhanced due diligence process for the power sector and communicated to the report authors in an email: “[W]ith any coal-fired power plant financings, we perform enhanced due diligence including for developing markets where we look at energy needs of the region, assessment of low carbon alternatives, regulatory drivers, company’s generation portfolio and its commitment to measuring, reporting and addressing GHG pollutants, among other factors.”³⁶ Goldman Sachs also has a minority ownership stake in Cogentrix Energy, which operates coal-fired power plants. In 2012, Goldman Sachs sold a controlling stake in Cogentrix to the Carlyle Group. Regarding Cogentrix’s power plants, Goldman Sachs’s environmental policy states: “We will report the annual greenhouse gas emissions from these plants, and will continue to work to reduce direct carbon emissions from them whenever practical. We support the need for a national policy to limit greenhouse gas emissions and where economically feasible will offer our plants as a demonstration site for innovative technology. We will continue to analyze reduction opportunities and consider potential off-sets.”³⁷

Total coal-fired power involvement: Goldman Sachs did not rank in the top ten in the 2012 coal-fired power league table. However, the company did provide \$252 million in financing as a lead arranger or lead manager in transactions with coal-fired power companies profiled in this report.

Coal-fired power companies financed:

American Electric Power, Berkshire Hathaway, Duke Energy, Energy Future Holdings, FirstEnergy, NRG Energy, and the Southern Company.

Comments: Goldman Sachs reported that it reviewed 49 power sector transactions through its enhanced due diligence process in 2012. Although the bank is not a Carbon Principles signatory, its due diligence process and reporting on power sector transactions it reviewed raised the bank’s grade from F to D this year. In addition, while Goldman Sachs’s remaining minority stake in Cogentrix’s coal-fired generating capacity remains a concern, Cogentrix did install new renewable generating capacity in 2012 while under Goldman Sachs’s ownership, and the bank has retained a stake in two of Cogentrix’s renewable power projects.

Grade: D



JPMorgan Chase

Policy excerpt: JPMorgan Chase has signed the Carbon Principles. In its 2011 Citizenship Report, the company noted: “JPMorgan Chase adopted the Carbon Principles in February 2008 in partnership with Citigroup and Morgan Stanley, seven leading electric utilities and three environmental organizations in order to better assess the risks in financing greenhouse-gas intensive electricity generation.”³⁸

Total coal-fired power involvement: JPMorgan Chase ranked second in the 2012 coal-fired power league table behind Bank of America. The company provided \$1.56 billion in financing as a lead arranger or lead manager in transactions with coal-fired power companies profiled in this report. Coal-fired power companies financed: Ameren, American Electric Power, AES Corporation, Berkshire Hathaway, DTE Energy, Duke Energy, Energy Future Holdings, FirstEnergy, NRG Energy, Public Service Enterprise Group, Southern Company, and Tennessee Valley Authority. **Comments:** JPMorgan Chase reported that it had applied its Carbon Principles enhanced diligence process to bond transactions for two power sector clients in 2011. The bank’s Global Environmental and Risk Management team also reviewed 24 power sector transactions for environmental risk in 2011.³⁹ Nevertheless, the bank remained a leading financier of coal-fired power and its grade is unchanged for 2013.

Grade: D

Assessment of Existing Coal Policies at Banks



HSBC North America

Policy excerpt: HSBC's Energy Sector Policy states: "We will not provide financial services which directly support new CFPPs, including expansions, with individual units of 500MW or more and a carbon intensity exceeding: 850g CO₂/kWh in developing countries; [and] 550g CO₂/kWh in developed countries. With existing technologies, this may require acceptable CCS (carbon capture and storage) plans or material benefits from combined heat and power or biomass. In addition, there are policy restrictions requiring an analysis of carbon intensity where: -Any other new CFPP exceeds 300MW. Particular emphasis is placed on whether the plant could be constructed with a lower carbon intensity and whether flue gas desulphurisation equipment is to be fitted. -Plants of 300MW or more extend their previously agreed lifetime. -Customers have a portfolio of CFPPs exceeding 3000MW in aggregate generating capacity."⁴⁰

Total coal-fired power involvement: N/A

Coal-fired power companies financed: None of the companies profiled in this report.

Comments: Although HSBC does not have lending or underwriting exposure to the companies highlighted in this report, their Energy Sector Policy contains energy efficiency targets for new power plant construction. Although these targets are lax, the policy commits the bank to conduct carbon intensity assessments for new construction and retrofits of large coal-fired power plants or customers with significant coal-fired generating capacity. The bank also reviews the fleet-wide carbon intensity of its clients and has a policy to engage with clients to encourage emissions disclosure.

Grade: C-



Morgan Stanley

Policy excerpt: Morgan Stanley has signed the Carbon Principles. Its environmental policy commits the bank to "[h]elping clients in greenhouse gas intensive industries to develop financial strategies for responding to emerging regulatory mandates regarding emission reductions; devoting resources towards sustainable and renewable sources of energy; continuing to provide investment research that enhances understanding of the impact of climate change or carbon constraints on businesses; encouraging clients to evaluate the issue of greenhouse gas emissions and to consider investing in and taking advantage of emerging environmental technologies; conducting enhanced environmental due diligence, consistent with the Carbon Principles; and enhancing the dialogue regarding strategic public policy solutions to climate change."⁴¹

Total coal-fired power involvement: Morgan Stanley ranked tenth in the 2012 coal-fired power league table behind Bank of America. The company provided \$610 million in financing as a lead arranger or lead manager in transactions with coal-fired power companies profiled in this report.

Coal-fired power companies financed: Ameren, AES Corporation, Duke Energy, Energy Future Holdings, FirstEnergy, NRG Energy, Public Service Enterprise Group, Southern Company, and Tennessee Valley Authority.

Comments: Morgan Stanley is a Carbon Principles signatory and reported that it reviewed 28 utilities transactions for environmental risk in 2011.⁴² However, its exposure to coal-fired power financing remains high and its grade is unchanged for 2013.

Grade: D



PNC Financial

Policy excerpt: None

Total coal-fired power involvement: PNC Financial was involved with several transactions with coal-fired power companies in 2012, but did not serve as a lead arranger or lead manager

Coal-fired power companies financed:

Ameren, American Electric Power, FirstEnergy, and Tennessee Valley Authority.

Comments: PNC's failing grade is unchanged from last year. The company has participated in several transactions with major coal-fired power producers but lacks a policy commitment covering its power sector lending.

Grade: F



US Bank

Policy excerpt: US Bank has an environmental sustainability policy, but the document does not address the company's exposure to coal-fired power or other environmental and social risks associated with its financing activities.⁴³

Total coal-fired power involvement: US Bank was involved with several transactions with coal-fired power companies in 2012, but did not serve as a lead arranger or lead manager for any of these transactions.

Coal-fired power companies financed: Ameren, American Electric Power, Berkshire Hathaway, DTE Energy, Duke Energy, FirstEnergy, Public Service Enterprise Group, and the Southern Company.

Comments: In its correspondence with report authors in March 2013, US Bank wrote that its Environmental Stewardship Committee would evaluate policy issues related to coal mining and coal-fired power by June 30, 2013. The bank's "D" grade reflects this commitment to consider potential power sector lending policies later in 2013.

Grade: D



Wells Fargo

Policy excerpt: Wells Fargo has signed the Carbon Principles. The company's Environmental and Social Risk Management document notes that the bank does not finance coal-fired power plants on a standalone basis. The document also states: "We follow a comprehensive due diligence process for our power and utilities industry transactions... We carefully assess environmental, social, regulatory, financial and reputational risks associated with customers' and prospective customers' operations. Our due diligence in this sector includes an assessment of carbon risk as part of the underwriting process. Our Credit Policy specifically references carbon and environmental risk."⁴⁴

Total coal-fired power involvement: Wells Fargo ranked seventh in the 2012 coal-fired power league table. The company provided \$933 million in financing as a lead arranger or lead manager in transactions with coal-fired power companies profiled in this report.

Coal-fired power companies financed: American Electric Power, Berkshire Hathaway, Duke Energy, Public Service Enterprise Group, the Southern Company, and Tennessee Valley Authority.

Comments: Wells Fargo updated its Environmental and Social Risk Management document in February 2013. Although it is a Carbon Principles signatory, its exposure to coal-fired power lending remains high and its grade is unchanged for 2013.

Grade: D

Coal-Fired Power League Table: Top Ten Lenders and Underwriters, 2012 ⁴⁵

UNDERWRITER	RANK	MARKET SHARE (%)	AMOUNT USD (MILLIONS)
Bank of America	1	11.3	1,680.00
JPMorgan Chase	2	10.5	1,555.00
RBS	2	10.5	1,555.00
Credit Suisse	4	10.2	1,510.00
Barclays	5	9.5	1,413.33
Citigroup	6	9.4	1,401.67
Wells Fargo	7	6.3	933.33
Mitsubishi UFJ	8	6.1	903.33
UBS	9	4.4	650
Morgan Stanley	10	4.1	610

Bank Exposure to Coal-Fired Power, 2012 ⁴⁶

	BANK OF AMERICA	BNY MELLON	CITIGROUP	GOLDMAN SACHS	HSBC	JPMORGAN CHASE	MORGAN STANLEY	PNC FINANCIAL	US BANK	WELLS FARGO
Ameren	x	x				x	x	x	x	
American Electric Power		x	x	x		x		x	x	x
AES Corporation	x					x	x			
Berkshire Hathaway	x		x	x		x			x	x
DTE Energy						x			x	
Duke Energy	x	x	x	x		x	x		x	x
Energy Future Holdings			x	x		x	x			
FirstEnergy		x	x	x		x	x	x	x	
Leucadia National Corporation										
NRG Energy	x	x	x	x		x	x			
Public Service Enterprise Group						x	x		x	x
Southern Company	x	x	x	x		x	x		x	x
Tennessee Valley Authority	x	x				x	x	x		x



COAL EXPORT TERMINALS

INTRODUCTION

While U.S. coal-fired power generation is in steep decline, U.S. coal exports reached a record of more than 125 million tons in 2012,⁴⁷ more than double the amount exported in 2009. U.S. coal mining companies such as Arch Coal and Peabody have shifted their business models to focus on export markets in Europe and Asia. Existing U.S. coal export terminal infrastructure is operating at maximum capacity and there are live proposals to develop new coal export terminals in the Pacific Northwest and along the Gulf Coast. Shipping up to 140 million tons of coal a year through West Coast and Gulf communities would mean more coal dust and diesel exhaust along the rail lines. Coal train traffic would clog railroads, ports, and roads, risk the health of families, pollute air and water, hurt local economies and continue to stoke the climate crisis.

List of Coal Export Companies

(See Appendix 3 for full profiles)

- 1** **AMBRE ENERGY**
- 2** **ARCH COAL**
- 3** **CLINE MINING**
- 4** **CONSOL ENERGY**
- 5** **KINDER MORGAN**
- 6** **PEABODY ENERGY**



CASE STUDIES

The Longview Terminal's Financial and Regulatory Risks

The Millennium Bulk Logistics Longview Terminal is an existing alumina export terminal in Longview, Washington. A subsidiary of the Australian natural resources company Ambre Energy has proposed to modify the terminal to incorporate a new coal export facility.

The project was initially proposed as a 5-million-ton-per-year facility in 2010. The U.S. coal mining company Arch Coal purchased a 38% stake in the project in January 2011. One month later, Millennium Bulk's internal emails revealed that the developers were planning to significantly grow the facility to 20 or even 60 million tons per year. This revelation led Millennium Bulk to withdraw their state permit applications in March 2011, stating that they would resubmit them at a later date.

In February 2013 the Seattle-based nonprofit Sightline Institute released a report identifying mounting financial, regulatory, and other challenges that make it unlikely that Ambre Energy will be able to deliver on its promises in the U.S.⁴⁸ The report catalogues a number of money woes for the company, including money-losing coal mines, large write-offs for failed overseas ventures, major liabilities for mine cleanup and pensions, troubled assets, high borrowing costs, and a need for \$1 billion in new capital to make its coal projects financially viable.

Community Opposition to the Gateway Pacific Terminal

Pacific International Terminals, a subsidiary of SSA Marine, proposes to build a deep-water marine terminal at Cherry Point in Whatcom County, Washington. The proposed Gateway Pacific Terminal would handle export of 48 million tons of coal per year, supplied by Peabody Energy from Montana and Wyoming's Powder River Basin.

This project has caused alarm to communities in surrounding Bellingham Bay and along the route of the rail line where coal would travel from coal mines in Wyoming's Powder River Basin through four states to reach the export terminal.

The U.S. Army Corps of Engineers, the Washington Department of Ecology and Whatcom County are currently coordinating an environmental review of the terminal applications and recently reported that more than 124,000 public comments have been submitted to the review.

In late 2012, more than 5,000 people turned out to hearings about the coal terminal in Bellingham, Spokane, Seattle, and Vancouver to raise concerns about coal dust, noise, climate emissions, and threats to the sensitive ecosystem in Bellingham Bay, an important herring spawning site and home to Chinook salmon, migratory seabirds, and Southern resident orcas.

Map of Current and Proposed North American Coal Export Terminals



	PROJECT	LOCATION	COMPANIES INVOLVED
1	Longview	Longview, WA	Arch, Ambre, and Millennium Bulk Logistics
2	Cherry Point – Gateway Pacific Terminal	Bellingham, WA	Peabody, SSA Marine
3	Project Mainstay	Coos Bay, WA	Metro Ports, Mitsui
4	Port of Morrow	Boardman, OR	Arch, Ambre
5	Port Westward	St Helens, OR	Kinder Morgan, Ambre, Pacific Transloading, LLC
6	Seward	Seward, AK	Usibelli Coal Co., Alaska Railroad, Aurora Energy Services
6	Port Mackenzie	Point Mackenzie, AK	Usibelli Coal Co., Alaska Railroad
7	Westshore		Cloud Peak Energy and First Energy
8	Ridley Terminals	Prince Rupert, BC, Canada	Arch
9	Neptune Terminals	North Vancouver, BC, Canada	
10	Port Metro	Vancouver, BC, Canada	BNSF, Fraser Surrey Docks
11	Corpus Christi	Corpus Christi, TX	Cline
12	Corpus Christi	Corpus Christi, TX	Millennium Bulk Logistics, Ambre
13	Corpus Christi	Corpus Christi, TX	Ambre, Cline Proposal
14	La Quinta Coal Terminal	Corpus Christi, TX	Port of Corpus Christi
15	Houston Bulk Terminal	Houston, TX	Kinder Morgan, Peabody Energy
16	Houston	Houston, TX	Unknown company represented by Hagen Group out of Los Angeles
17	Jacintoport Bulk Terminal	Houston, TX	Jacintoport, LLC
18	IMT Terminal	Myrtle Grove, LA	Kinder Morgan and Massey Coal Export Company
19	Burnside Terminal	Port Allen, LA	Trafigura and Impala Warehousing, LLC
20	RAM Terminal	Alliance, LA	Armstrong Coal
21	United Bulk Terminal	New Orleans, LA	Oiltanking
22	IC Rail Marine Terminal/Convent Marine Terminal	Convent, LA	Foresight Energy, Shaw GBB, LLC
23	McDuffie Coal Terminal	Mobile, AL	ThyssenKrupp AG
24	Mobile River Terminal	Mobile, AL	Walter Energy
25	Lynn Coal Port	Mulga, AL	Lynn Coal Port, LLC
26	Baltimore	Baltimore, MD	CNX, Consol Energy
27	Paducah Barging Facility	Paducah, KY	Four Rivers Terminal LLC
28	West Memphis International Rail Port	West Memphis, AR	
29	Port of Guaymas	Sonora, Mexico	Union Pacific, Ferromex
30	Kinder Morgan Bulk Terminals (Pier IX)	Newport News, VA	Kinder Morgan
31	Lázaro Cárdenas	Michoacán, Mexico	Noble Group, Terminales Portuarias del Pacifico (TPP)24 Carbonser S.A. de C.V (owned by GMD and Techint), Mexican Comisión Federal de Electricidad (C.F.E)



Assessment of Banks based on Funding Practices

Bank Exposure to Coal Exports, 2012 ⁴⁹

	BANK OF AMERICA	BNY MELLON	CITIGROUP	GOLDMAN SACHS	HSBC	JPMORGAN CHASE	MORGAN STANLEY	PNC FINANCIAL	US BANK	WELLS FARGO
Ambre Energy										
Arch Coal	x		x				x	x	x	
Cline Mining										
CONSOL Energy	x							x	x	x
Kinder Morgan	x		x	x		x				x
Peabody Energy	x		x		x		x	x	x	x



COAL TRANSPORT

INTRODUCTION

Transportation is yet another sector of the coal industry facing increasing economic and regulatory risk, which is why we have added it to this year's report card. The coal dust and other debris that is released during the loading and transport process blankets neighborhoods and waterways, posing serious health risks to the people in these communities and to aquatic ecosystems. Residents in these areas experience high exposure to toxic heavy metals such as mercury, increased rates of asthma and cancer, and other respiratory and cardiovascular illnesses. The railway company Burlington Northern Santa Fe (BNSF) itself recognizes the impact, calculating in a study that 500 pounds of coal dust can be released from each car on a trip.⁵⁰

List of Coal Transport Companies

(See Appendix 4 for full profiles)

- 1 AMERICAN ELECTRIC POWER**
(AEP River Operations subsidiary)
- 2 BNSF**
- 3 CANADIAN PACIFIC**
- 4 CSX**
- 5 INGRAM BARGE COMPANY**
- 6 NORFOLK SOUTHERN**
- 7 UNION PACIFIC**

Assessment of Banks based on Funding Practices

Bank Exposure to Coal Transport, 2012⁵¹

	BANK OF AMERICA	BNY MELLON	CITI	GOLDMAN SACHS	HSBC	JPMORGAN CHASE	MORGAN STANLEY	PNC FINANCIAL	US BANK	WELLS FARGO
American Electric Power		x	x	x		x		x	x	x
BNSF	x		x	x		x	x	x	x	x
Canadian Pacific										
CSX			x			x	x	x		
Ingram Barge Company	x								x	x
Norfolk Southern	x		x	x		x	x	x		
Union Pacific	x	x	x			x	x	x		x

CONCLUSION

The environmental, social, and financial risks facing companies involved with the coal life cycle are likely to grow even more acute over time. **Rather than clinging to a shrinking industry until the bitter end, U.S. banks should follow the lead of their European counterparts by planning ahead for a carbon-constrained future and seeking new opportunities in low-carbon energy sources.**

Since the publication of RAN and the Sierra Club's first Coal Report Card four years ago, several U.S. banks have developed coal policies, but none have taken clear, measurable steps to align their lending and underwriting practices with the urgent, scientifically informed imperative to reduce greenhouse gas emissions and other acute impacts from coal extraction and combustion.

Specifically, it will be critical for banks take the following steps to address the most acute risks posed by the following:

Mountaintop Removal

Phase out lending to companies that engage in the practice, beginning with the largest producers of MTR coal.

Coal-Fired Power

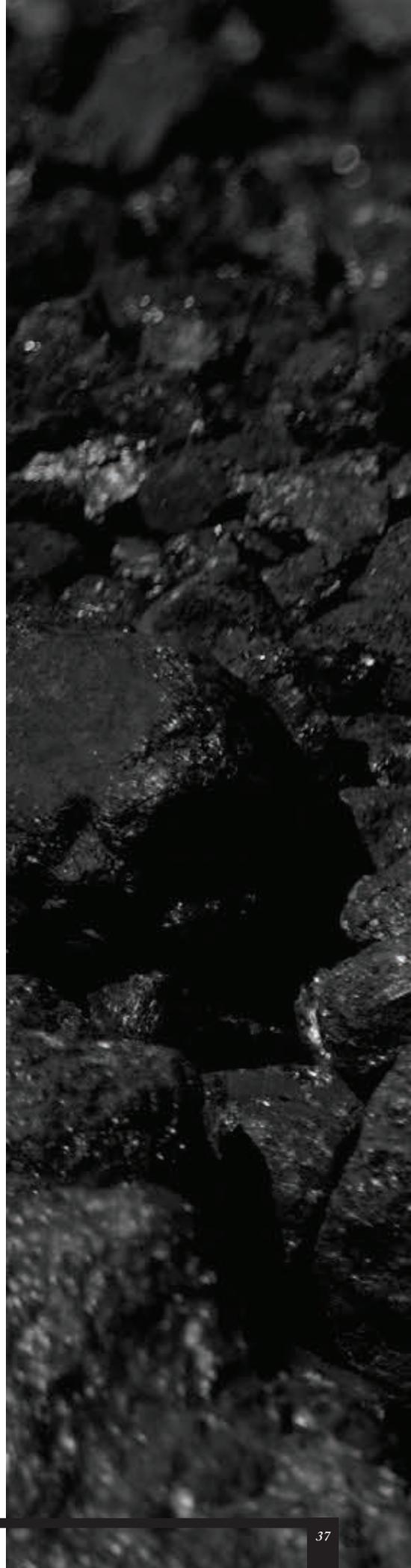
Disclose financed emissions from power sector financing and commit to short-term and long-term financed emissions reduction targets.

Coal Export

Turn down project-specific finance for proposed coal export terminals and phase out lending to companies that are leading terminal projects.

Coal Transport

Assess the environmental and health risks associated with coal dust, measure the indirect greenhouse gas emissions from coal transportation companies, and phase out financing of the highest-risk coal transportation companies.



APPENDIX 1: PROFILES OF MTR COMPANIES

(In order of 2012 MTR coal production volume)

Alpha Natural Resources

2012 MTR Production: 11,404,750 tons

Percent of total Appalachian

MTR production, 2012: 28.69%

Market Capitalization (4/2013):

\$1.64 billion

Credit Rating (Standard and Poor's):

B+ (below investment grade)

12 month total equity return (4/2013):

-51.91%

Patriot Coal

(In 2012, Patriot committed to phase out its MTR operations)

2012 MTR Production:

3,112,658 tons

Percent of total Appalachian

MTR production, 2012: 7.83%

Market Capitalization (4/2013):

\$9.2 million

Credit Rating (Standard and Poor's):

Not rated (in bankruptcy)

12 month total equity return (4/2013):

-98.41%

Arch Coal

2012 MTR Production:

2,860,746 tons

Percent of total Appalachian

MTR production, 2012: 7.20%

Market Capitalization (4/2/2013):

\$1.05 billion

Credit Rating (Standard and Poor's):

B+ (below investment grade)

12 month total equity return (4/2013):

-52.43%

TECO Energy

2012 MTR Production: 1,559,320 tons

Percent of total Appalachian

MTR production, 2012: 3.92%

Market Capitalization (4/2013):

\$3.86 billion

Credit Rating (Standard and Poor's):

BBB+ (investment grade)

12 month total equity return (4/2/2013):

6.22%

Essar Global

(through its Essar Energy subsidiary)

2012 MTR Production: 1,542,058 tons

Percent of total Appalachian MTR

production, 2012: 3.88%

Market Capitalization (4/2013):

GBP 1.79 billion

Credit Rating (Standard and Poor's):

Not rated

12 month total equity return (4/2013):

-14.19%

Cliffs Natural Resources

2012 MTR Production: 820,223 tons

Percent of total Appalachian

MTR production, 2012: 2.06%

Market Capitalization (4/2013):

\$2.90 billion

Credit Rating (Standard and Poor's):

BBB- (investment grade)

12 month total equity return (4/2013):

-73.05%

Xinergy

2012 MTR Production: 731,717 tons

Percent of total Appalachian

MTR production, 2012: 1.84%

Market Capitalization (4/2013):

CAD 37.2 million

Credit Rating (Standard and Poor's):

Not rated

12 month total equity return (4/2013):

-61.82%

Lipari Energy

2012 MTR Production: 646,915 tons

Percent of total Appalachian

MTR production, 2012: 1.63%

Market Capitalization (4/2013):

CAD 10.7 million

Credit Rating (Standard and Poor's):

Not rated

12 month total equity return (4/2013):

2.50%

James River Coal Company

2012 MTR Production: 630,461 tons

Percent of total Appalachian

MTR production, 2012: 1.59%

Market Capitalization (4/2013):

\$55.6 million

Credit Rating (Standard and Poor's):

CCC (below investment grade)

12 month total equity return (4/2013):

-69.55%

Rhino Resource Partners

2012 MTR Production: 419,999 tons

Percent of total Appalachian

MTR production, 2012: 1.06%

Market Capitalization (4/2013):

\$370.1 million

Credit Rating (Standard and Poor's):

Not rated

12 month total equity return (4/2013):

-14.37%

CONSOL Energy

2012 MTR Production: 405,334 tons

Percent of total Appalachian

MTR production, 2012: 1.02%

Market Capitalization (4/2013):

\$7.40 billion

Credit Rating (Standard and Poor's):

BB (below investment grade)

12 month total equity return (4/2013):

-3.35%

Walter Energy

2012 MTR Production: 289,214 tons

Percent of total Appalachian

MTR production, 2012: 0.73%

Market Capitalization (4/2013):

\$1.51 billion

Credit Rating (Standard and Poor's):

B+ (below investment grade)

12 month total equity return (4/2013):

-58.42%

ArcelorMittal

2012 MTR Production: 92,370 tons

Percent of total Appalachian

MTR production, 2012: 0.23%

Market Capitalization (4/2013):

\$20.62 billion

Credit Rating (Standard and Poor's): BB+ (below investment grade)

12 month total equity return (4/2013):

-30.73%

Ameren

Total generating capacity, 2012:
15,778 megawatts
Coal-fired generating capacity, 2012: 53.7%
Market Capitalization (4/2013): \$8.45 billion
Credit Rating (Standard and Poor's):
BBB (investment grade)
12 month total equity return (4/2013): 12.83%

American Electric Power

Total generating capacity, 2012:
37,594 megawatts
Coal-fired generating capacity, 2012: 65%
Market Capitalization (4/2013): \$23.37 billion
Credit Rating (Standard and Poor's):
BBB (investment grade)
12 month total equity return (4/2013): 29.73%

AES Corporation

Total generating capacity, 2012:
31,000 megawatts
Coal-fired generating capacity, 2012: 36%
Market Capitalization (4/2013):
\$9.29 billion
Credit Rating (Standard and Poor's):
BB- (below investment grade)
12 month total equity return (4/2013): -5.26%

Berkshire Hathaway

(through its MidAmerican Energy and PacifiCorp subsidiaries)

Total generating capacity, 2012:
16,626 megawatts
Coal-fired generating capacity, 2012: 57.1%
Market Capitalization (4/2013):
\$256.98 billion
Credit Rating (Standard and Poor's):
AA+ (investment grade)
12 month total equity return (4/2013):
27.82%

DTE Energy

Total generating capacity, 2012:
10,570 megawatts
Coal-fired generating capacity, 2012: 71.5%
Market Capitalization (4/2013):
\$11.81 billion
Credit Rating (Standard and Poor's):
BBB+ (investment grade)
12 month total equity return (4/2013):
29.92%

Duke Energy

Total generating capacity, 2012:
68,376 megawatts
Coal-fired generating capacity, 2012: 37.2%
Market Capitalization (4/2013): \$50.53 billion
Credit Rating (Standard and Poor's):
BBB+ (investment grade)
12 month total equity return (4/2013): 18.46%

Energy Future Holdings

Total generating capacity, 2012:
15,427 megawatts
Coal-fired generating capacity, 2012: 51.9%
Market Capitalization (4/2013):
N/A (Privately-held)
Credit Rating (Standard and Poor's):
CCC (below investment grade)
12 month total equity return (4/2013):
N/A (Privately-held)

FirstEnergy

Total generating capacity, 2012:
20,372 megawatts
Coal-fired generating capacity, 2012: 59.5%
Market Capitalization (4/2013):
\$17.57 billion
Credit Rating (Standard and Poor's):
BBB- (investment grade)
12 month total equity return (4/2013):
-3.61%

Leucadia National Corporation

Total generating capacity, 2012:
No active capacity, but involved with a pending coal gasification project
Coal-fired generating capacity, 2012: N/A
Market Capitalization (4/2013): \$9.99 billion
Credit Rating (Standard and Poor's):
BBB (investment grade)
12 month total equity return (4/2013): 11.49%

NRG ENERGY

Total generating capacity, 2012:
47,720 megawatts
Coal-fired generating capacity, 2012: 28%
Market Capitalization (4/2013): \$8.52 billion
Credit Rating (Standard and Poor's):
BB- (below investment grade)
12 month total equity return (4/2013): 72.13%

Public Service Enterprise Group

Total generating capacity, 2012:
13,226 megawatts
Coal-fired generating capacity, 2012: 9%
Market Capitalization (4/2013):
\$17.34 billion
Credit Rating (Standard and Poor's):
BBB (investment grade)
12 month total equity return (4/2013):
17.94%

Southern Company

Total generating capacity, 2012:
45,739 megawatts
Coal-fired generating capacity, 2012: 44.9%
Market Capitalization (4/2013): \$40.57 billion
Credit Rating (Standard and Poor's):
A (investment grade)
12 month total equity return (4/2013): 7.71%

Tennessee Valley Authority

Total generating capacity, 2012:
37,325 megawatts
Coal-fired generating capacity, 2012: 36.5%
Market Capitalization (4/2013): N/A
Credit Rating (Standard and Poor's):
AA+ (investment grade)
12 month total equity return (4/2013): N/A

APPENDIX 3: PROFILES OF COAL EXPORT COMPANIES

Ambre Energy

Export Terminal Involvement: Corpus Christi, TX; St. Helens, OR; Boardman, OR; Longview, WA

Market Capitalization (4/2/2013):

N/A (Privately-held)

Credit Rating (Standard and Poor's):

B+ (below investment grade)

12 month total equity return (4/2013):

N/A (Privately-held)

Peabody Energy

Export Terminal Involvement: Houston, TX; Bellingham, WA

Market Capitalization (4/2013):

\$5.43 billion

Credit Rating (Standard and Poor's):

BB+ (below investment grade)

12 month total equity return (4/2013):

-28.93%

Arch Coal

Export Terminal Involvement:

Prince Rupert, BC, Canada; Boardman, OR; Longview, WA

Market Capitalization (4/2/2013):

\$1.05 billion

Credit Rating (Standard and Poor's): B+

(below investment grade)

12 month total equity return (4/2013):

-52.43%

Cline Mining

Export Terminal Involvement:

Corpus Christi, TX

Market Capitalization (4/2/2013):

CAD 16.7 million

Credit Rating (Standard and Poor's):

Not rated

12 month total equity return (4/2013):

-94.74%

CONSOL Energy

Export Terminal Involvement:

Baltimore, MD

Market Capitalization (4/2013): \$7.40 billion

Credit Rating (Standard and Poor's):

BB (below investment grade)

12 month total equity return (4/2013): -3.35%

Kinder Morgan

Export Terminal Involvement:

Myrtle Grove, LA; St. Helens, OR;

Houston, TX; Newport News, VA

Market Capitalization (4/2013): \$42.86 billion

Credit Rating (Standard and Poor's):

Not rated

12 month total equity return (4/2013): -0.98%

CSX

In 2012, decreasing demand for coal caused CSX to lose a staggering \$500 million of its coal revenue, an 18% drop from 2011. Despite attempts to compensate for this through other services such as automotive and intermodal transport, CSX was unable to offset the loss of this crucial market, and ended 2012 with a 3.1% decline in fourth-quarter net income. Serious financial obstacles resulting from the company's heavy reliance on coal in a waning market, which makes up a full quarter of CSX's total revenue, is a trend that has continued into 2013.

Norfolk Southern

Unlike CSX, which was almost able to make up for the lack of coal in the fourth quarter of last year, Norfolk Southern took a heavier hit when its coal revenue plummeted 23% for the fourth-quarter of 2012 and 17% for the full year as compared with 2011. The result was an 11% drop in fourth-quarter railway operations income and 3% for the full year, and ultimately a drop of 14% in fourth-quarter profit. Due, in part, to expected uncertainty in the coal market, Norfolk Southern plans to reduce its capital spending by 10% in 2013.

BNSF

Burlington Northern Santa Fe (BNSF) operates the second largest freight railroad network in North America, transporting enough coal to generate roughly 10% of the coal generated in the United States. According to BNSF's own study, its four coal trains that move through the state of Washington lose an astounding 120 tons of coal dust every day. The damage inflicted on the communities in which these trains pass has just recently caused the Sierra Club and four other environmental organizations in the Northwest to give notice to BNSF and six other companies of their intent to sue based on violations of the Clean Water Act.

Not only is the coal dust and debris that is released by BNSF's trains extremely harmful to the people and ecosystems exposed to the transport process, but it is risky for the transporter as well. BNSF itself admits this, writing "From these studies, BNSF has determined that coal dust poses a serious threat to the stability of the track structure and thus to the operational integrity of our lines in the Powder River Basin." While coal disappears as a reliable commodity for the railroad industry, what is still transported continues to harm the people and ecosystems through which it passes, and exposing companies to legal, financial, and operational risk.

ENDNOTES

- 1** Paul R. Epstein, Jonathan J. Buonocore, Kevin Eckerle, Michael Hendryx, Benjamin M. Stout III, Richard Heinberg, Richard W. Clapp, Beverly May, Nancy L. Reinhart, Melissa M. Ahern, Samir K. Doshi, and Leslie Glustrom. 2011. Full cost accounting for the life cycle of coal in “Ecological Economics Reviews.” Robert Costanza, Karin Limburg & Ida Kubiszewski, Eds. *Ann. N.Y. Acad. Sci.* 1219: 73–98.
- 2** These aggregate figures are based on combined involvement in loans, equity underwriting transactions, and debt underwriting transactions with coal-fired power companies and MTR companies included in this report. According to Bloomberg’s league tables methodology, dollar figures for a transaction are assigned to banks based on their involvement at a lead manager or lead underwriter level. Therefore, while Bloomberg’s methodology does provide a good measure of a bank’s leadership-level involvement in MTR and coal-fired power transactions, the figures provide only an approximation of the dollar amounts each bank committed to the transactions in question.
- 3** “Top 50 Holding Companies.” Federal Financial Institutions Examination Council. 31 Dec 2012. <http://www.ffiec.gov/nicpubweb/nicweb/Top50Form.aspx>
- 4** Geredien, Ross. “Assessing the Extent of Mountaintop Removal in Appalachia: An Analysis Using Vector Data” 2009. http://ilovemountains.org/reclamation-fail/mining-extent-2009/Assessing_the_Extent_of_Mountaintop_Removal_in_Appalachia.pdf. See also, Testimony of John “Randy” Pomponio, Director, Environmental Assessment and Innovation Division, EPA Mid-Atlantic Region. June 25, 2009. http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=53b87b86-805f-4a7f-a7e3-79ff7e5b3eb8
- 5** Mountaintop Mining Consequences. Palmer, et al. *Science* 8 January 2010: 149. [http://www.filonverde.org/images/Mountaintop_Mining_Consequences_Science1\[1\].pdf](http://www.filonverde.org/images/Mountaintop_Mining_Consequences_Science1[1].pdf).
- 6** *Ibid*, p. 148.
- 7** *Ibid*, p. 148.
- 8** Several health studies on MTR are available at the Coal River Mountain Watch website: <http://crmw.net/resources/health-impacts.php>.

The most relevant recent studies on the health impacts of MTR include the following:

Ahern, M.M., et al., The association between mountaintop mining and birth defects among live births in central Appalachia, 1996–2003. *Environ. Res.* (2011), <http://crmw.net/files/Ahern_et_al_MTR_and_birth_defects_2011.pdf>.

Paul R. Epstein, et al., 2011. “Full cost accounting for the life cycle of coal.” in “Ecological Economics Reviews.” Robert Costanza, Karin Limburg & Ida Kubiszewski, Eds. *Ann. N.Y. Acad. Sci.* 1219: 73–98. http://crmw.net/files/Epstein_et_al_Full_cost_accounting_for_life_cycle_of_coal.pdf.

Hendryx, M. “Personal and Family Health in Rural Areas of Kentucky With and Without Mountaintop Coal Mining.” *Journal of Rural Health.* 00 (2013) 1–10. <http://onlinelibrary.wiley.com/store/10.1111/jrh.12016/asset/jrh12016.pdf?v=1&ct=hf07gjxf&cs=efdb9cb72d930611345448070cfb6dad81243d61>

Hendryx, M., and L. Esch. (2011) “Chronic Cardiovascular Disease Mortality in Mountaintop Mining Areas of Central Appalachian States.” *Journal of Rural Health.* <http://crmw.net/files/Esch_Hendryx_Chronic_cardiovascular_disease_mortality_in_MTR_2011.pdf>.

Hendryx, M., L. Wolfe, J. Luo, and B. Webb. (2011) “Self-Reported Cancer Rates in Two Rural Areas of West Virginia with and Without Mountaintop Coal Mining.” *Journal of Community Health.* http://crmw.net/files/Hendryx_et_al_self_reported_cancer_rates_2011.pdf.
- Hendryx, M. (2011) “Poverty and Mortality Disparities in Central Appalachia: Mountaintop Mining and Environmental Justice.” *Journal of Health Disparities Research and Practice: Vol 4 (3)* p 44-53. http://crmw.net/files/Hendryx_Poverty_and_mortality_disparities_2011.pdf.
- Zullig, KJ and M. Hendryx. “Health-Related Quality of Life Among Central Appalachian Residents in Mountaintop Mining Counties”. *American Journal of Public Health.* 101, 5 (2011): 848-53. http://crmw.net/files/Zullig_Hendryx_Health_related_quality_of_life_2011.pdf.
- 9** Standard & Poor’s did not issue ratings for Rhino Resource Partners, Lipari Energy, XInergy, Essar Global, and Patriot Coal. Under Standard & Poor’s rating system, companies with ratings of BB+ or lower are considered “below investment grade.”
- 10** Ward Jr., Ken. “Buying Blair.” *Charleston Gazette* 22 Nov 1998, <http://www.wvgazette.com/static/series/mining/MINE1122.html>.
- 11** For more background information on the human rights implications of cultural heritage destruction in the context of the Adkins Fork mine, see the Rainforest Action Network’s March 2013 Coal Risk Update: http://ran.org/sites/default/files/coal_risk_update_03_2013_high.pdf. See also: “Report of the Independent Expert in the Field of Cultural Rights.” United Nations Human Rights Council. 21 Mar 2011. A/HRC/17/38. Web. 17 Jan 2013. p. 19. <<http://www.unhcr.org/refworld/docid/50f01fb12.html>>. “UNESCO Declaration on the Intentional Destruction of Cultural Heritage.” United Nations Educational, Cultural, and Scientific Organization. 17 Oct 2003. Web. 17 Jan 2013. Preamble. <http://portal.unesco.org/en/ev.php-URL_ID=17718&URL_DO=DO_TOPIC&URL_SECTION=201.html>.
- 12** “Bank of America Coal Policy.” Bank of America. http://about.bankofamerica.com/assets/pdf/COAL_POLICY.pdf.

- 13** “Human Rights Statement.” BNY Mellon. <http://www.bnymellon.com/about/humanrights.html>. “Environmental Sustainability Statement.” BNY Mellon. <http://www.bnymellon.com/about/environment.html>.
- 14** “Mountaintop Removal Mining Environmental Due Diligence Process.” Citigroup. Aug 2009. <http://www.citigroup.com/citi/citizen/finance/environment/mrcm.htm>.
- 15** “2011 Global Citizenship Report.” Citigroup. 2011. p. 48. http://citizenship.citigroup.com/citi/about/data/corp_citizenship/global_2011_english.pdf.
- 16** “Environmental Markets: Business Selection and Environmental Advisory.” Goldman Sachs. <http://www.goldmansachs.com/citizenship/environmental-stewardship-and-sustainability/environmental-markets/business-selection-and-environmental-advisory.html>.
- 17** “Corporate Responsibility Report.” JPMorgan Chase. 2011. p. 61. http://www.jpmorganchase.com/corporate/Corporate-Responsibility/document/25796_JPMC_CorpReport_ALL_052912a_v2.pdf.
- 18** “Mining and Metals Sector Policy.” HSBC. May 2007. <http://www.hsbc.com/~media/1078E2C77D51450CB3E2286DB2447965.ashx>.
- 19** Ibid.
- 20** “Environmental Policy Statement.” Morgan Stanley. 2011. p. 5. http://www.morganstanley.com/globalcitizen/pdf/Environmental_Policy.pdf.
- 21** Ibid, p. 9.
- 22** “Environmental Sustainability Policy.” U.S. Bancorp. Sep 2010. <https://www.usbank.com/pdf/community/2010-Environmental-Policy.pdf>.
- 23** “Environmental and Social Risk Management.” Wells Fargo. Feb 2013. p. 4. https://www.wellsfargo.com/downloads/pdf/about/csr/reports/environmental_lending_practices.pdf.
- 24** See footnote 2 for additional information about the methodology used for this ranking.
- 25** This involvement information is based on bank involvement in loan, equity underwriting, and debt underwriting transactions with listed companies based on transaction information available on Bloomberg. We consider banks to be “involved” with a particular transaction regardless of whether they participate as a lead manager/lead arranger or lower-level syndicate participant. Therefore, this involvement grid presents a broader picture of bank financing than our ranking, which only measures bank involvement at the lead manager/lead arranger level.
- 26** Cleveland, Shanna. “Dark Days Ahead: The Financial Future of Brayton Point.” CLF Scoop. 28 Feb, 2013. <http://www.clf.org/blog/clean-energy-climate-change/dark-days-ahead-the-financial-future-of-brayton-point/>. See also: Schlissel, David and Tom Sanzillo. “Dark Days Ahead: Financial Factors Cloud Future Profitability at Dominion’s Brayton Point.” Conservation Law Foundation. http://action.clf.org/images/content/reports/brayton_point_report.pdf.
- 27** Cleetus, Rachel et al. “Ripe for Retirement: The Case for Closing America’s Costliest Coal Plants.” Union of Concerned Scientists. Nov 2012. p. 1. http://www.ucsusa.org/assets/documents/clean_energy/Ripe-for-Retirement-Full-Report.pdf.
- 28** Fisher, Jeremy and Kenji Takahashi. “TVA Coal in Crisis.” Synapse Energy Economics. p. 4-5. <http://www.synapse-energy.com/Downloads/SynapseReport.2012-08.SC.TVA-Coal-in-Crisis.12-041.pdf>.
- 29** “OPIC Sustainability Plan.” Overseas Private Investment Corporation. 2010. http://www.opic.gov/sites/default/files/docs/opic_sustainability_plan_2010.pdf.
- 30** “OPIC has another record-setting year for renewable resources.” OPIC Blog. 17 Oct 2012. <http://www.opic.gov/blog/opic-in-action/opic-has-another-record-setting-year-for-renewable-resources>.
- 31** Lord Deben, Chair, Committee on Climate Change. “Letter to Edward Davey, MP, Secretary of State, Department of Energy and Climate Change.” U.K. Committee on Climate Change. 25 Feb 2013. <http://www.theccc.org.uk/wp-content/uploads/2013/02/Ed-Davey-February13.pdf>.
- 32** “Bank of America Coal Policy.” Bank of America. http://about.bankofamerica.com/assets/pdf/COAL_POLICY.pdf.
- 33** “Human Rights Statement.” BNY Mellon. <http://www.bnymellon.com/about/humanrights.html>. “Environmental Sustainability Statement.” BNY Mellon. <http://www.bnymellon.com/about/environment.html>.
- 34** “Guidelines for Environmental Practices.” Citigroup. <http://www.citigroup.com/citi/environment/policies.htm>.
- 35** “2011 Global Citizenship Report.” Citigroup. 2011. p. 48. http://citizenship.citigroup.com/citi/about/data/corp_citizenship/global_2011_english.pdf.
- 36** Email correspondence from Goldman Sachs to report authors, 28 Mar 2013.
- 37** “Environmental Policy Framework.” Goldman Sachs. p. 3. <http://www.goldmansachs.com/our-thinking/archive/archive-pdfs/enviro-policy-framework.pdf>.
- 38** “Corporate Responsibility Report.” JPMorgan Chase. 2011. p. 59-61. http://www.jpmorganchase.com/corporate/Corporate-Responsibility/document/25796_JPMC_CorpReport_ALL_052912a_v2.pdf.

- 39** Ibid. p. 59-61.
- 40** “Energy Sector Policy.” HSBC. Jan 2011. <http://www.hsbc.com/~media/HSBC-com/citizenship/sustainability/pdf/110124hsbcenergysectorpolicy.pdf.ashx>.
- 41** “Environmental Policy Statement.” Morgan Stanley. 2011. p. 2. http://www.morganstanley.com/globalcitizen/pdf/Environmental_Policy.pdf.
- 42** “Sustainability Report.” Morgan Stanley. 2011. p. 9. http://www.morganstanley.com/globalcitizen/pdf/sReport_2011.pdf.
- 43** “Environmental Sustainability Policy.” U.S. Bancorp. Sep 2010. <https://www.usbank.com/pdf/community/2010-Environmental-Policy.pdf>.
- 44** “Environmental and Social Risk Management.” Wells Fargo. Feb 2013. p. 6. https://www.wellsfargo.com/downloads/pdf/about/csr/reports/environmental_lending_practices.pdf.
- 45** See footnote 2 for additional information about the methodology used for this ranking.
- 46** See footnote 24 for additional information about the methodology used for this exposure grid.
- 47** “U.S. Coal Exports.” U.S. Energy Information Administration. Dec 2012. <http://www.eia.gov/coal/production/quarterly/pdf/t7p01p1.pdf>.
- 48** Williams-Derry, Clark. “Ambre Energy: Caveat Investor.” Sightline Institute. Feb 2013. <http://www.sightline.org/wp-content/uploads/downloads/2013/02/Ambre-Caveat-February-2013.pdf>.
- 49** See footnote 24 for additional information about the methodology used for this exposure grid.
- 50** de Place, Eric. “At Least the Website is Clean.” Sightline Daily. 10 Aug 2011. <http://daily.sightline.org/2011/08/10/at-least-the-website-is-clean/>.
- 51** See footnote 24 for additional information about the methodology used for this exposure grid.
- 52** “Form 10-K.” Ameren Corporation. 31 Dec 2012. p. 26-27. <http://www.sec.gov/Archives/edgar/data/18654/000144530513000414/ace-2012x1231x10k.htm>.
- 53** “Form 10-K.” American Electric Power. 31 Dec 2012. p. 42. <http://www.sec.gov/Archives/edgar/data/4904/000000490413000025/ye12aep10k.htm>.
- 54** “Form 10-K.” The AES Corporation. 31 Dec 2012. p. 4. http://www.sec.gov/Archives/edgar/data/874761/000119312513077580/d472985d10k.htm#tx472985_4 (calculations exclude integrated utilities operations).
- 55** “Form 10-K.” MidAmerican Energy Company. 31 Dec 2012. p. 9. <http://www.sec.gov/Archives/edgar/data/928576/000092857613000005/llcmec123112form10-k.htm#s94CA6623BAE689012BFB30E2634FEB3A>. “Form 10-K.” PacifiCorp. 31 Dec 2012. p. 12. <http://www.sec.gov/Archives/edgar/data/75594/000007559413000005/pacificorp123112form10-k.htm>.
- 56** “Form 10-K.” DTE Energy. 31 Dec 2012. p. 6. <http://www.sec.gov/Archives/edgar/data/936340/000093634013000028/dteenergy2012123110k.htm>.
- 57** “Form 10-K.” Duke Energy Corporation. 31 Dec 2012. p. 31. <http://www.sec.gov/Archives/edgar/data/17797/000132616013000009/form10k.htm>. See also: Bloomberg data on Duke Energy’s annual electricity production for 2012.
- 58** “Form 10-K.” Energy Future Holdings Corp. 31 Dec 2012. p. 5. <http://www.sec.gov/Archives/edgar/data/1023291/000102329113000003/efh-12312012x10k.htm>.
- 59** “Form 10-K.” FirstEnergy Corp. 31 Dec 2012. p. 2. <http://www.sec.gov/Archives/edgar/data/53456/000103129613000010/fe-12312012x10k.htm>.
- 60** “Form 10-K.” NRG Energy Inc. 31 Dec 2012. p. 8. <http://www.sec.gov/Archives/edgar/data/1013871/000101387113000003/a201210-k.htm>.
- 61** “Form 10-K.” Public Service Enterprise Group. 31 Dec 2012. p. 3-4. <http://www.sec.gov/Archives/edgar/data/81033/000078878413000003/pseg201210k.htm>.
- 62** “Form 10-K.” The Southern Company. 31 Dec 2012. p. I-29. http://www.sec.gov/Archives/edgar/data/3153/000009212213000014/so_10-kx12312012.htm.
- 63** “Form 10-K.” Tennessee Valley Authority. 30 Sep 2012. p. 13-14. <http://www.sec.gov/Archives/edgar/data/1376986/000137698612000043/tve-09302012x10k.htm>.
- 64** “BNSF Railway Statement on STB Coal Dust Decision.” BNSF. <http://www.bnsf.com/customers/what-can-i-ship/coal/coal-dust.html>

EXTREME INVESTMENTS

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