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2016 Proxy Memo
Anadarko
Request: Report on Carbon Asset Risk

Anadarko Corporation

Vote Yes: Carbon Asset Risk Disclosure

Annual Meeting: May 10, 2016

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SUMMARY

This proposal asks Anadarko Corporation to estimate and disclose to shareowners the potential for its oil and gas assets to lose partial or total financial value, i.e., to become stranded, due to climate change driven regulatory and market changes. This carbon asset risk is widely recognized as a growing risk for oil and gas companies and their shareholders. HSBC's analysis of carbon asset risk shows that 40%-60% of oil and gas companies' market capitalization could be lost if oil demand falls.[1] Falling oil demand may result from changing market forces including lower-cost, competing products and/or substitutes; increasing efficiency; and regulatory action such as limits on carbon, taxes on carbon, air quality regulations, and prohibition of dangerous products.

Proponents ask Anadarko to provide a report assessing its potential exposure to a range of carbon-related demand reduction scenarios; the financial impacts to the Company of such demand reductions; and how the Company might adapt its capital planning to respond to these risks. Anadarko has not provided such an analysis; instead, it asserts that demand for its products is expected to rise and that government action to address climate change is unlikely. Anadarko has failed to assess the degree of carbon asset risk associated with various low demand scenarios or explain how the Company can address or reduce such risk.

Current low oil prices demonstrate the serious financial consequences of even small demand imbalances in oil markets. Carbon asset risk is a material threat for Anadarko and it is imperative that the company fully report to shareholders about this risk. The Proponents urge shareholders to vote "Yes" on this resolution, as it will result in crucial information about how Anadarko is planning to manage and mitigate its growing carbon asset risk.

RESOLVED CLAUSE

Shareholders request that Anadarko prepare and publish a scenario analysis report by September 2016, omitting proprietary information, describing how the Company will address the risk of stranded assets presented by global climate change and associated demand reductions for oil and gas, including analysis of long and short term financial and operational risks to the company.

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[1] Paul Spedding, "Oil & carbon revisited: Value at risk from unburnable reserves." *HSBC*, January 25, 2013, http://dcdivest.org/wp-content/uploads/2015/10/HSBCOilJan13.pdf

RATIONALE FOR A YES VOTE

1) **Changing market fundamentals are increasing Anadarko's carbon asset risk.** Fundamental shifts in energy markets are underway which have the potential to substantially reduce demand for Anadarko's oil and gas products. These shifts include increasing costs for companies such as Anadarko to find, produce, and develop oil and gas; fuel efficiency innovations that are reducing worldwide demand for oil and gas; new technologies, such as electric vehicles that will reduce demand for fossil fuels; and competition from renewables.
2) **Regulatory risk is intensifying as global governments take action on climate change.** Climate change regulations and air quality standards are steadily increasing the regulatory risks facing Anadarko, which may render its fossil fuel reserves stranded.
3) **Anadarko is particularly exposed to carbon asset risk.** Anadarko's high cost capital investments have exposed the company's portfolio to increasing risk, especially within a low demand, low oil price market.
4) **Carbon Asset Risk is increasingly recognized by financial & regulatory institutions.** Over the past year, a range of financial institutions and regulatory agencies have begun to recognize and acknowledge the need for companies to address carbon asset risk.
5) **Anadarko does not provide shareholders with sufficient analysis and disclosure on managing its growing risk.** The need for comprehensive disclosure regarding carbon asset risk has been underscored by global investors, yet Anadarko's publically available material disclosures fail to address the range of associated risks.
6) **Anadarko compares poorly to peers on carbon asset risk reporting.** Peer companies have begun to affirmatively address these risks.

1. Changing market fundamentals are increasing Anadarko's carbon asset risk.

Increasing Costs of Oil Development - Current large scale transitions in energy market fundamentals are increasing carbon asset risk for Anadarko. One example of changing market fundamentals is the increasing cost for Anadarko to find, produce, and develop new oil and gas resources. As conventional crude oil sources become increasingly hard to find, companies such as Anadarko are having to pursue "unconventional" resources that are more costly to extract due to extreme and remote locations and a range of technological challenges.[2] Kepler Cheuvreux has declared this trend a "capex crisis," noting that, since 2005, annual investment in extracting and producing oil ("upstream investment") has increased by 100%, while crude oil supply only increased 3%.[3] Given the high production costs of unconventional sources of oil (including deep water and those that require hydraulic fracturing[4]) proponents are concerned that Anadarko's resources are becoming increasingly uncompetitive, especially in a carbon-constrained economy with the growing potential of excess supply.

[2] Jorge Leis, John McCreery and Juan Carlos Gay, "National oil companies reshape the playing field," *Bain and Company* Oct 10, 2012. http://www.bain.com/publications/articles/national-oil-companies-reshape-the-playing-field.aspx; Christopher Click and Douwe Tideman. "Rediscovering the Art of Exploration," *Pricewaterhouse Cooper,* 2013, http://www.strategyand.pwc.com/media/file/Strategyand_Rediscovering-the-Art-of-Exploration.pdf
[3] Mark C. Lewis, "Toil for Oil Spells Danger for Majors." *Kepler Chevreux. ESG Research,* September 15, 2014, 66, http://www.qualenergia.it/sites/default/files/articolo-doc/KC-ESG_Toil%20for%20Oil-1.pdf
[4] Jeff Brady, "Falling Oil Prices Make Fracking Less Lucrative," *NPR,* Nov 4, 2014, http://www.npr.org/2014/11/04/361204786/falling-oil-make-fracking-less-lucrative

Falling Demand for Oil and Gas – Worldwide demand for fossil fuels is being affected by policies and technology trends related to climate change including: increased fuel efficiency, use of lower-carbon fuels, electrification of ground transportation, and rapidly declining costs of renewable energy, among others.[5] In developed nations, demand for oil has fallen since 2005, primarily as a result of more efficient vehicles.[6] A March 2013 Citi report cites a number of trends indicating that "oil demand is approaching a tipping point" and that it may occur sooner than predicted, potentially leveling off by 2020.[7] Chief among such factors is increased fuel efficiency, which has an outsized impact because transportation accounts for 60 percent of global oil use. Other factors include emerging alternatives to gasoline including plug-in-electric vehicles, clean air regulation in China[8] and the falling price of renewables. The IEA and Deutsche Bank forecast global oil demand could peak in the next ten to fifteen years.[9]

Competition from Disruptive Technologies - At the same time, competition from carbon-free renewable substitutes are threatening Anadarko's natural gas business. Low carbon solutions have been adopted at a higher rate than most analysts predicted, and costs for low carbon and renewable infrastructure have declined faster than anticipated. Demonstrating these trends, in 2013, the world added more capacity for carbon free electric power than coal, natural gas, and oil combined.[10] There is no going back. Bloomberg's 2030 Market Analysis predicts that, "[b]y 2030, the world's power mix will have transformed from today's system with two-thirds fossil fuels to one with over half from zero-emission energy sources."[11] Deutsche Bank predicts that solar power systems will be at grid parity in up to 80 per cent of global markets by 2017.[12] As prices of renewable energy becomes equal to or less than fossil fuels, an aggressive shift to these forms of energy is likely to occur. Renewable energy offers benefits that oil and gas do not, including low and predictable fuel and power costs; ease of scalability and distribution; reduced regulatory risk; reduced carbon asset risk; increased safety of operations; improved branding and reputation; and environmental and public health benefits.

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[5] "IEA cuts 2015 oil demand outlook despite plunging prices," *Business Insider,* Dec 12, 2014. http://www.businessinsider.com/afp-iea-cuts-2015-oil-demand-outlook-despite-plunging-prices-2014-12

[6] "Yesterday's fuel: The world's thirst for oil could be nearing a peak. That is bad news for producers, excellent for everyone else," *The Economist,* Aug 3, 2013, http://www.economist.com/news/leaders/21582516-worlds-thirst-oil-could-be-nearing-peak-bad-news-producers-excellent

[7] Paul Tullis, "'Peak Oil' Is Back, but This Time It's a Peak in Demand." *Bloomberg,* May 3, 2013, http://www.bloomberg.com/bw/articles/2013-05-01/peak-oil-is-back-but-this-time-its-a-peak-in-demand

[8] "FACT SHEET: U.S.-China Joint Announcement on Climate Change and Clean Energy Cooperation." *The White House*, November 11, 2014, https://www.whitehouse.gov/the-press-office/2014/11/11/fact-sheet-us-china-joint-announcement-climate-change-and-clean-energy-c

[9] Liam Denning, "Oil's Black Swans on the Horizon," *Wall Street Journal,* Feb 16, 2015, http://www.wsj.com/articles/oils-black-swans-on-the-horizon-1424108038

[10] Tom Randall. "Fossil Fuels Just Lost the Race Against Renewables," *Bloomberg*, April 14, 2015, http://www.bloomberg.com/news/articles/2015-04-14/fossil-fuels-just-lost-the-race-against-renewables

[11] "Global Overview: 2030 Market Outlook," *Bloomberg New Energy Finance*, 2014 See also; Claire Cameron. *"Report: Renewables to make up 65% of global energy investments by 2030," Utility Dive*, July 7, 2014, http://www.utilitydive.com/news/report-renewables-to-make-up-65-of-global-energy-investments-by-2030/282771/

[12] Giles Parkinson. "Deutsche Bank Predicts Solar Grid Parity In 80% Of Global Market By 2017," *Clean Technica,* January 14, 2015, http://cleantechnica.com/2015/01/14/deutsche-bank-predicts-solar-grid-parity-80-global-market-2017/ See also; Vishal Shah, "Markets Research: Industry Solar: 2015 Outlook." *Deutsche Bank*. January 8, 2015, 22. http://www.qualenergia.it/sites/default/files/articolo-doc/Solar%202015%20Outlook(1).pdf

2. Regulatory risk is intensifying as global governments take action on climate change.

The International Energy Agency, in its 2012 World Energy Outlook, recognized that no more than one-third of proven reserves of fossil fuels can be consumed prior to 2050 if the world is to have a chance at limiting global warming to 2 degree Celsius, the level beyond which severe consequences occur for economies, market participants, and the environment. Climate change – and the risks it is generating for companies – has become a major concern for investors. This concern has been magnified by the 21st Session of the Conference of the Parties (COP 21) in Paris, where 195 global governments agreed to restrict greenhouse gas emissions to less than 2 degrees Celsius from pre-industrial levels and submitted plans to begin achieving the necessary greenhouse gas emission reductions.

Achievement of a 2 degree goal requires *net zero global emissions* to be attained by 2100.[13] Achieving net zero emissions this century means that the vast majority of fossil fuel reserves cannot be burned. As noted by Mark Carney, the President of the Bank of England, the carbon budget associated with meeting the 2 degree goal will "render the vast majority of reserves 'stranded' – oil, gas, and coal that will be literally unburnable without expensive carbon capture technology, which itself alters fossil fuel economics."[14]

The Paris agreement and other laws and regulations adopted to limit carbon emissions will have the effect of reducing fossil fuel use, increasing producer competition, and raising the cost of doing business. Under a 2 degree scenario, Barclays estimates that the oil industry is posed to lose $22.4 trillion in revenues, underscoring the importance of Anadarko taking transparent action to diversify its portfolio and mitigate its share of these losses.[15]

3. Anadarko is particularly exposed to carbon asset risk.

Anadarko is particularly exposed to declining demand for oil and gas resources. In the last decade, Anadarko's costs for exploration and production have drastically increased, reflecting more investment in high cost resources including deepwater and unconventional reserves. From 2004 to 2014, Anadarko's capital expenditures grew 200%, while production increased only 62%.[16] Analysts at Morningstar have noted an expected increase at Anadarko in higher cost unconventional projects, and that "by 2018. . . the company's unconventional U.S. assets will account for close to 60% of production, up from 40% in 2013."[17] In 2015, Morningstar analysts "expect the firm to continue its high level of

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[13] United Nations Environmental Program. UN Says Global Carbon Neutrality Should be Reached by Second Half of Century, Demonstrates Pathways to Stay Under 2°C. Nov, 2014.

[14] Bank of England. Breaking the tragedy of the horizon - climate change and financial stability - speech by Mark Carney. Sept, 2015. http://www.bankofengland.co.uk/publications/Pages/speeches/2015/844.aspx#1

[15] Leslie Hayward, "Barclays: $22 Trillion In Oil Revenue At Risk From COP-21 Negotiations" *The Fuse*, Dec 10, 2015. http://www.energyfuse.org/barclays-22-tillion-in-oil-revenue-at-risk-from-cop-21-negotiations/; Roz Pidcock, "Meeting two degree climate target means 80 per cent of world's coal is "unburnable", study says," *Carbon Brief*, January 1, 2015. http://www.carbonbrief.org/meeting-two-degree-climate-target-means-80-per-cent-of-worlds-coal-is-unburnable-study-says.

[16] Anadarko. *2014 & 2004 10-K Report*. Accessed April 4th, 2016. http://investors.anadarko.com/sec-filings

[17] Mark Hanson, "Anadarko Petroleum Corp - Stock Analysis. Anadarko's Offshore Efforts are Supported by a Profitable Base of Domestic Assets." *Morningstar,* March 13, 2015. http://analysisreport.morningstar.com/stock/research?t=APC&region=usa&culture=en-US

deep-water spending throughout our forecast period, accounting for about 30% of Anadarko's capital outlays over the next five years . . . ." Anadarko has since cut costs and reduced its capital expenditures due to the mid-2014 oil price collapse, but these actions do not appear to be sufficient to stem the crisis. Anadarko has built a substantial portion of its portfolio on high cost projects, posing serious risk of stranded assets if oil demand continues to lag supply, and therefore oil prices remain low over the next year. Anadarko has not fared well amidst low price oil, reporting net income losses of $6.7 billion in 2015 and $1.7 billion in 2014.[18] Anadarko stock value is also highly exposed to commodity prices and carbon asset risk. From June 2014 to January 2016, Anadarko's stock value decreased 53%.[19]

Proponents are asking Anadarko to assess the financial risks related to climate change and associated demand reductions. This information will help investors evaluate the strength of Anadarko's value proposition, especially in a lower demand, low-price environment.

4. Carbon Asset Risk is Increasingly Recognized by Financial & Regulatory Institutions.

Investors require clear, transparent, and comparable information about carbon asset risk to make informed assessments about their use of capital. This need has been underscored by a range of financial institutions and regulatory agencies, from the Bank of England to the Financial Accounting Standards Board (FASB), which recently developed a Task Force on Climate-Related Financial Disclosures (TCFD). Under the chairmanship of Michael Bloomberg, the TCFD will create a set of voluntary disclosure mechanisms to provide critical information to investors, lenders, insurers, and other stakeholders. France recently created mandatory climate risk disclosure requirements for institutional investors regarding a 2-degree carbon pathway.[20] Australia also announced that its Senate will conduct an inquiry into how Australian companies report their investments in fossil fuels and their exposure to the carbon bubble.[21] Further, Barclays recommends that ". . . fossil-fuel companies should at the very least be stress-testing their business models against a significant tightening of global climate policy over the next two decades."[22]

5. Anadarko does not provide shareholders with sufficient analysis and disclosure on managing its carbon asset risk.

The Proposal remains wholly unaddressed by Anadarko's publically available disclosures. The Company fails to provide shareholders with any analysis regarding the impact to the Company of reduced demand scenarios associated with an increasingly carbon-constrained energy market.

[18] Anadarko. *2015 10-K Report*, 49, Accessed April 4th, 2016. http://investors.anadarko.com/sec-filings
[19] Google Finance. *Anadarko Petroleum Corporation.* Accessed April 4th, 2016. https://www.google.com/finance?q=NYSE:APC
[20] Sophie Baker, "France to require institutional investors to disclose carbon exposure," *Pensions & Investments*, May 22, 2015. http://www.pionline.com/article/20150522/ONLINE/150529958/france-to-require-institutional-investors-to-disclose-carbon-exposure
[21] "Greens Senate Inquiry into the Exposure of Australian' Investment to the Carbon Bubble," *The Greens*, February, 2016. http://greens.org.au/news/qld/greens-senate-inquiry-exposure-australians%E2%80%99-investments-carbon-bubble
[22] Ambrose Evans-Pritchard. "COP-21 Climate Deal In Paris Spells End Of The Fossil Era," The Telegraph, Nov 29, 2015, http://www.telegraph.co.uk/finance/economics/12021394/COP-21-climate-deal-in-Paris-spells-end-of-the-fossil-era.html

Anadarko argues that there is "minimal risk to the Company arising from low carbon, low-demand scenarios" because the IEA's reference case scenario predicts demand for fossil fuels will increase.[23] This is only one possible future scenario. Anadarko provides no other scenarios to shareholders. The company does not address the fact that the IEA also projects a scenario associated with limiting global warning to 2-degrees Celsius ("450 Case).[24] In this 2 degree scenario, oil demand will peak in 2020 and gas demand will plateau in 2030, a scenario that will negatively impact high-price producers like Anadarko. Under such a scenario there is little potential for substantial oil and gas price increases. There are also a range of other events that could create near-term low demand levels -- from disruptive technology breakthroughs, including battery storage for electric vehicles, to greatly improved worldwide fuel efficiency, to imposition of carbon pricing, to government regulations addressing air pollution. In addition, the IEA scenarios rely on carbon capture and storage which currently remains far too costly to be deployed at a large scale, has only been attempted in a handful of projects across the world, and its effectiveness remains in question.[25]

Anadarko also highlights its Carbon Disclosure Project (CDP) reporting as being responsive to the proposal. Yet, Anadarko avoids responding to the CDP's carbon asset risk-related questions. In its 2015 CDP reporting, Anadarko fails to respond to the following relevant questions:

- In your economic assessment of hydrocarbon reserves and resources, do you conduct scenario analysis consistent with global developments to avoid dangerous climate change by reducing GHG emissions?
- Please describe your analysis and the implications for your capital expenditure plans;
- Please explain why you have not conducted any scenario analysis based on a low-carbon scenario.

Simply participating in the broader CDP reporting program, while failing to respond to carbon asset risk–related questions, is not responsive to this Proposal.

Anadarko also argues that the company maintains a Green House Gas (GHG) and Air Quality Committee (GHG Committee) to assess and reduce risks associated with GHG emissions. While it is important that Anadarko is taking action to reduce its own greenhouse gas emissions, this is distinct from addressing the potential that its oil and/or gas assets may become stranded and unsaleable due to climate-related factors. Stranded asset risk is best addressed through methods such as diversifying investments toward low carbon energy sources or reducing investments in high carbon, high cost assets. The Air-Quality Committee's goals of reducing the company's air pollution emissions, including GHG emissions, cannot substitute for the scenario planning and financial risk analysis requested by this Proposal.

6. Anadarko compares poorly to peers on carbon asset risk reporting.

Anadarko is quickly being left behind by peers who are taking action. In 2014, in response to a shareholder proposal, ExxonMobil issued a report on carbon asset risk. Although this report only met shareholder requests on the margins, it was the first company to publicly undertake the task. In 2015,

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[23] Anadarko. *2016 Proxy: Form DEF 14A*, March 18, 2016, pg 100, http://investors.anadarko.com/sec-filings

[24] "2014 World Energy Outlook" International Energy Agency, 97, 137.

[25] "Carbon Capture and Storage: The solution for deep emissions reductions", International Energy Agency, November 2015, http://www.iea.org/publications/freepublications/publication/CarbonCaptureandStorageThesolutionfordeepemissionsreductions.pdf

BP, Statoil, and Shell management endorsed shareholder proposals that included stress testing related to climate asset risk.[26] In 2015, BHP Billiton released a report assessing climate change impact to its portfolio, including an assessment of a 2-degree scenario.[27] ConocoPhillips also states that it stress tests its portfolio against the 2 degree scenario.

CONCLUSION

This is the third year that Anadarko has received proposals from its shareholders to disclose carbon asset risk. Momentum is strong, and votes for Anadarko to take action have been substantial, with 30.0% in 2014 and 29.1% in 2015. This issue is clearly important to shareholders, and has been amplified by the oil price crash starting in 2014. It is critical that shareholders have clear, transparent, and reliable information to evaluate Anadarko's forward looking prospects, which promise to be dramatically impacted by climate change and associated market changes. Shareholders urge strong support of this proposal, which will bring increased transparency on one of the largest business risks facing the company.

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[26] "Carbon Asset Risk: from Rhetoric to Action" *Ceres,* 27, http://2degrees-investing.org/IMG/pdf/car_action_final1015.pdf?iframe=true&width=800&height=500;

[27] "Climate Change Portfolio Analysis," *BHP Billiton*, 2015. http://www.bhpbilliton.com/~/media/bhp/documents/investors/reports/2015/bhpbillitonclimatechangeporfolioanalysis2015.pdf?la=en