

CLIMATE ROADBLOCKS

Looming Trade Deals Threaten Efforts to Keep Fossil Fuels in the Ground





CLIFFS OF MOHER, IRELAND, NOVEMBER 2015. PHOTO: EAMON RYAN / 350.ORG

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
INTRODUCTION: How New Trade Deals Would Give Fossil Fuel Corporations More Power to Undermine Our Climate Protections	4
A “RIGHT” TO FRACK? Trade Deals Would Put Fracking Restrictions in Corporate Crosshairs.	8
A LIFELINE FOR OFFSHORE DRILLING? Trade Deals Would Make It Harder to Keep Oil Rigs Out of Our Waters	13
A LICENSE TO POLLUTE PUBLIC LANDS? Trade Deals Would Undermine Efforts to Keep Publicly Owned Fossil Fuels in the Ground	19
A TOOL TO DEFEND DIRTY PIPELINES? Trade Deals Would Pose New Hurdles for the Movement to Halt Fossil Fuel Pipelines.	21
CONCLUSION	23
APPENDIX The Top 100 Fossil Fuel Firms Empowered to Challenge Our Climate Protections	24
ENDNOTES	30

To see accompanying interactive map, go to www.sierraclub.org/trade-map.

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Executive Summary

In January 2016, TransCanada, the corporation behind the dangerous Keystone XL tar sands pipeline, laid bare the threats that two pending trade agreements pose to the movement to protect our climate and keep fossil fuels in the ground. Just two months after the Obama administration rejected the pipeline, TransCanada announced it would retaliate by using rules in the North American Free Trade Agreement (NAFTA) that empower foreign corporations to challenge domestic policies in private tribunals. TransCanada now plans to ask three tribunal lawyers to order the U.S. government to pay more than \$15 billion as “compensation” for the Keystone XL decision that avoided increased climate disruption.

But if two even larger trade deals were to take effect, TransCanada’s case may be just the beginning of a swell of such challenges to hard-fought climate protections. Those deals are the Trans-Pacific Partnership (TPP)—a controversial pact between the U.S. and 11 Pacific Rim countries that Congress may consider this year—and the Transatlantic Trade and Investment Partnership (TTIP)—a broad pact under negotiation between the U.S. and the European Union. Both deals would dramatically expand the number of corporations that could follow TransCanada’s example and use private tribunals as a backdoor way to challenge and potentially undermine U.S. policies that keep fossil fuels in the ground.

Like NAFTA, the TPP and TTIP would give foreign corporations broad rights, including the right to challenge new fossil fuel restrictions that thwart their “expectations” for a stable business environment. The trade deals would empower the corporations to bypass U.S. courts and take such challenges to tribunals of three private lawyers, unaccountable to any domestic legal system, under a process known as “investor-state dispute settlement” (ISDS).

The lawyers—over half of whom also represent corporations in cases against governments—could order the U.S. government to pay the corporations the profits they hypothetically would have earned without the new climate protections.

Law firms specializing in ISDS are now explicitly advising corporations, including fossil fuel firms, to see ISDS as a “tool” to “prevent” unwanted policies, as threats of costly ISDS cases can chill policy proposals. Policies targeted in recent ISDS cases include a fracking moratorium in Quebec, a court order to pay for oil pollution in Ecuador, and new restrictions on a coal-fired power plant in Germany. Shell, BP, Chevron, and ExxonMobil are among the fossil fuel corporations that have already used ISDS, helping to spur a rapid rise in ISDS cases. Indeed, half of the new cases launched in 2014 targeted policies affecting oil or gas extraction, mining, or power generation.

For the first time, the TPP and TTIP would enable some of the world’s largest fossil fuel firms to use ISDS to challenge U.S. policies to keep fossil fuels in the ground, including restrictions on fracking, offshore drilling, federal fossil fuel leasing, and dirty pipelines. Indeed, such firms have investments in these four fossil fuel sectors across at least 36 U.S. states (a map can be found here: www.sierraclub.org/trade-map). Here are this report’s major findings on these key climate threats:

OVERALL THREATS

- The TPP and TTIP would more than double the number of foreign fossil fuel corporations with the power to challenge U.S. policies in unaccountable ISDS tribunals. The two deals would newly grant broad foreign investor rights to more than 1,000 U.S. subsidiaries of over 100 foreign fossil fuel corporations—more than

the total number of fossil fuel firms that have such rights under all 56 existing U.S. trade and investment pacts *combined*.

- Forty-five of the 50 private corporations historically responsible for the most climate-disrupting emissions would be empowered to challenge climate policies in ISDS tribunals under the TPP and TTIP. These 45 corporations are collectively responsible for more than 20 percent of the world’s historical greenhouse gas emissions. The list includes all of the eight largest private greenhouse gas emitters outside of the U.S.—BP, Shell, Total, BHP Billiton, Anglo American, RWE, Eni, and Rio Tinto—each of which would gain the ability to launch ISDS challenges against U.S. climate protections for the first time.

THREATS TO EFFORTS TO STOP FRACKING:

- The TPP and TTIP would more than double the number of foreign fracking firms that could use ISDS to challenge new U.S. fracking restrictions in private tribunals.
- The deals would newly grant ISDS rights to corporations that are currently fracking for gas and/or oil in Arkansas, California, Colorado, Kansas, Louisiana, New Mexico, Ohio, Oklahoma, Pennsylvania, Texas, West Virginia, and Wyoming.
- The TPP would give ISDS rights to BHP Billiton, the largest foreign investor in U.S. shale, while TTIP would give them to BP and Shell, the eighth and 18th largest gas producers in the U.S., respectively.

THREATS TO EFFORTS TO RESTRICT OFFSHORE DRILLING:

- The TPP and TTIP would enable oil and gas corporations with more than 10 million acres’ worth of U.S. offshore drilling leases to use ISDS to try to undermine new offshore drilling restrictions. That is 24 times more area than that held by the much smaller number of foreign leaseholders that currently have access to ISDS.
- TTIP would empower oil and gas corporations that control 85 percent of leased area in the U.S. Arctic to challenge new restrictions on Arctic oil exploration in private ISDS tribunals. No firm with an oil or gas lease in the U.S. Arctic currently has that power.
- One out of every three acres off the U.S. coastline that is covered by an active drilling lease is

controlled by a fossil fuel corporation that would gain the ability under the TPP and TTIP to launch ISDS cases against new offshore drilling restrictions.

- The TPP and TTIP would give ISDS rights to seven of the 20 corporations whose offshore drilling leases cover the greatest amount of U.S. seabed in the Arctic, the Gulf of Mexico, and the Pacific. This includes Shell, which has U.S. offshore drilling leases that cover more acres than any other firm, and BP, which still holds the highest number of drilling leases in the Gulf of Mexico, despite its disastrous 2010 Gulf oil spill.

THREATS TO EFFORTS TO HALT FOSSIL FUEL LEASING ON PUBLIC LANDS:

- Foreign corporations currently own leases for oil and gas extraction on more than 1.7 million acres of U.S. federal lands. More than 40 percent of that public land—over 720,000 acres—has been leased to oil and gas corporations that would gain the power under the TPP and TTIP to challenge new federal leasing restrictions in private tribunals.
- The firms that would gain this ability to undermine leasing restrictions include BP and Shell, which rank among the 30 largest onshore oil and gas leaseholders by land area.

THREATS TO EFFORTS TO BLOCK FOSSIL FUEL PIPELINES:

- The TPP and TTIP would hand ISDS rights to corporations that own tens of thousands of miles’ worth of U.S. fossil fuel pipelines. These pipelines cross at least 29 states in nearly every region of the country: the West Coast, the Great Plains, the Midwest, the South, the Mid-Atlantic, the Northeast, and Alaska.
- Some of these corporations are planning to build even more fossil fuel pipelines. BP, for example, is partnering with TransCanada and others to construct an 800-mile gas pipeline across Alaska. And National Grid, the largest gas distributor in the Northeast, is taking part in a pipeline expansion to pump more fracked gas through Connecticut, Massachusetts, and New York. TTIP would give these corporations a new tool to counter growing fossil fuel pipeline opposition, allowing them to threaten to launch costly ISDS cases if policymakers would delay or deny their pipeline proliferation plans.

Introduction

How New Trade Deals Would Give Fossil Fuel Corporations More Power to Undermine Our Climate Protections

If we are to avoid disastrous levels of climate change, scientists and energy experts estimate that about 80 percent of the world's known fossil fuel reserves must stay in the ground.¹ On November 6, 2015, the movement to keep fossil fuels in the ground won one of its greatest victories to date when President Obama announced the rejection of the dangerous Keystone XL tar sands pipeline.²

Two months later, TransCanada, the Canadian company behind the pipeline, announced it would retaliate by using a trade deal that gives foreign corporations, including fossil fuel firms, broad rights to challenge U.S. environmental protections

in unaccountable trade tribunals.³ Using the North American Free Trade Agreement (NAFTA), TransCanada plans to ask a private tribunal of three lawyers to order the U.S. government to pay more than \$15 billion to the corporation as “compensation” for the Keystone XL decision that avoided increased climate disruption.

TransCanada's case spotlights the threat that status quo trade rules pose to our ability to transition to clean energy and keep fossil fuels in the ground. The warning comes at a critical moment. Though more than 190 countries committed to tackle climate change in the

recent Paris summit, the U.S. Congress may soon consider two massive trade agreements that would undermine this goal by giving the fossil fuel industry greater power to challenge our climate protections.

The Trans-Pacific Partnership (TPP) is a controversial U.S. trade and investment pact with 11 Pacific Rim countries that could come before Congress this year, and the Transatlantic Trade and Investment Partnership (TTIP) is a similarly broad pact under negotiation between the U.S. and the European Union (EU). Both deals would give foreign investors, including some of the world's largest fossil fuel corporations, the power to follow TransCanada's example and challenge climate protections in private tribunals.

EXTREME RIGHTS FOR FOSSIL FUEL CORPORATIONS

Under the TPP and TTIP, foreign investors, including fossil fuel corporations, would gain expansive rights that go beyond those afforded to domestic firms under U.S. law. This includes a guaranteed “minimum standard of treatment,”⁴ which has been interpreted as making governments liable for decisions and policy changes that foreign investors claim are “arbitrary,”⁵ or that do not conform to their “expectations” of a stable business environment.⁶ In other words, corporations would be given the right to demand compensation if the government were to take a needed, but unexpected, step to keep dangerous fossil fuels in the ground. Indeed, TransCanada's central arguments in its NAFTA case are that Keystone XL was denied for “new and arbitrary” reasons and that the corporation “had every reason to expect that its application [for the pipeline] would be granted.”⁷ The TPP and TTIP also would empower foreign investors to argue that new fossil fuel restrictions “indirectly expropriated” their investments by reducing their value.⁸

If a foreign corporation believed a policy change (e.g., a new restriction on fossil fuel extraction) violated its rights under the TPP or TTIP, it could use the investor-state dispute settlement (ISDS) system to bypass domestic courts and “sue” the government in a private trade tribunal.⁹ The tribunal would be composed of three attorneys—typically corporate lawyers—not bound by any domestic legal system.¹⁰ In ISDS cases brought under existing trade and investment agreements, more than half of these

lawyers, who act as “judges,” have also represented corporations in cases against governments.¹¹

The three lawyers would be empowered to order government compensation, paid for by taxpayers, if they thought a new policy undermined a foreign corporation's new, broad rights under the TPP or TTIP. Under the TPP and the U.S. proposal for TTIP, their ruling would not be subject to any outside appeal.¹² There would be no cap on the amount of compensation that they could order, which could be based on the profits the corporation hypothetically would have earned without the new policy.¹³

A NEW “TOOL” TO UNDERMINE CLIMATE AND ENVIRONMENTAL PROTECTIONS

Given such unpredictable costs, the mere threat of an ISDS case can be, and has been, enough to dissuade governments from enacting important public interest measures.¹⁴ Indeed, a former high-level official in an environment-related ministry in Canada recently named ISDS threats as a primary source of “litigation risk affecting decision making.”¹⁵ In fact, law firms specializing in ISDS are now explicitly advising “foreign investors operating in the energy sector” that they could use their ISDS rights “as a tool to assist lobbying efforts to prevent wrongful regulatory change,” such as that which would “significantly undermine the economic basis on which they had invested.”¹⁶ Law firms have further advised energy corporations that if such pressure fails to deter policymakers from enacting laws or regulations that hamper fossil fuel or other energy projects, ISDS cases “may prove essential in obtaining compensation.”¹⁷

That may explain why so many of the nearly 700 ISDS cases brought to date have targeted environmental and climate protections.¹⁸ Royal Dutch Shell, BP, Exxon Mobil Corporation, Chevron Corporation, and Occidental Petroleum Corporation are among the fossil fuel corporations that have used ISDS to challenge domestic policies.¹⁹ The targets of recent ISDS cases include a fracking moratorium in Quebec, new coal-fired power plant standards and a nuclear energy phase-out in Germany, a court order to pay for pollution in Ecuador's Amazon rainforest, a requirement to remediate toxic metal smelter emissions in Peru, and an environmental panel's decision to reject a mining project in Canada.²⁰

Corporations' use of such ISDS cases has surged: Foreign investors have launched more ISDS cases



HUNDREDS RALLY DURING THE OCTOBER 2015 PEOPLE'S CLIMATE MARCH IN SEATTLE, WA. PHOTO © KAREN DUCEY FOR THE SIERRA CLUB

in *each* of the last five years than in the first three decades of the ISDS system combined. In 2015, foreign investors filed twice as many cases as they did just five years earlier.²¹ Fossil fuel corporations are behind much of the rise in ISDS challenges. Investments in power generation, mining, and oil or gas extraction were the basis of *half* of the new ISDS cases launched in 2014.²²

TPP AND TTIP: EMPOWERING MORE FOSSIL FUEL FIRMS TO CHALLENGE CLIMATE POLICIES

Instead of shielding U.S. climate and environmental policies from the growing threat of ISDS, the TPP and TTIP would expose U.S. policies and taxpayers to an unprecedented increase in liability. In one fell swoop, the TPP would roughly double the number of firms that could use this system to challenge U.S. policies, as foreign investor privileges would be newly extended to more than 1,000 firms that own more than 9,300 subsidiaries in the U.S.²³ TTIP, meanwhile, would grant broad foreign investor rights to more than 3,700 firms that own more than 26,100 subsidiaries in the U.S., roughly quadrupling the current number of firms that could launch ISDS challenges against U.S. policies.²⁴

This vast increase in ISDS liability would pose a particular threat to U.S. efforts to keep fossil fuels in the ground. The TPP and TTIP would more than double the number of foreign fossil fuel corporations with the power to challenge U.S. policies in unaccountable ISDS tribunals. The two deals would newly grant ISDS rights to more than 100 foreign fossil fuel corporations that own more than 1,000 U.S. subsidiaries — more than the total number of fossil fuel firms that have such rights under all 56 existing U.S. trade and investment pacts *combined*.²⁵ (See the appendix for a list of 100 of the largest foreign fossil fuel corporations that would be empowered.)

And that does not even count the foreign fossil fuel corporations *without* U.S. subsidiaries that could launch ISDS cases against U.S. policies under the TPP or TTIP on the basis of other U.S. “investments,” such as minority shares held in U.S. fossil fuel firms.²⁶ (Energy corporations have won past ISDS cases on the basis of having an indirect, minority share in a domestic business.)²⁷ The TPP even would allow corporations to launch ISDS cases against the U.S. government over failed attempts to make an investment in the U.S. As long as a foreign fossil fuel

firm had “taken concrete action or actions to make an investment,” including “applying for a permit” (e.g., a fracking, drilling, or fossil fuel pipeline permit), it would be allowed to challenge U.S. policies in ISDS tribunals.²⁸

Many of the fossil fuel corporations that would be empowered to use ISDS under the TPP and TTIP have U.S. investments with significant climate-disrupting emissions — investments that would be undercut by new U.S. policies to keep fossil fuels in the ground. Indeed, such firms have investments in fracking, offshore drilling, oil and gas extraction on public lands, and fossil fuel pipelines across at least 36 U.S. states (a map can be found here: www.sierraclub.org/trade-map). Some of these fossil fuel corporations also have a history of aggressive lobbying to block environmental policies, as described below. By granting access to ISDS, the TPP and TTIP would hand these corporations a new tool to try to prevent, weaken, or gain compensation for new U.S. climate protections.

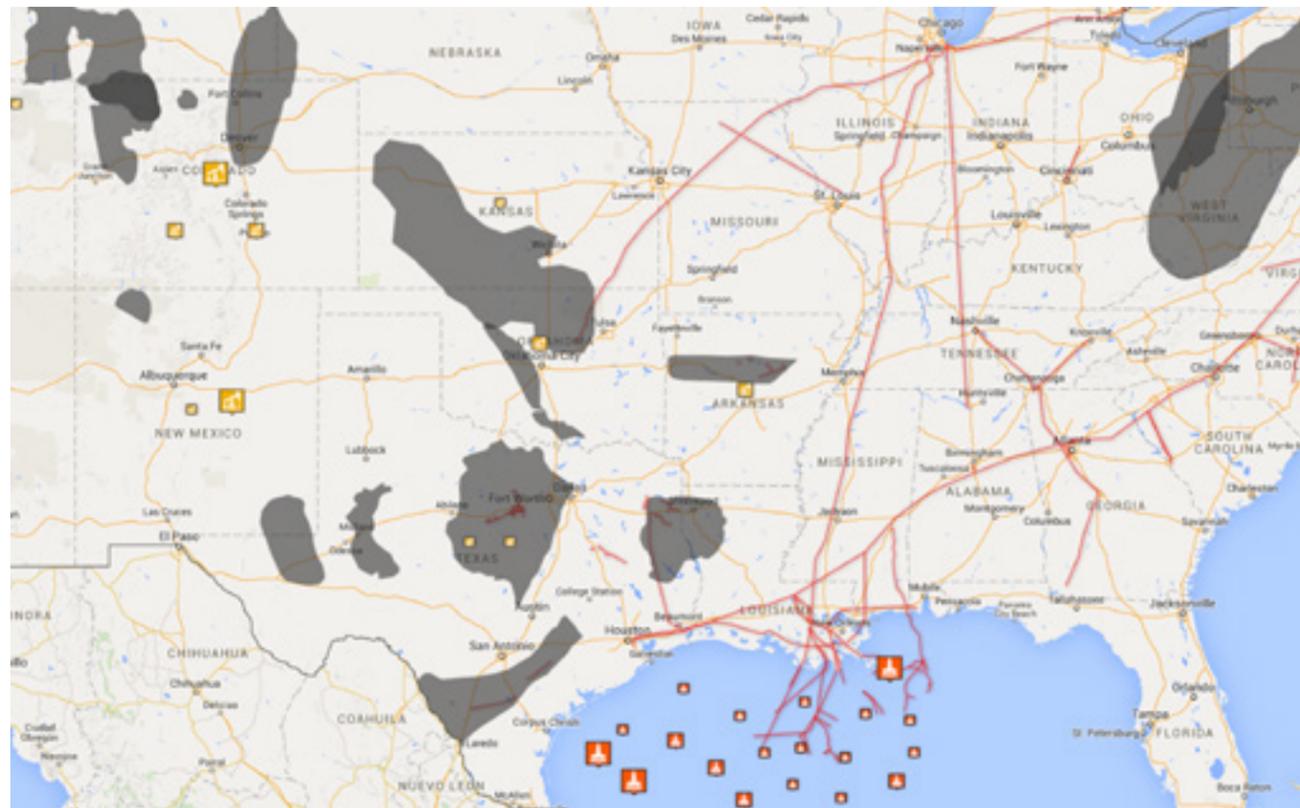
For example, the TPP would grant ISDS rights to Australia-based BHP Billiton, one of the world’s largest mining companies and one of the U.S.’s largest foreign investors in fracking.²⁹ BHP Billiton’s U.S. investments include offshore oil drilling in the Gulf of Mexico and gas and oil fracking operations in Texas, Arkansas, and Louisiana.³⁰ TTIP, meanwhile, would enable ISDS challenges from Netherlands-based Shell, the largest holder among *all* firms — domestic or foreign — of U.S. federal leases for oil and gas drilling on U.S. public lands and in public waters, including the Arctic Ocean.³¹ TTIP also would grant ISDS rights to United Kingdom-based BP, which owns more than 4,000 miles of oil and gas pipelines,³² fracking operations,³³ and other fossil fuel investments in 46 U.S. states,³⁴ in addition to its infamous offshore oil drilling operations in the Gulf of Mexico.³⁵

The TPP also would newly empower more than 2,800 U.S. corporations to launch ISDS cases against the policies of TPP countries on behalf of their more than 19,400 subsidiaries in those countries. In addition, TTIP would newly empower more than 5,000 U.S. corporations to launch ISDS

cases against European policies on behalf of their more than 50,900 subsidiaries in the EU. The U.S. corporations that would gain this power include oil giants ExxonMobil and Chevron, gas fracking pioneer Halliburton, and major coal corporations like Peabody Energy.³⁶

Indeed, 45 of the 50 private corporations responsible for the most climate-disrupting emissions since the Industrial Revolution would be newly empowered to challenge climate and environmental policies in ISDS tribunals under the TPP and TTIP. These 45 corporations are collectively responsible for more than 20 percent of the entire world’s historical greenhouse gas emissions. The list includes all of the eight largest private greenhouse gas emitters outside of the U.S. — BP, Shell, Total, BHP Billiton, Anglo American, RWE, Eni, and Rio Tinto — each of which would gain the ability to launch ISDS challenges against U.S. climate protections for the first time.³⁷

While TPP and TTIP proponents claim that the deals would include provisions to protect climate and environmental policies from such ISDS challenges, a close read of the TPP text and TTIP proposals reveals that these provisions are far too weak to offer adequate protection. The final TPP text virtually replicates the most dangerous elements of the ISDS system and includes no meaningful safeguards to shield environmental policies from corporate challenges.³⁸ And while the European Commission has proposed ISDS reforms for TTIP, the proposal would actually give foreign corporations even greater rights, in some respects, than past U.S. ISDS-enforced pacts. Nothing in the proposed reforms would prevent fossil fuel corporations from bypassing domestic courts and asking tribunals to order government compensation for climate protections seen as violating their broad TTIP rights.³⁹



VISIT WWW.SIERRACLUB.ORG/TRADE-MAP FOR AN INTERACTIVE MAP OF THE FOSSIL FUEL INVESTMENTS OWNED BY CORPORATIONS THAT WOULD BE EMPOWERED TO USE ISDS UNDER THE TPP AND TTIP.

A “Right” to Frack?

Trade Deals Would Put Fracking Restrictions in Corporate Crosshairs

BACKGROUND ON FRACKING AND THE MOVEMENT TO STOP IT

Today more than 9 million people in the U.S. live within one mile of a well used to extract oil or gas via the dangerous practice of hydraulic fracturing, or “fracking,” which involves injecting chemicals, sand, and water underground under high pressure.⁹⁸ As fracking has proliferated, so has the scientific evidence that the practice threatens local drinking water, pollutes the air, and disrupts our climate. According to a 2015 review of academic studies on the impacts of fracking, 69 percent of recent studies have found potential or actual water contamination, 88 percent have found indication of air pollution, and 84 percent have found potential or actual health

risks.⁹⁹ The U.S. Geological Survey also reports that underground wastewater disposal associated with fracking “has been linked to induced earthquakes.”¹⁰⁰ Even more, recent studies find that fracked gas has significant climate disrupting impacts, due in part to leaks of methane (a potent greenhouse gas).¹⁰¹

Amid the growing evidence of fracking’s dangers, communities and environmental organizations in the U.S. are increasingly advocating for government-imposed moratoria, bans, or other restrictions on fracking. After years of grassroots organizing by the broad New Yorkers against Fracking coalition¹⁰² and a seven-year government study on fracking, New York officially banned fracking in 2015,¹⁰³ citing “significant

adverse impacts to land, air, water, natural resources and potential significant public health impacts that cannot be adequately mitigated.”¹⁰⁴ It marked the first statewide ban of fracking in a U.S. state with significant shale gas deposits (a type of oil and gas deposit where fracking is the primary extraction method). Maryland, Connecticut, and Vermont also have enacted statewide moratoria or bans on fracking or related practices.¹⁰⁵

Other states may soon follow suit. In states from California to Pennsylvania to Colorado, environmental organizations, public health groups, small businesses, consumer watchdogs, and community organizations are working in coalition to push for statewide fracking bans.¹⁰⁶ At the local level, more than 400 U.S. cities and towns, counties, and districts have proposed bans on fracking or associated activities,¹⁰⁷ and at least two dozen U.S. municipalities have already adopted fracking bans.¹⁰⁸

HOW TRADE RULES THREATEN FRACKING RESTRICTIONS

Such efforts to restrict fracking could face new hurdles if the TPP or TTIP were to take effect. The trade deals would give new foreign oil and gas firms the power to threaten to take the U.S. government to private ISDS tribunals and demand millions or billions of dollars in compensation from taxpayers if such fracking restrictions were to be implemented. Corporations have repeatedly used such ISDS threats under existing trade deals to push policymakers to weaken or abandon proposed public interest protections.¹⁰⁹ Were policymakers to ignore such threats and enact new fracking restrictions, the private lawyers that sit on ISDS tribunals would be empowered to require U.S. taxpayers to compensate foreign fracking firms.

This threat is not hypothetical. In 2011, in response to broad-based opposition to fracking,¹¹⁰ Quebec declared a moratorium on oil and gas extraction under the St. Lawrence River, revoked existing extraction rights,¹¹¹ and launched a government review¹¹² that eventually concluded that fracking could pollute the air and water and have “major impacts” on local communities.¹¹³ In 2013, Lone Pine Resources, a multinational gas company incorporated in Delaware, launched an ISDS case against Canada under NAFTA to challenge the fracking moratorium.¹¹⁴

In its ISDS challenge, Lone Pine calls Quebec’s fracking restriction an “arbitrary, capricious, and illegal revocation” of the firm’s “valuable right to mine for oil and gas under the St. Lawrence River.”¹¹⁵ Lone Pine asserts that the decision to not allow fracking under the province’s largest waterway has “no cognizable public purpose.”¹¹⁶ The firm is demanding \$119 million from Canadian taxpayers as compensation, in addition to asking Canada to cover the legal fees that Lone Pine is incurring to challenge Quebec’s fracking restriction.¹¹⁷ The decision on whether Canada must pay now sits in the hands of three ISDS lawyers not accountable to any electorate, system of legal precedent, or substantive appeal.

How can Lone Pine get away with such audacious demands? Because NAFTA’s investment chapter gives foreign investors extraordinary rights to make such claims—rights that the TPP and TTIP would largely replicate and extend to thousands of new foreign investors. In announcing the launch of its ISDS case, Lone Pine argues that Quebec’s fracking moratorium violated its NAFTA guarantee of a “minimum standard of treatment” for foreign investors because it was “arbitrary” and “violated Lone Pine’s legitimate expectation of a stable business and legal environment.”¹¹⁸ That is, Quebec’s decision to change its policies to better protect its citizens and environment violated Canada’s NAFTA obligation to not alter policies in any way that could hurt Lone Pine’s investment. (These mirror TransCanada’s central arguments in its NAFTA case—that the rejection of the Keystone XL pipeline was “arbitrary” and violated its “reasonable expectations.”)¹¹⁹

Incredibly, ISDS tribunals have repeatedly decided that foreign investors’ right to a “minimum standard of treatment” can obligate a government to compensate a foreign corporation for policy changes perceived as arbitrary or as thwarting the corporation’s expectation of regulatory consistency.¹²⁰ For example, in an ISDS case that Occidental Petroleum launched against Ecuador, the tribunal concluded that “the stability of the legal and business framework is...an essential element” of this broad foreign investor right.¹²¹ And in March 2015, an ISDS tribunal ruled against Canada for denying a mining project that was rejected by an environmental review panel, opining that Canada’s decision was “arbitrary” and contrary to “reasonable expectations,” and that this violated U.S. mining firm Bilcon of Delaware’s right to a “minimum standard of



PROTESTERS BLOCK TRUCKS FROM ENTERING A FRACKING SITE IN NILES, OH, NOVEMBER 2013. PHOTO: FRACKFREE MAHONING VALLEY, DANIEL GOERING

BHP BILLITON NEW POWER TO DEFEND FRACKING

BHP Billiton is one of the world's largest mining companies,⁴⁰ and the ninth largest private emitter of greenhouse gases since the Industrial Revolution.⁴¹ As “the largest foreign investor in U.S. shale,”⁴² the Australia-based corporation's U.S. activities include widespread fracking. According to a majority of studies, fracking not only threatens climate stability but also clean air and water.⁴³

Indeed, BHP Billiton has a history of polluting water with its extractive activities. In the 1990s, BHP Billiton annually dumped 58 million metric tons of untreated mining waste into a river in Papua New Guinea, resulting in a settlement that required the company to pay for the poisoned river and the lost livelihoods of thousands of landowners.⁴⁴ But that did not stop BHP Billiton from using similar toxic practices elsewhere, including in the U.S. In 2010, the Sierra Club sued BHP Billiton for dumping millions of tons of coal ash waste – containing arsenic, lead, and uranium – into unlined pits in New Mexico, resulting in a settlement that required the company to mitigate the contamination of nearby water sources.⁴⁵ In November 2015, BHP Billiton was implicated in an even bigger water pollution catastrophe when a mining waste dam that it co-owned in Brazil burst. The failure of the dam, which had been found unstable the previous year, unleashed 60 million cubic meters of toxic waste that killed at least 17 people and polluted hundreds of miles of a river in what has been widely described as Brazil's worst-ever environmental disaster.⁴⁶

BHP Billiton's pattern of water pollution raises particular concern about its U.S. fracking operations, which span Arkansas, Louisiana, and Texas.⁴⁷ In these states, the corporation owns about 2,300 oil and gas wells and 1.1 million acres' worth of leases for oil and gas extraction.⁴⁸ The firm's U.S. fracking operations have already been cited for abuses ranging from the “discharge of oil to water” in Texas⁴⁹ to the spurring of more than 1,000 small earthquakes in Arkansas, resulting in fines and lawsuits.⁵⁰ BHP Billiton also holds federal leases for offshore oil and gas drilling on more than 777,000

acres in the Gulf of Mexico.⁵¹ The corporation is a partial owner of five oil rigs and two oil and gas pipelines off the coast of Louisiana.⁵²

Between its offshore and onshore investments, BHP Billiton extracted the equivalent of 162 million barrels of oil in the U.S. last year. More than a billion barrels of oil equivalent remain in the ground in the corporation's proved U.S. reserves.⁵³

New U.S. restrictions on offshore drilling or fracking could force BHP Billiton to keep these fossil fuels in the ground, while reducing the threats that the corporation's investments pose to clean water. However, if the TPP were to take effect, BHP Billiton would gain the power to retaliate against such protections by asking an ISDS tribunal of three lawyers to order U.S. government compensation. Worse still, the corporation could use the threat of such an ISDS case to make U.S. policy-makers think twice before adopting new fossil fuel restrictions in the first place.

This new pressure tactic could augment BHP Billiton's existing lobbying efforts. Indeed, the corporation repeatedly has lobbied to reverse or block bold climate policies that would affect its fossil fuel profits, despite expressing support for some policies to reduce greenhouse gas emissions.⁵⁴ In the U.S., BHP Billiton is a member of the American Petroleum Institute,⁵⁵ which has consistently funded climate change denial,⁵⁶ opposed efforts to restrict fracking,⁵⁷ and defended offshore drilling.⁵⁸ In its home country of Australia, BHP Billiton successfully pushed for the repeal of a tax on carbon that affected about 1 percent of its earnings, arguing that it hindered the corporation's competitiveness.⁵⁹ And in the EU, BHP Billiton has been ranked as one of the biggest obstacles to strong climate protections due to its lobbying for fossil fuel interests.⁶⁰

treatment.”¹²² Indeed, a recent, comprehensive review of concluded ISDS cases finds that in 83 percent of publicly-available rulings, the tribunal adopted such expansive, pro-investor interpretations of the vague right to a “minimum standard of treatment.”¹²³ That helps explain why alleged violations of the “minimum standard of treatment” obligation have been the basis for three out of four ISDS tribunal rulings against governments under U.S. pacts.¹²⁴

While the TPP and TTIP would extend this broad right to thousands of additional foreign investors, neither pact is slated to include meaningful safeguards to prevent fossil fuel firms from following Lone Pine's lead in using it to challenge restrictions on fracking. Though the TPP includes some new language concerning the “minimum standard of treatment” obligation, it would still allow an ISDS tribunal to rule against a government policy by describing it as arbitrary and claiming it frustrated an investor's expectations.¹²⁵ In response to the new provision, longtime ISDS lawyer Todd Weiler stated, “I can't recall any tribunal that, if you put this provision in that agreement, that the result would be different either way.”¹²⁶ The European Commission's proposed language for TTIP, meanwhile, explicitly states that tribunals may rule against any policy deemed “manifest[ly] arbitrar[ly]” and may consider whether it “frustrated” an investor's “legitimate expectation.”¹²⁷

NEW THREATS TO FRACKING RESTRICTIONS UNDER THE TPP AND TTIP

The TPP and TTIP would more than double the number of foreign firms with U.S. fracking operations that could launch ISDS cases against U.S. fracking restrictions. The deals would newly grant ISDS rights to corporations that are currently fracking for oil and gas in Arkansas, California, Colorado, Kansas, Louisiana, New Mexico, Ohio, Oklahoma, Pennsylvania, Texas, West Virginia, and Wyoming.¹²⁸ (A map of these fracking operations can be found here: www.sierraclub.org/trade-map.) That includes several of the largest gas producers in the U.S. For example, the TPP would grant ISDS rights to BHP Billiton, the 12th largest producer of gas in the U.S., while TTIP would empower BP and Shell, the eighth and 18th largest gas producers in the U.S., respectively.¹²⁹ The TPP also would allow at least five Australian fracking corporations beyond BHP Billiton and at least six Japanese firms to launch ISDS cases against policies that interfere with their U.S. fracking operations. TTIP would enable similar cases from

European oil giants such as Total, Repsol, and Eni, each of which is currently fracking for oil and gas in the U.S.

SPOTLIGHT ON BHP BILLITON: BHP Billiton has acquired more than 2,300 U.S. shale gas and oil wells in recent years,¹³⁰ making it “the largest foreign investor in U.S. shale.”¹³¹ Since the firm uses fracking across its shale operations,¹³² that means BHP Billiton has one of the largest foreign-owned fracking operations in the U.S. The corporation's leases for oil and gas extraction cover 1.1 million acres across four shale deposits in Arkansas, Louisiana, and Texas.¹³³ In Texas, that includes about 100,000 acres and 427 wells in DeWitt and Karnes counties, 200,000 acres and 409 wells in McMullen and La Salle counties, and 200,000 acres and 75 wells in Reeves County. In Louisiana, BHP Billiton's leases cover about 200,000 acres in the north of the state, where the company has 395 wells. And in Arkansas, BHP Billiton holds 400,000 acres' worth of leases and owns 1,070 wells in the state's north central region.¹³⁴

The firm's widespread fracking operations in these states have been cited for abuses ranging from the “discharge of oil to water” in southeast Texas¹³⁵ to the spurring of many small earthquakes in Arkansas, resulting in fines and lawsuits.¹³⁶ In the latter example, scientists found that BHP Billiton's injection of fracked wastewater back into the earth in Greenbrier, Arkansas “likely touched off more than 1,000 quakes in 2010 and 2011,” causing some property damage.¹³⁷

BHP Billiton's reporting to its shareholders reveals that the firm is concerned about the potential for future U.S. fracking regulations. Its 2014 annual strategic report states:

Attention given to the hydraulic fracturing process could lead to greater opposition to oil and gas production activities using hydraulic fracturing techniques... Some states are considering changes to regulations in relation to permitting, public disclosure, and/or well construction requirements on hydraulic fracturing and related operations, including the possibility of outright bans on the process. Arkansas, Louisiana and Texas (the states in which we currently operate) have adopted various laws, regulations or issued regulatory guidance concerning hydraulic fracturing... Additional legislation or regulation could subject our operations to delays and increased

*costs, or prohibit certain activities, which could adversely affect the financial performance of our Onshore US operations.*¹³⁸

The TPP would newly grant BHP Billiton the right to launch ISDS challenges against proposed “changes to regulations” or “outright bans” on fracking in the U.S. states where it operates. In doing so, the corporation could use the same arguments used by Lone Pine—that the new policies are arbitrary and undermine the expectations that the firm had about the regulations it would face when it invested billions of dollars in U.S. fracking operations in 2011.¹³⁹

SPOTLIGHT ON SHELL: Shell fracks for oil and gas on about 1 million acres of leased land in Pennsylvania,¹⁴⁰ and has significant fracking activities in Texas.¹⁴¹ Shell’s January 2016 acquisition of BG Group expanded the corporation’s fracking operations in Pennsylvania and Texas, while adding new fracking investments in Louisiana and West Virginia.¹⁴²

Shell also has a 52 percent stake in Aera Energy,¹⁴³ which uses hundreds of fracking wells near Bakersfield, California to help extract about 130,000 barrels of oil and 35 million cubic feet of gas every day.¹⁴⁴ The communities closest to Aera’s fracking operations rank among the most polluted in the state, according to California’s Environmental Protection Agency.¹⁴⁵ In 2015, the Sierra Club joined California residents and the Center for Biological Diversity in suing two California agencies for approving at least 144 permits for Aera to drill new fracking wells without a legally-mandated environmental review.¹⁴⁶

Shell’s fracking operations also have spurred environmental damage in Pennsylvania. Shell’s subsidiary Swepi committed 119 fracking-related environmental and health violations in Pennsylvania from January 2011 through August 2014—the fifth highest number of violations recorded among all firms engaging in fracking in Pennsylvania.¹⁴⁷

Various organizations in Pennsylvania and California are pushing for statewide fracking bans, which would effectively end Shell’s harmful fracking investments there.¹⁴⁸ But if TTIP were to take effect, Shell would gain the power to follow Lone Pine’s example and ask a three-person tribunal to order U.S. government compensation for any such bans.

SPOTLIGHT ON BP: BP operates thousands of gas wells in Arkansas, Colorado, New Mexico, Oklahoma, Texas, and Wyoming that it describes as “unconventional”—a typical term for wells that employ fracking.¹⁴⁹ Since the beginning of 2012, BP has consistently lobbied the U.S. Congress and the Obama administration on fracking policies. The company’s lobbying disclosures reveal that the firm has explicitly pressured U.S. policymakers on fracking regulations in every one of the last 16 quarters in lobbying efforts costing more than \$28 million.¹⁵⁰ TTIP would bolster BP’s lobby campaign by allowing the corporation to warn that proposed fracking restrictions could result in costly ISDS cases.

SPOTLIGHT ON EUROPEAN OIL GIANTS: TTIP would similarly enable ISDS threats and cases against fracking regulations from French firm Total, the world’s fifth largest non-state oil corporation,¹⁵¹ which owns a 25 percent share of shale gas extraction projects operated by Chesapeake Energy Corporation in Ohio and Texas.¹⁵² (Under ISDS rules slated for replication in TTIP, a foreign corporation can launch an ISDS case even if they are only a minority shareholder in the investment in question.¹⁵³) Meanwhile, Repsol—Spain’s largest oil company¹⁵⁴—would be empowered to launch ISDS cases against fracking policies affecting its “intense drilling campaign” on gas and oil deposits in Kansas and Oklahoma.¹⁵⁵ Italy’s largest oil company, Eni,¹⁵⁶ would be similarly empowered to mount ISDS cases against fracking policies affecting its shale gas and oil operations in Texas.¹⁵⁷ Each of these European oil giants is already a practiced user of the ISDS system, having launched ISDS cases under existing pacts over policies affecting oil and gas investments.¹⁵⁸

Beyond corporations that produce oil and gas, new fracking moratoria or other restrictions would also undercut business for fracking services firms that oil and gas companies pay to frack their wells. These firms include Dutch-registered Schlumberger Limited, the world’s largest oil services corporation,¹⁵⁹ and Ireland-based Weatherford International, which has the fifth largest fracking business in the U.S.¹⁶⁰ Fracking services firms like these would join the list of European oil and gas corporations empowered under TTIP to launch ISDS cases against U.S. fracking restrictions.

A Lifeline for Offshore Drilling?

Trade Deals Would Make It Harder to Keep Oil Rigs Out of Our Waters

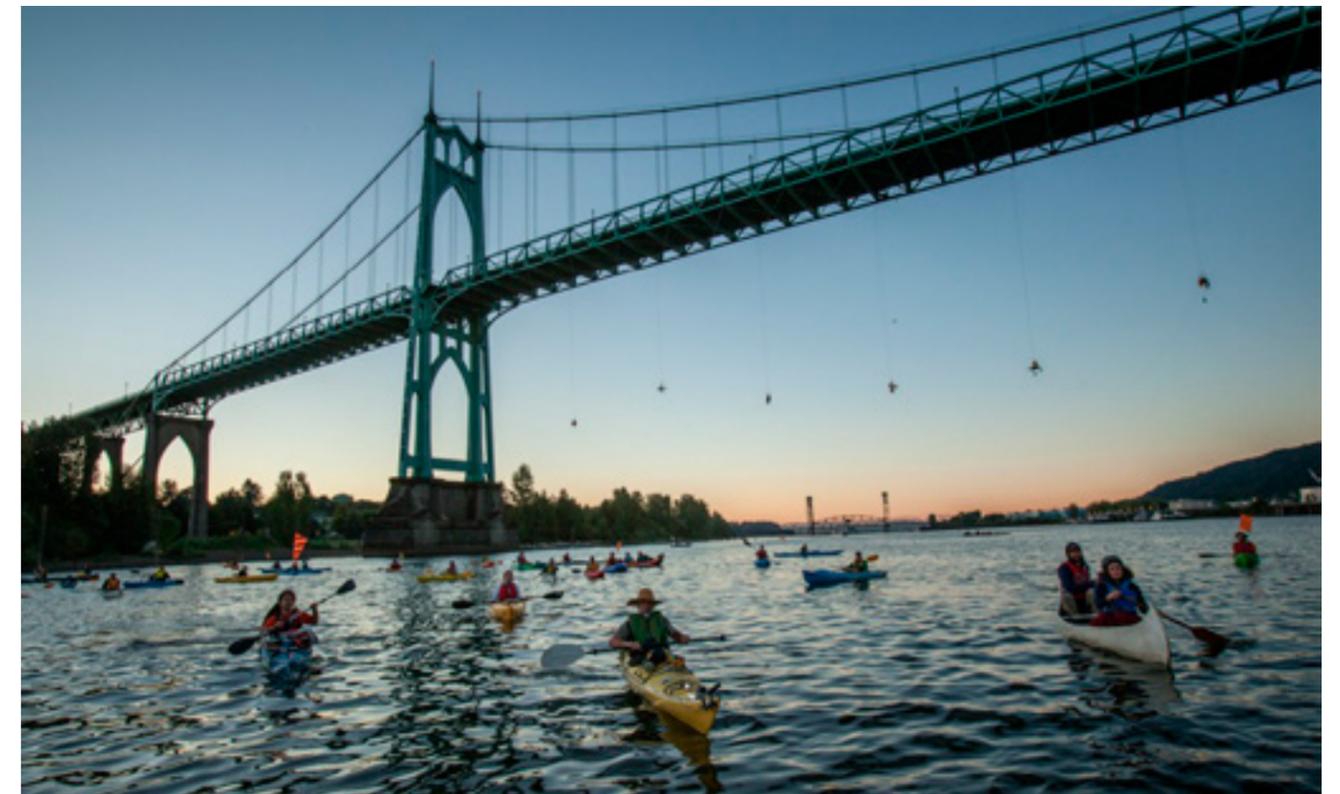
BACKGROUND ON OFFSHORE DRILLING AND THE MOVEMENT TO RESTRICT IT

The April 2010 explosion at BP’s Deepwater Horizon oil rig in the Gulf of Mexico killed 11 people and set off the largest offshore oil spill in U.S. history.¹⁶¹ Over the course of nearly three months, about 4.9 million barrels of oil flowed directly into the sea, making its way to the communities and wetlands of the Gulf’s coastlines.¹⁶² Scientists have concluded that the spill contributed to the unusual death of more than 1,000 dolphins,¹⁶³ while the Gulf populations of certain sea turtles, birds, and fish have also declined.¹⁶⁴

Two years after BP’s disastrous oil spill, Shell attempted to begin drilling for oil in the Arctic Ocean. After Shell’s drilling rig ran aground in December

2012, headlines proliferated about the inherent dangers of Arctic drilling.¹⁶⁵ In February 2015, the U.S. Bureau of Ocean Energy Management (BOEM) announced that opening the Arctic to oil drilling carried a 75 percent chance of at least one oil spill of more than 1,000 barrels of oil.¹⁶⁶ Environmental experts have warned that such a spill in the Arctic would be nearly impossible to clean up.¹⁶⁷

Further offshore drilling also would exacerbate the climate crisis. As mentioned, scientists and energy experts estimate that about 80 percent of the world’s known fossil fuel reserves must stay in the ground if we are to avoid disastrous levels of climate change.¹⁶⁸ A seminal January 2015 study concludes that meeting this goal requires abandoning any



PROTESTERS SUSPEND FROM THE ST. JOHNS BRIDGE IN PORTLAND, OR TO BLOCK A SHELL VESSEL SCHEDULED TO LEAVE FOR THE ARCTIC, JULY 2015. PHOTO: RICK RAPPAPORT AND DEVA, BACKBONE CAMPAIGN

notion of drilling for oil or gas in the Arctic.¹⁶⁹ Further drilling in the Gulf of Mexico also risks blowing through our diminishing greenhouse gas budget. BOEM estimates that total U.S. federal offshore reserves contain 130 billion barrels of recoverable oil and more than 660 trillion cubic feet of recoverable gas.¹⁷⁰ Burning all of those fossil fuels would be akin to emitting an estimated 61-73 billion metric tons of carbon into the atmosphere¹⁷¹—the greenhouse gas equivalent of burning 65-78 *trillion* pounds of coal.¹⁷² Under conservative assumptions, this alone would exhaust 13-15 percent of the *global* carbon budget that the Intergovernmental Panel on Climate Change estimates can be used if severe climate change is to be avoided.¹⁷³

Such clear climate and environmental threats have spurred a surge of opposition to expanded offshore drilling. For example, in the summer of 2015, protestors in Seattle and Portland formed kayak flotillas and rappelled off a bridge to confront Shell ships headed for the Arctic to drill for oil.¹⁷⁴ Two months later, Shell announced that it was abandoning its Arctic drilling plans “for the foreseeable future.”¹⁷⁵ The following month, the Obama administration canceled plans to sell additional leases for Arctic drilling over the next two years.¹⁷⁶

Despite this double victory, the administration still plans to sell new leases to drill for oil in the Arctic from 2020 through 2022.¹⁷⁷ And there is no plan to cancel the existing Arctic drilling leases held by Shell and other oil corporations, some of which do not expire until 2020.¹⁷⁸ The administration’s proposal for offshore leasing also envisions 10 new lease sales for drilling in the Gulf of Mexico, citing “broad industry interest” in tapping more of the Gulf’s “abundant” oil and gas deposits.¹⁷⁹ The new leases would add to the more than 4,000 currently active oil and gas leases covering nearly 24 million acres of the Gulf,¹⁸⁰ which have enabled the drilling of more than 51,000 oil and gas wells.¹⁸¹

To halt this proposed expansion of offshore drilling, more than 400 U.S. environmental groups, including the Sierra Club, have asked President Obama to use his executive authority to halt all new offshore oil and gas leases.¹⁸² Meanwhile, Senator Jeff Merkley and Representative Jared Huffman have unveiled bills that would *cancel* all existing oil and gas leases in the Arctic while barring any new federal leasing, and the renewal of many existing leases, for offshore drilling in any U.S. waters.¹⁸³ Other members of

Congress have introduced similar bills to ban new or renewed federal leasing for oil and gas extraction in the Arctic and in the Atlantic.¹⁸⁴ There is precedent for such prohibitions, as Congress has repeatedly enacted moratoria on new offshore drilling leases in specific areas.¹⁸⁵ In 2006, for example, Congress passed the Gulf of Mexico Energy Security Act, which banned new oil and gas leases within 125 miles of Florida’s coastline until 2022.¹⁸⁶

NEW THREATS TO OFFSHORE DRILLING RESTRICTIONS UNDER THE TPP AND TTIP

Efforts to curtail the proposed expansion of offshore drilling would face new obstacles if the TPP or TTIP took effect, as both deals would empower fossil fuel companies with some of the largest federal offshore drilling leases to challenge such restrictions in private ISDS tribunals. Indeed, the deals would grant this power to seven of the 20 corporations whose offshore drilling leases cover the greatest amount of U.S. seabed in the Arctic, the Gulf of Mexico, and the Pacific.

The TPP and TTIP would enable ISDS challenges from fossil fuel corporations that collectively hold more than 10 million acres’ worth of leases for offshore oil and gas drilling—and that is only counting active leases above 1,000 acres. That is 24 times more area than that held by the significantly smaller number of foreign leaseholders that already have access to ISDS.¹⁸⁷

In the U.S. Arctic, TTIP would empower five oil and gas corporations that control 85 percent of the leased area to challenge new U.S. restrictions on Arctic oil exploration in private ISDS tribunals. No firm with an oil or gas lease in the U.S. Arctic currently has that power.¹⁸⁸

All told, one out of every three acres off the U.S. coastline that is covered by an active, sizeable offshore lease is controlled by an oil or gas company that the TPP or TTIP would empower to launch ISDS cases against any future U.S. moratoria on offshore drilling.¹⁸⁹ (To see how much offshore area these companies have leased, a map can be found here: www.sierraclub.org/trade-map.)

TTIP would grant such ISDS rights to major European oil and gas corporations like BP, Shell, Total, Repsol, and Eni.¹⁹⁰ BP and Shell not only have the most reckless and destructive track records in recent U.S. offshore drilling, but they also hold more offshore oil and gas leases than nearly all other firms,

BP NEW POWER TO DEFEND OFFSHORE OIL DRILLING

BP, the world’s sixth largest company,⁶¹ is history’s third largest private emitter of greenhouse gases.⁶² Since the Industrial Revolution, BP alone has emitted more carbon dioxide than the *combined* emissions of the 122 countries that have emitted the least carbon.⁶³

Based in the United Kingdom, BP claims to be “America’s largest energy investor.”⁶⁴ Indeed, despite the corporation’s infamous 2010 Deepwater Horizon oil spill that released 4.9 million barrels of oil directly into the Gulf of Mexico,⁶⁵ BP still holds more U.S. federal leases for deepwater oil drilling in the Gulf than any other firm.⁶⁶ The corporation also owns property in 45 of the 48 continental U.S. states, covering more than 5.5 million acres – roughly the size of New Jersey.⁶⁷ That includes more than 22,000 oil and gas wells,⁶⁸ including fracking operations in at least six states: Arkansas, Colorado, New Mexico, Oklahoma, Texas, and Wyoming.⁶⁹ BP also owns more than 1,000 oil and gas wells in Alaska.⁷⁰ BP’s federal leases for oil and gas extraction cover nearly 500,000 acres of U.S. public lands in Arkansas, Colorado, Kansas, Montana, New Mexico, Oklahoma, Texas, Utah, and Wyoming.⁷¹

Each day, BP pumps the equivalent of 960,000 barrels of oil out of the ground in the U.S.⁷² And each day, the corporation’s more than 4,000 miles of pipelines transport more than 1.6 million barrels of fossil fuel products across 21 states.⁷³ More than 3.7 *billion* barrels of oil equivalent remain in the ground in BP’s proved U.S. reserves.⁷⁴

Were the U.S. to enact new policies to require more fossil fuels to *stay* in the ground, it would almost certainly undercut BP’s U.S. investments. Under U.S. law, BP does not have the power to circumvent U.S. domestic courts and challenge such policies before a tribunal of corporate lawyers who might show greater deference to BP than domestic judges. For the first time, TTIP would give BP this new means of challenging U.S. climate protections.

BP is already trying to undermine U.S. environmental protections. In 2011, BP spent millions of

dollars lobbying against U.S. legislation that would have forced the company to pay more for the corporation’s disastrous 2010 oil spill in the Gulf of Mexico.⁷⁵ BP also has outspent most U.S. firms in lobbying the U.S. government on issues that include fracking regulations, methane emissions standards, and liquefied natural gas exports.⁷⁶ According to the Center for Responsive Politics, “BP is one of the strongest lobbying and political forces in Washington, D.C.”⁷⁷ BP is also ranked as the European firm that has done *the most* to oppose strong climate protections in the European Union, including by lobbying against renewable energy targets and for expanded use of gas.⁷⁸ Influence Map, a United Kingdom organization that tracks corporate influence over climate change policies, concludes that “BP has been consistently opposed to all the main forms of climate change regulation.”⁷⁹

Under TTIP, BP would gain a new, more powerful tool to lobby against proposed U.S. climate protections – the threat to launch costly and unpredictable ISDS cases if such protections were enacted. If BP’s ISDS threats failed to halt, delay, or water down a proposed U.S. fossil fuel restriction, the corporation would be empowered to ask an ISDS tribunal to order U.S. government compensation. It would not be the first ISDS case for BP – the corporation launched a case against Argentina in 2003, in part to protect its claimed “right to freely export hydrocarbons.”⁸⁰ Argentina decided to settle the case after losing to BP on a jurisdictional ruling.⁸¹



A CONTROLLED BURN FOLLOWING BP'S APRIL 2010 OIL SPILL IN THE GULF OF MEXICO. PHOTO: UNITED STATES NAVY

and thus have the largest incentive to use ISDS to prevent or mitigate restrictions on offshore drilling. BP's offshore leases cover 2.4 million acres.¹⁹¹ Despite the 2010 oil spill catastrophe, BP still claims to hold "the largest number of leases in the deepwater Gulf of Mexico."¹⁹² Shell's offshore leases cover nearly 4 million acres — more than any other firm, domestic or foreign-owned.¹⁹³ Under TTIP, Shell could use its newfound acquisition of ISDS rights to augment its active lobbying campaign on policies affecting offshore drilling. In just 2015, Shell spent \$9 million in lobbying the administration and members of Congress on issues that include Arctic drilling, the 2017-2022 offshore leasing plan, and legislation that would add to the proposed plan even more sales of offshore drilling leases.¹⁹⁴

The TPP would similarly offer ISDS rights to foreign investors with significant U.S. offshore drilling operations, such as BHP Billiton. The corporation is a partial owner of five deepwater oil drilling operations

in the Gulf of Mexico, in partnership with firms like BP, Chevron, and ExxonMobil.¹⁹⁵ BHP Billiton's leases for oil and gas production in the Gulf cover more than 777,000 acres.¹⁹⁶ The deal also would give ISDS privileges to Japan-based firms like Marubeni Corporation, which purchased some of BP's drilling rights in the Gulf of Mexico several months after BP's catastrophic oil spill,¹⁹⁷ and Mitsubishi Corporation — a partial owner in deepwater drilling projects off the coast of Louisiana operated by Anadarko Petroleum and Shell.¹⁹⁸

The TPP and TTIP would allow these and other foreign-owned firms to demand government compensation for new offshore drilling restrictions by claiming they were "arbitrary"¹⁹⁹ or frustrated the firms' "legitimate expectations."²⁰⁰ Even worse, corporations like BP, Shell, Total, Repsol, Eni, BHP Billiton, Marubeni, or Mitsubishi would be able to use the threat of such ISDS cases to try to discourage policymakers from acting to limit offshore drilling in

the first place. Such ISDS demands and threats could undermine several key policy tools to curb offshore drilling, such as these:

- **CANCELLATION OF EXISTING LEASES:** If Congress passed legislation to cancel existing offshore drilling leases, as called for in the bills from Senator Merkley and Representative Huffman, foreign corporations like Shell would be empowered to launch ISDS cases on the basis that it frustrated their expectation to be able to drill for oil and gas for the duration of their leases. Foreign firms could also argue that lease cancellation violated their broad foreign investor protections against expropriation. Indeed, those are the very arguments that Lone Pine is using in its ISDS case against Quebec's cancellation of its permits to frack for oil and gas beneath the St. Lawrence River.²⁰¹
- **REFUSAL TO EXTEND LEASES:** Foreign-owned firms currently engaged in offshore drilling may also reasonably expect, based on past practice, that their current leases would be extended or renewed, providing a basis for ISDS cases under the TPP or TTIP against a future decision to halt such extensions.²⁰² Indeed, using such arguments, corporations have won recent ISDS cases against similar government decisions not to grant permission for environmentally dangerous activities. As mentioned, in March 2015, an ISDS tribunal ruled against Canada in a case brought under NAFTA for denying a proposal by U.S. mining firm Bilcon to extract and export rock in an environmentally sensitive area. An environmental impact assessment had concluded that the project would threaten endangered species and violate the local community's core values.²⁰³ The tribunal decided that Canada's refusal to approve the extractive project violated Bilcon's right to a "minimum standard of treatment" because it was "arbitrary" and contrary to the corporation's "reasonable expectations."²⁰⁴

If a corporation can successfully argue that its expectations of regulatory stability were frustrated by a decision not to *newly grant* permission for dangerous extractive activities, a firm could well use the same argument in an ISDS case against a decision not to *renew* an existing permission, such as a lease for offshore drilling. Indeed, when the Obama administration decided in October 2015 to not extend Shell's existing leases for Arctic drilling, the American Petroleum Institute — an alliance of oil and gas corporations that includes Shell — denounced the move by framing it as part of "a system of regulatory and permitting unpredictability and uncertainty."²⁰⁵ TTIP would empower Shell to not only denounce such a decision, but to ask a three-person ISDS tribunal to order the U.S. government to pay Shell the future profits it hypothetically would have earned had the lease been extended.²⁰⁶

- **HOLDING COMPANIES ACCOUNTABLE FOR DRILLING DISASTERS:** The TPP and TTIP could also make it more difficult for the U.S. government to take action against oil and gas corporations like BP that bear responsibility for major oil spills or other environmental disasters. In 2012, the U.S. Environmental Protection Agency (EPA) suspended BP from bidding on new drilling leases or federal contracts "due to BP's lack of business integrity as demonstrated by the company's conduct with regard to the Deepwater Horizon blowout, explosion, oil spill, and response."²⁰⁷ BP responded by suing EPA in U.S. federal courts.²⁰⁸ Were TTIP in effect, BP would have been empowered to also launch an ISDS case against the U.S. government before a private tribunal of lawyers who might show BP greater deference than a U.S. judge.²⁰⁹ BP would be able to base such a case on the assertion, which it has already levied,²¹⁰ that EPA's suspension was "arbitrary."²¹¹



OFFSHORE OIL PRODUCTION PLATFORM WITH FLARE STACK, GULF OF MEXICO. PHOTO: ISTOCKPHOTO

SHELL NEW POWER TO DEFEND FOSSIL FUEL EXTRACTION ON PUBLIC LANDS

Royal Dutch Shell is the world's largest non-state oil company and history's fourth largest private emitter of greenhouse gases.⁸² Since the Industrial Revolution, Shell has emitted more carbon dioxide than all but eight countries.⁸³

Headquartered in the Netherlands and incorporated in the United Kingdom,⁸⁴ Shell is the largest holder among *all* firms – domestic and foreign – of U.S. leases for oil and gas production on federal lands and in federal waters.⁸⁵ Indeed, Shell still holds more than 400 leases for oil exploration and drilling in the spill-prone Arctic Ocean,⁸⁶ covering more than 2 million acres off the coast of Alaska,⁸⁷ despite its recent decision to halt Arctic exploration after several highly controversial and ill-fated expeditions. Shell also holds federal leases for offshore drilling across about 1.9 million acres of the Gulf of Mexico,⁸⁸ and for oil and gas extraction on 175,000 acres of public lands in Colorado, New Mexico, and Wyoming.⁸⁹ Shell's other U.S. investments include fracking operations in California, Louisiana, Pennsylvania, Texas, and West Virginia;⁹⁰ oil and gas rights across 2.4 million acres in Alaska;⁹¹ and more than 11,000 miles of pipelines that transport fossil fuel products across states from Texas to New Jersey.⁹²

In 2014, Shell pumped the equivalent of 161 million barrels of oil out of the ground in the U.S. An additional 980 million barrels of oil equivalent still sit in the corporation's proved U.S. reserves.⁹³

If proposed U.S. climate protections threatened to interfere with such investments, Shell could use TTIP to warn policymakers that it would launch ISDS cases against the new policies. That threat could result in a chilling or weakening of the new fossil fuel restrictions, or the payment of compensation from U.S. taxpayers to Shell.

Indeed, Shell has a history of using the tools at its disposal to try to thwart environmental protec-

tions. In recent years, the corporation has spent more than most other companies to lobby the U.S. government.⁹⁴ Its targets have included policies affecting offshore oil production, methane emissions standards, and the decision on whether or not to approve the dangerous Keystone XL pipeline.⁹⁵ Like BP and BHP Billiton, Shell has been ranked as one of the biggest obstacles to EU climate policies, having successfully lobbied against binding renewable energy targets for EU member states, as well as lobbying against the EU's overall target for reducing greenhouse gas emissions.⁹⁶

Shell already has launched ISDS cases against Nicaragua and Nigeria, the latter of which focused on Shell's offshore oil drilling rights. Both cases have been resolved. Nicaragua, and potentially Nigeria, agreed to a settlement, though details are not publicly available.⁹⁷ TTIP would grant Shell the ability to make the U.S. government a next ISDS target if its standard lobby efforts do not succeed in stopping proposed fossil fuel restrictions.



ACTIVISTS DEMONSTRATE AGAINST SHELL IN EVERETT, WA IN JUNE 2015. PHOTO: JOSH KELETY/CC BY 2.0

A License to Pollute Public Lands?

Trade Deals Would Undermine Efforts to Keep Publicly Owned Fossil Fuels in the Ground

BACKGROUND ON FEDERAL FOSSIL FUEL LEASING AND THE MOVEMENT TO HALT IT

The U.S. federal government owns more than 635 million acres of land.²¹² Were the government to allow fossil fuel corporations to extract and burn all recoverable coal, oil, and gas found on these public lands (not including offshore or privately-held deposits), the resulting climate-disrupting emissions would be equivalent to 288 to 419 billion metric tons of carbon.²¹³ That amounts to 40 percent of the potential greenhouse gas emissions represented by *all* fossil fuels in the U.S.²¹⁴ Burning the fossil fuels on U.S. federal lands alone would exceed the entire

quota of greenhouse gas emissions that the U.S. can emit at any point in the future if the world is to avoid disastrous levels of climate change.²¹⁵

The good news is that 93 percent of these potential greenhouse gas emissions from federal lands are on land that the government has not yet leased to fossil fuel corporations.²¹⁶ In September 2015, more than 400 environmental organizations, including the Sierra Club, urged President Obama to “take the bold action needed to stop new federal leasing of fossil fuels, and to keep those remaining fossil fuels — our *publicly owned* fossil fuels — safely in the ground.”²¹⁷ Just four months later, the Obama



OIL DRILLING ON PUBLIC LAND IN VERNAL, UTAH. PHOTO: WILDEARTH GUARDIANS/CC BY-NC-ND 2.0

administration announced a moratorium on new federal leases for coal extraction on public lands.²¹⁸ Scientists and environmental groups praised this major climate progress, and called for the moratorium on federal leasing to be extended to oil and gas extraction as well.²¹⁹ Indeed, bills introduced by Senator Merkley and Representative Huffman (referenced earlier) would do just that by banning any new leases for coal, oil, or gas extraction on federal lands.²²⁰ The bills also would go beyond the Obama administration's coal leasing moratorium by barring the renewal of many *existing* coal (and oil and gas) leases.²²¹

The bad news is that under the TPP and TTIP, some of the world's largest fossil fuel corporations would be empowered to challenge any such restrictions on new federal leasing in private ISDS tribunals.

NEW THREATS TO FOSSIL FUEL LEASING RESTRICTIONS UNDER THE TPP AND TTIP

The TPP investment chapter explicitly states that foreign investors can launch ISDS cases against policies that interfere with “leases” or other “written agreements” with governments for the “extraction” of government-controlled “natural resources,” including “oil” and “natural gas.”²²² TTIP is likely to include similar language.²²³ Under such provisions, a new U.S. policy barring the renewal of leases for fossil fuel extraction on federal lands could run the risk of retaliatory ISDS cases.²²⁴

Foreign corporations currently hold leases for oil and gas extraction on more than 1.7 million acres of U.S. federal lands—and that is only counting large leases that cover more than 10,000 acres. More than 40 percent of that foreign-leased public land—over 720,000 acres—has been leased to oil and gas corporations that would gain the power to challenge the U.S. government in ISDS tribunals under the TPP or TTIP. (To see how much area these corporations have leased in each state, a map can be found here: www.sierraclub.org/trade-map.) The firms that would gain this new tool to undermine leasing restrictions include BP and Shell, both of which rank among the 30 largest onshore oil and gas leaseholders (domestic or foreign) in terms of the amount of leased federal land under their control. Other significant oil and gas federal leaseholders

that would gain access to ISDS cases against the U.S. include Australian firms Aleator Energy and Entek Energy (under the TPP), Spanish firm Repsol (under TTIP), and Irish firm U.S. Oil and Gas (under TTIP).²²⁵

Were the TPP or TTIP to take effect, a foreign investor like Shell or BP could attempt to chill efforts to halt fossil fuel leases on public lands by threatening to bring a costly ISDS case in response. The firm could argue that, given longstanding lease renewal criteria and earlier indications from government officials that its oil and gas leases would be renewed, any new policy banning such renewals would violate the U.S. government's obligation under the TPP or TTIP to provide “a stable business and legal environment” for foreign investors. As described earlier, Lone Pine is making a similar argument in its ISDS case against Quebec's moratorium on oil and gas extraction under the St. Lawrence River.²²⁶ Such ISDS threats have succeeded in convincing governments to delay or shelve proposed public interest protections, as mentioned.²²⁷

If the threat did not work, corporations like Shell or BP would be able to get a second bite at the apple by asking a three-person ISDS tribunal to order government compensation for profits they hypothetically would have made if their fossil fuel leases had been renewed. As mentioned, past ISDS tribunals have repeatedly ruled against governments when a given policy change or decision undercut an investment that a foreign firm made under the expectation that the regulatory environment affecting its investment would not change.²²⁸ That includes last year's ISDS tribunal ruling against Canada's decision not to allow Bilcon to engage in environmentally dangerous extractive activities.²²⁹ This case history suggests that an ISDS tribunal could be sympathetic to an argument from Shell, for example, that a ban on fossil fuel lease renewals undercut an investment Shell had made in downstream oil processing facilities under the reasonable expectation that renewal of its leases would allow it to produce more oil.

A Tool to Defend Dirty Pipelines?

Trade Deals Would Pose New Hurdles for the Movement to Halt Fossil Fuel Pipelines

BACKGROUND ON FOSSIL FUEL PIPELINES AND THE MOVEMENT TO BLOCK THEM

In October 2015, a report by Oil Change International revealed that the pipelines used to transport highly polluting tar sands oil from Alberta, Canada are 89 percent full, and that growth in tar sands oil extraction is unlikely without pipeline expansion.²³⁰ Standing in the way of such extreme fossil fuels growth are the diverse movements that have succeeded in blocking thus far all major fossil fuel pipeline projects emerging from Alberta's tar sands. That, of course, includes the landmark victory over the Keystone XL tar sands pipeline, which the Obama administration rejected in November 2015 after years of dogged activism and advocacy from farmers, indigenous groups, landowners, community leaders, environmental organizations, and others.²³¹ As a result, communities in the pipeline's path have been spared land seizures and oil spill threats while the world has been spared the increase in climate-disrupting emissions that the pipeline would have enabled.²³²

With the defeat of Keystone XL, environmental activists are now targeting a wider array of dirty fuel pipelines. *The Wall Street Journal* lists 10 fossil fuel pipeline projects in Canada and the U.S. that current-

ly face public opposition. These proposed pipelines would transport dirty fuels through states including Illinois, New York, North Dakota, Ohio, Pennsylvania, and Wisconsin. Six of the listed pipelines are experiencing delays as a result of opposition from environmentalists and local communities.²³³

NEW THREATS TO FOSSIL FUEL PIPELINE RESTRICTIONS UNDER THE TPP AND TTIP

TransCanada has clearly illustrated the threats that the TPP and TTIP would pose to such fights against fossil fuel pipelines. The trade deals would extend to some of the world's largest fossil fuel corporations essentially the same broad foreign investor rights and ISDS rules that TransCanada is using to demand \$15 billion for the rejection of Keystone XL. While TransCanada's NAFTA case will not reverse the Keystone XL decision, it could put U.S. taxpayers on the hook for the pipeline rejection. Even more, it offers a clarion warning that the TPP and TTIP, by multiplying U.S. exposure to such costly cases, could undermine the environmental movement's most important achievements and imperil bold climate action from future administrations.

Indeed, corporations that would be empowered to launch ISDS cases against the U.S. government



AN OIL PIPELINE IN ALASKA, PARTIALLY OWNED BY BP, LEAKED MORE THAN 6,000 BARRELS OF OIL IN OCTOBER 2001 AFTER A LOCAL RESIDENT SHOT A HOLE IN IT. PHOTO: FBI

under the TPP and TTIP already own tens of thousands of miles' worth of fossil fuel pipelines in the U.S. These pipelines cross at least 29 states in nearly every region of the country: the West Coast, the Great Plains, the Midwest, the South, the Mid-Atlantic, the Northeast, and Alaska.²³⁴ (A map of these fossil fuel pipelines can be found here: www.sierraclub.org/trade-map.)

The TPP would allow BHP Billiton, for example, to turn to an ISDS tribunal to challenge new restrictions that affect its gas pipelines in Texas, Arkansas, and off the coast of Louisiana.²³⁵ TTIP would grant that same right to United Kingdom-based National Grid, the largest distributor of gas in the U.S. Northeast.²³⁶ National Grid operates nearly 35,000 miles of intra-state gas pipelines in New York, Massachusetts, and Rhode Island.²³⁷ TTIP also would empower BP and Shell. The fossil fuel pipelines of these two firms alone cross half of all U.S. states, including Alabama, Alaska, California, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Mississippi, Missouri, New Jersey, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and Washington.²³⁸ BP currently owns and operates more than 4,000 miles of pipelines that, according to BP, "transport more than 1.6 million barrels a day of oil, refined products, natural gas, natural gas liquids and chemicals."²³⁹ And Shell owns and operates 3,800 miles of pipelines that pump 1.5 billion barrels of oil and fossil fuels each year, in addition to owning stakes in 8,000 miles of pipelines operated by other companies.²⁴⁰

Some of these corporations plan to build even more fossil fuel pipelines and expand existing ones. Shell, for example, has formed a U.S. subsidiary whose mission, in part, is to "develop and acquire pipelines."²⁴¹ And National Grid recently announced its plan to co-develop the proposed \$3 billion Access Northeast project, which would expand 125 miles of existing gas pipelines so as to transport more fracked gas from Appalachia through New York, Connecticut, and Massachusetts.²⁴² The project is controversial among local community members, many of whom have expressed concern that the gas pipeline expansion would harm local wildlife and increase the Northeast's dependence on fossil fuels.²⁴³

BP, meanwhile, is partnering with TransCanada, ExxonMobil, and ConocoPhillips in a major proposed project that involves constructing an 800-mile

pipeline across Alaska to pump gas from the Arctic to a facility where it would be liquefied and exported.²⁴⁴ BP's proposed pipeline would propel more than three billion cubic feet of gas every day through hundreds of miles of Alaskan wilderness and past national parks.²⁴⁵ In addition to potential risks that construction and operation of the gas pipeline would pose to the environment along its route, the project also would lock in climate-disrupting emissions. In an official response to the proposal in November 2014, the Sierra Club stated, "The proposed export project will cause extensive environmental harm, impacting the environment around the export site, inducing harmful natural gas production, and likely increasing global greenhouse gas emissions."²⁴⁶

With resistance to fossil fuel pipeline projects growing across the country, BP's proposal for a gas pipeline to bisect Alaska may face increasing opposition, as could National Grid's proposal for gas pipeline expansion in the Northeast. The denial of Keystone XL could particularly embolden such opposition, which may explain why BP (like Shell) consistently lobbied the Obama administration on the Keystone XL decision in recent years.²⁴⁷ National Grid, meanwhile, continues to regularly lobby U.S. policymakers on fossil fuel pipeline-related policies, spending more than \$2 million on such lobby efforts in 2015 alone.²⁴⁸

The TPP and TTIP would give foreign fossil fuel firms like National Grid, BP, BHP Billiton, and Shell a new lobbying tool, allowing them to threaten to follow TransCanada's lead and launch ISDS cases if policymakers would respond to constituent concerns by thwarting their pipeline proliferation plans. As described above, the TPP includes, and TTIP is slated to include, the broad foreign investor right to a "minimum standard of treatment" that forms the core of TransCanada's demand for \$15 billion.²⁴⁹ Were the pacts to take effect, more pipeline corporations could argue, as TransCanada has, that any delay or denial of their fossil fuel pipeline projects would be "arbitrary" and contrary to their "expectations," thereby violating the "minimum standard of treatment" obligation. If past rulings offer any indication, an ISDS tribunal of three unaccountable lawyers could actually order government compensation on the basis of such tenuous arguments.²⁵⁰

Conclusion

Thanks to years of organizing and advocating, the movement to keep fossil fuels in the ground has achieved some remarkable successes recently, from the cancellation of new sales of Arctic oil and gas leases, to a moratorium on new federal coal leasing, to the rejection of the Keystone XL pipeline. But TransCanada's use of NAFTA to challenge that pipeline rejection in a private tribunal has made abundantly clear how overreaching trade rules can undermine such climate victories. TransCanada's warning comes just in time, given that Congress may soon consider the largest expansion to date of those

trade rules. Just as the U.S. begins to transition away from fossil fuels, the TPP and TTIP would empower an unprecedented number of fossil fuel corporations to follow TransCanada's lead in asking private tribunals to help maintain the crisis-prone status quo.

The fight for climate progress already faces enough obstacles without the additional roadblocks imposed by the TPP and TTIP. Replacing these toxic deals with a new climate-friendly model of trade is an essential component of the growing effort to keep fossil fuels in the ground.



ACTIVISTS RALLY AGAINST THE TPP AND FOR A CLIMATE-FRIENDLY TRADE MODEL IN WASHINGTON, DC, SEPTEMBER 2015. PHOTO: SIERRA CLUB

Appendix

The Top 100 Fossil Fuel Firms Empowered to Challenge Our Climate Protections

Below are 100 of the largest fossil fuel corporations that the TPP and TTIP would newly empower to challenge U.S. climate protections in private ISDS tribunals. The corporations in this list meet three criteria: 1) They are based in TPP or TTIP countries that do not already have an ISDS-enforced pact with the U.S.,²⁵¹ 2) They own subsidiaries in the U.S. that could be used as the basis for an ISDS case against U.S. policies,²⁵² and 3) They are engaged in fossil fuel extraction, processing, bulk distribution (e.g., operating oil and gas pipelines), and/or fossil fuel power production.²⁵³ Following each corporation is a list of some of the specific fossil fuel sectors in which the parent company does business.²⁵⁴ The corporations are listed from largest to smallest, based on annual sales.²⁵⁵

This list does not include the many foreign fossil fuel corporations *without* U.S. subsidiaries that could launch ISDS cases against U.S. policies under the TPP or TTIP on the basis of other U.S. “investments” (e.g., stocks held in U.S. fossil fuel firms, permits to extract fossil fuels on U.S. public lands, or even mere “attempts to make” an investment).²⁵⁶ The list also does not include the many corporations that do business in fossil-fuel-related industries (e.g., gas stations, manufacturing of coal or petroleum-based products, etc.) that have been excluded by the list’s relatively narrow definition of “fossil fuel sectors.”²⁵⁷

1. ROYAL DUTCH SHELL PLC

Netherlands (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction
Drilling Oil and Gas Wells
Oil and Gas Field Machinery and Equipment Manufacturing
Natural Gas Distribution
Pipeline Transportation of Crude Oil
Pipeline Transportation of Natural Gas
Pipeline Transportation of Refined Petroleum Products

Petroleum Refineries
Petroleum Bulk Stations and Terminals
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)
Fuel Dealers

2. BP PLC

England, U.K. (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction
Drilling Oil and Gas Wells
Support Activities for Oil and Gas Operations
Oil and Gas Field Machinery and Equipment Manufacturing
Natural Gas Distribution
Pipeline Transportation of Crude Oil
Pipeline Transportation of Natural Gas
Pipeline Transportation of Refined Petroleum Products
Petroleum Refineries
Petroleum Bulk Stations and Terminals
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)
Fuel Dealers

3. TOTAL SA

France (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction
Drilling Oil and Gas Wells
Oil and Gas Field Machinery and Equipment Manufacturing
Natural Gas Distribution
Pipeline Transportation of Crude Oil
Pipeline Transportation of Natural Gas
Pipeline Transportation of Refined Petroleum Products
Petroleum Refineries
Petroleum Bulk Stations and Terminals
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)
Fuel Dealers

4. ENI SpA

Italy (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction
Drilling Oil and Gas Wells

Support Activities for Oil and Gas Operations
Oil and Gas Field Machinery and Equipment Manufacturing
Natural Gas Distribution
Pipeline Transportation of Crude Oil
Pipeline Transportation of Natural Gas
Pipeline Transportation of Refined Petroleum Products
Petroleum Refineries
Petroleum Bulk Stations and Terminals
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)
Fuel Dealers

5. E.ON SE

Germany (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction
Fossil Fuel Electric Power Generation

6. JX HOLDINGS, INC.

Japan (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Petroleum Refineries
Petroleum Bulk Stations and Terminals
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)
Fuel Dealers

7. BASF SE

Germany (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction
Drilling Oil and Gas Wells
Support Activities for Oil and Gas Operations

8. ELECTRICITE DE FRANCE SA (EDF)

France (empowered under TTIP)
Natural Gas Distribution
Oil and Gas Pipeline and Related Structures Construction
Pipeline Transportation of Natural Gas
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)

9. REPSOL SA

Spain (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction
Petroleum Refineries

10. RWE AG

Germany (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction

11. BHP BILLITON LIMITED

Australia (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Anthracite Mining
Support Activities for Oil and Gas Operations

12. MITSUBISHI CORPORATION

Japan (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction
Drilling Oil and Gas Wells
Support Activities for Oil and Gas Operations
Power Boiler and Heat Exchanger Manufacturing
Petroleum Refineries
Petroleum Bulk Stations and Terminals

13. A. P. MOLLER MAERSK A/S

Denmark (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Drilling Oil and Gas Wells
Support Activities for Oil and Gas Operations

14. SOJITZ CORPORATION

Japan (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Petroleum Bulk Stations and Terminals

15. MARUBENI CORPORATION

Japan (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)

16. LYONDELLBASELL INDUSTRIES NV

Netherlands (empowered under TTIP)
Petroleum Refineries
Fuel Dealers

17. SCHLUMBERGER LIMITED

Netherlands (empowered under TTIP)
Support Activities for Oil and Gas Operations

18. MITSUI & CO., LTD.

Japan (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Petroleum Bulk Stations and Terminals
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)
Fuel Dealers

19. IBERDROLA, SA

Spain (empowered under TTIP)
Pipeline Transportation of Natural Gas
Fossil Fuel Electric Power Generation
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)

20. RIO TINTO GROUP

Australia and England, U.K. (empowered under the TPP and TTIP)
Bituminous Coal and Lignite Surface Mining
Bituminous Coal Underground Mining
Anthracite Mining
Support Activities for Coal Mining

21. IDEMITSU KOSAN CO., LTD.

Japan (empowered under the TPP)
Petroleum Refineries
Petroleum Bulk Stations and Terminals
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)
Fuel Dealers

22. COSMO ENERGY HOLDINGS CO., LTD.

Japan (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Petroleum Refineries

23. GAS NATURAL FENOSA

Spain (empowered under TTIP)
Fossil Fuel Electric Power Generation
Natural Gas Distribution

24. CENTRICA PLC

England, U.K. (empowered under TTIP)
Natural Gas Distribution

25. CHUBU ELECTRIC POWER CO. INC.

Japan (empowered under the TPP)
Fossil Fuel Electric Power Generation
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)

26. GALP ENERGIA, SGPS, S.A.

Portugal (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Petroleum Refineries
Natural Gas Distribution

27. SUMITOMO CORPORATION

Japan (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Bituminous Coal and Lignite Surface Mining
Petroleum Bulk Stations and Terminals

28. NATIONAL GRID PLC

England, U.K. (empowered under TTIP)
Natural Gas Distribution

29. NESTE OIL OYJ

Finland (empowered under TTIP)
Petroleum Refineries

30. EIFFAGE SA

France (empowered under TTIP)
Oil and Gas Pipeline and Related Structures Construction

31. SKANSKA AB

Sweden (empowered under TTIP)
Oil and Gas Pipeline and Related Structures Construction

32. MOL NYRT.

Hungary (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Petroleum Refineries
Natural Gas Distribution

33. TOKYO GAS CO., LTD.

Japan (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction
Natural Gas Distribution
Oil and Gas Pipeline and Related Structures Construction
Pipeline Transportation of Natural Gas
Petroleum Refineries
Petroleum Bulk Stations and Terminals
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)

34. EVONIK INDUSTRIES AG

Germany (empowered under TTIP)
Fossil Fuel Electric Power Generation

35. HANWA CO., LTD.

Japan (empowered under the TPP)
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)

36. NIPPON EXPRESS CO., LTD.

Japan (empowered under the TPP)
Petroleum Bulk Stations and Terminals

37. OSAKA GAS COMPANY, LTD.

Japan (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Distribution
Oil and Gas Pipeline and Related Structures Construction
Pipeline Transportation of Natural Gas
Fossil Fuel Electric Power Generation
Petroleum Bulk Stations and Terminals
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)

38. ORIGIN ENERGY LIMITED

Australia (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Fossil Fuel Electric Power Generation
Support Activities for Oil and Gas Operations

39. INPEX CORPORATION

Japan (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction

40. EVRAZ PLC

England, U.K. (empowered under TTIP)
Bituminous Coal Underground Mining

41. IHI CORPORATION

Japan (empowered under the TPP)
Power Boiler and Heat Exchanger Manufacturing

42. HELLENIC PETROLEUM SA

Greece (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Petroleum Refineries
Petroleum Bulk Stations and Terminals

Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)

43. TECHNIP SA

France (empowered under TTIP)
Support Activities for Oil and Gas Operations
Oil and Gas Field Machinery and Equipment Manufacturing
Oil and Gas Pipeline and Related Structures Construction

44. WEATHERFORD INTERNATIONAL PLC

Ireland (empowered under TTIP)
Drilling Oil and Gas Wells
Support Activities for Oil and Gas Operations

45. ELECTRIC POWER DEVELOPMENT CO., LTD. (J-POWER)

Japan (empowered under the TPP)
Support Activities for Coal Mining
Fossil Fuel Electric Power Generation

46. WORLEYPARSONS ENGINEERING PTY LTD.

Australia (empowered under the TPP)
Support Activities for Oil and Gas Operations

47. A2ASpA

Italy (empowered under TTIP)
Fossil Fuel Electric Power Generation
Natural Gas Distribution

48. WOOD GROUP

Scotland, U.K. (empowered under TTIP)
Support Activities for Oil and Gas Operations

49. IWATANI CORPORATION

Japan (empowered under the TPP)
Fuel Dealers

50. SUBSEA 7 SA

England, U.K. (empowered under TTIP)
Support Activities for Oil and Gas Operations

51. WOODSIDE PETROLEUM LTD.

Australia (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction

52. ROYAL VOLKER WESSELS STEVIN NV

Netherlands (empowered under TTIP)
Oil and Gas Pipeline and Related Structures Construction

53. CHIYODA CORPORATION

Japan (empowered under the TPP)
Oil and Gas Pipeline and Related Structures Construction

54. KANEMATSU CORPORATION

Japan (empowered under the TPP)
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)

55. TAIYO NIPPON SANZO CORPORATION

Japan (empowered under the TPP)
Oil and Gas Field Machinery and Equipment Manufacturing

56. CHICAGO BRIDGE & IRON COMPANY NV (CBI)

Netherlands (empowered under TTIP)
Oil and Gas Pipeline and Related Structures Construction

57. ALFA LAVAL AB

Sweden (empowered under TTIP)
Power Boiler and Heat Exchanger Manufacturing

58. PETROFAC SERVICES LTD.

England, U.K. (empowered under TTIP)
Oil and Gas Pipeline and Related Structures Construction

59. ENSCO PLC

England, U.K. (empowered under TTIP)
Drilling Oil and Gas Wells
Support Activities for Oil and Gas Operations

60. BOSCH THERMOTECHNIK GMBH

Germany (empowered under TTIP)
Power Boiler and Heat Exchanger Manufacturing

61. AMEC PLC

England, U.K. (empowered under TTIP)
Oil and Gas Pipeline and Related Structures Construction

62. NOBLE CORPORATION PLC

England, U.K. (empowered under TTIP)
Drilling Oil and Gas Wells

63. ENEL GREEN POWER SpA

Italy (empowered under TTIP)
Natural Gas Distribution

64. DRAX GROUP PLC

England, U.K. (empowered under TTIP)
Fossil Fuel Electric Power Generation

65. MODEC, INC.

Japan (empowered under the TPP)
Support Activities for Oil and Gas Operations

66. MISC BERHAD

Malaysia (empowered under the TPP)
Support Activities for Oil and Gas Operations

67. AGGREKO PLC

Scotland, U.K. (empowered under TTIP)
Power Boiler and Heat Exchanger Manufacturing

68. FERROSTAAL AG

Germany (empowered under TTIP)
Oil and Gas Pipeline and Related Structures Construction

69. JAPAN PETROLEUM EXPLORATION CO., LTD.

Japan (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Pipeline Transportation of Natural Gas

70. KCA DEUTAG DRILLING LIMITED

Scotland, U.K. (empowered under TTIP)
Drilling Oil and Gas Wells

71. ROYAL VOPAK NV

Netherlands (empowered under TTIP)
Natural Gas Distribution
Pipeline Transportation of Crude Oil
Pipeline Transportation of Natural Gas
Pipeline Transportation of Refined Petroleum Products
Petroleum Bulk Stations and Terminals

72. FIRCRIFT ENGINEERING SERVICES LTD.

England, U.K. (empowered under TTIP)
Support Activities for Oil and Gas Operations

73. PETROLIAM NASIONAL BERHAD (PETRONAS)

Malaysia (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Petroleum Refineries
Pipeline Transportation of Natural Gas
Support Activities for Oil and Gas Operations

74. EXPRO INTERNATIONAL GROUP PLC

England, U.K. (empowered under TTIP)
Support Activities for Oil and Gas Operations

75. BOSAL NEDERLAND BV

Netherlands (empowered under TTIP)
Power Boiler and Heat Exchanger Manufacturing

76. CORE LABORATORIES NV

Netherlands (empowered under TTIP)
Support Activities for Oil and Gas Operations

77. HUNTING PLC

England, U.K. (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction
Support Activities for Oil and Gas Operations
Natural Gas Distribution
Pipeline Transportation of Crude Oil
Pipeline Transportation of Natural Gas
Pipeline Transportation of Refined Petroleum Products

78. ASCO PLC

Scotland, U.K. (empowered under TTIP)
Support Activities for Oil and Gas Operations

79. STORK TECHNICAL SERVICES HOLDCO BV

Netherlands (empowered under TTIP)
Support Activities for Oil and Gas Operations

80. ROLLS WOOD GROUP LTD.

Scotland, U.K. (empowered under TTIP)
Support Activities for Oil and Gas Operations

81. SUNDANCE ENERGY AUSTRALIA LTD.

Australia (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction

82. ATIC SERVICES

France (empowered under TTIP)
Support Activities for Coal Mining

83. NDA GROUP LIMITED

New Zealand (empowered under the TPP)
Power Boiler and Heat Exchanger Manufacturing

84. SPARROWS OFFSHORE GROUP LIMITED

Scotland, U.K. (empowered under TTIP)
Support Activities for Oil and Gas Operations
Oil and Gas Field Machinery and Equipment Manufacturing

85. SEABIRD EXPLORATION PLC

Cyprus (empowered under TTIP)
Support Activities for Oil and Gas Operations

86. CGG

France (empowered under TTIP)
Support Activities for Oil and Gas Operations

87. MENTOR IMC GROUP LIMITED

England, U.K. (empowered under TTIP)
Support Activities for Oil and Gas Operations

88. PFAUDLER WERKE GMBH

Germany (empowered under TTIP)
Petroleum Refineries

89. KOSAN CRISPLANT HOLDING AS

Denmark (empowered under TTIP)
Pipeline Transportation of Natural Gas
Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)

90. PETSEC ENERGY LTD.

Australia (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction
Natural Gas Liquid Extraction

91. AUSTEX OIL LIMITED

Australia (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction

92. DEUTSCHE ROHSTOFF AG (DRAG)

Germany (empowered under TTIP)
Drilling Oil and Gas Wells

93. ANTARES ENERGY LIMITED

Australia (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction

94. GAS MEASUREMENT INSTRUMENTS LTD.

Scotland, U.K. (empowered under TTIP)
Support Activities for Oil and Gas Operations

95. ENTEK ENERGY LIMITED

Australia (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction

96. U.S. OIL AND GAS PLC

Ireland (empowered under TTIP)
Crude Petroleum and Natural Gas Extraction

97. SENSCIENT LTD.

England, U.K. (empowered under TTIP)
Support Activities for Oil and Gas Operations

98. BYRON ENERGY LIMITED

Australia (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction

99. SOUTH STREAM TRANSPORT BV

Netherlands (empowered under TTIP)
Oil and Gas Pipeline and Related Structures Construction

100. ALEATOR ENERGY

Australia (empowered under the TPP)
Crude Petroleum and Natural Gas Extraction



AN ORGANIZER FROM GOT GREEN? RALLIES THE CROWD DURING THE PEOPLE'S CLIMATE MARCH IN SEATTLE, WA, ON OCTOBER 14, 2015. PHOTO © KAREN DUCEY FOR THE SIERRA CLUB

Endnotes

1 To arrive at this figure, scientists from Germany, the United Kingdom, and Switzerland estimated in a 2009 study that no more than 886 billion metric tons of carbon dioxide could be emitted from 2000 to 2050 to have an 80 percent chance of avoiding global warming greater than two degrees Celsius above pre-industrial levels. In 2011, energy experts at the Carbon Tracker Initiative updated the scientists' findings to account for recent emissions and found that the remaining carbon budget was 565 billion metric tons. They estimated that the world's known fossil fuel reserves held 2795 billion metric tons of carbon, meaning 80 percent of known reserves must stay underground to have an 80 percent chance of avoiding catastrophic levels of climate change. The International Energy Agency estimated in 2012 that two-thirds of the world's known fossil fuel reserves would need to remain unburned to have just a 50 percent chance of exceeding global warming of two degrees Celsius. Malte Meinshausen, et al., "Greenhouse-Gas Emission Targets for Limiting Global Warming to 2°C," *Nature*, 458, April 30, 2009, <http://www.nature.com/nature/journal/v458/n7242/full/nature08017.html>. James Leaton, "Unburnable Carbon: Are the World's Financial Markets Carrying a Carbon Bubble?" Carbon Tracker Initiative, 2011, at 2, <http://www.carbontracker.org/wp-content/uploads/2014/09/Unburnable-Carbon-Full-rev2-1.pdf>. "World Energy Outlook 2012," International Energy Agency, 2012, at 3, <http://www.iea.org/publications/freepublications/publication/English.pdf>.

2 "Statement by the President on the Keystone XL Pipeline," The White House, November 6, 2015, <https://www.whitehouse.gov/the-press-office/2015/11/06/statement-president-keystone-xl-pipeline>.

3 *TransCanada Corporation and TransCanada PipeLines Limited v. The United States of America*, Notice of Intent to Submit a Claim to Arbitration under Chapter 11 of NAFTA, January 6, 2016, <http://www.italaw.com/sites/default/files/case-documents/ITA%20LAW%207030.pdf>.

4 For TTIP, the U.S. government is using its 2012 Model Bilateral Investment Treaty (BIT) as a basis for negotiations, and the model BIT, like the TPP, includes the "minimum standard of treatment" obligation. The European Commission's investment proposal for TTIP includes a right to "fair and equitable treatment" that is closely related to the "minimum standard of treatment" obligation. In some ways, the European proposal provides foreign investors with even greater rights than the U.S. version. "Text of the Trans-Pacific Partnership," New Zealand Ministry of Foreign Affairs and Trade, January 26, 2015, at Article 9.6, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/9-Investment-Chapter.pdf. "2012 U.S. Model Bilateral Investment Treaty," U.S. Department of State, 2012, at Article 5, <http://www.state.gov/documents/organization/188371.pdf>. "Transatlantic Trade and Investment Partnership: Chapter II – Investment," European Commission, November 12, 2015, at Article 3, http://trade.ec.europa.eu/doclib/docs/2015/november/tradoc_153955.pdf.

5 In March 2015, for example, an ISDS tribunal ruled against Canada for denying a mining project that was rejected by an environmental review panel, arguing that Canada's decision violated the foreign investor's right to a "minimum standard of treatment," in part, because it was "arbitrary." The TPP would allow such ISDS claims against government actions perceived as "arbitrary." The final TPP text fails to include a provision, suggested by Congressman Sandy Levin, that would have explicitly stated that foreign investors' right to a "minimum standard of treatment" does not include a prohibition of "arbitrary" government actions, unless a foreign investor could prove otherwise. For TTIP, the European Commission's proposed investor protections explicitly state that foreign investors' closely-related right to "fair and equitable treatment" includes protection against "manifest arbitrariness." *William Ralph Clayton, William Richard Clayton, Douglas Clayton, Daniel Clayton and Bilcon of Delaware, Inc. v. Government of Canada*, UNCITRAL, PCA Case No. 2009-04, Award on Jurisdiction and Liability, March 17, 2015, at para. 591, <http://www.italaw.com/sites/default/files/case-documents/italaw4212.pdf>. See also *Railroad Development Corporation v. Republic of Guatemala*, ICSID Case No. ARB/07/23, Award, June 29, 2012, at para. 219, <http://www.italaw.com/sites/default/files/case-documents/ita1051.pdf>. "Text of the Trans-Pacific Partnership," New Zealand Ministry of Foreign Affairs and Trade, January 26, 2015, at Article 9.6, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/9-Investment-Chapter.pdf. Congressman Sandy Levin, Amendment in the Nature of a Substitute to H.R.1890, House Report 114-100 - Part 1, Bipartisan Congressional Trade Priorities and Accountability Act of 2015, H.R.1890, 114th Congress, April 23, 2015, at Sec. 2(a)(4)(B)(iii), http://thomas.loc.gov/cgi-bin/cpquery/?&dbname=cp114&sid=cp114qfHwo&refer=&r_n=hr100p1.114&item=&&sel=TOC_444053&. "Transatlantic Trade and Investment Partnership: Chapter II – Investment," European Commission, November 12, 2015, at Article 3.2, http://trade.ec.europa.eu/doclib/docs/2015/november/tradoc_153955.pdf.

6 A recent review of ISDS rulings by ISDS expert Gus Van Harten finds that in 83 percent of cases, tribunals used a broad interpretation of the "minimum standard of treatment" that went "beyond the customary meaning of the minimum standard and thus enlarging foreign investors' entitlements to compensation in the face of democratic and regulatory decision-making by countries." This includes repeated tribunal interpretations of the "minimum standard of treatment" as requiring policies to conform to a foreign investor's expectations of a stable regulatory environment. Due in part to such broad interpretations, "minimum standard of treatment" violations have been the basis for three out of every four government losses in ISDS cases brought under U.S. trade and investment pacts. While the TPP includes the "minimum standard of treatment" obligation, the European Commission's investment proposal for TTIP includes the closely-related right to "fair and equitable treatment." It explicitly states that policies can be deemed to violate this right due to frustration of an investor's "legitimate expectation." Gus Van Harten, "Foreign Investor Protection and Climate Action: A New Price Tag for Urgent Policies," Osgoode Hall Law School Research Paper No. 66, 11:14, November 26, 2015, at 3, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2697555. Lori Wallach, "'Fair and Equitable Treatment' and Investors' Reasonable Expectations: Rulings in U.S. FTAs and BITs Demonstrate FET Definition Must be Narrowed," Public Citizen, September 5, 2012, <http://www.citizen.org/documents/MST-Memo.pdf>. "Text of the Trans-Pacific Partnership," New Zealand Ministry of Foreign Affairs and Trade, January 26, 2015, at Article 9.6, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/9-Investment-Chapter.pdf. "Transatlantic Trade and Investment Partnership: Chapter II – Investment," European Commission, November 12, 2015, at Article 3.2 and 3.4, http://trade.ec.europa.eu/doclib/docs/2015/november/tradoc_153955.pdf. U.S. Model Bilateral Investment Treaty, U.S. Department of State, 2012, at Article 5, <http://www.state.gov/documents/organization/188371.pdf>.

7 *TransCanada Corporation and TransCanada PipeLines Limited v. The United States of America*, Notice of Intent to Submit a Claim to Arbitration under Chapter 11 of NAFTA, January 6, 2016, at paras. 10 and 50, <http://www.italaw.com/sites/default/files/case-documents/ITA%20LAW%207030.pdf>.

8 The TPP final text and proposals for TTIP include a right for foreign investors to demand compensation for policies that constitute an "indirect expropriation" of their investment. ISDS tribunals have repeatedly ruled that domestic laws and regulations that reduce the value of an investment can constitute an "indirect expropriation." A recent review of ISDS rulings by ISDS expert Gus Van Harten finds that in 73 percent of cases, tribunals used a broad interpretation of "indirect expropriation," either "(i) by focusing exclusively or primarily on the effect of a law, regulation, or other decision on the foreign investor at the expense of other factors including the regulatory purpose of the decision or (ii) by adopting a low threshold of 'significant' or 'substantial' impact on a foreign investment in order to identify an indirect expropriation requiring full compensation by the state." The tribunal in *Metalclad Corporation v. Mexico*, for example, concluded, "expropriation under NAFTA includes not only open, deliberate and acknowledged takings of property, such as outright seizure or formal or obligatory transfer of title in favour [sic] of the host State, but also covert or incidental interference with the use of property which has the effect of depriving the owner, in whole or in significant part, of the use or reasonably-to-be-expected economic benefit of property, even if not necessarily to the obvious benefit of the host State" (emphasis added). "Text of the Trans-Pacific Partnership," New Zealand Ministry of Foreign Affairs and Trade, January 26, 2015, at Article 9.8.1, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/9-Investment-Chapter.pdf. "2012 U.S. Model Bilateral Investment Treaty," U.S. Department of State, 2012, at Article 6.1, <http://www.state.gov/documents/organization/188371.pdf>. "Transatlantic Trade and Investment Partnership: Chapter II – Investment," European Commission, November 12, 2015, at Article 5.1, http://trade.ec.europa.eu/doclib/docs/2015/november/tradoc_153955.pdf. Gus Van Harten, "Foreign Investor Protection and Climate Action: A New Price Tag for Urgent Policies," Osgoode Hall Law School Research Paper No. 66, 11:14, November 26, 2015, at 3-4, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2697555. *Metalclad Corporation v. The United Mexican States*, ICSID Case No. ARB (AF)/97/1, Award, August 30, 2000, <http://www.italaw.com/sites/default/files/case-documents/ita0510.pdf>.

9 While a European Commission proposal for TTIP includes several reforms to ISDS, which it calls an "Investment Court System," the proposal, even if accepted by the U.S., would still empower foreign investors to bypass domestic courts and directly challenge government policies before three-person tribunals that sit outside of any domestic legal system. It is notable that under the proposal the tribunalists would be chosen at random from a government-appointed roster rather than picked by the parties to a dispute. However, unlike actual judges and like existing ISDS tribunalists, they would not be bound by legal precedent and by default would be paid per case by the parties rather than salaried, maintaining a perverse incentive to rule in favor of investors so as to invite more investor-initiated

cases. "Transatlantic Trade and Investment Partnership: Chapter II – Investment," European Commission, November 12, 2015, at Section Three, http://trade.ec.europa.eu/doclib/docs/2015/november/tradoc_153955.pdf. "2012 U.S. Model Bilateral Investment Treaty," U.S. Department of State, 2012, at Section B, <http://www.state.gov/documents/organization/188371.pdf>. "Text of the Trans-Pacific Partnership," New Zealand Ministry of Foreign Affairs and Trade, January 26, 2015, at Section B, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/9-Investment-Chapter.pdf.

10 A recent study of ISDS cases brought under the rules of the International Centre for Settlement of Investment Disputes (ICSID – the rules system used for a majority of ISDS cases) finds that 63 percent of tribunalists in existing cases have been full-time private lawyers. Michael Waibel and Yanhui Wu, "Are Arbitrators Political?" University of Bonn, 2012, at 27, <http://www.unisg.ch/-/media/internet/content/dateien/unisg/schools/seps/political%20science/pwdresearchseminar-waibelare%20arbitrators%20political20150506.pdf>.

11 A recent study of ISDS cases brought under the rules of the International Centre for Settlement of Investment Disputes (ICSID – the rules system used for a majority of ISDS cases) finds that 53 percent of tribunalists have served as counsel for the investor in other ISDS cases brought under ICSID rules. Among tribunalists chosen by investors, 73 percent have served as lawyers for investors in other ISDS cases under ICSID rules. Michael Waibel and Yanhui Wu, "Are Arbitrators Political?" University of Bonn, 2012, at 27-29, <https://www.wipol.uni-bonn.de/lehveranstaltungen-1/lawecon-workshop/archive/dateien/waibelwinter11-12>.

12 Rather than create an appellate mechanism, Article 9.23.11 of the TPP final text merely states that if an appellate mechanism is created at some future point "under other institutional arrangements," the TPP Parties will "consider" whether ISDS rulings under the TPP should be subject to such appeals. The same language is found in Article 28.10 of the 2012 U.S. model BIT that the U.S. government is using as the basis for its TTIP negotiations. The European Commission proposal for TTIP includes an appellate mechanism for ISDS cases. "Text of the Trans-Pacific Partnership," New Zealand Ministry of Foreign Affairs and Trade, January 26, 2015, at Article 9.23.11, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/9-Investment-Chapter.pdf. "2012 U.S. Model Bilateral Investment Treaty," U.S. Department of State, 2012, at Article 28.10, <http://www.state.gov/documents/organization/188371.pdf>. "Transatlantic Trade and Investment Partnership: Chapter II – Investment," European Commission, November 12, 2015, at Article 10, http://trade.ec.europa.eu/doclib/docs/2015/november/tradoc_153955.pdf.

13 See "Text of the Trans-Pacific Partnership," New Zealand Ministry of Foreign Affairs and Trade, January 26, 2015, at Article 9.29, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/9-Investment-Chapter.pdf. See "2012 U.S. Model Bilateral Investment Treaty," U.S. Department of State, 2012, at Article 34, <http://www.state.gov/documents/organization/188371.pdf>. See "Transatlantic Trade and Investment Partnership: Chapter II – Investment," European Commission, November 12, 2015, at Article 28, http://trade.ec.europa.eu/doclib/docs/2015/november/tradoc_153955.pdf.

14 For examples of how ISDS threats have chilled public interest policymaking, see "Setting the Record Straight: Debunking Ten Common Defenses of Controversial Investor-State Corporate Privileges," Public Citizen, 2015, at 8-9, <http://www.citizen.org/documents/ustr-isds-response.pdf>.

15 Gus Van Harten and Dayna Nadine Scott, "Investment Treaties and the Internal Vetting of Regulatory Proposals: A Case Study from Canada," Osgoode Legal Studies Research Paper No. 71, 12:15, December 7, 2015, at 6, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2700238.

16 The law firm offers this advice to all energy investors, including those investing in non-renewable "traditional sources" of energy. Matthew Coleman, et al., "Foreign Investors' Options to Deal with Regulatory Changes in the Renewable Energy Sector," Steptoe and Johnson LLP, September 23, 2014, <http://www.step-toe.com/publications-9867.html>.

17 The law firm offers this advice to all energy investors, including those investing in non-renewable "traditional sources" of energy. Matthew Coleman, et al., "Foreign Investors' Options to Deal with Regulatory Changes in the Renewable Energy Sector," Steptoe and Johnson LLP, September 23, 2014, <http://www.step-toe.com/publications-9867.html>. For more examples of such advice from law firms, see "Polluters' Paradise: How Investor Rights in EU Trade Deals Sabotage the Fight for Energy Transition," Association Internationale de Techniciens, Experts et Chercheurs (AITEC), Corporate Europe Observatory, PowerShift, Transnational Institute, December 2015, <http://corporateeurope.org/sites/default/files/polluter-sparadise.pdf>.

18 "Investment Policy Hub: Investment Dispute Settlement Navigator," United Nations Conference on Trade and Development, accessed February 2, 2016, <http://investmentpolicyhub.unctad.org/ISDS>.

19 These cases include: *Shell Nigeria Ultra Deep Limited v. Federal Republic of Nigeria* (<http://www.italaw.com/cases/3320>), *BP America Production Company, Pan American Sur SRL, Pan American Fuegoina, SRL and Pan American Continental SRL v. The Argentine Republic* (<http://www.italaw.com/cases/172>), *Dow AgroSciences LLC v. Canada* (<http://www.italaw.com/cases/3407>), *Mobil Investments Canada Inc. and Murphy Oil Corporation v. Canada* (<http://www.italaw.com/cases/1225>), *Chevron Corporation and Texaco Petroleum Corporation v. Ecuador* (<http://www.italaw.com/cases/257>), and *Occidental Petroleum Corporation and Occidental Exploration and Production Company v. Ecuador* (<http://www.italaw.com/cases/767>).

20 For summaries of these and other ISDS cases affecting environmental protections, see Ilana Solomon and Ben Beachy, "A Dirty Deal: How the Trans-Pacific Partnership Threatens Our Climate," Sierra Club, December 2015, at 7-9, <https://www.sierraclub.org/sites/www.sierraclub.org/files/uploads-wysiwig/dirty-deal.pdf>. See also: "Case Studies: Investor-State Attacks on Public Interest Policies," Public Citizen, 2015, <http://www.citizen.org/documents/egregious-investor-state-attacks-case-studies.pdf>.

21 In each of the last five years, foreign investors have launched more than 50 ISDS cases. Fewer than 50 ISDS cases were launched cumulatively before 2000, despite the fact that the ISDS system has existed since the 1960s. In 2015, foreign investors launched 70 new ISDS cases, while in 2010 they initiated only 35 new cases. "Investment Policy Hub: Investment Dispute Settlement Navigator," United Nations Conference on Trade and Development, accessed February 2, 2016, <http://investmentpolicyhub.unctad.org/ISDS/FilterByYear>.

22 "Investor-State Dispute Settlement: Review of Developments in 2014," United Nations Conference on Trade and Development, May 2015, at 4, http://unctad.org/en/PublicationsLibrary/webdiaepcb2015d2_en.pdf.

23 The figure counts only the U.S. subsidiaries of foreign corporations based in TPP countries that do not currently have an ISDS-enforced agreement with the U.S.: Australia, Brunei, Japan, Malaysia, New Zealand, and Vietnam. About 1,300 foreign parent corporations with about 9,700 U.S. subsidiaries have the ability to launch ISDS cases against the U.S. under all existing U.S. trade and investment agreements. Data on foreign-owned firms doing business in the U.S. from Uniworld Online's database on foreign-owned firms, extracted September 21, 2015, <https://uniworldonline.com/>.

24 The figure counts only the U.S. subsidiaries of foreign corporations based in TTIP countries that do not currently have an ISDS-enforced agreement with the U.S.: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovenia, Spain, Sweden, and the United Kingdom. About 1,300 foreign parent corporations with about 9,700 U.S. subsidiaries have the ability to launch ISDS cases against the U.S. under all existing U.S. trade and investment agreements. Data on foreign-owned firms doing business in the U.S. from Uniworld Online's database on foreign-owned firms, extracted September 21, 2015, <https://uniworldonline.com/>.

25 The number of foreign fossil fuel parent corporations that the TPP and TTIP would empower *and* the number of their U.S. subsidiaries are both larger than the respective numbers under all existing U.S. trade and investment agreements. About 90 foreign fossil fuel parent corporations with about 430 U.S. subsidiaries currently have the ability to launch ISDS cases against the U.S. under existing agreements. These figures use a relatively narrow definition of "foreign fossil fuel corporations" and exclude a number of fossil fuel firms found in ancillary fossil-fuel-related sectors. See the appendix for details. The definition of "foreign fossil fuel corporations" is parent corporations with business activities that fall into one of these NAICS categories: 213112: Support Activities for Oil and Gas Operations, 211111: Crude Petroleum and Natural Gas Extraction, 424720: Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals), 221210: Natural Gas Distribution, 237120: Oil and Gas Pipeline and Related Structures Construction, 424710: Petroleum Bulk Stations and Terminals, 211112: Natural Gas Liquid Extraction, 324110: Petroleum Refineries, 213111: Drilling Oil and Gas Wells, 332410: Power Boiler and Heat Exchanger Manufacturing, 486210: Pipeline Transportation of Natural Gas, 454310: Fuel Dealers, 221112: Fossil Fuel Electric Power Generation, 333132: Oil and Gas Field Machinery and Equipment Manufacturing, 486110: Pipeline Transportation of Crude Oil, 486910: Pipeline Transportation of Refined Petroleum Products, 213113: Support Activities for Coal Mining, 212112: Bituminous Coal Underground Mining, 212113: Anthracite Mining, 212111: Bituminous Coal and Lignite Surface Mining, or 423520: Coal and Other Mineral and Ore Merchant Wholesalers. The primary source for this data on foreign-owned firms with subsidiaries in the U.S. is Uniworld Online's database on foreign-owned firms, extracted September 21, 2015, <https://uniworldonline.com/>. An array of corporate annual reports were used to update and supplement Uniworld's database. For a list of the 14 current U.S. free trade agreements, see "Free Trade Agreements," Office of the U.S. Trade Representative, accessed February 1, 2016, <https://ustr.gov/trade-agreements/free-trade-agreements>. For a list of the 42 current U.S. bilateral investment treaties, see "United States Bilateral Investment Treaties," U.S. Department of State, accessed February 1, 2016, <http://www.state.gov/e/eb/ftd/bit/117402.htm>.

26 To be able to launch an ISDS case, a foreign investor typically must have an "investment" that qualifies under a pact's definition of investment. The definition of investment in the TPP final text, and in the U.S. and European Commission proposals for TTIP, is extremely broad. The TPP defines "investment" as "every asset that an investor owns or controls, directly or indirectly, that has the characteristics of an investment, including such characteristics as the commitment of capital or other resources, the expectation of gain or profit, or the assumption of risk." It explicitly states that this includes "shares, stock and other forms of equity participation in an enterprise," which means a corporation could launch a case against a policy affecting a firm in which it held a minority and/or indirect share. The TPP definition of "investment" also explicitly includes "futures, options and other derivatives," "intellectual property rights," and "leases, mortgages, liens and pledges." Nearly identical text can be found in the European Commission's proposed investment text for TTIP and in the 2012 U.S. Model Bilateral Investment Treaty, the *de facto* U.S. investment template for TTIP. "Text of the Trans-Pacific Partnership," New Zealand Ministry of Foreign Affairs and Trade, January 26, 2016, at Article 9.1, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/9-Investment-Chapter.pdf. "Transatlantic Trade and Investment Partnership: Chapter II – Investment," European Commission, November 12, 2015, at 1, http://trade.ec.europa.eu/doclib/docs/2015/november/tradoc_153955.pdf. 2012 U.S.

Model Bilateral Investment Treaty, U.S. Department of State, 2012, at Article 1, <http://www.state.gov/documents/organization/188371.pdf>.

27 For example, using the broad definition of “investment” in the U.S.-Central America Free Trade Agreement, which is virtually identical to the broad definitions in the TPP and TTIP, a U.S. energy corporation named Tampa Electric Company won an ISDS case in 2013 against Guatemala’s decision to lower electricity rates even though its “investment” consisted of an indirect, 24 percent share in Guatemala’s utility company. Form 10-K, TECO Energy, Inc. and Tampa Electric Company, U.S. Securities and Exchange Commission, February 28, 2011, at 53, <http://www.sec.gov/Archives/edgar/data/96271/00011931251049482/d10k.htm>. *TECO Guatemala Holdings, LLC v. Republic of Guatemala*, ICSID Case No. ARB/10/23, Award, December 19, 2013, at para. 780, <http://www.italaw.com/sites/default/files/case-documents/italaw3035.pdf>.

28 The definition of “investor of a Party” and “investor of a non-Party” in the TPP final text would allow foreign investors that have not “made an investment” in the U.S. to bring ISDS cases against U.S. policies, so long as they were “attempt[ing] to make” an investment. A footnote states that “an investor ‘attempts to make’ an investment when that investor has taken concrete action or actions to make an investment, such as channelling resources or capital in order to set up a business, or applying for a permit or licence.” The 2012 U.S. Model Bilateral Investment Treaty includes the same provision. “Text of the Trans-Pacific Partnership,” New Zealand Ministry of Foreign Affairs and Trade, January 26, 2016, at Article 9.1, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/9.-Investment-Chapter.pdf. 2012 U.S. Model Bilateral Investment Treaty, U.S. Department of State, 2012, at Article 1, <http://www.state.gov/documents/organization/188371.pdf>.

29 Robert Spence, “Top 10 Mining Companies Based on Revenue,” *Mining Global*, August 12, 2014, <http://www.miningglobal.com/top10/1061/Top-10-Mining-Companies-Based-on-Revenue>. Jordan Blum, “BHP Takes \$2.8 Billion Write-Down in Texas Shale,” *Houston Chronicle*, July 15, 2015, <http://www.houstonchronicle.com/business/energy/article/BHP-makes-2-8-billion-writedown-in-Texas-shale-6387092.php>.

30 “Resourcing Global Growth: Annual Report 2015,” BHP Billiton, 2015, at 36 and 44, <http://www.bhpbilliton.com/-/media/bhp/documents/investors/annual-reports/2015/bhpbillitonannualreport2015.pdf?la=en>.

31 “Public Lands, Private Profits: How the U.S. Government Is Giving Away America’s Shared Natural Resources To the Wealthiest Companies in the World,” Rainforest Action Network, September 2015, at 8-9, https://d3n8a8pro7vhmx.cloudfront.net/rainforestactionnetwork/pages/14820/attachments/original/1443213563/RAN_Public_Lands_Private_Profits.pdf?1443213563.

32 “Pipelines,” BP, accessed February 1, 2016, http://www.bp.com/en_us/bp-us/what-we-do/pipelines.html.

33 BP has unconventional gas deposits (for which fracking is the primary extraction method) in these areas: Eagle Ford Shale and Haynesville Shale in Texas, Fayetteville Shale in Arkansas, Woodford Basin in Oklahoma, San Juan Basin in Colorado and New Mexico, and Wamsutter Field in Wyoming. The source for this information is data from the Unconventional Oil & Gas Center, updated by recent news reports. “BP America, Inc.” UG Unconventional Oil & Gas Center, Hart Energy, accessed February 1, 2016, <http://www.ugcenter.com/company-detail/11001841>.

34 “U.S. Economic Impact Report 2015,” BP, 2015, at 7 and 10, http://www.bp.com/content/dam/bp-country/en_us/PDF/2015-EIR/BP-Economic-Impact-Report-2015.pdf.

35 “Exploration and Production,” BP, accessed February 1, 2016, http://www.bp.com/en_us/bp-us/what-we-do/exploration-and-production.html.

36 These figures count only the U.S. corporations with subsidiaries in TPP and TTIP countries that do not currently have an ISDS-enforced agreement with the U.S. For the TPP, that includes: Australia, Brunei, Japan, Malaysia, New Zealand, and Vietnam. For TTIP, that includes: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovenia, Spain, Sweden, and the United Kingdom. Data on foreign-owned firms doing business in the U.S. from Uniworld Online’s database on foreign-owned firms, extracted September 21, 2015, <https://uniworldonline.com/>.

37 Richard Heede, “Carbon Majors: Accounting for Carbon and Methane Emissions 1854-2010, Methods & Results Report,” Climate Mitigation Services, April 7, 2014, at 29, <http://carbonmajors.org/wp/wp-content/uploads/2014/04/MRR-9.1-Apr14R.pdf>.

38 For a full explanation of how a few new provisions claimed as “safeguards” are not meaningful, see Ilana Solomon and Ben Beachy, “A Dirty Deal: How the Trans-Pacific Partnership Threatens Our Climate,” Sierra Club, December 2015, at 4-7, <https://www.sierraclub.org/sites/www.sierraclub.org/files/uploads-wysiwig/dirty-deal.pdf>.

39 See Ben Beachy, “Do the Commission’s Reform Proposals for ISDS Really Solve the Problem?” Stop TTIP blog, September 18, 2015, <https://stop-ttip.org/blog/do-the-commissions-reform-proposals-for-isds-really-solve-the-problem/>.

40 Robert Spence, “Top 10 Mining Companies Based on Revenue,” *Mining Global*, August 12, 2014, <http://www.miningglobal.com/top10/1061/Top-10-Mining-Companies-Based-on-Revenue>.

41 Richard Heede, “Carbon Majors: Accounting for Carbon and Methane Emissions 1854-2010, Methods & Results Report,” Climate Mitigation Services, April 7, 2014, at 29, <http://carbonmajors.org/wp/wp-content/uploads/2014/04/MRR-9.1-Apr14R.pdf>.

42 Jordan Blum, “BHP Takes \$2.8 Billion Write-Down in Texas Shale,” *Houston Chronicle*, July 15, 2015, <http://www.houstonchronicle.com/business/energy/article/BHP-makes-2-8-billion-writedown-in-Texas-shale-6387092.php>.

43 Jake Hays and Seth B.C. Shonkoff, “Toward an Understanding of the Environmental and Public Health Impacts of Shale Gas Development: an Analysis of the Peer-Reviewed Scientific Literature, 2009-2015,” PSE Healthy Energy, June 2015, at 9-11, http://www.psehealthyenergy.org/data/Database_Analysis_2015.6_16_.pdf.

44 Kevin Murphy, “In a Fouled Jungle, Tribes Win One,” *The New York Times*, June 12, 1996, <http://www.nytimes.com/1996/06/12/news/12iht-bhp.t.html>.

45 “Conservation Group Seeks Clean Up of Open Pit Coal Combustion Waste Dump,” Western Environmental Law Center, April 8, 2010, <http://www.westernlaw.org/article/conservation-group-seeks-clean-open-pit-coal-combustion-waste-dump-press-release-4812>. *Sierra Club v. San Juan Coal Company*, Consent Decree, Case 10-cv-00332-MCA-LAM, U.S. District Court for the District of New Mexico, March 28, 2012, http://www.environmentalintegrity.org/news_reports/documents/NMConsentDecreeFromPacer.pdf.

46 “Brazil to Sue BHP, Vale for \$5 Billion in Damages for Dam Burst,” *Reuters*, November 27, 2015, <http://www.reuters.com/article/us-brazil-damburst-damages-idUSKBN0TG26F20151127>. Paul Kiernan, “Samarco Warned of Problems at Dam, Engineer Says,” *The Wall Street Journal*, January 17, 2016, <http://www.wsj.com/articles/samarco-warned-of-problems-at-dam-engineer-says-1453093025>. Anthony Boadle, “Samarco, Brazil Government Move Closer on \$4.8 Billion Dam-Disaster Accord,” *Reuters*, January 21, 2016, <http://www.reuters.com/article/us-brazil-damburst-negotiations-idUSKCN0UZZ2WL>.

47 “Resourcing Global Growth: Annual Report 2015,” BHP Billiton, 2015, at 23, <http://www.bhpbilliton.com/-/media/bhp/documents/investors/annual-reports/2015/bhpbillitonannualreport2015.pdf?la=en>.

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248 The \$2 million was used to cover a variety of issues, including policies explicitly focused on pipeline regulation – the lobbying disclosures do not state how much was spent for each specific issue. “Query the Lobbying Disclosure Act Database,” The United States Senate, accessed February 1, 2016, <http://soprweb.senate.gov/index.cfm?event=processSearchCriteria>.

249 The European Commission’s investment proposal for TTIP includes a right to “fair and equitable treatment” that is closely related to the “minimum standard of treatment” obligation. “Transatlantic Trade and Investment Partnership: Chapter II – Investment,” European Commission, November 12, 2015, at Article 3, http://trade.ec.europa.eu/doclib/docs/2015/november/tradoc_153955.pdf. “2012 U.S. Model Bilateral Investment Treaty,” U.S. Department of State, 2012, at Article 5, <http://www.state.gov/documents/organization/188371.pdf>. “Text of the Trans-Pacific Partnership,” New Zealand Ministry of Foreign Affairs and Trade, January 26, 2015, at Article 9.6, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/9.-Investment-Chapter.pdf.

250 One recent ISDS case under NAFTA may be instructive, as it has several parallels with TransCanada's claim. Mirroring the rejection of the Keystone XL pipeline, in 2007 Canada rejected a proposal by U.S. mining company Bilcon to build a quarry mine that local communities strongly opposed on environmental grounds. In response, Bilcon launched a NAFTA case against Canada. As with TransCanada's claim, the company argued that the decision to reject the controversial project was "arbitrary" and frustrated the company's "reasonable expectations," thereby violating its NAFTA right to a "minimum standard of treatment." Like TransCanada, Bilcon argued that government officials had led the company to believe the project would go through, that the criteria used to reject its investment differed from that used to approve similar projects, and that the rejection was unduly influenced by the public's environmental concerns. In March 2015, a NAFTA tribunal ruled in favor of Bilcon. Two of the tribunal's three lawyers agreed with Bilcon that the "core values" of the local community (including their environmental concerns) should not have influenced Canada's decision to reject the project. They deemed this a violation of Canada's "minimum standard of treatment" obligation under NAFTA because it was "arbitrary" and contrary to Bilcon's "reasonable expectations." The dissenting tribunalist warned that the decision would be seen as "a remarkable step backwards in environmental protection." The other two lawyers have yet to decide how much Canada must pay Bilcon, but the company is demanding at least \$300 million. *William Ralph Clayton, William Richard Clayton, Douglas Clayton, Daniel Clayton and Bilcon of Delaware, Inc. v. Government of Canada*, UNCITRAL, PCA Case No. 2009-04, Award on Jurisdiction and Liability, March 17, 2015, at paras. 6-26, 220, 362, 385, and 590-594, <http://www.italaw.com/sites/default/files/case-documents/italaw4212.pdf>. *William Ralph Clayton, William Richard Clayton, Douglas Clayton, Daniel Clayton and Bilcon of Delaware, Inc. v. Government of Canada*, UNCITRAL, PCA Case No. 2009-04, Dissenting Opinion of Professor Donald McRae, March 10, 2015, at para. 51, <http://www.international.gc.ca/trade-agreements-accords-commerciaux/assets/pdfs/disp-diff/clayton-13.pdf>. Paul Withers, "Nova Scotia Taxpayers May Be on Hook for NAFTA," *CBC News Canada*, March 24, 2015, <http://www.cbc.ca/news/canada/nova-scotia/nova-scotia-taxpayers-may-be-on-hook-for-nafta-de-feat-1.3006319>.

251 TPP countries that do not already have an ISDS-enforced pact with the U.S. include: Australia, Brunei, Japan, Malaysia, New Zealand, and Vietnam. TTIP countries that do not already have an ISDS-enforced pact with the U.S. include: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovenia, Spain, Sweden, and the United Kingdom. This list does not include any of the fossil fuel firms that are not based in TPP or TTIP countries, but that could use the agreements to launch ISDS cases against the U.S. via their subsidiaries in TPP or TTIP countries. The TPP would allow a corporation based in a non-TPP country (e.g., China) to launch an ISDS case against a TPP country (e.g., the U.S.) via a subsidiary based in a TPP country (e.g., Vietnam), so long as the subsidiary had "substantial business activities" in that country (e.g., Vietnam) and had an investment in the country that was the target of the ISDS case (e.g., the U.S.). The 2012 U.S. Model Bilateral Investment Treaty, the *de facto* U.S. template for TTIP, includes the same provision. "Text of the Trans-Pacific Partnership," New Zealand Ministry of Foreign Affairs and Trade, January 26, 2016, at Article 9.15, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/9.-Investment-Chapter.pdf. 2012 U.S. Model Bilateral Investment Treaty, U.S. Department of State, 2012, at Article 17, <http://www.state.gov/documents/organization/188371.pdf>.

252 The primary source for this data on foreign-owned firms with subsidiaries in the U.S. is Uniworld Online's database on foreign-owned firms, extracted September 21, 2015, <https://uniworldonline.com/>. An array of corporate annual reports were used to update and supplement Uniworld's database.

253 A corporation is included if Uniworld's database and supplementary research find the parent firm as having business activities that fall into one of these categories of the North American Industry Classification System (NAICS): 213112: Support Activities for Oil and Gas Operations, 211111: Crude Petroleum and Natural Gas Extraction, 424720: Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals), 221210: Natural Gas Distribution, 237120: Oil and Gas Pipeline and Related Structures Construction, 424710: Petroleum Bulk Stations and Terminals, 211112: Natural Gas Liquid Extraction, 324110: Petroleum Refineries, 213111: Drilling Oil and Gas Wells, 332410: Power Boiler and Heat Exchanger Manufacturing, 486210: Pipeline Transportation of Natural Gas, 454310: Fuel Dealers, 221112: Fossil Fuel Electric Power Generation, 333132: Oil and Gas Field Machinery and Equipment Manufacturing, 486110: Pipeline Transportation of Crude Oil, 486910: Pipeline Transportation of Refined Petroleum Products, 213113: Support Activities for Coal Mining, 212112: Bituminous Coal Underground Mining, 212113: Anthracite Mining, 212111: Bituminous Coal and Lignite Surface Mining, or 423520: Coal and Other Mineral and Ore Merchant Wholesalers. Uniworld Online's database on foreign-owned firms, extracted September 21, 2015, <https://uniworldonline.com/>.

254 In some cases, Uniworld's data do not account for the full spectrum of fossil fuel sectors in which a given parent corporation is doing business. Some of these gaps have been filled in this list via a review of corporate annual reports, though more gaps likely remain. Uniworld Online's database on foreign-owned firms, extracted September 21, 2015, <https://uniworldonline.com/>.

255 Annual sales data primarily come from Uniworld Online's database on foreign-owned firms, extracted September 21, 2015, <https://uniworldonline.com/>. Corporate annual reports provided sales data for firms that did not appear in Uniworld's database.

256 To be able to launch an ISDS case, a foreign investor typically must have an "investment" that qualifies under a pact's definition of investment. The definition of investment in the TPP final text, and in the U.S. and European Commission proposals for TTIP, is extremely broad. The TPP defines "investment" as "every asset that an investor owns or controls, directly or indirectly, that has the characteristics of an investment, including such characteristics as the commitment of capital or other resources, the expectation of gain or profit, or the assumption of risk." It explicitly states that this includes "shares, stock and other forms of equity participation in an enterprise," which means a corporation could launch a case against a policy affecting a firm in which it held a minority and/or indirect share. (Indeed, using the virtually identical and broad definition of "investment" in the U.S.-Central America Free Trade Agreement, a U.S. energy corporation named Tampa Electric Company won an ISDS case in 2013 against Guatemala's decision to lower electricity rates even though its "investment" consisted of an indirect, 24 percent share in Guatemala's utility company.) The TPP definition of "investment" also explicitly includes "futures, options and other derivatives," "intellectual property rights," and "leases, mortgages, liens and pledges." Nearly identical text can be found in the European Commission's proposed investment text for TTIP and in the 2012 U.S. Model Bilateral Investment Treaty, the *de facto* U.S. investment template for TTIP. The TPP final text would even allow corporations that have made no "investment" in the U.S. to bring ISDS cases against U.S. policies, so long as they were "attempt[ing] to make" an investment. The 2012 U.S. Model Bilateral Investment Treaty includes the same provision. "Text of the Trans-Pacific Partnership," New Zealand Ministry of Foreign Affairs and Trade, January 26, 2016, at Article 9.1, https://www.mfat.govt.nz/assets/_securedfiles/Trans-Pacific-Partnership/Text/9.-Investment-Chapter.pdf. "Transatlantic Trade and Investment Partnership: Chapter II - Investment," European Commission, November 12, 2015, at 1, http://trade.ec.europa.eu/doclib/docs/2015/november/tradoc_153955.pdf. 2012 U.S. Model Bilateral Investment Treaty, U.S. Department of State, 2012, at Article 1, <http://www.state.gov/documents/organization/188371.pdf>. Form 10-K, TECO Energy, Inc. and Tampa Electric Company, U.S. Securities and Exchange Commission, February 28, 2011, at 53, <http://www.sec.gov/Archives/edgar/data/96271/000119312511049482/d10k.htm>. *TECO Guatemala Holdings, LLC v. Republic of Guatemala*, ICSID Case No. ARB/10/23, Award, December 19, 2013, at para. 780, <http://www.italaw.com/sites/default/files/case-documents/italaw3035.pdf>.

257 The list does not, for example, include these categories of the North American Industry Classification System (NAICS) as "fossil fuel sectors": 333131: Mining Machinery and Equipment Manufacturing, 486990: All Other Pipeline Transportation, 333611: Turbine and Turbine Generator Set Units Manufacturing, 324191: Petroleum Lubricating Oil and Grease Manufacturing, 324199: All Other Petroleum and Coal Products Manufacturing, 325110: Petrochemical Manufacturing, 325194: Cyclic Crude, Intermediate, and Gum and Wood Chemical Manufacturing, 447110: Gasoline Stations with Convenience Stores, and 447190: Other Gasoline Stations. Some of these categories actually include business activities that would have been counted as core "fossil fuel sectors," as they involve fossil fuel extraction, processing, bulk distribution, or fossil-fuel power production. However, these categories also include a number of non-fossil-fuel business activities and thus were excluded.



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