



Anadarko Corporation Shareholder Proposal: Assessment of Portfolio Risks under a 2-Degree Scenario

RESOLVED: Shareholders request that Anadarko publish with Board oversight, at reasonable cost and omitting proprietary information, an assessment of the impacts to the Company's portfolio of scenarios consistent with limiting global warming to 2 degrees Celsius or below. The assessment should outline the resilience of the company's reserves and resource portfolio in response to multiple demand and price scenarios and explain how capital planning and business strategies incorporate the financial risks posed by such scenarios.

2016 Vote on Same Proposal: 42%

Summary

Proponents ask Anadarko to provide a report assessing its potential exposure to a range of 2 degree 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.

Investors are increasingly focused on the need for robust climate risk disclosure, including scenario analysis. In June 2017, the Financial Stability Board's Taskforce on Climate-related Financial Disclosures (TCFD) finalized its guidelines for reporting on climate risk, recommending that companies in the energy sector evaluate the potential impact of different scenarios, including a 2°C scenario, on the organization's businesses, strategy, and financial planning and disclose such analysis and conclusions to investors. Investors representing over \$3.3 trillion in assets publicly endorsed the Taskforce recommendations.

As noted by Mark Carney, Bank of England Governor and Chair of the Financial Stability Board,

*Financial markets have the potential to improve our prospects for tackling climate change, but only if we make climate risks and opportunities more transparent. ... Along with analysis of wider market conditions, **investors need accurate data. The more incomplete or opaque the data and analysis, the more inefficient are markets.** Yet the climate-related risks and opportunities businesses face are currently shrouded in secrecy. Having information on such risks would allow investors to back their convictions with their capital, whether they are climate optimists or pessimists, evangelicals or sceptics. It would also permit corporates not only to meet investor demand for information, but also to position their businesses to win, rather than be left behind in, the transition to a low-carbon economy.*

Anadarko has not provided the level of disclosure requested by this proposal or advocated by the TCFD. The company's most recent Climate Risk Statement broadly states that the company has assessed 'carbon constrained scenarios' and concludes that it has little climate risk due in part to certain low cost operations and that its 'current portfolio' is comprised of short cycle opportunities.

The Company's broad assertions do not answer the fundamental request of this resolution – to provide an assessment of the impacts to the Company's portfolio of scenarios consistent with limiting global



warming to 2 degrees Celsius or below. The company wholly fails to disclose whether it analyzed a 2 degree scenario or not; what analysis it undertook in its evaluation; what assumptions it used in its analysis, including demand, price, and timeframe assumptions; and what the outcomes of its analysis are. Based on Anadarko's summary statements, shareholders have no real understanding of the degree of carbon asset risk associated with various low demand scenarios or how the Company can address or reduce such risk.

A recent analysis by Carbon Tracker found that 20 to 30% of Anadarko's potential capital expenditure is outside the 2 degree budget.¹ The company does not disclose information that would counter these conclusions or otherwise disclose to investors sufficient information on which they might assess risk and value.

Recent low oil prices demonstrate the serious financial consequences of even small demand imbalances in oil markets. Carbon asset risk associated with limiting global warming to 2 degrees or below is a material threat for Anadarko and it is imperative that the company fully report to shareholders on 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.

Rationale for a "YES" vote

- 1) **Anadarko is exposed to carbon asset risk, as market fundamentals shift.** Shifts in energy markets are underway which have the potential to substantially reduce demand for Anadarko's oil and gas products. These shifts include 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, especially on a local level, are increasing the regulatory risks facing Anadarko, which may render some portion of its fossil fuel reserves stranded.
- 3) **Carbon Asset Risk is increasingly recognized by financial & regulatory institutions.** In recent years, a range of financial institutions including the TCFD and regulatory agencies have begun to recognize and acknowledge the need for companies to address carbon asset risk.
- 4) **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 provide sufficient information for investors to assess carbon risk to the company.
- 5) **Anadarko compares poorly to peers on carbon asset risk reporting.** Peer companies have begun to affirmatively address these risks in substantially more detail than Anadarko.

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

Changing 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

¹ <http://2degreeseperation.com/>



fuels, electrification of ground transportation, and rapidly declining costs of renewable energy, among others.² Fuel efficiency standards, which are being adopted worldwide, have an outsized impact because transportation accounts for a majority of global oil use. Other factors include emerging alternatives to gasoline including plug-in-electric vehicles, clean air regulation in developing countries like China, and the falling price of renewables. Entities like the IEA and Deutsche Bank have forecast global oil demand could peak within the next fifteen years.³

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. There is no going back. A 2018 Bloomberg report noted that "The massive and historic transformation of the U.S. energy sector clicked into a higher gear in 2017, despite new policy uncertainties. Renewable deployment grew at a near-record pace..."⁴ As prices of renewable energy become 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.

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

The International Energy Agency (IEA) first recognized in its 2012 World Energy Outlook 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 2100.⁵ 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."⁶

² "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>

³ 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>

⁴ <https://about.bnef.com/blog/sustainable-energy-america-factbook-2018/>

⁵ 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.

⁶ 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>

The Paris agreement and other national, state, and local 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 has estimated that the oil industry is poised 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.⁷

3. 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 developed a Task Force on Climate-Related Financial Disclosures (TCFD). Under the chairmanship of Michael Bloomberg, the TCFD has created a set of voluntary disclosure guidelines to provide critical information to investors, lenders, insurers, and other stakeholders. Leading asset managers such as State Street Global Asset Managers and BlackRock have issued statements and reports highlighting the importance of managing climate risk, and Moody's has indicated that it will begin to employ scenario analysis in its credit ratings methodologies.⁸

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

The Proposal remains unaddressed by Anadarko's publicly available disclosures. The Company fails to provide shareholders with any analysis or conclusions regarding the impact to the Company of reduced demand scenarios associated with a carbon-constrained energy market that is aligned with limiting warming to under 2 degrees.

In the past, Anadarko has argued that there is "minimal risk to the Company arising from low carbon, low-demand scenarios" because IEA's reference case scenario predicts demand for fossil fuels will increase.⁹ Anadarko is only referring to one possible future scenario and has yet to provide other scenarios to shareholders. The company has yet to address the fact that the IEA also projects a scenario wherein global warming is limited to 2 degrees Celsius ("Sustainable Development Scenario").¹⁰ In this 2 degree scenario, global CO₂ emissions peak before 2020, a scenario that would negatively impact the demand for fossil fuel producers like Anadarko. In this and other scenarios, oil prices may decline substantially.

While Anadarko has highlighted its Carbon Disclosure Project (CDP) reporting as being responsive to the proposal, this reporting received a C grade in 2017.

⁷ 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>.

⁸ Moody's Investor Service, Moody's to Analyse Carbon Transition Risk Based on Emissions Reduction Scenario Consistent with Paris Agreement, (June 28, 2016).

⁹ Anadarko. *2016 Proxy: Form DEF 14A*, March 18, 2016, pg 100, <http://investors.anadarko.com/sec-filings>

¹⁰ <https://www.iea.org/newsroom/news/2017/november/a-new-approach-to-energy-and-sustainable-development-the-sustainable-development.html>

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.

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

Anadarko is quickly being left behind by peers who are taking action on carbon risk reporting. A range of companies have undertaken reports that provide substantially more information than Anadarko. Chevron recently issued a revised carbon risk report that addresses climate risk down to the asset level and provides discussion of how Chevron is planning for possible scenarios including one that explicitly incorporates oil demand assumptions aligned with the IEA's Sustainable Development Scenario. Pioneer Natural Resources recently issued a report that specifically assesses each of IEA's three scenarios, providing demand and prices considered, and generally relating how the company assessed its risk using the intersection of demand and cost curves. A recent report by energy provider Oil Search is arguably the most complete assessment yet provided to shareholders. The company undertook a comprehensive analysis of climate change risk, including a scenario of maintaining global warming at 1.5 degrees. The company reviewed short term, medium term, and long term time horizons, evaluating type of climate risk projected for each time frame for a number of indicators (policy, technology, market/economic, reputation) and providing short statements as to how the company could address each risk. The company also stated each scenario analysis considered, how it analyzed each scenario, and what outcomes were associated with each. Historically, in 2015, BP, Statoil, and Shell management endorsed shareholder proposals that included stress testing related to climate asset risk,¹¹ and the companies have since continued to address climate risk in their reporting. In 2015, BHP Billiton released a report assessing climate change impact to its portfolio, including an assessment of a 2-degree scenario.¹² ConocoPhillips also stress tested its portfolio against the 2 degree scenario, providing a minimum level of information to shareholders about that scenario and its conclusions. Importantly, Conoco has taken action subsequent to the analysis, reducing investments in certain assets most likely to be at risk.

Anadarko's Carbon Related Statement Does Not Meet the Proposal's Request.

Although Anadarko's short statement on carbon risk touches on the issues that investors are concerned about, the document does not contain the level of detail investors need for the report to be decision useful.

Most importantly, Anadarko is not clear on whether or not it performed a 2 degree Celsius scenario analysis. The Statement mentions that 'policy from the Paris Accord' and a 'carbon constrained scenario'

¹¹ "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;

¹² "Climate Change Portfolio Analysis," *BHP Billiton*, 2015. <http://www.bhpbilliton.com/~media/bhp/documents/investors/reports/2015/bhpbillitonclimatechangeportfolioanalysis2015.pdf?la=en>

were considered, but does not discuss whether a 2 degree scenario analysis was conducted. There are a myriad interpretations as to what a “carbon constrained scenario” might consist of and, without more information, this broad statement is non-responsive to shareholders’ fundamental request. Similarly, although the report notes that the company tests against a range of prices, the report does not disclose the prices it tests against or whether such prices are associated with a 2D scenario. Nor does the report set forth what other assumptions were used in analyzing the scenario’s impact on the company and its assets, including assumptions about demand.

More significantly, the Company’s Statement provides no outputs from its analysis. It provides no asset level detail or even aggregated detail of the impact of the carbon constrained scenario(s) on the Company. The Statement’s failure to provide outcomes for the scenarios it presumably considered makes the general conclusions of the Statement that there is little risk in a 2D world far less useful to shareholders.

While the report provides some relative breakeven cost data for basins, basin-level competitiveness is not necessarily representative of the company’s position, given the potential for significant variability within any given play. What would be decision useful to investors is Anadarko-specific cost data covering full-cycle costs, not basin level data. Also, the chart provided only seems to cover North American onshore resources, which is a small piece of the puzzle. Pioneer, for instance, uses the Rystad global cost curve which is more comprehensive.

While the report notes that Anadarko compares its costs to competitors in the basin, what should follow from that is information on the relative positioning of assets, including which of those assets would or would not be competitive in a 2D scenario. It does not appear that such a relative comparison was conducted. The low price points the company provides for two of its plays is useful information, but insufficient. Do these price points cover all of the company’s production across those plays? The company also fails to address its deepwater operations in relation to a 2 degree scenario.

In sum, the conclusory statements provided by Anadarko fall far short of the transparent, climate-related financial information requested by shareholders and endorsed by a range of market analysts, lenders, underwriters, and the TCFD. **Shareholders should vote Yes on this proposal**, sending a clear message that Anadarko must do much more to meet shareholders’ need for transparent and decision useful information.

Conclusion

This is the fifth 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% support in 2014, 29.1% in 2015, and 42% in 2016. Shareholders’ votes indicate that they seek clear, transparent, and reliable information to evaluate Anadarko’s forward looking prospects, which are likely to be considerably impacted by climate change and associated market changes. Shareholders urge strong support for this proposal, which will bring increased transparency on one of the largest business risks facing the company.