



# Unburnable Carbon - Stranded Reserves

Annual Meeting: May 8, 2013 in Pittsburgh, PA

## Resolution

This resolution asks CONSOL Energy to prepare a report on the company's plans to address global concerns regarding fossil fuels and their contribution to climate change, including analysis of long and short term financial and operational risks. In analyzing the long and short term risks, proponent asks CONSOL to perform an analysis of various scenarios the company deems likely, or reasonably possible, in which a portion of its reserves or infrastructure become stranded due to carbon regulation; to discuss the impact those scenarios would have on the company; to disclose company plans to invest future resources in non-fossil fuel energy resources or plans to continue to explore and further develop new coal, oil, or gas reserves.

## Rationale for a YES Vote

Recent studies (confirmed by the International Energy Agency) indicate that the global carbon budget associated with avoiding catastrophic climate change necessarily limits the burning of fossil fuel reserves. These studies estimate that 2/3 or more of current reserves must remain unburned to avoid disruptive climate change impacts. Governments are beginning to recognize these constraints in a more visceral way as the costs of a warming world begin to mount (including unprecedented levels of storm damage, nationwide droughts, flooding, and more). Civil society, in turn, is gaining momentum in demanding that action be taken immediately to preserve our climate for future generations. Given these coalescing events, increasingly stringent climate change regulations are expected.

The coal sector, including CONSOL Energy, is likely to be significantly and negatively impacted by climate change regulations that limit, or have the effect of limiting the burning of fossil fuel reserves. Companies and shareholders need to be fully informed of the risk of stranded reserve and infrastructure assets and how, or if, the company is planning for a carbon constrained future. This valuable information will enable investors to analyze how the company is positioned to address climate change and carbon restrictions and to make reasonable judgments about the benefits or risks associated with investing in this company.

## Background

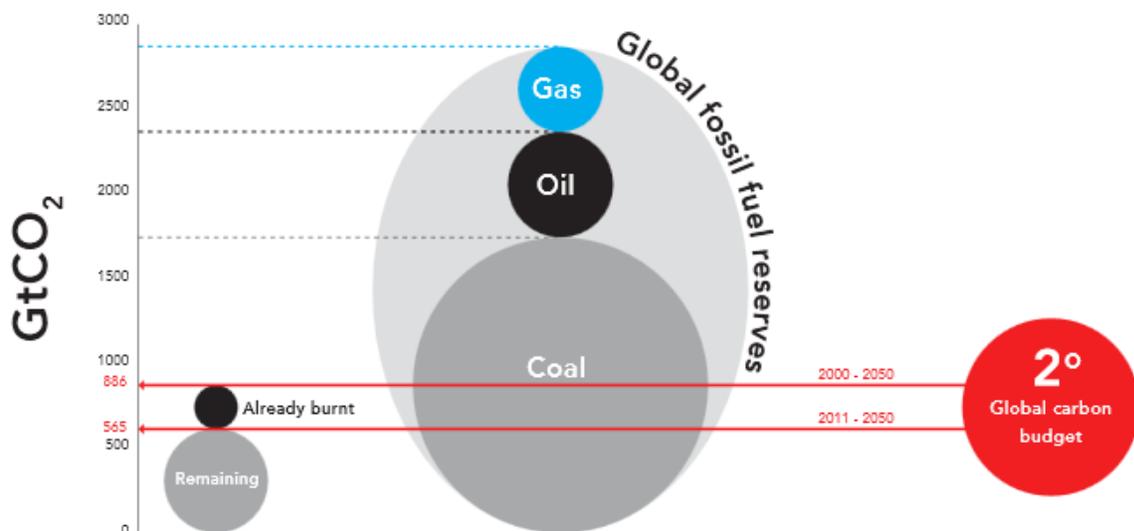
### Unburnable Carbon

Global governments have recognized that more than a 2° Celsius increase in global temperatures will have dire ramifications for climate and for the people and environment of the



world and have agreed to limit global warming to 2°. <sup>1</sup> Although the reality of this 2° limit has been acknowledged for some time, critical new information has come to light demonstrating that the burning of fossil fuels at current rates will push us beyond that limit in a very short time (estimates vary from 11 years under a worst case scenario to 16 years under business as usual). <sup>2</sup> The Carbon Tracker Institute estimates that global proven fossil fuel reserves, as reported by countries in 2010, contain 2,795 GtCO<sub>2</sub>, while only 565 gigatons of CO<sub>2</sub> (GtCO<sub>2</sub>) can be emitted between 2010 and 2050 to reduce the likelihood of a temperature increase above 2° C to 20%. <sup>3</sup> This theme was echoed in a recent report by the International Energy Agency (IEA) which declared that “[n]o more than one-third of proven reserves of fossil fuels can be consumed prior to 2050 if the world is to achieve the 2 degree Celsius goal” generally recognized as the level beyond which global warming will have dire ramifications. <sup>4</sup>

## Comparison of the Global 2°C Carbon Budget with Fossil Fuel Reserves CO<sub>2</sub> Emissions Potential



Source: *Carbon Bubble – Are the World’s Financial Markets Carrying a Carbon Bubble*, Carbon Tracker Initiative.

<sup>1</sup> “Milestones on the Road to 2012: The Cancun Agreements,” United Nations, Framework Convention on Climate Change,” [http://unfccc.int/key\\_steps/cancun\\_agreements/items/6132.php](http://unfccc.int/key_steps/cancun_agreements/items/6132.php); Copenhagen Accord, March, 2010, <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf>; Cancun Agreement, November 2010, [http://unfccc.int/meetings/cancun\\_nov\\_2010/meeting/6266.php](http://unfccc.int/meetings/cancun_nov_2010/meeting/6266.php).

<sup>2</sup> “Greenhouse-Gas Emission Targets for Limiting Global Warming to 2°C,” <http://www.nature.com/nature/journal/v458/n7242/full/nature08017.html> (registration required); *Unburnable Carbon: Are the World’s Financial Markets Carrying a Carbon Bubble*, Carbon Tracker Initiative, p. 9, <http://www.carbontracker.org/wp-content/uploads/downloads/2012/08/Unburnable-Carbon-Full1.pdf> (citing IEA <http://www.eia.doe.gov/oiaf/ieo/emissions.html>).

<sup>3</sup> *Unburnable Carbon: Are the World’s Financial Markets Carrying a Carbon Bubble*, Carbon Tracker Initiative, p.6 and 2 (citing Potsdam Institute), <http://www.carbontracker.org/wp-content/uploads/downloads/2012/08/Unburnable-Carbon-Full1.pdf>.

<sup>4</sup> *World Energy Outlook 2012: Executive Summary*, IEA, p.3, <http://www.iea.org/publications/freepublications/publication/English.pdf>.



## Risk to Company Value

Current company valuation is based on known fossil fuel reserves, with the assumption that all such reserves can be burned without limitation. If the worldwide carbon budget of 565 gigatons were adhered to (either via regulation or substitution by competing products), the vast majority of fossil fuel companies will be left with “stranded assets” in the form of unburnable reserves and underused infrastructure. A companies’ inability to use its reserves can significantly impact its value. The *Financial Times* and others refer to this as a “Carbon Bubble.”<sup>5</sup> An analysis performed by HSBC on coal profits given a low demand scenario for coal, a mid-range demand case, and a business as usual case demonstrates that, under the mid-range case, discounted cash flow falls by 22%, in the low demand case, it falls by 44%.<sup>6</sup>

## Regulatory Risk

Governments across the world are beginning to comprehend the dire nature of global warming and to take action. In the United States, in his State of the Union Address, President Obama stated:

[I]f Congress won’t act soon to protect future generations, I will. I will direct my Cabinet to come up with executive actions we can take, now and in the future, to reduce pollution, prepare our communities for the consequences of climate change, and speed the transition to more sustainable sources of energy.<sup>7</sup>

On March 27, 2012, the U.S. Environmental Protection Agency proposed a Carbon Pollution Standard for New Power Plants that would, for the first time, set national limits on the amount of carbon pollution that new power plants can emit.<sup>8</sup> On February 19, 2008, the province of British Columbia announced its intention to implement a carbon tax of \$10 per tonne of Carbon dioxide equivalent (CO<sub>2</sub>e) emissions beginning July 1, 2008, making BC the first North American jurisdiction to implement such a tax.<sup>9</sup> In July of 2012, the Australian Federal government introduced a carbon tax.<sup>10</sup>

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<sup>5</sup> J. Leggett, “Carbon Bubble Is a Real Risk for Markets,” *Financial Times*, October 30, 2012, <http://www.ft.com/cms/s/0/629f9a52-2283-11e2-b606-00144feabdc0.html#axzz2PiSZNbkX>.

<sup>6</sup> *Coal and Carbon—Stranded Assets: Assessing the Risk*, (HSBC Global Research, June 21, 2012), <https://www.research.hsbc.com/midas/Res/RDV?p=pdf&key=dXwE9bC8qs&n=333473.PDF>.

<sup>7</sup> Transcript of Obama’s State of the Union Speech, *Fox News*, <http://www.foxnews.com/politics/2013/02/12/transcript-obama-state-union-speech/>.

<sup>8</sup> CONSOL, Form 10-K (2012), p. 42, [http://phx.corporate-ir.net/phoenix.zhtml?c=66439&p=irol-sec&control\\_selectgroup=Annual%20Filings](http://phx.corporate-ir.net/phoenix.zhtml?c=66439&p=irol-sec&control_selectgroup=Annual%20Filings).

<sup>9</sup> J. Fowlie and F. Anderson, “B.C. Introduces Carbon Tax,” *Canada.com*, February 22, 2008, [http://www.rev.gov.bc.ca/documents\\_library/notices/British\\_Columbia\\_Carbon\\_Tax.pdf](http://www.canada.com/vancouver/news/story.html?id=ecea1487-507c-43ef-ab88-5a972898e0b7&k=38130;Ministry of Small Business and Revenue; “British Columbia Carbon Tax,” Ministry of Small Business and Revenue, February 2008, <a href=).

<sup>10</sup> “About the Carbon Pricing Mechanism,” Australian Government Clean Energy Regulator, <http://www.cleanenergyregulator.gov.au/Carbon-Pricing-Mechanism/About-the-Mechanism/Pages/default.aspx>.



## **Financing Risk**

In addition, apart from governmental regulation, on February 4, 2008, three of Wall Street's largest investment banks announced that they had adopted climate change guidelines for lenders. The guidelines require the evaluation of carbon risks in the financing of electric power generation plants which may make it more difficult for utilities to obtain financing for coal-fired plants.<sup>11</sup>

## **Stranded Assets**

In the face of carbon constraints, especially restraints recognizing the 2° limit for global warming, fossil fuel companies such as CONSOL will likely have to write-off a substantial portion of their reserves (assuming widespread carbon capture and storage is not feasible or economical). As indicated above, this would result in significant a downward revaluation of these companies. Coal, in particular, emits the greatest amount of CO<sub>2</sub> per unit of energy of any fuel source and thus may be the fuel most impacted by carbon regulations.<sup>12</sup>

## **Planning for a Carbon Constrained Future**

The likelihood of carbon constraints creates real risk for investors, as well as for energy production companies, and places a premium on understanding whether and how the company is reacting to the increasing likelihood of carbon constraints. How much risk does the company face? How is it placed competitively in a carbon constrained world? How secure is its customer base? Is the company planning for an increasingly diversified mix of mineral assets, including those that could benefit from low-carbon growth, or are they continuing business as usual and planning for continued growth and investment in high carbon sectors? Are management teams effectively integrating carbon risks into capital expenditure decisions?

To the extent companies undertake the reporting requested in this resolution, investors will be provided with substantially more information on which to make reasonable judgments about the benefits or risks associated with investing in the company. The requested reporting will allow the company to evaluate long-term challenges around climate change regulations and enable it to undertake sound planning, which planning can be shared with investors.

Shareholder value depends on the company's ability to effectively predict and manage risks of climate change regulation; its ability to reduce or eliminate risks by diversification; and its ability to position itself against competitors in an advantageous manner, among other things. To the extent CONSOL is addressing carbon constraints proactively, its reputations will be improved, its

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<sup>11</sup> CONSOL, Form 10-K (2012), p. 42, [http://phx.corporate-ir.net/phoenix.zhtml?c=66439&p=irol-sec&control\\_selectgroup=Annual%20Filings](http://phx.corporate-ir.net/phoenix.zhtml?c=66439&p=irol-sec&control_selectgroup=Annual%20Filings).

<sup>12</sup> According to Energy Information Administration, "[c]oal combustion emits almost twice as much carbon dioxide per unit of energy, as does the combustion of natural gas, whereas the amount from crude oil combustion falls between coal and natural gas," as cited in B.D. Hong and E.R. Slatick, "Carbon Dioxide Emission Factors for Coal," *Quarterly Coal Report January-April 1994* (Washington, D.C., August 1994), p. 1-8, [http://www.eia.gov/coal/production/quarterly/co2\\_article/co2.html#N\\_1](http://www.eia.gov/coal/production/quarterly/co2_article/co2.html#N_1).



competitive position will be stronger, and its ability to survive or thrive in a changing economy will be improved.

## Rebuttal to CONSOL Opposition Statement

1. **CONSOL argues that it “has implemented the proposal and already publishes a corporate responsibility report and provides extensive public disclosures that disclose its plans to address concerns regarding climate change and related risks.”**

### **CONSOL Has Failed to Implement This Proposal**

Although CONSOL does publish a corporate responsibility report, this report does not address the risk of carbon constraints or the potential for stranded reserves, nor does it offer any goals and plans to address carbon regulations or other constraints. As set forth in the chart below, CONSOL’s 10-K does acknowledge the risk of carbon regulations and states the potential for increased costs or decreased sales related to such regulation. CONSOL, however, does not provide shareholders with any information about the magnitude of these risks. Certainly the company does not point to recent studies related to the carbon budget necessary to keep global temperatures within the 2° Celsius limit beyond which irreparable climate impacts would occur – or the fact that 2/3 or more of worldwide fossil fuel reserves must remain unused to stay within those limits.

Further, CONSOL provides no reports or information analyzing various scenarios the company deems likely, or reasonably possible, in which a portion of its reserves or infrastructure become stranded due to carbon regulation, nor does it discuss the impact those scenarios would have on the company. The company does not discuss how it would address various carbon regulation scenarios, how it might be attempting to reduce associated risk, or what if any competitive advantage it would have in such situations. CONSOL also does not clearly disclose its plans to either diversify its activities in the mid to long term or continue to explore and further develop new coal, oil, or gas reserves, among other important information (although it does discuss capital investments it will make in coal and gas in 2013).

In sum, shareholders are not given the information necessary to understand or make decisions about the full range of risks associated with carbon regulations and the very real potential for stranded assets that has come to light.

We recognize that CONSOL has taken certain steps to address and reduce *its own* greenhouse gas emissions, and even has a pilot project in place to increase efficiency of a coal fired plant. But this resolution asks CONSOL to address the larger picture, which is the potentially significant risks to CONSOL of an increasingly carbon constrained world. *The company has failed to disclose and analyze the potential that it may be unable to utilize 2/3 or more of its coal and/or natural gas assets and has further failed to describe how the company is preparing for this risk.*

We address CONSOL’S specific arguments below.



<b>CONSOL's 2011 Corporate Responsibility Report</b>	
<b>CONSOL'S ARGUMENT</b>	<b>AS YOU SOW RESPONSE</b>
<p>The only citation provided by CONSOL's opposition statement regarding the 2011 Corporate Responsibility Report is to the "Environment at CONSOL Energy" section.</p> <p>As noted by CONSOL, this section "outlines specific initiatives undertaken by CONSOL to reduce its own carbon footprint as well as to assist our customers with these issues."</p>	<p>This information is not requested by the proponent's resolution and does not address the key issues raised regarding the likely impact to the company if carbon regulations reduce the company's ability to use or sell up to 2/3 of its fossil fuel reserves; how likely the company believes this outcome to be; how the company is positioned to deal with various possible regulatory scenarios; and if and how the company plans to address these potential risks.</p> <p>The various projects listed in the Corporate Responsibility report address a different question: How CONSOL will respond to GHG regulations imposed on its own mining activities and, in one project, how to reduce emissions from a coal-fired power plant.</p>
<b>CONSOL's Form 10-K</b>	
<b>CONSOL'S ARGUMENT</b>	<b>AS YOU SOW RESPONSE</b>
<p>Consol's 10-K does acknowledge the risk that GHG regulations "may impact the market for coal," increase operating costs, and "reduce the value of our coal and gas assets." P. 42-43.</p>	<p>This general acknowledgement provides no quantification of likely impact, no analysis of to what extent such regulations could affect the company's value, or whether or how the company plans to address such risks.</p>
<p>CONSOL acknowledges that "the characteristics of coal may make it costly [for coal users] to comply with various environmental standards" causing users to turn to alternative fuels instead of coal. CONSOL acknowledges incentives to switch users to renewable energy. It further states that the consequent reduction in coal use "will adversely affect our results of operation." P.41-42.</p>	<p>The discussion of "various environmental standards" is not relevant to this proposal.</p> <p>Subsidies to promote renewable fuels are relevant only to the degree this compounds the impact of carbon regulations. CONSOL fails to discuss this.</p> <p>Reductions in use of coal due to environmental standards and any move to renewable fuels are relevant to only to the degree it compounds the impact of carbon regulations. Since CONSOL has failed to adequately disclose or plan for such a carbon constrained world, and the likelihood that its coal and, to some extent, its natural gas assets will be stranded, this information is not sufficient to satisfy the proposal here.</p>



<p>“Carbon dioxide, a greenhouse gas, is also emitted when coal is burned. Environmental regulations governing emissions from coal-fired electric generating plants could affect demand for coal as a fuel source and affect the volume of our sales.” P. 33</p>	<p>This states the problem in a vague manner, but does not analyze to what extent such regulations could affect the company’s value, or how or whether the company plans to address such risks.</p>
<p>“On March 27, 2012, the U.S. Environmental Protection Agency (EPA) proposed standards for the emission of greenhouse gases (GHG) from new and reconstructed electric generating units at power plants. Such regulations could significantly increase the cost of generation of electricity at coal fired facilities and could make competing forms of electricity generation more competitive.” P. 34.</p>	<p>This recognizes part of the problem (proposed regulations on power plants) but does not analyze to what extent such regulations could affect the company’s value, or how or whether the company plans to address such risks.</p> <p>CONSOL further does not acknowledge the greater risk of the need to meet a carbon budget of 2/3 reduction in fossil fuel use to remain within the 2 degree Celsius limit beyond which irreparable climate impacts will occur.</p>
<p>CONSOL refers to SEC regulations already requiring disclosure of global warming impacts and other information.</p>	<p>The information requested by this proposal has not yet been provided by CONSOL. Studies setting forth the world climate budget, the impact of burning current fossil fuel reserves, and the consequent potential for a significant stranding of fossil fuel assets and associated infrastructure are new and have not been disclosed to CONSOL shareholders or addressed in any meaningful way.</p> <p>This failure is underscored by a March 2013 SEC ruling denying Alpha Natural Resources’ request to omit the very same resolution.</p> <p>Alpha raised nearly identical arguments to those raised in CONSOL’s opposition statement, and similarly failed to address the issue. The SEC found that the company’s public disclosures did not compare favorably with the guidelines of the proposal.<sup>13</sup></p>

<sup>13</sup> Letter from SEC to Alpha Natural Resources and Unitarian Universalists, dated March 19, 2013, <http://www.sec.gov/divisions/corpfin/cf-noaction/14a-8/2013/unitarianuniversalist031913-14a8.pdf>.



2. **CONSOL argues that “the proposal is overreaching, unlikely to be implemented at a reasonable cost and requires a report addressing issues outside [its] experience and purpose.”**

#### **Assessing Material Risk Is Standard Company Practice**

Far from being overreaching, this proposal asks CONSOL to undertake an analysis of a particular material risk associated with climate change. Climate change is a well-studied topic for a growing majority of companies, including CONSOL. This proposal asks the company to focus on a new and important factor associated with climate change—the very real risk of stranded assets associated with additional carbon regulation and/or pricing policies. New studies have assessed the magnitude of the risk—the potential for the stranding of at least 2/3 of worldwide fossil fuel reserves and an associated potential decrease in the value of coal assets. These studies have been brought to the company’s attention in this proposal. Shareholders are requesting that CONSOL disclose this new risk and provide a report of the potential impact to CONSOL, and its goals and plans, if any, to address the potential risk.

The analysis and planning called for by this resolution—an examination of likely and significantly reduced demand and/or use scenarios for fossil fuel reserves—is a reasonable undertaking that the company should already be performing to understand its future financial risk and how it will address such risk. Proponents fully acknowledge that there is no certainty on this issue, but the lack of certainty does not excuse inaction. CONSOL can disclose the potential for carbon regulation, the potential scope of such regulation (i.e., up to 2/3 reduction in burning of fossil fuels or more) and the consequent potential for stranded reserves and infrastructure. The company is also fully equipped to provide a range of reduced demand/usage scenarios, to describe how the company would be financially affected by each scenario, and to provide information regarding how, or whether, the company plans to address those risks. This information is critically important to shareholders, the majority of whom may not be aware of these new studies, the potential for stranded assets, or the likely significant impact to fossil fuel valuation associated with achieving the 2° limit of global warming. In order to effectively manage risks and maximize opportunities, the information requested in this proposal is critical to shareholders.