



# *Banking on Climate Change*

FOSSIL FUEL FINANCE REPORT CARD **2018**



**BANKTRACK**



**HONOR  
EARTH**

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THIS REPORT IS ENDORSED BY: 350.org, 350 Eugene, 350 Seattle, Amazon Watch, Asia Pacific Forum on Women, Law and Development, Bank Information Center, Bold Alliance, Carrizo/Comecrudo Tribe of Texas, Catskill Mountainkeeper, CEE Bankwatch, Center for Sustainable Economy, CHANGE, Christian Aid, Citizens Against LNG, Clean Water Action, Divest, Invest, Protect, DivestInvest, Earthworks, FairFin, Foundation for GAIA, Friends of the Earth Scotland, Friends of the Earth U.S., Fundacja "Rozwoj TAK Odkrywki NIE" (Foundation Development YES - Open-Pit Mines NO), Greenpeace Japan, Greenpeace USA, Hair on Fire Oregon, Indigenous Climate Action, Indigenous Peoples Law and Policy Program, Les Amis de la Terre France, Market Forces, Mazaska Talks, MN350, People & Planet, Philippine Movement for Climate Justice, Pipeline Awareness Southern Oregon, RAVEN (Respecting Aboriginal Values & Environmental Needs), Re:Common, Rogue Climate, Rogue Riverkeeper, Save RGV from LNG, Stand.earth, SumOfUs, Treaty Alliance Against Tar Sands Expansion, UK Tar Sands Network, Union of British Columbia Indian Chiefs, urgewald, Waterkeeper Alliance, We Are Cove Point, WECAN, West Coast Environmental Law, Western Environmental Law Center

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# EXECUTIVE SUMMARY

## *Banking on Climate Change 2018*

This ninth annual fossil fuel finance report card grades banks on their policy commitments regarding extreme fossil fuel financing and calculates their financing for these fuels from 2015 to 2017. The report also assesses the shortcomings of the Equator Principles for ensuring banks respect human rights, and Indigenous rights in particular.

The report assesses 36 private banks from Australia, Canada, China, Europe, Japan, and the United States, with policies from additional banks in these countries and Singapore included for comparison. As in previous editions of the report card, extreme fossil fuels refer to extreme oil (tar sands, Arctic, and ultra-deepwater oil), liquefied natural gas (LNG) export, coal mining, and coal power. The report card calculates how much banks have financed the top 30 companies in each of these subsectors (in addition to six tar sands pipeline companies) over the past three years. Lending and underwriting amounts are weighted based on the fossil fuel company's activities in a given subsector.

It is environmentally, reputationally, and often financially risky for banks to back these fossil fuel projects and companies. More and more, the public is tying the impacts of fossil fuels to the financial institutions backing the sector. The authoring organizations of this report — BankTrack, Honor the Earth, Indigenous Environmental Network, Oil Change International, Rainforest Action Network, and the Sierra Club — demand that banks end financing for extreme fossil fuels, and all expansion of the fossil fuel industry, while ensuring that their financing does not contribute to human rights abuses.

## *Findings*

Financing for extreme fossil fuels overall went from \$126 billion in 2015, to \$104 billion in 2016, then up to \$115 billion in 2017. 2016, the first year after the adoption of the Paris Climate Agreement, was a year of progress. 2017 was a year of backsliding.

- » The single biggest driver of the overall increase in extreme fossil fuel financing came from the tar sands sector, where financing grew by 111 percent from 2016 to 2017. Tar sands financing totaled \$98 billion and was led by **RBC, TD,** and **JPMorgan Chase**.
- » Banks financed Arctic oil with \$5 billion from 2015 to 2017, led by **BNP Paribas, Deutsche Bank,** and **CIBC**. Financing was cut nearly in half over the three years.
- » Financing for ultra-deepwater oil totaled \$52 billion, led by **JPMorgan Chase, HSBC,** and **Bank of America**.
- » Banks financed \$45 billion for LNG activities of companies involved with enormous LNG export terminals in North America, though the financing is on a hopeful downward trend. **Morgan Stanley, Société Générale,** and **MUFG** are the top bankers of this false solution to the climate crisis.
- » After dropping post-Paris Agreement, coal mining financing has leveled off globally. But outside of China, coal mining financing more than doubled over the past year. Of the \$52 billion poured into coal mining over the past three years, **China Construction Bank** and **Bank of China** are at the top of the league table, with **Goldman Sachs** and **Deutsche Bank** as the biggest Western bankers of coal mining.
- » Globally, coal power financing has stagnated over the past three years, though it remains one of the more highly

funded sectors at \$94 billion from 2015 to 2017. **ICBC, China Construction Bank,** and the other Chinese banks are the biggest backers of coal power, followed by **MUFG** and **JPMorgan Chase**.

The policy assessment shows that no bank has yet truly aligned its business plan with the Paris Climate Agreement, whose temperature goals require banks to cease financing expansion of the fossil fuel sector.<sup>1</sup> Banks also must end their support for extreme fossil fuels. French bank **BNP Paribas** has the best grades on average, with restrictions for not just coal financing, but for some parts of oil and gas as well. The lack of comprehensive policies from all banks on extreme fossil fuels means that last year's increase in financing could continue and even accelerate in the years to come.

### *Bank name acronyms used in this report:*

<b>ANZ:</b>	Australia and New Zealand Banking Group
<b>CIBC:</b>	Canadian Imperial Bank of Commerce
<b>DBS:</b>	Development Bank of Singapore
<b>ICBC:</b>	Industrial and Commercial Bank of China
<b>MUFG:</b>	Mitsubishi UFJ Financial Group (Bank of Tokyo-Mitsubishi UFJ)
<b>NAB:</b>	National Australia Bank
<b>OCBC:</b>	Oversea-Chinese Banking Corporation
<b>RBC:</b>	Royal Bank of Canada
<b>RBS:</b>	Royal Bank of Scotland
<b>SMFG:</b>	Sumitomo Mitsui Financial Group (Sumitomo Mitsui Banking Corporation)
<b>TD:</b>	Toronto-Dominion Bank
<b>UOB:</b>	United Overseas Bank

# INTRODUCTION - *The Beginning of the End*

2017 may go down in history as the year when it first became clear that the fossil fuel era was finally starting to sputter to an end. The cost of new solar and wind power started to fall below the price of new coal and gas plants in a growing number of regions.<sup>2</sup> The CEO of NextEra Energy, one of the largest electricity producers in the US, now predicts that “early in the next decade” — just a few years from now — power will be cheaper from unsubsidized new wind and solar plants in the US than from existing coal and nuclear plants.<sup>3</sup> It’s still far from game over for the fossil fuel industry, but the game has drastically changed.

In the “old days” of early 2017, the argument could still legitimately be made that yes, intermittent renewables are getting cheaper, but they are still intermittent – solar output crashes when the clouds roll in, and wind turbines are just sleek sculptures on a calm day. Long term energy storage and large scale battery storage were touted as the missing link. But the commissioning of a 100-megawatt grid-connected battery in South Australia in late November 2017, only 100 days after it started construction, was a stunning illustration that large-scale battery storage is now economically and technically feasible.<sup>4</sup>

On the transportation front, China, India, the United Kingdom, France, and California all announced efforts to accelerate the adoption of electric cars and phase out internal combustion engines.<sup>5</sup> These efforts have led analysts to bring forward their projections for the date when global oil consumption peaks and then starts its permanent decline.<sup>6</sup> In July 2017, **Goldman Sachs** forecast that global oil demand could peak as early

as 2025.<sup>7</sup> While oil company scenarios are unsurprisingly still mostly in denial about the likely speed of the energy transition, even ExxonMobil admitted in early 2018 that the Paris Agreement meant that oil consumption could easily drop by 20 percent between 2016 and 2040 — and might even be cut in half.<sup>8</sup>

## *Tightening the Financial Screws*

While these technical and economic developments are hugely significant for the *demand* side of the clean transition equation, developments in 2017 that will constrain financing for dirty energy *supply* were equally game-changing. Most fossil fuel companies don’t have the billions in cash it takes to reach, produce, and transport fossil fuels without the support of big banks. Banks are central actors in how this transition will play out.

In June, Dutch bank **ING** clarified an existing tar sands policy by ruling out project finance for tar sands production and transport, explicitly excluding pipelines such as Keystone XL.<sup>9</sup> Later in the year the bank announced it would phase out lending to any utility with more than 5 percent of its power coming from coal.<sup>10</sup> In October, French bank **BNP Paribas** made an even more ambitious commitment to move away from extreme oil and gas financing (see page 23).

Two months later at the One Planet Summit in Paris, the trickle of financial institutions restricting their finance for fossil fuels grew into a fast-flowing stream. The World Bank announced it

would no longer finance oil and gas extraction after 2019.<sup>11</sup> French insurance giant AXA landed a huge blow to the fossil fuel industry with a commitment to cease insuring tar sands production and pipelines and new coal mines and power plants. AXA will also divest nearly \$4.5 billion from tar sands and coal companies.<sup>12</sup> At the same summit, other major French banks announced further restrictions on their support for tar sands.

The progress made in Paris rapidly crossed the oceans. Before the end of 2017 the governor of New York promised to cease state pension funds’ investments in entities “with significant fossil-fuel activities.” Then in January 2018, Mayor Bill de Blasio held a press conference in a community center that had been flooded by Hurricane Sandy, and announced that New York City pension funds’ existing partial divestment from coal would be extended with a target to divest their \$5 billion in holdings in a range of fossil fuel companies.<sup>13</sup>

In February 2018, the University of Edinburgh announced that its endowment — the third biggest educational endowment in the U.K. — would dump its stock in oil and gas companies. The endowment had already divested from coal and tar sands — as have the other two biggest university endowments, for Oxford and Cambridge.<sup>14</sup> The University of Edinburgh has not been the only investor to withdraw from the worst of the fossil fuels and then, under continued activist pressure, and presumably because they realize that getting out of fossils has not caused them any significant financial harm, withdraw from the whole fossil fuel sector.

## ***Stuck in the Tar Sands***

However, all this positive technological and financial sector news over the past year is not reflected in the top-line numbers on bank funding in this report card. On the contrary, the \$115 billion in bank support for the largest extreme fossil fuel companies in 2017 is 11 percent higher than in 2016.<sup>15</sup> But a closer look at the data reveals that this uptick is entirely due to a whopping 111 percent increase in bank lending and underwriting to tar sands extraction and pipeline companies and projects in the past year. Strip out the tar sands numbers, and bank support for the extreme fossil sectors continued its rapid decline, dropping 17 percent over the past year to \$68 billion.

Banks did not suddenly decide in 2017 that tar sands oil is a great long-term prospect. Rather, the increase in funding was in large part to finance the purchase by pure-play Canadian tar sands companies of the tar sands reserves of the oil majors.<sup>16</sup> Companies including Shell, ConocoPhillips and Statoil offloaded more than \$23 billion in Canadian assets in 2017, in order to focus on lower cost reserves elsewhere.<sup>17</sup> Another factor driving up the tar sands numbers for the biggest global banks in 2017 was \$3 billion for Kinder Morgan toward the cost of the highly disputed Trans Mountain pipeline from Alberta to the British Columbia coast.

The massive hike in bank support for tar sands in 2017 — to nearly \$47 billion — led this sector to overtake coal power, the best funded of the extreme fossil sectors in 2016. Overall support for coal power has stayed just about stagnant in the

last three years. And yet, though the Chinese banks are the biggest funders of coal power, the data show an increase in non-Chinese coal finance over the past three years. This continued support comes despite numerous banks adopting policies that limit their coal project financing, because these policies fall short of restricting coal power financing in what are increasingly its most common geographies (developing countries) and forms (general corporate finance).

Coal mining saw a small increase in bank support in 2017 (up 5 percent). However this came after a sharp 38% drop between 2015 and 2016. This drop is presumably because many banks adopted policies restricting support for coal mining around the time of the Paris climate conference. In 2017, two thirds of all support for coal mining came from the four big Chinese banks — and yet it is the Western banks whose coal mining financing trend shows a dangerous resurgence upward.

Bank support for liquefied natural gas (LNG) terminals in North America has fallen 62 percent since 2015 — far more than for any other sector over the last two years. The fracking boom over the past decade led to a rush of dollars being spent on LNG facilities to export surplus natural gas from the United States. However, other countries, especially Australia and Qatar, also spent big on LNG facilities, so the LNG capital investment boom has been followed by a bust as the world now has surplus LNG production facilities.<sup>18</sup> Whether this is a permanent bust or a temporary setback will be seen in the coming years, as the fate of the more than 50 proposed North American LNG export terminals is determined and global banks decide whether or not to support these stranded assets in the making.<sup>19</sup>

## ***“When,” Not “If”***

The Paris Climate Agreement, for which many global banks have declared their support, sets an ambition of keeping global warming to “well below 2 degrees Celsius above pre-industrial levels,” with the aim of limiting warming to 1.5 degrees Celsius.<sup>20</sup> The U.N. Intergovernmental Panel on Climate Change (IPCC) will publish a report in September 2018 summarizing the implications of the Paris Agreement’s more ambitious goal.<sup>21</sup> A leaked draft of the report is, to say the least, sobering. The world has already warmed by a degree, and another half degree means much more disruption, including “fundamental changes in ocean chemistry” from which it may take many millennia to recover, as well as floods, droughts, deadly heat waves, food shortages, migration, and conflicts. Two degrees will of course be much worse. Moreover, the IPCC’s draft report stresses that keeping below two degrees is a gargantuan task, even with “rapid and deep” reductions in greenhouse gas emissions.<sup>22</sup>

The game-changing developments in the energy sector in 2017 affirm that the question is not if, but when the fossil fuel sector goes into terminal decline. But the date of the “when” has existential consequences for people, societies and ultimately much of life on earth. While 2017 saw much encouraging progress on clean energy, it also saw a terrifying escalation of hurricanes, fires, and floods. These offer stark evidence of just how much is at stake and just how ethically unacceptable it is for banks to keep funding the fossil fuel industry’s expansion.



# EXTREME FOSSIL FUELS - League Table

From 2015 to 2017, the 36 banks analyzed in this report financed tar sands oil, Arctic oil, ultra-deepwater oil, LNG, coal mining, and coal-fired power at top companies to the tune of \$345 billion. The following sections of this report show league tables of bank financing for each of these particular fossil fuels. See the methodology section for more detail on the calculations.

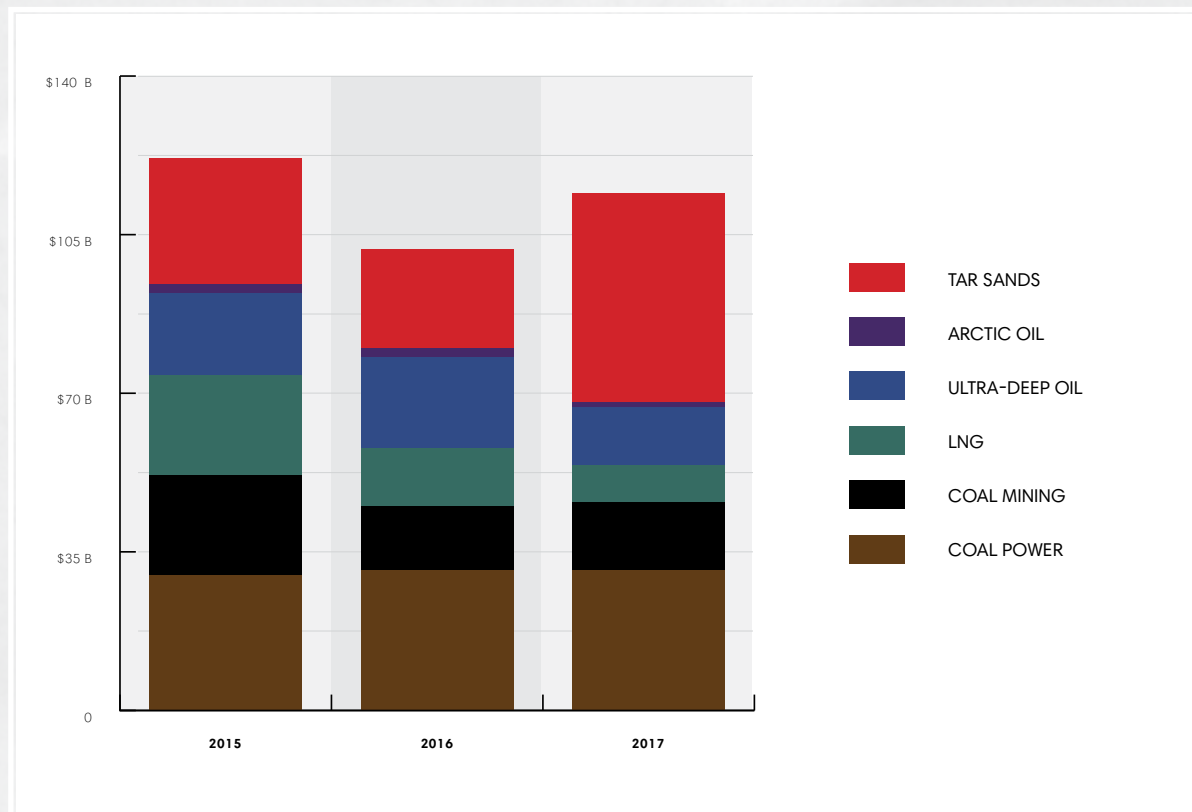
RANK	BANK	2015	2016	2017	TOTAL	RANK	BANK	2015	2016	2017	TOTAL
1	CHINA CONSTRUCTION BANK	\$10.311 B	\$9.320 B	\$6.985 B	\$26.616 B	20	CREDIT SUISSE	\$2.771 B	\$1.997 B	\$3.057 B	\$7.825 B
2	ROYAL BANK OF CANADA (RBC)	\$9.300 B	\$4.173 B	\$13.011 B	\$26.485 B	21	SOCIÉTÉ GÉNÉRALE	\$3.212 B	\$2.001 B	\$1.999 B	\$7.211 B
3	JPMORGAN CHASE	\$6.875 B	\$7.598 B	\$11.645 B	\$26.118 B	22	BNP PARIBAS	\$2.742 B	\$2.351 B	\$1.949 B	\$7.043 B
4	INDUSTRIAL AND COMMERCIAL BANK OF CHINA (ICBC)	\$10.869 B	\$8.067 B	\$6.222 B	\$25.158 B	23	SUMITOMO MITSUI FINANCIAL GROUP (SMFG)	\$2.097 B	\$1.645 B	\$1.109 B	\$4.851 B
5	BANK OF CHINA	\$7.579 B	\$6.957 B	\$5.774 B	\$20.310 B	24	WELLS FARGO	\$1.375 B	\$1.562 B	\$1.715 B	\$4.651 B
6	TORONTO-DOMINION BANK (TD)	\$4.025 B	\$4.401 B	\$9.097 B	\$17.522 B	25	CRÉDIT AGRICOLE	\$1.727 B	\$1.419 B	\$1.431 B	\$4.577 B
7	HSBC	\$5.699 B	\$2.990 B	\$5.633 B	\$14.322 B	26	UBS	\$1.776 B	\$1.624 B	\$1.077 B	\$4.477 B
8	AGRICULTURAL BANK OF CHINA	\$6.582 B	\$4.396 B	\$3.206 B	\$14.183 B	27	SANTANDER	\$859 M	\$2.567 B	\$816 M	\$4.241 B
9	CITIGROUP	\$4.202 B	\$5.141 B	\$4.666 B	\$14.008 B	28	ING	\$1.591 B	\$1.337 B	\$514 M	\$3.442 B
10	BANK OF AMERICA	\$4.134 B	\$6.363 B	\$3.120 B	\$13.617 B	29	STANDARD CHARTERED	\$1.162 B	\$660 M	\$1.303 B	\$3.125 B
11	MITSUBISHI UFJ FINANCIAL GROUP (MUFG)	\$4.163 B	\$3.482 B	\$3.524 B	\$11.170 B	30	UNICREDIT	\$410 M	\$788 M	\$720 M	\$1.917 B
12	BARCLAYS	\$3.334 B	\$3.951 B	\$3.642 B	\$10.927 B	31	COMMONWEALTH BANK OF AUSTRALIA	\$1.111 B	\$220 M	\$182 M	\$1.513 B
13	MORGAN STANLEY	\$4.248 B	\$2.934 B	\$2.898 B	\$10.080 B	32	BPCE/NATIXIS	\$498 M	\$371 M	\$315 M	\$1.183 B
14	DEUTSCHE BANK	\$5.564 B	\$2.450 B	\$1.959 B	\$9.974 B	33	ROYAL BANK OF SCOTLAND (RBS)	\$815 M	\$307 M	-	\$1.122 B
15	SCOTIABANK	\$3.922 B	\$2.217 B	\$3.817 B	\$9.957 B	34	AUSTRALIA AND NEW ZEALAND BANKING GROUP (ANZ)	\$219 M	\$536 M	\$289 M	\$1.044 B
16	GOLDMAN SACHS	\$4.045 B	\$1.874 B	\$3.069 B	\$8.987 B	35	WESTPAC	\$539 M	\$64 M	\$212 M	\$815 M
17	MIZUHO FINANCIAL GROUP	\$3.057 B	\$3.333 B	\$2.447 B	\$8.837 B	36	NATIONAL AUSTRALIA BANK (NAB)	\$633 M	\$144 M	\$34 M	\$811 M
18	CANADIAN AND IMPERIAL BANK OF COMMERCE (CIBC)	\$3.116 B	\$1.848 B	\$3.807 B	\$8.772 B						
19	BANK OF MONTREAL	\$1.736 B	\$2.933 B	\$3.711 B	\$8.381 B						
							<b>TOTAL</b>	\$126.297 B	\$104.018 B	\$114.956 B	\$345.271 B

# KEY DATA - *Findings*

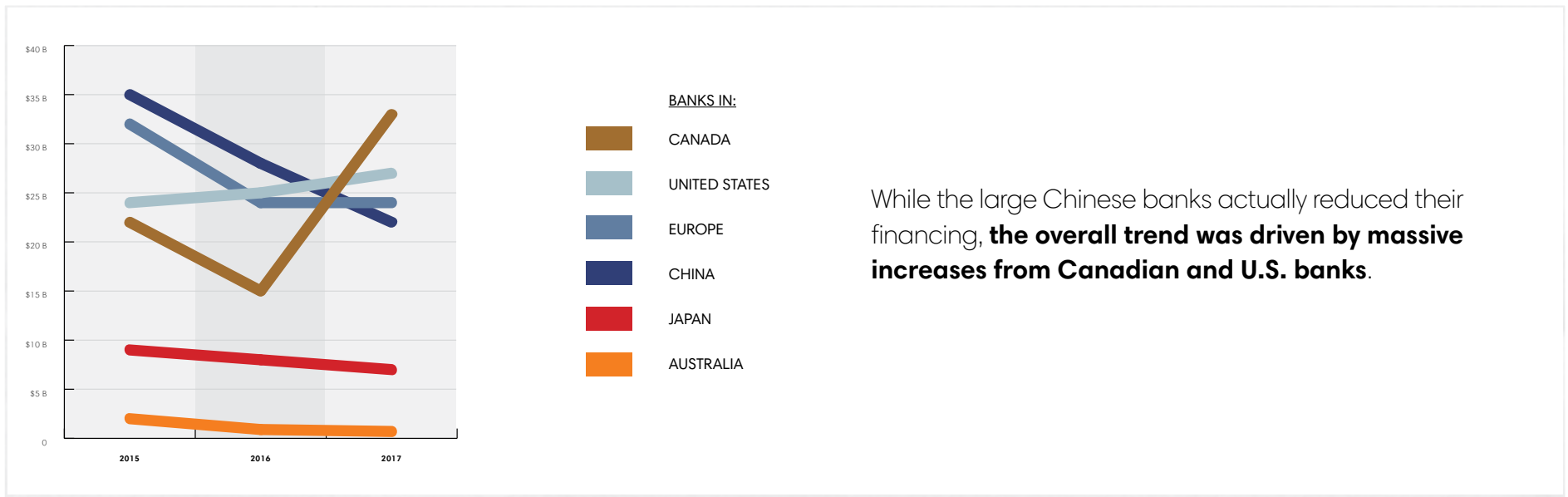
In 2016, after the signing of the Paris Climate Accord, there was a sharp decrease in bank financing for extreme fossil fuels over the previous year. In 2017, financing levels went in the wrong direction, in spite of the urgent climate crisis — **making 2017 a year of backsliding for banks.**

Much of this increase was driven by new loans and bonds for **tar sands oil production** and **pipelines**, as well as continued financing for **coal**.<sup>23</sup>

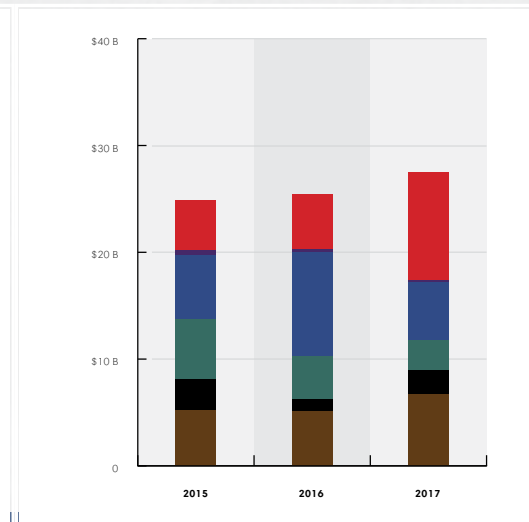
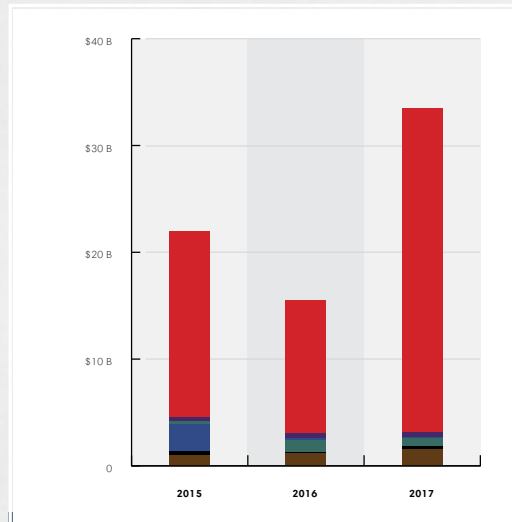
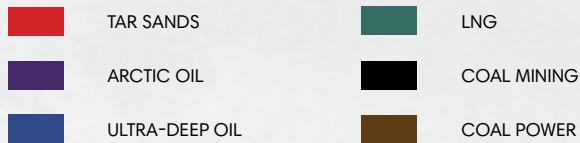
## *Finance for Extreme Fossil Fuels*



# Finance for Extreme Fossil Fuels

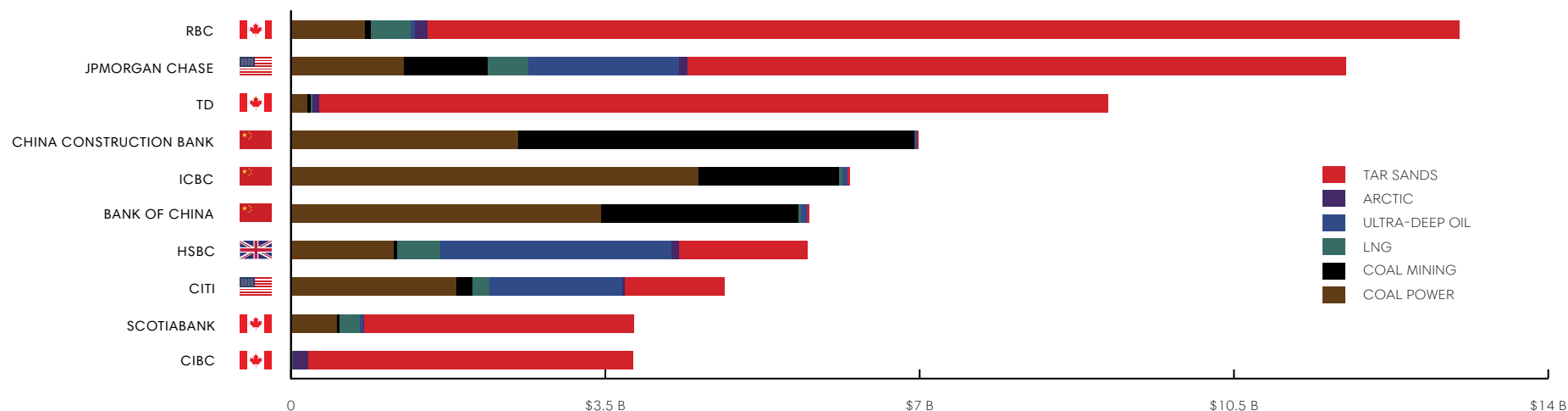


Canadian banks continue to be particularly exposed to tar sands, and the **U.S. banks have been growing their financing for this sector.**





## The top 10 worst banks in 2017:



**RBC, TD, and JPMorgan Chase increased their extreme fossil fuel financing in 2017, passing the coal-heavy Chinese banks for the shameful top spots.**

## The biggest backsliders

Instead of committing to real reductions, many banks drastically increased their extreme fossil fuel financing from 2016 to 2017.

- RBC** (\$8.8 billion increase)
- TD** (\$4.7 billion increase)
- JPMorgan Chase** (\$4.0 billion increase)
- HSBC** (\$2.6 billion increase)
- CIBC** (\$2.0 billion increase)
- Scotiabank** (\$1.6 billion increase)
- Goldman Sachs** (\$1.2 billion increase)
- Credit Suisse** (\$1.1 billion increase)
- Bank of Montreal** (\$778 million increase)
- Standard Chartered** (\$643 million increase)

All dollar amounts are rounded and in U.S. dollars. Interact with the data at [www.ran.org/bankingonclimatechange2018](http://www.ran.org/bankingonclimatechange2018).

# POLICY GRADES - Summary<sup>24</sup>

BANK	TAR SANDS	ARCTIC OIL	ULTRA DEEP WATER	LNG EXPORT	COAL MINING	COAL POWER	AVERAGE GRADE
<b>AUSTRALIA</b>							
ANZ	D	D	D	D-	D	C-	D
COMMONWEALTH BANK	D-	D-	D-	D-	D	D	D-
NAB	D-	D-	D-	D-	B	D-	D
WESTPAC	D-	D-	D-	D-	C-	C-	D
<b>CANADA</b>							
BANK OF MONTREAL	D-	D-	D-	D-	D-	D-	D-
CIBC	D-	D-	D-	D-	D-	D-	D-
RBC	D+	D	D	D	D-	D-	D
SCOTIABANK	D-	D	D-	D-	D-	D-	D-
TD	D	D-	D	D	C+	D	D+
<b>CHINA</b>							
AGRICULTURAL BANK OF CHINA	F	F	F	F	F	F	F
BANK OF CHINA	F	F	F	F	F	F	F
CHINA CONSTRUCTION BANK	F	F	F	F	F	F	F
ICBC	F	F	F	F	F	F	F
<b>JAPAN</b>							
MIZUHO	D-	D-	D-	D-	D-	D-	D-
MUFG	F	F	F	F	F	F	F
SMFG	D-	D-	D-	D-	D-	D-	D-

BANK	TAR SANDS	ARCTIC OIL	ULTRA DEEP WATER	LNG EXPORT	COAL MINING	COAL POWER	AVERAGE GRADE
<b>EUROPE</b>							
BARCLAYS	D+	D	D	D	B-	C	D+
BNP PARIBAS	B	C+	D-	C+	B	B-	C+
BPCE/NATIXIS	B-	C+	F	F	B	B-	C-
CRÉDIT AGRICOLE	C+	C+	D	D	B	B-	C
CREDIT SUISSE	D	D	D	D	C+	C	D+
DEUTSCHE BANK	D	D	D	D	B-	C+	D+
HSBC	D+	D-	D-	D-	C+	C	D+
ING	B-	C+	D	D	B	B	C
RBS	D	C+	D	D	C-	C-	D+
SANTANDER	D	D	D	D	D	C-	D
SOCIÉTÉ GÉNÉRALE	C+	B-	D	D	B-	B-	C
STANDARD CHARTERED	D-	D	D	D	C-	C-	C-
UBS	D+	D+	D-	D-	C+	C	D
UNICREDIT	D-	D-	D-	D-	D	D+	D-
<b>UNITED STATES</b>							
BANK OF AMERICA	D	D	D-	D-	B-	D-	D
CITI	D+	D+	D+	D	B-	C-	C-
GOLDMAN SACHS	D+	D+	D+	D	C-	C	D+
JPMORGAN CHASE	D+	D+	D	D-	B-	C	D+
MORGAN STANLEY	D+	D+	D+	D+	B-	C	C-
WELLS FARGO	D+	D+	D+	D-	B-	D	D+

# METHODOLOGY

This ninth annual fossil fuel finance report card analyzes bank policy and practice with regards to extreme fossil fuels: tar sands (or oil sands), oil from the Arctic or ultra-deep waters, LNG export terminals in North America, and coal mining and coal-fired power. This selection is based on the Carbon Tracker Initiative's Carbon Supply Cost Curves reports, which identified oil and gas projects that face the highest levels of stranded asset risk under 2-degrees-Celsius climate stabilization scenarios.<sup>25</sup> The entire coal sector is also included due to its incompatibility with climate stability and severe environmental, health, and human rights impacts. In a new section this year, this report also demonstrates how far banks remain from truly aligning their activities with the Paris Agreement on climate change: while meeting the Agreement's goals requires a rapid phase-out of fossil fuels, banks are continuing to finance the sector's expansion.

51 organizations around the world have endorsed this report in a clear signal that banks will be held accountable for the destructive impacts of their financing.

## *Banking Industry Scope*

This report analyzes extreme fossil fuel financing and policies from 36 large, private-sector commercial and investment banks from Australia, Canada, China, Europe, Japan, and the United States.<sup>26</sup> These banks 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. Additional bank policy grades from these countries and from Singapore are highlighted in some sections as further examples of progress, or lack thereof.

## *Fossil Fuel Industry Scope*

### *Tar Sands:*

**Scope:** Top 30 companies by tar sands reserves in 2017, and six companies carrying tar sands oil via pipeline out of Alberta

**Source:** Rystad Energy AS via Oil Change International<sup>27</sup>

### *Arctic Oil:*

**Scope:** Top 30 companies by Arctic oil reserves in 2017<sup>28</sup>

**Source:** Rystad Energy AS via Oil Change International

### *Ultra-deepwater Oil:*

**Scope:** Top 30 companies by Ultra-deepwater oil reserves in 2017

**Source:** Rystad Energy AS via Oil Change International

### *LNG Export:*

**Scope:** Top 30 companies by attributable capacity in current or planned LNG export projects in North America

**Source:** Research by Rainforest Action Network based on reporting to federal agencies<sup>29</sup>

### *Coal Mining:*

**Scope:** Top 30 companies by annual coal production

**Source:** urgewald's Global Coal Exit List<sup>30</sup>

### *Coal Power:*

**Scope:** Top 30 companies by coal generation capacity

**Source:** urgewald's Global Coal Exit List<sup>31</sup>

*Due to companies operating in multiple subsectors, 153 companies are assessed in total. See the appendix for a full list.*





## ***Calculating Finance Flows***

For the companies included in this analysis, we assess each bank's involvement in corporate lending and underwriting transactions (where banks buy and resell debt and equity issued by a company) from 2015 to 2017. All amounts throughout this report are expressed in U.S. dollars unless otherwise indicated. Transaction data is sourced from Bloomberg Finance L.P.,<sup>32</sup> where the value of a transaction is split between leading banks. This is supplemented by project finance deals from IJGlobal and TradeFinance Analytics researched by Profundo, where all participating banks receive credit for their participation in a deal. 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 reserves of each extreme oil sub-sector out of its total fossil fuel reserves. For LNG export, the adjuster is based on LNG-related assets as a percentage of total assets. For coal mining,

adjusters are primarily calculated based on a company's total coal assets, as a percentage of the company's total assets. 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. Profundo researched the adjusters for each fossil fuel company. For a full explanation of how adjusters were calculated, visit [www.ran.org/bankingonclimatechange2018](http://www.ran.org/bankingonclimatechange2018).

In applying the adjusters to finance 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.

## ***Bank Policy Grades***

We score banks based on their publicly available policies on fossil fuel financing. As part of the rating process, banks have been issued draft grades and given an opportunity to provide feedback.<sup>33</sup> For explanations of how each particular bank was scored, visit [www.ran.org/bankingonclimatechange2018](http://www.ran.org/bankingonclimatechange2018).

PHOTO: JIRI REZAC / GREENPEACE



*Financing Expansion*

# OF FOSSIL FUELS

PHOTO: JIRI REZAC / GREENPEACE

# Stop Funding Fossils:

## Why the Finance Sector Must Follow the World Bank's Lead

Achieving the goals of the Paris Climate Agreement will require action across all sectors of the economy, and the finance sector is clearly fundamental. In fact, one of the Paris Agreement's three objectives is "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development."<sup>34</sup> Recent announcements by some of the world's largest financial institutions reveal an emerging consensus that all fossil fuel investment and financing risks both climate security and economic value. The finance sector has an important role to play in ending further exploration and the expansion of fossil fuel production.

Last December, at the One Planet Summit in Paris, the World Bank announced that it would no longer finance oil and gas extraction after 2019.<sup>35</sup> To date, no other international financial institution has this kind of commitment on its books, but for how long?

The World Bank's decision to cease funding oil and gas extraction sets a standard to be matched and bettered. When the World Bank established a policy to restrict coal financing in 2013, dozens of other institutions — public and private — followed suit. But the World Bank is not the only government-controlled financial institution to shun fossil fuel investment. Norway's central bank has proposed to the finance ministry that the country's trillion-dollar sovereign wealth fund, the Government Pension Fund Global, sell off its oil and gas stocks.<sup>36</sup> City and municipal pension funds across the United States and beyond are already doing this, as is the Republic of Ireland.<sup>37</sup>

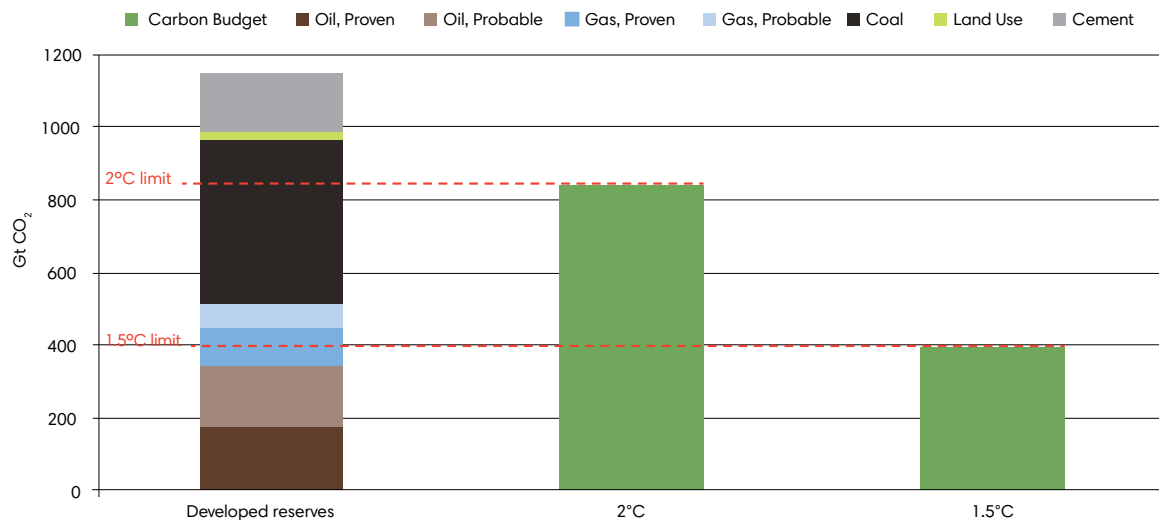
In December 2015, world governments agreed in Paris to limit global average temperature rise to well below 2 degrees Celsius, and to strive to limit it to 1.5 degrees Celsius. In September 2016, Oil Change International released a seminal report, *The Sky's Limit, Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production*.<sup>38</sup> The report analyzed what a Paris-aligned carbon budget would mean for fossil fuel production globally. The key findings, shown in the graph, include:

- » The potential carbon emissions from the oil, gas, and coal in the world's currently operating fields and mines would take us beyond 2 degrees Celsius of warming.

- » The reserves in currently operating oil and gas fields alone, even with no coal, would take the world beyond 1.5 degrees Celsius of warming.

As such, exploration for and expansion of new reserves are incompatible with the Paris climate goals. Additionally, some production will require a managed decline faster than natural depletion rates, such that some reserves are not fully extracted.

**Emissions from Developed Fossil Fuel Reserves, Plus Projected Land Use and Cement Manufacture**



GRAPH: OIL CHANGE INTERNATIONAL

Given that the fossil fuel reserves delineated in this chart are entirely within oil, gas, and coal mines and fields that are currently producing or under construction (at the time of publication), development of new production is incompatible with Paris-aligned carbon budgets. Despite this, the global oil and gas industry today holds around 311 billion barrels of oil and 1.8 quadrillion cubic feet of gas in projects that are as yet unsanctioned (that is, the operating company has not yet made a final investment decision on the project) and still spends over \$60 billion annually exploring for more. Sanctioning and combusting all the currently unsanctioned oil and gas reserves would add over 240 billion metric tons of CO<sub>2</sub> to the planet's atmosphere.<sup>39</sup> Any finance provided to oil and gas companies that enables these reserves to be extracted and burned goes beyond the limits set by the Paris goals. Financing expansion into these reserves, or those acquired through ongoing exploration, is financing climate disaster.

While both developed and undeveloped coal reserves are vast, the pace of production decline is slow, and only a handful of misguided plans to open new mines remain.<sup>40</sup> Projects such as the Carmichael coal mine in Australia (see page 56) struggle to find financing amid the interrelated pressures of climate policy and market decline.<sup>41</sup> It is the oil and gas sector that is still aggressively pushing for expanding extraction despite clear signals that it is time to stop digging.

With the potential emissions of currently in-production reserves already exceeding our carbon budgets, the carbon intensity of one fossil fuel source compared to another cannot be considered a sufficient criterion for judging whether an investment is compatible with climate action. The expansion of any fossil fuel production fails that climate-compatibility test.

While ending expansion of the fossil fuel sector is critical, it will also be necessary for some existing production to be phased out in a managed decline. Though this will be a challenge for many companies and nations dependent on fossil fuel production and consumption, a carefully managed decline and a just transition for workers and communities is far preferable to an unmanaged decline if necessary action is ignored or delayed. This is why nearly 500 organizations and officials from more than 70 countries have signed the Lofoten Declaration calling for a halt to fossil fuel development and a managed decline of existing production.<sup>43</sup>

Climate leadership is being redefined, and the finance sector has an opportunity to recognize, adapt, and even lead in the transition away from the fossil fuel era. In order to do so, banks must put an urgent end to financing fossil fuel expansion of all kinds, and ultimately plan for a decarbonization of their entire portfolios in line with global climate goals.

## Estimated Global Undeveloped Fossil Fuel Reserves

SOURCE: RYSTAD ENERGY, WORLD ENERGY COUNCIL <sup>42</sup>

TOTAL UNDEVELOPED COAL RESERVES	COAL COMBUSTION EMISSIONS	TOTAL UNDEVELOPED OIL RESERVES	OIL COMBUSTION EMISSIONS	TOTAL UNDEVELOPED GAS RESERVES	GAS COMBUSTION EMISSIONS	TOTAL COMBUSTION EMISSIONS OF UNDEVELOPED RESERVES
(BILLION METRIC TONS CO <sub>2</sub> )	(BILLION METRIC TONS CO <sub>2</sub> )	(BILLION METRIC TONS CO <sub>2</sub> )	(BILLION METRIC TONS CO <sub>2</sub> )	(TRILLION CUBIC FEET)	(BILLION METRIC TONS CO <sub>2</sub> )	(BILLION METRIC TONS CO <sub>2</sub> )
703	1,359	311	131	1,852	111	1,601





PHOTO: GREENPEACE / JOHN WOODS

# FOSSIL FUEL - *Expansion Policies*

BEST



<p><b>TIER</b></p>	<p><b>FULL CORPORATE EXCLUSION OF COMPANIES PLANNING FOSSIL FUEL EXPANSION:</b></p> <p>Prohibits corporate finance for all companies expanding fossil fuels.</p>	<p><b>PARTIAL CORPORATE EXCLUSION OF COMPANIES PLANNING FOSSIL FUEL EXPANSION:</b></p> <p>Prohibits corporate finance for some companies expanding fossil fuels, with explicit reference to fossil fuel expansion.</p>	<p><b>FULL EXCLUSION OF ALL NEW FOSSIL FUEL PROJECTS:</b></p> <p>Prohibits project finance for all new fossil fuel projects.</p>	<p><b>FULL EXCLUSION OF NEW COAL MINES AND COAL-FIRED POWER PLANTS, AND SOME OIL OR GAS PROJECTS:</b></p> <p>Prohibits project finance for new coal mines and coal-fired power plants, and some oil or gas projects.</p>
<p><b>BANK</b></p>		<p><b>EUROPE:</b> ABN AMRO</p>		<p><b>EUROPE:</b> BNP Paribas, BBVA, BPCE/ Natixis, Commerzbank, Crédit Agricole, ING, Rabobank, Société Générale <b>US:</b> US Bank</p>

This new addition to the report card evaluates banks on whether they have any policies in place to restrict financing that expands the fossil fuel sector. “Fossil fuel expansion” refers to construction of new coal, oil, or gas extraction, transportation, or combustion projects, such as oil or gas wells, oil or gas pipelines, liquefied natural gas terminals, coal mines, or coal-fired power plants. See [www.ran.org/bankingonclimatechange2018](http://www.ran.org/bankingonclimatechange2018) for explanations of how all bank policies in this report are scored and links to the policies themselves.



**WORST**

**FULL EXCLUSION OF NEW COAL MINES AND COAL-FIRED POWER PLANTS:**

Prohibits project finance for new coal mines and coal-fired power plants, worldwide.

**EUROPE:** Deutsche Bank

**PARTIAL EXCLUSION OF NEW COAL OR OIL AND GAS PROJECTS:**

Prohibits project finance for some coal, oil, and/or gas projects.

**AUSTRALIA:** NAB, Westpac  
**EUROPE:** Barclays, Credit Suisse, HSBC, RBS, Standard Chartered, UBS  
**SINGAPORE:** DBS  
**US:** Goldman Sachs, JPMorgan Chase, Morgan Stanley, PNC

**NO RESTRICTIONS ON FINANCING FOR EXPANDING FOSSIL FUELS:**

This category includes banks with financing restrictions that only apply to mountaintop removal coal, or that set efficiency thresholds for the type of coal-fired power plant that the bank will finance.

**AUSTRALIA:** ANZ, Commonwealth Bank  
**CANADA:** Bank of Montreal, CIBC, RBC, Scotiabank, TD  
**CHINA:** Agricultural Bank of China, Bank of China, China Construction Bank, ICBC  
**JAPAN:** MUFG, Mizuho, SMFG  
**EUROPE:** Santander, UniCredit  
**SINGAPORE:** OCBC Bank, UOB  
**US:** Bank of America, Citi, Wells Fargo



# CASE STUDY:

## *Houston: Hurt by the Causes and Symptoms of Climate Change*

The torrential downpours and violent winds of Hurricane Harvey struck Houston, Texas in August and September 2017. Harvey killed at least 68 people<sup>44</sup> and displaced over one million, leaving approximately 200,000 damaged homes along its 300-mile trail.<sup>45</sup> Damages from the hurricane tallied an estimated \$125 billion.<sup>46</sup> The aftermath is still being felt through the region.

Environmental racism<sup>47</sup> exacerbates the pain caused by natural disasters by disproportionately affecting low-income communities of color close to industrial sites. In the wake of Harvey, these communities were exposed to increased levels of toxic chemicals from Houston's superfund sites, chemical plants, and oil refineries during the storms.<sup>48</sup> Houston is an industrial hub with a busy ship channel, in a state that's home to 30 percent of the country's oil refining capacity.<sup>49</sup> According to the Environmental Defense Fund, Hurricane Harvey caused damaged refineries and chemical facilities to release nearly six million pounds of cancer-causing chemicals into the air.<sup>50</sup>

Combining petrochemical production with hurricanes is a deadly mix, as seen by the Arkema plastics plant explosion during Hurricane Harvey. Harvey's impact surpassed the most extreme scenario the plant had prepared for and left it flooded with no way to prevent more serious fires.<sup>51</sup>

As the toxic waters receded, these communities — who for decades have faced long-term exposure to deadly pollution from the fossil fuel industry — found themselves also grappling with the effects of the extreme weather that this industry causes.<sup>52</sup>

Moreover, many of these environmental justice communities cannot get assistance to face the damage wrought by these storms. In Houston, the city's undocumented immigrant population of half a million people feared seeking help from shelters and public assistance.<sup>53</sup> This serves as a reminder that climate change mitigation must be paired with a just recovery for all impacted by the symptoms of a warming climate, such as Hurricane Harvey.

As global temperatures increase, storms like Hurricanes Harvey, Katrina, Irma, Maria, and Sandy will become even more intense.<sup>54</sup> It can take decades for communities and municipalities to recover from these storms. The country pays a high price, both in human lives and in dollars, for the effects of climate change: the U.S. National Oceanic and Atmospheric Administration deemed 2017 the costliest year for weather disasters in U.S. history. The price tag was a staggering \$306.2 billion, which broke 2005's previous record of \$214.8 billion.<sup>55</sup>

Even as the impacts of climate change become increasingly apparent, big banks poured \$345 billion into climate-changing extreme fossil fuels from 2015 to 2017. If banks like **China Construction Bank, RBC, JPMorgan Chase, and HSBC** continue at these levels of financing for extreme fossil fuel projects and companies, they must reckon with their complicity in the increased social and economic impacts of climate change, which hit certain environmental justice communities "first and worst."<sup>56</sup>

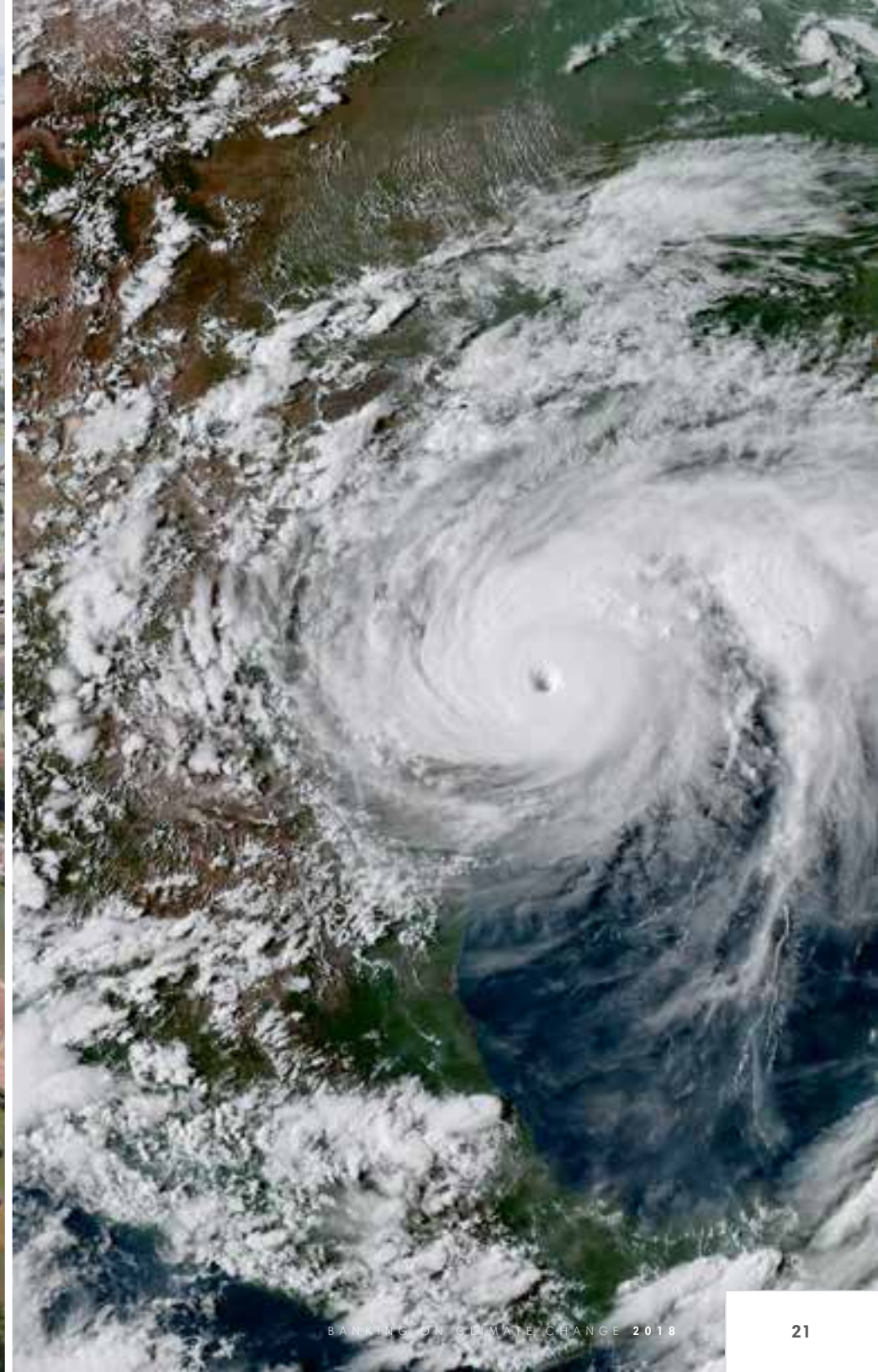
PHOTOS: U.S. NATIONAL GUARD; NOAA







The U.S. National Oceanic and Atmospheric Administration deemed **2017 the costliest year for weather disasters in U.S. history.**





An aerial photograph of an oil and gas field, showing a complex network of roads, pipelines, and industrial structures. The image is heavily tinted with a dark red color, creating a somber and intense atmosphere. The text is overlaid on a white, trapezoidal shape in the upper left corner.

*Extreme*

# OIL AND GAS

PHOTO: GREENPEACE / COLIN O'CONNOR

# Extreme Oil and Gas

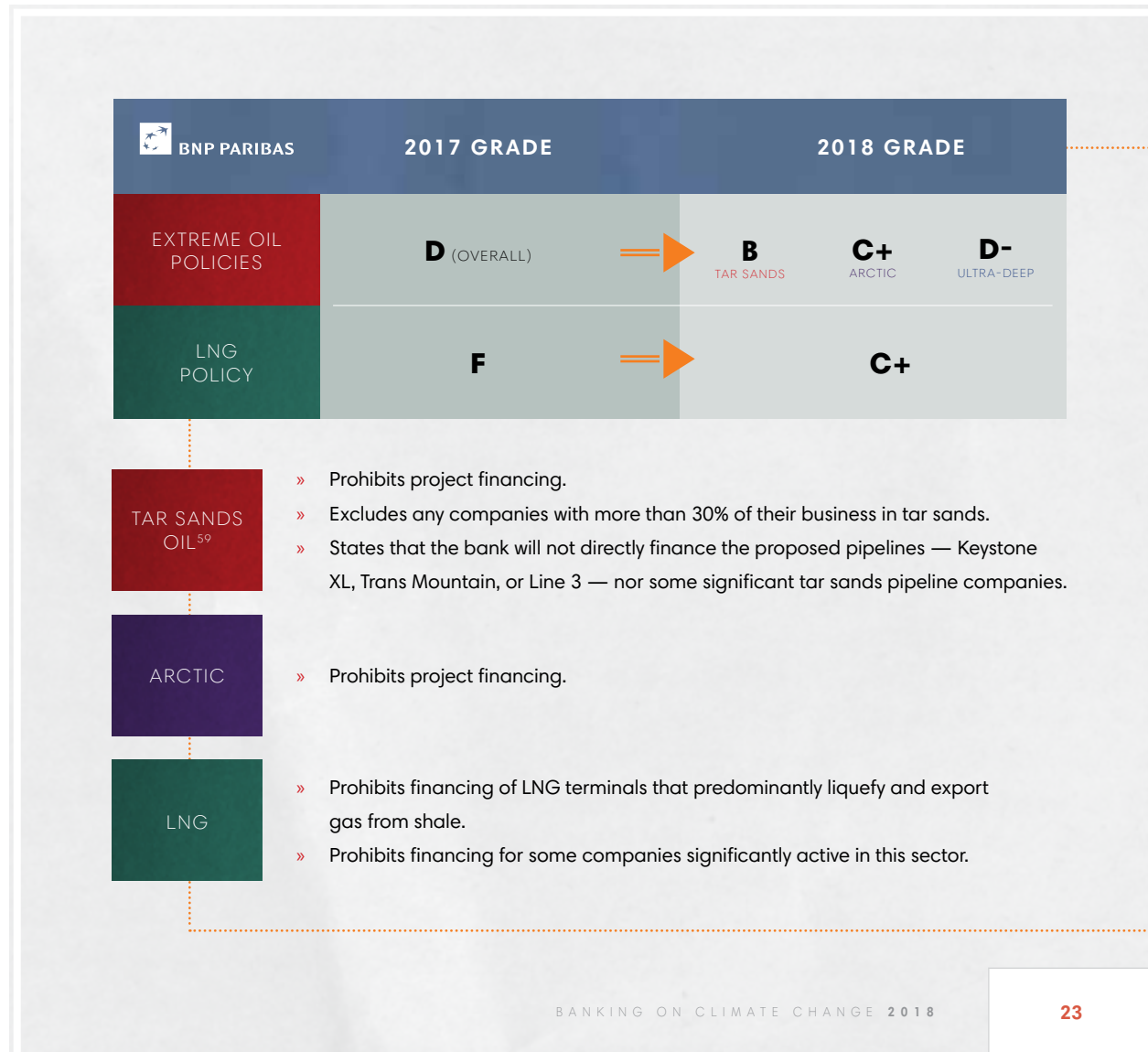
Tar sands oil, trapped in sand and clay with the consistency of peanut butter, is among the dirtiest fossil fuels on the planet. Oil drilled in the Arctic threatens a fragile ecosystem and longstanding Indigenous culture. Extracting oil from ultra-deep waters — nearly a mile below the surface — necessitates extreme infrastructure. On the gas side, cooling gas to be exported as LNG has fed the fracking frenzy in the United States.

Why do banks continue to support extreme oil and gas projects and the companies behind them?

## BNP Paribas Steps Up:

After months of public outrage about the French bank's involvement in controversial fossil fuel projects and engagement by Les Amis de la Terre France and a wide range of allies, **BNP Paribas**, the second-largest bank in Europe, established a new standard for global banks. In October 2017, the bank announced a set of policies on unconventional oil and gas, explicitly aimed at more closely aligning with efforts to keep global warming below 2 degrees Celsius.<sup>57</sup>

This new policy got a significant amount of positive attention in the global financial press, with the *Wall Street Journal* calling it "one of the clearest signs yet the banking industry is re-evaluating its relationship with the oil sector."<sup>58</sup>





# TAR SANDS



PHOTOS: GREENPEACE / E M



Alberta's tar sands (also known as oil sands) are the world's third-largest reserves of recoverable crude oil.<sup>60</sup> Though it is expensive to extract, this oil fetches a much lower price than other heavy oils due to the difficulty in getting the landlocked tar sands to the United States and other potential markets. Thus, tar sands companies are desperate to promote new and expanded pipelines.<sup>61</sup> The need for new pipeline capacity is particularly acute as companies ramp up production at projects that were started several years ago, while still planning new projects, such as Teck Resources' massive Frontier Mine.<sup>62</sup>

Moreover, tar sands projects differ from other oil projects in that they have massive upfront capital costs but relatively low operating costs, so that oil prices would have to drop to very low levels before companies cut back on production at most existing projects. Thus even in a low-oil-price scenario, with no investments in major new projects, tar sands output is projected to slowly grow through to 2030 due to projects started in the high-oil-price boom times gradually coming on-line, and expansion and increased efficiencies at existing projects.<sup>63</sup>

All this highlights the importance of stopping the construction of the three major proposed tar sands pipelines — Enbridge's Line 3, Kinder Morgan's Trans Mountain, and TransCanada's Keystone XL (KXL) — in order to prevent future expansion of tar sands extraction, and all the damage to the climate, ecosystems, and local communities including Indigenous peoples that this entails.

## ***Opposition Grows***

At the time of last year's report card publication, there were four of these proposed pipelines on the table. Now, there are three. The first one to fall was TransCanada's Energy East, which the company announced it would terminate in October 2017.<sup>64</sup> This announcement came after Canada's National Energy Board had instructed TransCanada to consider the broader climate costs of the pipeline, a challenge that piled onto changing market conditions and growing public opposition.<sup>65</sup>

2017 saw a noticeable escalation of protest against these pipelines, as well as against tar sands at large, from Indigenous Peoples and their allies. In Minnesota, multiple Indigenous-led camps have braved the winter's freezing temperatures to stop Enbridge from going through with its Line 3 pipeline that is opposed by a coalition including tribal governments, landowners, and the state's Commerce Department.<sup>66</sup> In British Columbia, the Secwepemc Nation is building solar-powered tiny houses directly in the path of Kinder Morgan's planned Trans Mountain pipeline.<sup>67</sup> And in a ceremony last May, Indigenous leaders from across the United States and Canada

signed a formal declaration against the KXL pipeline and tar sands expansion in general.<sup>68</sup>

More attention than ever is being paid not only to the banks that directly fund these projects — like **TD, RBC, Bank of America**, and the 20 other financial institutions that funded a C\$5.5 billion loan package for Kinder Morgan's Trans Mountain last June<sup>69</sup> — but also to the banks providing corporate finance to the companies behind the pipelines. After all, project-specific financing is not always needed for a company to build a pipeline, as Enbridge's construction on either end of the Line 3 project has demonstrated.<sup>70</sup> In fact, **US Bank** has ended its credit relationship with Enbridge in what many presume is a move to avoid any connection to Line 3 (however, US Bank continues to provide corporate financing to other companies building pipelines).<sup>71</sup> Meanwhile, public pressure continues, including an October 2017 three-day Indigenous-led "Divest the Globe" action that made up the largest-ever protest of banks' fossil fuel financing.<sup>72</sup>

## ***Delay... Then More Delay***

Delayed pipeline construction is one of the costliest factors getting in the way of tar sands expansion. The KXL, Trans Mountain, and Line 3 pipelines should all have been up and running by now, according to the companies' original plans, but instead have faced major delays.<sup>73</sup> In November 2017, TransCanada was denied permission to use its preferred route through Nebraska for KXL, which leaves it to contend with a new batch of landowners and environmental impacts.<sup>74</sup> TransCanada then delayed its final investment decision on the project, which it has yet to announce at the time of this publication.<sup>75</sup> Kinder Morgan's most recent nine-month delay on Trans Mountain, after what one locality argued was an incompetent attempt at securing permits,<sup>76</sup> cost the company C\$270 million on top of C\$810 million in lost revenue.<sup>77</sup>

At the same time, Teck Resources' proposed Frontier mine, opposed by the Athabasca Chipewyan First Nation on whose traditional territory the mine would sit, continues to be delayed so that regulators can review its full environmental impact.<sup>78</sup>

Each month of delay moves the world farther away from the conditions that existed when these projects were conceived and closer to a vision of a climate-constrained world where oil is left in the ground.

PHOTOS: AMANDA STARBUCK / RAN

## ***In the Way of Coal***

2017 closed with a reminder that tar sands oil is increasingly seen as just as untouchable as coal. In particular, the European financial sector has proven much more cognizant of the pitfalls of tar sands financing than North American institutions. In October, **BNP Paribas'** policy announcement marked the shunning of tar sands companies by the world's ninth-largest bank.<sup>79</sup> French banks **BPCE/Natixis**, **Crédit Agricole**, and **Société Générale** followed with half steps on restricting project financing for tar sands at French President Macron's climate summit in December.<sup>80</sup> At the same time, AXA, the

world's second-largest financial services company by revenue, announced it will stop providing insurance for tar sands projects.<sup>81</sup>

The tide is turning, yet the \$98 billion received by major tar sands companies over the past three years is staggering. It's past time for other financial institutions to overhaul their tar sands financing policies and cut off capital to this dangerous fossil fuel.



## CASE STUDY: *Opposing the Line 3 Tar Sands Pipeline*

Enbridge's Line 3 so-called "replacement" project is a proposal for a new pipeline that would cover more than 1,000 miles from Hardisty, Alberta, to Superior, Wisconsin,<sup>82</sup> transporting an average of 760,000 barrels of crude oil from the Alberta tar sands each day, with capacity for 844,000 barrels per day.<sup>83</sup>

Enbridge intends to abandon its existing Line 3 pipeline if it is able to complete its new Line 3, leaving the corroding pipe in the ground and a lasting legacy of contamination. The replacement Line 3 would take a brand new route. This path cuts through pristine wetlands and watersheds in northern Minnesota, passing through the headwaters of the Mississippi River to the shores of Lake Superior, through the heart of Minnesota's lake country and some of the largest and most productive wild rice beds in the world.<sup>84</sup>

The proposed new Line 3 pipeline poses a grave threat to Indigenous rights and culture. Its route would pierce the heart of the 1855 Treaty territory, where members of signatory Ojibwe bands retain the rights to hunt, fish, harvest wild rice, conduct religious ceremonies, and travel.<sup>85</sup> Wild rice harvesting lies at the core of Ojibwe culture and is explicitly defined as a right in the treaties of several bands of Ojibwe with the U.S. government.<sup>86</sup> The five directly impacted Ojibwe tribes along the Minnesota portion of the proposed route are opposed to the project: the White Earth Band of Ojibwe, Mille Lacs Band of Ojibwe, Fond du Lac Band of Lake Superior Chippewa, Red Lake Band of Ojibwe, and Leech Lake Band of Ojibwe. The Line 3 pipeline project carries risks that would violate the treaty rights of the Ojibwe peoples. Harm to the wild rice beds of the Ojibwe people in this area threatens irrevocable and devastating cultural impacts.

Enbridge has fought the environmental review process every step of the way, leading to a courtroom battle that ultimately resulted in the Minnesota Court of Appeals mandating a full Environmental Impact Statement (EIS). At the end of 2017, the Minnesota Public Utilities Commission (PUC) found Enbridge's EIS to be inadequate, citing several issues that required further clarity. When Enbridge argued that the inadequate EIS was sufficient for the reviewing judge to make her final decision on the project, the judge disagreed. However, the PUC ended up overturning the judge's ruling in favor of Enbridge's arguments against including a full EIS in the ultimate project decision.<sup>87</sup>

In January 2018, the five directly impacted Ojibwe bands joined forces to appeal the decision of the Minnesota PUC to exclude a full cultural resources survey from Line 3's EIS. The tribes' legal brief documents that "the state's historic properties work on the Line 3 Replacement project... to date has been so inadequate that it could be used as a 'what not to do' example in future guidance."<sup>88</sup> The PUC rejected the appeal of tribal and environmental groups, denying the inclusion of a cultural

survey in its final decision of approving or rejecting the pipeline based on the EIS. The cultural survey must be completed before construction can start in Minnesota, but won't have any impact on the PUC's decision.<sup>89</sup>

Despite the fact that Minnesota has not finalized the legal, public, or environmental permitting process for Line 3, and that the state's Department of Commerce has deemed the existing Line 3 in addition to the new Line 3 unnecessary,<sup>90</sup> Enbridge has already started construction on either end of the new pipeline in Wisconsin and Canada.<sup>91</sup> A growing number of Water Protectors have used lockdowns to delay construction on the 14-mile stretch in Wisconsin and are creating additional





encampments along the pipeline route, marking the beginning of a sustained direct action campaign from Indigenous groups and their allies.<sup>92</sup>

The Treaty Alliance Against Tar Sands Expansion, comprised of more than 150 First Nations and Tribes,<sup>93</sup> stands in committed opposition to Line 3, and to all tar sands pipelines crossing their traditional lands and waters,<sup>94</sup> calling for an international campaign to divest from any financial institution that funds

tar sands pipelines.<sup>95</sup> And yet, banks like **TD, RBC, MUFG,** and **Citi** remain leading bankers of Enbridge.<sup>96</sup> In October, **Wells Fargo** led a syndicate of more than a dozen banks in renewing a credit facility of \$1.48 billion for the company, despite a coalition of 15 Indigenous and environmental groups detailing the human rights and environmental impacts of the Line 3 pipeline.<sup>97</sup>

PHOTOS: ROB WILSON





# TAR SANDS - League Table

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS)			TOTAL	RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS)			TOTAL
		2015	2016	2017				2015	2016	2017	
1	RBC	\$7.557 B	\$2.658 B	\$11.485 B	\$21.700 B	20	ICBC	\$424 M	\$205 M	\$27 M	\$657 M
2	TD	\$3.962 B	\$4.084 B	\$8.789 B	\$16.835 B	21	SOCIÉTÉ GÉNÉRALE	\$325 M	\$173 M	\$68 M	\$566 M
3	JPMORGAN CHASE	\$1.819 B	\$1.740 B	\$7.330 B	\$10.889 B	22	BANK OF CHINA	\$408 M	\$130 M	\$27 M	\$565 M
4	CIBC	\$2.822 B	\$1.670 B	\$3.622 B	\$8.113 B	23	SMFG	\$215 M	\$117 M	\$169 M	\$501 M
5	BANK OF MONTREAL	\$1.486 B	\$2.812 B	\$3.452 B	\$7.749 B	24	CHINA CONSTRUCTION BANK	\$442 M	\$11 M	\$13 M	\$465 M
6	SCOTIABANK	\$1.736 B	\$1.276 B	\$3.002 B	\$6.014 B	25	CRÉDIT AGRICOLE	\$72 M	\$191 M	\$59 M	\$322 M
7	HSBC	\$1.527 B	\$949 M	\$1.431 B	\$3.907 B	26	UBS	\$102 M	\$76 M	\$43 M	\$222 M
8	BANK OF AMERICA	\$703 M	\$1.100 B	\$1.211 B	\$3.014 B	27	STANDARD CHARTERED	\$56 M	\$11 M	\$13 M	\$79 M
9	BARCLAYS	\$423 M	\$732 M	\$1.849 B	\$3.004 B	28	SANTANDER	-	\$22 M	-	\$54 M
10	CITI	\$845 M	\$949 M	\$1.114 B	\$2.908 B	29	ANZ	\$10 M	\$20 M	-	\$50 M
11	MUFG	\$500 M	\$164 M	\$919 M	\$1.583 B	30	RBS	\$38 M	\$9 M	-	\$47 M
12	DEUTSCHE BANK	\$366 M	\$679 M	\$406 M	\$1.451 B	31	UNICREDIT	-	\$29 M	-	\$29 M
13	MORGAN STANLEY	\$768 M	\$430 M	\$42 M	\$1.240 B	32	ING	-	\$5 M	\$15 M	\$25 M
14	WELLS FARGO	\$242 M	\$671 M	\$308 M	\$1.221 B	33	BPCE/NATIXIS	-	\$3 M	-	\$22 M
15	MIZUHO	\$490 M	\$265 M	\$265 M	\$1.020 B	34	WESTPAC	-	\$15 M	-	\$15 M
16	BNP PARIBAS	\$253 M	\$477 M	\$265 M	\$995 M	34	COMMONWEALTH BANK	-	-	\$15 M	\$15 M
17	CREDIT SUISSE	\$205 M	\$106 M	\$543 M	\$854 M	36	NAB	-	-	-	-
18	GOLDMAN SACHS	\$276 M	\$308 M	\$153 M	\$737 M						
19	AGRICULTURAL BANK OF CHINA	\$575 M	\$93 M	\$13 M	\$681 M						
						<b>TOTAL</b>	\$28.651 B	\$22.180 B	\$46.719 B	<b>\$97.551 B</b>	

# TAR SANDS - Policy Grades

	GRADE	TIER	BANK
EXCLUDES COMPANIES	<b>A</b>	<b>TAR SANDS EXCLUSION</b> Prohibits all financing for all companies with tar sands operations, as well as all finance for tar sands projects, with public reporting on implementation.	
	<b>A-</b>	<b>SIGNIFICANT TAR SANDS EXCLUSION</b> Prohibits all finance for tar sands projects, and excludes companies with tar sands expansion plans and companies with significant tar sands activity, with public reporting on implementation.	
PHASES OUT COMPANIES	<b>B+</b>	<b>TAR SANDS PHASE-OUT AND/OR PARTIAL EXCLUSION WITH REPORTING:</b> Commits to phase out all financing for and/or exclude companies with tar sands expansion plans or significant tar sands activity, with public reporting on implementation, and prohibits all finance for tar sands projects.	
	<b>B</b>	<b>PARTIAL TAR SANDS PHASE-OUT AND/OR EXCLUSION WITH REPORTING</b> Commits to phase out one or more types of financing for and/or exclude some tar sands companies, with public reporting on implementation, and prohibits all finance for tar sands projects.	<b>EUROPE:</b> BNP Paribas
	<b>B-</b>	<b>PARTIAL TAR SANDS PHASE-OUT AND/OR EXCLUSION WITHOUT REPORTING:</b> Commits to phase out one or more types of financing for and/or exclude some tar sands companies, and prohibits all finance for tar sands projects.	<b>EUROPE:</b> BPCE/Natixis, ING, Rabobank
EXCLUDES PROJECTS	<b>C+</b>	<b>TAR SANDS PROJECT-SPECIFIC FINANCING EXCLUSION OR PARTIAL PROJECT EXCLUSION WITH SOME CORPORATE FINANCING RESTRICTIONS:</b> Prohibits all finance for all tar sands projects, or prohibits financing for some projects and some tar sands companies.	<b>EUROPE:</b> Crédit Agricole, Société Générale
	<b>C-</b>	<b>PARTIAL TAR SANDS PROJECT EXCLUSION:</b> Prohibits some finance for tar sands projects.	<b>EUROPE:</b> ABN AMRO, BBVA, Commerzbank <b>US:</b> US BANK

	GRADE	TIER	BANK
DUE DILIGENCE	D+	<p><b>TAR SANDS DUE DILIGENCE:</b> Has an enhanced due diligence process for transactions related to tar sands, with publicly disclosed due diligence criteria.</p>	<p><b>CANADA:</b> RBC  <b>EUROPE:</b> Barclays, HSBC, UBS  <b>US:</b> Citi, Goldman Sachs, JPMorgan Chase, Morgan Stanley, Wells Fargo</p>
	D	<p><b>ENHANCED DUE DILIGENCE THAT APPLIES TO TAR SANDS:</b> Has a general enhanced due diligence process that covers tar sands-related transactions, such as for the oil and gas sector, with publicly disclosed due diligence criteria, or has a tar sands-specific due diligence process without publicly disclosed due diligence criteria.</p>	<p><b>AUSTRALIA:</b> ANZ  <b>CANADA:</b> TD  <b>EUROPE:</b> Credit Suisse, Deutsche Bank, RBS, Santander  <b>US:</b> Bank of America</p>
	D-	<p><b>GENERAL DUE DILIGENCE:</b> Has a general environmental and social due diligence process for corporate financing transactions.</p>	<p><b>AUSTRALIA:</b> Commonwealth Bank, NAB, Westpac  <b>CANADA:</b> Bank of Montreal, CIBC, Scotiabank  <b>EUROPE:</b> Standard Chartered, UniCredit  <b>JAPAN:</b> Mizuho, SMFG</p>
	F	<p><b>NO POLICY</b></p>	<p><b>CHINA:</b> Agricultural Bank of China, Bank of China, China Construction Bank, ICBC  <b>JAPAN:</b> MUFG</p>

# ARCTIC AND ULTRA-DEEPWATER OIL



PHOTO: GGW / SHUTTERSTOCK



## CASE STUDY: *Extreme Energy Injustice and Indigenous Rights Violations in Alaska*

Alaska Native rights and Indigenous sovereignty cannot be separated from the problem of extreme oil and gas production in Alaska. Politicians and oil interests have a long history of pushing legislation nullifying Alaska Native land claims, especially those claims that stood in the way of oil and pipeline development.

After being declared a state in 1958, Alaska selected for oil development tracts of land on the North Slope, in an area called Prudhoe Bay.<sup>98</sup> Without consultation and consent of the local Inupiat village, but with approval of the U.S. Bureau of Land Management, these lands were transferred to the state.<sup>99</sup>

In 1964, the state leased some of these tracts to oil companies, and in 1968, oil was discovered at Prudhoe Bay.<sup>100</sup> The oil boom forever altered the ecosystem and the life of the Inupiat people, including by contributing to climate change through the release of carbon from oil sent from the North Slope to refineries. This all led to the building of the 800-mile Trans-Alaska pipeline across the state that further trampled over the rights of Inupiat peoples and Alaska Native land rights at large.<sup>101</sup>

The Alaska Native Claims Settlement Act (ANCSA) was passed in 1971, over opposition from the Inupiat.<sup>102</sup> ANCSA took land from jurisdictional control of Alaska Natives, allowing the petroleum industry and State of Alaska to gain access to oil reserves.<sup>103</sup>

Native Alaskans are once again confronted with oil and gas expansion under the Trump administration, with potential oil drilling in the Alaska Outer Continental Shelf (OCS) and opening of the Alaska National Wildlife Refuge (ANWR) to oil and gas development.<sup>104</sup>

In April 2017, Trump signed an executive order lifting a ban on oil exploration in the coastal seas of Alaska. The U.S. government is now proposing 19 offshore lease sales in the Chukchi Sea, the Beaufort Sea, Cook Inlet, and other areas.<sup>105</sup> Any oil spills in these Arctic waters would be catastrophic for bowhead whales, seals, polar bears, and other marine mammals and would directly affect the Alaska Natives' subsistence culture and way of life.<sup>106</sup> Spills or drilling disasters would mean high-risk cleanup challenged by ice cover, subzero temperatures, and harsh weather conditions. There is no proven way to clean sea ice of oil from potential spills.<sup>107</sup>

The U.S. Republican tax overhaul law passed in December 2017 included a provision requiring two oil and gas lease sales in the coastal plains area of the ANWR over the next 10 years.<sup>108</sup>

ANWR is one of the world's most pristine and beautiful ecosystems, with landscapes and wildlife that demand the strongest protection. The Refuge is home to porcupine caribou, muskoxen, moose, Arctic fox, lynx, wolves, and polar bears, brown bears, and black bears, and is a stopping point for nearly 200 species of migratory birds.<sup>109</sup>

For Alaska Natives, such as the Gwich'in Athabascan peoples, protecting the Refuge and the caribou they depend on is a matter of human rights and the collective right of Indigenous peoples — as well as a critical matter of survival.<sup>110</sup> In opposing Arctic oil drilling, they are fighting for their rights and the rights of the porcupine caribou, whose calving grounds are within the coastal plain of the Refuge. The Gwich'in call these caribou calving grounds *lizhik Gwats'an Gwnadaii Goodlit*: "the sacred place where life begins." The Gwich'in have followed the caribou herd across the lands of this protected Refuge for thousands of years.<sup>111</sup> They are rightfully concerned that seismic exploration and drilling for oil in the Refuge will have disastrous effects on the delicate web of life in these sacred lands. Oil and gas expansion in ANWR would carve up the Refuge with roads and industrial infrastructure, fragmenting otherwise pristine habitat and exposing the fragile tundra and wildlife to toxic chemicals, oil spills, and gas leaks.<sup>112</sup>

Alaska Native Peoples and the fragile Arctic ecosystem have yet to fully recover from the disastrous 1989 Exxon Valdez terminal oil spill. It killed thousands of animals, severely affecting the local food chain as well as the food security and sovereignty of Alaska Natives.<sup>113</sup> Another spill would have a catastrophic effect on what remains of Alaska's pristine ecosystem and the way of life of its peoples.<sup>114</sup>

For Alaska Natives, such as the Gwich'in Athabascan peoples, **protecting the Refuge and the caribou** that they depend on **is a matter of human rights and the collective right of Indigenous peoples** – as well as a critical matter of survival.

Moreover, expansion of oil and gas development in Alaska will lead to an increase in global greenhouse gas emissions. Climate change is already a stark reality in the Alaska Arctic ecosystem. The average air temperature in the Arctic is warming twice as fast as the global average.<sup>115</sup> Coastal villages are experiencing the melting of permafrost, which in turn triggers huge seasonal surges in CO<sub>2</sub> emissions and coastal erosion.<sup>116</sup> Ice cover in the coastal waters is decreasing, making it more difficult to obtain the seafood that sustains local Indigenous peoples.<sup>117</sup> Inland, porcupine caribou migration routes are changing, threatening Gwich'in hunters that rely on the caribou.<sup>118</sup>

Expansion of oil and gas development in Alaska is an assault against the Alaska Natives who are defending the territorial integrity of Mother Earth and Father Sky, and the rights of their future generations. Bank financing of the expansion of extreme fossil fuels in Alaska perpetuates a long history of violations of the human rights and collective rights of the Indigenous peoples of Alaska.



Allison Warden from Alaska speaks at a press conference in front of the White House as a coalition of more than 400 organizations and leaders deliver a historic letter calling on President Obama to stop new federal fossil fuel leasing on public lands and oceans in the U.S., September 2015.

PHOTO: RAN

# ARCTIC OIL - League Table

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS)			TOTAL	RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS)			TOTAL
		2015	2016	2017				2015	2016	2017	
1	BNP PARIBAS	\$170 M	\$232 M	\$126 M	\$528 M	20	MIZUHO	\$28 M	\$39 M	\$38 M	\$104 M
2	DEUTSCHE BANK	\$199 M	\$209 M	\$41 M	\$448 M	21	BPCE/NATIXIS	\$50 M	\$11 M	\$3 M	\$64 M
3	CIBC	\$115 M	\$117 M	\$165 M	\$397 M	22	GOLDMAN SACHS	\$36 M	\$21 M	\$5 M	\$61 M
4	RBC	\$81 M	\$107 M	\$150 M	\$338 M	23	WELLS FARGO	\$32 M	\$13 M	\$10 M	\$55 M
5	BARCLAYS	\$190 M	\$97 M	\$19 M	\$306 M	24	MUFG	\$20 M	\$12 M	\$15 M	\$46 M
6	JPMORGAN CHASE	\$126 M	\$76 M	\$97 M	\$299 M	25	SMFG	\$3 M	\$11 M	\$26 M	\$39 M
7	SOCIÉTÉ GÉNÉRALE	\$208 M	\$56 M	\$22 M	\$286 M	26	CREDIT SUISSE	\$22 M	\$10 M	\$4 M	\$36 M
8	HSBC	\$130 M	\$64 M	\$86 M	\$280 M	27	SANTANDER	\$22 M	\$3 M	\$8 M	\$33 M
9	CITI	\$148 M	\$68 M	\$25 M	\$241 M	28	UBS	\$4 M	\$11 M	\$4 M	\$18 M
10	ING	\$65 M	\$147 M	\$18 M	\$230 M	29	ANZ	<\$0.1M	-	\$8 M	\$8 M
11	BANK OF MONTREAL	\$76 M	\$60 M	\$62 M	\$199 M	30	RBS	\$6 M	\$1 M	-	\$7 M
12	SCOTIABANK	\$48 M	\$140 M	\$9 M	\$198 M	31	STANDARD CHARTERED	<\$0.1M	-	\$0.5 M	\$0.5 M
13	BANK OF AMERICA	\$93 M	\$75 M	\$15 M	\$182 M	32	ICBC	<\$0.1M	<\$0.1M	-	<\$0.1M
14	COMMONWEALTH BANK	\$24 M	\$136 M	-	\$160 M	33	AGRICULTURAL BANK OF CHINA	-	-	-	-
15	MORGAN STANLEY	\$74 M	\$50 M	\$16 M	\$139 M	33	CHINA CONSTRUCTION BANK	-	-	-	-
16	UNICREDIT	\$78 M	\$31 M	\$26 M	\$136 M	33	NAB	-	-	-	-
17	CRÉDIT AGRICOLE	\$65 M	\$29 M	\$39 M	\$133 M	33	WESTPAC	-	-	-	-
18	TD	\$19 M	\$31 M	\$67 M	\$118 M						
19	BANK OF CHINA	<\$0.1M	\$110 M	-	\$110 M						
						<b>TOTAL</b>	<b>\$2.131 B</b>	<b>\$1.965 B</b>	<b>\$1.102 B</b>	<b>\$5.198 B</b>	

# ARCTIC OIL - Policy Grades

	GRADE	TIER	BANK
EXCLUDES COMPANIES	<b>A</b>	<p><b>ARCTIC OIL EXCLUSION</b></p> <p>Prohibits all financing for all companies with Arctic oil operations, as well as all finance for Arctic oil projects, with public reporting on implementation.</p>	
	<b>A-</b>	<p><b>SIGNIFICANT ARCTIC OIL EXCLUSION</b></p> <p>Prohibits all finance for Arctic oil projects, and excludes companies with Arctic oil expansion plans and companies with significant Arctic oil activity, with public reporting on implementation.</p>	
PHASES OUT COMPANIES	<b>B+</b>	<p><b>ARCTIC OIL PHASE-OUT AND/OR PARTIAL EXCLUSION WITH REPORTING:</b></p> <p>Commits to phase out all financing for and/or exclude companies with Arctic oil expansion plans or significant Arctic oil activity, with public reporting on implementation, and prohibits all finance for Arctic oil projects.</p>	
	<b>B</b>	<p><b>PARTIAL ARCTIC PHASE-OUT AND/OR EXCLUSION WITH REPORTING</b></p> <p>Commits to phase out one or more types of financing for and/or exclude some Arctic oil companies, with public reporting on implementation, and prohibits all finance for Arctic oil projects.</p>	
	<b>B-</b>	<p><b>PARTIAL ARCTIC OIL PHASE-OUT AND/OR EXCLUSION WITHOUT REPORTING:</b></p> <p>Commits to phase out one or more types of financing for and/or exclude some Arctic oil companies, and prohibits all finance for Arctic oil projects.</p>	<b>EUROPE:</b> Société Générale
EXCLUDES PROJECTS	<b>C+</b>	<p><b>ARCTIC OIL PROJECT-SPECIFIC FINANCING EXCLUSION OR PARTIAL PROJECT EXCLUSION WITH SOME CORPORATE FINANCING RESTRICTIONS:</b></p> <p>Prohibits all finance for all Arctic oil projects, or prohibits financing for some projects and some Arctic oil companies.</p>	<b>EUROPE:</b> BBVA, BNP Paribas, BPCE/Natixis, Commerzbank, Crédit Agricole, ING, RBS
	<b>C-</b>	<p><b>PARTIAL ARCTIC OIL PROJECT EXCLUSION:</b></p> <p>Prohibits some finance for Arctic oil projects.</p>	<b>EUROPE:</b> ABN AMRO



	GRADE	TIER	BANK
DUE DILIGENCE	D+	<p><b>ENHANCED DUE DILIGENCE THAT APPLIES TO ARCTIC OIL:</b> Has an enhanced due diligence process for transactions related to Arctic oil, with publicly disclosed due diligence criteria.</p>	<p><b>EUROPE:</b> UBS <b>US:</b> Citi, Goldman Sachs, JPMorgan Chase, Morgan Stanley, Wells Fargo</p>
	D	<p><b>ENHANCED DUE DILIGENCE THAT APPLIES TO ARCTIC OIL:</b> Has a general enhanced due diligence process that covers Arctic oil-related transactions, such as for the oil and gas sector, with publicly disclosed due diligence criteria, or has an Arctic oil-specific due diligence commitment without publicly disclosed due diligence criteria.</p>	<p><b>AUSTRALIA:</b> ANZ <b>CANADA:</b> RBC, TD <b>EUROPE:</b> Barclays, Credit Suisse, Deutsche Bank, Santander, Standard Chartered <b>US:</b> Bank of America</p>
	D-	<p><b>GENERAL DUE DILIGENCE:</b> Has a general environmental and social due diligence process for corporate financing transactions.</p>	<p><b>AUSTRALIA:</b> Commonwealth Bank, NAB, Westpac <b>CANADA:</b> Bank of Montreal, CIBC, Scotiabank <b>EUROPE:</b> HSBC, UniCredit <b>JAPAN:</b> Mizuho, SMFG</p>
	F	<p><b>NO POLICY</b></p>	<p><b>CHINA:</b> Agricultural Bank of China, Bank of China, China Construction Bank, ICBC <b>JAPAN:</b> MUFG</p>



PHOTOS: MATT MAIORANA / OIL CHANGE INTERNATIONAL; TRYTON2011 / SHUTTERSTOCK



# ULTRA-DEEPWATER OIL - League Table

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS)			TOTAL	RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS)			TOTAL
		2015	2016	2017				2015	2016	2017	
1	JPMORGAN CHASE	\$1.875 B	\$3.415 B	\$1.580 B	\$6.870 B	20	UNICREDIT	\$112 M	\$363 M	\$139 M	\$613 M
2	HSBC	\$1.598 B	\$752 M	\$2.478 B	\$4.827 B	21	CREDIT SUISSE	\$217 M	\$265 M	\$94 M	\$576 M
3	BANK OF AMERICA	\$861 M	\$3.176 B	\$506 M	\$4.542 B	22	ING	\$58 M	\$356 M	\$65 M	\$479 M
4	CITI	\$1.539 B	\$1.560 B	\$1.380 B	\$4.479 B	23	AGRICULTURAL BANK OF CHINA	\$267 M	\$100 M	\$29 M	\$396 M
5	MORGAN STANLEY	\$1.060 B	\$919 M	\$1.257 B	\$3.236 B	24	SCOTIABANK	\$272 M	-	\$44 M	\$316 M
6	DEUTSCHE BANK	\$1.918 B	\$919 M	\$368 M	\$3.206 B	25	RBS	\$263 M	\$42 M	-	\$305 M
7	SANTANDER	\$237 M	\$1.925 B	\$461 M	\$2.623 B	26	RBC	\$34 M	\$215 M	\$43 M	\$292 M
8	BARCLAYS	\$1.205 B	\$1.043 B	\$196 M	\$2.444 B	27	CHINA CONSTRUCTION BANK	\$198 M	\$52 M	\$29 M	\$280 M
9	BNP PARIBAS	\$915 M	\$591 M	\$485 M	\$1.991 B	28	WELLS FARGO	\$65 M	\$142 M	\$68 M	\$275 M
10	SOCIÉTÉ GÉNÉRALE	\$978 M	\$647 M	\$288 M	\$1.913 B	29	BPCE/NATIXIS	\$115 M	\$64 M	\$93 M	\$272 M
11	MIZUHO	\$521 M	\$953 M	\$371 M	\$1.845 B	30	WESTPAC	\$98 M	\$5 M	\$29 M	\$133 M
12	MUFG	\$754 M	\$583 M	\$433 M	\$1.770 B	31	COMMONWEALTH BANK	\$62 M	\$5 M	\$45 M	\$112 M
13	ICBC	\$1.288 B	\$325 M	\$55 M	\$1.668 B	32	ANZ	\$13 M	\$4 M	\$76 M	\$93 M
14	GOLDMAN SACHS	\$565 M	\$472 M	\$388 M	\$1.425 B	33	NAB	\$71 M	-	-	\$71 M
15	CRÉDIT AGRICOLE	\$382 M	\$295 M	\$439 M	\$1.116 B	34	CIBC	\$38 M	-	-	\$38 M
16	BANK OF CHINA	\$589 M	\$424 M	\$75 M	\$1.088 B	35	BANK OF MONTREAL	-	-	-	-
17	SMFG	\$317 M	\$443 M	\$80 M	\$840 M	35	TD	-	-	-	-
18	STANDARD CHARTERED	\$81 M	\$10 M	\$748 M	\$839 M						
19	UBS	\$335 M	\$166 M	\$193 M	\$694 M						
						<b>TOTAL</b>	\$18.902 B	\$20.231 B	\$12.532 B	<b>\$51.665 B</b>	



# ULTRA-DEEPWATER OIL - Policy Grades

	GRADE	TIER	BANK
EXCLUDES COMPANIES	A	<p><b>ULTRA-DEEPWATER OIL EXCLUSION:</b> Prohibits all financing for all companies with ultra-deepwater oil operations, as well as all finance for ultra-deepwater oil projects, with public reporting on implementation.</p>	
	A-	<p><b>SIGNIFICANT ULTRA-DEEPWATER OIL EXCLUSION:</b> Prohibits all finance for ultra-deepwater oil projects, and excludes companies with ultra-deepwater oil expansion plans and companies with significant ultra-deepwater oil activity, with public reporting on implementation.</p>	
PHASES OUT COMPANIES	B+	<p><b>ULTRA-DEEPWATER OIL PHASE-OUT AND/OR PARTIAL EXCLUSION WITH REPORTING:</b> Commits to phase out all financing for and/or exclude companies with ultra-deepwater oil expansion plans or significant ultra-deepwater oil activity, with public reporting on implementation, and prohibits all finance for ultra-deepwater oil projects.</p>	
	B	<p><b>PARTIAL ULTRA-DEEPWATER OIL PHASE-OUT AND/OR EXCLUSION WITH REPORTING:</b> Commits to phase out one or more types of financing for and/or exclude some ultra-deepwater oil companies, with public reporting on implementation, and prohibits all finance for ultra-deepwater oil projects.</p>	
	B-	<p><b>PARTIAL ULTRA-DEEPWATER OIL PHASE-OUT AND/OR EXCLUSION WITHOUT REPORTING:</b> Commits to phase out one or more types of financing for and/or exclude some ultra-deepwater oil companies, and prohibits all finance for ultra-deepwater oil projects.</p>	
EXCLUDES PROJECTS	C+	<p><b>ULTRA-DEEPWATER OIL PROJECT-SPECIFIC FINANCING EXCLUSION OR PARTIAL PROJECT EXCLUSION WITH SOME CORPORATE FINANCING RESTRICTIONS:</b> Prohibits all finance for all ultra-deepwater oil projects, or prohibits financing for some projects and some ultra-deepwater oil companies.</p>	
	C-	<p><b>PARTIAL ULTRA-DEEPWATER OIL PROJECT EXCLUSION:</b> Prohibits some finance for ultra-deepwater oil projects.</p>	

	GRADE	TIER	BANK
DUE DILIGENCE	D+	<p><b>ULTRA-DEEPWATER OIL DUE DILIGENCE:</b> Has an enhanced due diligence process for transactions related to ultra-deepwater oil, with publicly disclosed due diligence criteria.</p>	<p><b>US:</b> Citi, Goldman Sachs, Morgan Stanley, Wells Fargo</p>
	D	<p><b>ENHANCED DUE DILIGENCE THAT APPLIES TO ULTRA-DEEPWATER OIL:</b> Has a general enhanced due diligence process that covers ultra-deepwater oil-related transactions, such as for the oil and gas sector, with publicly disclosed due diligence criteria, or has an ultra-deepwater oil-specific due diligence commitment without publicly disclosed due diligence criteria.</p>	<p><b>AUSTRALIA:</b> ANZ  <b>CANADA:</b> RBC, TD  <b>EUROPE:</b> Barclays, Crédit Agricole, Credit Suisse, Deutsche Bank, ING, RBS, Santander, Société Générale, Standard Chartered  <b>US:</b> JPMorgan Chase</p>
	D-	<p><b>GENERAL DUE DILIGENCE:</b> Has a general environmental and social due diligence process for corporate financing transactions.</p>	<p><b>AUSTRALIA:</b> Commonwealth Bank, NAB, Westpac  <b>CANADA:</b> Bank of Montreal, CIBC, Scotiabank  <b>EUROPE:</b> BNP Paribas, HSBC, UBS, UniCredit  <b>JAPAN:</b> Mizuho, SMFG</p>
	F	<p><b>NO POLICY</b></p>	<p><b>CHINA:</b> Agricultural Bank of China, Bank of China, China Construction Bank, ICBC  <b>EUROPE:</b> BPCE/Natixis  <b>JAPAN:</b> MUFG</p>

# CLIMATE EXPORT



PHOTO: / RICK RAPPAPORT / WATERKEEPER ALLIANCE



Even while investment in renewable energy is surging, countries like China, India, and Pakistan are planning on importing increasing quantities of gas. In the United States, the Trump Administration wants to ramp up LNG exports — and the production of the fracked gas that is the LNG feedstock — as part of its “energy dominance” agenda.

### ***What is LNG?***

Liquefied natural gas, or LNG, is fossil gas cooled to liquid form. LNG can be shipped across oceans on massive barges, to be re-gasified and then burned in power plants around the world.<sup>119</sup>

Electricity generated by LNG has a huge carbon footprint. Just the extra energy used to liquefy, ship, and regasify LNG makes it almost twice as carbon-intensive as natural gas, according to the U.S. Department of Energy.<sup>120</sup> On top of that, since methane is a potent greenhouse gas, it takes only a small percent of the gas to leak from wellheads and pipes to make LNG worse for the climate than coal.<sup>121</sup> Scientific estimates of natural gas leakage rates vary widely, but several studies have shown leakage rates that imply that over a 20-year period, LNG has a worse climate impact than coal.<sup>122</sup>

LNG terminals can put at risk the health, safety, and livelihoods of nearby coastal communities.<sup>123</sup> The Tacoma LNG plant in Washington, for instance, threatens the fishing culture of the Puyallup Tribe, and thus is opposed by their Tribal Council.<sup>124</sup> Increased LNG export also means more reliance on controversial fracked gas.

While it is positive for the climate and public health that countries, and in particular China, are switching away from domestic coal, choosing LNG instead of renewables is risky, both economically and environmentally. Like other extreme fossil fuels, LNG is expensive and carbon-intensive. The Jordan Cove LNG terminal and associated pipeline described below, for instance, would cost \$10 billion.<sup>125</sup> This high price tag means the terminals have a high risk of becoming stranded assets under climate change regulation.<sup>126</sup>

Global LNG supply is currently driven by Qatar (26 percent of global exports) and Australia (21 percent).<sup>127</sup> However, there are a stunning 57 proposed and existing LNG terminals in North America,<sup>128</sup> and U.S. LNG capacity could potentially grow 700 percent by 2019 if the five terminals predicted to make it to the finish line first do in fact open.<sup>129</sup> Bank financing can be the make-or-break factor, and the drop in financing for LNG found in this report suggests that this buildout will be at least delayed.

### ***Do Banks Realize the Risks?***

Last year’s report card highlighted the relationship between French bank **BNP Paribas** and a company called Texas LNG.<sup>130</sup> Texas LNG is proposing one of three planned LNG terminals in the Rio Grande Valley, which would bulldoze Indigenous sacred and cultural sites, threaten biodiversity and ecotourism, destroy wetlands and pollute the air, and lead to more shale gas fracking in Texas.<sup>131</sup> Fracking is already endangering human health in the area with chemical releases into the air, water, and soil.<sup>132</sup>

In May 2017, a delegation from the Rio Grande Valley, including Native American leaders and Water Protectors, traveled to Paris to bring their message to BNP Paribas. With support from organizations including Friends of the Earth France, Rainforest Action Network, Carrizo/Comecrudo Tribe of Texas (Esto’k Gna), and Save RGV from LNG, they spoke at rallies, on popular radio shows, and at the annual shareholder meetings of various French banks. These activities garnered significant attention and support from social movements in France, where gas fracking is banned.<sup>133</sup>

Just months later, as part of its new oil and gas policy, **BNP Paribas** committed to not lend to the project. Going forward, BNP Paribas will not finance “LNG terminals that predominantly liquefy and export gas from shale,” which should mean all LNG terminals in North America.<sup>134</sup>

The Rio Grande Valley community continues to resist the three planned LNG terminals (Rio Grande LNG, Texas LNG, and Annona LNG) and the Rio Bravo Pipeline, as well as any banks funding them. Protests continue in France, where groups are pressuring **Société Générale** to follow the lead of BNP Paribas. Société Générale is financial advisor for the Rio Grande LNG terminal and Rio Bravo Pipeline,<sup>135</sup> as well as the second biggest banker of North American LNG over the last three years. **Morgan Stanley, MUFG, JPMorgan Chase, and HSBC** round out the 5 biggest bankers of LNG, all with poor D and F range policy grades.<sup>136</sup>

## CASE STUDY: *Jordan Cove: Bad Idea, Bad Investment*

Southwest Oregon is home to rugged mountains, wild salmon, biologically diverse forests, and strong communities that value Indigenous sovereignty and property rights. All of this is threatened by a Canadian company that wants to build a fracked gas pipeline through farms, ranches, and tribal lands to a proposed LNG export terminal in Coos Bay.

Calgary-based Pembina Pipeline is targeting Coos Bay, Oregon, for the Jordan Cove LNG export terminal and the Pacific Connector Gas Pipeline, a 229-mile project that would for the first time connect fracked-gas pipelines in the U.S. and Canadian Rockies to the U.S. West Coast for export.<sup>137</sup>

This proposal has been in the works for more than a decade. After many years of local and regional opposition, federal regulators denied the project in 2016. However, the company re-applied in early 2017, obviously hoping for a more favorable reaction from the pro-fossil Trump Administration. A new Draft Environmental Impact Statement is expected sometime in 2018.<sup>138</sup>

The pipeline would slash through hundreds of fish-bearing streams and old-growth forest reserves on public lands. Dozens of animals and plants listed under the Endangered Species Act are threatened by this proposal, including iconic coho salmon. The pipeline would have to cross steep mountainous terrain that poses excessive landslide risks, while the terminal is proposed in an area at risk of severe earthquake and tsunami damage. For decades, families have relied on fishing, clamming, and oyster farming in Coos Bay, all of which would be harmed by the largest dredging project in state history.<sup>139</sup>

The Jordan Cove facility would also be a substantial source of climate pollution. A 2018 report from Oil Change International estimated that the total annual greenhouse gas emissions would be 37 million metric tons, which is more than 15 times the 2016 emissions of Oregon's last remaining coal-fired power plant, which is scheduled to close in 2020.<sup>140</sup>

Hundreds of landowners are threatened with eminent domain if they don't accept a small, one-time payment to forever alter their land,<sup>141</sup> as well as the risks of accidental explosions and forest fires.<sup>142</sup> The Klamath Tribes, the Yurok, and the Karuk have all come out in strong opposition to the proposed project<sup>143</sup> and multiple tribes have filed as intervenors in the federal regulatory process.<sup>144</sup>

This proposed project has forged effective alliances between unlikely partners. One Coos Bay resident wrote, "I'm a lifelong union electrician and a Republican, and I did not vote for U.S. Senator Jeff Merkley. But ... I agree with Sen. Merkley that there

is a better way to create jobs and strengthen our economy in Southern Oregon than to let a Canadian company put a 229-mile fracked gas pipeline across our land along with an extremely hazardous LNG terminal in an earthquake and tsunami zone here in Coos Bay."<sup>146</sup>

Banks financing the companies constructing this project share responsibility for the impacts. Top bankers of Veresen, the original proponent of Jordan Cove, and now Pembina, which bought Veresen in 2017, include **RBC, Scotiabank, CIBC, TD, and JPMorgan Chase.**<sup>147</sup>

As global energy markets evolve dramatically with the transition to renewable energy, the Jordan Cove LNG export terminal looks increasingly at risk of becoming a stranded asset. Moreover, the egregious potential impacts and intense community opposition should steer banks away from further involvement in this project.

"The route of the LNG pipeline...shows it going through areas where villages once existed and it may unearth human remains... The route also would go under the Klamath River and the Rogue River, which since time immemorial have been and continue to be important sources of fish for Tribal members...The losses of our cultural resources and risks presented by the Project clearly outweigh any benefits to the public from building the LNG pipeline and the Jordan Cove terminal."

- **Donald Gentry**, CHAIRMAN, KLAMATH TRIBES, in letter to federal regulators, 9/21/16<sup>145</sup>

PHOTO: / RICK RAPPAPORT

# LNG EXPORT - League Table

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS)			TOTAL	RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS)			TOTAL
		2015	2016	2017				2015	2016	2017	
1	MORGAN STANLEY	\$1.689 B	\$736 M	\$954 M	\$3.379 B	20	BARCLAYS	\$300 M	\$621 M	\$7 M	\$928 M
2	SOCIÉTÉ GÉNÉRALE	\$1.242 B	\$844 M	\$1.115 B	\$3.201 B	21	SANTANDER	\$340 M	\$394 M	\$41 M	\$775 M
3	MUFG	\$1.581 B	\$816 M	\$711 M	\$3.108 B	22	DEUTSCHE BANK	\$391 M	\$271 M	\$77 M	\$739 M
4	JPMORGAN CHASE	\$1.270 B	\$1.203 B	\$445 M	\$2.918 B	23	UBS	\$171 M	\$187 M	\$145 M	\$502 M
5	HSBC	\$1.694 B	\$512 M	\$477 M	\$2.683 B	24	WESTPAC	\$224 M	\$43 M	\$183 M	\$450 M
6	BANK OF AMERICA	\$1.209 B	\$963 M	\$472 M	\$2.644 B	25	ANZ	-	\$400 M	-	\$400 M
7	CREDIT SUISSE	\$1.539 B	\$608 M	\$377 M	\$2.525 B	26	BPCE/NATIXIS	\$146 M	\$83 M	\$142 M	\$371 M
8	SMFG	\$1.224 B	\$860 M	\$402 M	\$2.487 B	27	BANK OF MONTREAL	\$142 M	\$26 M	\$20 M	\$189 M
9	MIZUHO	\$1.044 B	\$803 M	\$521 M	\$2.368 B	27	CIBC	\$142 M	\$26 M	\$20 M	\$189 M
10	RBC	\$1.036 B	\$586 M	\$449 M	\$2.071 B	29	NAB	\$142 M	-	-	\$142 M
11	GOLDMAN SACHS	\$908 M	\$426 M	\$697 M	\$2.031 B	30	UNICREDIT	-	-	\$125 M	\$125 M
12	SCOTIABANK	\$1.221 B	\$445 M	\$222 M	\$1.887 B	31	RBS	\$5 M	\$83 M	-	\$88 M
13	ING	\$1.184 B	\$509 M	\$188 M	\$1.881 B	32	BANK OF CHINA	-	-	\$20 M	\$20 M
14	CITI	\$547 M	\$703 M	\$186 M	\$1.436 B	33	TD	-	-	\$17 M	\$17 M
15	STANDARD CHARTERED	\$872 M	\$255 M	\$109 M	\$1.236 B	34	WELLS FARGO	\$2 M	-	\$4 M	\$7 M
16	ICBC	\$747 M	\$373 M	\$34 M	\$1.154 B	35	AGRICULTURAL BANK OF CHINA	-	-	-	-
17	BNP PARIBAS	\$609 M	\$294 M	\$160 M	\$1.063 B	35	CHINA CONSTRUCTION BANK	-	-	-	-
18	CRÉDIT AGRICOLE	\$429 M	\$386 M	\$243 M	\$1.058 B						
19	COMMONWEALTH BANK	\$829 M	\$43 M	\$88 M	\$960 M						
						<b>TOTAL</b>	\$22.878 B	\$13.500 B	\$8.651 B	<b>\$45.029 B</b>	



# LNG EXPORT - Policy Grades

	GRADE	TIER	BANK
EXCLUDES COMPANIES	A	<b>LNG EXPORT INFRASTRUCTURE EXCLUSION:</b> Prohibits financing for LNG export terminal construction and owners of current or planned LNG export terminals, with public reporting on implementation.	
	A-	<b>SIGNIFICANT LNG EXPORT INFRASTRUCTURE EXCLUSION:</b> Prohibits financing for LNG export terminal construction and companies with significant LNG export activity, with public reporting on implementation.	
PHASES OUT COMPANIES	B+	<b>LNG EXPORT INFRASTRUCTURE PHASE-OUT AND/OR PARTIAL EXCLUSION WITH REPORTING:</b> Commits to phase out all financing for and/or exclude companies with LNG export expansion plans or significant LNG export activity, with public reporting on implementation, and prohibits all finance for LNG export terminals.	
	B	<b>PARTIAL LNG EXPORT INFRASTRUCTURE PHASE-OUT AND/OR EXCLUSION WITH REPORTING:</b> Commits to phase out one or more types of financing for and/or exclude some LNG export companies, with public reporting on implementation, and prohibits all finance for LNG export terminals.	
	B-	<b>PARTIAL LNG EXPORT INFRASTRUCTURE PHASE-OUT AND/OR EXCLUSION WITHOUT REPORTING:</b> Commits to phase out one or more types of financing for and/or exclude some LNG export companies, and prohibits all finance for LNG export terminals.	
EXCLUDES PROJECTS	C+	<b>LNG EXPORT INFRASTRUCTURE PROJECT-SPECIFIC FINANCING EXCLUSION OR PARTIAL PROJECT EXCLUSION WITH SOME CORPORATE FINANCING RESTRICTIONS:</b> Prohibits all financing for the construction or expansion of all LNG export terminals, or prohibits financing for some projects and some LNG export companies.	EUROPE: BNP Paribas
	C-	<b>PARTIAL LNG EXPORT INFRASTRUCTURE PROJECT-SPECIFIC FINANCING EXCLUSION:</b> Prohibits one or more types of financing for the construction or expansion of some LNG export terminals.	

	GRADE	TIER	BANK
DUE DILIGENCE	D+	<p><b>LNG EXPORT DUE DILIGENCE:</b> Has an enhanced due diligence process for transactions related to LNG export, with publicly disclosed due diligence criteria.</p>	<p><b>US:</b> Morgan Stanley</p>
	D	<p><b>ENHANCED DUE DILIGENCE THAT APPLIES TO LNG EXPORT:</b> Has a general enhanced due diligence process that covers LNG export-related transactions, such as for the oil and gas sector, with publicly disclosed due diligence criteria, or has an LNG export-specific due diligence commitment without publicly disclosed due diligence criteria.</p>	<p><b>CANADA:</b> RBC, TD  <b>EUROPE:</b> Barclays, Crédit Agricole, Credit Suisse, Deutsche Bank, ING, RBS, Santander, Société Générale, Standard Chartered  <b>US:</b> Citi, Goldman Sachs</p>
	D-	<p><b>GENERAL DUE DILIGENCE:</b> Has a general environmental and social due diligence process for corporate financing transactions.</p>	<p><b>AUSTRALIA:</b> ANZ, Commonwealth Bank, NAB, Westpac  <b>CANADA:</b> Bank of Montreal, CIBC, Scotiabank  <b>EUROPE:</b> HSBC, UBS, UniCredit  Japan: Mizuho, SMFG  <b>JAPAN:</b> Mizuho, SMFG  <b>US:</b> Bank of America, JPMorgan Chase, Wells Fargo</p>
	F	<p><b>NO POLICY</b></p>	<p><b>CHINA:</b> Agricultural Bank of China, Bank of China, China Construction Bank, ICBC  <b>EUROPE:</b> BPCE/Natixis  <b>JAPAN:</b> MUFG</p>

# CASE STUDY:

## *JPMorgan Chase*

JPMorgan Chase continues to be uniquely exposed to climate risk through its **extreme fossil fuel financing**.

PHOTOS: JAKE CONROY / RAN





**JPMorgan Chase** stands out in this report's findings as the top U.S. banker of extreme fossil fuels over the last three years. The bank's uniquely irresponsible record on extreme fossil fuels has not gone unnoticed.

On May 8, 2017, JPMorgan Chase was the target of a coordinated day of civil disobedience when Indigenous and environmental activists disrupted business at 13 branches across Seattle, Washington.<sup>148</sup> The activists protested the bank's role in financing tar sands pipelines and Indigenous rights abuses; 26 people were arrested.<sup>149</sup>

That day of action was a high-water mark in a full year of nonviolent activism resisting JPMorgan Chase's fossil fuel financing. In April, Indigenous activist Jackie Fielder disrupted the bank's shareholder meeting, unfurling a banner on stage next to CEO Jamie Dimon calling on JPMorgan Chase to defund tar sands.<sup>150</sup> Other activists at the meeting pressed Dimon about JPMorgan Chase's funding for private prisons.<sup>151</sup>

On a September visit to Denver, Dimon was welcomed with a public rally at JPMorgan Chase regional headquarters, and Rainforest Action Network staffers hand-delivered a coalition letter calling on JPMorgan Chase to cease funding tar sands.<sup>152</sup> The next month, JPMorgan Chase was one of the main targets of the Divest the Globe international days of action, which called on banks to stop financing fossil fuels and Indigenous rights abuses.<sup>153</sup> Over 100 JPMorgan Chase bank branches were disrupted as part of the Divest the Globe activities.<sup>154</sup>

In November, two activists risked arrest to hang a banner in front of JPMorgan Chase headquarters in midtown Manhattan, reading "Chase: #1 on Wall Street — Tar Sands, Pipelines, Climate Change."<sup>155</sup> In December, during Dimon's keynote conversation at the Wells Fargo Investment Thought Leadership Forum, Indigenous Environmental Network and others attempted to deliver a petition calling on JPMorgan Chase to cut ties with TransCanada. The Water Protectors and allies were

roughly expelled by private security.<sup>156</sup> On stage, Dimon said, "I don't know why they're following me around."<sup>157</sup>

Dimon should pay closer attention to what his bank is doing. JPMorgan Chase funds a slew of environmentally destructive tar sands projects. In June, it lent \$243 million to the Kinder Morgan Trans Mountain expansion project loan,<sup>158</sup> despite a coalition of more than 20 Indigenous and environmental organizations warning the bank about the Indigenous rights and climate impacts of the project, and legal challenges from seven First Nations and the cities of Vancouver and Burnaby.<sup>159</sup> (Notably, no major U.S. or European bank that was on the Dakota Access Pipeline project loan participated.)

In December, the bank re-upped support for TransCanada, despite the controversy around its Keystone XL pipeline, approving a renewal of a \$1.5 billion credit facility that JPMorgan Chase led.<sup>160</sup> JPMorgan Chase is a major lender to Enbridge (see *Line 3 case study on page 27*) and Teck, the company behind Frontier, an enormous proposed open-pit tar sands megamine in Alberta. JPMorgan Chase's fossil fuel financing has impacts far beyond North America. As highlighted in a November Amazon Watch report,<sup>161</sup> the bank invests in at least three companies that drill for oil in the Amazon rainforest — in spite of direct opposition from Indigenous Peoples, and with devastating impacts on local communities and the rainforest ecosystem.<sup>162</sup> And it continues

to take advantage of glaring loopholes in its coal policy to finance companies like Polish utility Energa, which is planning the destructive Ostroleka coal-fired power plant.<sup>163</sup>

Overall, JPMorgan Chase continues to be uniquely exposed, among its peers, to climate risk through its extreme fossil fuel financing. It is the number one U.S. banker of extreme fossil fuels, with overall exposure increasing by 53 percent from 2016 to 2017.<sup>164</sup> In particular, JPMorgan Chase's financing for tar sands and coal mining have gone through the roof. This report finds that from 2016 to 2017, JPMorgan Chase upped its tar sands financing by 4 times. Its coal mining financing in 2017 is a startling 21 times higher than the previous year — this while the bank purports to have a policy to reduce its credit exposure to coal mining companies!<sup>165</sup> JPMorgan Chase is also the top banker of ultra-deepwater oil, and the top Western banker of coal power over the past three years.<sup>166</sup>

JPMorgan Chase wants to be seen as a responsible actor on climate. In 2017, the bank committed to facilitate \$200 billion in clean financing through 2025 and announced that it would source renewable power for 100 percent of its global energy needs by 2020.<sup>167</sup> Dimon has publicly supported the Paris Agreement.<sup>168</sup> Yet at the same time, JPMorgan Chase's extreme fossil fuel financing is putting a 1.5 degree world further out of reach every month.



# *Concerns with*

# **CARBON TRADING AND OFFSETS**



Kandi Mossett, NoREDD Action, COP 21, Paris 2015  
PHOTO: / INDIGENOUS ENVIRONMENTAL NETWORK

Cap-and-trade systems and other forms of carbon markets are proliferating around the world. These systems are facilitated by the finance sector to buy, sell, and trade pollution allowances and credits. If the fossil fuel and energy sector and the financial industry try to reduce their climate impacts through market-based programs, policymakers and the public must be aware of and guard against the pitfalls of some of these mechanisms, which are often touted as silver bullet solutions to climate change.

In a cap-and-trade system, governments set a cap on the total amount of emissions allowed from a defined range of industrial sectors. Emission allowances are then auctioned off, or given for free, to companies in these sectors. The amount of allowances created each year matches the cap set for the sectors and is supposed to be reduced annually in line with carbon reduction goals. Companies can then buy, sell, and trade carbon allowances with each other to meet their emission reduction targets — but in many cases, can do so without having to reduce their emissions. They can sell extra allowances, or purchase allowances from others if this is cheaper than reducing their emissions.

While cap-and-trade systems are spreading throughout the world, the approach has been highly controversial and has been supported by many big polluters and banks that benefit from brokering carbon trading. Some existing programs — most notably the EU Emissions Trading System — have not been as effective as promised due to flaws, including the over-allocation of allowances and the over-distribution of

allowances for free.<sup>169</sup> Perversely, cap-and-trade systems can sometimes allow fossil fuel producers to maintain or even increase their emissions, as polluters can offset pollution with relatively cheap credits, leaving local communities to continue bearing the cost of degraded air, water, and public health. Some advocates trying to resolve carbon market systems argue that without a meaningfully low baseline cap on emissions that is steadily lowered over time, we will fail to achieve the rapid reduction in emissions that is necessary.<sup>170</sup>

In addition, one of the most controversial aspects of carbon trading systems are “carbon offsets,” whereby fossil fuel producers and other polluters operating within a cap-and-trade system can buy carbon “credits” from projects around the world — such as renewable energy, hydroelectric dams, agriculture, and forestry — that are purported to reduce carbon emissions, but in many cases have failed to deliver. Numerous studies have shown that while carbon credits may provide some extra income to project developers, they may not lead to new emissions reductions.<sup>171</sup> To combat this issue, emissions reductions should be achieved by forcing corporations and polluting industries to cut their own pollution at the source, rather than maintaining the status quo and paying for reductions elsewhere that may not be fulfilled. Programs must be designed so that they contribute to verifiable CO<sub>2</sub> reductions and work in harmony with other policies to cut the production and consumption of fossil fuels.

One highly contested form of offsetting involves putting a price on forests’ ability to sequester carbon with the aim to reduce

emissions from land use changes in developing countries. The UN program Reducing Emissions from Deforestation and Forest Degradation (REDD+) can — without guarantees by governments to fully recognize the rights of Indigenous Peoples to the forests and rights of forest-dependent communities — lead to violations of the rights of Indigenous and other natural resource-based communities. This can also divert attention from the main causes of deforestation such as illegal logging, agricultural plantations, and cattle ranching.<sup>172</sup>

Ultimately, policy programs must be rejected that perpetuate or justify the extraction and use of fossil fuels, or that continue or create new harms to our air, water, lands, communities and climate. Market-based mechanisms that continue or further-entrench inequality, violate human rights, expedite the destruction of ecosystems or allow polluters to avoid cutting their own pollution must be avoided.

Banks like **JPMorgan Chase** and others that profit off these carbon offset systems by providing emissions trading services to clients need to be held to these standards.<sup>173</sup> Instead of further enriching polluting industries and derivatives traders who broker these faulty carbon offsets, policies and programs need to be implemented that lead to real and immediate emissions reductions at the source — keeping fossil fuels in the ground — in order to combat the climate crisis.<sup>174</sup>

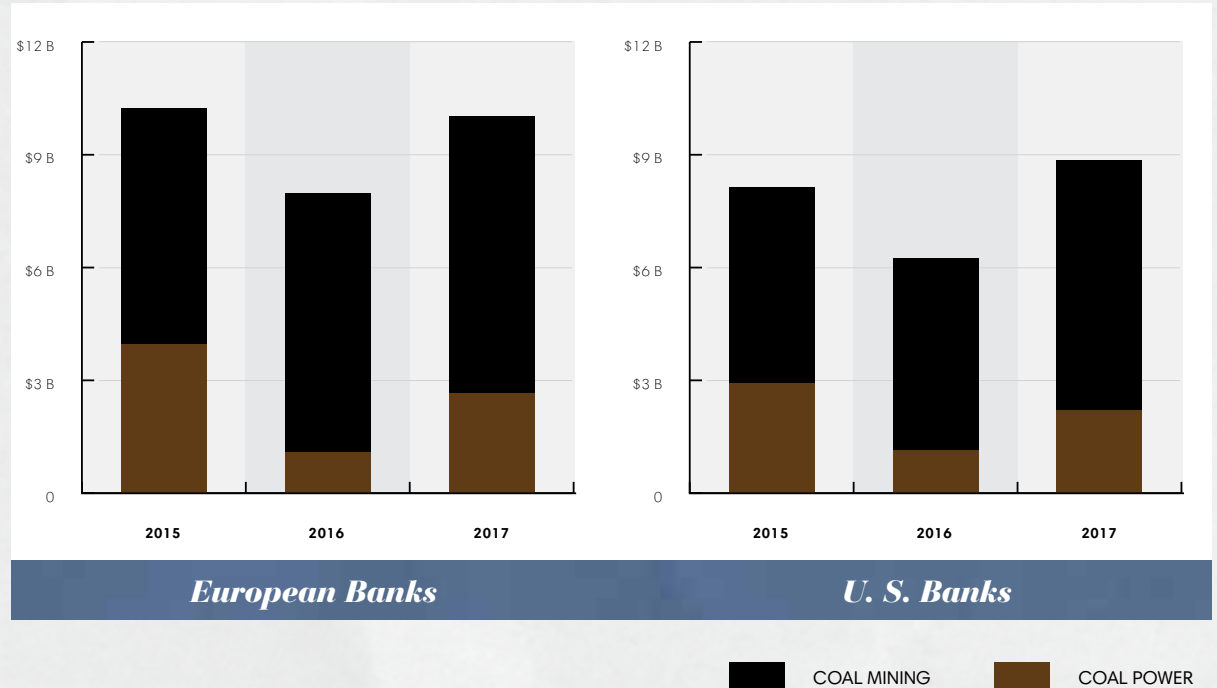




# *Coal* MINING *and* POWER

PHOTO: NNEIRDA / SHUTTERSTOCK

Although the coal-heavy Chinese banks decreased their coal financing over the past three years, in 2017 global banks overall slid backwards on coal finance. Progress was hindered by new financing commitments in the West, especially by banks in the United States and Europe.



## The Biggest Backsliders on Coal

These are the banks that most increased their total financing for **coal mining and power** from 2016 to 2017.

1. **Goldman Sachs** (\$1.2 billion increase)
2. **Credit Suisse** (\$1.0 billion increase)
3. **JPMorgan Chase** (\$1.0 billion increase)
4. **Deutsche Bank** (\$695 million increase)
5. **Wells Fargo** (\$589 million increase)
6. **HSBC** (\$450 million increase)
7. **RBC** (\$278 million increase)
8. **Société Générale** (\$227 million increase)
9. **SMFG** (\$217 million increase)
10. **Scotiabank** (\$184 million increase)

# COAL MINING



PHOTOS: / BRANDEN BARBER / RAN

## Coal Mining Policy Review

The global coal mining sector is under pressure like never before. An increasing number of analysts and industry watchers (including at **Goldman Sachs**<sup>175</sup>) are declaring that thermal coal has now entered structural, rather than cyclical, decline. Coal mining companies have to contend with the fact that six countries, states, provinces, or cities have completely phased out coal power since 2014, and an additional 17 have announced a coal power phase-out date of 2030 or sooner. Among them are three G7 countries, eight EU countries, and Beijing and Delhi — all committed to becoming coal-free.<sup>176</sup> Also in 2017, South Korea, the world's fourth largest coal importer, announced a major reduction in its coal power reliance, a move that has dire implications for Indonesian coal producers in particular.<sup>177</sup>

This unstoppable trend is being driven by ever-cheaper renewable energy in most parts of the world, as countries look to revolutionize their energy systems in order to address the legacy problems of coal: climate change and air pollution. In India, for instance, where solar energy has already achieved price competitiveness with coal, the government of Uttar Pradesh, the country's most populous state, last year cancelled seven new coal power plant projects.<sup>178</sup>

Another factor highlighting the writing on the wall for the coal sector is the global phenomenon of increased global action to stop coal. From the Beyond Coal movement in the US

and Europe, to the Stop Adani campaign in Australia, to the effective grassroots anti-coal campaigning in Myanmar and other parts of Southeast Asia, people are calling for clean, affordable alternatives to coal.<sup>179</sup>

The surge of bankruptcies and restructurings that affected a string of global coal miners in recent years, especially in the United States, has subsided due to a recovering global seaborne thermal coal price.<sup>180</sup> However, a projected drop in demand for coal in China and the United States looks likely to trigger a coal price decrease and result in yet more bankruptcies.<sup>181</sup> Also, the recovery in U.S. coal production in 2017, while much seized upon by the industry, looks anything but sustainable and is attributable to a surge in U.S. coal exports in highly volatile global coal commodity markets.<sup>182</sup>

Amidst this volatility, the coal mining sector has nonetheless continued to receive support from commercial banks. This report card finds bank financing for the sector rising in 2017, after a promising drop in 2016. Alarming, it is primarily U.S. and European banks that are increasing their financing of coal mining, even though many have policies promising to decrease their exposure.

At a time when a draft United Nations climate science report finds that the 1.5 degree climate target could be breached as early as the 2040s,<sup>183</sup> the paucity of coal mining policy

advances in 2017 is another brutal reminder of banks' bottom line climate irresponsibility. With varying degrees of ambition, **Barclays, Credit Suisse, Deutsche Bank, NAB, and Westpac** were the only banks assessed in the report card to have made new commitments to restrict financing for coal miners in 2017; the Chinese banks at the top of the league table remain sans policies.

With the advancements in coal policies of recent years slowing to a trickle in 2017, and the rise in bank financing for coal mining companies, there is increasing urgency for the banking sector to change its approach. Data from the International Energy Association points to the big elephant in the coal mining finance room: billions of dollars are being provided via general corporate finance (rather than financing tied to funding specific coal projects).<sup>184</sup> Overwhelmingly it is commercial private sector finance maintaining an industry on its knees, defying global sentiment and urgent efforts to rein in climate change.<sup>185</sup> Taking the necessary policy measures to restrict and reduce corporate finance for these coal mining companies must be top of the agenda for banks, ahead of the next U.N. climate talks in Poland in late 2018.



## CASE STUDY: *Banks Reject Adani's Australian Antics But Fall Short on Coal at Large*

A high farce has played out in Australia over the last year involving the Indian conglomerate Adani's efforts to find financing for its proposed Carmichael coal mine, as many banks have explicitly refused to cover the project's estimated \$12.8 billion price tag.<sup>186</sup> This points to a wider and fast-encroaching reality for coal mining companies: more and more commercial banks — even the Chinese banks at the top of the sector league table — are saying no to coal mine projects.

The Carmichael “mega” mine could potentially produce a climate-busting 60 million tons of coal annually, mostly for export to India.<sup>187</sup> To do so would require moving the coal by rail from the Galilee Basin in north-east Australia to Adani's Abbot Point export terminal, with severe impacts expected for the neighboring Great Barrier Reef World Heritage Area if such a major ramping up of coal export traffic were to ever materialize.<sup>188</sup> The Carmichael mine would also cause devastating impacts on the traditional Indigenous lands on which Adani has proposed the mine. The Wangan and Jagalingou people,<sup>189</sup> the traditional owners of the land in the Galilee Basin, have been spearheading resistance to the project and Adani has failed to secure an Indigenous land use agreement.<sup>190</sup>

In tandem with Indigenous resistance, long-running NGO campaigning has resulted in a total of 28 banks ruling out funding for Galilee Basin coal export projects.<sup>191</sup> This includes Australia's four main banks, whose overall coal financing has decreased by 75 percent over the last three years.<sup>192</sup> Most strikingly, a crescendo of knock-backs for Adani arrived over a few days in December 2017 from **China Construction Bank, ICBC, Bank of China, and China Merchants Bank.**<sup>193</sup> As the Chinese banks are also the biggest bankers of coal mining,

these banks are to be congratulated for their stance on Carmichael, in particular as they faced Australian government entreaties and assurances on behalf of Adani.<sup>194</sup> The Chinese government's ambitions to provide global climate leadership have to be matched, however, by its banks moving fast to reject more than just one beleaguered, economically unviable coal mine project in Australia.<sup>195</sup>

February 2018 saw yet another setback for Adani's plans when rail operator Aurizon unexpectedly pulled out of building the rail link, citing its inability to secure contracts with customers.

The toxicity of the Carmichael project is further highlighted by Adani's apparent failure to entice the U.S. debt market, after which the company missed its latest deadline to secure financing for the mine by March 2018.<sup>196</sup> While the latest polling suggests that public opposition to Adani is surging in Australia,<sup>197</sup> campaigner vigilance remains high,<sup>198</sup> as the Carmichael project still makes up half of Adani's book value.<sup>199</sup>

This is Big Coal's tragedy playing out in full public view. Adani's desperate efforts to attract billions in funding for the massive new infrastructure required to open up a new coal basin isn't going well with a finance industry increasingly attuned, as the global climate imperative gathers steam, to the threat of stranded assets. Meanwhile, salt is being rubbed into Adani's wounds with its Mundra coal plant in India in dire straits — a supposed key off-taker of Carmichael coal. The company's latest financial results show its profits from coal mining are decreasing.<sup>200</sup>

Adani has dragged its reputation through the mud in Australia, and potential financiers have expressed one of the most universal and unambiguous expressions of aversion to a project. Banks should now be showing the same level of zero tolerance to Adani's coal power expansion plans, given the company's high ranking on the Coal Plant Developers list, a list of the companies with the most destructive coal power buildout plans.<sup>201</sup>



PHOTO: MAX PHILLIPS / STOP ADANI

# COAL MINING - League Table

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS)			TOTAL	RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS)			TOTAL
		2015	2016	2017				2015	2016	2017	
1	CHINA CONSTRUCTION BANK	\$3.725 B	\$4.464 B	\$4.419 B	\$12.608 B	20	RBC	\$153 M	\$35 M	\$65 M	\$254 M
2	BANK OF CHINA	\$4.055 B	\$3.206 B	\$2.202 B	\$9.464 B	21	ING	\$54 M	\$152 M	\$45 M	\$252 M
3	ICBC	\$3.877 B	\$2.766 B	\$1.572 B	\$8.215 B	22	BANK OF MONTREAL	\$32 M	\$35 M	\$177 M	\$244 M
4	AGRICULTURAL BANK OF CHINA	\$3.319 B	\$1.092 B	\$1.260 B	\$5.671 B	23	MUFG	\$102 M	\$35 M	\$55 M	\$192 M
5	GOLDMAN SACHS	\$1.853 B	\$175 M	\$975 M	\$3.003 B	24	MIZUHO	\$48 M	\$35 M	\$108 M	\$191 M
6	DEUTSCHE BANK	\$1.868 B	\$35 M	\$678 M	\$2.581 B	25	STANDARD CHARTERED	\$32 M	\$35 M	\$80 M	\$147 M
7	CREDIT SUISSE	\$166 M	\$69 M	\$1.100 B	\$1.334 B	26	RBS	\$101 M	\$40 M	-	\$141 M
8	CITI	\$338 M	\$835 M	\$140 M	\$1.313 B	27	SCOTIABANK	\$61 M	\$35 M	\$34 M	\$130 M
9	JPMORGAN CHASE	\$235 M	\$43 M	\$934 M	\$1.212 B	28	TD	\$43 M	\$35 M	\$47 M	\$125 M
10	SOCIÉTÉ GÉNÉRALE	\$171 M	\$146 M	\$256 M	\$573 M	29	WESTPAC	\$110 M	-	-	\$110 M
11	NAB	\$312 M	\$144 M	\$34 M	\$491 M	30	COMMONWEALTH BANK	\$32 M	\$35 M	\$34 M	\$101 M
12	HSBC	\$362 M	\$83 M	\$38 M	\$483 M	31	SANTANDER	\$85 M	-	\$13 M	\$98 M
13	UNICREDIT	\$78 M	\$216 M	\$165 M	\$459 M	32	ANZ	\$46 M	\$8 M	\$34 M	\$88 M
14	BANK OF AMERICA	\$338 M	\$44 M	\$64 M	\$447 M	33	SMFG	\$32 M	-	\$47 M	\$79 M
15	BNP PARIBAS	\$246 M	\$130 M	\$65 M	\$441 M	34	CIBC	-	\$35 M	-	\$35 M
16	CRÉDIT AGRICOLE	\$284 M	\$90 M	\$55 M	\$429 M	35	BPCE/NATIXIS	-	-	-	-
17	UBS	\$267 M	\$56 M	\$52 M	\$375 M	35	WELLS FARGO	-	-	-	-
18	BARCLAYS	\$240 M	\$35 M	\$95 M	\$371 M						
19	MORGAN STANLEY	\$166 M	\$35 M	\$90 M	\$291 M						
						<b>TOTAL</b>		\$22.828 B	\$14.185 B	\$14.934 B	\$51.946 B

# COAL MINING - Policy Grades

	GRADE	TIER	BANK
EXCLUDES COMPANIES	<b>A</b>	<p><b>COAL MINING EXCLUSION</b> Prohibits all financing for coal mines and all coal producers, with public reporting on implementation.</p>	
	<b>A-</b>	<p><b>SIGNIFICANT COAL MINING EXCLUSION</b> Prohibits all financing for coal mines and significant coal producers, with public reporting on implementation.</p>	
PHASES OUT COMPANIES	<b>B+</b>	<p><b>COAL MINING SECTOR PHASE-OUT WITH REPORTING:</b> Commits to phase out all financing for coal producers with clear timeline and public reporting on implementation and prohibits financing for new coal mines.</p>	
	<b>B</b>	<p><b>PARTIAL REDUCTION AND/OR EXCLUSION OF COAL MINING SECTOR WITH REPORTING:</b> Commits to reduce one or more forms of financing for coal producers, and/or exclude some coal producers with public reporting on implementation and prohibits financing for new coal mines.</p>	<p><b>AUSTRALIA:</b> NAB <b>EUROPE:</b> BNP Paribas, BPCE/Natixis, Crédit Agricole, ING</p>
	<b>B-</b>	<p><b>PARTIAL REDUCTION AND/OR EXCLUSION OF COAL MINING SECTOR WITHOUT REPORTING:</b> Commits to reduce one or more forms of financing for coal producers, and/or commits to exclude some coal producers.</p>	<p><b>EUROPE:</b> Barclays, Deutsche Bank, Société Générale <b>US:</b> Bank of America, Citi, JPMorgan Chase, Morgan Stanley, PNC, US Bank, Wells Fargo</p>
EXCLUDES PROJECTS	<b>C+</b>	<p><b>MTR EXCLUSION OR PROHIBITION ON FINANCING FOR NEW COAL MINES:</b> Prohibits all financing for all producers of MTR coal or prohibits financing for new coal mines.</p>	<p><b>CANADA:</b> TD <b>EUROPE:</b> ABN AMRO, Credit Suisse, HSBC, UBS <b>SINGAPORE:</b> DBS</p>

	GRADE	TIER	BANK
DUE DILIGENCE	C-	<p><b>PARTIAL PROHIBITION OF COAL MINE FINANCING, OR MTR PHASE-OUT:</b></p> <p>Commits to phase out all financing for producers of MTR coal, or sets a minimum efficiency threshold for new coal mine financing, or commits to phase out one or more types of financing for some, but not all MTR producers, or commits to partially prohibit new coal mine financing.</p>	<p><b>AUSTRALIA:</b> Westpac</p> <p><b>EUROPE:</b> RBS, Standard Chartered</p> <p><b>US:</b> Goldman Sachs</p>
	D+	<p><b>COAL MINING DUE DILIGENCE COMMITMENT</b></p> <p>Has an enhanced due diligence process for coal mining transactions, with publicly disclosed due diligence criteria.</p>	
	D	<p><b>ENHANCED DUE DILIGENCE THAT APPLIES TO COAL MINING:</b></p> <p>Has a general enhanced due diligence process that covers coal mining-related transactions, such as for mining in general, with publicly disclosed due diligence criteria, or has a coal mining specific due diligence commitment without publicly disclosed due diligence criteria.</p>	<p><b>AUSTRALIA:</b> ANZ, Commonwealth Bank</p> <p><b>EUROPE:</b> Santander, UniCredit</p>
	D-	<p><b>GENERAL DUE DILIGENCE COMMITMENT:</b></p> <p>Has a general environmental and social due diligence process for corporate financing transactions.</p>	<p><b>CANADA:</b> Bank of Montreal, CIBC, RBC, Scotiabank</p> <p><b>JAPAN:</b> Mizuho, SMFG</p> <p><b>SINGAPORE:</b> OCBC Bank, UOB</p>
	F	<p><b>NO POLICY</b></p>	<p><b>CHINA:</b> Agricultural Bank of China, Bank of China, China Construction Bank, ICBC</p> <p><b>JAPAN:</b> MUFG</p>



# COAL POWER



PHOTO: TRANCEDRUMER / SHUTTERSTOCK

# Coal Power Policy Review

2017 saw disappointingly few signs of major international commercial banks aligning their coal power financing with the Paris Agreement. Nevertheless by year end, various developments brought a tangible change in the global coal power conversation — a change that many banks are going to have to respond to decisively in 2018.

One year after the Paris Agreement entered into force, the United Nations Environment Program unequivocally called for an end to the construction of new coal power plants and an accelerated phase-out of existing plants as key steps towards achieving the Paris goals. Also, the Powering Past Coal Alliance emerged, a U.K.- and Canada-led initiative that already comprises more than 50 countries, regions, and businesses, and whose declaration explicitly calls for restrictions on financing for coal power.<sup>203</sup>

At the One Planet Summit in December 2017, former U.S. Secretary of State John Kerry was even more explicit in insisting that “We have to say no coal investment, period.”<sup>204</sup> Sixteen European insurers have recently stepped up to the Paris challenge by pulling \$22 billion in investments out of coal companies and committing to stop insuring new projects,<sup>205</sup> with the Italian company Generali becoming the latest to divest from coal in late February 2018.<sup>206</sup>

In stark contrast, a recent analysis revealed that the world's top commercial banks — many of them Paris Agreement enthusiasts — doled out \$275 billion in lending and underwriting services to the top 120 companies intent on developing new coal plants, primarily in developing countries.<sup>207</sup> And the findings of this report card, detailed on the next page,

show that financing to the power companies with the most coal generation capacity has stagnated over the last few years, when it needs to be dropping drastically.

Consistent with their scant – or non-existent – coal power policy coverage, the seven Chinese and Japanese banks covered in this report provided over half of the financing for coal power over the last three years. At the same time, however, 18 western banks increased their financing for coal power in 2017, including **Barclays, Citi, JPMorgan Chase, Société Générale, and Standard Chartered.**<sup>208</sup>

As coal plant closures continue in the United States and reach a tipping point in Europe,<sup>209</sup> on top of stunning regulatory and renewables advances in China and India,<sup>210</sup> the imminent threat of billions of dollars of ‘stranded assets’ is materializing quickly. As a result, increasingly concerned investors and regulators are upping the pressure.<sup>211</sup>

This leaves Japan (see the following case study on Marubeni), a handful of states (Poland, Turkey, the Balkan states, Egypt, and South Africa) and Southeast Asia as the principal sites of concerted planning for new coal plants. And with many coal power policies leaving loopholes for financing coal in developing countries, there remains substantial risk that banks continue to sacrifice local community health and the global climate by backing new coal plants.

However, with the identities of the companies planning new coal power in the developing world now out in the open via resources such as the Global Coal Exit List,<sup>212</sup> and the Paris Agreement ‘stocktake’ process due to start at the next U.N.

climate talks, there is a major opportunity for a sea change in the banking sector’s policy approach to coal power.

**ING** set the bar with its December 2017 announcement that its goal is to have “close to zero” exposure to utility clients involved in coal power generation by 2025.<sup>213</sup> This welcome move leapfrogs the Dutch bank beyond its European peers, most of which have thus far only ended project finance for coal plants worldwide.

Coal’s final frontier in Southeast Asia will be the acid test for banks, as the International Energy Agency (IEA) highlights the growing “attractiveness of project finance” from foreign banks as means to build new coal power in the region.<sup>214</sup> How much will banks buy into, hide behind and actually facilitate the dangerous myth peddled by industry that coal power is the answer to global energy poverty?<sup>215</sup> **HSBC** has again nailed its colors to the coal industry’s mast, passing up the opportunity to use policy revisions to withdraw from developing world coal plant financing.<sup>216</sup> Communities in Vietnam, where HSBC is currently advising and coordinating the financing of two new coal plant projects, disagree with the bank’s approach.<sup>217</sup> A recent report by the IEA shows that the path to 100 percent global energy access by 2030 will require mostly investments in off-grid solar and small hydro.<sup>218</sup>

At the local level, coal power is killing people as a result of air pollution.<sup>219</sup> At the global level, coal is killing people by exacerbating climate change.<sup>220</sup> Add on the looming risk of stranded assets, and much deeper restrictions to coal power financing should be the obvious choice for banks.

## CASE STUDY: *Marubeni, and the Danger of Diversified Coal Plant Developers Falling Under the Radar*

Since the Fukushima nuclear power plant disaster in 2011, Japan's turn towards coal power has been striking, both domestically and overseas. The largest beneficiary of Japan's recent significant financing of coal expansion around the world has been the diversified Japanese trading company Marubeni Corporation.<sup>221</sup>

In 2010, coal power accounted for 27 percent of the country's domestic electricity generation, jumping to 34 percent in 2014, post-Fukushima.<sup>222</sup> The 42 coal plants that Japan now has in the domestic pipeline — which potentially involve nearly 21 gigawatts (GW) of capacity — are inconsistent with Japan's commitments under the Paris Agreement, and make it the only G7 nation planning to boost its domestic coal power generation capacity.<sup>223</sup> But Japan's overseas coal power development plans are even more staggering.

Japan's support for overseas thermal coal generation has been led by state agencies such as the Japan Bank for International Cooperation (JBIC) and Nippon Export and Investment Insurance, and assisted by Japan's major banks. Japanese public finance agencies are planning to support a staggering 32 GW of coal projects overseas, mainly in Southeast Asia.<sup>224</sup> Japan's commercial banks, led by **Mizuho**, **MUFG**, and **SMFG**, are also joining the rush to build new coal plants and are respectively the first, second, and fifth biggest lenders to coal plant developers globally.<sup>225</sup>

One company seeking to make the most of this splurge on coal is Marubeni, the world's 26th largest coal plant developer. The company is intent on building out 13,000 megawatts (MW) of new coal plants in nine countries, despite only deriving 10 percent of its current power production from coal power.<sup>226</sup> Often, JBIC spearheads the financing for these plants and thereby attracts participation and interest from a wide range of global commercial banks. These projects include:

- » In partnership with Korea Electric Power Corporation (KEPCO), the 630 MW Thabametsi project in South Africa. Public opposition is long-standing and remains robust given the plant's potential extreme air pollution and climate impacts, and its location in a drought disaster area.<sup>227</sup>
- » As consortium leader, the 1,000 MW Cirebon 2 project in Indonesia. Disbursement of loans totaling over \$1.7 billion commenced in November 2017 from financiers including JBIC, **MUFG**, **Mizuho**, **SMFG**, and **ING**. This has taken place despite continuing legal challenges and uncertainty concerning the contested environmental permitting for the plant.<sup>228</sup>
- » Again in partnership with KEPCO, the 1,200 MW Nghi Son 2 project in Vietnam. The company was reportedly seeking to secure financing by the end of March 2018 from banks including JBIC, **Mizuho**, **MUFG**, and **Standard Chartered**. Nghi Son 2 would generate twice as much CO<sub>2</sub> per unit of power generated as the average coal plant in Vietnam — at a level that will significantly exceed the emissions intensity limit above which Standard Chartered rules out financing for new coal-fired power plants.<sup>229</sup>

**Mizuho** and **MUFG** have been the biggest bankers of Marubeni by far over the past few years.<sup>230</sup> Domestically, Marubeni is taking advantage of the Japanese government's recent enthusiastic approach to coal, with JBIC playing the role of principal financial facilitator and commercial banks jumping on the bandwagon.

Western banks, including **Citi**, **Crédit Agricole**, and **ING**, which have each chosen to provide finance to Marubeni since 2014 while also instituting policies to restrict their coal exposure, should take the lead and decline any form of new financing for Marubeni until it is prepared to adopt a 'no new coal plants' policy. Because it is diversified, Marubeni may manage to obtain good ratings on sustainability indices, yet banks must recognize the company's intention to contribute to future climate destruction through numerous new coal plant plans.<sup>231</sup>

Major investors, including its largest shareholder, the Government Pension Investment Fund of Japan, should be concerned about the stranded asset risk of Marubeni's coal expansion plans. Institutional investors active in calling for portfolio decarbonization in line with the Paris Agreement could encourage Marubeni to focus on the renewable energy side of its business and get out of coal.

If the Japanese government and industrial and financial sectors decide to continue on their current coal-paved path, the country could well become an international climate pariah. Alternatively, they can reject coal expansion and enable the country to regain its status as a global leader in the fight against climate change.



(ABOVE): Cirebon coal-fired power plant in West Java Province, Indonesia.  
**PHOTO:** FRIENDS OF THE EARTH JAPAN

(RIGHT): Community members pictured protesting outside the Pretoria High Court in March 2017 in support of South Africa's first climate change lawsuit, a landmark legal ruling won by Earthlife Africa Johannesburg which had challenged the government's decision to grant an environmental authorization for the Thabametsi coal plant without adequately considering any of the climate change impacts that this project will have.

**PHOTO:** JAMES OATWAY / CENTRE FOR ENVIRONMENTAL RIGHTS;





Consistent with their scant – or non-existent – coal power policy coverage, the **seven Chinese and Japanese banks** covered in this report **provided over half of the financing for coal power over the last three years**. At the same time, however, **18 western banks increased their financing for coal power in 2017**.

Cirebon coal-fired power plant in West Java Province, Indonesia.  
**PHOTO:** FRIENDS OF THE EARTH JAPAN



# COAL POWER - League Table

RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS)			TOTAL	RANK	BANK	FINANCING (B=BILLIONS / M=MILLIONS)			TOTAL
		2015	2016	2017				2015	2016	2017	
1	ICBC	\$4.532 B	\$4.397 B	\$4.533 B	\$13.463 B	20	CRÉDIT AGRICOLE	\$495 M	\$428 M	\$597 M	\$1.520 B
2	CHINA CONSTRUCTION BANK	\$5.946 B	\$4.793 B	\$2.524 B	\$13.264 B	21	SCOTIABANK	\$585 M	\$320 M	\$506 M	\$1.411 B
3	BANK OF CHINA	\$2.527 B	\$3.088 B	\$3.449 B	\$9.064 B	22	SMFG	\$306 M	\$215 M	\$385 M	\$906 M
4	AGRICULTURAL BANK OF CHINA	\$2.420 B	\$3.111 B	\$1.904 B	\$7.435 B	23	STANDARD CHARTERED	\$122 M	\$349 M	\$353 M	\$823 M
5	MUFG	\$1.207 B	\$1.872 B	\$1.392 B	\$4.471 B	24	SOCIÉTÉ GÉNÉRALE	\$288 M	\$134 M	\$250 M	\$672 M
6	JPMORGAN CHASE	\$1.550 B	\$1.121 B	\$1.259 B	\$3.930 B	25	SANTANDER	\$174 M	\$224 M	\$261 M	\$658 M
7	BARCLAYS	\$976 M	\$1.423 B	\$1.476 B	\$3.875 B	26	ING	\$224 M	\$169 M	\$183 M	\$576 M
8	CITI	\$786 M	\$1.024 B	\$1.821 B	\$3.631 B	27	UNICREDIT	\$141 M	\$149 M	\$265 M	\$556 M
9	MIZUHO	\$928 M	\$1.237 B	\$1.145 B	\$3.310 B	28	RBS	\$403 M	\$132 M	-	\$535 M
10	WELLS FARGO	\$1.034 B	\$736 M	\$1.325 B	\$3.094 B	29	BPCE/NATIXIS	\$188 M	\$209 M	\$57 M	\$454 M
11	BANK OF AMERICA	\$930 M	\$1.005 B	\$853 M	\$2.788 B	30	TD	-	\$251 M	\$176 M	\$427 M
12	UBS	\$897 M	\$1.128 B	\$641 M	\$2.667 B	31	ANZ	\$151 M	\$104 M	\$150 M	\$405 M
13	CREDIT SUISSE	\$623 M	\$938 M	\$939 M	\$2.500 B	32	COMMONWEALTH BANK	\$165 M	-	-	\$165 M
14	HSBC	\$387 M	\$629 M	\$1.124 B	\$2.141 B	33	WESTPAC	\$107 M	\$0.3 M	-	\$108 M
15	BNP PARIBAS	\$551 M	\$626 M	\$849 M	\$2.025 B	34	NAB	\$107 M	-	-	\$107 M
16	RBC	\$439 M	\$572 M	\$820 M	\$1.830 B	35	BANK OF MONTREAL	-	-	-	-
17	MORGAN STANLEY	\$492 M	\$763 M	\$540 M	\$1.795 B	35	CIBC	-	-	-	-
18	GOLDMAN SACHS	\$408 M	\$471 M	\$851 M	\$1.730 B						
19	DEUTSCHE BANK	\$823 M	\$337 M	\$389 M	\$1.549 B						
						<b>TOTAL</b>	\$30.908 B	\$31.957 B	\$31.017 B	<b>\$93.882 B</b>	

# COAL POWER - Policy Grades

	GRADE	TIER	BANK
EXCLUDES COMPANIES	A	<b>COAL POWER EXCLUSION</b> Prohibits all financing for new coal plants and all coal power producers, <sup>232</sup> with public reporting on implementation.	
	A-	<b>SIGNIFICANT COAL POWER EXCLUSION:</b> Prohibits all financing for new coal plants and significant coal power producers, with public reporting on implementation.	
PHASES OUT COMPANIES	B+	<b>COAL POWER SECTOR PHASE-OUT WITH REPORTING:</b> 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 and for all coal plant developers.	
	B	<b>PHASE OUT AND/OR EXCLUSION OF COAL POWER SECTOR WITH REPORTING:</b> Commits to phase out all financing for coal power producers with clear timeline, and/or exclude some coal power producers including some coal plant developers, with public reporting on implementation, and prohibits financing for new coal plants.	<b>EUROPE:</b> ABN AMRO, ING
	B-	<b>PARTIAL REDUCTION AND/OR EXCLUSION OF COAL POWER SECTOR WITHOUT REPORTING:</b> Commits to reduce one or more forms of financing for coal power producers, and/or exclude some coal power producers, and prohibits project financing for new coal plants.	<b>EUROPE:</b> BNP Paribas, BPCE/Natixis, Crédit Agricole, Société Générale
EXCLUDES PROJECTS	C+	<b>GLOBAL INDIVIDUAL COAL POWER PLANT FINANCING EXCLUSION:</b> Prohibits financing for all new coal power plants, globally.	<b>EUROPE:</b> Deutsche Bank <b>US:</b> PNC, US Bank
	C	<b>PARTIAL INDIVIDUAL COAL POWER PLANT FINANCING EXCLUSION:</b> Prohibits financing for all new coal power plants in some geographic regions, but not others.	<b>EUROPE:</b> Barclays, Credit Suisse, HSBC, UBS <b>SINGAPORE:</b> DBS <b>US:</b> Goldman Sachs, JPMorgan Chase, Morgan Stanley

	GRADE	TIER	BANK
DUE DILIGENCE	C-	<p><b>COAL PLANT EFFICIENCY THRESHOLD:</b> Sets a minimum efficiency or technology threshold for new coal power plant financing.</p>	<p><b>AUSTRALIA:</b> ANZ, Westpac <b>EUROPE:</b> RBS, Santander, Standard Chartered <b>US:</b> Citi</p>
	D+	<p><b>COAL POWER DUE DILIGENCE:</b> Has an enhanced due diligence process for coal power sector transactions, with publicly disclosed due diligence criteria.</p>	<p><b>EUROPE:</b> UniCredit</p>
	D	<p><b>ENHANCED DUE DILIGENCE THAT APPLIES TO COAL POWER:</b> Has a general enhanced due diligence process that covers coal power-related transactions, such as for the electric sector, with publicly disclosed due diligence criteria, or has a coal power specific due diligence commitment without publicly disclosed due diligence criteria.</p>	<p><b>AUSTRALIA:</b> Commonwealth Bank <b>CANADA:</b> TD <b>US:</b> Wells Fargo</p>
	D-	<p><b>GENERAL DUE DILIGENCE COMMITMENT:</b> Has a general environmental and social due diligence process for corporate financing transactions.</p>	<p><b>AUSTRALIA:</b> NAB <b>CANADA:</b> Bank of Montreal, CIBC, RBC, Scotiabank <b>JAPAN:</b> Mizuho, SMFG <b>SINGAPORE:</b> OCBC Bank, UOB <b>US:</b> Bank of America</p>
	F	<p><b>NO POLICY</b></p>	<p><b>CHINA:</b> Agricultural Bank of China, Bank of China, China Construction Bank, ICBC <b>JAPAN:</b> MUFG</p>



# *Human*

# RIGHTS



PHOTO: RICK RAPPAPORT

# EQUATOR PRINCIPLES: *Failing Victims of Human Rights Abuses*

In his 2017 report to the General Assembly, the U.N. Special Rapporteur on human rights defenders noted a “worrying lack of accountability for the adverse human rights impacts of business activities.”<sup>233</sup> Citing numerous reports of intimidation, imprisonment, and even assassinations and torture of ordinary people defending their communities and lands from development, Mr. Michel Forst found that defending and promoting human rights in the context of business “is dangerous, and even deadly, work.” It was reported that in 2017, a heart-wrenching 197 environmental defenders were killed for their work.<sup>234</sup>

Most alarming, Forst found that many businesses are, directly or indirectly but knowingly, involved in these violations of human rights. The most dangerous companies include those in land-consuming industries, such as oil, gas, coal, and dam construction.<sup>235</sup> In the case of the fossil fuel sector in particular, these companies are also contributing to the human rights impacts that come with a warming climate.<sup>236</sup>

## ***The Equator Principles***

Equator Principles provide minimum standards for determining, assessing, and managing environmental and social risk in the financing of development projects.<sup>237</sup> The principles were originally formulated by **Citi, ABN AMRO, Barclays, and West LB** in collaboration with the World Bank’s private finance arm, the International Finance Corporation (IFC). As of early 2018, 92 financial institutions in 37 countries have adopted the Equator Principles.<sup>238</sup>

Equator Principles Financial Institutions (EPFIs) are required to ensure that their clients observe certain environmental and social standards and report to the Equator Principles Association on their due diligence and management of the projects they finance. EPFIs voluntarily pledge “not [to] provide Project Finance or Project-Related Corporate Loans to Projects where the client will not, or is unable to, comply with the Equator Principles.”<sup>239</sup>

While in some cases the Equator Principles require analysis of a project’s greenhouse gas emissions,<sup>240</sup> they do not address the impact that fossil fuel projects financed under the Equator Principles have on the global climate and the environmental and social risks inherent in climate-changing projects.<sup>241</sup>

The primary standards applied to clients by the EPFI are based on the IFC’s Performance Standards.<sup>242</sup> Most of these Performance Standards call for mitigation and compensation where negative impacts cannot be avoided.<sup>243</sup> Where the risk to the environment or to the community’s health or safety is great, relocation after free, prior, and informed “consultation” may take place in spite of community protestations.<sup>244</sup>

The Performance Standards call for the establishment of a project-level grievance mechanism notwithstanding any local judicial remedies.<sup>245</sup> The importance of an accessible and transparent grievance process is particularly necessary where local courts are not friendly to communities (including Indigenous Peoples) or do not apply appropriate remedies. However the Equator Principles themselves do not offer a

mechanism for assessing complaints where affected parties believe the Principles have not been met.<sup>246</sup>

Performance Standard 4 addresses security personnel, both private contractors and security provided by the government. It calls for all allegations of unlawful or abusive acts of security personnel to be investigated and reported to public authorities and actions to be taken to prevent recurrence.<sup>247</sup>

## ***Indigenous Peoples***

Recognizing the importance of Indigenous Peoples’ collective relationship to their land and territories, Performance Standard 7 (PS7) requires the Free, Prior, and Informed Consent (FPIC) of Indigenous Peoples under certain circumstances:

- » For projects that could harm traditional or customary lands of Indigenous Peoples;
- » Where Indigenous Peoples would be forced to relocate away from their traditional lands and resources;
- » For projects that would significantly impact critical cultural heritage of Indigenous Peoples;
- » Where Indigenous cultural heritage would be used for profit.

The definition of FPIC in PS7 leaves far too much latitude for EPFI clients to choose from which Indigenous communities to secure consent and which to exclude.<sup>248</sup> Many Indigenous Peoples observe common sacred areas between neighboring diverse communities, and many share lands and territories for

gathering edible, medicinal, and other important plants, and hunting and fishing.<sup>249</sup>

The Equator Principles have been criticized for leaving judgments (and solutions) on critical environmental and social risks to the client, providing great potential for abuse.<sup>250</sup> The playing field between the fossil fuel industry and Indigenous Peoples is neither level nor equitable. Coercion, for example, can be hidden too easily as “consultation” and corruption be disguised as “compensation.”<sup>251</sup>

One important shortcoming of the Equator Principles is that they apply only to forms of finance that are directly related to a specific project (project finance or corporate loans where proceeds are known), leaving the possibility for banks to finance projects without applying the Equator Principles, by using other types of finance.<sup>252</sup>

Moreover, only projects proposed in developing or “Non-Designated” countries are to be examined against the IFC Performance Standards and other World Bank guidelines.<sup>253</sup> Projects in developed or “Designated” countries, if they have received the appropriate government approvals, are deemed to automatically meet the Equator Principles’ requirements of environmental and/or social assessments, management plans, stakeholder engagement, and grievance mechanisms.<sup>254</sup>

### ***Where it Breaks Down: Dakota Access Pipeline Example***

The Equator Principles’ more stringent due diligence requirements do not apply to the United States, Canada, or 32 other Designated Countries.<sup>255</sup> This system’s confidence in the adequacy or observance of local law is greatly misplaced. In the case of the United States and the Dakota Access

Pipeline (DAPL), consultations required under Section 106 of the National Historic Preservation Act did not take place as required by law.<sup>256</sup> According to the Standing Rock Sioux Tribe’s lawyers, an historic burial ground was bulldozed right after it was brought to the attention of the company, violating the federal Native American Graves Protection and Repatriation Act.<sup>257</sup> (Met with attack dogs, clubs, and disproportionate violence by the local sheriff and company security, many of its defenders were severely injured, according to reporters on the scene).<sup>258</sup> The Standing Rock Sioux Tribe’s Treaty Rights and claim to unceded lands and their traditional and customary use were ignored.<sup>259</sup>

In 2016, the company behind DAPL, Energy Transfer Partners, hired security firm TigerSwan. TigerSwan is a for-profit security firm founded by retired U.S. Army personnel, which advertises “military grade security and intelligence” and “force-ready experience.” TigerSwan infiltrated and installed provocateurs in the protest camp at Standing Rock and conducted air and electronic surveillance of the Water Protectors.<sup>260</sup>

TigerSwan internal memoranda shared with local law enforcement labeled the non-violent Water Protectors as “terrorists,” provoking disproportionate violence and intimidation with a heavily armed presence.<sup>261</sup> Hundreds of activists and Water Protectors were arrested for “trespass” and forced to post bail.<sup>262</sup>

The Intercept documented potential legal abuse — or intentional misuse of the criminal justice system, and that TigerSwan was paid to gather “evidence” for a frivolous lawsuit against anti-DAPL supporters and organizations.<sup>263</sup> The lawsuit alleged that the movement fighting DAPL was driven by “a network of putative not-for-profits and rogue eco-terrorist groups who employ patterns of criminal activity and campaigns of misinformation to target legitimate companies and industries with fabricated environmental claims.”<sup>264</sup> Also, The Intercept revealed that the Federal Aviation Administration denied the use of airspace to the Defenders’ drones documenting the struggle, while allowing the company to use them for security surveillance.<sup>265</sup>



PHOTO: INDIGENOUS RISING MEDIA



The Dakota Access Pipeline case demonstrates that the Equator Principles did not sufficiently protect the human rights and fundamental freedoms of the Water Protectors. Civil and political rights, including to protest corporate abuses, were suppressed and unjustifiably punished at Standing Rock, where the protests were against a project funded by EPFIs.<sup>266</sup> Fundamental freedom from discrimination and environmental racism was denied. (At one point, the company considered a pipeline route that would have crossed the Missouri River north of Bismarck, North Dakota — a city that is 92 percent white.<sup>267</sup> This route was rejected early on, in part over concerns for the city's water supply.<sup>268</sup>) Neither the Water Protectors nor the Tribe were afforded a grievance procedure to question the financing of the project, other than indifferent local courts.

Even after the suppression of the Water Protectors and the completion of the pipeline, the Army Corps of Engineers is, as of early 2018, only now conducting the legally required Environmental Impact Statement (EIS) process on DAPL. The EIS on the contentious Lake Oahe crossing had not been done when the Corps permitted the pipeline in a fast tracked review process.<sup>269</sup>

## ***Changes Post-DAPL***

On their own initiatives, **ABN AMRO, BNP Paribas, BayernLB, DNB, ING, and Nordea** (all but one of which are EPFIs) committed to step away from financing either DAPL itself or the companies behind it.<sup>270</sup> **ING** went so far as to blacklist the companies behind the pipeline.<sup>271</sup> These banks that did distance themselves from DAPL did so too late to affect the outcome of the project.

In 2017, 10 banks urged the steering committee of the Equator Principles to draw lessons from the DAPL situation and update the principles to shield adopting banks from the sort of risks experienced when financing DAPL.<sup>272</sup> In August of that year, over 250 civil society organizations from around the



PHOTO: INDIGENOUS RISING MEDIA

world called on the Equator Principles Association to update the Equator Principles to strengthen them on climate and Indigenous rights impacts.<sup>273</sup> At their October 2017 annual meeting, the Equator Principles Association acted in response to the *Equator Banks, ACT!* campaign and decided to begin a process to update the Equator Principles.<sup>274</sup> Key issues for this update include scope of applicability, human rights including Indigenous rights, and climate change. The EP Association also intends to issue a “clarification note” regarding application of the EP to Designated Countries.

As the Equator Principles revision works to better ensure that banks respect Indigenous rights in their financing, it also must

embrace more effective monitoring and verification to prevent the abuses that occurred against the Water Protectors fighting DAPL, including by ensuring access to sufficient grievance mechanisms.

As the UN high commissioner for human rights reflected, “those financing development projects must show that they take human rights risks seriously and are not part of the problem.”<sup>275</sup> It is time for banks to establish a true human rights-based approach to financing.



# WHAT MUST HAPPEN

In 2017, a handful of banks strengthened their policies to restrict financing of tar sands and shale gas, including associated infrastructure. This movement, along with the World Bank's announcement that it will stop financing all oil and gas extraction projects after 2019, marks a shift in how the financial sector considers the financial and reputational risks of fossil fuels. Increasingly, coal is not the only fossil fuel being seen for what it is: harmful, risky, and financially unwise.

And yet, even with some policies against financing coal mining in place, coal financing worldwide is not going in the right direction. Moreover, the geographical concentration of the banks that have made policy progress is worrisome; the Japanese and Chinese banks analyzed in this report continue to fund climate-wrecking companies and projects with essentially no policy restraints.

In a carbon-constrained world, banks need to recognize and act on the contradiction between their commitments to the Paris Agreement, their own policies, and their funding patterns. In particular, funding for the extreme fossil fuels highlighted in this report must be ended due to the climate, environmental, and human rights impacts. In order to align their businesses with a world that limits climate change to 1.5 degrees Celsius and respects human rights, banks must:

- » Prohibit all financing for all companies with operations in tar sands, Arctic, or ultra-deepwater oil, as well as all financing for projects in these sectors.
- » Prohibit all financing for LNG export projects as well as for companies engaged in, or planning, export terminal construction or operation.
- » Prohibit all financing for coal mines and companies with existing or planned coal production.
- » Prohibit all financing for coal power plants and electric power producers with significant existing or planned coal power-generating capacity.
- » Prohibit all financing for all fossil fuel expansion projects and companies expanding fossil fuel extraction, transportation, and combustion.
- » Implement a human rights-based approach to financing that fully respects all human rights, particularly the rights of Indigenous Peoples, including their right to free, prior, and informed consent, as articulated in the UN Declaration on the Rights of Indigenous Peoples.

PHOTO: MARIELLE SUMERGIDO



# ACKNOWLEDGEMENTS

This report was a joint effort between Rainforest Action Network (RAN), BankTrack, Indigenous Environmental Network (IEN), Sierra Club, Oil Change International, and Honor the Earth, with additional contributions and reviews from organizations around the world. Writing and research was coordinated by Alison Kirsch (RAN) with Jason Opeña Disterhoft (RAN), Yann Louvel (BankTrack), Alberto Saldamando (IEN), and Greig Aitken (BankTrack). Ben Cushing (Sierra Club), Lorne Stockman (Oil Change International), and Julien Vincent (Market Forces) provided additional writing, research, and coordination.

Thanks to all who wrote and contributed to particular sections: Lesley Adams (Waterkeeper Alliance) for the Jordan Cove case study, Tom Goldtooth (IEN) for the Alaska case study, Tara Houska (Honor the Earth) for the Line 3 case study, Juan Parras (TEJAS) for the Houston case study, and Alberto Saldamando (IEN) for the human rights section.

Thanks also to reviews from 350 Seattle, Amazon Watch, Foundation Development YES - Open-Pit Mines NO, Les Amis de la Terre France, Market Forces, Mazaska Talks, and Save RGV from LNG.



# APPENDIX - *Companies Included*

## *Top 30 Tar Sands Companies*

RANK	COMPANY	TAR SANDS RESERVES (MILLIONS OF BARRELS)	RANK	COMPANY	TAR SANDS RESERVES (MILLIONS OF BARRELS)
1	CANADIAN NATURAL RESOURCES	11,304.19	16	HUSKY ENERGY	1,102.66
2	SUNCOR ENERGY	10,607.45	17	CHEVRON	1,080.12
3	CENOVUS ENERGY	9,591.73	18	PTT EXPLORATION AND PRODUCTION	1,020.17
4	EXXONMOBIL	4,664.80	19	LARICINA ENERGY	656.77
5	ATHABASCA OIL CORPORATION	3,120.22	20	VALUE CREATION	648.65
6	TOTAL	2,378.45	21	BLACK PEARL RESOURCES	637.05
7	MEG ENERGY	2,354.88	22	PARAMOUNT RESOURCES	603.22
8	PETROCHINA	2,114.32	23	TECK RESOURCES LIMITED	598.52
9	OSUM OIL SANDS CORPORATION	2,101.42	24	CONNACHER OIL AND GAS	547.87
10	SUNSHINE OILSANDS	2,018.89	25	ROYAL DUTCH SHELL	540.06
11	IMPERIAL OIL	1,626.64	26	SINOPEC	367.13
12	CNOOC	1,526.62	27	GRIZZLY OIL SANDS	283.61
13	CONOCOPHILLIPS	1,450.29	28	KOREA NATIONAL OIL CORPORATION	259.39
14	BP	1,267.95	29	PENGROWTH ENERGY CORPORATION	230.36
15	DEVON ENERGY	1,170.17	30	JX NIPPON OIL AND GAS	203.28

Data from Rystad Energy AS, with reserves data as of the end of 2017. PROVIDED BY: OIL CHANGE INTERNATIONAL

## Tar Sands Pipelines Companies

COMPANY
ENBRIDGE
INTER PIPELINE
KINDER MORGAN
PEMBINA PIPELINE
PLAINS ALL AMERICAN PIPELINE
TRANSCANADA

Companies carrying tar sands oil via pipeline out of Alberta.

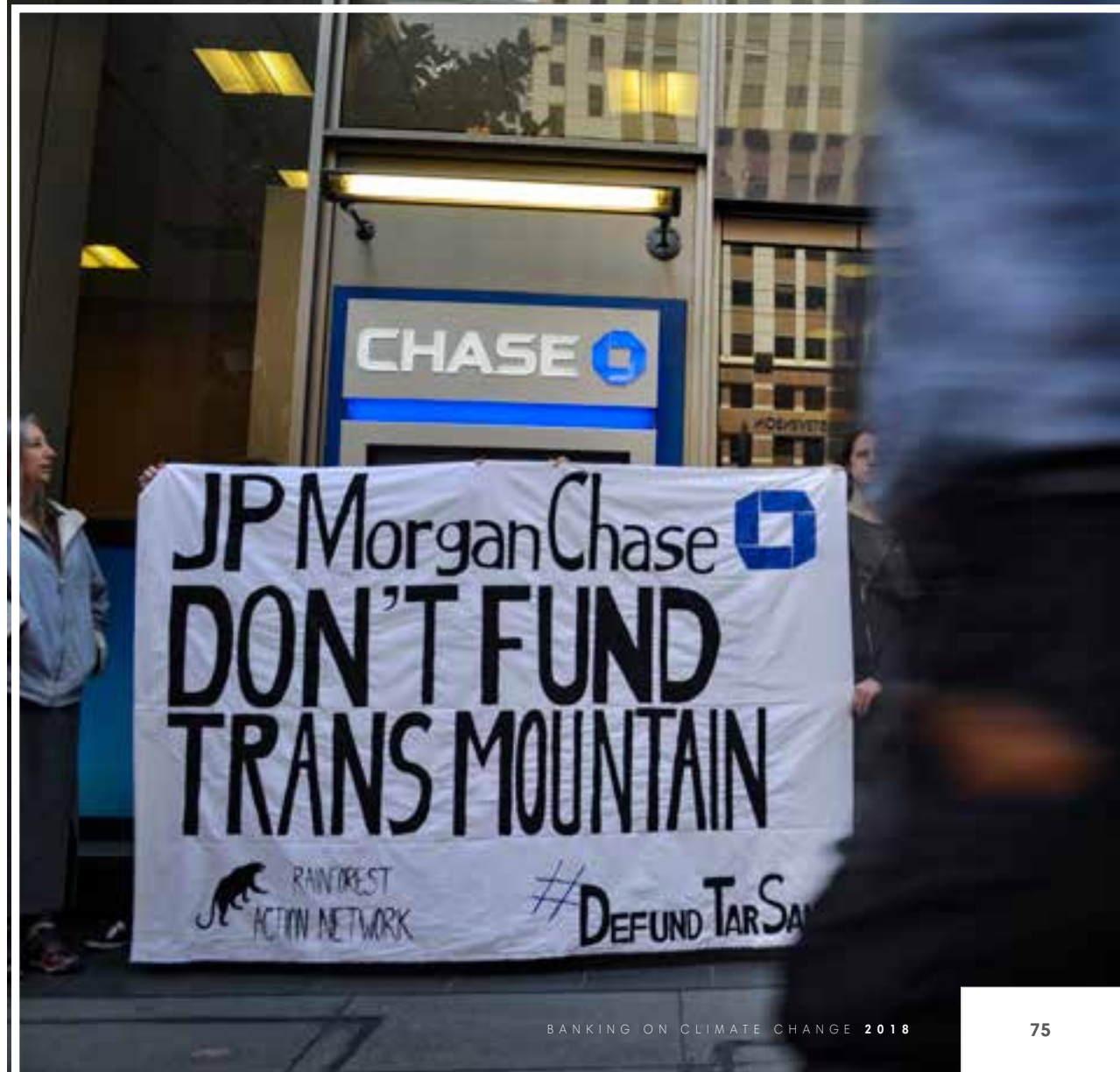


PHOTO: TOBEN DILWORTH / RAN



## Top 30 Arctic Oil Companies

RANK	COMPANY	ARCTIC OIL RESERVES (MILLIONS OF BARRELS)	RANK	COMPANY	ARCTIC OIL RESERVES (MILLIONS OF BARRELS)
1	GAZPROM	6,951.26	16	AKER BP	216.72
2	ROSNEFT	3,246.59	17	CAELUS ENERGY	191.79
3	STATOIL	2,151.62	18	IDEMITSU	191.29
4	PETORO	780.69	19	ENGIE	180.88
5	EXXONMOBIL	668.90	20	OMV	172.02
6	SUNCOR ENERGY	573.24	21	HILCORP ENERGY	168.53
7	HUSKY ENERGY	567.76	22	WINTERSHALL	153.11
8	ENI	454.08	23	CONOCOPHILLIPS	132.03
9	CHEVRON	417.38	24	ROYAL DUTCH SHELL	76.32
10	LUNDIN PETROLEUM	320.80	25	NALCOR ENERGY	73.34
11	BP	303.70	26	CNOOC	65.62
12	TOTAL	277.42	27	PARAMOUNT RESOURCES	61.21
13	DEVON ENERGY	256.91	28	NORDAQ ENERGY	51.47
14	ARCTICSHELFNEFTEGAZ	251.57	29	MURPHY OIL CORPORATION	38.92
15	DEA (LETTERONE)	238.82	30	CANADA HIBERNIA HOLDING CORPORATION	32.07

Data from Rystad Energy AS, with reserves data as of the end of 2017. PROVIDED BY: OIL CHANGE INTERNATIONAL

## Top 30 Ultra-deepwater Oil Companies

RANK	COMPANY	ULTRA-DEEPWATER OIL RESERVES (MILLIONS OF BARRELS)	RANK	COMPANY	ULTRA-DEEPWATER OIL RESERVES (MILLIONS OF BARRELS)
1	PETROBRAS	22,663.05	16	SONANGOL	1,458.93
2	ROYAL DUTCH SHELL	8,982.05	17	KOSMOS ENERGY	1,417.77
3	EXXONMOBIL	8,511.03	18	PETROCHINA	1,410.36
4	BP	7,855.57	19	SINOPEC	1,249.22
5	TOTAL	4,946.38	20	REPSOL	1,205.75
6	STATOIL	4,591.81	21	BHP BILLITON	1,102.82
7	ENI	3,280.36	22	OIL AND NATURAL GAS CORPORATION (ONGC)	1,058.09
8	CNOOC	2,640.69	23	CHINA NATIONAL PETROLEUM CORPORATION (CNPC)	1,004.86
9	ANADARKO	2,163.56	24	HESS CORPORATION	892.99
10	GALP ENERGIA	2,154.14	25	OPHIR ENERGY	724.88
11	NOBLE ENERGY	2,137.03	26	KOREA GAS	705.18
12	DELEK GROUP	2,010.94	27	COBALT INTERNATIONAL ENERGY	675.54
13	PEMEX	1,584.80	28	MITSUI & CO.	675.53
14	EMPRESA NACIONAL DE HIDROCARBONETOS (ENH)	1,565.08	29	RATIO OIL EXPLORATION	550.15
15	CHEVRON	1,498.00	30	WOODSIDE PETROLEUM LTD	530.63

Data from Rystad Energy AS, with reserves data as of the end of 2017. PROVIDED BY: OIL CHANGE INTERNATIONAL

## Top 30 LNG Export Companies in North America

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	16	ALASKA GASLINE DEVELOPMENT CORPORATION	2.63
2	EXXONMOBIL	4.97	17	ENERGY TRANSFER	2.20
3	VENTURE GLOBAL LNG	4.81	18	HIRANANDANI DEVELOPERS	2.07
4	CANADA STEWART ENERGY GROUP LTD	4.04	19*	G2 LNG LLC	1.84
5	TELLURIAN INVESTMENTS	4.00	19*	NEW TIMES ENERGY CORPORATION LIMITED	1.84
6	WOODSIDE PETROLEUM LTD	3.86	21	FAIRWOOD PENINSULA ENERGY CORPORATION	1.80
7	STEELHEAD LNG	3.77	22*	BARCA LNG LLC	1.60
8	ORCA LNG	3.68	22*	EOS LNG LLC	1.60
9	SEMPRA ENERGY	3.62	22*	SOUTHERN CALIFORNIA TELEPHONE COMPANY	1.60
10	NEXTDECADE	3.60	25	LIQUIFIED NATURAL GAS LIMITED	1.58
11	GLOBAL LNG SERVICES	3.22	26*	PIERIDAE ENERGY	1.47
12	KITSAULT ENERGY	3.11	26*	QATAR PETROLEUM	1.47
13	ROCKYVIEW RESOURCES INC.	3.02	28	ROYAL DUTCH SHELL	1.46
14	FREEPORT LNG DEVELOPMENT LP	2.86	29	LE GROUP HOLDING PTE LTD.	1.33
15	PETROLIAM NASIONAL BERHAD (PETRONAS)	2.74	30	COMMONWEALTH LNG	1.25

Data as of December 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

\*Tied in attributable export volume.

## Top 30 Coal Mining Companies

RANK	COMPANY	ANNUAL COAL PRODUCTION (MILLION METRIC TONS)	RANK	COMPANY	ANNUAL COAL PRODUCTION (MILLION METRIC TONS)
1	COAL INDIA	538.8	16	KAILUAN GROUP	91.7
2	SHENHUA GROUP	433.3	17	RWE	90.5
3	DATONG COAL MINE GROUP	171.6	18	BUMI RESOURCES	86.5
4	CHINA NATIONAL COAL GROUP	167.0	19	CHINA HUANENG GROUP	83.3
5	PEABODY ENERGY	159.3	20	ENERGETICKÝ A PR. MYSLOVÝ HOLDING (EPH)	82.0
6	SHANDONG ENERGY GROUP	133.7	21	BHP BILLITON	77.0
7	SHAANXI COAL AND CHEMICAL INDUSTRY	126.0	22	YANGQUAN COAL INDUSTRY GROUP	76.0
8	GLENCORE	124.9	23	SHANXI LU'AN MINING INDUSTRY GROUP	74.3
9	YANKUANG GROUP	109.0	24	STATE POWER INVESTMENT CORPORATION	73.7
10	SUEK	105.4	25	SHANXI JINCHENG ANTHRACITE MINING GROUP	70.4
11	SHANXI COKING COAL GROUP	105.4	26	JINNENG GROUP	70.4
12	JIZHONG ENERGY GROUP	101.8	27	HUAINAN MINING INDUSTRY GROUP	70.0
13	HENAN ENERGY AND CHEMICAL INDUSTRY GROUP	101.6	28	SINGARENI COLLIERIES COMPANY LIMITED	61.3
14	ANGLO AMERICAN	94.8	29	MURRAY ENERGY	59.0
15	ARCH COAL	93.3	30	CHINA GUODIAN	58.7

Data downloaded from urgewald's Global Coal Exit List in December 2017.



## Top 30 Coal Power Companies

RANK	COMPANY	INSTALLED COAL POWER CAPACITY (GIGAWATTS)	RANK	COMPANY	INSTALLED COAL POWER CAPACITY (GIGAWATTS)
1	CHINA HUANENG GROUP	117.87	16	DUKE ENERGY	17.96
2	CHINA GUODIAN	100.03	17	DTEK	17.52
3	CHINA DATANG	90.73	18	ENEL	16.10
4	CHINA HUADIAN	84.79	19	DATONG COAL MINE GROUP	15.46
5	STATE POWER INVESTMENT CORPORATION	64.44	20	PERUSAHAAN LISTRIK NEGARA (PLN)	15.00
6	SHENHUA GROUP	61.27	21	SHANDONG WEIQIAO PIONEERING GROUP	14.38
7	NTPC LIMITED	44.00	22	AMERICAN ELECTRIC POWER	14.32
8	ESKOM	38.55	23	NRG ENERGY	13.18
9	CHINA RESOURCES POWER	29.75	24	HEBEI CONSTRUCTION & INVESTMENT GROUP	13.10
10	KOREA ELECTRIC POWER CORPORATION	27.33	25	PPL CORPORATION	11.68
11	GUANGDONG YUDEAN GROUP	24.14	26	CLP HOLDINGS	11.40
12	SHAANXI COAL AND CHEMICAL INDUSTRY	23.84	27	DYNEGY	11.20
13	ZHEJIANG PROVINCIAL ENERGY GROUP	23.01	28	HUAINAN MINING INDUSTRY GROUP	11.20
14	RWE	20.16	29	FORMOSA PLASTICS GROUP	10.61
15	SOUTHERN COMPANY	19.14	30	EDF	10.60

Data downloaded from urgewald's Global Coal Exit List in December 2017.

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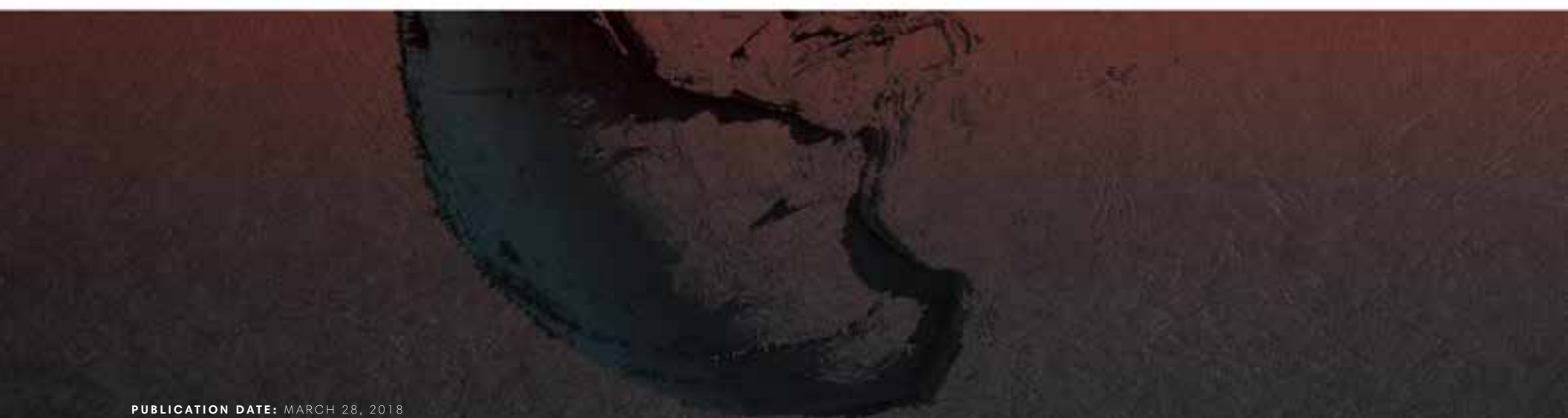
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PUBLICATION DATE: MARCH 28, 2018

