



June 6, 2022

The Honorable Frank Pallone, Jr.
Chairman
U. S. House of Representatives
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20516-6115

Chairman Pallone,

I write in response to your letter dated May 13, 2022, following the Subcommittee on Oversight and Investigations hearing.

Please find attached responses to the questions submitted by committee members.

Sincerely,

A handwritten signature in black ink, reading "Darren W. Woods", is positioned to the right of the "Sincerely," text.

c: The Honorable Cathy McMorris Rodgers
Ranking Member
Committee on Energy and Commerce

The Honorable Diana DeGette
Chair
Subcommittee on Oversight and Investigations

The Honorable H. Morgan Griffith
Ranking Member
Subcommittee on Oversight and Investigations

The Honorable Frank Pallone, Jr. (D-NJ)

1. Compared to some of its peers, ExxonMobil has only recently committed to investing in a low-carbon future that supports the energy transition.

a. Will ExxonMobil commit to increasing its investments in low- and zero-carbon fuels that will protect Americans from future price shocks?

The premise of your question is incorrect. Since 2000, ExxonMobil has invested over \$10 billion in projects to research, develop and deploy lower-emission energy solutions. We have been public about these efforts and have reported on them in many different ways.

Building on this longstanding effort, over the next six years, the Company plans to invest an additional \$15 billion to more on initiatives to lower greenhouse gas emissions. A significant share of this investment will be focused on scaling up carbon capture and storage, hydrogen and biofuels, all of which are acknowledged by government and non-government experts as critical to a net zero carbon future.

b. If so, please describe what new investments ExxonMobil is planning that will give Americans access to cleaner and more affordable fuels.

ExxonMobil does not own or operate any gas stations in the United States. However, the Company knows that today's high pump prices are hurting Americans, a fact that clearly underscores the importance of reliable and affordable energy supplies.

As made clear in my recent testimony, no single company sets the price of oil or gasoline. The global market establishes the price based on available supply, and the demand for that supply. Continued investment in new production to offset depletion and meet growing demand is the only way to achieve the kind of balanced markets that lead to affordable prices.

Government plays a critical role in this by supporting policies that reflect the importance of energy, create certainty and improve predictability, encourage industry investment, and ensure affordable and reliable supplies of energy. Consistent, efficient, and effective permitting processes, whether for leases, drilling, or infrastructure such as pipelines, or export applications, will help spur further investment in U.S. oil and gas production.

Access to reliable and affordable energy is essential to our daily lives and underpins economic and social progress around the world. ExxonMobil is proud to contribute to this progress by reliably supplying the energy the world needs, strengthening global energy security, and remaining committed to playing a leading role in the energy transition.

To this end, ExxonMobil plans to provide more than 40,000 barrels per day of lower-emissions fuels by 2025, and has a further goal of producing 200,000 barrels per day by 2030. The Company is partnering with Global Clean Energy¹ to annually produce more than 4 million barrels of drop-in renewable diesel, meaning it can be substituted for traditional fuels without additional infrastructure or costly engine modifications. The biorefinery, based in Bakersfield, California, will begin production in 2022.

ExxonMobil also completed successful co-processing trials in Europe and Canada, where policy supports bio-feed co-processing. The ability to co-process bio-feed through an existing fluid catalytic cracker or hydrotreater will enable large quantities of lower-emission fuels for customers. With enough bio-feed and effective low-carbon fuel policies, ExxonMobil has sufficient capacity to co-process 100,000 barrels per day of lower-emission fuels.

- 2. Last year, ExxonMobil announced plans to build new electric vehicle charging stations to help support the electrification of our transportation sector. I commend this move as it will make it easier for Americans to make the switch to cleaner electric vehicles. However, ExxonMobil has not announced plans to invest in any renewable-energy projects that would ensure these stations are powered in part by clean, zero-carbon energy.**
 - a. Does ExxonMobil plan to increase its investment in electric vehicle charging infrastructure? If so, please describe ExxonMobil's plans for new electric vehicle charging infrastructure.**
 - b. Has ExxonMobil invested in low- or zero-carbon energy generation to help power its electric vehicle charging infrastructure? If so, please describe these investments and whether ExxonMobil intends to increase its investments in clean energy sources for charging infrastructure.**

As stated above (see response to answer 1 (b)), ExxonMobil does not own or operate any gas stations in the United States, nor does it own or operate electric vehicle (EV) charging stations. The Company's focus is on delivering solutions that extend driving distances between charges, prolong vehicle life, and promote safe, efficient EV performance.

ExxonMobil produces a range of products that:

- Can help electric vehicles travel greater distances between charges, offering excellent efficiency and sustained performance during use. ExxonMobil products

¹ https://corporate.exxonmobil.com/News/Newsroom/News-releases/2021/0422_ExxonMobil-expands-renewable-fuels-agreement-with-Global-Clean-Energy-Holdings

help reduce fluid-related system losses, which in turn can help extend electric vehicle range.

- Protect the performance and durability of electric vehicle motors, gearboxes, integrated systems, batteries, electronics, and electric vehicles as a whole.
- Help protect electric powered cars and commercial vehicles against the risks of static discharge and short-circuiting, while also promoting high levels of safety.

3. As a major producer of petroleum products, ExxonMobil is well positioned to help reduce the downstream emissions of its products by formulating low carbon fuels. As we transition to a carbon free future, moving to low carbon fuels is an essential step to continue reducing emissions. Would ExxonMobil support a low-carbon fuel standard to help reduce emissions?

Yes we do.

A holistic Low Carbon Transport policy that combines a market-based, technology-neutral fuel standard with a life-cycle vehicle CO₂ emission standard could drive emission reductions across the entire vehicle fleet.

ExxonMobil supports a carbon intensity-based fuel standard approach that can also be extended to the harder-to-decarbonize aviation and marine sectors. The Company was a lead participant in developing the American Petroleum Institute's (API) policy framework that includes an action plan to reduce life-cycle emissions in the U.S. transportation sector.

API's policy framework includes the following:

- *Fuels*: Establish a carbon intensity based fuel standard to help drive CO₂ emission reductions across the entire existing vehicle fleet, as well as incentivizing future lower emission fuel and vehicle technologies.
- *Vehicles*: Evolve the existing Corporate Average Fuel Economy (CAFE)/CO₂ tailpipe standards to a lifecycle ("well-to-wheels") approach, applying consistent fuel / electricity carbon intensity accounting for all types of vehicles.
- *Full emissions accounting*: Lifecycle analysis accounts for "upstream" emissions (e.g., emissions to produce electricity, hydrogen, or gasoline) as well as vehicle emissions.

- *Leveraging electricity standards:* State-level clean power standards that reduce grid emissions are positively valued.
- *Flexibility, technology neutrality, and consumer choice:* All types of fuels and corresponding vehicles can compete, leveraging existing infrastructure and allowing a wide array of choices for individual preferences and situations.

The Honorable Diana DeGette (D-CO)

1. During the hearing, you testified that your company is undertaking efforts to ensure cleaner operations. I would like to understand more about these efforts. For each of the following technology areas, how much has your company invested annually for the past ten years, and how much does it plan to invest annually for the next ten years? Please respond with both the dollar amounts and the percentage of your company's gross sales.

- a. **Innovative methane waste prevention technologies**
- b. **Carbon capture, utilization, and storage (CCUS) with enhanced oil recovery (EOR)**
- c. **CCUS without EOR**
- d. **Direct air capture (DAC) and sequestration of carbon dioxide**
- e. **Gray hydrogen**
- f. **Blue hydrogen**
- g. **Green hydrogen**
- h. **Wind**
- i. **Solar**
- j. **Geothermal**
- k. **Hydro**
- l. **Other renewable**
- m. **Nuclear**
- n. **Electric vehicle (EV) deployment, not including public charging**
- o. **Publicly-available EV charging stations**
- p. **Other low- or zero-emitting transportation fuels, e.g., Sustainable Aviation Fuel**
- q. **Other zero-emitting technologies**

My testimony reflected the fact that since 2000, ExxonMobil has invested over \$10 billion in projects to research, develop and deploy lower-emission energy solutions.

Over the next six years, the Company has committed to invest more than \$15 billion on initiatives to lower greenhouse gas emissions. A significant share of this investment will be focused on scaling-up low carbon solutions, such as carbon capture and storage, hydrogen and

biofuels, all of which are acknowledged by government and non-government experts as critical to a net zero carbon future. The Company's robust research and development process, continued evaluation of emerging technologies, and global collaborations will be key to identifying and growing lower-emission opportunities.

Earlier this year ExxonMobil reorganized along three business lines, Upstream, Product Solutions, and Low Carbon Solutions, which reports directly to me. This demonstrates the importance of Low Carbon Solutions and our commitment to playing a leading role in the energy transition.

2. Please identify your company’s annual Scope 1 greenhouse gas (GHG) emissions for the past 10 years. What do you project your company’s annual Scope 1 emissions will be for the next ten years? In responding, please specify the level of precision of your responses and identify any conditions pertaining to these responses.

ExxonMobil Scope 1 and Scope 2 Emissions², millions of metric tons (equity basis)

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Scope 1 Emissions	119	118	119	116	114	116	112	115	110	104
Scope 2 Emissions	9	8	8	8	8	8	9	8	8	7

Our 2030 emission-reduction plans are consistent with Paris-aligned pathways, the U.S. and European Union’s Global Methane Pledge, and the U.S. Methane Emissions Reduction Action Plan.

Compared to 2016 levels, these plans are expected to achieve:

- 20-30% reduction in corporate-wide greenhouse gas intensity resulting in an absolute reduction of approximately 20% (or approximately 23 million metric tons);
- 40-50% reduction in upstream greenhouse gas intensity resulting in an absolute reduction of approximately 30% (or approximately 15 million metric tons);
- 70-80% reduction in corporate-wide methane intensity; and
- 60-70% reduction in corporate-wide flaring intensity.

² ExxonMobil reported emissions data are based on a combination of measured and estimated emissions data. Calculations are based on industry standards and best practices, including guidance from the American Petroleum Institute (API) and IPIECA. There is uncertainty associated with the emissions due to variation in the processes and operations, the availability of sufficient data, quality of those data and methodology used for measurement and estimation. Performance data may include rounding of subcategories. Changes to the performance data may be reported as part of the company’s annual publications as new or updated data and/or emission methodologies become available.

These plans are also expected to achieve the goals of the World Bank's Zero Routine Flaring by 2030 Initiative. Similarly, absolute flaring and methane emissions are expected to decrease by 60% and 70%, respectively. These emission-reduction plans cover Scope 1 and Scope 2 emissions from assets the Company operates.

Note: In 2020, the Company announced plans to reduce its greenhouse gas emissions by 2025, compared to 2016 levels which coincides with the Paris Agreement. This included a 15-20% reduction in greenhouse gas intensity of upstream operations; a 40-50% reduction in methane intensity; and a 35-45% reduction in flaring intensity across the corporation.

ExxonMobil achieved its 2025 objective for greenhouse gas emission reductions four years ahead of schedule.

- 3. Please identify your company's annual Scope 2 GHG emissions for the past 10 years. What do you project your company's annual Scope 2 emissions will be for the next ten years? In responding, please specify the level of precision of your responses and identify any conditions pertaining to these responses.**

Please see ExxonMobil's response to Question No. 2 above.

- 4. Please identify your company's annual Scope 3 GHG emissions for the past 10 years. What do you project your company's annual Scope 3 emissions will be for the next ten years? In responding, please specify the level of precision of your responses and identify any conditions pertaining to these responses.**

ExxonMobil first reported estimates for Scope 3 data for the 2019 calendar year, and provides annual updates following the finalization of full year data.

The table below provides ExxonMobil's Scope 3 estimates associated with the use of its natural gas and crude production in alignment with Category 11 of IPIECA's methodology, which contemplates accounting for products at the point of extraction, processing or sales.

ExxonMobil's Scope 3 estimates represent three approaches for accounting and are not meant to be aggregated as this would lead to duplicative accounting. For example, for completeness, the Scope 3 estimates associated with the combustion of the crude processed, produced or sold from ExxonMobil's refineries are provided; however, to avoid duplicative accounting, these Scope 3 estimates are not included in ExxonMobil's Scope 3 Category 11 total since the associated Scope 3 emissions would have been reported by the producer of those crudes.

ExxonMobil Scope 3 estimates

(Million tons CO₂-equivalent)

IPIECA Category 11 Scope 3 potential estimates			Upstream production	Refining throughput	Petroleum product sales
2019	Natural gas production	190	570	630	730
	Crude production	380			
2020	Natural gas production	170	540	600	650
	Crude production	370			

Notes: Applied CO₂ Emission Factors were obtained from EPA or derived from API calculations; where applicable emission factors for specific fuel products were applied. Non-fuels products are not combusted by the end-user and therefore are not included in these Scope 3 estimates. IPIECA's Scope 3 methodology includes 15 categories of activities along each product's value chain. Due to lack of third-party data, Scope 3 emissions for categories other than Category 11 could not be estimated.

5. Has your company examined ways that it can reduce its scope 3 emissions? If so, please describe what methods your company has found to be effective and whether it plans to invest in reducing its scope 3 emissions.

ExxonMobil is committed to helping society reduce overall greenhouse gas emissions by decreasing the Company's emissions and developing and deploying emission-reducing technologies and products. Increasing the supply of products with lower life-cycle greenhouse gas emissions enables the transition from higher-emission alternatives.

To evaluate ExxonMobil's impact on society's overall greenhouse gas emissions, including Scope 3 emissions, it is critical to consider society's essential needs, available alternatives and the emissions created or avoided throughout a product's life cycle in meeting those needs.

ExxonMobil uses this approach³ to analyze the change in overall emissions associated with the Company's business plans. On this basis, ExxonMobil's full life-cycle absolute greenhouse gas emissions for its oil, natural gas, fuels (including biofuels), chemicals, and lubricants portfolio could decrease by about 12% in 2030 relative to 2016 levels. Similarly, ExxonMobil's portfolio life-cycle emissions intensity (g CO₂e/MJ) could decrease by about 4% in 2030 relative to 2016. The decrease in absolute emissions and emissions intensity is a result of continued improvement in greenhouse gas performance of existing operations, optimization of the asset portfolio and product mix, with a growth in LNG, chemical products, lubricants, and lower-emissions fuels that help customers reduce their emissions.

³ ExxonMobil's proprietary portfolio life-cycle model estimates elements of Scope 1, 2, and 3 GHG emissions for ExxonMobil's Upstream, Downstream, and Chemicals businesses. The estimated figures are based on projected 2021 plan volumes for 2030.

For products that lack practical short-term alternatives, constraining ExxonMobil's production to reduce the Company's Scope 3 emissions simply transfers that production and associated emissions to another supplier. This would increase overall emissions if production shifts to a less-efficient, higher-emission operator. For more than two decades, ExxonMobil refineries have focused on energy efficiency and lower emissions. As a result, today the emissions intensity (Scope 1 and 2) of ExxonMobil refineries is more than 15% lower on Carbon Emissions Intensity (the equivalent of about 5 million metric tons per year CO₂e based on ExxonMobil refining throughput in 2020) than the global industry average⁴

To illustrate this concept, the Company modeled⁵ the greenhouse gas benefit of substituting unabated LNG for unabated coal for generating power in a market such as India. The analysis concluded that more than 100 million metric tons of greenhouse gas emissions per year could be avoided if all of ExxonMobil's projected 2030 LNG production displaced coal in power generation. Similar benefits can also be expected in other industry sectors utilizing coal.

In the U.S., fuel switching from coal to natural gas led to a 14% reduction in greenhouse gas emissions from 1995 to 2020.⁶ More recently in Europe, shortfalls in lower-carbon sources of energy, including natural gas, resulted in increased coal use and higher emissions.

Another example of ExxonMobil's products reducing emissions versus alternatives is in the transportation sector. The Company's projected 2030⁷ renewable fuel production could avoid more than 25 million metric tons per year of greenhouse gas emissions by displacing a corresponding amount of conventional fuel refined from crude oil.

In the chemical sector, a study⁸ concluded that plastic packaging in the United States helped society avoid life-cycle greenhouse gas emissions versus turning to alternatives as a group. In terms of 2030 ExxonMobil volumes into U.S. plastic packaging, that calculation⁹ would equate to approximately 13 million metric tons per year of U.S. enabled avoided emissions. If applied

⁴ Calculated by Solomon Associates' proprietary Carbon Emission Index in a 2020 industry survey.

⁵ The modeled figures are estimates and assume that 100% EM LNG volumes displace unabated coal for power generation. For GHG avoided emissions, the life-cycle GHG benefit basis from Mallapragada et al. 2018 (<https://pubs.acs.org/doi/10.1021/acs.est.8b04539>) was used.

⁶ Carbon Dioxide Emissions from Energy Consumption by Source (from EIA Monthly Energy Review Section 11) <https://www.eia.gov/totalenergy/data/browser/index.php?tbl=T11.01#/?f=A&start=1973&end=2020&charted+14>

⁷ Calculation based on projected 2021 plan volumes for 2030 and specific estimated fuel CI by project from Argonne National Labs' GREET model analysis as compared against its conventional fuel alternate.

⁸ April 2018 report of Franklin Associates on Life Cycle Impacts of Plastic Packaging Compared to Substitutes (April 2018 Franklin Associates Report); alternatives include steel, aluminum, glass, paper-based packaging, fiber-based textiles, and wood (Table 4-14). Source: <https://www.americanchemistry.com/content/download/7885/file/Life-CycleImpacts-of-Plastic-Packaging-Comparedto-Substitutes-in-the-United-States-andCanada.pdf>

⁹ Calculation of 13 million metric tons based on: April 2018 Franklin Associates Report, 4.7 metric tons of enabled avoided emissions per metric ton of resin used in plastic packaging derived from April 2018 Franklin Associates Report (Table 2-2 and Table 4-14), ExxonMobil's sales volumes into U.S. packaging applications, and U.S. growth of plastic packaging to 2030 using third-party forecast for polyethylene (IHS Markit report, 2022 Edition: Fall 2021 update, U.S., 2019- 2030) as a proxy.

globally, our plastics could enable approximately 40 million metric tons per year of avoided emissions.¹⁰

In addition to packaging applications, the use of plastics is growing in a variety of other applications that improve modern life such as cell phones, electric vehicles, wind turbine blades, medical devices, food preservation, agriculture, and shipping and distribution. Lightweight plastic also reduces the weight of vehicles, which is especially important in electric vehicles to improve battery performance and range. In internal combustion engine vehicles, every 10% reduction in vehicle weight improves fuel economy by 6-8%, which reduces greenhouse gas emissions accordingly.¹¹

6. What organizations does your company belong to with required GHG emission reduction targets? What are those targets?

The Company is a member of the Oil and Gas Climate Initiative (“OGCI”). OGCI aims to accelerate the reduction of member companies’ operational emissions, including:

- By 2025, aim to reduce the collective average methane intensity of aggregated upstream oil and gas operations to well below 0.20%, from a 2017 baseline of 0.30%
- Aim to reduce member companies’ aggregate upstream carbon intensity from 23 kg of greenhouse gases per barrel of oil or gas in 2017 to 17 kg by 2025
- Support explicitly the aims of the World Bank’s Zero Routine Flaring by 2030 Initiative.

OGCI member companies also support the Aiming for Zero Methane Emissions Initiative, which will strive to reach near zero methane emissions from operated oil and gas assets by 2030.

In addition, ExxonMobil is a founding and active member in the Methane Guiding Principles¹² – an international multi-stakeholder initiative now comprising more than 20 companies and 15 supporting organizations that work together to address methane emissions. Under the Methane Guiding Principles, ExxonMobil is a primary sponsor of the International Energy Agency’s Methane Tracker,¹³ a web-based portal that provides information on global methane emissions, mitigation measures, and potential regulatory approaches.

¹⁰ Calculation of 40 million metric tons based on: April 2018 Franklin Associates Report, 4.7 metric tons of enabled avoided emissions per metric ton of resin used in plastic packaging derived from April 2018 Franklin Associates Report (Table 2-2 and Table 4-14), ExxonMobil’s sales volumes into packaging applications globally, and global growth of plastic packaging to 2030 using third-party forecast for polyethylene (IHS Markit report, 2022 Edition: Fall 2021 update, global) as a proxy. Actual market conditions vary by region and over time.

¹¹ Department of Energy statements at <https://www.energy.gov/eere/vehicles/lightweightmaterials-cars-and-trucks>.

¹² <https://methaneguidingprinciples.org>

¹³ <https://www.iea.org/reports/methane-tracker-2020>

ExxonMobil also supports the U.S. and European Union's Global Methane Pledge, under which member countries commit to reduce global methane emissions by 30% by 2030, compared to 2020 levels.

7. Please identify the emissions targets your company utilizes in strategic business planning and decision-making.

As part of its planning, ExxonMobil has committed an additional \$15 billion for lower-emission investments through 2027. These investments will include a balance between projects to reduce greenhouse gas emissions from existing operations and increased investments in ExxonMobil's Low Carbon Solutions business. The same capabilities, technical strengths and market experience that support base energy and chemical businesses will help drive commercial growth opportunities for carbon capture and storage, biofuels and hydrogen where supportive policies currently exist.

ExxonMobil's 2030 greenhouse gas emission-reduction plans are outlined below:

- 20-30% reduction in corporate-wide greenhouse gas intensity resulting in an absolute reduction of approximately 20% (or approximately 23 million metric tons);
- 40-50% reduction in upstream greenhouse gas intensity resulting in an absolute reduction of approximately 30% (or approximately 15 million metric tons);
- 70-80% reduction in corporate-wide methane intensity; and
- 60-70% reduction in corporate-wide flaring intensity.

These emission-reduction plans cover Scope 1 and Scope 2 greenhouse gas emissions from assets operated by the company compared to 2016 levels and are expected to achieve the goals of the World Bank's Zero Routine Flaring by 2030 Initiative. Similarly, absolute flaring and methane emissions are expected to decrease by 60% and 70%, respectively.

We will work with our equity partners and strive to achieve comparable results for assets not operated by the company.

ExxonMobil aims to achieve net zero greenhouse gas emissions from operated unconventional assets in the U.S. Permian Basin by 2030, accelerating and expanding its emission-reduction plans for unconventional operations in New Mexico and Texas. The plans are part of the corporate-wide effort to reduce upstream greenhouse gas emissions intensity by 40-50% by 2030, compared to 2016 levels.

ExxonMobil has also announced its ambition to achieve net zero greenhouse gas emissions by 2050 for all of the corporation's operated assets¹⁴.

8. What is your company's plan for existing assets that do not comport with your company's net-zero plans or other emissions targets?

ExxonMobil aims to achieve net-zero Scope 1 and 2 greenhouse gas emissions from its operated assets by 2050 and is taking a comprehensive approach centered on developing detailed emission-reduction roadmaps for major operated assets.

The Company's roadmap approach identifies greenhouse gas emission-reduction opportunities and the investment and policy needs required to achieve net-zero. The Company's roadmaps are tailored to account for facility configuration and maintenance schedules, and they will be updated as technologies and policies evolve.

¹⁴ [ExxonMobil announces ambition for net zero greenhouse gas emissions by 2050 | ExxonMobil](#)

Net-zero roadmaps for major assets, covering about 90% of the Company's greenhouse gas emissions, are scheduled to be completed by year-end 2022, and the remainder in 2023.

The Company's plans to reduce greenhouse gas emissions through 2030 compared to 2016 levels support its net-zero ambition. The plans are expected to result in a 20-30% reduction in corporate-wide greenhouse gas intensity, including reductions of 40-50% in upstream intensity, 70-80% in methane intensity and 60-70% in flaring intensity. These plans include actions that are expected to reduce absolute corporate-wide greenhouse gas emissions by approximately 20%, including an estimated 70% reduction in methane emissions, 60% reduction in flaring emissions and 30% reduction in upstream emissions. For non-operated assets, the Company works with its equity partners to advance greenhouse gas reductions to achieve comparable results.

ExxonMobil's [Advancing Climate Solutions 2022 Progress Report](#) includes an analysis of ExxonMobil's business and investment portfolio under the International Energy Agency's (IEA) Net Zero Emissions by 2050 (NZE) scenario. The scenario illustrates the dramatic societal changes and massive levels of investment required – in a very short period of time – to achieve net-zero emissions by 2050.

Although governments are not implementing changes at the level and pace assumed in the IEA NZE scenario, the detailed assumptions contained in the report enable the Company to further test the resiliency of its businesses and strategy. The IEA's assumptions demonstrate the significant role ExxonMobil can play in the transition and the growth potential for chemicals, low-emission fuels, carbon capture and storage, and hydrogen. ExxonMobil is positioned to successfully compete in these businesses by leveraging its capabilities and repurposing assets.

Throughout the modeled period, IEA NZE's assumed carbon price supports attractive investments in key growth areas that drive increases in cash flow. The Company's core capabilities, experience and advantages in scale, integration, technology, project execution and people would remain critical success factors in this assumed transition path.

The Honorable Bobby L. Rush (D-IL)

1. Is your company currently making spot purchases of Russian crude oil, refined petroleum products, or liquefied natural gas (LNG)?

a. If so, how long does your company anticipate continuing to make these spot purchases?

ExxonMobil's purchases of crude oil, refined petroleum products and liquefied natural gas are in compliance with all applicable sanctions.

2. Since Russia invaded Ukraine on February 24, 2022, has your company received Russian crude oil, refined petroleum products, or LNG due to agreements signed prior to the Russian invasion of Ukraine?

Russian Federation origin crude and refined products have been received as required by pre-existing contractual commitments.

ExxonMobil does not have any pre-existing contractual commitments for natural gas or LNG of Russian Federation origin.

An ExxonMobil affiliate operates the Sakhalin 1 Project in North East Russia on behalf of an international consortium and receives a share of the Project's net crude oil production. ExxonMobil is undertaking as quickly as possible the complex activities necessary for the safe and orderly wind down of its role as operator and the complete divestment of its interest in the Project.

a. If so, what are the average volumes by week, and when does your company anticipate that it will continue (CEASE?) to receive Russian crude oil, refined petroleum products, or LNG?

Volumes of Russian crude oil and refined petroleum products have decreased by more than 80 percent, and ExxonMobil's pre-existing contractual commitments will expire by the end of 2022.

3. Recent reporting has indicated that some sellers are creating a "Latvian blend" of Russian-origin hydrocarbons, and then marketing them as non-Russian-origin. Since Russia invaded Ukraine on February 24, 2022, has your company purchased or sold any crude oil or refined petroleum products that were not marketed as Russian-origin, but that your company has reason to believe contain Russian-origin hydrocarbons?

ExxonMobil has not sold or purchased any crude oil or refined petroleum products marketed as “non-Russian Federation origin” but were in fact Russian Federation origin.

The Honorable Michael C. Burgess, M.D. (R-TX)

1. Mr. Woods, the Biden administration has claimed that “the oil and gas industry is sitting on more than 12 million acres of non-producing Federal land with 9,000 unused but already-approved permits for production.” I would like to start from the beginning.

a. Why would a company sit on a permit or lease?

ExxonMobil does not maintain a large inventory of unused leases or permits. In fact, less than 1% of ExxonMobil’s unconventional leases on federal lands are unused – just 14 of 1,944. The Company is mindful of the resources required to process permits, and only seeks permits for wells it intends to drill.

That said, there are a number of factors that can result in the delay of a permit or lease being progressed, including:

- *Agency approvals:* Federal, State, and Local agencies require authorizations prior to drilling, construction, and operations.
- *Well economics:* Post-leasing or permitting, additional well/lease performance may indicate an area is not economic at current prices. Factors that may contribute to this determination include: lower than expected volumes, excessive water production (increased cost due to water handling, disposal, or treatment), unanticipated sour gas, or a greater decline curve than anticipated.
- *Well spacing:* As developments progress, operators have maximized length of laterals, while minimizing environmental footprint. Longer laterals require larger contiguous acreage positions and where state or fee minerals and federal minerals are adjacent, it can be difficult to lease from all parties necessary for efficient production of the minerals, which can introduce additional lead time for acquisition;
- *Infrastructure:* Due to delayed, insufficient, or non-existent takeaway capacity.

- *Manpower shortage and supply chain issues:* Due to the cyclical nature of the oil and gas industry, and current low unemployment rates, companies may have difficulty hiring sufficient drilling personnel, lease operators, mechanics, welders, engineers, etc. Global supply chain issues have also impacted delivery timing of specialized equipment.
- b. Has there been a lag in getting permits approved from the Department of Interior?**

ExxonMobil has not noted a lag in permit approval by the Department of Interior. That said, obtaining a permit or lease is just one of the many steps required to progress an oil and gas development in the United States.

Securing the necessary leases and permits for oil and gas developments in the U.S. varies by location - federal or private land, region – and rules vary by state, and scale and complexity.

Greenfield development on federal land could take anywhere from 5 to 7 years due to the time required to obtain leases and undertake the planning, construction, and permit approvals for the right to drill and construct all necessary infrastructure to convey the oil and gas to market. This compares to approximately 3 years on private land. Where these facilities and pipelines already exist, development time drops to 3 to 3.5 years for the necessary leases, approvals and construction on federal land, and 1.5 to 2 years on private land.

- c. Could Congress provide greater clarification of the Department of Interior's leasing and permitting procedures to avoid potential litigation? If yes, how so?**

Yes, Congress could provide greater clarification on pore space leasing in order to facilitate carbon capture and storage and enhanced oil recovery development on federal leases. Also, operator funded survey work to support the National Environmental Policy Act (NEPA) should be considered actions that extend leases. This would incentivize operators to conduct environmental survey work well in advance of development, and allow operators to more quickly progress development.

Also during the NEPA approval process, the expertise of several government agencies, such as the US Fish and Wildlife Service, the US Forest Service, and the Bureau of Indian Affairs may be required in addition to the lead agency - often the Bureau of Land Management. This requires the lead agency to establish a cooperating agency relationship that provides a framework for agency cooperation and coordination. While the lead agency provides a planning schedule with indicative dates for reviews and submissions, these dates are not binding, and delays frequently occur. Having the lead agency enforce time limits on cooperating agencies would provide

companies greater certainty when scheduling project development, and further reduce the time taken to bring projects to production.

Congress has a key role to play in developing and implementing policies that reflect the importance of energy, create certainty and improve predictability, encourage industry investment, and ensure affordable and reliable supplies of energy. Consistent, efficient, and effective permitting processes, whether for leases, drilling, or infrastructure such as pipelines, or export applications, will help spur further investment in U.S. oil and gas production.