BOFA BANK OF COAL

CASE FILE:

Bank of America

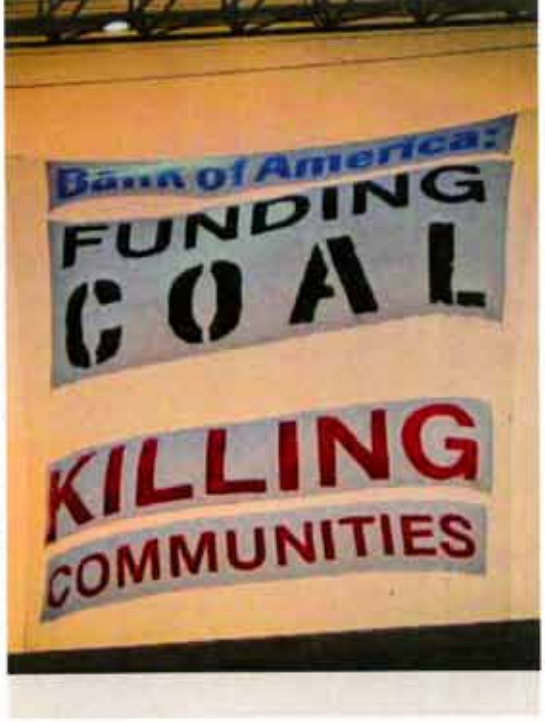
Risking Public Health and the Climate

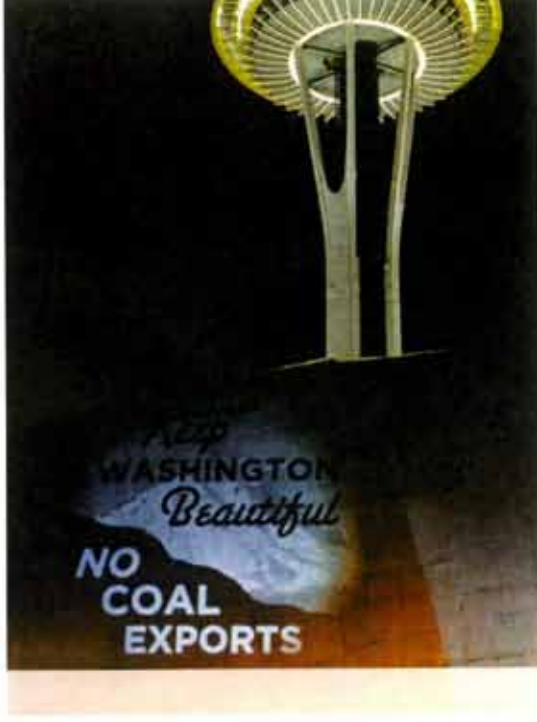
Evidence Collection	Date:	11-14.11

TABLE OF CONTENTS

"Transitioning to more efficient use of fossil fuels while advancing renewable and other low-carbon energy is inextricably linked to the long-term health of our global economy."[1]

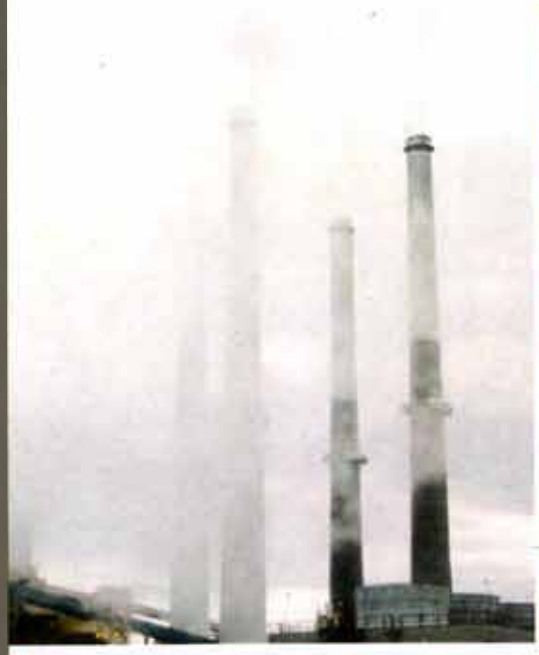
— BANK OF AMERICA CORPORATE SOCIAL RESPONSIBILITY REPORT 2010

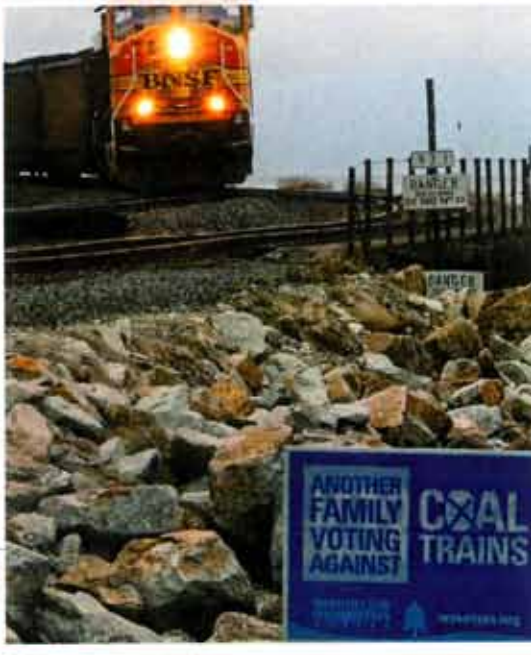




Bank of America

Risking Public Health and the Climate





RAINFOREST ACTION NETWORK

SECTION 1: INTRODUCTION

"Coal is a dead man walkin'…. Banks won't finance them. Insurance companies won't insure them. The EPA is coming after them. . . . And the economics to make it clean don't work"[2]

— KEVIN PARKER, GLOBAL HEAD OF ASSET MANAGEMENT AND A MEMBER OF THE EXECUTIVE COMMITTEE AT DEUTSCHE BANK

Bank of America is among the biggest banks in the world.[3] With more than $2 trillion in assets, branches in 43 states, over 250,000 employees, and expanding operations in Asia, Europe, the Middle East, Africa, Latin America and Canada, the scale and reach of Bank of America's business is immense.

Bank of America's financial relationships with the coal industry are also immense. While the bank claims in its corporate social responsibility reports to take seriously the impact its investments have on the environment, Bank of America is the leading financier of the mining, transportation and burning of coal, which is the source of 80% of the greenhouse gas emissions resulting from electricity generation in the United States.

In fact, over the past two years, Bank of America has underwritten $4.3 billion in the coal industry,[4] significantly more than any other U.S. bank.

Bank of America is involved in every aspect of the coal mining industry. It routinely underwrites billions to the industry, including hundreds of millions of dollars in loans to Arch Coal and Peabody Energy—the two biggest coal mining companies in the country. Bank of America also underwrites billions every year to coal-heavy utility corporations, such as Southern Company and Edison International.

The Regulatory, Health and Reputational Risks Make Coal Bad Business

In the U.S., coal-fired power plants have over 300 GW of capacity. There are 60 GW of coal plants that are over 60 years old in the country. A further 92 GW of coal plants are older than 45 years. Together these plants, representing 45% of the current coal power capacity in the U.S., are ripe for retirement as they are increasingly uneconomic and unacceptably dirty.[5] Industry analysts forecast that current and forthcoming EPA regulations governing sulfur dioxide, hazardous pollutants, and other emissions will force many of these old relics to install new emission controls or close for good. With renewable energy technologies available now, we must continue to retire our aging fleet of coal plants.

The environmental and public heath damages caused by the life cycle of coal are immense. In 2011, a study in the prestigious American Economic Review estimated that for every dollar that it generates in economic value, coal-fired power generation produces $2.10 in "gross external damages," i.e. deaths and illnesses. This is among the worst ratios of any industry in the United States.[6]

In 2011, Paul Epstein of Harvard Medical School published a report that found that the life cycle effects of coal are creating between $175 billion and $500 billion annually in health and environmental damages."[7]

Coal-fired electricity is a scourge on the country's public health on the scale of tobacco, asbestos, and other industries associated with large-scale human health damages. While toxic industries may deploy aggressive PR campaigns to defend their profits, an eventual reckoning is inevitable, and investors are well advised to avoid such pariahs.

While Bank of America does not seem to recognize the enormous climate and public health consequences of funding dirty coal, it does seem to grasp the public relations benefits of championing renewable energy. Bank of America has loudly touted its 10-year, $20 billion plan to invest in "climate initiatives,"[8] only a small portion of which is actually supporting truly clean, renewable energy. This has not stopped the bank from sending out press releases patting itself on the back for its self-professed strong environmental performance.

Bank of America record does not match the climate change challenge.

Rainforest Action Network's Demands For Bank of America

Bank of America has an opportunity to lead the banking industry by developing a comprehensive coal policy that commits the company to shifting its financing away from coal and toward investments in renewable energy.

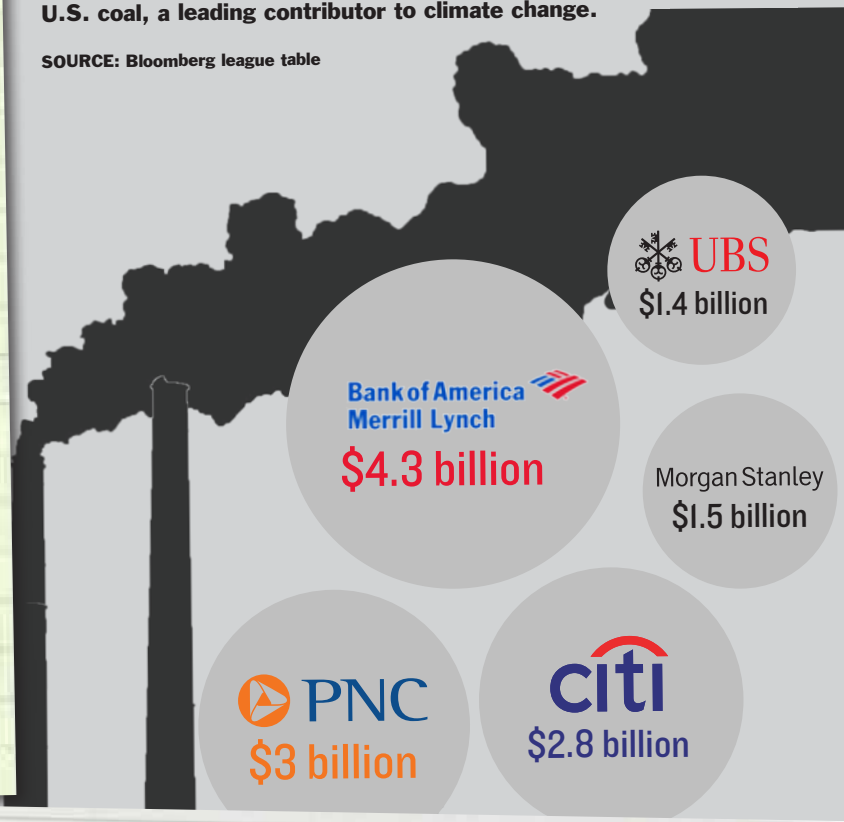
After more than a decade successfully working to establish environmental policies and practices at the country's top banks, RAN is demanding that Bank of America spend not one more dollar on coal. In particular, RAN is calling on BoA to:

* STOP financing for companies pursuing new coal-fired power plants and life-extending retrofits of existing coal-fired power plants;
* STOP financing for companies engaged in mountaintop removal coal mining;
* STOP financing for companies pursuing coal export infrastructure;
* SHIFT the balance of energy financing to support renewable power generation that is less threatening to our health and environment.

TOTAL COAL UNDERWRITING 2009 – 2010 11

Despite the adoption of the Carbon Principles and other commitments to the environment, the biggest banks continue to finance U.S. coal, a leading contributor to climate change.

SOURCE: Bloomberg league table



BOX 1: KEY FINDINGS

* Despite its stated commitment to contribute to a "low carbon economy," Bank of America is the largest underwriter of the coal industry in the U.S., contributing $4.3 billion to the coal sector over the past two years.9 More than any other bank, Bank of America is continuing to prop up a 19th century energy system at the exact time when the twin opportunities of job creation and the transition to a green economy are of paramount concern.

* At the same time as warning of the financial risks of climate change and regulation of greenhouse gas emissions, Bank of America continues to recommend to its clients that they lend money to and buy equity in major coal industry players, such as Arch Coal.

* In 2007, Bank of America committed to a 10-year, $20 billion plan to "address global climate change," but less than 25 of this money is financing renewable energy projects. There is a lack of transparency as to how this money is invested.10

* Despite announcing a 2008 policy on mountaintop removal, which included a commitment to "phase out financing of companies whose predominant method of extracting coal is through mountain top removal," in 2011 Bank of America participated in a $1.6 billion loan and underwrote $56 million for a bond offering in June 2011 as a part of Alpha Natural Resources' effort to raise the capital needed to buy Massey Energy, the largest mountaintop removal mining company.

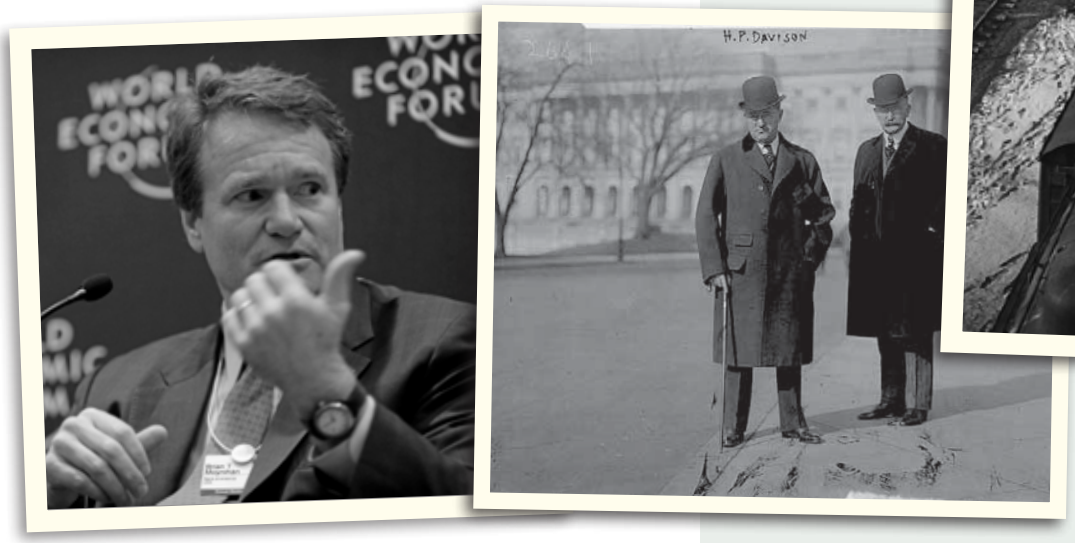
SECTION 2:

BANKS AND COAL, A HISTORY OF FINANCED POLLUTION

The banking sector has acknowledged the "carbon risk" associated with the financing of carbon-intensive power generation, particularly coal, yet it is has failed to adequately address that risk.

In 2008 six banks (Bank of America, JPMorgan Chase, Citi, Wells Fargo, Credit Suisse and Morgan Stanley) signed onto the Carbon Principles,[12] one of the first industry-wide due diligence policies to specifically address the climate effects of new coal-fired power plants. Recognizing that the private sector must respond to climate change without waiting for slow-moving governments, these banks acknowledged that carbon-intensive investments posed great risks and that carbon must be included in traditional models for assessing risk.

In 2011 Rainforest Action Network's researchers assessed the implementation of the Carbon Principles and found that while the broader economy has been shifting away from new coal plants, the banks that have signed onto the Carbon Principles are continuing with business-as-usual in regard to financing coal.[13] While they are a positive first step, the Carbon Principles are inadequate for stopping or slowing financing to carbon-intensive power generation and for spurring investment in clean energy at the levels necessary to curb the worst impacts of climate change.



Six European banks have signed a similar initiative, the Climate Principles, described by industry watchdog BankTrack as lacking the "rigor, urgency or ambition that the (climate) challenge at hand plainly requires."[14] This is echoed in a 2010 review of the Climate Principles by Price Waterhouse Coopers, calling on the financial services sector to "move faster. For example, they need to support the power sector as it adopts and scales-up cleaner, greener technologies. And we need them to do so at a much accelerated rate."[15]

The European banking sector is now beginning to adopt bank-specific policies to address financing of new and existing coal-fired power generation, the stronger policies to date being those of WestLB, BNP Paribas and HSBC, which include carbon intensity standards that essentially preclude providing finance for all but the most efficient coal-fired power plants.

Additionally, following a two-year Rainforest Action Network–led campaign against leading financiers of mountain top removal coal mining (MTR), six U.S. and two Swiss banks have adopted policies to address surface coal mining in Appalachia. These policies include enhanced due diligence processes (Citi and UBS), stated performance standards (JPMorgan Chase, Bank of America, Morgan Stanley and PNC), an exit strategy (Wells Fargo) and a stated exclusion on financing for the practice (Credit Suisse).

Rainforest Action Network and the Sierra Club reviewed the language and implementation of these policies in "*Policy & Practice: 2011 Report card on Banks and Mountaintop Removal*."[16] RAN and the Sierra Club graded Bank of America a C- after looking into its MTR underwriting of Patriot Coal, Arch Coal and CONSOL Energy. Since the publication of the report card, Bank of America has participated in a loan and underwritten a bond offering to Alpha Natural Resources as part of Alpha's effort to raise capital for its acquisition of Massey Energy. In total, Bank of America is underwriting companies responsible for 40% of all MTR.

SECTION 3:
COAL'S RISK TO CLIMATE AND PUBLIC HEALTH

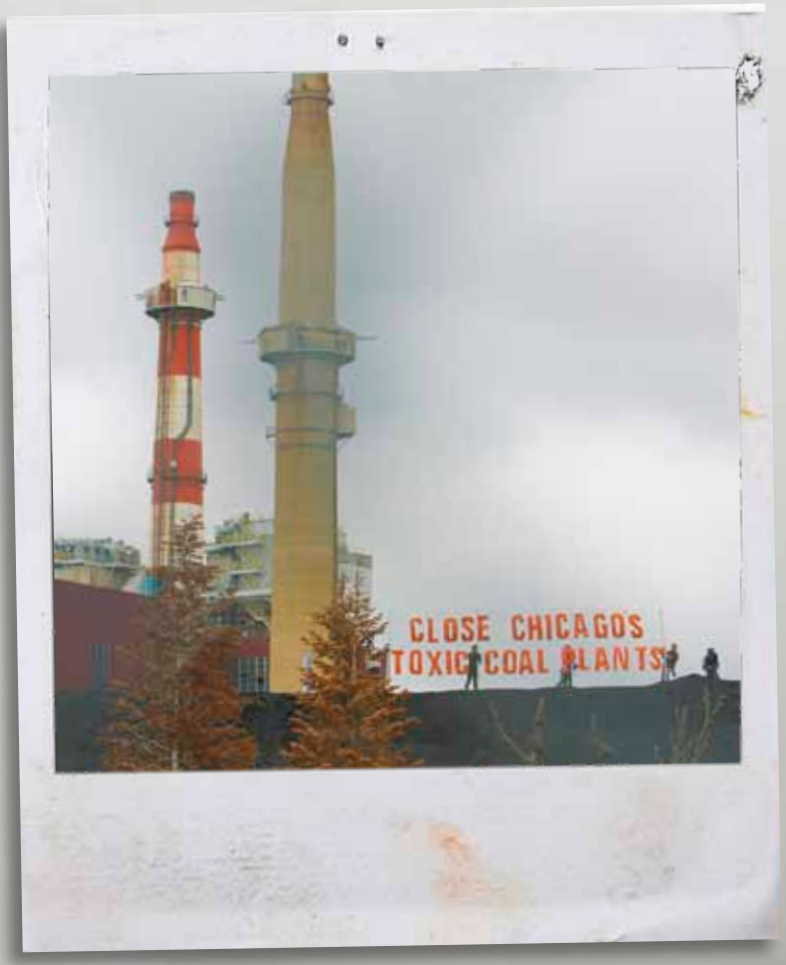
The Intergovernmental Panel on Climate Change (IPCC) is a scientific intergovernmental body charged with synthesizing the best climate science and making recommendations to policymakers to deal with the climate crisis. In its Fourth Assessment Report, published in 2007, the IPCC found that the science that supports the reality of anthropogenic climate change is "unequivocal" and that much of our planet's warming is already locked in due to historic greenhouse gas emissions. If serious action isn't taken, the IPCC warns, global temperatures are expected to rise between 1.1° and 6.4° C (2.0° and 11.5° F) by 2100. [17] And despite attendance by over 100 heads of state at the Copenhagen Climate Convention meetings in 2009, current GHG emission pledges put us on a trajectory to a 3.5° C warming by the end of this century.[18]

To stabilize the climate, the IPCC recommends that industrialized countries cut their emissions by 25–40% by 2020 from 1990 levels, and get as close to zero greenhouse gas emissions by 2050 as possible.

The U.S. is the largest cumulative emitter of greenhouse gas emissions. Despite its population of 313 million (less than 5% of global population), the U.S. is responsible for roughly 25% of global GHG emissions annually. In 2009, coal accounted for 44.5% of the U.S. electricity generation but 80% of GHG emissions from the utility sector, the sector with the largest percentage contribution to U.S. GHG emissions.[19] Simply put, science tells us that to solve the climate crisis we must stop burning coal.

At every stage of its life, coal does serious damage. Coal-fired power plants have been linked to developmental defects because of exposure to toxic mercury pollution. The EPA estimates that one in 12 American women of child-bearing age have unsafe levels of mercury in their blood. That means that every year more than 300,000 babies are born at risk of neurological deficits due to by mercury poisoning.[20] According to a 2010 study by Abt Associates, particulate matter from coal plant emissions account for an annual 13,200 mortalities due to cardiac and respiratory diseases and lung cancer, with the average life of an individual dying as a result of air pollution shortened by 14 years. The study also estimated that coal plants each year are responsible 217,600 asthma attacks, 20,400 heart attacks, 8,000 cases of chronic bronchitis, and 1.6 million lost work days.[21]

While the U.S. government has taken some positive steps to mandate pollution controls, two thirds of coal-fired power plants still lack the technology needed to keep toxic air pollution, like mercury, acid gases and arsenic, out of our air and water.



An average U.S. 500MW coal plant each year emits:

- 3.7 million tons of carbon dioxide (CO2), an amount equivalent to chopping down 161 million trees. CO2 pollution is the principal human cause of climate change.
- 10,000 tons of sulfur dioxide (SO2), which causes acid rain and forms small airborne particles that can cause lung damage, heart disease, and other illnesses.
- 10,200 tons of nitrogen oxide (NOx), equivalent to half a million late-model cars. NOx leads to formation of smog, which inflames lung tissue and increases susceptibility to respiratory illness.
- 500 tons of small airborne particles (particulate matter), which can cause bronchitis, reductions in lung function, increased hospital and emergency room admissions, and premature death.
- 220 tons of hydrocarbons, which contribute to smog formation.
- 720 tons of carbon monoxide (CO), which causes headaches and places additional stress on people with heart disease.
- 170 pounds of mercury. 1/70th of a teaspoon of mercury deposited in a 25-acre lake can make the fish unsafe to eat. Mercury also causes learning disabilities, brain damage, and neurological disorders.
- 225 pounds of arsenic, which leads to cancer in 1 out of 100 people who drink water containing 50 parts per billion.
- 114 pounds of lead, 4 pounds of cadmium, and other toxic heavy metals. These toxic metals can accumulate in human and animal tissue and cause serious health problems, including mental retardation, developmental disorders, and damage to the nervous system.

Source: Union of Concerned Scientists [22]

SECTION 4:

BANK OF AMERICA'S ALTERNATIVE ENERGY PLEDGE

"As an organization, we believe we can help address climate change and spur economic recovery by creating new businesses, technologies and jobs. Even in this challenging economy, the momentum we're seeing demonstrates that strong demand for capital, service and expertise in this sector continues to present a compelling business opportunity."

— ANNE M. FINUCANE, BANK OF AMERICA'S GLOBAL STRATEGY AND MARKETING OFFICER AND CHAIR OF BANK OF AMERICA'S ENVIRONMENTAL COUNCIL

On page 60 of its inaugural CSR report, "Opportunity in Motion," Bank of America describes its Environmental Business Initiative (EBI). Since the initiative began in 2007, Bank of America claims to have delivered $11.6 billion in "environmental" financing. [23] The report explains that the majority of this money has gone into the construction sector, while less than 25% of the amount has gone to towards "energy efficiency and renewable energy" financing. Bank of America talks loudly and proudly about some of these flagship initiatives, such as the Kittitas Valley Wind Farm, yet there is a lack of a transparency about where the full amount of this financing is going.

Defining Renewable Energy: A Critical Next Step

RAN has interviewed a range of stakeholders [24] from the banking community and learned that the financial sector is not yet using a consistent definition of "renewable." RAN is increasingly seeing banks, such as Bank of America, use broad and vague terminology, phrases like "clean" or "alternate" energy.

Bank of America's definition of environmental investments currently includes energy efficiency, solar, wind, biomass, biofuel technologies and Carbon Capture and Storage (CCS or 'clean' coal).

RAN's definition of truly clean, renewable energy includes: energy efficiency, solar, wind, water and geothermal technologies, and does not include energy sourced from natural gas, coal to liquids or carbon capture and sequestration among other unproven, unsafe or otherwise problematic technologies. See more about these false choices in the appendix.

Environmental Investments that Could Help Solve the Climate Crisis

The U.S. currently sources 4.9% of its energy production from hydro, geothermal, solar and wind technologies. Groups like Greenpeace [25] and the Rocky Mountain Institute [26] have demonstrated the feasibility for the U.S, to meet as much as 87.5% of the nation's primary energy demand from renewable sources by 2050.

Carbon Disclosure Project: A Distraction from the Facts

In September 2011, Bank of America proudly announced that it had ranked "First Among Financial Institutions in Carbon Disclosure Project (CDP)'s 2011 Global 500 and S&P 500 Rankings."[27]

The award may sound impressive, but it masks the true impact on the climate of Bank of America's business. The CDP is a clearinghouse for company reporting and the bank is reporting its operational carbon emissions (the carbon BoA burns to run its offices and transport its staff), not its financed emissions (the carbon burned as a result of the money that BoA invests in industry clients). In general, the rate of financed to operational emissions by large commercial banks is 100:1.

2004

Bank of America Environmental Policy, commits to "Reduce direct and indirect emissions and invest in renewable energy projects."

2007

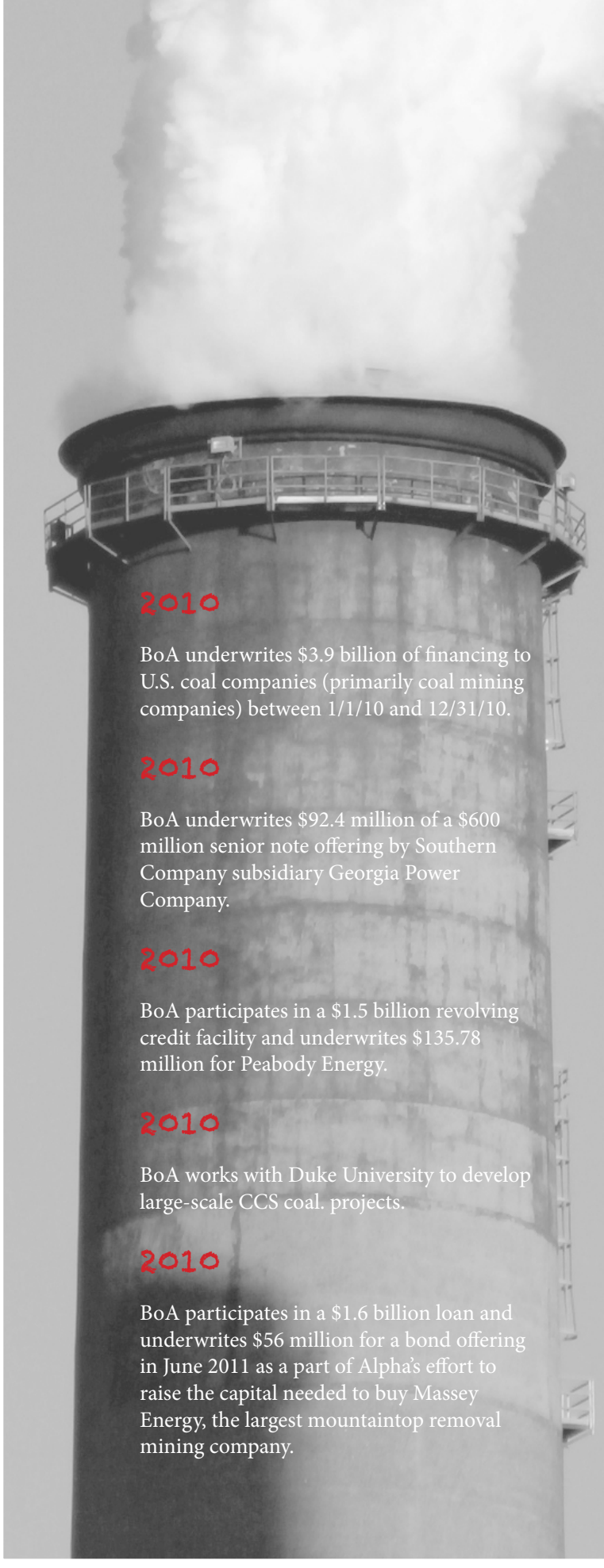
BoA launches Environmental Business Initiative, commits to $20 billion financing over 10 years.

2008

BoA Adopts the Carbon Principles, voluntary standards to mitigate financed greenhouse gas emissions.

2008

BoA Announces Mountaintop Removal Policy: "Bank of America 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."



2010

BoA underwrites $3.9 billion of financing to U.S. coal companies (primarily coal mining companies) between 1/1/10 and 12/31/10.

2010

BoA underwrites $92.4 million of a $600 million senior note offering by Southern Company subsidiary Georgia Power Company.

2010

BoA participates in a $1.5 billion revolving credit facility and underwrites $135.78 million for Peabody Energy.

2010

BoA works with Duke University to develop large-scale CCS coal. projects.

2010

BoA participates in a $1.6 billion loan and underwrites $56 million for a bond offering in June 2011 as a part of Alpha's effort to raise the capital needed to buy Massey Energy, the largest mountaintop removal mining company.

Our timeline illustrates that, despite public rhetoric about climate change, Bank of America is carrying on underwriting the industry responsible for one of the the largest sources of greenhouse gas emissions—coal. This double-speak is even evident in Bank of America's own investment analysis of the biggest coal companies.[28]

CONCLUSION

The increasing rancor in the U.S. over the role of the country's largest banks in the ongoing financial crisis promises to continue unabated. Bank of America is a focus of much of the public anger as its role in the mortgage crisis was substantial and the results catastrophic. This report finds that the same irresponsibility that allowed the nation's leading banks to undermine our economy is allowing them to undermine our climate and public health.

The planet is now approaching 400 parts per million (ppm) of carbon dioxide in the atmosphere. Fuels already burned have locked us into a two degree (Celsius) temperature rise.29 If we are to avoid runaway climate change, carbon dioxide levels must be reduced to 350 ppm as soon as possible. Coal is currently one of the leading sources of greenhouse gases, and the massive remaining reserves of coal have led top climate scientist James Hansen to warn us: "Coal is the single greatest threat to civilization and all life on our planet."

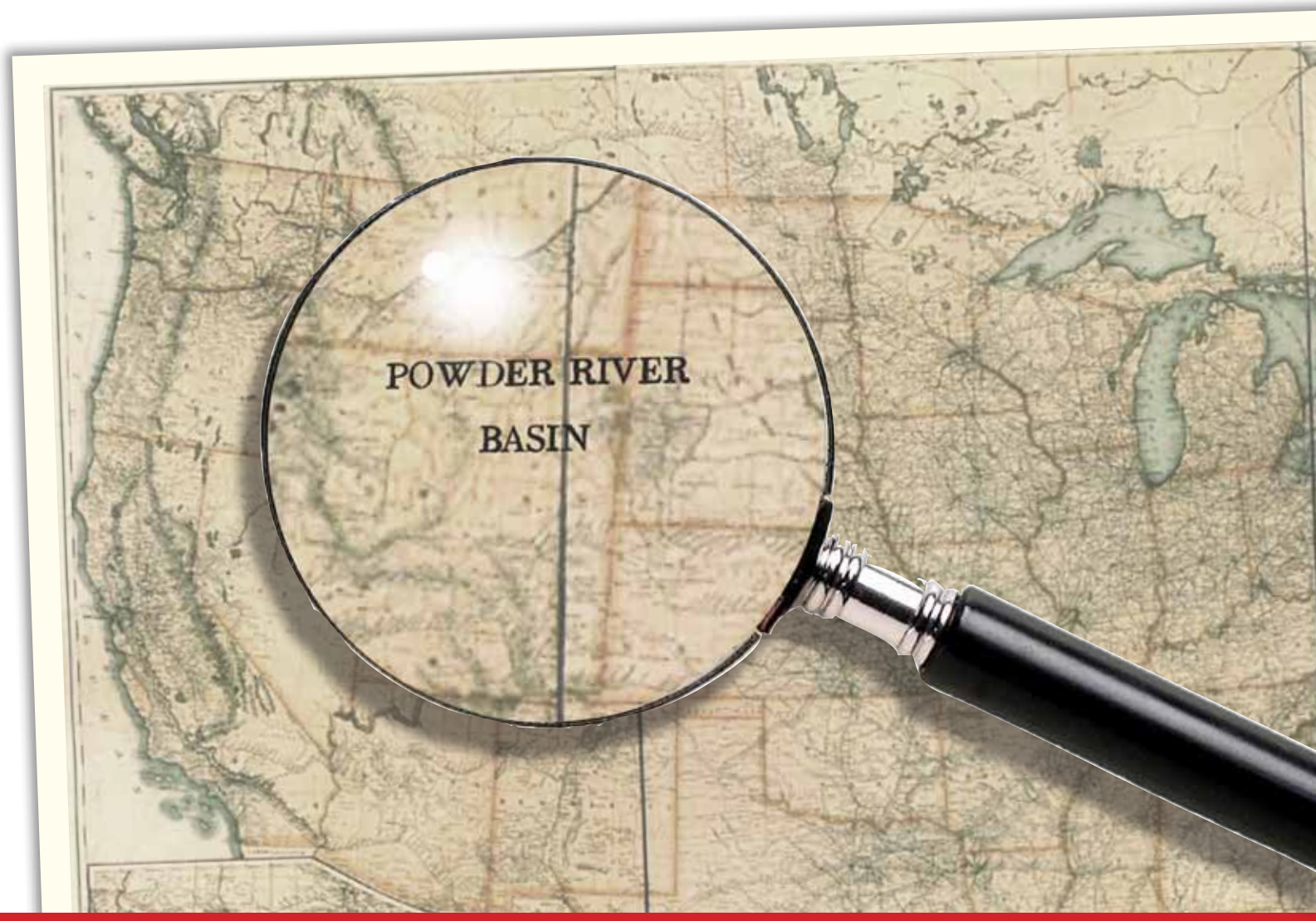
As Bank of America attempts to regain public trust and rebuild its reputation, it is time for the bank to take a leadership role in building a stable, powerful, green energy economy that protects community health and well being. If strong action is not taken at the executive level, no amount of greenwash will be able to cover up the real impact of its coal investments. Now is the time for action from Bank of America.

CASE STUDIES

BANK OF AMERICA'S INVOLVEMENT IN U.S. COAL PROJECTS AND COAL COMPANIES

Look at any part of the lifecycle of coal and you will find that Bank of America has a significant interest. The bank is involved in mountaintop removal projects (extraction), continuing the life of old, dirty coal plants (combustion), and expanding exports of U.S. coal reserves to China and other overseas buyers (export/transportation).

This section profiles research from Rainforest Action Network that exposes Bank of America financing links to some of the dirtiest and most dangerous coal projects and companies in the United States. In each, Bank of America has played an active role, which directly undermines its public commitments to support environmental and public health and a burgeoning green economy.



GATEWAY PACIFIC TERMINAL AT CHERRY POINT

Type: Coal Export Terminals

Location: Cherry Point, WA

Bank of America Connection:

Peabody Energy, the world's largest private-sector coal company, entered into an agreement with SSA Marine in March 2011 to export up to 24 million metric tons of coal per year through the Gateway Pacific Terminal. In June 2010, Bank of America participated in a $1.5 billion revolving credit facility for Peabody Energy. In August 2010, Bank of America underwrote $135.78 million of a $650 million bond offering for Peabody Energy. 30

Background:

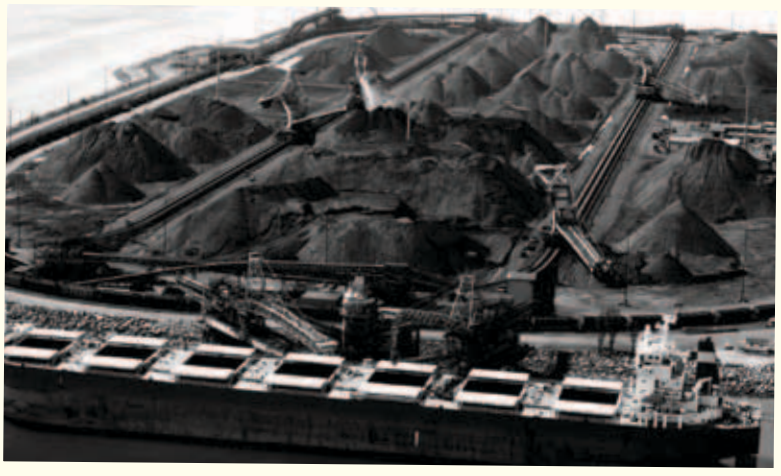
The Gateway Pacific Terminal is a proposed coal export terminal at Cherry Point, near Bellingham, Washington. If completed, the terminal would have the capacity to export 54 million tons of coal annually from the Powder River Basin in Montana and Wyoming to Asian markets.

As the U.S. begins to shift away from polluting coal-fired power plants, coal producers are gearing up to ship more of the fuel overseas. Currently, there is a major push for West Coast export terminals that would open the floodgates for a new coal market in Asia. Advocates for clean energy, the environment, and public health and safety have coalesced to challenge the plans to develop coal export capacity along the coast. They see the Gateway Pacific Terminal as a line in the sand.

Impacts:

Public Health: A surge in coal trains travelling from the Powder River Basin to the terminal near Cherry Point would increase air pollution from coal dust along rail lines across several states. A comprehensive 2001 study of coal dust emissions in Canada found that the Westshore Terminal near Tsawassen B.C. emits roughly 715 metric tons of coal dust each year. The report states that "coal terminals by their nature are active sources of fugitive dust." According to the rail operator BNSF, every coal car can lose as much as 500 pounds of coal dust en route. The wide ranging health dangers of coal dust include exposure to toxic heavy metals such as lead, selenium and mercury. Coal dust leads to increased asthma, wheezing and coughing in children. Toxic pollution from diesel exhaust is linked to stunted lung development, increased probability of heart attacks, lung cancer, worsening asthma and infant mortality.

Climate: The burning of coal is a leading cause of climate change. If the Gateway Pacific terminal is completed as it is proposed, and eventually exports upwards of 54 million tons of coal per year, that coal would produce roughly 100 million tons of CO2 in the same amount of time. Instead of exporting climate change around the world, this coal should stay in the ground.



SOUTHERN COMPANY

Type: Coal Utility Company

Location: Alabama, Georgia, Florida, and Mississippi

Bank of America Connection:

In May of 2010 Bank of America Securities LLC underwrote $92.4 million of a $600 million senior note offering by Southern Company subsidiary Georgia Power Company.

Background:

Southern Company is currently the eighth largest utility company in the world and the second largest in the United States. It owns and operates over 42,000 megawatts of generation capacity and serves 4.3 million customers in Alabama, Georgia, Florida and Mississippi. Southern owned 68 coal-fired generating stations in 2005, with 26,610 MW of capacity, making it the biggest coal energy producer in the country.

Southern Company successfully opposed a plan to create a national electricity market in 2004 and has dedicated significant money and effort to fighting the Renewable Portfolio Standard (RPS), which would require utilities to purchase 15% of their power from renewable sources by 2020. Southern Company argues that the RPS would raise costs for its customers and that the Southeast region of the U.S. does not have sufficient renewable sources of power.

Impacts:

Air quality and public health: Six Southern Company plants in Georgia and Alabama are ranked among the top 50 power plant emitters for overall mercury emissions. As of September 2009, Carbon Monitoring for Action (CARMA) reports that Southern is the highest carbon dioxide emitting power company in the U.S. and the fourth highest in the world, with an annual tally of 206 million tones of CO2 equivalent. 31

Many of Southern Company's power plants were exempted from the Clean Air Act's 1977 requirements to install modern pollution control equipment because they were built from the 1950s to the 1970s. In 1999 and 2000 the EPA sued Southern Company, along with seven other utility companies, for failure to comply with a program to improve pollution controls on enlarged or modernized plants.

In 2010, Abt Associates issued a study commissioned by the Clean Air Task Force, a nonprofit research and advocacy organization, quantifying the deaths and other health effects attributable to fine particle pollution from coal-fired power plants. The study attributed 1,224 deaths 32 to pollution from Southern Company coal plants.

MASSEY / ALPHA NATURAL RESOURCES

Type: Coal Company

Location: Appalachia

Bank of America Connection:

In 2008 BoA adopted a policy on mountaintop removal that included a commitment to "phase out financing of companies whose predominant method of extracting coal is through mountain top removal." This led to BoA dropping Massey as a client; however, the bank is now doing business with Alpha, which acquired Massey in 2011. Bank of America and seven other banks participated in a $1.6 billion loan to Alpha in May 2011 and Bank of America underwrote $56 million for a bond offering in June 2011 as a part of Alpha's effort to raise the substantial capital needed for the Massey acquisition.

Background:

Alpha Natural Resources is the third largest coal company in the United States. It has been aggressively expanding through a merger with Foundation Coal in 2009 and acquisition of Massey Energy this year. The company is responsible for 25% of MTR coal production.

Impacts:

Environmental: Alpha is now the largest producer of mountaintop removal (MTR) coal in the U.S. [33] MTR coal mining is widely considered to be the worst coal mining practice due to its permanent and devastating impact on drinking water and mountain ridges. It is so controversial that in 2010 the Environmental Protection Agency (EPA) passed strict new guidelines for MTR coal mining permits, and has cut back significantly in approving those permits that are pursued.

Property owners in West Virginia sued Alpha in 2010 for subsidence damage and ruined groundwater due to "reprehensible, intentional, and grossly negligent" conduct in mining operations.

Mine Safety: Massey has a long history of safety irresponsibility, including a $1.5 million fine from the Mine Safety and Health administration, and the tragic explosion at Upper Big Branch mine, the worst U.S. mine disaster in 40 years. [34] Safety is still clearly an issue, [35] and Alpha has discouraged attempts to unionize. [36]

GLOSSARY:

RENEWABLE ENERGY TECHNOLOGIES AND 'FALSE SOLUTIONS'

Energy Efficiency

Part of solving the energy puzzle is using energy more efficiently. Insulation, painting roofs white, passive solar design, and compact fluorescent lights, which use two-thirds less energy and may last 6 to 10 times longer than incandescent lights, are just a few examples of technologies that can save energy. In fact, the International Energy Agency [37] has said that improved energy efficiency in buildings, industrial processes and transportation could reduce the world's energy needs by one third by 2050, putting the country far down the path to a saving the climate.

Solar

Solar works in multiple ways: photovoltaic (PV) panels convert sunlight directly into electricity; concentrated solar power (CSP) uses mirrors to concentrate sunlight onto receivers that collect the solar energy and convert it to heat energy that powers a steam turbine. Globally, PV capacity [38] has increased by a factor of seven in five years. As an example: in California, where a mix of policies is making renewable energy the standard, Southern California Edison requested in June 2010 approval for 20 solar PV projects, which would generate approximately 567 GWh of energy in all, and would do it for less than the cost of natural gas.

Wind

Wind turbines, some of which stand as tall as 300 feet, create electricity by using the wind to turn their blades, which power an electric generator. The U.S. Department of Energy estimates that wind alone can power 20 percent of the U.S. grid by 2030. Currently the United States is on track to exceed that goal, with 42,432 MW of wind power installed as of the end of June 2011. [39]

Water

Water power is derived from the force of moving water. Historically this has been used for agricultural irrigation and mechanical purposes, such as watermills and elevators. The broad categories of modern water technologies for electricity generation include hydropower, capturing energy from rivers or streams; tidal power, capturing energy from tides in a horizontal direction; and wave power, using ocean surface waves to generate power. The U.S. currently meets 3.4% of its energy needs from hydropower.

Geothermal

Geothermal power plants use naturally occurring hot water and steam to drive electrical turbines. The U.S. is the world leader for installed geothermal electricity capacity and generation, but the country has just scratched the surface of what geothermal can provide. In past two years in the U.S. geothermal capacity has grown more than 3%, and the Department of Energy estimates [40] that geothermal can power the grid with 15,000 MWs of new capacity within the next ten years.

FALSE SOLUTIONS TO THE CLIMATE CRISIS

RAN recognizes that all forms of energy generation have potential negative impacts on the environment. We urge particular caution around the expansion of bioenergy.

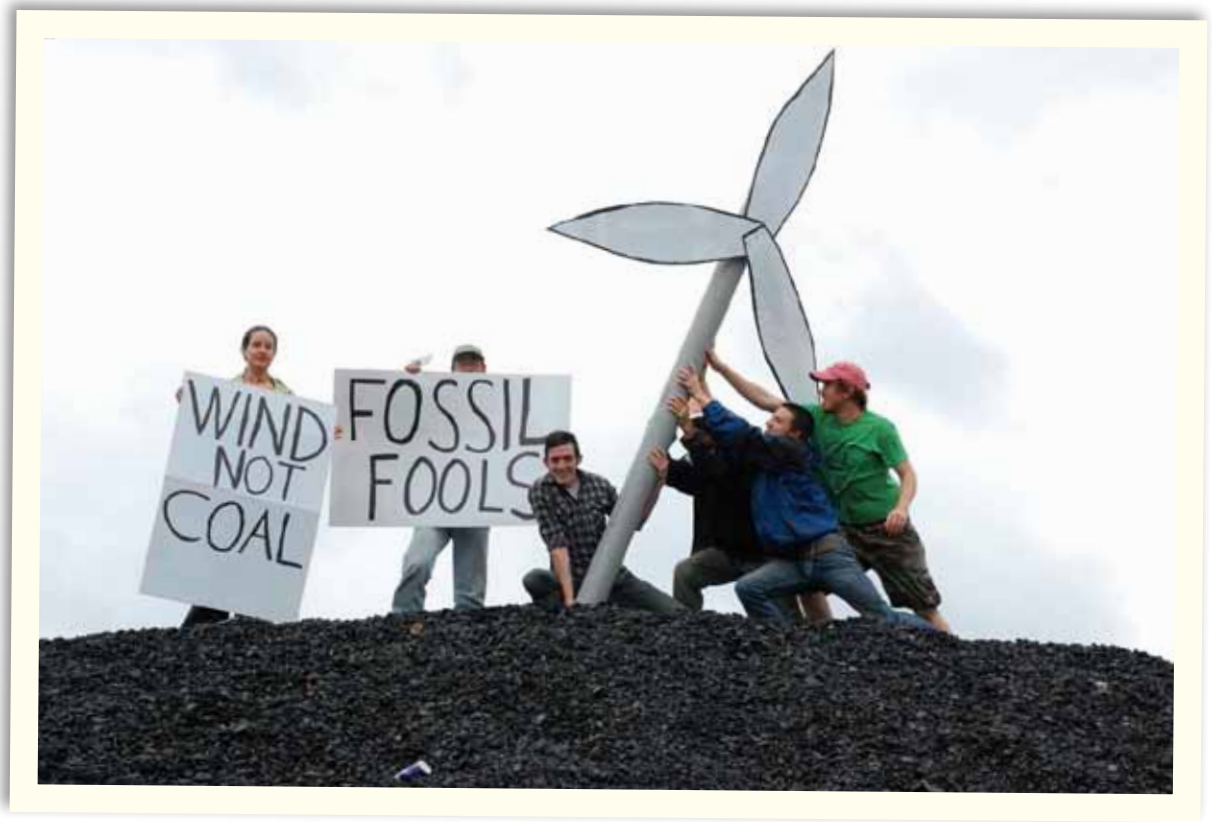
Bioenergy

Bioenergy is renewable energy made from materials derived from biological sources and includes the broad categories of agrofuels and biomass power. RAN has raised serious concerns around agrofuels. [41] When indirect land use change impacts, such as tropical deforestation and drainage of peat swamps, are taken into account, palm oil ranks as one of the worst fuel sources for the climate. In fact, Indonesia is the third-largest GHG emitter in the world (behind the U.S. and China), due largely to the destruction of forests to establish palm oil plantations. Clearly, replacing one fuel addiction with another is not the way to reduce GHG emissions. We need to address excessive fuel consumption.

"Clean Coal" and Natural Gas

RAN is concerned that Bank of America is financing the development of carbon capture and storage (sometimes called "clean coal") and natural gas technologies and promoting these as environmental initiatives.

Natural gas and "clean coal" both involve extraction and combustion of fossil fuels. These are not renewable energy technologies and should therefore never be considered "renewable" or "clean" energy. Learn more about RAN's position on natural gas and hydraulic fracturing at http://www.ran.org/content/position-hydrofracking.



ENDNOTES

1 http://webmedia.bankofamerica.com/aheadbankofamerica/v4/video_files/CSR/Bank%20of%20America%202010%20Corporate%20Social%20Responsibility%20Report.pdf

2 http://www.washingtonpost.com/wp-dyn/content/article/2011/01/01/AR2011010102146.html

3 http://www.economist.com/node/18898228

4 Source: Bloomberg league table. Bank of America underwrote $4.3 billion to US coal companies (primarily coal mining companies) between 1/1/09 and 12/31/10. During the same period, the top 25 banks and financial institutions underwrote $20.7 billion to the US coal industry.

5 http://www.dbcca.com/dbcca/EN/_media/NaturalGasAndRenewablesExecSumm.pdf

6 http://pubs.aeaweb.org/doi/pdfplus/10.1257/aer.101.5.1649

7 http://environment.harvard.edu/news/general/new-harvard-study-examines-cost-coal

8 http://ahead.bankofamerica.com/inside-our-company/bank-of-america-ahead-of-plan-on-10-year-20-billion-environmental-business-initiative/

9 Source: Bloomberg league table. Bank of America underwrote $4.3 billion to US coal companies (primarily coal mining companies) between 1/1/09 and 12/31/10.

10 http://webmedia.bankofamerica.com/environment/pdf/RPT-06-10-0774_Report_9-10_WEB.pdf

11 Source: Bloomberg league table. Between 1/1/09 and 12/31/10 these 5 banks underwrote corresponding amounts to US coal companies (primarily coal mining companies.)

12 http://carbonprinciples.org/

13 http://ran.org/carbonprinciples

14 http://www.banktrack.org/show/news/carbon_principles_and_climate_principles_will_not_stop_melting_of_the_ice

15 http://www.scribd.com/doc/34924513/Climate-Principles-Progress-Review

16 http://ran.org/reportcard

17 http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml

18 http://www.guardian.co.uk/environment/2010/jul/05/ipcc-rising-temperature-targets-greenland-ice-sheet

19 http://www.epa.gov/climatechange/emissions/usgginventory.html

20 http://www.nescaum.org/documents/rpt031104mercury.pdf

21 http://www.catf.us/resources/publications/files/The_Toll_from_Coal.pdf

22 http://www.ucsusa.org/clean_energy/coalvswind/brief_coal.html

23 Quarterly Impact Report, Fourth Quarter 2010, Bank of America

24 Between January and June 2011, RAN interviewed staff working in the utility, risk and environment teams of five major U.S. banks

25 http://www.greenpeace.org/usa/Global/usa/report/2010/6/greenpeace-energy-r-evolution.pdf

26 http://www.rmi.org/rmi/Next-Generation+Utility

27 http://mediaroom.bankofamerica.com/phoenix.zhtml?c=234503&p=irol-newsArticle&ID=1608474

28 Bank of America was a lead underwriter for the issue of $2 billion in bonds for Arch Coal in June 2011.28 And, at the same time, a joint lead bookrunner for issuing 48 million shares in Arch Coal, which raised $1.3 billion in June 2011. BoA was therefore playing a leading role in raising the capital for the acquisition of International Coal Group for $3.4 million, through the underwriting of issuing equity and debt.28 In issuing the shares, Arch Coal released a prospectus that clearly articulated the potential for greenhouse gas emissions regulations to limit demand for coal. Yet, Bank of America continues to recommend to its clients that they should lend money to and buy equity in this company.

29 http://rsta.royalsocietypublishing.org/content/369/1934/6.abstract

30 http://www.reuters.com/article/2011/02/28/idUS266539+28-Feb-2011+PRN20110228

31 http://carma.org/plant

32 http://www.catf.us/resources/publications/files/The_Toll_from_Coal.pdf

33 Massey / Alpha together mined 20220,446 tonnes of MTR coal in Appalachia in 2010, making the newly merged company responsible for 24.7% - one quarter - of all MTR in the U.S.

34 http://wvgazette.com/News/montcoal/201106290959

35 http://blogs.wvgazette.com/coaltattoo/2011/06/06/alpha-gets-3-danger-orders-at-former-massey-mines/

36 http://blogs.wvgazette.com/coaltattoo/2011/07/19/running-right-alpha-and-unions/

37 http://www.iea.org/

38 http://www.seia.org/

39 http://www.windpoweringamerica.gov/wind_installed_capacity.asp

40 http://www1.eere.energy.gov/geothermal/pdfs/40665.pdf

41 http://ran.org/getting-real-about-biofuels

Photos: Paul Anderson, Library of Congress, Rich Clement, Anthony Bolante/The Image Arsenal, Mannie Garcia, iStock, morguefile

RAINFOREST ACTION NETWORK
221 Pine Street, Suite 500
San Francisco, CA 94104
T: (415) 398-4404 | RAN.org