RESOLVED: Shareholders request that Marathon Oil prepare a report analyzing the consistency of company capital expenditure strategies with policymakers’ goals to limit climate change, including analysis of long- and short-term financial risks to the company associated with high-cost projects in low-demand scenarios, as well as analysis of options to mitigate related risk. The report should be overseen by a committee of independent directors, omit proprietary information, and be prepared at reasonable cost by September 2015.

The resolution’s supporting statement requests that the report include:

- Assumptions regarding breakeven costs of production for the company’s highest cost projects.
- Consideration of a range of lower-demand scenarios accounting for more-rapid-than-expected policy and/or technology developments, including the 2 degree scenario as outlined by the IEA.
- An assessment of different capital allocation strategies in the face of low-demand scenarios.
- How the company will manage risks under these scenarios, such as reducing the carbon intensity of its assets, diversifying its business by investing in renewable energy sources, or returning capital to shareholders.

We believe that investors should vote FOR this resolution for the following reasons, each of which is discussed in more detail later in the memo:

1. Marathon Oil is exposed to carbon asset risk.
   a. By carbon asset risk, we mean the risk that a company’s investments in exploration and production of fossil fuels will become uneconomic sooner than expected due to declining demand and prices driven by regulatory, technological, or market developments related to climate change. According to Carbon Tracker staff, approximately 16% percent of Marathon’s possible future liquids project portfolio requires...
a price of $80 per barrel to break even.\textsuperscript{2} With oil trading around $50 per barrel, investors are concerned that action on climate change, along with other factors, makes a return to such elevated prices, for sustained periods, highly uncertain.

2. **Marathon’s disclosure on this issue is inadequate: it does not allow investors to properly evaluate the extent of the company’s exposure to carbon asset risk.**

   a. CDP lists Marathon Oil’s 2014 submission as “submitted, not published,” and no scores are provided. The 2013 CDP response is listed at “forthcoming,” and again there are no scores. The latest Sustainability Report (2013) includes data on GHG emissions trends and some initiatives to reduce GHG emissions from operations, but we could not find the type of disclosure and analysis requested in the resolution focusing on scenarios that keep the global temperature increase below 2 degrees Celsius -- a goal that is likely to involve keeping approximately two-thirds of proven fossil fuel reserves in the ground according the International Energy Agency (IEA).\textsuperscript{3} The 10-K and the opposition statement to the resolution are limited mainly to boilerplate regulatory risk language, which is unhelpful to investors, in terms of the resolution.

3. **The disclosure requested in the resolution is reasonable and would be of use to investors.**

   a. The disclosure request is based on a blueprint\textsuperscript{4} developed by the Global Investor Coalition, a group of investors representing over $23 trillion in assets, and similar disclosure requests are being made of dozens of companies in the oil and gas sector based on their exposure to carbon asset risk. Most of these requests are being put forward as part of cooperative dialogue. Where companies have not been open to dialogue, as is the case at Marathon, investors have put forward shareholder proposals to ensure adequate disclosure.

**Marathon Oil Corporation is exposed to carbon asset risk**

   o Research by Carbon Tracker\textsuperscript{5} makes clear that, as costs have risen, the oil and gas industry is now highly vulnerable to any drop in oil prices driven by a drop

\textsuperscript{2} Based on data sourced from Rystad Energy’s database as of March 17, 2015.

\textsuperscript{3} http://priceofoil.org/2012/11/12/iea-acknowledges-fossil-fuel-reserves-climate-crunch/


\textsuperscript{5} e.g. http://www.carbontracker.org/report/carbon-supply-cost-curves-evaluating-financial-risk-to-oil-capital-expenditures/
in demand. The industry has affirmed this view. According to Statoil, roughly half of the world’s largest oil projects require prices higher than $120/barrel to break even, more than double the current price, demonstrating just how vulnerable the industry is to decreases in demand.6

- Even absent aggressive global action on climate change, a variety of existing trends—from increased transportation efficiency in North America, to clean air regulation in China,7 to the rapid growth of wind and solar energy production—are eroding demand in a significant way. Global action on climate change would simply exacerbate this demand destruction.

- Despite these trends, fossil fuel companies continue to collectively spend hundreds of billions of dollars each year on finding and developing even more high-cost fossil fuel resources than we can safely burn if we are to avoid catastrophic levels of climate change. At current emission rates, the global carbon budget linked to the 2 degree goal will be exhausted within 19 years, according to PricewaterhouseCoopers.8

- A recent analysis by the New York Times predicts that unrestrained burning of fossil fuels (including coal) will lead to a 16.2 degree Fahrenheit increase in the average global temperature, whereas scientific consensus calls for the increase to kept below 3.6 degrees Fahrenheit (2 degrees C).9 Meanwhile, the World Bank states that “There is no certainty that adaptation to a 4°C world is possible.”10

- Like many oil and gas companies, Marathon has placed major bets on high-cost projects. In 2007, Marathon acquired several interests in Alberta oil sands projects. Oil sands are among the most expensive types of crude to produce, making them highly vulnerable to dropping oil prices.11

**Marathon has inadequate disclosure on carbon asset risk**

The company’s opposition statement to the resolution consists of boilerplate regulatory risk language and also refers readers to the 10-K and Sustainability Report for additional information. Here we comment on the adequacy of each.

1) *The opposition statement to the resolution*

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6 http://www.economist.com/news/business/21623694-price-oil-has-been-tumbling-cost-finding-it-has-not-unsustainable-energy
8 http://www.pwc.co.uk/assets/pdf/low-carbon-economy-index-2014.pdf
Management recommends shareholders “vote against this stockholder proposal because we already disclose material risks related to climate change and climate change regulation in our Annual Report on Form 10-K.”

The opposition statement also refers investors to the 2013 CSR report, and concludes: “…in light of the highly uncertain regulatory environment, disclosing speculative risks could be misleading and could result in confusion.” On this last point, we note that the SEC addressed this in its interpretive guidance on climate risk disclosure issued in 2010:

“For instance, a company may face decreased demand for goods that produce significant greenhouse gas emissions (GHGs) or increased demand for goods that result in lower emissions than competing products. As such, a company should consider, for disclosure purposes, the actual or potential indirect consequences it may face due to climate change related regulatory or business trends.”

This is just the sort of disclosure the resolution requests.

2) **The 2014 10-K**

The annual report has several paragraphs acknowledging climate change and its risks to Marathon’s business:

“We believe it is likely that the scientific and political attention to issues concerning the extent, causes of and responsibility for climate change will continue, with the potential for further regulations that could affect our operations…. which result in these greenhouse gas emissions.”

Also discussed is compliance with current environmental regulations, like the EPA’s New Source Performance Standards and Clean Air Act, as well as the possibility of more stringent national and international regulation or agreements that would seek to limit greenhouse gas emissions. However, much of this is boilerplate legal risk language that fails to address the issues raised in the resolution. Marathon fails to disclose any plans to mitigate the risks under potential low emissions scenarios, leaving investors questioning how the company is preparing for the strong possibility of a lower carbon future.

3) **The 2013 Sustainability Report**

The portion of the report that could be relevant in terms of the resolution is the section titled Air Emission Management. But the focus is on operational GHG emissions reductions that are not close to the magnitude scientists and governments say are needed.

“Marathon Oil recognizes the global concern about the potential impact of greenhouse gas (GHG) and other air emissions on the environment. Our corporate strategy for minimizing air emissions relies on each asset

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13 Noble Form 10-K, 2014, page 61
evaluating their air emissions, identifying and prioritizing significant sources, and developing emissions reduction plans tailored to their specific operations.”  

It then goes on to provide specific data on GHG emissions by asset and global GHG emissions. While this data is important, it does not address the disclosure requested in the resolution.

The disclosure requested in the resolution is reasonable and would be of use to investors.

The following section describes the specific requests made in the supporting statement of the resolution.

1) Assumptions regarding breakeven costs of production for the company’s highest cost projects

Given the generally very high production costs of oil sands as well as costs associated with fracking, proponents are concerned that Marathon is vulnerable to scenarios in which demand for oil declines along with prices.

Demand for fossil fuels is already being affected by policies and technology trends related to climate change including: increased fuel efficiency, use of lower-carbon fuels, the electrification of ground transportation, and rapidly declining costs of renewable energy.

The risk of reduced demand amplifies concerns among investors about the declining returns of many oil and gas companies and the wisdom of deploying more capital to low-return projects that require high oil prices to break even.

Reductions in demand increase the probability of price declines for Marathon’s products. Investors need to know more about assumptions Marathon uses to estimate future market prices and break-even costs of production to assess the risk of Marathon’s reserves becoming uneconomic to produce over short, medium and long-term time horizons.

2) Consideration of a range of lower demand scenarios accounting for more rapid than expected policy and or technology developments, including the 2-

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15 http://www.npr.org/2014/11/04/361204786/falling-oil-prices-make-fracking-less-lucrative
degree scenario as outlined by the IEA.

Nearly every nation agreed in the Copenhagen Accord to limit the average global temperature increase to 2 degrees Celsius. There is widespread agreement that meeting this goal will require a 50% reduction in GHG emissions globally by 2050 entailing an estimated 80% emissions reduction by 2050 in developed countries.

HSBC reports that: “In its low-carbon 450 PPM scenario, the IEA (International Energy Agency) estimates that demand for fossil fuels would still grow up to 2020. Oil demand, for example, is forecast to grow at 0.4% annually. However, from 2020 onwards, the IEA projects that oil demand would decline, though not as much as coal... Together, the oil price and the unburnable carbon effects are equivalent to between 34% and 52% of market capitalisation.”

18 (This analysis covers Shell, BP, Total, Statoil, Eni and BG.)

Since carbon capture and storage (CCS) technology seems highly unlikely to be widely deployed for the foreseeable future, a plausible scenario for avoiding a breach of 2 degree temperature increase involves a dramatic reduction in the use of fossil fuels. Investors need to know how plausible low-carbon scenarios will impact Marathon. For example, under which scenarios will any of the company's reserves or infrastructure become stranded assets? Which of Marathon’s assets are most likely to strand first?

3) An assessment of different capital allocation strategies in the face of low-demand scenarios

As Carbon Tracker explains, “fossil fuel capex is a key leading indicator of future carbon emissions.” Marathon reported in March that it expected to spend approximately $3.5 billion on capital expenditures in 2015, with 63% of that planned for the Eagle Ford and Bakken plays in North America and only 1% on oil sands. Is this a sign that Marathon’s longer-term commitment to the oil sands is weakening; or is it simply a temporary response to low oil prices to be followed by more bets on high-cost-to-produce, high carbon resources?

It is not in the best interest of investors for companies to expend capital on low-return projects, particularly those to develop high-cost, high-carbon reserves that most scientists say are ultimately unusable without devastating consequences for society.

Given the magnitude of the threat that climate change presents to Marathon, management should assess which capital allocation strategies make the most sense to prepare for low-demand scenarios. Options include:

- avoiding and/or selling investments in high cost or high carbon resources such as the oil sands
- investing in renewable energy
- investing in hydrogen production/distribution
- investing in energy storage/battery businesses (for transport, homes/businesses, or utility scale storage)
- increasing dividends or buying back shares
- offering an investment vehicle similar to royalty trusts. Examples of these include Prudhoe Bay Royalty Trust (NYSE: BPT) and the Sandridge Mississippian Trust II (NYSE: SDR). A royalty trust is a bond-like investment vehicle (although more volatile than many bonds due to commodity price swings), with tax advantages and a finite life. It passes income from an oil & gas project through to investors. “Its value slowly declines over time until it’s no longer economically feasible to pull oil and gas from a well...”\(^{22}\) In June of 2014 there were approximately 20 oil and gas royalty trusts traded on U.S. markets according to the Motley Fool.

4) How the company will manage risks under these scenarios, such as reducing the carbon intensity of its assets or returning capital to shareholders.

Management acknowledges certain risks from climate change in the 2014 10-K:

“Although uncertain, these developments [possible GHG regulations and growing public concern] could increase our costs, reduce the demand for crude oil and condensate, NGLs, natural gas and synthetic crude oil, and create delays in our obtaining air pollution permits for new or modified facilities.”

But management provides inadequate information a variety of business risks related to climate change, including the rapidly declining cost of renewable energy\(^{23}\) substitutes for natural gas and recent advances in electrified transport typified by the success of companies like Tesla. How will these business model risks be managed?

Conclusion
Since climate change creates fundamental risks to Marathon, and because Marathon’s disclosure on carbon asset risk is inadequate, investors are encouraged to vote “for” this important request for enhanced disclosure.
