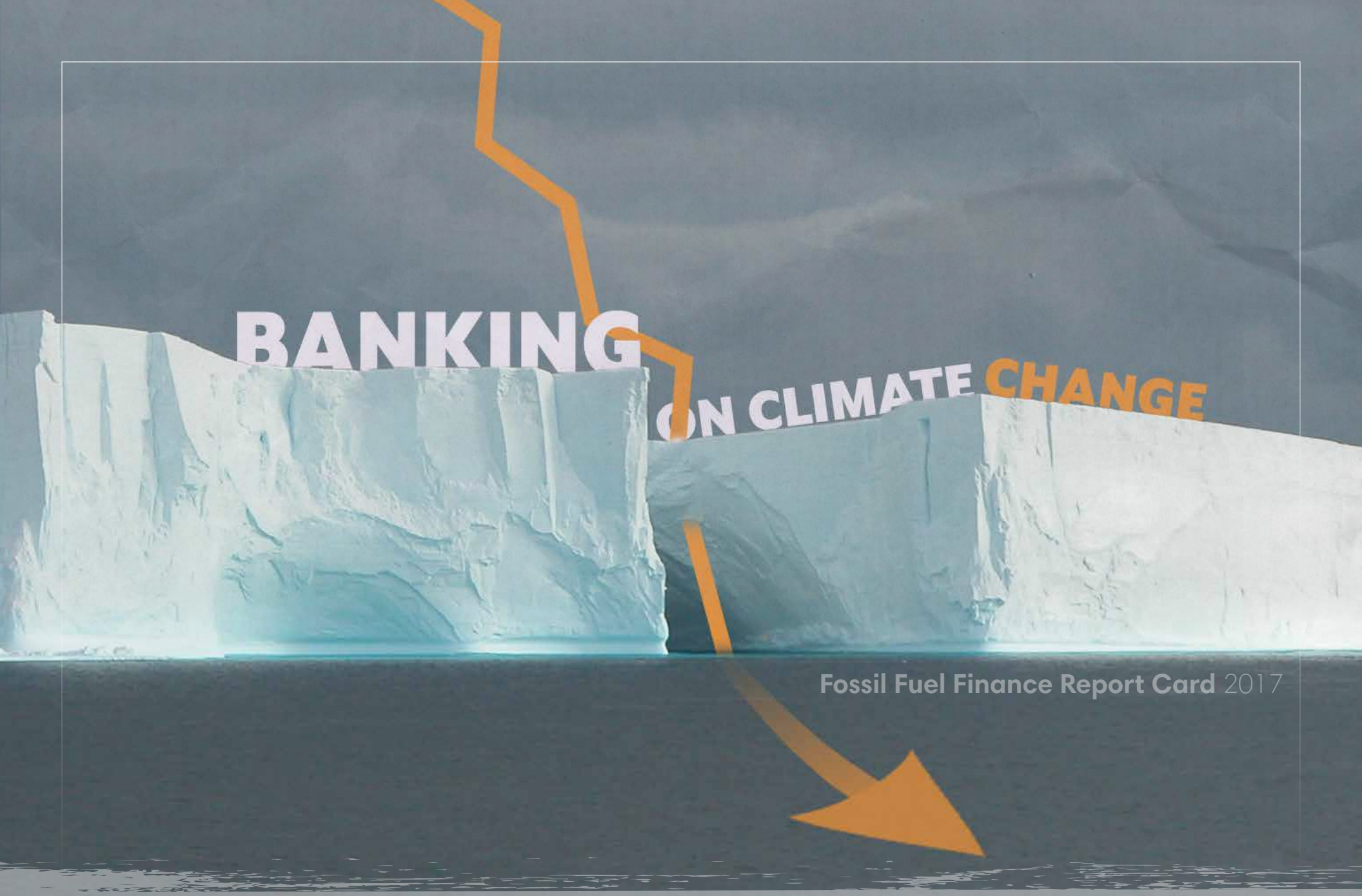

Fossil Fuel Finance Report Card 2017

RAINFOREST ACTION NETWORK

BANKTRACK

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OILCHANGE INTERNATIONAL

BANKING ON CLIMATE CHANGE

Fossil Fuel Finance Report Card 2017

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EXECUTIVE SUMMARY

Banking on Climate Change

Banking on Climate Change

This report card ranks bank policies and practices around financing of the most carbon-intensive, financially risky, and environmentally destructive sectors of the fossil fuel industry: extreme oil (tar sands, Arctic, and ultra-deepwater oil), coal mining, coal power, and liquefied natural gas (LNG) export. Additionally, the report explores bank failures when it comes to respecting human rights. In particular, this past year, banks have shown the inadequacy of their Indigenous rights policies by financing the Dakota Access Pipeline project and the companies behind it.

In the international climate change agreement signed in Paris in December 2015, the international community agreed to aim to limit global warming to 1.5° Celsius, or 2° at most. To contribute to realizing these goals, banks must bring their business practices into alignment with a 1.5° world, while respecting human rights and Indigenous rights, both of which are mentioned in the Agreement.

Scope

This 8th annual Fossil Fuel Finance Report Card grades fossil fuel policies and tabulates financing from 37 major private banks from across Europe, the United States, Canada, Japan, China, and Australia. Transaction amounts are weighted based on the fossil fuel company's activities in a given subsector (annual adjusters were calculated by Profundo). Financing figures therefore represent the amount of extreme fossil fuel extraction or infrastructure that a bank finances through its extreme fossil fuel clients. The list of top extreme fossil fuel companies is made up of:

- **Extreme oil** - The 61 companies with over 100 million barrels of reserves in tar sands oil or Arctic oil, or with over 500 million barrels of reserves in ultra-deepwater oil worldwide.
- **Coal mining** - The world's top 40 coal mining companies by annual production.
- **Coal power** - The top 10 companies by megawatts of operating coal-fired capacity in the Americas; the top 10 in Europe, the Middle East, and Africa; and the top 10 in Asia and Oceania.
- **LNG export** - The 27 companies with over 1.5 billion cubic feet per day of attributable capacity in current or planned LNG export projects in North America.

Findings

The banks analyzed in this report funneled USD $92 billion to extreme fossil fuels in 2014. The number rose to $111 billion in 2015, then fell to $87 billion in 2016. While this 22 percent drop over the last year is a move in the right direction, the $290 billion of direct and indirect financing for extreme fossil fuels over the last three years represents new investment in the exact subsectors whose expansion is most at odds with reaching climate targets, respecting human rights, and preserving ecosystems. Total financing for extreme fossil fuels from 2014–2016 is broken down as follows:

- **Extreme Oil:** Altogether, big banks poured $105.61 billion into Arctic, tar sands, and ultra-deep offshore oil, led by **Royal Bank of Canada (RBC)** and **JPMorgan Chase**. Financing for this resource-intensive oil can be broken down by type:
  - $47.78 billion for tar sands, led by **RBC**.
  - $48.67 billion for ultra-deepwater oil, led by **JPMorgan Chase**.
  - $9.15 billion for Arctic oil, led by **Deutsche Bank**.
- **Coal mining:** While many U.S. and European banks have begun to put policies in place to curb financing for coal mining, in the last three years major banks have financed it to the tune of $57.92 billion. **Bank of China** and the three other Chinese megabanks are at the top of the list, with **Deutsche Bank** as the top Western banker of coal mining.
- **Coal power:** With no room in the global carbon budget for new coal, as well as a need for winding down existing coal plants, it is worrying that financing for coal power is on an upward trend in the last three years. Overall, big banks financed $74.71 billion of coal power, led by **China Construction Bank** and its three other Chinese peers, with **JPMorgan Chase** as the top Western banker of coal power.
- **LNG export:** Banks financed $51.61 billion, led by JPMorgan Chase, for the LNG activities of companies involved with massive LNG export terminals in North America.

In addition, bank fossil fuel policy grades are poor, particularly with regards to extreme oil and gas. The four Chinese banks and three Japanese banks analyzed scored an F in all subsectors. In the absence of relevant due diligence procedures at the corporate financing level, it's not surprising that banks like **Mizuho Financial Group** and **Mitsubishi UFJ Financial Group (MUFG)** surface in multiple case studies in this report. Across the board, bank policies fall far short of restricting financing of extreme fossil fuels to the extent that is required to reach climate stability.

INTRODUCTION

2016 Sees Steep Fall in Bank Funding for Extreme Fossil Fuels

In 2016, the first calendar year since the signing of the Paris Climate Agreement, funding for extreme fossil fuels from 37 of the largest private banks in North America, Europe, Japan, China, and Australia dropped by 22 percent from the previous year. Extreme fossil fuels include some of the most carbon-intensive, detrimental to local communities, and environmentally damaging energy subsectors: Arctic, tar sands, and ultra-deep offshore oil; coal mining and coal-fired power; and North American LNG export terminals.

These 37 major banks funneled nearly USD $87 billion in 2016 to the extraction, processing, and burning of extreme fossil fuels at top companies.[1] This number is a sharp decline from bank funding in 2015 ($111 billion) and is also lower than 2014 ($92 billion).

While this steep drop in funding is encouraging, it is vital that this be not just a temporary decline, but the start of a rapid phaseout. Meeting the Paris Agreement's target of staying well under a 2° Celsius increase in global temperature — while aiming for no more than 1.5° of change — requires a complete halt to all financing of new extreme fossil fuel extraction and infrastructure.[2]

As described in this report, the extreme fossil fuel subsectors require huge amounts of land and can cause serious local pollution, displacing and impacting the health of local communities and potentially requiring violence to evict communities and repress opponents. With this level of human rights, environmental, and climate risk, banks should adopt policies that ensure rapid phase-out of their investments in these dangerous fuels. In the longer term, meeting the goals set in Paris will require a phase-out of all fossil fuel use in the energy sector.[3]

Turning the Tide

The recent fall in funding for extreme fossil fuels parallels growing public pressure on banks to stay away from these projects and companies. The global movement in solidarity with the Standing Rock Sioux's opposition to the Dakota Access Pipeline (DAPL) blossomed around grassroots opposition to the banks funding the pipeline and the companies building it, and emphasized the role finance plays in enabling human rights abuses and climate destruction. The high-profile struggle against DAPL was a critical reminder that protecting Indigenous sovereignty is inextricably linked with protecting the environment.

While there is fierce public opposition to extreme fossil fuels, public opinion is strongly in favor of renewable energy,[4] and clean technologies are rapidly dropping in cost and growing in market share. Solar and wind are now the cheapest sources of new electricity supply in many parts of the world.[5] In April of 2017, the U.K. saw its first day since the Industrial Revolution when the country was powered without coal.[6]

Climate Risk is Financial Risk

In a climate-stable world, there is no place for new coal mines and coal-fired power plants, tar sands mines and pipelines, Arctic oil rigs, oil rigs in ultra-deep waters, or LNG terminals. *The Sky's Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production*, a report published by Oil Change International in 2016, found that depleting all the oil, gas, and coal fields and mines *already in production* would blow the world past the Paris Agreement's hard limit of 2°C global warming — and even if we stopped burning coal today, existing oil and gas fields alone would tip us over the 1.5°C goal.[7]

Similarly, a study published in *Science* in March 2017 concluded that staying under 2°C will require wealthy countries to phase out coal power by 2030, amidst simultaneous steep declines in the rest of the world.[8] The carbon budget math shows that all new fossil fuel infrastructure is at risk of becoming stranded assets in a carbon-constrained future — and that the highly capital- and carbon-intensive extreme subsectors are at most risk of all.[9]

In December 2016, the Task Force on Climate-related Financial Disclosures from the Financial Stability Board — an international group that monitors the world's financial sector — released recommendations on how banks should report on risk related to climate change. In a prudent reminder that climate risk is a financial risk, the task force recommended that banks specifically describe their exposure to "carbon-related assets."[10] The recommendations demonstrate how far banks have to go on reporting these material risks and the importance of investors, customers, and concerned citizens holding banks accountable for the billions funneled into an industry that is catastrophically warming our planet.

Around the world, the private sector has expressed support for the 2015 Paris Climate Agreement. There is a strong and growing call from businesses for predictability as the

world responds to the climate crisis. Support for the climate agreement ranges from major financial institutions to some of their biggest fossil fuel clients — some of whom have reached out directly to U.S. President Donald Trump, urging him to stick with the accord.[11] And yet, Trump has announced that the United States will exit the groundbreaking deal.[12] With or without participation from the United States, the mandate for the global financial industry has been set by the international community. Accordingly, banks must align their business practices with a 1.5° world, stop funding extreme fossil fuels, and ensure that their financing respects human rights.

PHOTO: RUDMER ZWERVER /SHUTTERSTOCK

EXTREME FOSSIL FUELS - LEAGUE TABLE

From 2014–2016, 37 international banks financed 158 companies with $290 billion for their extreme fossil fuel activities. In each of the following sections of this report are league tables that show how this financing was funneled to the most climate-changing, environmentally destructive, and capital-intensive fossil fuels. See page 10 for the methodology behind these findings.

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS) 2014	2015	2016	TOTAL
1	BANK OF CHINA	$7.770 B	$7.847 B	$6.480 B	$22.097 B
2	CHINA CONSTRUCTION BANK	$4.721 B	$7.789 B	$8.540 B	$21.051 B
3	JPMORGAN CHASE	$6.368 B	$6.699 B	$6.968 B	$20.035 B
4	INDUSTRIAL AND COMMERCIAL BANK OF CHINA (ICBC)	$3.914 B	$8.535 B	$7.377 B	$19.826 B
5	ROYAL BANK OF CANADA (RBC)	$6.080 B	$8.597 B	$3.550 B	$18.228 B
6	AGRICULTURAL BANK OF CHINA	$5.520 B	$5.680 B	$3.453 B	$14.653 B
7	BANK OF AMERICA	$4.079 B	$4.137 B	$5.160 B	$13.376 B
8	HSBC	$5.338 B	$5.766 B	$2.088 B	$13.192 B
9	CITIGROUP	$4.614 B	$3.932 B	$4.596 B	$13.142 B
10	BARCLAYS	$4.346 B	$3.801 B	$4.381 B	$12.528 B
11	DEUTSCHE BANK	$3.282 B	$5.655 B	$2.620 B	$11.556 B
12	MORGAN STANLEY	$3.124 B	$5.044 B	$3.368 B	$11.537 B
13	MITSUBISHI UFJ FINANCIAL GROUP (MUFG)	$2.606 B	$3.340 B	$3.186 B	$9.132 B
14	GOLDMAN SACHS	$2.074 B	$4.142 B	$2.027 B	$8.244 B
15	BNP PARIBAS	$3.743 B	$2.158 B	$1.939 B	$7.840 B
16	MIZUHO FINANCIAL GROUP	$1.794 B	$2.628 B	$2.907 B	$7.329 B
17	CREDIT SUISSE	$2.301 B	$2.584 B	$1.842 B	$6.727 B
18	CANADIAN AND IMPERIAL BANK OF COMMERCE (CIBC)	$2.366 B	$2.564 B	$1.257 B	$6.187 B
19	SOCIÉTÉ GÉNÉRALE	$1.449 B	$3.241 B	$1.363 B	$6.053 B
20	WELLS FARGO	$1.743 B	$1.605 B	$1.471 B	$4.820 B
21	SCOTIABANK	$1.095 B	$2.245 B	$1.138 B	$4.477 B
22	BANK OF MONTREAL	$2.504 B	$744 M	$948 M	$4.196 B
23	SUMITOMO MITSUI FINANCIAL GROUP (SMFG)	$1.110 B	$1.553 B	$1.086 B	$3.749 B
24	SANTANDER	$547 M	$956 M	$2.237 B	$3.740 B
25	UBS	$1.022 B	$1.335 B	$1.352 B	$3.709 B
26	CRÉDIT AGRICOLE	$1.577 B	$1.261 B	$862 M	$3.699 B
27	ROYAL BANK OF SCOTLAND (RBS)	$2.265 B	$929 M	$122 M	$3.316 B
28	ING	$844 M	$1.488 B	$963 M	$3.295 B
29	TORONTO-DOMINION BANK (TD)	$1.646 B	$521 M	$1.051 B	$3.219 B
30	UNICREDIT	$580 M	$554 M	$960 M	$2.094 B
31	STANDARD CHARTERED	$603 M	$1.066 B	$247 M	$1.915 B
32	COMMONWEALTH BANK	$178 M	$869 M	$179 M	$1.226 B
33	PNC FINANCIAL	$470 M	$539 M	$109 M	$1.118 B
34	BPCE/NATIXIS	$258 M	$532 M	$117 M	$906 M
35	AUSTRALIA AND NEW ZEALAND BANKING GROUP (ANZ)	$219 M	$22 M	$555 M	$796 M
36	WESTPAC	$82 M	$374 M	$58 M	$514 M
37	NATIONAL AUSTRALIA BANK (NAB)	$49 M	$287 M	$0 M	$335 M
TOTAL		$92.283	$111.018 B	$86.554 B	$289.855 B

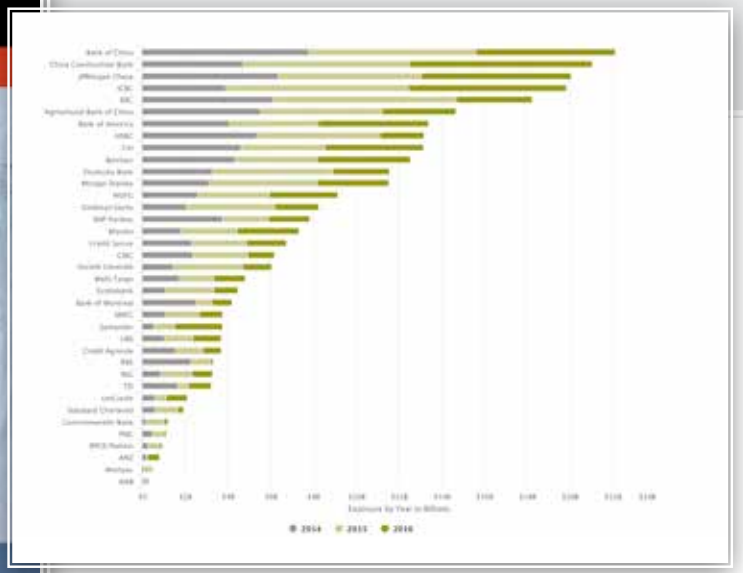
KEY DATA

- 12 of the 37 banks *increased* their financing to the top extreme fossil fuel companies from 2015 to 2016, after the Paris Agreement was inked: **Australia and New Zealand Banking Group (ANZ), Bank of America, Bank of Montreal, Barclays, China Construction Bank, Citigroup, JPMorgan Chase, Mizuho Financial Group, Santander, Toronto-Dominion Bank (TD), UBS,** and **UniCredit.**

- The Chinese banks' alarmingly high funding for coal brings them to the top of the extreme fossil fuel league table. Meanwhile, bank policies and market forces in Europe and the United States have significantly brought down the amount of money flowing from banks in these regions to the largest coal mining companies.

- European banks dominate in financing Arctic oil, U.S. banks top the list for ultra-deepwater oil, and Canadian banks are the biggest players in tar sands oil. **RBC** alone was behind over a quarter of all financing for top tar sands companies from 2014–2016.

- **JPMorgan Chase** and **HSBC** are the biggest bankers of LNG export in North America — the subsector where policy grades are lowest on average.



» Interact with the data at RAN.org/bankingonclimatechange

BANK GRADES - SUMMARY

BANK	EXTREME OIL	COAL MINING	COAL POWER	LNG EXPORT
EUROPE				
BARCLAYS	D-	B-	C	D-
BNP PARIBAS	D	C+	B	F
BPCE/NATIXIS	F	B	B	F
CRÉDIT AGRICOLE	C	B	B-	D
CREDIT SUISSE	D	C+	C	D-
DEUTSCHE BANK	D-	B-	C+	D-
HSBC	D	C+	C	D-
ING	C	B	B	D-
RBS	C	C-	B-	D-
SANTANDER	D-	D-	D-	D-
SOCIÉTÉ GÉNÉRALE	D-	B-	B-	D-
STANDARD CHARTERED	D-	C+	C-	D-
UBS	D	C+	C	D-
UNICREDIT	F	D	D	F

BANK	EXTREME OIL	COAL MINING	COAL POWER	LNG EXPORT
UNITED STATES				
BANK OF AMERICA	D-	B-	D	D-
CITIGROUP	D+	B-	C-	D
GOLDMAN SACHS	D+	C-	C	D-
JPMORGAN CHASE	D	B-	C	D-
MORGAN STANLEY	D-	B-	C	D-
PNC	N/A	B-	C+	D-
WELLS FARGO	D+	B-	D	D-

BANK	EXTREME OIL	COAL MINING	COAL POWER	LNG EXPORT
CANADA				
BANK OF MONTREAL	D-	D-	D-	D-
CIBC	F	F	F	F
RBC	D	D-	D-	D-
SCOTIABANK	F	F	F	F
TD	D-	C+	D-	D-
JAPAN				
MIZUHO	F	F	F	F
MUFG	F	F	F	F
SMFG	F	F	F	F

BANK	EXTREME OIL	COAL MINING	COAL POWER	LNG EXPORT
CHINA				
AGRICULTURAL BANK OF CHINA	F	F	F	F
BANK OF CHINA	F	F	F	F
CHINA CONSTRUCTION BANK	F	F	F	F
ICBC	F	F	F	F
AUSTRALIA				
ANZ	D-	D-	C-	F
COMMONWEALTH BANK	F	F	F	F
NAB	F	F	F	F
WESTPAC	F	C-	C-	F

METHODOLOGY

This edition of the report card builds upon *Shorting the Climate: Fossil Fuel Finance Report Card 2016* from Rainforest Action Network, BankTrack, the Sierra Club, and Oil Change International[13] — to analyze bank policy and practice with regards to extreme fossil fuels: tar sands (also known as oil sands), ultra-deep offshore, and Arctic oil; coal mining and coal-fired power; and North American LNG export terminals. This analysis is founded on the Carbon Tracker Initiative's Carbon Supply Cost Curves report series, which identified oil and gas projects that face the highest levels of stranded asset risk under 2°C climate stabilization scenarios.[14] In *Banking on Climate Change*, these extreme oil and gas subsectors are assessed in addition to coal, the fuel that has been the focus of the report card series back to 2010, for their extensive climate and human rights impacts. Investment in and capital expenditure by companies in these fossil fuel subsectors are in direct opposition to the Paris climate agreement, and are harming communities and ecosystems around the world.

Twenty-eight organizations around the world have signed onto the findings of *Banking on Climate Change*, demonstrating the increased scrutiny on the financial sector for supporting the companies pushing the world over the climate change tipping point.

Banking Industry Scope

Banking on Climate Change reviews 37 of the largest global commercial and investment banks with headquarters in Australia, Canada, China, Europe, Japan, and the United States. Only private-sector banks are analyzed, although public finance institutions are also key supporters of the fossil fuel sector.[15]

This 2017 report card looks at the major Chinese and Japanese banking groups because of their noteworthy presence in project and corporate financing of extreme fossil fuels in international markets. In addition, this year Australian banks are included to compare their policies to their peer banks around the world. Overall, the banks assessed in this report are included based on the size of their commercial and investment banking business, their inclusion in previous editions of this report card, and the extent of their financial relationships with coal and extreme oil and gas companies between 2014 and 2016.

Fossil Fuel Industry Scope

See Appendix 2 for a full list of the 158 fossil fuel companies analyzed in this report.

Extreme Oil

For extreme oil, we included the oil and gas companies with over 100 million barrels of proven or probable reserves as of the end of 2016 in tar sands oil (32 companies, representing 99 percent of tar sands reserves) or Arctic oil (19 companies, representing 94 percent of Arctic reserves), or with over 500 million barrels of reserves at the close of 2016 in ultra-deepwater oil (26 companies, representing 87 percent of ultra-deepwater reserves).[16] Reserves data is from the Rystad database, which defines Arctic oil as all offshore developments located in Greenland, the Canadian Arctic coast, or north of 66 degrees latitude. Because some companies hold large reserves in multiple types of extreme oil, 61 oil companies are assessed in total.[17]

Coal Mining

We assess the top 40 coal mining companies worldwide, by annual coal production, based on the forthcoming Global Coal Exit List.[18]

Coal Power

For the power sector, the companies analyzed include the top 30 companies worldwide, broken out by region: top 10 by megawatts of operating coal-fired capacity in the Americas; Europe, the Middle East, and Africa; and Asia and Oceania. This is based on the forthcoming Global Coal Exit List.[19]

LNG Export

The companies included from the LNG export subsector are the 27 companies with greater than 1.5 billion cubic feet per day of attributable capacity in current or planned LNG export projects in North America.[20]

Calculating Exposure

For the companies included in this analysis, we assess each bank's involvement in corporate lending and underwriting transactions (debt and equity issuance) from 2014 to 2016. All finance data is sourced from Bloomberg Professional Services.[21] Each transaction is weighted based on the proportion of the borrower or issuer's operations devoted to the subsector in question. For extreme oil, the adjuster is based on a company's extreme oil reserves out of total fossil fuel reserves. For coal mining, adjusters were primarily calculated based on a company's total coal assets, as a percentage of the company's total assets, and for coal power, the adjuster is based on a company's coal-fired power capacity as a percentage of the company's total power capacity. In the case of LNG export, the adjuster was based on LNG-related assets as a percentage of total assets. Profundo researched the adjusters for each borrowing and issuing company; for a full explanation of how adjusters were calculated, see Appendix 3.

In applying the adjusters to financing data, if a bank is credited for loaning $1,000,000 to a diversified oil and gas company, and 20 percent of that company's business is in tar sands, then the bank will be credited with a $200,000 loan to the tar sands subsector. But if a bank is credited for loaning $1,000,000 to that company's tar-sands-only subsidiary, the full $1,000,000 will be counted. All amounts throughout this report are expressed in U.S. dollars unless otherwise indicated.

Bank Grades

We rate banks based on their policies with respect to financing for extreme oil, coal mining, coal power, and LNG export. As we detail in each of these sections and Appendix 1, grades are assigned on an A-through-F scale. As part of the rating process, banks have been issued draft grades and given an opportunity to provide feedback.[21] Model bank policy language is provided at the beginning of each section.

This year's report card does not re-issue grades on banks' human rights policies, but rather tells in narrative the financial sector's developments on human rights in the past year. See the section "Human Rights" in this report and the discussions of human and Indigenous rights in the individual sector analyses. For a full analysis of bank human rights policies, see *Shorting the Climate* or *Banking with Principles*.[23]

PHOTO: LOUIS HELBIG / BEAUTIFULDESTRUCTION.CA

EXTREME OIL

TAR SANDS, ULTRA-DEEP, AND ARCTIC OIL

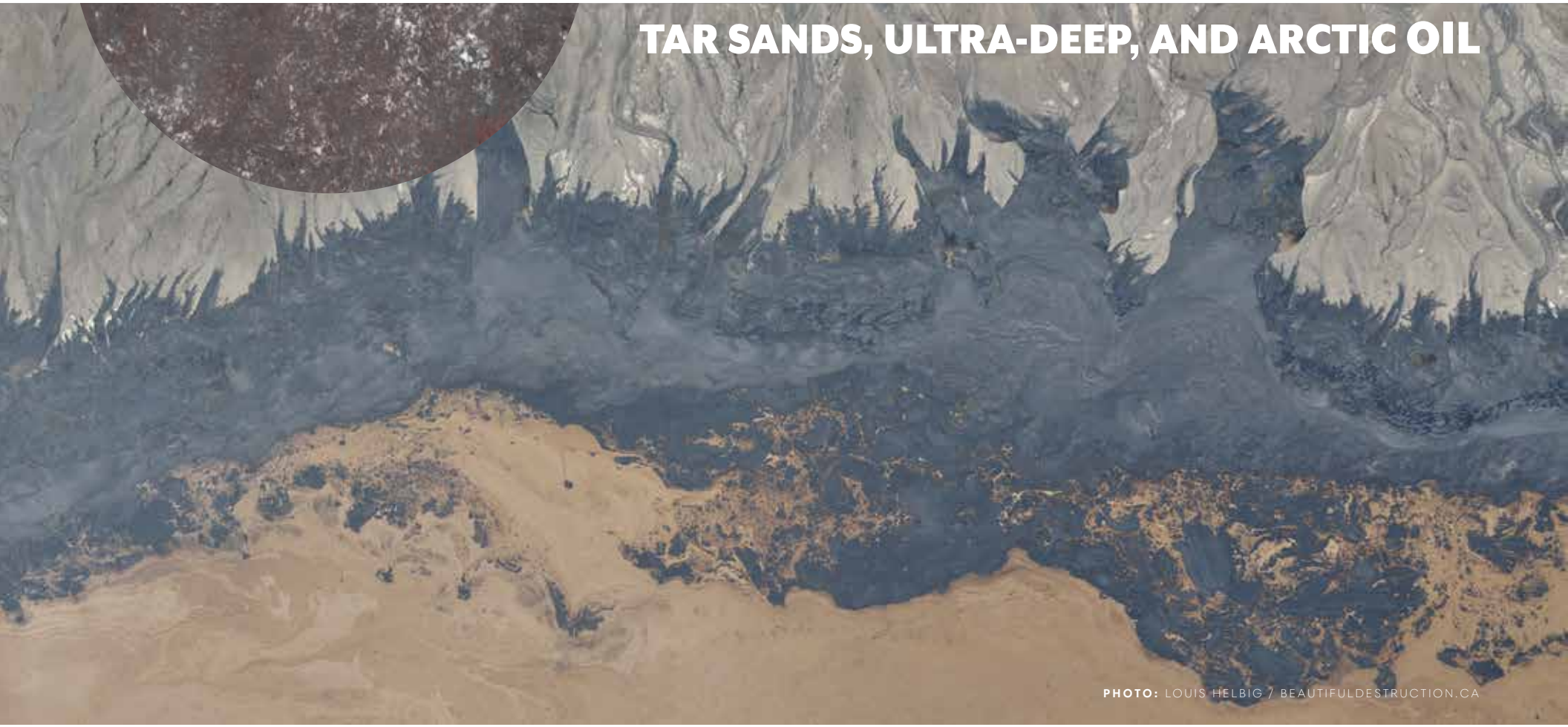


PHOTO: LOUIS HELBIG / BEAUTIFULDESTRUCTION.CA

MODEL EXTREME OIL POLICY

We will not provide project finance for new extreme oil (tar sands, Arctic, or ultra-deep offshore oil) extraction or transportation infrastructure, or for the expansion of existing extreme oil extraction or transportation infrastructure due to the environmental, social, and financial risks associated with these projects. We recognize the need for the immediate mitigation of public health impacts, ecosystem damage, and climate change in the transition to a zero-carbon economy, and thus we will not provide financial services (lending or underwriting) to companies that plan any new extreme oil extraction or transportation infrastructure, or produce or transport extreme oil.

TAR SANDS: A MAKE OR BREAK MOMENT

2016 was a pivotal year for Alberta tar sands oil. Three massive tar sands pipelines saw controversial political advances, and Indigenous Nations and their allies voiced their opposition in no uncertain terms. In the meantime, the oil majors accelerated their exit from a struggling sector, leaving tar sands an increasingly pure-play concern. 2017–2018 now looks to be a make-or-break window for this hugely destructive, capital-intensive sector — and therefore a period that could be pivotal to international hopes of realizing the goals of the Paris climate agreement. Major global banks now become key decision-makers on the fate of these projects, and of the sector as a whole — and face a momentous choice that will clarify the seriousness of their commitments on climate change and human rights.

Pipelines: The Chokepoint of Tar Sands

Analysis by Oil Change International shows that tar sands pipeline infrastructure is currently operating at near-maximum capacity. Existing pipelines can support current and under-construction production, meaning that any new pipeline infrastructure is for new expansion that is demonstrably incompatible with Canada's climate commitments and the planet's safe climate limits.[24] Nonetheless, governments on both sides of the border advanced three pipeline proposals in late 2016. On November 29, Canadian Prime Minister Justin Trudeau controversially approved the massive expansion of Kinder Morgan's Trans Mountain and Enbridge's Line 3 pipelines.[25] (These projects are no minor enlargements — as the Native environmental group Honor the Earth points out, Line 3 is a new pipeline, as it would carry twice the volume of oil along a new pathway.[26]) Additionally, the election of Donald Trump meant that Keystone XL obtained federal support in early 2017.

All three of these pipelines constitute grave threats to the water, land, and sovereignty of Indigenous people north and south of the border. In response to those threats, some 50 First Nations and Tribes from across Canada and the northern United States launched a new treaty pledging collective resistance to these and other pipelines, as well as to increased oil train and tanker infrastructure, and the expanded tar sands extraction that would result.[27] (By March of 2017, 122 Indigenous Nations had joined the alliance.[28]) A broad range of other stakeholders have voiced strong opposition as well, with Vancouver Mayor Gregor Robertson warning of Trans Mountain protests "like you've never seen before."[29]

Whether or not these pipelines advance will have a momentous impact on the First Nations and Tribes opposing the projects, the health of local communities and ecosystems, and the climate. In addition to being significantly more greenhouse gas-intensive than conventional oil (a figure which is worsening rather than improving),[30] tar sands production is also much more capital-intensive and long-lived than conventional oil production. So investment now threatens to lock in production for decades to come, when instead the sector should be in a managed decline.[31] The Trudeau government claims that expanding tar sands production can be compatible with realizing the goals of the Paris Climate Agreement, but the data say otherwise. To limit global warming to 1.5°, national efforts to reduce emissions, especially in the wealthy world, must be made more ambitious as a matter of urgency, and stopping expansion of the most carbon-intensive fossil fuel sectors must be an absolute priority.[32]

Supermajors Drop Tar Sands - What About Banks?

In December of 2016, big banks faced — and failed — their first major test of whether or not they grasp the human rights and climate stakes of tar sands. Twenty-one banks, led by **JPMorgan Chase** and **Bank of Montreal**, renewed their participation in TransCanada's nearly $6 billion in revolving credit — after it was clear that the Keystone XL pipeline would get the green light from the incoming Trump administration.[33] In late 2017, more key decisions are upcoming: $2.9 billion of Enbridge's revolving credit facilities will come up for renewal, and Kinder Morgan has been aggressively pushing through a number of strategies for financing Trans Mountain.[34] With these decisions, banks are clarifying where they really stand on human rights and the environment.

Banks that continue to finance tar sands are not only responsible for environmental and social impacts — it is increasingly clear that they are carrying growing financial risk as well. Tar sands oil is not only highly carbon intensive — it is expensive to extract, with a very high break-even price and requiring massive, long-term capital expenditure to maintain extraction capacity.[35] In October 2016, ExxonMobil admitted that it may have to write down the value of its Canadian tar sands oil, and in February of 2017, the company de-booked the 3.5 billion barrels it had previously estimated as economically viable to extract.[36] In December 2016, Norway's Statoil sold off its tar sands assets, taking a more than half-billion-dollar loss.[37] In early 2017, ConocoPhillips, Shell, and Marathon sold off major stakes. (Shell had already canceled the major Carmon Creek project, taking a more than $2 billion loss.)[38] In fact, between March 2016 and 2017, oil majors sold about $25 billion of their tar sands holdings.[39]

With the oil majors on their way out, tar sands is becoming more pure-play, with specialized companies like Cenovus Energy, Canadian Natural Resources, Suncor Energy, and Athabasca Oil buying up the reserves.[40] These companies are placing huge bets on the prospects of a commodity whose long-term future looks dire. A bleak irony of the current push for the Trans Mountain, Line 3, and Keystone XL pipelines is that they are happening at the same time as there is a growing recognition that a large proportion of the tar sands reserves are unlikely to be exploited. And yet, between the 37 big banks analyzed in this report, nearly $48 billion has gone to tar sands in the past three years. The question is increasingly when, not if, the tar sands sector follows the coal industry into economic ruin and public disrepute — and what financial and reputational losses banks will suffer before taking this into account.

Historically, divestment by institutional investors has been a leading indicator of the medium-term financial health of particular fossil fuel subsectors. Coal and tar sands have long been singled out, with investors from the Church of England[41] to the University of California divesting from coal and tar sands in particular, even as they drag their feet on fossil fuels more broadly. Coal has collapsed in recent years. For tar sands, it looks like the end is just a matter of time.

THE TAR SANDS SECTION IS ENDORSED BY THE **TREATY ALLIANCE AGAINST TAR SANDS EXPANSION**.

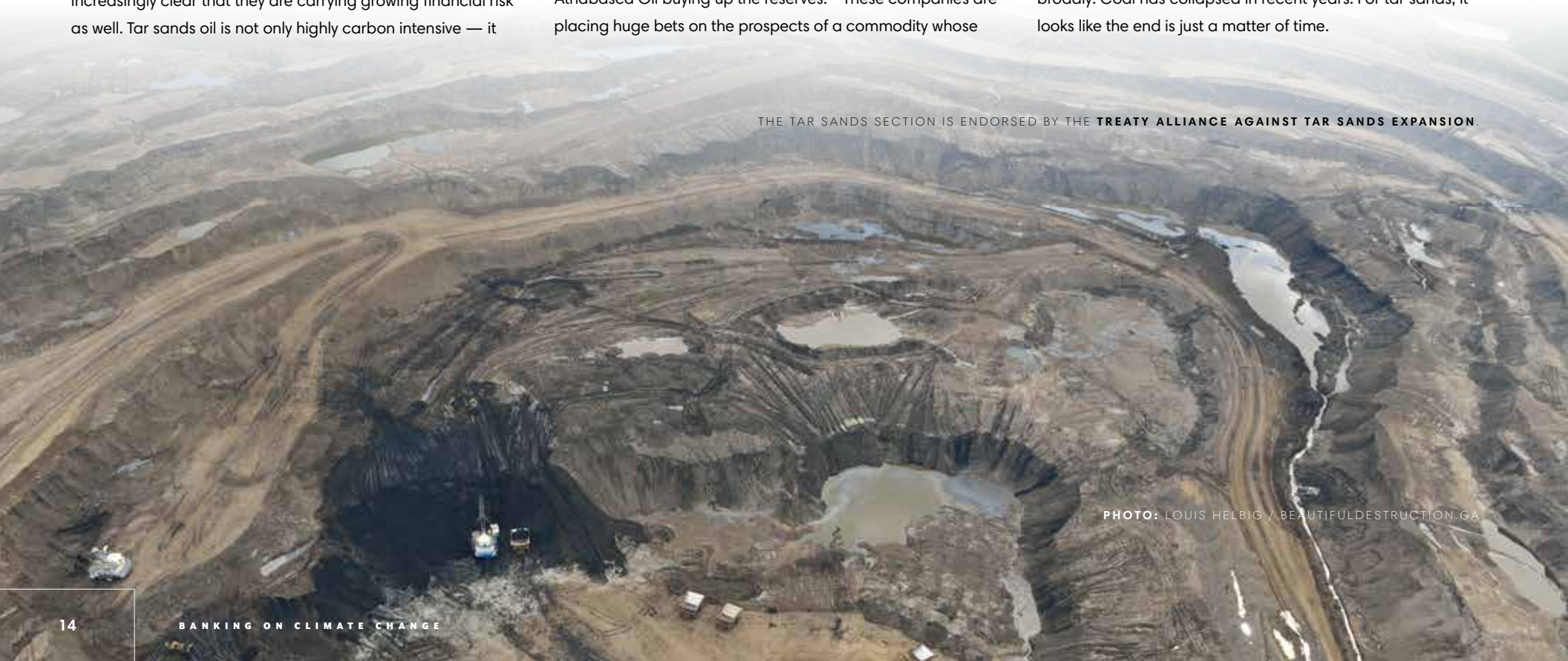


PHOTO: LOUIS HELBIG / BEAUTIFULDESTRUCTION.CA

CASE STUDY: KEYSTONE XL – NO MEANS NO

The Keystone XL pipeline is back - but so is the people power that fought to stop it the first time.

Keystone XL (KXL) is the infamous northern leg of Canadian oil giant TransCanada's Keystone pipeline system, which would bring up to 830,000 barrels of tar sands oil per day from Alberta, Canada, to Steele City, Nebraska.[43] The 1,179 mile pipeline would then connect to existing pipelines and bring the tar sands oil to the U.S. Gulf Coast for refining and export.[44] KXL has been opposed by Tribal nations and ranchers since 2008 when TransCanada first applied for a permit. Over the next seven years, creative, widespread, and dogged public opposition mounted against this pipeline: nearly 100,000 people pledged to risk arrest, tens of thousands rallied in Washington, D.C., and scores blockaded the construction of KXL's southern route through Texas and Oklahoma.[45]

Former NASA climate scientist and Columbia University professor James Hansen called Keystone XL the "fuse to the biggest carbon bomb on the planet,"[46] referring to the Canadian tar sands lying beneath the world's largest boreal forest.[47] President Obama cited climate change concerns in November 2015, when he rejected TransCanada's first bid to build KXL.[48] On March 24, 2017, the Trump administration reversed course and granted the permit for KXL.[49] However, while the pro-fossil administration can change federal policy, it can't change climate science.

This time around, after the heated criticism banks received for financing the Dakota Access Pipeline, any banks associated with KXL or TransCanada face even greater reputational risk than before. KXL would cross through tribal lands and sacred sites, as well as ranches and farms, and TransCanada has failed to secure consent from tribes along the route and the communities that stand to lose their source of drinking water. For instance, KXL would cut through the land of the Rosebud Sioux of South Dakota, whose president Cyril Scott said in 2014, "Authorizing Keystone XL is an act of war against our people."[50] On the Canadian side of the border, First Nations hold the right to give consent for development that will affect their lands and livelihoods, given the environmental impacts of pipeline construction and tar sand extraction.[51]

It is yet to be determined whether TransCanada will seek project-specific financing to construct KXL. In the absence of direct project finance, it is the 21 banks on TransCanada's revolving credit facilities that are, effectively, the funders of Keystone XL. Of the banks analyzed in this report, **Bank of America, Bank of Montreal, Barclays, Canadian and Imperial Bank of Commerce (CIBC), Citi, Crédit Agricole, Credit Suisse, Deutsche Bank, HSBC, JPMorgan Chase, Mitsubishi UFJ Financial Group (MUFG), Mizuho, RBC, Scotiabank, SMFG, TD,** and **Wells Fargo** all participate in multi-billion dollar lines of credit to TransCanada.[52]

Any financial institution involved in financing KXL or TransCanada faces a potential public relations disaster and substantial market risk: for example, less than two weeks after Trump approved the federal KXL permit, the Seattle City Council voted unanimously that it would not contract with any banks that finance TransCanada.[53] A bank that facilitates Keystone XL has no grounds to call itself socially responsible or to claim it is committed to upholding Indigenous rights.

PHOTO: BONNIE CHAN

CASE STUDY: DOING "WHATEVER IT TAKES" TO STOP THE TRANS MOUNTAIN PIPELINE

The United States' largest energy infrastructure company, Kinder Morgan, is working to push through the Trans Mountain Expansion Project. This C$7.4 billion project would run parallel to the existing Trans Mountain Pipeline's 1,150 kilometer route.[54] The Trans Mountain pipeline, built in 1953, is the only West Coast link for Western Canadian oil.[55] It is notorious for the at least 82 accidents which have together spilled over 40,000 barrels of oil — the largest of which was the 1985 disaster near Edmonton that leaked nearly 10,000 barrels.[56]

To be clear, this is no minor "expansion" of an existing pipeline — if built according to plan, Trans Mountain's capacity would *triple*, taking an additional 590,000 barrels of crude oil from the Alberta tar sands each day.[57] The tar sands oil would be carried from Edmonton, Alberta to the Burnaby refinery on Vancouver Harbor. From there, the oil would be loaded onto supertankers to be shipped out across the Pacific.[58]

Production of tar sands takes place in three main deposits in Alberta: Athabasca, Cold Lake and Peace River, in an environmentally destructive and highly polluting process whereby the rock-like tar sands are turned into a heavy, sludge-like substance called "diluted bitumen." [59] The pipeline begins in Edmonton, then crosses the Canadian Rockies, cleaving countless watersheds that feed into the mighty Fraser River.[60] The route roughly follows the path of the Fraser down towards its delta on the Strait of Georgia,[61] crossing Secwepemc, Sto:lo, and Coast Salish territories on its way to Metro Vancouver which includes Sto:lo, Kwantlen, Musqueam, Squamish, and Tsleil-Waututh traditional lands.[62] Community safety issues from this so-called "expansion" include a seven-fold increase in oil tanker traffic on the Burrard Inlet — growing from five to 34 tankers every month.[63]

As with the Dakota Access Pipeline — a highly controversial project that did not have free, prior, and informed consent (FPIC) from the Standing Rock Sioux Tribe — the Trans Mountain pipeline violates Indigenous rights. (See the Human Rights section on page 50 for more on FPIC). The Treaty Alliance Against Tar Sands Expansion commits the 122 signatory Indigenous Nations to oppose Kinder Morgan's Trans Mountain Expansion pipeline.[64] First Nations that would be directly impacted by the route and port terminal are currently fighting the project in the courts and have led heated protests on the ground — in particular the Tsleil-Waututh, Squamish, and Musqueam First Nations.[65] The mayors of Vancouver, Victoria, and Burnaby are allied with Native nations, environmentalists, and social movements on both sides of the border in standing against Trans Mountain.[66]

Kinder Morgan is trying out several different ways to raise the C$7.4 billion needed to build the pipeline. The company bundled up Trans Mountain with its other Canadian assets and filed for one of Canada's biggest-ever initial public offerings (IPO), with the goal of bringing in C$1.75 billion.[67] **TD**, the project's financial adviser, led the IPO with **RBC,** while **Bank of America, Bank of Montreal, Barclays, CIBC, Credit Suisse, Deutsche Bank, JPMorgan Chase, Mizuho, MUFG, National Bank of Canada, Scotiabank,** and **Société Générale** also served as underwriters.[68] Buried in the filing for this share offering was a note that the company was working on securing C$5.5 billion in new revolving credit, C$5 billion of which is pegged for Trans Mountain specifically.[69] The banks underwriting the IPO and participating in the credit facility are tying themselves to the project that could be "Standing Rock North."

On May 26, even before the IPO was launched, Kinder Morgan made a final investment decision to build Trans Mountain, contingent on the IPO's success.[70] Banks supporting the project have failed to learn the lessons from DAPL. Public opposition to this project will only grow as Kinder Morgan tries to push it forward. Over 21,000 people have signed a pledge with the Union of British Columbia Indian Chiefs' Coast Protectors, vowing to do "whatever it takes" to stop the pipeline's encroachment.[71]

EXTREME OIL - TAR SANDS LEAGUE TABLE

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS) 2014	2015	2016	TOTAL
1	RBC	$4.388 B	$6.655 B	$1.888 B	$12.931 B
2	CIBC	$2.074 B	$2.274 B	$1.104 B	$5.453 B
3	HSBC	$1.476 B	$1.063 B	$874 M	$3.412 B
4	BANK OF MONTREAL	$1.988 B	$516 M	$825 M	$3.329 B
5	JPMORGAN CHASE	$1.308 B	$1.289 B	$557 M	$3.154 B
6	BARCLAYS	$1.833 B	$395 M	$588 M	$2.816 B
7	TD	$1.489 B	$378 M	$705 M	$2.572 B
8	CITI	$1.003 B	$651 M	$573 M	$2.227 B
9	MORGAN STANLEY	$619 M	$719 M	$425 M	$1.764 B
10	BANK OF AMERICA	$871 M	$438 M	$452 M	$1.761 B
11	RBS	$763 M	$114 M	$17 M	$894 M
12	BNP PARIBAS	$651 M	$62 M	$154 M	$867 M
13	DEUTSCHE BANK	$333 M	$198 M	$323 M	$853 M
14	CREDIT SUISSE	$549 M	$105 M	$78 M	$732 M
15	GOLDMAN SACHS	$284 M	$188 M	$251 M	$723 M
16	MUFG	$544 M	$154 M	$21 M	$720 M
17	SOCIÉTÉ GÉNÉRALE	$140 M	$282 M	$134 M	$556 M
18	ICBC	$77 M	$285 M	$87 M	$449 M
19	BANK OF CHINA	$125 M	$217 M	$72 M	$414 M

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS) 2014	2015	2016	TOTAL
20	MIZUHO	$38 M	$169 M	$119 M	$327 M
21	CRÉDIT AGRICOLE	$45 M	$66 M	$186 M	$296 M
22	UBS	$178 M	$56 M	$62 M	$296 M
23	SCOTIABANK	$146 M	$102 M	$43 M	$291 M
24	AGRICULTURAL BANK OF CHINA	-	$232 M	$58 M	$290 M
25	SMFG	$115 M	$63 M	$43 M	$222 M
26	CHINA CONSTRUCTION BANK	-	$136 M	-	$136 M
27	WELLS FARGO	$18 M	$46 M	$17 M	$81 M
28	ANZ	$49 M	$10 M	$15 M	$74 M
29	STANDARD CHARTERED	$1 M	$51 M	-	$52 M
30	SANTANDER	$27 M	-	$22 M	$49 M
31	UNICREDIT	-	-	$29 M	$29 M
32	WESTPAC	-	-	$15 M	$15 M
33	BPCE/NATIXIS	-	-	-	-
33	COMMONWEALTH BANK	-	-	-	-
33	ING	-	-	-	-
33	NAB	-	-	-	-
33	PNC	-	-	-	-
TOTAL		$21.132 B	$16.913 B	$9.738 B	$47.782 B

DRILLING IN ULTRA-DEEP WATERS

Oil companies are now drilling oil at depths of over 1,500 meters — nearly a mile. The United States and Brazil produce over 90 percent of the world's ultra-deepwater oil; in Brazil in particular, new discoveries in the last decade of oil buried beneath thick layers of rock and salt have fueled extreme extraction that is expected to increase in 2017.[72]

About 50 miles offshore of Louisiana, a BP oil rig pumping oil from these depths exploded in 2010, killing 11 workers and releasing 4.9 million barrels of oil.[73] The Deepwater Horizon oil spill is considered the largest accidental marine oil spill in history. While the Obama administration put in place several offshore safety regulations afterward, President Trump has ordered that those rules be reconsidered[74] — disregarding the continued impacts to coastal economies and ecosystems from Deepwater Horizon.[75] Also troubling is that with companies under pressure from today's low oil prices, cost cutting could increase the risk of future environmental disasters.[76]

Beyond the risk to communities and ecosystems, ultra-deepwater projects — like all extreme oil sector projects — have some of the highest risks of becoming stranded assets. With high costs and high risk, ultra-deep extraction is vulnerable in a low-oil-demand future.[77] And yet, banks are in deep, with over $48 billion of financing for ultra-deep oil worldwide over the past three years.

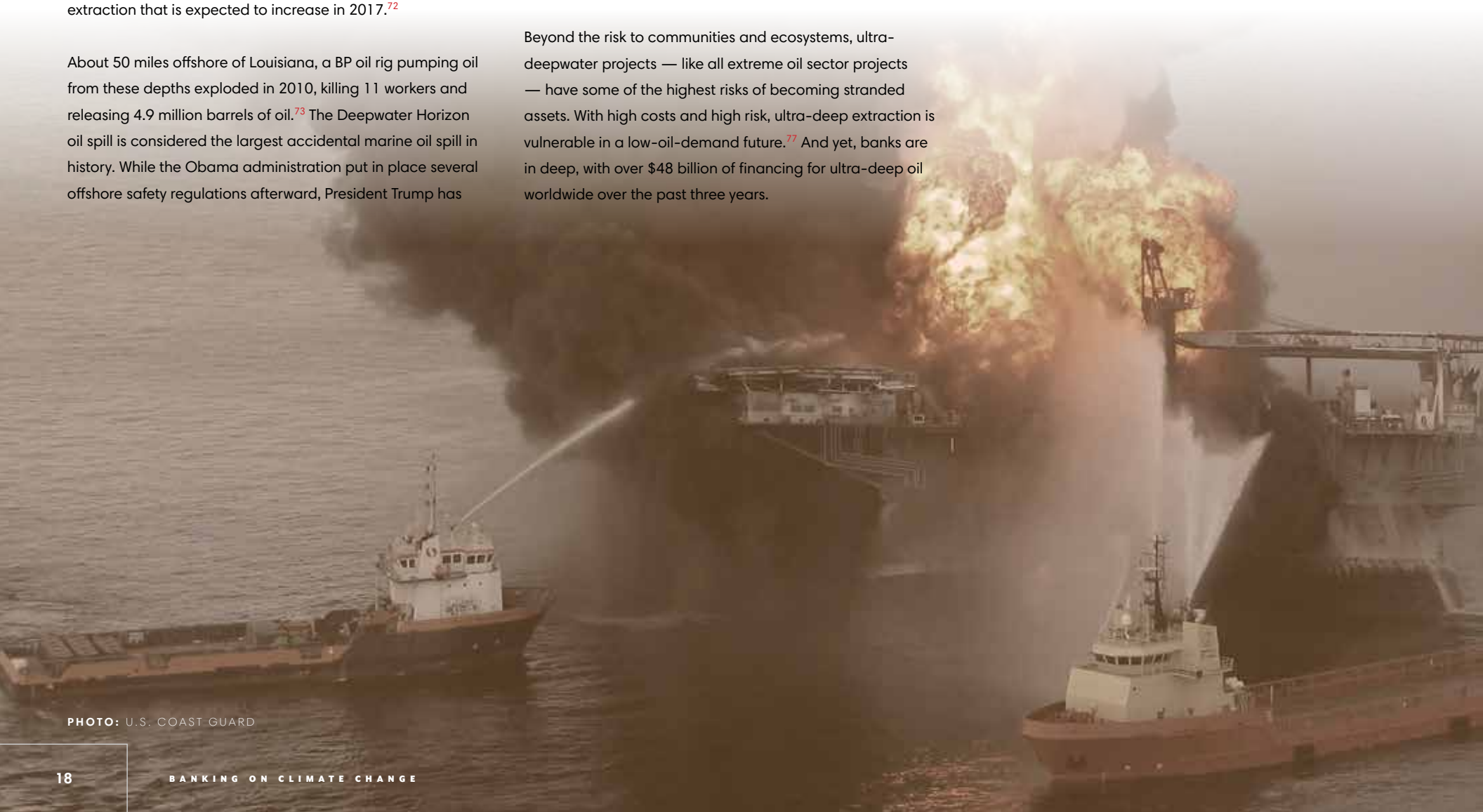


PHOTO: U.S. COAST GUARD

EXTREME OIL - ULTRA-DEEPWATER LEAGUE TABLE

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS) 2014	2015	2016	TOTAL
1	JPMORGAN CHASE	$2.678 B	$1.849 B	$2.604 B	$7.131 B
2	BANK OF AMERICA	$980 M	$828 M	$2.426 B	$4.234 B
3	HSBC	$2.292 B	$1.305 B	$365 M	$3.962 B
4	CITI	$1.678 B	$1.173 B	$1.058 B	$3.909 B
5	DEUTSCHE BANK	$770 M	$1.662 B	$657 M	$3.089 B
6	BARCLAYS	$725 M	$1.160 B	$979 M	$2.864 B
7	BNP PARIBAS	$1.349 B	$519 M	$591 M	$2.460 B
8	MORGAN STANLEY	$557 M	$892 M	$811 M	$2.260 B
9	SANTANDER	$290 M	$137 M	$1.819 B	$2.247 B
10	BANK OF CHINA	$1.315 B	$474 M	$170 M	$1.959 B
11	GOLDMAN SACHS	$837 M	$565 M	$472 M	$1.874 B
12	MIZUHO	$695 M	$381 M	$598 M	$1.674 B
13	SOCIÉTÉ GÉNÉRALE	$503 M	$756 M	$344 M	$1.603 B
14	CRÉDIT AGRICOLE	$719 M	$279 M	$226 M	$1.223 B
15	MUFG	$372 M	$445 M	$286 M	$1.103 B
16	ICBC	$220 M	$472 M	$325 M	$1.017 B
17	UBS	$384 M	$315 M	$133 M	$832 M
18	RBC	$570 M	$34 M	$215 M	$819 M
19	RBS	$492 M	$263 M	$42 M	$797 M

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS) 2014	2015	2016	TOTAL
20	CREDIT SUISSE	$357 M	$174 M	$233 M	$764 M
21	WELLS FARGO	$262 M	$65 M	$142 M	$469 M
22	AGRICULTURAL BANK OF CHINA	-	$267 M	$100 M	$367 M
23	SMFG	$127 M	-	$175 M	$303 M
24	CHINA CONSTRUCTION BANK	$25 M	$198 M	$52 M	$276 M
25	ING	$170 M	$3 M	$102 M	$276 M
26	UNICREDIT	$33 M	$112 M	$109 M	$255 M
27	STANDARD CHARTERED	$163 M	$81 M	$10 M	$254 M
28	ANZ	$118 M	$13 M	$4 M	$135 M
29	WESTPAC	$33 M	$71 M	-	$105 M
30	CIBC	$49 M	$38 M	-	$87 M
31	SCOTIABANK	$82 M	-	-	$82 M
32	NAB	-	$71 M	-	$71 M
33	TD	$52 M	-	-	$52 M
34	COMMONWEALTH BANK	$51 M	-	-	$51 M
35	BANK OF MONTREAL	$37 M	-	-	$37 M
36	BPCE / NATIXIS	$11 M	$21 M	-	$31 M
37	PNC	-	-	-	-
TOTAL		$18.999 B	$14.626 B	$15.049 B	$48.674 B

ARCTIC DRILLING: STILL OFF LIMITS

With immense risks to climate, habitats, and communities, and huge infrastructure costs, drilling for oil in the Arctic region is simply not justifiable. In March 2017, **Goldman Sachs**' lead European commodities equity specialist proclaimed, "We think there is almost no rationale for Arctic exploration."[78] The risks are too high, and oil companies have found this out the hard way, with Shell, ConocoPhillips, and other companies abandoning more than $2.5 billion in U.S. Arctic drilling rights in 2016.[79] This came after Shell spent years — not to mention $7 billion — in failed Arctic projects before pulling the plug.[80] In 2016, with companies giving up so much potential spending in the Arctic, big bank funding for Arctic oil dropped by half. At the same time, however, new exploration by Lundin Petroleum could bring drilling off the coast of Norway to record levels.[81]

Beyond economics, there are many reasons why Arctic oil and gas should never be extracted. Before leaving office, President Obama declared U.S. Arctic waters "indefinitely off limits for future oil and gas leasing," citing many reasons, including the Arctic's critical importance to Indigenous communities and the potential harm to ecosystems from a spill, especially given how difficult it is to clean up a spill in icy waters.[82] In a bitter irony, climate change tempts oil companies into drilling into ever more extreme corners of the Arctic, as it melts away ice caps that are critical to climate stabilization.[83] The danger of this vicious cycle cannot be understated.

Nevertheless, even with industry lacking interest in the region, the Trump administration is attempting to reverse these U.S. Arctic protections.[84] And some other countries in the Arctic, like Russia, are attempting to spur new drilling, ignoring the massive risks. Banks must recognize the threats to communities, the planet, and their shareholders, and reject all forms of finance for drilling in the Arctic.

PHOTO: U.S. FISH AND WILDLIFE SERVICE

EXTREME OIL - ARCTIC LEAGUE TABLE

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS) 2014	2015	2016	TOTAL
1	DEUTSCHE BANK	$179 M	$445 M	$208 M	$832 M
2	BNP PARIBAS	$185 M	$373 M	$227 M	$785 M
3	BARCLAYS	$100 M	$405 M	$94 M	$599 M
4	JPMORGAN CHASE	$281 M	$232 M	$69 M	$582 M
5	SOCIÉTÉ GÉNÉRALE	$162 M	$384 M	$31 M	$577 M
6	CITI	$327 M	$163 M	$67 M	$557 M
7	UNICREDIT	$202 M	$233 M	$32 M	$467 M
8	BANK OF AMERICA	$187 M	$199 M	$67 M	$453 M
9	MUFG	$330 M	$112 M	$8 M	$450 M
10	RBC	$220 M	$111 M	$104 M	$436 M
11	HSBC	$196 M	$171 M	$65 M	$431 M
12	CIBC	$175 M	$115 M	$117 M	$407 M
13	WELLS FARGO	$24 M	$275 M	$8 M	$307 M
14	MORGAN STANLEY	$183 M	$65 M	$47 M	$295 M
15	ING	$70 M	$51 M	$148 M	$269 M
16	CRÉDIT AGRICOLE	$87 M	$133 M	$30 M	$250 M
17	BPCE/NATIXIS	$127 M	$86 M	$11 M	$223 M
18	SCOTIABANK	$72 M	-	$136 M	$208 M
19	MIZUHO	$53 M	$77 M	$39 M	$168 M
20	COMMONWEALTH BANK	$23 M	$9 M	$136 M	$167 M
21	SMFG	$129 M	$3 M	$11 M	$143 M
22	RBS	$75 M	$36 M	$2 M	$113 M
23	TD	$56 M	$19 M	$31 M	$106 M
24	SANTANDER	$36 M	$53 M	$3 M	$91 M
25	GOLDMAN SACHS	$34 M	$34 M	$23 M	$91 M
26	BANK OF MONTREAL	$17 M	$32 M	$12 M	$61 M
27	CREDIT SUISSE	$15 M	$22 M	$10 M	$47 M
28	UBS	$10 M	$4 M	$11 M	$24 M
29	BANK OF CHINA	-	-	$7 M	$7 M
30	ANZ	$3 M	-	-	$3 M
31	STANDARD CHARTERED	$0.2 M	-	-	$0.2 M
32	NAB	-	-	-	-
32	ICBC	-	-	-	-
32	AGRICULTURAL BANK OF CHINA	-	-	-	-
32	PNC	-	-	-	-
32	CHINA CONSTRUCTION BANK	-	-	-	-
32	WESTPAC	-	-	-	-
TOTAL		$3.558 B	$3.839 B	$1.754 B	$9.152 B

FORECASTING FAILURE [85]

In response to questions from financial institutions and investors on how they are preparing for climate change, companies often point to their models of the world energy system. These models, published regularly by companies such as ExxonMobil, BP, and Shell, forecast that fossil fuels will continue to dominate the energy mix for the coming decades. So, they argue, high-carbon and high-cost investments will be safe. The models also predict that limiting climate change to internationally agreed-upon levels is unlikely.

How plausible are their forecasts? Their track record has not been good.

» **Underestimating the competition:** Companies routinely underestimate energy sources that compete with their core products. For instance, ExxonMobil's 2005 Outlook projected that wind and solar would account for 1 percent of total world energy production by 2030. Wind and solar achieved this share in 2012.

» **Selective skepticism of renewables:** Companies are quick to highlight the technological obstacles to renewable energy. For example, BP's forecast for solar costs in the United States in 2050 is higher than the actual average cost in 2016.

» **Analysis or advocacy:** Government action (other than carbon pricing) is generally absent from the companies' forecasts, as most prefer market-based approaches to addressing climate change. Yet however much the oil companies want governments to refrain from regulating, no plausible forecast would ignore policy as a key driver of change.

Forecasts cannot be expected to get everything right. But to be useful, they should demonstrate consideration of a range of realistically possible futures. In reality, oil company forecasts are systematically skewed, resting on often unlikely assumptions. This is dangerous for oil bankers, investors, and the climate.

PHOTO: JIRI REZAC / GREENPEACE

PHOTOS: LOUIS HELBIG / BEAUTIFULDESTRUCTION.CA

EXTREME OIL - BANK GRADE SCALE

Extreme oil projects include tar sands, ultra-deepwater, and Arctic operations. Bank policies for companies involved in extreme oil extraction are graded on an A-through-F scale. Full criteria can be found in Appendix 1, and bank grade explanations can be found online at » RAN.org/bankingonclimatechange.

A EXTREME OIL EXCLUSION

"A" grades (A and A-) indicate that a bank has prohibited all financing for tar sands, ultra-deepwater, and Arctic oil projects as well as for companies engaged in these types of oil production.

B EXTREME OIL PHASE-OUT

"B" grades (B+, B, and B-) are for banks that have a policy to reduce or phase out financing for companies with current or planned tar sands, ultra-deepwater, or Arctic oil operations.

C PROJECT-SPECIFIC EXCLUSION

"C" range grades (C+, C, and C-) are awarded to banks that have policies that restrict or prohibit financing for tar sands, ultra-deepwater, and Arctic oil projects.

D DUE DILIGENCE

"D" range grades (D+, D, and D-) are awarded to banks that have publicly disclosed due diligence policies and processes covering financing for tar sands, ultra-deepwater, and/or Arctic oil projects or companies engaged in these types of oil production.

F NO POLICY

Failing grades (F) are assigned to banks that do not have any policies with publicly disclosed due diligence criteria covering tar sands, ultra-deepwater, or Arctic oil financing, either on a sector-specific basis or as part of a broader policy framework.

EXTREME OIL - GRADE TABLE

COMPANY	GRADE
EUROPE	
BARCLAYS	D-
BNP PARIBAS	D
BPCE/NATIXIS	F
CRÉDIT AGRICOLE	C
CREDIT SUISSE	D
DEUTSCHE BANK	D-
HSBC	D
ING	C
RBS	C
SANTANDER	D-
SOCIÉTÉ GÉNÉRALE	D-
STANDARD CHARTERED	D-
UBS	D
UNICREDIT	F

COMPANY	GRADE
UNITED STATES	
BANK OF AMERICA	D-
CITIGROUP	D+
GOLDMAN SACHS	D+
JPMORGAN CHASE	D
MORGAN STANLEY	D-
PNC	N/A
WELLS FARGO	D+
CANADA	
BANK OF MONTREAL	D-
CIBC	F
RBC	D
SCOTIABANK	F
TORONTO-DOMINION BANK	D-

COMPANY	GRADE
JAPAN	
SMBC	F
MUFG	F
MIZUHO	F
	F
CHINA	
AGRICULTURAL BANK OF CHINA	F
BANK OF CHINA	F
CHINA CONSTRUCTION BANK	F
ICBC	
AUSTRALIA	
ANZ	D-
COMMONWEALTH BANK OF AUSTRALIA	F
NAB	F
WESTPAC	F

COAL MINING

PHOTO: ULET IFANSTASI / RAN

MODEL COAL MINING POLICY

We will not provide project finance for new coal mines or for the expansion of existing coal mine projects due to the environmental, social, and financial risks associated with these projects. We recognize the need for the immediate mitigation of public health impacts, ecosystem damage, and climate change in the transition to a zero-carbon economy, and thus we will not provide financial services (lending or underwriting) to companies that plan any new coal mining expansion, derive more than 30 percent of their revenues from coal mining, or produce more than 20 million tons of coal per year.

COAL MINING POLICY REVIEW

Nothing better captures the plight of coal mining than the coal mining museum in Kentucky that earlier this year installed 80 solar panels on its roof.[86] The museum's switch to solar is an evocative symbol of renewable energy's rapid eclipsing of coal as a reliable, cost-effective energy source.

This tangible embrace of renewable energy in the heart of America's coal country sits at odds with the campaign rhetoric of Donald Trump, with its absurd pledges to reopen shuttered mines and deliver a thousand years of "clean" coal.[87] Trump's rhetoric, however, will not overcome the market-driven reality for coal. With companies responsible for nearly half of U.S. coal production recently embroiled in bankruptcy,[88] the International Energy Agency's 2016 World Energy Outlook predicts more tough times over the next five years, with a projection that "with no global upturn in demand in sight," coal companies will have to continue to cut production, primarily in the United States and China.[89]

While the industry may cling to the environmental and public health nightmare of a Trump-inspired coal renaissance, the uncharacteristically circumspect words of Robert E. Murray, CEO of coal mining major Murray Energy, point to the doubts that beset the sector: "I really don't know how far the coal industry can be brought back."[90] The fact is, 30 percent of U.S. coal demand has disappeared since 2007.[91]

These sectoral trends in the United States are matched globally. According to the Institute for Energy Economics and Financial Analysis, world coal consumption peaked in 2013. By 2016 it had fallen for the third consecutive year.[92] The chief driver of this trend is China, where the 13th Five-Year development plan for the country's coal industry stated that no new coal mining projects will be approved from 2016 to 2018.[93] This was swiftly followed in early 2017 by the stunning news that China plans to spend more than $360 billion by 2020 on renewable energy.[94] This ambitious pledge is in part driven by public alarm about the heavy pollution inflicted on many major cities by the burning of coal.[95] In India, concerns over the public health impacts of coal have led to dozens of coal plants being switched off, coal stockpiles rising, and a reality check for aggressive government plans to triple domestic coal mining by 2020.[96] Coal output changes, market turbulence, and policy moves in China and India are also creating headaches for top coal exporters Australia, Indonesia, and South Africa.[97]

One massive, emblematic "carbon bomb" in Australia — the Carmichael project in Queensland's Galilee Basin proposed by Indian coal mining giant Adani — has now been shunned by over a dozen banks worldwide.[98] Another dozen have introduced coal mining policies that by default rule out support for the mine, the latest being the Australian bank Westpac; of the major Australian banks, only Commonwealth Bank has not signalled a lack of intent to lend to the Carmichael mine.[99] This is another significant indication of advancing bank policies on coal mining — the sector where the greatest number of such restrictions on financing are now in place — confronting egregious projects.

There are now at least 14 major international banks that have ruled out direct financing for new coal mines globally.[100] Momentum on this front is growing: since the publication of the 2016 Fossil Fuel Finance Report Card, seven banks have adopted policies that prohibit funding new coal mines, including **HSBC, Deutsche Bank**, and **Credit Suisse**.[101] From May 2015 to early 2016, five Wall Street banks and many European peers put in place policies with exclusion criteria or exposure reduction commitments for coal mining companies.[102] However, there has been much less momentum

over the last 12 months — the exceptions being **Deutsche Bank**, where a reduction target of 20 percent within the next three years was announced this year, and **Société Générale**, with a reduction target of 14 percent by 2020.[103] These reduction policies bring banks into the B grade range — a level that has yet to be reached by any of the Chinese, Japanese, or Australian banks graded in this report.

Banks must make urgent progress on restricting — and then phasing out completely — financing to coal mining companies. Without policies regarding corporate finance, a large swath of big banks can continue dishing out hundreds of millions of dollars to coal mining companies planning new mines. Moreover, many that do have policies to restrict coal mining financing still allow themselves to finance the major diversified mining multinationals such as Glencore and BHP Billiton, who rank among the world's top coal producers in terms of tons mined.[104]

The effectiveness of existing coal mining policies at major banks remains clouded in uncertainty due to a dearth of reporting. To date, the only bank to have provided detailed reporting is **ING**, which disclosed that between 2015 and 2016 it decreased its lending to coal mining by 26 percent.[105] No U.S. bank, including **Citi, JPMorgan Chase,** and **Morgan Stanley**, has yet reported publicly on the real impacts of their recently introduced restrictions on coal mining finance.

PHOTO: ©BLAIRPHOTOEVV

CASE STUDY: PEABODY ENERGY — POST-BANKRUPTCY BUSINESS AS USUAL

Five years ago, few would have foreseen the pending bankruptcy of Peabody Energy, formerly the world's largest coal mining company (and boasting the appropriate ticker symbol of BTU). Its fossil-fuel-evangelizing senior vice president, Fred Palmer, was fond of predicting a "coal super-cycle" that would grow global coal demand by 30 percent or more.[106] But times changed. Shortly after the election of Donald Trump to the U.S. presidency, the now-retired Palmer found himself in the middle of Peabody's bankruptcy court proceedings, fighting to prevent his millions of dollars in Peabody stock from being declared worthless.[107]

How was the high-flying Peabody — a darling of the global energy industry, with over a century of profitable coal mining experience — laid so low so quickly?

It seems that Peabody believed its own hype about increasing demand for coal — and discounted the efforts of tens of thousands of activists, businesses, cities, and countries across the world, all determined to reduce carbon emissions and move to a clean energy economy. Peabody borrowed billions of dollars from banks like **Bank of America**[108] to buy rival coal companies and invest in new machinery and mines in order to benefit from the so-called "super-cycle."[109] But when natural gas grew as a competitor, and demand for coal fell both in the United States and overseas, Peabody couldn't generate enough cash to make debt payments. The company's public valuation fell over 99 percent from its 2008 peak, totaling just $38 million immediately prior to the bankruptcy announcement.[110] At that point, Peabody got an $800 million bankruptcy finance package led by **Citi**.[111]

Fred Palmer's objections were overruled by the bankruptcy judge, and his Peabody shares lost significant value. And yet, there are far more tragic victims of Peabody's bad management decisions that led to its bankruptcy — like retired coal miners, whose pension plan was owed $643 million, but settled for $75 million in a last-minute deal.[112] The company's $1.5 billion bankruptcy exit financing to fund a leaner version of the same company was led by **Goldman Sachs, Credit Suisse,** and **JPMorgan Chase**. Notably, after facilitating the company's financing through bankruptcy, **Citi** did not participate in this bankruptcy exit financing.[113]

There's one small silver lining in the whole affair: the reduction of "self-bonding" at Peabody's mining sites. These sites of both current and former coal mining activities feature billions of dollars of environmental liabilities — polluted streams, eroded landscapes, and badly damaged ecosystems. Under U.S. law, it is Peabody's responsibility to pay to clean these sites up and restore them to their pre-mining condition. Coal mining companies are required to post a bond prior to mining, with the intention that even if a coal company filed for bankruptcy, the state could cash in the bond to pay for cleanup.[114]

Over the years, however, pliant state and federal regulators have assumed companies like Peabody were "too big to fail," and allowed them to "self-bond" — a permissive system that replaces the actual surety bond with a written promise that the company is financially sound. Fortunately, Peabody agreed as part of its bankruptcy filing plan to replace all of its current self-bonds, though it did not promise a future free of self-bonding.[115]

The new Peabody has now emerged. Its top executives, including many who presided over the dramatic losses that led to bankruptcy in the first place, are still in place and have received significant financial rewards.[116] Its major debtholders now own significant equity stakes. Its retirees, in contrast, have received pennies on the dollar for the future pension benefits they were promised. And the company's environmental liabilities persist, though hopefully with greater collateral to ensure remediation.

Peabody's restructuring was premised on rosy projections for profitability, based on optimistic market growth assumptions.[117] Yet as renewable energy takes off, Peabody's growth assumptions may prove as wrongheaded as its previous stubborn belief in a coal super-cycle — a phenomenon that never came to pass.

PHOTO: ECOFLIGHT

CASE STUDY: BANKS BEWARE — POLAND'S TALK ON COAL MINING IS BAD BUSINESS

In flagrant denial of economic and climate realities, Poland's ruling Law and Justice party shares the U.S. president's loathing of wind energy and love of coal.

A new law adopted by the Polish government in May 2016 banned the construction of new wind turbines less than two kilometers from residential areas.[118] The industry body WindEurope said that this restriction excludes 99 percent of Polish land from wind farm development and is effectively killing the industry.[119] Poland is notoriously seen as the most polluting country in the EU when it comes to producing coal power.[120] In spite of all this, in 2015, Poland's wind industry performed second-best in the EU behind only Germany.[121]

Polish coal mining, however, is being hailed by the government as having "the potential to become the basis for a modern Polish economy."[122] While ministerial claims that the mining sector can be made profitable and competitive fly in the face of sound economics (Polish coal is extremely expensive to produce),[123] and Polish mines continue to be on a collision course with EU law, major efforts are underway to mine more coal.[124]

Currently more than 10 mining projects — involving the extraction of both lignite and hard coal — are proposed in the country.[125] These projects face challenges by local communities and Polish environmental groups. One company feeling the brunt of anti-mining campaigning is ZEPAK, which in March 2017 failed to secure an environmental permit for the construction of an open-pit lignite mine in Oscisłowo.[126] There has been strenuous resistance to this project for the last two years: if it were to materialize, more than 560 people would need to be resettled, dozens of drinking water sources shut down, and 105.5 hectares of land would be destroyed.[127]

Oscisłowo is in fact one of ZEPAK's smallest planned assaults on communities, water supplies and the climate; the company's bigger, more destructive mine projects include Deby Szlacheckie and Oczkowice.[128] In the meantime, ZEPAK enjoys ongoing corporate finance support from a string of smaller banks, including **Santander** subsidiary Bank Zachodni WBK.[129]

Another major Polish coal company planning two open-cast lignite mines is PGE, whose Turow complex is causing turmoil across the Polish-Czech border.[130] This state-owned company relies on a local subsidiary of Dutch bank **ING** for the arranging of long-term bond issuances and open credit lines.[131] The CEO of **ING**'s Polish subsidiary has recently acknowledged, with a nod to **ING**'s current coal policy, that the bank "does not terminate existing commitments and continues cooperation with coal companies," but "does not enter any new financing or projects that are coal-based."[132]

Polish groups such as Foundation "Development YES — Open-Pit Mines NO" are challenging financial support from Western banks that facilitates increased extraction of Poland's toxic coal.[133] The group is calling on all banks to stop issuing bonds or new corporate loans to any companies planning new coal mine projects.[134]

PHOTOS: (TOP) CLAUDIA CIOBANU; (BELOW) RADOSŁAW GAWLIK

COAL MINING - LEAGUE TABLE

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS) 2014	2015	2016	TOTAL
1	BANK OF CHINA	$5.110 B	$5.235 B	$3.834 B	$14.179 B
2	CHINA CONSTRUCTION BANK	$2.969 B	$4.336 B	$5.459 B	$12.764 B
3	ICBC	$1.578 B	$4.275 B	$3.311 B	$9.164 B
4	AGRICULTURAL BANK OF CHINA	$2.932 B	$3.625 B	$1.364 B	$7.921 B
5	DEUTSCHE BANK	$1.025 B	$1.818 B	-	$2.843 B
6	GOLDMAN SACHS	$370 M	$1.853 B	$175 M	$2.398 B
7	CITI	$172 M	$306 M	$800 M [135]	$1.279 B
8	BNP PARIBAS	$306 M	$214 M	$55 M	$575 M
9	BANK OF MONTREAL	$437 M	$36 M	-	$473 M
10	HSBC	$105 M	$330 M	$30 M	$465 M
11	CRÉDIT AGRICOLE	$234 M	$157 M	$55 M	$446 M
12	JPMORGAN CHASE	$170 M	$203 M	$30 M	$403 M
13	CREDIT SUISSE	$228 M	$134 M	$30 M	$392 M
14	SOCIÉTÉ GÉNÉRALE	$214 M	$69 M	$90 M	$373 M
15	PNC	$250 M	$111 M	-	$361 M
16	UNICREDIT	$169 M	$46 M	$141 M	$356 M
17	ING	$214 M	$23 M	$116 M	$354 M
18	BANK OF AMERICA	$64 M	$237 M	$6 M	$307 M
19	WELLS FARGO	$304 M	-	-	$304 M
20	UBS	$89 M	$178 M	$33 M	$300 M
21	MORGAN STANLEY	$144 M	$134 M	-	$278 M
22	RBS	$193 M	$69 M	-	$262 M
23	BARCLAYS	$89 M	$154 M	-	$243 M
24	MUFG	$202 M	$16 M	-	$219 M
25	SMFG	$211 M	-	-	$211 M
26	SANTANDER	$89 M	$85 M	-	$174 M
27	RBC	$117 M	$52 M	-	$169 M
28	WESTPAC	$49 M	$78 M	-	$127 M
28	NAB	$49 M	$78 M	-	$127 M
29	MIZUHO	$107 M	$16 M	-	$123 M
30	ANZ	$49 M	-	$30 M	$79 M
31	SCOTIABANK	$49 M	$29 M	-	$78 M
32	STANDARD CHARTERED	$67 M	-	-	$67 M
33	TD	$49 M	$12 M	-	$60 M
34	COMMONWEALTH BANK	$24 M	-	-	$24 M
34	CIBC	$24 M	-	-	$24 M
35	BPCE/NATIXIS	-	-	-	-
TOTAL		$18.453 B	$23.913 B	$15.558 B	$57.924 B

COAL MINING - BANK GRADE SCALE

This report card grades global bank policies on coal mining finance on an A-through-F scale. Grades are scaled to reflect the degree of a bank's alignment with the Paris Agreement's 1.5° (or 2°) climate target, which necessitates an end to new financing for and capital expenditure by the coal mining industry. Grades and grading criteria are summarized below. Full criteria can be found in Appendix 1, and bank grade explanations can be found online at » RAN.org/bankingonclimatechange.

A SECTOR EXCLUSION

Top-tier grades in the "A" range (A and A-) indicate that a bank has prohibited all financing for coal mines and coal producers.

B SECTOR PHASE-OUT

"B" range grades (B+, B, and B-) are assigned to banks with policies to reduce or phase out financing for coal producers.

C PROJECT-SPECIFIC OR MTR-SPECIFIC PHASE-OUT

"C" range grades (C+, C, and C-) are awarded to banks with policies that restrict or prohibit financing for individual coal mines or coal producers that engage in mountaintop removal (MTR) coal mining.

D DUE DILIGENCE

"D" range grades (D and D-) are awarded to banks that have publicly disclosed due diligence policies covering financing for coal mining.

F NO POLICY

Failing grades (F) are assigned to banks that do not have any policies with publicly disclosed due diligence criteria covering coal mining financing, either on a sector-specific basis or as part of a broader policy framework.

COAL MINING - GRADE TABLE

COMPANY	GRADE
EUROPE	
BARCLAYS	B-
BNP PARIBAS	C+
BPCE/NATIXIS	B
CRÉDIT AGRICOLE	B
CREDIT SUISSE	C+
DEUTSCHE BANK	B-
HSBC	C+
ING	B
RBS	C-
SANTANDER	D-
SOCIÉTÉ GÉNÉRALE	B-
STANDARD CHARTERED	C+
UBS	C+
UNICREDIT	D

COMPANY	GRADE
UNITED STATES	
BANK OF AMERICA	B-
CITIGROUP	B-
GOLDMAN SACHS	C-
JPMORGAN CHASE	B-
MORGAN STANLEY	B-
PNC	B-
WELLS FARGO	B-
CANADA	
BANK OF MONTREAL	D-
CIBC	F
RBC	D-
SCOTIABANK	F
TORONTO-DOMINION BANK	C+

COMPANY	GRADE
JAPAN	
SMBC	F
MUFG	F
MIZUHO	F
CHINA	
AGRICULTURAL BANK OF CHINA	F
BANK OF CHINA	F
CHINA CONSTRUCTION BANK	F
ICBC	F
AUSTRALIA	
ANZ	D-
COMMONWEALTH BANK OF AUSTRALIA	F
NAB	F
WESTPAC	C-

COAL POWER

PHOTO: KODDA / SHUTTERSTOCK

COAL POWER MODEL POLICY

We will not provide project finance for new coal plants or the expansion of existing coal power plants due to the environmental, social, and financial risks associated with these projects. We recognize the need for the immediate mitigation of public health impacts, ecosystem damage, and climate change in the transition to a zero-carbon economy, and thus we will not provide financial services (loans or underwriting) to companies that plan any new coal power expansion, derive more than 30 percent of their power generation from coal, or burn more than 20 million tons of coal per year.

COAL POWER POLICY REVIEW

Following several years of expansion, 2016 saw a dramatic decrease in coal power capacity under development worldwide, as evidenced by *Boom and Bust 2017*, a March 2017 report by CoalSwarm, Sierra Club, and Greenpeace.[136] This decrease has been driven largely by far-reaching restrictions by the Chinese government, and by rapidly shifting policies and economics in India. Paralleling this construction slowdown is the unprecedented rate of coal plant retirements in wealthier nations. This shift means that the goal set in the global Paris Agreement — keeping global temperatures well below a 2°C increase and aiming for 1.5°C — could now be possible, but only if plants are retired much faster and if on-hold construction remains unbuilt.[137] Because of the plummeting cost of renewables, the growing reluctance of governments to pollute cities, and the continued international push to limit climate change, banks must take notice that financing companies that develop coal power anywhere is both risky and harmful.

Over 64 GW of coal power capacity has been retired over the past two years, led by developed economies, mostly the United States and EU.[138] In a surprise announcement this April, utilities from 26 EU member states pledged to not invest in new coal plants after 2020, as part of their commitment to 100 percent carbon-neutral electricity by 2050 — although of course, discontinuing investments in new plants is inadequate to fulfill their commitment: they will also have to retire existing coal plants.[139] And in the United States, while the Trump administration promises to dismantle the Clean Power Plan, experts and companies agree that this will not reverse the shift to non-coal sources, notably solar and wind.[140] These trends are clear; the question now for the developed world is, how fast will this transition happen? Analysts calculate that, in order to achieve Paris Agreement goals, coal power should be entirely phased out in rich countries by 2030.[141] These calculations do not bode well for coal investors.

In January 2017, China scrapped plans for 103 new coal plants.[142] Both China and India have overbuilt their coal capacity, leading to low utilization rates for coal plants, and government restrictions on new construction. The cheapest new power source in India is now solar, which together with public outrage over air pollution has given rise to a solar power revolution in the country, with many financial backers withdrawing support from new coal projects.[143]

In light of the climate impacts of coal plants, since 2013 many multilateral development banks and national governments have put in place policies that restrict financing for coal power plants.[144] Private banks have started to adopt similar commitments.[145] Banks like **Credit Suisse, Goldman Sachs, HSBC, JPMorgan Chase, Morgan Stanley,** and **UBS** all restrict coal power project financing in rich countries, while continuing to fund it in the rest of the world.[146] Coal policies with this gaping loophole earn banks a “C” grade.

BNP Paribas, Crédit Agricole, Société Générale, and **Deutsche Bank**, for instance, pushed by global campaigns to stop coal, have examined these trends and the various risks that coal power investment poses and have ended all financing for coal-power projects worldwide.[147]

While the retreat from coal project financing is necessary, banks continue to support development in other, less direct ways, namely by providing general financing to corporations that, in turn, develop coal projects. Even as many banks put in place restrictions on project financing, in the last three years the banks analyzed in this report increased their overall financing to coal power at top companies — from $21.11 billion in 2014, to $23.25 billion in 2015, to $30.35 billion in 2016. This serves as a critical reminder that coal plants are often built through general corporate financing, not through project financing. Moreover, general corporate finance to these companies supports their coal-fired business models, where even as new plant build-out stalls, these companies continue to produce the lion's share of their electricity from coal.

Although the coal power pipeline has shrunk considerably, around 570 gigawatts of new plants are still in pre-construction phases around the world.[148] The next, crucial step for banks is to stop providing corporate finance for companies that are developing coal power plants around the world.

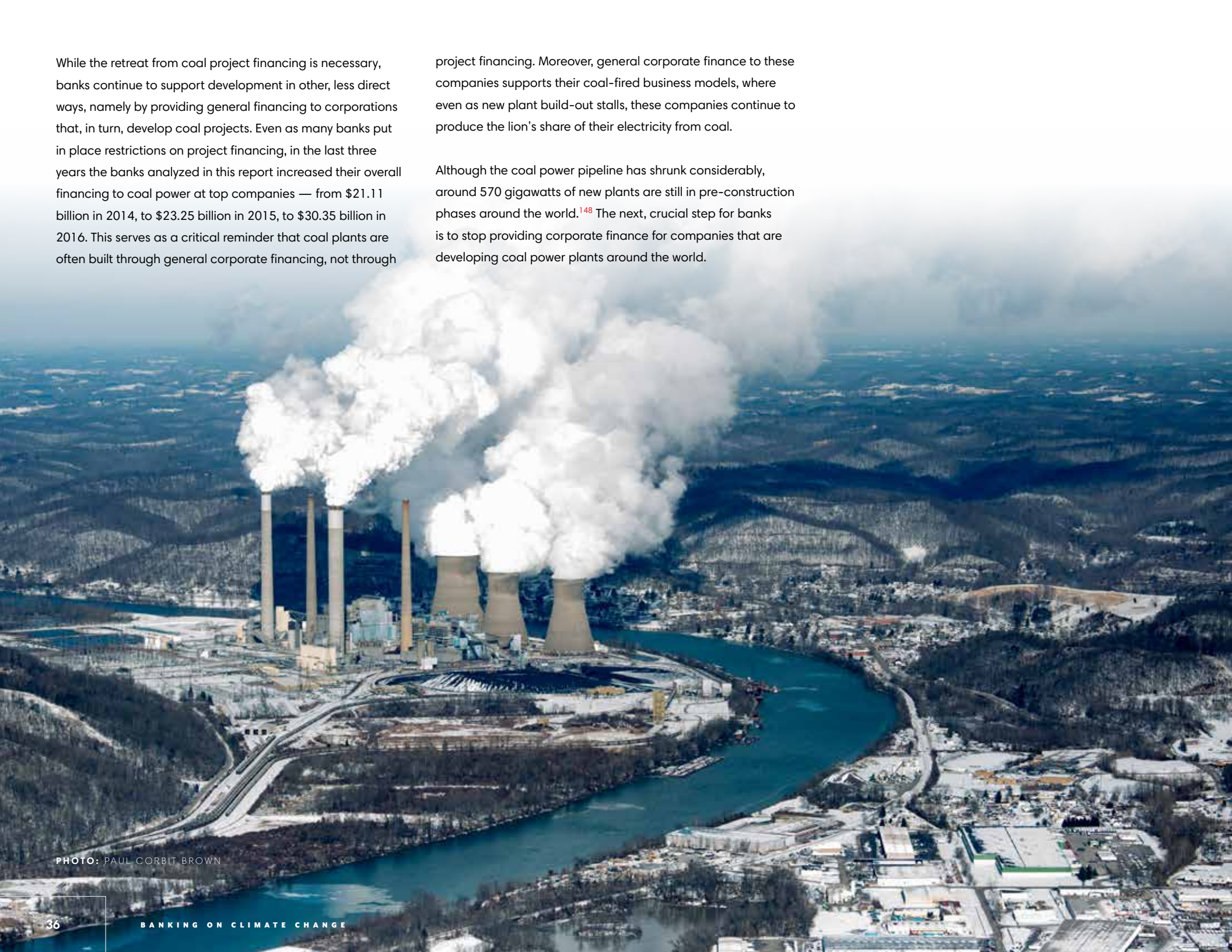


PHOTO: PAUL CORBIT BROWN

CASE STUDY: COAL POWER EXPANSION PLANS SLOW IN VIETNAM, BUT BANKS HAVEN'T GOTTEN THE MEMO

Six months after the signing of the Paris Agreement by 175 nations including Vietnam, World Bank president Jim Yong Kim told a gathering of government and corporate leaders in unscripted remarks of his fears for planetary survival: "If Vietnam goes forward with 40 GW of coal, if the entire [Asia] region implements the coal-based plans right now, I think we are finished."[149] Given Vietnam's huge renewable energy potential — a 2016 study by Vietnam Sustainable Energy Alliance and WWF-Vietnam has described how 100 percent of the country's power can be generated by renewable energy technologies by 2050[150] — this disastrous coal expansion is completely unnecessary.

Thankfully, there are indications that Vietnam's rush of coal-fired power plant projects has been tempered to some extent. In January 2016, the country's prime minister signaled a shift away from coal by announcing that the government intends to "review development plans of all new coal plants and halt any new coal power development."[151] Two months later, the country's national development plan was revised to cancel or postpone 20,000 MW of proposed coal plants.[152]

There are still, however, many coal plants on the drawing board, backed by a string of private banks. Three projects with a combined installed capacity of 4,380 MW are aiming to reach financial close this year:

- Vinh Tan III: **HSBC** is the lead arranger for the estimated $2 billion project, with **China Development Bank** and **Standard Chartered** considering financing it.[153]
- Vung Ang II: **BNP Paribas** is advising on the $2 billion project, while **MUFG, Mizuho, Sumitomo Mitsui Financial Group (SMFG),** and **Standard Chartered** are potential lenders.[154]
- Nam Dinh: This is another $2 billion project involving primarily project finance, where **Mizuho** is acting as advisor and **MUFG** and **Standard Chartered** are again among the potential financiers.[155]

In April 2015, local people reportedly blocked a national highway for 30 hours in a protest against the extreme levels of pollution emanating from the Vinh Tan II unit, in operation since 2014. The peaceful protestors were met by a police riot squad using teargas. Following the protest, only minor improvements to the plant's woeful waste ash dumping practices were made.[156]

The waste management plans at the adjoining, still incomplete Vinh Tan III unit look even more alarming; in November 2016 as part of the project preparations, the companies behind Vinh Tan III requested permission to dump 1.5 million cubic meters of industrial waste into a Marine Protected Area offshore, arguing it's only "natural sediment."[157]

Jim Yong Kim's warning that "we are finished" if Vietnamese coal plants go ahead came from an acute concern about climate change, but it also applies in the very short term to human lives and rich marine ecosystems. "We are finished" now needs to be the call of banks as they exit financing for potentially disastrous Vietnamese coal power expansion.

PHOTO: CHANGE VN

CASE STUDY: WESTERN BANKS BACKING MAJOR COAL PLANT EXPANSION PLANS IN THE PHILIPPINES

With installed capacity of 7,282 MW at currently operating coal plants, and a consistent place near the top of the list of countries most vulnerable to climate change, the Philippines does not need more coal power.[158]

Yet burning coal is on the rise in the Philippines — and not with merely one or two replacement plants. A whopping 52 coal plants are currently proposed or under construction, while only 38 are in operation now.[159] The Philippines has huge renewable energy potential, and part of the blame for this misguided, potentially climate-busting coal rush can be laid at the feet of Western banks, which have been propping up some of the key companies involved.[160]

Western banks support coal power buildout in the Philippines primarily not through the provision of project finance, but via general corporate finance. Between 2014 and 2016, substantial financing of this sort went to the following companies planning coal power expansion in the Philippines:

- The US company AES Corporation, from **JPMorgan Chase, Morgan Stanley, Citi, Goldman Sachs,** and **Credit Suisse.**[161]
- The Korean company KEPCO, from **Credit Suisse, UBS,** and **ING.**[162]
- The Filipino company San Miguel Corporation, from **Standard Chartered, Credit Suisse, UBS,** and **ING.**[163]

With the backing of the Catholic Church,[164] coal protests in the country are now routine and widespread, and have picked up momentum in recent years as a result of the planned explosion of new coal plants — making the Philippines one of the world's most iconic battlegrounds in the fight against coal.[165]

Impacts on local communities from proposed projects such as Batangas, Altimoa, and Limay are already being felt:[166] in the absence of proper public consultation processes, families have been displaced from their homes without appropriate resettlement.[167] In areas where Indigenous communities are present, the right to free, prior, and informed consent is not being respected.[168]

Community resistance efforts have been met with threats and coercion.[169] In July 2016, in the province of Bataan where the Limay plant is planned, one of the leaders of the Coal-Free Bataan Movement, Gloria Capitan, was shot dead by two unidentified assailants.[170] Nonetheless, anti-coal protests in the Philippines continue undimmed.[171]

PHOTOS: JIMMY A. DOMINGO / GREENPEACE

COAL POWER - LEAGUE TABLE

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS) 2014	2015	2016	TOTAL
1	CHINA CONSTRUCTION BANK	$1.716 B	$3.034 B	$2.975 B	$7.725 B
2	ICBC	$1.954 B	$2.440 B	$3.137 B	$7.531 B
3	AGRICULTURAL BANK OF CHINA	$2.588 B	$1.470 B	$1.876 B	$5.934 B
4	BANK OF CHINA	$1.073 B	$1.651 B	$2.286 B	$5.009 B
5	JPMORGAN CHASE	$1.169 B	$1.418 B	$2.274 B	$4.861 B
6	BANK OF AMERICA	$1.409 B	$1.073 B	$1.474 B	$3.956 B
7	BARCLAYS	$1.227 B	$834 M	$1.767 B	$3.829 B
8	MUFG	$652 M	$845 M	$2.162 B	$3.659 B
9	WELLS FARGO	$765 M	$1.140 B	$1.305 B	$3.210 B
10	MORGAN STANLEY	$1.175 B	$897 M	$1.044 B	$3.116 B
11	MIZUHO	$506 M	$863 M	$1.430 B	$2.799 B
12	CITI	$907 M	$699 M	$1.164 B	$2.770 B
13	RBC	$552 M	$717 M	$682 M	$1.952 B
14	CREDIT SUISSE	$467 M	$431 M	$966 M	$1.864 B
15	UBS	$297 M	$611 M	$926 M	$1.835 B
16	DEUTSCHE BANK	$424 M	$493 M	$872 M	$1.790 B
17	SCOTIABANK	$344 M	$823 M	$497 M	$1.664 B
18	BNP PARIBAS	$615 M	$403 M	$502 M	$1.519 B
19	GOLDMAN SACHS	$384 M	$541 M	$532 M	$1.457 B
20	RBS	$685 M	$435 M	$62 M	$1.182 B
21	HSBC	$458 M	$270 M	$314 M	$1.042 B
22	UNICREDIT	$176 M	$163 M	$649 M	$988 M
23	PNC	$207 M	$419 M	$109 M	$735 M
24	ING	$220 M	$235 M	$170 M	$626 M
25	CRÉDIT AGRICOLE	$260 M	$206 M	$104 M	$570 M
26	SOCIÉTÉ GÉNÉRALE	$198 M	$271 M	$34 M	$502 M
27	SANTANDER	$105 M	$206 M	$191 M	$502 M
28	BPCE/NATIXIS	$107 M	$280 M	$106 M	$493 M
29	SMFG	$183 M	$188 M	$106 M	$476 M
30	TD	-	$113 M	$315 M	$428 M
31	STANDARD CHARTERED	$139 M	-	$65 M	$204 M
32	BANK OF MONTREAL	$26 M	$23 M	$111 M	$160 M
33	COMMONWEALTH BANK	$80 M	$57 M	-	$137 M
34	ANZ	-	-	$105 M	$105 M
35	CIBC	$44 M	-	$35 M	$79 M
36	NAB	-	-	-	-
36	WESTPAC	-	-	-	-
TOTAL		$21.113 B	$23.250 B	$30.346 B	$74.709 B

COAL POWER - BANK GRADE SCALE

As with other sectors, this report card grades global bank policies for the coal power sector on an A-through-F scale. A rapid, worldwide transition away from coal-fired energy is needed to limit climate change to 1.5° (or 2°). Grades assess each bank's alignment with this transition. Full criteria can be found in Appendix 1, and bank grade explanations can be found online at » RAN.org/bankingonclimatechange.

A SECTOR EXCLUSION

Banks with grades in the "A" range (A and A-) have prohibited all financing for coal power plants and electric power producers with significant coal power-generating capacity.

B SECTOR PHASE-OUT

"B" range grades (B+, B, and B-) are assigned to banks that have policies to reduce or phase out financing for electric power producers with significant coal power-generating capacity.

C COAL PLANT FINANCING EXCLUSION

"C" range grades (C+, C, and C-) indicate that banks have policies to restrict or prohibit financing for new coal power plants.

D DUE DILIGENCE

"D" range grades (D and D-) are awarded to banks that have publicly disclosed due diligence policies and processes covering financing for coal power producers.

F NO POLICY

Failing grades (F) are assigned to banks that do not have any policies with publicly disclosed due diligence criteria covering coal power financing, either on a sector-specific basis or as part of a broader policy framework.

COAL POWER - GRADE TABLE

COMPANY	GRADE
EUROPE	
BARCLAYS	C
BNP PARIBAS	B
BPCE/NATIXIS	B
CRÉDIT AGRICOLE	B-
CREDIT SUISSE	C
DEUTSCHE BANK	C+
HSBC	C
ING	B
RBS	B-
SANTANDER	D-
SOCIÉTÉ GÉNÉRALE	B-
STANDARD CHARTERED	C-
UBS	C
UNICREDIT	D

COMPANY	GRADE
UNITED STATES	
BANK OF AMERICA	D
CITIGROUP	C-
GOLDMAN SACHS	C
JPMORGAN CHASE	C
MORGAN STANLEY	C
PNC	C+
WELLS FARGO	D
CANADA	
BANK OF MONTREAL	D-
CIBC	F
RBC	D-
SCOTIABANK	F
TORONTO-DOMINION BANK	D-

COMPANY	GRADE
JAPAN	
SMBC	F
MUFG	F
MIZUHO	F
CHINA	
AGRICULTURAL BANK OF CHINA	F
BANK OF CHINA	F
CHINA CONSTRUCTION BANK	F
ICBC	F
AUSTRALIA	
ANZ	C-
COMMONWEALTH BANK OF AUSTRALIA	F
NAB	F
WESTPAC	C-

LIQUEFIED NATURAL GAS EXPORT

PHOTO: ALISON KIRSCH / RAN

MODEL LNG POLICY

We will not provide project finance for liquefied natural gas plants and terminals due to the environmental, social, and financial risk associated with these projects. We recognize the need for immediate mitigation of public health impacts, ecosystem damage, and climate change in the transition to a zero-carbon economy, and thus we will not provide financial services (loans or underwriting) to companies that own or operate current or planned LNG plants and terminals.

LIQUEFIED NATURAL GAS EXPORT

For companies looking to avoid the doldrums of the natural gas glut in the United States, exporting to international markets is an attractive option.[172] This is why, parallel to the increase of fracked gas on the market, there has been an astounding increase in the number of proposed liquefied natural gas export terminals, where gas would be condensed, liquefied, and exported across oceans on massive barges. The process is highly energy intensive, and from fracking, to transport, to processing, allows many points for methane, a highly potent greenhouse gas, to leak into the atmosphere.[173] In Canada, for instance, over 90 international climate change scientists and policy experts have come together to oppose the proposed Pacific Northwest LNG project because it alone would increase British Columbia's greenhouse gas emissions by about 20 percent.[174]

Not only does a gas glut promote LNG export terminal buildout, but the reverse occurs as well — as the industry itself argues,[175] approving LNG export terminals for construction stimulates further natural gas production. Already, LNG export is the biggest force behind demand for North American natural gas[176] — 60 percent of the potential increase in demand for natural gas in the United States between now and 2020 would come because of LNG export terminals looking to ship the gas overseas.[177]

There are a stunning 61 proposed or existing terminals in North America, with about half of them along the U.S. Gulf Coast.[178] The Sabine Pass Terminal in Louisiana, owned by Cheniere Energy, is the only U.S. facility currently liquefying and exporting gas in the United States. In 2016, it shipped LNG to 17 countries, primarily in Latin America.[179] The only other export terminal existing in the United States has been mothballed, and ConocoPhillips, the supermajor that owns it, is looking to shed the asset.[180]

Investing in these terminals and the companies that build them is a risky gamble on the future of LNG. A study by Bernstein Research predicts that because of low oil and gas prices, and a glut of LNG on the global market, only six of all the North American projects on the table are likely to reach a final investment decision.[181] Additionally, a study out of Columbia University shows that "small changes in a number of variables can, at times, render US LNG exports uneconomic," and if spot gas prices in target markets remain low as forecasted, not all of the proposed US export capacity will be used.[182] Though many banks analyzed in this report have avoided financing LNG export in North America, those that do support the sector have done so to the tune of $52 billion over the last three years. Australia, another hotspot for LNG export, is set to become the biggest exporter of LNG after $200 billion in investment.[183]

All the banks analyzed in this report earned D or F grades for LNG export, meaning they conduct due diligence on related transactions, at best. Without policies preventing them from financing LNG projects or companies, banks could easily become more entrenched in the sector. For instance, Veresen, a Canadian energy infrastructure company, was a client of **TD, CIBC,** and **Scotiabank** over the last three years.[184] While the company does not own any operating LNG facilities, it is working to build the controversial $7.5 billion Jordan Cove LNG export terminal in Oregon, and could turn to its current bankers for project finance.[185]

CASE STUDY: RESISTING A WEB OF FRACKING-PIPELINE-LNG POLLUTION

For years, residents of Lusby, a town along Chesapeake Bay in southern Maryland, regarded Dominion Energy's defunct LNG import facility as a "quiet, mothballed elephant."[186]

That all began to change when Dominion applied to convert its dormant import facility at Cove Point into the first LNG export hub on the U.S. East Coast. The Federal Energy Regulatory Commission (FERC) approved Dominion's $3.8 billion plan in 2014 despite receiving over 150,000 public comments against it, and without even attempting an analysis of its lifecycle climate pollution.[187] Heavy vehicles and equipment now routinely rumble through Lusby to build the utility-scale power plant and liquefaction facility required for exports. Dominion aims to begin shipping nearly 1 billion cubic feet of gas per day to customers in India and Japan by early 2018.[188]

Dominion's LNG export plan set off a chain reaction of impacts that implicate other companies and a string of major banks. It is also galvanizing a far-reaching network of people resisting at every stage of the gas extraction, transport and liquefaction process.

- We Are Cove Point and Calvert Citizens for a Healthy Community, community groups formed in Lusby, continue sounding the alarm on risks to local residents, warning that no other LNG export facility in the United States is being built in such a densely populated area.[189] The closest homes are across the street and about 7,000 people live within two miles — a typical evacuation radius.[190] Yet, Dominion is squeezing tanks of toxic, flammable materials into an extraordinarily small footprint, increasing the risk that an accident could spiral into a catastrophe.[191]
- In Pennsylvania, people are mobilizing against Williams Partners' 200-mile, $3 billion Atlantic Sunrise Pipeline, which FERC approved in February 2017.[192] The pipeline provides the shortest route to funnel gas from northeastern Pennsylvania to Cove Point. Along its path in Lancaster County, Pennsylvania, local residents have formed "Lancaster Stand," a farm encampment to resist construction.[193]
- Pennsylvanians are also fighting against expanded fracking. Cabot Oil & Gas, a company sued by multiple families for contaminating drinking water in Dimock, PA,[194] is one of two companies under contract to supply gas to Cove Point[195] and will be the main shipper of gas through the Atlantic Sunrise Pipeline.[196] Just weeks after FERC approved the pipeline, Cabot boosted its drilling budget.[197] Meanwhile, the Pennsylvania Medical Society is calling for a moratorium on new fracking over mounting health concerns.[198]
- In Maryland, the threat of LNG exports driving greater regional demand for fracking fueled the growth of an energetic grassroots movement to permanently ban fracking throughout the state. This movement succeeded in April 2017, making Maryland the third state to outlaw fracking.[199]

Thirty-four banks finance one or more of the companies behind this web of pollution — including Dominion Energy and its subsidiary Dominion Midstream (owner of the Cove Point facility), Williams Partners, and Cabot Oil & Gas. Seven banks finance credit facilities for all three of these companies: **Bank of America, Citi, Wells Fargo, JPMorgan Chase, MUFG, Scotiabank,** and **U.S. Bank**. Each of those banks is providing more than $500 million in combined financing.[200]

An overlapping cast of banks helped Dominion get its fracked-gas export project off the ground. **Bank of America, Citi,** and **JPMorgan Chase** underwrote Dominion Midstream's initial public offering of stock in 2014, along with **Barclays, UBS, Morgan Stanley,** and **Goldman Sachs.**[201] **Wells Fargo** helped arrange Dominion Resources' 2014 equity offering to finance the project along with **RBC, Deutsche Bank, Morgan Stanley, BNP Paribas,** and **Goldman Sachs**.[202]

The banks that financed the terminal, some going so far as to prop up every link in the fracking-pipeline-LNG chain, are culpable in the human rights impacts and environmental degradation created along the way.

PHOTO: SUSAN YIN / CHESAPEAKE CLIMATE ACTION NETWORK

CASE STUDY: RIO GRANDE VALLEY

The Rio Grande Valley, in South Texas, is home to some of the last unindustrialized coastline in Texas. This fosters a local economy that benefits from out-of-town beachgoers and nature lovers, traveling from cities whose shores are littered with refineries and industrial plants.

It is also a region on the frontlines of multiple contemporary struggles. Situated on the Mexican border, the Valley is a frontline of border militarization. As the global temperature increases, climate change threatens the low-lying Gulf Coast region with rising seas, mosquito-borne disease, and hurricanes.[203] The largest city, Brownsville, is 93 percent Latino and often tops the list of poorest cities in the United States.[204] And now the Valley faces another threat from three planned liquefied natural gas export terminals presenting serious danger to residents, Indigenous cultural sites, and the environment: Texas LNG, from a company by the same name, NextDecade's Rio Grande LNG, and Exelon's Annova LNG.

The past year has seen intense resistance to the proposed fracked gas terminals. In particular, French bank **BNP Paribas** has been called out in major news outlets for its continued involvement with the project named Texas LNG.[206] As financial advisor to Texas LNG, the bank will help raise debt and equity capital to finance the terminal's construction. With this relationship, **BNP Paribas** and its U.S. subsidiary **Bank of the West** are implicated in all the risks posed by the project to Indigenous sacred sites, community health, the coastal ecotourism industry, endangered species, and our shared climate.[207]

Texas LNG, like the other two planned terminals in the Valley, poses a threat to Indigenous historical sites, which the company has not adequately addressed.[208] Texas LNG did not contact the Carrizo/Comecrudo Tribe of Texas as part of the tribal consultation required by FERC, and last year the National Park Service noted in official comments that the project site "contains one of the premier prehistoric archeological sites in Cameron County," which "has known burials, [...] and contact period artifacts."[209] These significant sites would be bulldozed during construction.[210] Especially after the recent public outcry around the Dakota Access Pipeline — which **BNP Paribas** directly financed until it sold its stake in the loan — banks have a responsibility to ensure a thorough free, prior, and informed consent process for all impacted Indigenous communities.

Directly adjacent to Texas LNG is the site of an even larger planned terminal, Rio Grande LNG. Another French bank, **Société Générale**, signed on as financial adviser to this project in May 2017.[211] **Société Générale** continues to increase its financing to this destructive sector, and boasts that it has been joint lead arranger for the financing of all LNG projects commissioned in North America.[212] The bank appears to be replacing the project's previously announced advisor, Japanese bank **SMFG**.[213] It is unclear why **SMFG** is no longer involved in the project when it too flaunts its deep support for LNG export in the United States.[214] However, given the social and environmental risks the project entails, it would seem to be a wise move for any prudent bank.

With so many negative impacts from these terminals, public opposition has grown steadily over the past year, led by the grassroots group Save RGV From LNG.[215] In 2015, a Valley school district took the bold move of rejecting a corporate tax handout to Annova LNG — the first time a Texas school district had refused to be paid off in return for a tax abatement for the oil and gas industry.[216] In a state that often favors corporate welfare instead of businesses paying their fair share, this was historic. Last September, the school district did it again, this time denying a handout to the larger Rio Grande LNG terminal.[217]

This resistance is a prime example of how a mix of stakeholders — including the Carrizo/Comecrudo Tribe, local governments, ecotourism workers, endangered species advocates, and climate activists, and NGOs like Les Amis de la Terre France and Rainforest Action Network — is speaking out against the negative impacts of these fracked gas terminals.[218] LNG export terminals already have a high risk of becoming stranded assets, and with such egregious impacts and intense community opposition, these projects pose too much of a reputational risk for any prudent bank to become involved.

PHOTO: CLAIRE DIETRICH

LIQUEFIED NATURAL GAS - LEAGUE TABLE

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS) 2014	2015	2016	TOTAL
1	JPMORGAN CHASE	$762 M	$1.708 B	$1.433 B	$3.903 B
2	HSBC	$812 M	$2.627 B	$440 M	$3.879 B
3	MORGAN STANLEY	$446 M	$2.337 B	$1.041 B	$3.823 B
4	MUFG	$505 M	$1.768 B	$708 M	$2.981 B
5	CREDIT SUISSE	$685 M	$1.718 B	$525 M	$2.928 B
6	BANK OF AMERICA	$567 M	$1.363 B	$736 M	$2.667 B
7	SOCIÉTÉ GÉNÉRALE	$232 M	$1.479 B	$730 M	$2.441 B
8	CITI	$527 M	$941 M	$933 M	$2.401 B
9	SMFG	$344 M	$1.299 B	$752 M	$2.394 B
10	MIZUHO	$396 M	$1.121 B	$721 M	$2.237 B
11	BARCLAYS	$372 M	$853 M	$953 M	$2.177 B
12	SCOTIABANK	$403 M	$1.290 B	$462 M	$2.155 B
13	DEUTSCHE BANK	$550 M	$1.038 B	$560 M	$2.148 B
14	RBC	$232 M	$1.028 B	$661 M	$1.921 B
15	ING	$169 M	$1.176 B	$426 M	$1.771 B
16	GOLDMAN SACHS	$165 M	$961 M	$573 M	$1.700 B
17	ICBC	$85 M	$1.062 B	$517 M	$1.664 B
18	BNP PARIBAS	$638 M	$588 M	$409 M	$1.635 B
19	STANDARD CHARTERED	$232 M	$934 M	$172 M	$1.338 B

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS) 2014	2015	2016	TOTAL
20	CRÉDIT AGRICOLE	$232 M	$420 M	$260 M	$913 M
21	COMMONWEALTH BANK	-	$803 M	$43 M	$846 M
22	SANTANDER	-	$474 M	$202 M	$676 M
23	BANK OF CHINA	$147 M	$271 M	$111 M	$530 M
24	WELLS FARGO	$370 M	$79 M	-	$449 M
25	UBS	$65 M	$171 M	$187 M	$422 M
26	ANZ	-	-	$400 M	$400 M
27	WESTPAC	-	$224 M	$43 M	$267 M
28	BPCE / NATIXIS	$13 M	$145 M	-	$158 M
29	CHINA CONSTRUCTION BANK	$11 M	$86 M	$55 M	$151 M
30	AGRICULTURAL BANK OF CHINA	-	$86 M	$55 M	$141 M
31	BANK OF MONTREAL	-	$137 M	-	$137 M
31	CIBC	-	$137 M	-	$137 M
31	NAB	-	$137 M	-	$137 M
32	RBS	$57 M	$11 M	-	$68 M
33	PNC	$13 M	$9 M	-	$21 M
34	TD	-	-	-	-
34	UNICREDIT	-	-	-	-
TOTAL		$9.028 B	$28.478 B	$14.108 B	$51.614 B

LIQUEFIED NATURAL GAS - GRADE SCALE

Liquefied natural gas terminal construction is incompatible with stabilizing the climate below the Paris Agreement's temperature targets,[219] and banks must put in place policies to protect against future exposure. Grades for LNG export finance policies have been assigned according to an A-through-F scale. Full criteria can be found in Appendix 1, and bank grade explanations can be found online at » RAN.org/bankingonclimatechange.

A LNG EXPORT EXCLUSION

Banks can earn "A" grades (A and A-) by prohibiting financing for LNG export projects as well as for companies engaged in terminal construction or operation.

B LNG EXPORT PHASE-OUT

"B" grades (B+, B, and B-) are for banks that have policies to reduce or phase out financing for companies building or operating LNG export terminals.

C PROJECT-SPECIFIC EXCLUSION

"C" range grades (C+ and C-) are awarded to banks that have policies to restrict or prohibit financing for LNG export projects.

D DUE DILIGENCE

"D" range grades (D+, D, and D-) are awarded to banks that have publicly disclosed due diligence policies covering financing for LNG export projects or terminal operators.

F NO POLICY

Failing grades (F) are assigned to banks that do not have any policies with publicly disclosed due diligence criteria covering LNG export, either on a sector-specific basis or as part of a broader policy framework.

LIQUEFIED NATURAL GAS - GRADE TABLE

COMPANY	GRADE
EUROPE	
BARCLAYS	D-
BNP PARIBAS	F
BPCE/NATIXIS	F
CRÉDIT AGRICOLE	D
CREDIT SUISSE	D-
DEUTSCHE BANK	D-
HSBC	D-
ING	D-
RBS	D-
SANTANDER	D-
SOCIÉTÉ GÉNÉRALE	D-
STANDARD CHARTERED	D-
UBS	D-
UNICREDIT	F

COMPANY	GRADE
UNITED STATES	
BANK OF AMERICA	D-
CITIGROUP	D
GOLDMAN SACHS	D-
JPMORGAN CHASE	D-
MORGAN STANLEY	D-
PNC	D-
WELLS FARGO	D-
CANADA	
BANK OF MONTREAL	D-
CIBC	F
RBC	D-
SCOTIABANK	F
TORONTO-DOMINION BANK	D-

COMPANY	GRADE
JAPAN	
SMBC	F
MUFG	F
MIZUHO	F
CHINA	
AGRICULTURAL BANK OF CHINA	F
BANK OF CHINA	F
CHINA CONSTRUCTION BANK	F
ICBC	F
AUSTRALIA	
ANZ	F
COMMONWEALTH BANK OF AUSTRALIA	F
NAB	F
WESTPAC	F

HUMAN RIGHTS

PHOTO: TOBEN DILWORTH / RAN

Skirting Responsibility

Banks tout the positive contributions to society that they finance — local businesses, renewable energy, the arts — while at the same time skirting responsibility for the negative human rights impacts that they fund.

In January 2017, the Thun Group of Banks — **Barclays, BBVA, BNP Paribas, Credit Suisse, Deutsche Bank, ING, JPMorgan Chase, Royal Bank of Scotland (RBS), Standard Chartered, UBS,** and **UniCredit** — published a discussion paper on how the U.N. Guiding Principles on Business and Human Rights should be applied to banks.[220] The Guiding Principles set the standards for corporations on human rights, building on the "protect, respect, and remedy" framework.[221] The Thun Group's interpretation stated that banks are *not* responsible for addressing adverse human rights impacts caused by the clients they finance, but rather only need to address what happens because of the bank's "own activities," like its hiring practices.[222] It's the same line banks have often used with regard to their fossil fuel finance, where they take responsibility for lowering the climate-changing emissions they produce with their own operations (by making their buildings more energy efficient, for instance) but shirk responsibility for the emissions they produce with their money (by financing dirty energy).[223]

The Thun Group's brazen rejection of responsibility for human rights impacts was immediately criticized by NGOs, academics, and even the U.N.'s own Working Group on Business and Human Rights.[224] In its critique, the Working Group posed a hypothetical that happens all too often — what if a bank "provides a loan for an infrastructure project that leads to widespread displacement of local communities, but for which no safeguards or mitigations were in place"?[225] Moreover, what if a bank provides general corporate financing to a company whose business relies on abusing human rights, or threatens the right of local communities to clean water or clean air? It seems to be clear to everyone but the banks themselves that it costs money to abuse human rights — money that traces right back to big banks.

Respecting Indigenous Rights

In 2016 through early 2017, the movement against the Dakota Access Pipeline (DAPL) brought to the fore banks' appalling gaps in respecting Indigenous Peoples' rights. The importance of land, sacred sites, and place-based resources to Indigenous Peoples is widely recognized in international frameworks such as the United Nations Declaration on the Rights of Indigenous Peoples, as well as by standard-setting financial institutions such as the International Finance Corporation.[226] These standards enshrine the right of Indigenous communities to give or withhold their free, prior, and informed consent (FPIC), for development that impacts their land, resources, or cultural heritage in a variety of circumstances — and the requirement that companies secure that consent before proceeding with development projects.

The banks that lent money for the construction of DAPL engaged a law firm to make recommendations on engagement with Indigenous Peoples going forward.[227] Only a summary of the report was made public, and though one of its purposes was to "advise the lenders to the Dakota Access Pipeline," as **Citi** put it, the public summary notably does not include any recommendations for the banks, but rather only for pipeline companies.[228] Moreover, the process was entirely nontransparent and ironically non-inclusive, given it was purportedly intended to provide recommendations for consultative processes.[229]

Policy Matters

Many European and U.S. banks, such as **Crédit Agricole, Deutsche Bank,** and **Bank of America**, expect or require that their clients secure FPIC, but often without clarifying publicly their expectations and requirements.[230] Others such as **RBS** and **Morgan Stanley** merely review consultation processes,[231] while some banks like **Barclays, Bank of Montreal,** and **BPCE/ Natixis** have no standalone language on FPIC whatsoever.[232] This lack of policy protection of FPIC remains not only a threat to Indigenous sovereignty, but also a reputational and financial risk to the banks.

By and large, bank human rights policies and processes do not align with the U.N. Guiding Principles on Business and Human Rights — according to a BankTrack analysis, 35 of 45 major international banks are less than halfway toward full implementation of the Guiding Principles.[233]

There has been some recent movement: **ANZ** and **National Australia Bank (NAB)**, two of the four Australian megabanks, published human rights policies in the fall of 2016. **PNC Financial** refined its human rights due diligence policy in mid-2016, though the details of the process are not publicly available. **Citi** — whose policy makes it a frontrunner among its peers, but whose practices have proven otherwise[234] — has said that it will be strengthening its human rights due diligence process in 2017.[235] With increased focus on banks' protection of human rights — or lack thereof — new policies need to be implemented, existing policies need to be strengthened to formalize commitments to FPIC worldwide, and banks need to show they are truly implementing these policies by avoiding finance for projects that trample on people's rights.

CASE STUDY: DAKOTA ACCESS PIPELINE — FUNDING THE BLACK SNAKE

Energy Transfer Partners, the main company behind the Dakota Access Pipeline (DAPL), likely thought that building DAPL would be business as usual — yet another pipeline to transport dirty fossil fuels, dug through the land of marginalized communities whose complaints wouldn't be heard. The powerful opposition to the pipeline, however, along with the extreme human rights abuses committed to build it, made this fight one that redefined Indigenous and environmental opposition to fossil fuel infrastructure.

The 1,172 mile, $3.8 billion pipeline was designed to bring Bakken crude from North Dakota to Illinois. Originally, a pipeline route was considered that would have brought the oil across the Missouri River north of Bismarck, North Dakota — a city that is 92 percent white.[236] That route was rejected early on, in part over concerns for the city's water supply.[237] Reinforcing a legacy of environmental racism, the pipeline was routed within a half mile of the Standing Rock Sioux Tribe's reservation, destroying sacred sites and threatening the Tribe's water sources.[238]

The U.N. Declaration on the Rights of Indigenous Peoples requires companies and governments to obtain free, prior, and informed consent from Indigenous Peoples before doing business on their land.[239] The Standing Rock Sioux Tribe did not consent to this pipeline, and even as the tribe filed a lawsuit on July 27, 2016, construction began on what came to be known as the "Black Snake."[240] Six days after the Standing Rock Sioux Tribe formally made their complaint, on August 2, 2016, 17 banks signed a $2.5 billion loan to build DAPL.[241] Moreover, the tribe had been voicing opposition since 2014, though the lawsuit was not filed until July 2016 — a full two years before the loan was signed.[242]

The project loan was led by **Citi, MUFG, Mizuho,** and **TD**.[243] Other banks on the loan were **BayernLB, BBVA, BNP Paribas, BPCE/Natixis, Crédit Agricole, DNB, Industrial and Commercial Bank of China (ICBC), ING, Intesa Sanpaolo, SMBC, Société Générale, SunTrust**, and **Wells Fargo**.[244] Of course, the companies behind the project — Energy Transfer, Phillips 66, Sunoco Logistics Partners, Enbridge, and Marathon Petroleum — also get general financing from a long list of banks, some of whom participated in the project loan and some of whom, like **Bank of America, JPMorgan Chase,** and **Barclays**, did not.[245]

Thirteen of the banks on the original DAPL project loan are signatories to the Equator Principles, an environmental and social risk management framework developed by banks, for banks.[246] Under these guidelines, a bank's project finance clients must secure the free, prior, and informed consent of affected Indigenous Peoples in developing countries, but not in countries like the United States where they assume these rights to be protected by national laws. The Dakota Access Pipeline was, unfortunately, a painful reminder that U.S. infrastructure permitting processes can fail to live up to international standards for Indigenous rights.

After financing was secured, the human rights abuses committed in the name of DAPL continued, as Energy Transfer Partners grew hostile to water protectors opposing the pipeline in camps along the proposed route. Militarized state law enforcement personnel intimidated and arrested hundreds of people.[247] Protesters and observers were horrified when Energy Transfer Partners hired private security forces that unleashed attack dogs and pepper spray on people gathered in peaceful protest.[248]

The banks that loaned to DAPL ended up in a higher-risk situation than they bargained for, which many regretted,[249] after factoring in harm to their reputations, as well as the loss of over $81 million in individual accounts and $4.3 billion from cities.[250] **Citi** and **Wells Fargo** stuck with the line that the project loan had been signed and none of the abuses associated with the project permitted them to break their contractual obligation to disburse the funds.[251] This points to an egregious lack of human rights protection in loan agreements — if a bank cannot pull its funding because its client bulldozes Indigenous sacred sites, or unleashes attack dogs on non-violent protesters, then when can it?

By April 2017, after Indigenous groups and their allies demanded that banks drop the loan,[252] **BNP Paribas, DNB,** and **ING** sold their shares in the DAPL project finance loan.[253] Of course, for every bank that sells its shares, someone else buys them — so though this move doesn't affect Energy Transfer's ability to build the pipeline, it makes a statement that banks were dissatisfied with how the company conducted its business. **ING** has gone the farthest, by blacklisting Energy Transfer Partners from future financing and publicly expressing "disagreement with the lack of constructiveness and respect shown by the companies."[254]

The key opportunity and takeaway from DAPL for financial institutions is that if the banks are serious about protecting Indigenous human rights, they must require clients to obtain free, prior, and informed consent from impacted Indigenous communities wherever they are affected. The Equator Principles must be revised so that the same standards are applied in all countries if they are to support this goal.

PHOTOS: MARIELLE SUMERGIDO ; TOBEN DILWORTH / RAN

CONCLUSION

The grades in this report card show similar patterns as last year's: many European and U.S. banks have made progress putting in place policies to wean themselves off of coal mining, while banks around the world are failing to adopt policies around extreme oil and gas. Moreover, coal power remains a sticking point — while some banks have policies addressing coal power plant financing, their indirect financing for coal power at top companies is on an upward trend. This suggests that policies focused on project finance miss where the real activity is happening — through corporate finance.

After the DAPL fight, there is ever more attention focused on the finance that greases the wheels for human rights abuses and extreme fossil fuel extraction and infrastructure. In the first full year since the Paris Agreement was signed, big banks have lowered their financing of extreme fossil fuels. In a carbon-constrained world, there is no room for backsliding — big banks must continue, more rapidly, to stop using finance to turn up the planet's thermostat.

PHOTOS: CLAIRE DIETRICH

PHOTO: BRANDEN BARBER / RAN

APPENDIX 1: FULL GRADING CRITERIA

EXTREME OIL - FINANCE

A **Extreme oil exclusion and public policy leadership:** Prohibits all financing[255] for tar sands, Arctic oil, and ultra-deepwater oil at both the company and project level and has made climate change mitigation a public policy advocacy priority

A- **Extreme oil exclusion:** Prohibits all financing for tar sands, Arctic oil, and ultra-deepwater oil at both the company and project level

B+ **Extreme oil phase-out commitment with reporting:** Commits to phase out financing for all companies with current or planned tar sands, Arctic oil, and ultra-deepwater oil operations, with public reporting on implementation

B **Partial extreme oil phase-out commitment:** Commits to phase out financing for companies with current or planned operations involving either tar sands, Arctic oil, or ultra-deepwater oil operations, but not all three categories

B- **Extreme oil reduction commitment:** Commits to reduce financing for companies with current or planned operations involving either tar sands, Arctic oil, or ultra-deepwater oil operations, but not all three categories

C+ **Extreme oil project-specific financing exclusion:** Prohibits financing for all projects involving tar sands, Arctic oil, and ultra-deepwater oil

C **Partial extreme oil project-specific financing exclusion:** Prohibits financing for projects involving tar sands, Arctic oil, or ultra-deepwater oil, but not all three categories

C- **Extreme oil project-specific phase-out:** Commits to phase out financing for projects involving tar sands, Arctic oil, or ultra-deepwater oil

D+ **Extreme oil due diligence commitment:** Has an enhanced due diligence process for transactions related to tar sands, Arctic oil, and ultra-deepwater oil operations with publicly disclosed due diligence criteria

D **Partial due diligence commitment:** Has an enhanced due diligence process for transactions related to either tar sands, Arctic oil, or ultra-deepwater oil operations (with publicly disclosed due diligence criteria), but not for all three categories

D- **General due diligence commitment:** Has a general environmental and social due diligence process for corporate financing transactions, with publicly disclosed due diligence criteria

F No policy or no publicly disclosed due diligence criteria

COAL MINING - FINANCE

A **Coal mining exclusion and public policy leadership:** Prohibits all financing for all coal producers [256] and coal mines *and* has made climate change mitigation a public policy advocacy priority

A- **Coal mining exclusion:** Prohibits all financing for all coal producers and coal mines

B+ **Coal mining phase-out commitment with reporting:** Commits to phase out all financing for coal producers with a clear timeline and public reporting on implementation, *and* prohibits financing for new coal mines

B **Partial commitment to reduce financing for coal mining with reporting:** Commits to reduce one or more types of financing (e.g. lending or underwriting) for and/or exclude some coal producers, with public reporting on implementation *and* prohibits financing for new coal mines

B- **Partial commitment to reduce financing for coal mining without reporting:** Commits to reduce one or more types of financing (e.g. lending or underwriting) for and/or exclude some coal producers (at a minimum, for all companies that derive the majority of their revenue from coal mining)

C+ **MTR exclusion or prohibition on financing for new coal mines:** Prohibits all financing for all producers of MTR coal *or* prohibits financing for new coal mines

C **MTR phase-out with reporting:** Commits to phase out all financing for all producers of MTR coal and reports on implementation

C- **Partial prohibition of coal mine financing, or MTR phase-out without reporting:** Commits to phase out all financing for producers of MTR coal, or sets a minimum efficiency threshold for new coal mine financing (e.g. lending or underwriting) for some, but not all MTR producers, *or* commits to partially prohibit new coal mine financing.

D **Coal mining due diligence commitment:** Has an enhanced due diligence process for coal mining transactions, with publicly disclosed due diligence criteria

D- **General due diligence commitment:** Has a general environmental and social due diligence process for corporate financing transactions, with publicly disclosed due diligence criteria

F No policy or no publicly disclosed due diligence criteria

Full explanations for all bank grades are available online at RAN.org/bankingonclimatechange.

COAL POWER - FINANCE

A **Coal power exclusion and public policy leadership:** Prohibits all financing for new coal plants or coal power producers [257] *and* has made climate change mitigation a public policy advocacy priority

A- **Coal power exclusion:** Prohibits all financing for new coal plants or coal power producers

B+ **Coal power sector phase-out commitment with reporting:** Commits to phase out all financing for coal power producers with clear timeline and public reporting on implementation *and* prohibits financing for new coal plants

B **Partial commitment to reduce financing for coal power sector with reporting:** Commits to reduce one or more forms of financing (e.g. lending or underwriting) for coal power producers, and/or commits to exclude some coal power producers with public reporting on implementation *and* in addition to the company-level commitment, prohibits financing for new coal plants

B- **Partial commitment to reduce financing for coal power sector without reporting:** Commits to reduce one or more forms of financing (e.g. lending or underwriting) for coal power producers, and/or commits to exclude some coal power producers

C+ **Global individual coal power plant financing exclusion:** Prohibits financing for all new coal power plants, globally

C **Partial individual coal power plant financing exclusion:** Prohibits financing for all new coal power plants in some geographic regions, but not others

C- **Coal plant efficiency threshold:** Sets a minimum efficiency or technology threshold for new power plant financing

D **Electric power due diligence commitment:** Has an enhanced due diligence process for electric power sector transactions, with publicly disclosed due diligence criteria

D- **General due diligence commitment:** Has a general environmental and social due diligence process for corporate financing transactions, with publicly disclosed due diligence criteria

F No policy or no publicly disclosed due diligence criteria

LNG EXPORT INFRASTRUCTURE - FINANCE

A **LNG export infrastructure exclusion and public policy leadership:** Prohibits financing for LNG export terminal construction or for owners of current or planned LNG export terminals and has made climate change mitigation a public policy advocacy priority

A- **LNG export infrastructure exclusion:** Prohibits financing for LNG export terminal construction or for operators of current or planned LNG export operations

B+ **LNG export infrastructure phase-out commitment with reporting:** Commits to phase out financing for all companies with current or planned LNG export operations, with public reporting on implementation

B **LNG export infrastructure reduction commitment with reporting:** Commits to reduce financing for all companies with current or planned LNG export operations, with public reporting on implementation

B- **LNG export infrastructure reduction commitment without reporting:** Commits to reduce financing for all companies with current or planned LNG export operations

C+ **LNG export infrastructure project-specific financing exclusion:** Prohibits financing for the construction or expansion of LNG export terminals

C- **LNG export infrastructure project-specific financing phase-out:** Commits to phase out financing for the construction or expansion of LNG export terminals

D **LNG due diligence commitment:** Has an enhanced due diligence process for LNG export-related financing transactions, with publicly disclosed due diligence criteria

D- **General due diligence commitment:** Has a general environmental and social due diligence process for corporate financing transactions, with publicly disclosed due diligence criteria

F No policy or no publicly disclosed due diligence criteria

APPENDIX 2: COMPANIES INCLUDED

TOP TAR SANDS COMPANIES - BY RESERVES

RANK	COMPANY	RESERVES (IN MILLIONS OF BARRELS)	RANK	COMPANY	COMPANY (IN MILLIONS OF BARRELS)
1	SUNCOR ENERGY	10,935.35	17	MARATHON OIL	1,232.01
2	CANADIAN NATURAL RESOURCES (CNRL)	6,867.53	18	DEVON ENERGY	1,206.83
3	CENOVUS ENERGY	5,613.97	19	HUSKY ENERGY	1,110.44
4	CONOCOPHILLIPS	5,520.38	20	CHEVRON	1,088.93
5	EXXONMOBIL	4,844.35	21	PTTEP	1,020.41
6	SHELL	3,670.18	22	VALUE CREATION	648.54
7	PETROCHINA	3,225.71	23	BLACK PEARL RESOURCES	636.55
8	ATHABASCA OIL CORPORATION	3,162.50	24	PARAMOUNT RESOURCES	604.65
9	MEG ENERGY	2,973.10	25	TECK RESOURCES LIMITED	599.10
10	OSUM	2,776.40	26	CONNACHER OIL AND GAS	556.63
11	TOTAL	2,575.16	27	SOUTHERN PACIFIC RESOURCE	505.52
12	LARICINA ENERGY	2,293.82	28	PENGROWTH ENERGY CORPORATION	297.47
13	SUNSHINE OILSANDS	2,048.86	29	GRIZZLY OIL SANDS	284.86
14	IMPERIAL OIL	1,694.29	30	KNOC	259.41
15	CNOOC	1,655.91	31	JAPEX	258.13
16	BP	1,271.27	32	JX NIPPON OIL AND GAS	207.54

Data from Rystad Energy AS, with reserves data as of the end of 2016. **COMPILED BY**: OIL CHANGE INTERNATIONAL

TOP ARCTIC OIL COMPANIES - BY RESERVES

RANK	COMPANY	RESERVES (IN MILLIONS OF BARRELS)	RANK	COMPANY	COMPANY (IN MILLIONS OF BARRELS)
1	GAZPROM	3,954.45	11	ENGIE	233.06
2	STATOIL	2,272.47	12	AKER BP	225.78
3	EXXONMOBIL	713.22	13	CONOCOPHILLIPS	208.11
4	SUNCOR ENERGY	590.80	14	IDEMITSU	205.16
5	CHEVRON	525.82	15	CAELUS ENERGY	194.71
6	ENI	486.44	16	OMV	175.12
7	HUSKY ENERGY	430.07	17	BP	157.21
8	LUNDIN PETROLEUM	421.76	18	WINTERSHALL	117.96
9	TOTAL	340.30	19	HILCORP ENERGY	100.76
10	DEA (LETTERONE)	260.97			

APPENDIX 2: (CONTINUED)

TOP ULTRA-DEEP OIL COMPANIES - BY RESERVES

RANK	COMPANY	RESERVES (IN MILLIONS OF BARRELS)	RANK	COMPANY	COMPANY (IN MILLIONS OF BARRELS)
1	PETROBRAS	20,500.62	14	PETROCHINA	1,448.10
2	SHELL	7,914.64	15	BHP BILLITON	1,126.01
3	BP	5,860.92	16	REPSOL	997.19
4	EXXONMOBIL	5,106.62	17	OPHIR ENERGY	844.85
5	TOTAL	4,300.19	18	KOSMOS ENERGY	763.20
6	STATOIL	3,739.90	19	ONGC	759.57
7	ENI	3,113.87	20	COBALT INTERNATIONAL ENERGY	750.96
8	ANADARKO	2,445.57	21	KOREA GAS	724.11
9	CNOOC	2,285.43	22	MITSUI	677.70
10	NOBLE ENERGY	2,185.27	23	SINOPEC	666.43
11	DELEK GROUP	2,174.57	24	CNPC	665.00
12	GALP ENERGIA SA	2,034.99	25	HESS	664.25
13	CHEVRON	1,543.12	26	RATIO OIL EXPLORATION	546.71

Data from Rystad Energy AS, with reserves data as of the end of 2016. **COMPILED BY**: OIL CHANGE INTERNATIONAL

Production data is from the most recent annual report available, company websites, or media sources, researched for the forthcoming Global Coal Exit List. The company list was derived based on figures from 2015; production figures as recent as 2016 are published here if available. **COMPILED BY**:URGEWALD E.V.

TOP COAL MINING COMPANIES - BY PRODUCTION

RANK	COMPANY	COUNTRY	ANNUAL COAL PRODUCTION (MILLION METRIC TONS)	RANK	COMPANY	COUNTRY	ANNUAL COAL PRODUCTION (MILLION METRIC TONS)
1	COAL INDIA	INDIA	538.8	21	YANGQUAN COAL INDUSTRY GROUP	CHINA	77.0
2	SHENHUA GROUP	CHINA	433.3	22	SHANXI LU'AN MINING GROUP	CHINA	74.3
3	DATONG COAL MINING GROUP	CHINA	171.6	23	STATE POWER INVESTMENT CORPORATION	CHINA	73.7
4	CHINA NATIONAL COAL GROUP (CHINACOAL)	CHINA	167.0	24	SHANXI JINCHENG ANTHRACITE MINING GROUP CO.,LTD.	CHINA	70.4
5	PEABODY ENERGY	USA	159.3	25	JINNENG GROUP	CHINA	70.4
6	SHANDONG ENERGY	CHINA	133.7	26	HUAINAN MINING INDUSTRY GROUP	CHINA	70.0
7	SHAANXI COAL AND CHEMICAL INDUSTRY	CHINA	126.0	27	SINGARENI COLLIERIES COMPANY	INDIA	61.3
8	GLENCORE COAL	UK	124.9	28	MURRAY ENERGY	USA	59.0
9	UNITED TRACTORS	INDONESIA	109.2	29	CHINA GUODIAN	CHINA	58.7
10	YANKUANG GROUP	CHINA	109.0	30	CLOUD PEAK ENERGY	USA	53.0
11	SUEK	RUSSIA	105.4	31	ADARO ENERGY	INDONESIA	52.6
12	SHANXI COKING COAL GROUP	CHINA	105.0	32	EN+ GROUP	RUSSIA	50.6
13	JIZHONG ENERGY	CHINA	101.8	33	HEILONGJIANG LONGMAY MINING HOLDING GROUP	CHINA	47.9
14	HENAN ENERGY AND CHEMICAL INDUSTRY GROUP	CHINA	101.6	34	POLSKA GRUPA ENERGETYCZNA (PGE)	POLAND	47.7
15	ANGLOAMERICAN	UK	94.8	35	WESTMORELAND COAL COMPANY	USA	47.5
16	ARCH COAL	USA	93.3	36	UK KUZBASSRAZREZUGOL OAO (KRU)	RUSSIA	44.3
17	KAILUAN GROUP	CHINA	91.7	37	PUBLIC POWER CORPORATION	GREECE	43.8
18	RWE	GERMANY	90.5	38	HUADIAN COAL INDUSTRY GROUP	CHINA	43.5
19	BUMI RESOURCES	INDONESIA	86.5	39	INNER MONGOLIA YITAI COAL COMPANY	CHINA	39.3
20	BHP BILLITON	AUSTRALIA	77.0	40	NATURAL RESOURCE PARTNERS	USA	27.4

APPENDIX 2: (CONTINUED)

TOP REGIONAL COAL POWER PRODUCERS - BY MEGAWATTS (MW) COAL CAPACITY

AMERICAS		EUROPE, MIDDLE EAST, AFRICA	
COMPANY	MW OF OPERATING COAL CAPACITY	COMPANY	MW OF OPERATING COAL CAPACITY
SOUTHERN COMPANY	**19,141**	ESKOM	**38,548**
DUKE ENERGY	**17,958**	RWE	**20,163**
AMERICAN ELECTRIC POWER (AEP)	**14,318**	ENEL	**16,103**
NRG ENERGY	**13,184**	POLSKA GRUPA ENERGETYCZNA (PGE)	**9,724**
PPL CORPORATION	**11,682**	UNIPER	**9,132**
TENNESSEE VALLEY AUTHORITY	**10,285**	ENERGETICKÝ A PRUMYSLOVÝ HOLDING, A.S. (EPH)	**8,203**
BERKSHIRE HATHAWAY ENERGY	**9,480**	ENGIE	**7,645**
FIRSTENERGY	**9,249**	EZ GROUP	**6,462**
AES CORPORATION	**9,056**	STEAG	**5,437**
XCEL ENERGY	**8,487**	TAURON POLSKA ENERGIA	**4,922**

Data is from the most recent company reporting available (2016 or 2015) as part of the forthcoming Global Coal Exit List. **COMPILED BY**:URGEWALD E.V.

ASIA AND OCEANIA

COMPANY	MW OF OPERATING COAL CAPACITY
CHINA HUANENG GROUP	**117,873**
CHINA GUODIAN CORPORATION	**100,029**
CHINA DATANG CORPORATION	**90,728**
CHINA HUADIAN CORPORATION	**84,790**
STATE POWER INVESTMENT CORPORATION	**64,440**
NTPC	**44,004**
CHINA RESOURCES POWER	**29,746**
KOREA ELECTRIC POWER CORPORATION (KEPCO)	**27,327**
GUANGDONG YUDEAN GROUP	**24,141**
ZHEJIANG PROVINCIAL ENERGY GROUP	**23,010**

APPENDIX 2: (CONTINUED)

TOP LNG EXPORT COMPANIES - BY ATTRIBUTABLE CAPACITY

RANK	COMPANY	ATTRIBUTABLE BILLION CUBIC FEET PER DAY OF PROPOSED OR EXISTING NORTH AMERICAN LNG EXPORT	RANK	COMPANY	ATTRIBUTABLE BILLION CUBIC FEET PER DAY OF PROPOSED OR EXISTING NORTH AMERICAN LNG EXPORT
1	CHENIERE ENERGY	7.74	15	SASAC OF THE STATE COUNCIL	2.79
2	EXXONMOBIL	5.61	16	SHELL	2.75
3	VENTURE GLOBAL LNG	4.21	17	PETROLIAM NASIONAL BHD	2.74
4	CANADA STEWART ENERGY GROUP LTD	4.04	18	ENERGY TRANSFER	2.20
5	TELLURIAN INVESTMENTS	4.00	19	HIRANANDANI DEVELOPERS PVT LTD	2.07
6	WOODSIDE PETROLEUM LTD	3.86	20	VERESEN	2.00
7	STEELHEAD LNG CORP	3.77	21	NEW TIMES ENERGY LTD	1.84
8	ORCA LNG LTD	3.68	22	G2 LNG LLC	1.84
9	SEMPRA ENERGY	3.62	23	FAIRWOOD PENINSULA ENERGY CORPORATION	1.80
10	NEXTDECADE LLC	3.60	24	SOUTHERN CALIFORNIA TELEPHONE COMPANY	1.60
11	FREEPORT-MCMORAN INC	3.22	25	EOS	1.60
12	KITSAULT ENERGY LTD	3.11	26	BARCA	1.60
13	ROCKYVIEW RESOURCES INC	3.02	27	LIQUEFIED NATURAL GAS LTD	1.58
14	FREEPORT LNG DEVELOPMENT LP	2.86			

Data as of March 2017, based on applications to the U.S. Federal Energy Regulatory Commission, U.S. Department of Energy, Canadian National Energy Board, and media reports.

COMPILED BY: RAINFOREST ACTION NETWORK

APPENDIX 3: CALCULATION OF SEGMENT ADJUSTERS

Profundo assessed the segment proportion for selected companies with regards to their operations in extreme oil, coal mining and power, and LNG export. This research used data primarily from Rystad Energy, company annual reports and other publications, and IJGlobal.

Extreme Oil

Segment adjusters for tar sands, ultra-deepwater drilling, and/or Arctic drilling were calculated based on total reserves the company owns in each of the oil categories, as a percentage of the group's total reserves, as reported by Rystad Energy. Group-level segment adjusters were applied to both parent companies and subsidiaries that were found to have activities in the associated extreme oil category: tar sands, ultra-deepwater drilling, and/or Arctic drilling. For subsidiaries for which no link could be found related to the relevant extreme oil categories, 0 percent was applied. In the case where a company is involved in sectors besides oil and gas, the reserves data percentage was applied to the group's oil and gas segment as a percentage of total assets.

Coal Mining

Segment adjusters for coal mining were primarily calculated based on a company's total coal assets, as a percentage of the company's total assets, especially in the case of companies that are only involved in mining or have a segment dedicated to coal mining and production. Where coal assets could not be determined, the adjuster was calculated based on the company's revenue from coal as a percentage of total revenue. When no specific assets or revenues could be determined, an estimation was made based on coal operations out of the total number of various operations. For example, if the company has eight subsidiaries in different sectors, of which six are coal mining subsidiaries, a percentage of 75 percent was applied. In the same case where no assets or revenues could be found, but the company seemed clearly only or primarily involved in coal mining, with no specific indicator for other activities, 100 percent was applied. If a subsidiary was found to not be involved in coal mining, 0 percent was applied.

Coal Power

Segment adjusters for coal power were calculated as coal-fired power capacity as a percentage of the company's total power capacity, based on the concept that generation capacity is most parallel to calculations of a company's adjuster by assets. In the case where a company was involved in activities other than energy generation and distribution, the coal-fired capacity percentage was applied to the electricity generation or power segment of the company as a percentage of total assets. If a subsidiary was found not to be involved in power generation, or not to have any coal-fired power capacity, 0 percent was applied. For subsidiaries that are only involved in transmission of electricity but are part of a group that includes coal generation capacity, the parent company adjuster was applied. If no adjusters could be found for coal capacity or coal power assets, revenues from coal power generation were used as a percentage of total revenues. When no coal power capacity, assets, or revenues could be identified, the segment adjuster was calculated based on thermal capacity or assets, as a percentage of total capacity or assets.

LNG Export

Company segments of LNG export were calculated based on the notion that activities related to LNG are midstream activities that are primarily related to export, including LNG processing. For this reason, segments attributed to LNG export companies included all LNG-related activities at the midstream level. This excludes natural gas production and regasification, which form part of LNG supply chains but includes other parts of the natural gas sector that are unrelated to LNG. The methodology used to calculate LNG segments was primarily based on segment assets, when specific LNG or LNG export segments were reported by the companies themselves. In the case where total LNG assets could be estimated from subsidiaries whose assets in LNG could be identified, these were calculated as a percentage of the group company's total assets. If this was not possible, total capital expenditure of LNG projects was estimated based on data from IJGlobal, a project finance and infrastructure database, and calculated as a percentage of the company's total assets.[258] If no activities could be found in LNG for subsidiaries, 0 percent was applied for the subsidiary. Where no data could be found for 2016 or 2014, the adjuster for 2015 was applied.

» Go to RAN.org/bankingonclimatechange to download the full report, a document explaining the rationale behind each bank policy grade, and a list of LNG export projects in North America.

ENDNOTES

1. All dollar amounts throughout this report are in USD unless otherwise noted. Profundo calculated the segment adjusters that weight financial transactions by their involvement in the given subsector.
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15. See report reviewing public finance to fossil fuels to be released in June 2017 by Oil Change International, Friends of the Earth U.S., Sierra Club, and WWF. Royal Bank of Scotland and the four Chinese banks are majority owned by governments but are included because of the degree to which they function as commercial banks.
16. Data from Rystad Energy AS, compiled by Oil Change International.
17. Oil companies that are majority-owned by governments have not been included in this analysis, so as to focus the analysis on companies that are primarily shareholder-owned.
18. Data compiled by urgewald e.V.
19. Data compiled by urgewald e.V.
20. Data compiled by Rainforest Action Network. Sources: "LNG," U.S. Federal Energy Regulatory Commission, 5 January 2017; "Summary of LNG Export Applications of the Lower 48 States," U.S. Department of Energy, 1 February 2017; "Export and Import Licence Applications," Canada National Energy Board, 14 February 2017; "B.C. LNG Projects," Province of British Columbia, 1 February 2017; "Nova Scotia's LNG Opportunity," Province of Nova Scotia, 1 February 2017.
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   - Derive 30 percent or more of their revenue from coal mining, coal transportation, coal-to-liquids operations, or the production of specialized equipment for the coal mining industry
   - Produce more than 20 million metric tons of coal annually
   - Are expanding any coal mining operations or coal infrastructure projects (e.g. building, expanding, or acquiring new coal mines, coal export terminals, or coal-to-liquids facilities)

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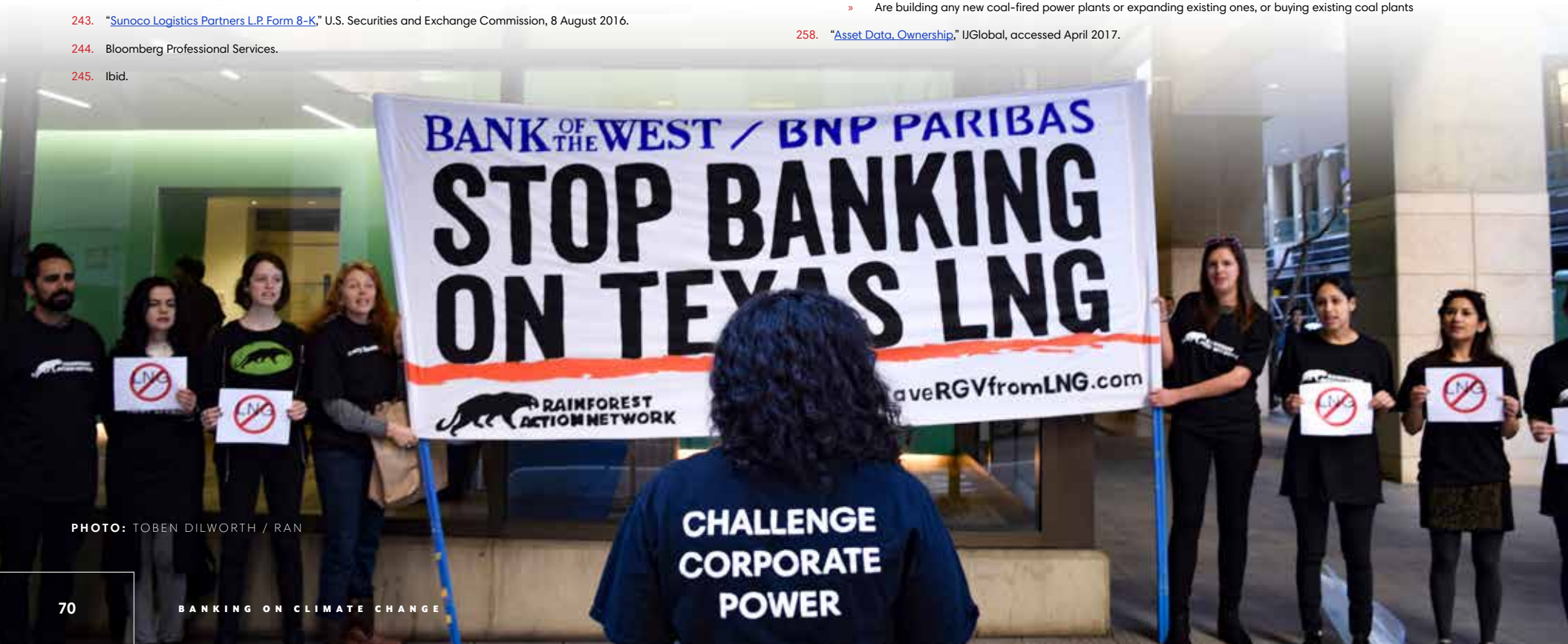

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