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ExxonMobil's Renewable Future

A white paper prepared for ExxonMobil's leadership

ExxonMobil must act now to remain the largest energy company in the world. We must respond to the changing landscape of expectations about sustainability by investing in renewable energy. This change will not only help ExxonMobil's balance sheet, but also strengthen our stock performance, investor satisfaction, and the future of our company. ExxonMobil must adopt the position of phasing out fossil fuels and begin investing in solar, nuclear, wind, hydrogen, and hydroelectric companies.

Although fossil fuel production is prominent in every part of the world, renewable energy is chipping into its market share. Clark Williams-Derry, an Energy Finance Analyst at *IEEFA*, says that the global oil and gas industry will continue to face pressure from renewable energy. As renewable technology advances, it becomes cheaper, making it more accessible and profitable to invest in. I am not proposing that we completely change our course and become solely a renewable energy company, but we should invest in renewables to stay in line with the direction the world is heading.

While it would be unreasonable to expect ExxonMobil to completely steer away from fossil fuels, now is the time to begin our transition. Stewart Glickman a CFRA Research Analyst says that "for the time being, the fossil fuels remain in the driver seat for what they are focused on, and renewables being added to mix, but not taking over the mantle. It's a balancing act." It is not practical to only invest in fossil fuels anymore, and diversifying in renewables is the best route to go. Since the majority of our \$250 billion long-term assets are invested in oil and gas reserves, a decline in oil prices will significantly impact our holdings. In April 2020, an oversupply of oil caused prices to drop and ExxonMobil to lose billions of dollars. To avoid similar losses in the future, we must diversify our assets to ensure we keep our long-term assets.

Michael Lynch, a senior contributor to *Forbes*, disagrees with climate change advocates and is against banning all fossil fuels. He compares banning fossil fuels to banning disposable diapers. Initially a movement formed to ban disposable diapers because of the belief that cotton diapers were healthier for the environment. However, researchers discovered that cotton diapers have just as many harmful effects on the environment as disposable diapers. Lynch argues that absolute bans on fossil fuels are just as bad of a decision. He states that natural gas can be used to help reduce emissions by switching from coal to gas in power generation as well as being used as a back-up to unreliable renewable energy. I highlight Lynch's disagreement because it is

important to have proponents of fossil fuels in this discussion and because we will not be able to move all of our assets to renewable energy companies immediately or even in the near future. He reiterates the importance of fossil fuels while emphasizing that change must be made. That is why my recommendation is to start replacing fossil fuels with renewable energy by investing in green tech, not overhauling ExxonMobil's entire business model.

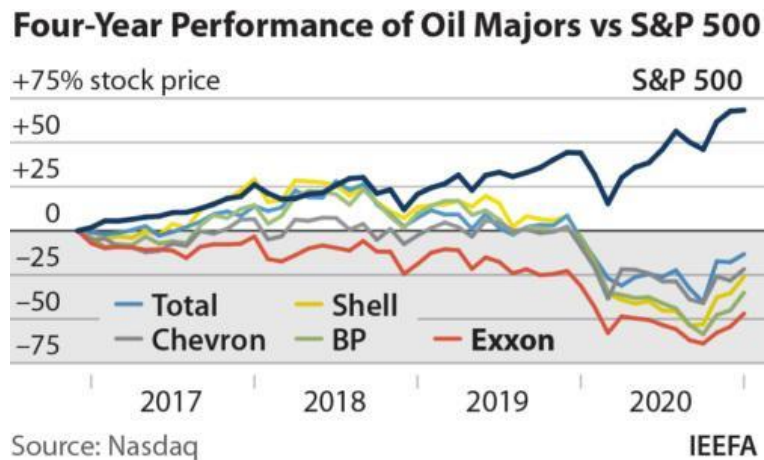
Eric Rosenbaum from *CNBC* disagrees with investing in renewables, stating it is not a smart bet. He says that "if [ExxonMobil] were to stop all upstream investment in fossil fuels and put the majority of its capital into alternative technologies but fail to have a commercial breakthrough, it and the world could be looking at an energy deficit in the decades to come." Rosenbaum says that the odds of making a breakthrough technology are long and not economically viable. He suggests that if ExxonMobil bet on the wrong technology, that could adversely affect our share price and performance. This argument is false because breakthrough technology does exist. Many companies produce clean, affordable energy while posting strong revenues. For example, First Solar produced 5.7 GW of clean, affordable energy in 2019, the equivalent of 627 million LEDs, while also bringing in \$3 billion in revenue (First Solar and Office of Energy Efficiency & Renewable Energy). The idea of investing in many renewable energy companies is to "not have our eggs all in one basket" with fossil fuels. By diversifying our assets and investing in multiple renewable energy companies, we will profit even if only one company succeeds.

Stock Impact

We have already seen immense stock impact from our failure to invest in renewable energy due to the major decline in oil consumption over the past year. Loren Steffy, writer at *Texas Monthly*, provides statistics on our losses: In October 2020, we reported a third-quarter loss of \$680 million, which is an improvement from the record \$1.1 billion loss we reported in the second quarter. In 2020, our worst year in four decades, we lost \$22.4 billion, compared with a profit of \$14.3 billion in 2019. Not only did we report major losses, but also more disconcertingly after almost a century, we were removed from the Dow Jones Industrial Average in August 2020. Seven years ago, our company had the largest market value of any company in the world. More recently in 2020, our company was not even the most valuable *energy* company. NextEra, a relatively unknown company who specializes in wind and solar energy production surpassed us as having the largest market capitalization of any energy company. These results are evidence of investors divesting from fossil fuels. R. G. Ratcliffe, writer at *Texas Monthly*, reports that some of the world's biggest fund managers, including Black Rock and JPMorganChase, have vowed to gradually shift their portfolios away from fossil fuel holdings.

Since our total assets are almost completely composed of fossil fuels our share price will continue to falter unless we invest in renewables. Investment firm Engine No.1 reports that XOM "has underperformed the S&P 500 and each of its proxy statement peers (BP, Chevron, Shell and

Total) for the last 3-, 5- and 10-year periods, both before and after the COVID-19 crisis” (see graph below). Our stock’s underperformance has not yet had a dramatic effect on investor volume due to our steady dividend yield. However, if our stock continuously underperforms based on ExxonMobil’s net income, we may not have dividends to distribute at all. Thomas Yeung, an *InvestorPlace* Markets Analyst, warns, “Buyer beware, XOM stock won’t stay a dividend aristocrat for long.”



Our current business model that relies predominantly on fossil fuels is ineffective as we do not make sufficient profits. Engine No.1 states that “ExxonMobil has the highest debt level in its history, the worst net debt to cash from operations ratio among the Oil Majors, and has had its debt downgraded twice by S&P since 2016.” In order to increase our cash flow, we need a new strategy, and renewable energy is the most promising.

I applaud ExxonMobil’s response to criticism by listening and changing two board seats, one that now includes activist investor and ESG proponent Jeff Ubben. Pippa Stevens, markets reporter for *CNBC*, reported that ExxonMobil shares jumped 4.7% after this addition to the board. As we can see, this path toward sustainability is what our investors want. However, many of our critics correctly point out that this change is not enough. Engine No. 1 says that “while ExxonMobil has now conceded the need for board change, what is missing are directors with diverse track records of success in the energy industry who can position the Company for success in a changing world.” Changes must be made, and the board member addition was a good start; however, we should not stop there. We must invest in renewable energy for our stock to regain strength.

Current Sustainability

ExxonMobil has been successful in our current sustainability practices of carbon capture and storage (CCS). As a leader in CCS, we hold interest in approximately a third of the world's CCS capacity and have captured 6.9 million metric tonnes of carbon dioxide for sequestration. We can improve upon this success by further reducing our greenhouse gas emissions through investments in renewable energy. *CNBC* Editor, Eric Rosenbaum, reports that "multiple activist investor groups targeted ExxonMobil for . . . climate change concerns." In response we released the 2021 Energy & Carbon Summary.

Let me remind you of our goals from the 2021 Energy & Carbon Summary (ExxonMobil):

- The Company aims for industry-leading greenhouse gas performance across its businesses by 2030.
- Recently announced new emission reduction plans for 2025, which are projected to be consistent with the goals of the Paris Agreement.
 - The 2025 plans include a 15 to 20 percent reduction in greenhouse gas intensity of upstream operations compared to 2016 levels.
 - This will be supported by a: – 40 to 50 percent reduction in methane intensity, and – 35 to 45 percent reduction in flaring intensity.

ExxonMobil has made strides by committing to lower greenhouse gas emissions and to meet the goals of the Paris Agreement. Reducing greenhouse gas emissions is a step in the right direction but far from what must be done to revive our company. Based on the reactions from shareholders and other concerned parties, our response to climate change through CCS is inadequate. ExxonMobil has the potential to lead the renewable energy industry by fully embracing sustainability.

Renewable Future

The solution to ExxonMobil's future is investing in renewable energy. I propose that we acquire multiple renewable energy technology companies that already have a foundation. It would be counter-intuitive to try to build a new renewable energy technology from the ground up. We can use our vast resources to accelerate these companies' technological processes. By acquiring/investing in renewable energy technology companies such as Volta Industries, First Solar, General Fusion, Northland Power, FuelCell Energy, and Duke Energy, we would diversify our balance sheet to include investments in solar, nuclear, wind, hydrogen, and hydroelectric companies.

Our competitors, other Big Oil companies, have already succeeded in investing in renewables. *NS Energy* reports on six Big Oil companies' initiatives, three of which I list below:

Beyond Petroleum (BP, formerly known as British Petroleum)

- In 2017, BP spent \$200m acquiring a 43% stake in Lightsource, which has rebranded to Lightsource BP and is Europe's largest solar power project developer.

Total

- Total plans to invest \$500m/year in clean energy technology, currently 3% of their total capital expenditure, with plans to invest 20% within the next 20 years.
- In 2018, Total invested \$1.7bn to acquire a 74% stake in the French electricity retailer Direct Energie.

Royal Dutch Shell (Shell)

- In 2017, they acquired UK-based electricity and gas provider First Utility, as well as Europe's largest electric vehicle charging company NewMotion.
- In 2018, Shell bought a 44% stake in US solar power firm Silicon Ranch for \$200m and made a \$20m equity investment in India-based renewable power company Husk Power Systems.

If our company wants to remain the largest energy company in the world and fend off our competitors, we must also invest in renewables. We should acquire one company in each renewable energy sector: solar, nuclear, wind, and hydrogen in order to fully diversify our portfolio. Not only would this protect our assets from downturns in the economy and catastrophic energy events like the grid-failure in Texas, but also it would provide our company with greater returns than fossil fuels. David Vetter, senior contributor at *Forbes*, provides data from a 2020 study of renewable investments by the International Energy Agency and the Centre for Climate Finance & Investment: “renewables investments in Germany and France yielded returns of 178.2% over a five-year period, compared with -20.7% for fossil fuel investments. In the U.K., also over five years, investments in green energy generated returns of 75.4% compared to just 8.8% for fossil fuels. In the U.S., renewables yielded 200.3% returns versus 97.2% for fossil fuels.”

Stakeholders

Our primary stakeholders, XOM's shareholders, rely on our consistent dividends as a source of income, and we must address their needs. Shareholders want ExxonMobil to diversify their holdings; by addressing shareholder's concerns, we can ensure that our stock share price will not decline. Also, as I discussed previously, our current trajectory leads us to a shrinking balance sheet and possible inability to pay dividends to shareholders.

As a company, we must protect our secondary stakeholders, our company's personnel: management, employees, and contractors. We need to remember that satisfied employees work

more effectively, which in turn accelerates productivity and increases profit margins. We must avoid future layoffs like the one in March 2020, in which we “slashed our global workforce by 15%, or 14,000 people” that was reported by Benji Jones from *Business Insider*. The layoffs not only cost ExxonMobil goodwill, but also hurt our recruitment. Furthermore, many renewable energy companies thrived during the coronavirus slowdown. If another slowdown occurs in the future, diversifying our assets into renewables will secure more of our secondary stakeholder’s jobs.

In order to stay a leader in the energy sector, we must follow regulations and guidelines set by our tertiary stakeholders, the governments in the countries where ExxonMobil operates. We must future proof our company to stay in line with regulations that will be set in our operating countries. If we wait too long to invest in renewable energy, our business may no longer, by law, be able to operate in countries that ban fossil fuel and gas production/sales. For example, Sweden aims to eliminate fossil fuels by 2040 (Swedish Government.), President Biden intends to have 100% renewable energy in the power sector by 2035 (Whittle, P.), and China plans to raise the minimum renewable power purchase to 40% by 2030 (Xu, M., & Stanway, D.). Many other countries already produce the majority of their energy through renewables: Since 2016, Costa Rica has generated 98.53% of its electricity from renewable sources (Alvarado, L.); in 2020, Nicaragua had over 98% electrification and 75% renewables (Jones, J.); and in 2019, 90.1% of Scotland’s gross electricity consumption came from renewable sources (Scottish Government.). By investing in renewable energy now, our business model will be compatible with our tertiary stakeholder’s regulations in the future.

Ethical Concerns

We must address the ethical concerns of our current dependence on fossil fuels by weighing present versus future implications. Most countries' current energy consumption relies on fossil fuel production, which boosts our business. So, in the short-term, continuing down our path of fossil fuels may seem like the right choice. However, the potential future loss of land, people, and the environment outweighs our current monetary gains. The long-term effects of fossil fuel production is devastating: both our company and human habitation on the Earth will cease to exist if we keep on this route. Based on the abundant research and scientific backing of the harmful effects of climate change and fossil fuels on the environment, we must stop producing only fossil fuels. ExxonMobil has made sound ethical decisions by investing in carbon capture and sequestration. We are producing tons of greenhouse gases per year, and it is our responsibility to clean it up so that our children and their children have a planet to live on. What is the point of making billions of dollars if no one has the ability to spend it? By further reducing our carbon footprint and also investing in renewable energy, ExxonMobil will become a model company whose goal is both to make profits and reverse climate change.

Conclusion

We are the biggest energy company in the world, and we are last in renewable energy. Renewables are the future and offer the best way to sustain our company and reduce our carbon footprint. We should acquire/invest in renewable energy technology companies such as Volta Industries, First Solar, General Fusion, Northland Power, FuelCell Energy, and Duke Energy, in order to diversify our balance sheet to include investments in solar, nuclear, wind, hydrogen, and hydroelectric companies. I encourage our senior management to immediately add a minority stake of our investments into renewable energy.

References

- Alvarado, L. (2018, July 12). Costa Rica has run almost entirely on clean energy for the past four years. Retrieved April 04, 2021, from <https://news.co.cr/costa-rica-has-run-almost-entirely-on-clean-energy-for-the-past-four-years/74423/>
- Engine No. 1. (2021, March 15). The Case for Change. Retrieved April 03, 2021, from <https://reenergizexom.com/the-case-for-change/>
- ExxonMobil. (2021). *2021 Energy & Carbon Summary* [Brochure]. Author. Retrieved April 03, 2021, from <https://corporate.exxonmobil.com/-/media/Global/Files/energy-and-carbon-summary/Energy-and-carbon-summary.pdf>
- First Solar. *Sustainability Report 2020* (Rep.). Retrieved April 3, 2021, from First Solar website: https://www.firstsolar.com/-/media/First-Solar/Sustainability-Documents/FirstSolar_Sustainability-Report_2020.ashx
- Jones, B. (2021, March 03). Exxon is slashing workers and cutting costs, and employee morale has collapsed. Here's everything we know. Retrieved April 03, 2021, from <https://www.businessinsider.com/exxon-global-cost-cutting-program-layoffs-job-cuts>
- Jones, J. (2020, December 22). Nicaragua – over 98% electrification, 75% renewables Supply. Retrieved April 03, 2021, from <https://www.smart-energy.com/renewable-energy/nicaragua-over-98-electrification-75-renewables-supply/>
- Lynch, M. (2021, March 24). Don't ban fossil fuels: Absolutism in climate change policy is a vice. Retrieved April 03, 2021, from <https://www.forbes.com/sites/michaelylynch/2021/03/24/dont-ban-fossil-fuels-absolutism-in-climate-change-policy-is-a-vice/?sh=5aff32b32541>
- Murray, J. (2020, January 16). How the six major oil companies have invested in renewable energy projects. Retrieved April 03, 2021, from <https://www.nsenergybusiness.com/features/oil-companies-renewable-energy/>
- Office of Energy Efficiency & Renewable Energy. (2019, August 12). How Much Power is 1 Gigawatt? Retrieved April 03, 2021, from <https://www.energy.gov/eere/articles/how-much-power-1-gigawatt>
- Ratcliffe, R. (2021, March 17). Dan Patrick Declares War on “Green” Wall Street Investors. Retrieved April 03, 2021, from <https://www.texasmonthly.com/news-politics/dan-patrick-esg-investing/>
- Rosenbaum, E. (2020, December 15). Oil giant Exxon Mobil pushes new climate change plan as

- activist investors circle. Retrieved April 03, 2021, from <https://www.cnbc.com/2020/12/14/exxon-mobil-begins-to-mount-defense-of-itself-and-a-bigas-activists-circle.html>
- Sanzillo, T., & Williams-Derry, C. (2021, January 20). IEEFA: ExxonMobil must change direction to thrive. Retrieved April 03, 2021, from <https://ieefa.org/ieefa-exxonmobil-must-change-direction-to-thrive/>
- Scottish Government. (2020). *Energy Statistics for Scotland Q1 2020 Figures* [Brochure]. Author. Retrieved April 03, 2021, from <https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2018/10/quarterly-energy-statistics-bulletins/documents/energy-statistics-summary-june-2020/energy-statistics-summary-june-2020/govscot%3Adocument/Scotland%2BEnergy%2BStats%2BQ1%2B2020.pdf>
- Steffy, L. (2020, November 10). ExxonMobil's Failure to Go Green Could Worsen Its Financial Future. Retrieved April 03, 2021, from <https://www.texasmonthly.com/news-politics/exxon-mobil-failure-green-energy-financial-losses/>
- Stevens, P. (2021, March 01). Exxon shares jump as activist investor Jeff Ubben joins the board. Retrieved April 03, 2021, from <https://www.cnbc.com/2021/03/01/activist-investor-jeff-ubben-to-join-exxon-mobils-board-sources-say.html>
- Swedish Government. (2020, April 14). Energy use in Sweden. Retrieved April 03, 2021, from <https://sweden.se/nature/energy-use-in-sweden/>
- Vetter, D. (2020, May 28). Just How Good An Investment Is Renewable Energy? New Study Reveals All. Retrieved April 03, 2021, from <https://www.forbes.com/sites/davidrvetter/2020/05/28/just-how-good-an-investment-is-renewable-energy-new-study-reveals-all/?sh=753cd8354d27>
- Whittle, P. (2021, March 03). Biden faces steep challenges to reach renewable energy goals. Retrieved April 03, 2021, from <https://apnews.com/article/joe-biden-us-news-environment-global-trade-climate-change-b2f99e932cc42d78fb6d8724f3b49571>
- Xu, M., & Stanway, D. (2021, February 10). China plans to raise minimum renewable power purchase to 40% by 2030: Government document. Retrieved April 03, 2021, from <https://www.reuters.com/article/us-china-climatechange-renewables/china-plans-to-raise-minimum-renewable-power-purchase-to-40-by-2030-government-document-idUSKBN2AA0BA>
- Yeung, T. (2021, January 28). Biden Just Declared War on Exxon Mobil and It's Time to Sell

Your Oil Stocks. Retrieved April 03, 2021, from
<https://investorplace.com/2021/01/biden-declared-war-on-xom-stock/>