



**Karen Knutson**

Vice President & General Manager of Government Affairs, Corporate Affairs

June 15, 2022

The Honorable Frank Pallone, Jr.  
United States House of Representatives  
Committee on Energy and Commerce  
2125 Rayburn House Office Building  
Washington, DC 20515

Dear Chairman Pallone:

Attached please find responses to the Committee on Energy and Commerce Questions for the Record submitted on behalf of Chevron Corporation ("Chevron" or "the Company"). We appreciate the opportunity to provide this additional information to the Committee. If you have any questions, please do not hesitate to contact me at [karenknutson@chevron.com](mailto:karenknutson@chevron.com).

Sincerely,

A handwritten signature in black ink that reads "Karen Knutson".

Karen Knutson

Attachment

cc: 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

**Attachment—Responses to Questions for the Record**

**Subcommittee on Oversight and Investigations  
Hearing on  
“Gouged at the Gas Station: Big Oil and America’s Pain at the Pump”  
April 6, 2022**

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

1. You said that Chevron can increase production and return value to shareholders. At the same time, your company is on track to continue growing profits from last year—presenting an opportunity to accelerate the energy transition and lower carbon emissions through new and increased investments.
  - a. Will Chevron commit to increasing its investments in low- and zero-carbon fuels that will help give consumers less volatile and cleaner energy choices?
  - b. Chevron has announced plans to invest in carbon capture and sequestration technology to meet its emission goals. Will Chevron commit to increasing its investments in carbon capture technology?

Chevron believes that the future of energy is lower-carbon, and the Company has made substantial commitments in support of the goal of succeeding in that future, including setting: (a) carbon intensity reduction targets for the upstream (oil and gas production) and refining portions of our business; (b) an overall Portfolio Carbon Intensity reduction target covering scopes 1, 2 and 3 of the value chain in which we participate; and (c) a 2050 net zero aspiration<sup>1</sup> for scopes 1 and 2 for the oil and gas segments of the business. In addition, we have a systematic approach to continuing to identify and fund GHG emissions reductions across our portfolio with an optimized marginal abatement cost curve process that has been used to identify nearly 100 GHG-abatement projects to advance to execution, which when competed are expected to deliver approximately 4 million tonnes of emissions reductions per year.

Last year, Chevron announced that it would triple its planned lower-carbon investments to more than \$10 billion between 2021 and 2028. This includes more than \$2 billion for its continuing efforts to lower the carbon intensity of Chevron’s operations. Chevron also announced the following 2030 growth targets:

- Grow renewable natural gas production 10 times, to 40,000 MMBtu per day to supply a network of stations serving heavy-duty transport customers;
- Increase renewable fuels production capacity to 100,000 barrels per day to meet growing customer demand for renewable diesel, biodiesel and sustainable aviation fuel;

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<sup>1</sup> Accomplishing this aspiration depends on continuing progress on commercially viable technology; government policy; successful negotiations for CCS and nature-based projects; availability of cost-effective, verifiable offsets in the global market; and granting of necessary permits by governing authorities.

- Grow hydrogen production to 150,000 tonnes per year to supply industrial, power and heavy duty transport customers;<sup>2</sup> and
- Increase carbon capture to 25 million tonnes of CO<sub>2</sub> per year by developing regional hubs in partnership with others.

In 2021, Chevron stood up Chevron New Energies, which is dedicated to growing businesses in carbon capture, hydrogen, and offsets to complement the work to advance alternative transportation fuels led by our Products organization as well as the work to bring emerging technologies to market led by Chevron Technology Ventures.

Additionally, Chevron recently closed on the purchase of Renewable Energy Group—a \$3.15 billion investment expected to accelerate progress to grow our renewable fuels production capacity to 100,000 barrels per day by 2030. More detail on Chevron’s specific efforts related to various lower-carbon technologies can be found on pages 5-7.

2. Chevron has announced investments in deploying electric vehicle charging infrastructure at its gas stations. I commend this move as it will make it easier for Americans to make the switch to cleaner electric vehicles.
  - a. Does Chevron plan to increase its investment in electric vehicle charging infrastructure? If so, please describe Chevron’s plans for new electric vehicle charging infrastructure.
  - b. Has Chevron invested in low- or zero-carbon energy generation to help power its electric vehicle charging infrastructure? If so, please describe these investments and whether Chevron intends to increase its investments in clean energy sources for charging infrastructure.

Chevron is working to provide EV charging facilities in certain markets as part of the broad cross-section of transportation energy solutions that we feel are required for a lower-carbon future that is affordable and reliable. This includes renewable fuels, hydrogen, renewable natural gas and electric vehicles. Furthermore, as the majority of Chevron and Texaco branded stations in the United States are owned by independent business people, we are developing solutions that enable our branded marketers and retailers access to carry a broad cross-section of lower carbon intensity transportation products, which includes EV charging if they desire.

3. As a major producer of petroleum products, Chevron 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 will be an essential step to continue reducing emissions. Would Chevron support a low-carbon fuel standard to help reduce emissions?

Chevron supports well-designed, market-based policies and regulations to advance a lower carbon future. Climate policy should achieve emissions reductions as efficiently and cost-

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<sup>2</sup> Chevron’s approach to hydrogen envisions the use of green, blue and gray hydrogen.

effectively as possible. Chevron supports carbon pricing as the primary policy tool to achieve greenhouse gas emissions reduction goals. Chevron also supports continued investment in innovation and lower-carbon technologies, and it has made a number of commitments in that regard, as outlined in more detail on pages 5-7.

4. You testified that while Chevron does not have any business in Russia, it does export oil from its investments in Kazakhstan through Russia. I understand how important it is for Kazakhstan's oil to reach the global market now more than ever, but I would like to know if Chevron has explored alternative routes to export its oil from Kazakhstan. Are there feasible routes that do not travel through Russia to export oil from Kazakhstan? If so, has Chevron considered switching to these alternate export routes?

The Caspian Pipeline Consortium (CPC) is critical infrastructure that transports crude oil predominantly of Kazakh origin to a port where it can reach world markets. There are currently no viable alternatives—both in terms of cost and capacity—to transport this oil from Kazakhstan to world markets. The continued operation of the CPC is critical not just to the economy of Kazakhstan but also to world energy supply. Chevron has taken steps to ensure that it adheres to all applicable restrictions. The Company has consulted with the Office of Foreign Assets Control, which recently issued a determination that transporting crude oil of Kazakh origin through the CPC does not violate current sanctions on Russian oil and gas.

#### **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

Chevron is committed to advancing a lower-carbon future. Chevron has announced plans to increase its lower carbon capital investment between 2021 and 2028 to over \$10 billion. Chevron has made billions of dollars in investments in emerging lower-carbon technologies, including but not limited to the following:

**Investments in GHG Reduction** Chevron is taking actions to reduce the carbon intensity of its own portfolio. The Company is investing in projects intended to reduce methane emissions and flaring, as well as improve energy management for an expected GHG reduction of approximately 4 million annual tonnes of CO<sub>2</sub> equivalent when completed.

- ***Methane Management.*** Chevron has set a 2028 methane target of 2 kilograms CO<sub>2</sub> equivalent per barrel, which is a 50% reduction from its 2016 baseline. We believe further reductions are possible in the industry through partnerships, best-practice sharing and well-designed regulation. Chevron is taking steps to reduce methane emissions and improve detection capability, and in 2020, Chevron's U.S. onshore production methane intensity was 85% lower than the U.S. industry average. Chevron is also taking steps to expand its methane detection capabilities, including through the deployment of airborne sensors using satellites, aircraft and drones, to improve the Company's ability to identify and address methane leaks and further lower emissions. In the Permian region, Chevron is collaborating in aerial flyovers that cover thousands of sites. In the DJ

Basin, Chevron is partnering in a university study that includes modeling, aerial flyovers and site visits to validate and improve methane detection.

- ***Flaring Reduction.*** Chevron is an endorser of the World Bank’s Zero Routine Flaring by 2030 initiative and is working to reduce its overall flaring by more than 60% from 2016 to 2028. Chevron flares natural gas only when necessary for safety and operational purposes and in areas where pipelines and other alternatives for transporting gas do not exist. Since 2016, Chevron has reduced flaring across the Company by more than 50 percent. In the Permian Basin, Chevron is an industry leader in reducing flaring; we consider gas-takeaway availability in our planning process and only put wells on production in the Permian when there is a solution for the associated gas. In the DJ basin in Colorado, Chevron has developed new tankless, flareless facility design which is expected to reduce overall carbon intensity by up to 90% when compared to legacy designs. This design requires no production tanks, no flowback equipment and no flare system. And this new design is scalable to other assets in Chevron’s portfolio.
- **Investments in Carbon Capture, Utilization and Storage.** Chevron has invested more than \$1 billion in CCUS research, development and deployment opportunities to reduce its GHG emissions intensity. Chevron’s CCUS investment is focused on two areas: reducing the carbon intensity of the Company’s existing assets and growing Chevron’s carbon capture business.

Chevron’s initial carbon capture investments have been focused on decarbonizing existing Company assets. An example is Chevron’s Gorgon facility, one of the largest carbon sequestration projects in the world. In the last financial year, the Gorgon carbon capture and storage (CCS) system has captured and stored around 2.1 million tonnes of CO<sub>2</sub>. More than 6 million tonnes of CO<sub>2</sub> have been safely injected since the Gorgon CCS system started up in mid-2019, and we expect to capture and store more than 100 million tonnes of CO<sub>2</sub> over the life of the project. Chevron is committed to sharing lessons from Gorgon CCS with governments, industry and the scientific community.

Chevron is also investing in a commercial scale project in the San Joaquin Valley to capture exhaust from gas turbines. In 2021, Chevron invested in Blue Planet Systems, a company that manufactures and develops carbon capture technology to produce low-carbon construction materials and to reduce the carbon intensity of industrial operations.

Chevron is targeting 25 million tonnes of CO<sub>2</sub> per year in equity storage by the end of this decade. And to achieve these ambitions, Chevron is exploring several hub opportunities in the US and abroad, each including multiple large customers and ranging from 5 and 20 million tonnes of CO<sub>2</sub> per year.

- **Investments in Hydrogen.** Chevron has been investing in hydrogen R&D for decades. Today, Chevron holds more than 75 active hydrogen patents and currently produces around 1 million tonnes of grey hydrogen per year through Chevron's traditional business. Chevron has a number of key alliances with Toyota, Cummins and Caterpillar, with many more expected to follow. Chevron also recently initiated two green hydrogen power projects - one utilizing a gasified waste stream and another a solar powered electrolyzer. And Chevron is assessing development of blue hydrogen production in hubs in the US linked to existing storage assets, equity natural gas volumes or both.
- **Investments in Wind and Solar.** Chevron's strategy to deploy mature, renewable power-generation solutions is focused and selective to reduce the carbon intensity of our operations. For example, Chevron partnered with Algonquin Power & Utilities Corporation to co-develop renewable-power projects that provide electricity to strategic assets across the Company's global portfolio. Under the four-year agreement, Chevron will source 500 megawatts of existing and future electricity demand from renewables and expects to make up to \$250 million in investments by 2025. In addition, in 2020, Chevron partnered with SunPower to complete construction on a solar power project that supplies Chevron's Lost Hills production facilities in California with solar energy.

Chevron is also investing in several companies working on cutting-edge technologies, such as RayGen, which is developing a technology that has the potential to impact long-duration energy storage and grid stability; Ocergy, which is working to develop floating offshore wind turbine technology and gigawatt-scale commercial offshore wind energy projects; and Spear Power Systems, which designs and manufactures energy storage system solutions for marine, aircraft, and industrial applications.

- **Investments in Geothermal.** Last year, Chevron announced several ventures to develop geothermal energy, including with Eavor Technologies, a company that is aiming to power the equivalent of 10 million homes by 2030 with geothermal energy and with Baseload Capital AB, a Sweden-based company focused on development and operation of low-temperature geothermal and heat power assets.

- **Investments in Nuclear.** In 2020, Chevron invested in nuclear fusion company Zap Energy Inc., which is developing a next-generation modular nuclear reactor with an innovative approach to advancing cost-effective, flexible and commercially scalable fusion.
- **Investment in Renewable and Sustainable Fuels.** Chevron recently closed on the purchase of Renewable Energy Group—a \$3.15 billion investment expected to accelerate progress toward Chevron’s goal to grow renewable fuels production capacity to 100,000 barrels per day by 2030. Over the next few years, Chevron expects to invest more than \$500 million pursuing opportunities to make renewable fuels scalable and affordable to customers. For example, Chevron is a leader in U.S. renewable natural gas, in partnership with others like Brightmark, CalBio, and dairy farmers. Chevron currently produces approximately 2,100 MMBTU/D in renewable natural gas, with commitments expected to produce more than 10,000 MMBTU/D by 2025, and a target to reach more than 40,000 MMBTU/D by 2030. Chevron is adding CNG to a number of Chevron branded retail sites. To expand its market beyond California, Chevron recently announced a joint venture with Mercuria to own and operate a network of 60 CNG sites across the U.S.

Chevron is also building its renewable diesel, biodiesel and sustainable aviation fuel businesses. Approximately 60% of Chevron’s US terminals are now capable of renewable or biodiesel distribution. For example, Chevron is co-processing about 2MBD of biofeedstock at its El Segundo refinery and just last year produced its first batch of sustainable aviation fuel there. Chevron has partnered with Delta Airlines and Google to track the emissions benefits of sustainable aviation fuels. Chevron is also working with Gevo to create an option to produce sustainable aviation fuel using an alcohol-to-jet process. Chevron expects to have the capacity to produce roughly 100 MBD of renewable diesel and sustainable aviation fuel by 2030.

- **Other Lower-Carbon Investments.** Chevron is also continuing to be a leader in the development of renewable base oil through Chevron’s patented technology and majority ownership in Novvi. Chevron developed the first commercially viable renewable automotive engine oil, Havoline Pro-RS, with lifecycle emissions that are 35% lower than conventional motor oil of equal viscosity. Chevron has a portfolio of patents all using renewable base oil and intends to license the technology to drive market scale and produce and/or license 100,000 tonnes per year by 2030.



These are just some of the examples of Chevron's recent efforts. Chevron intends to continue to look for other opportunities to invest in and grow lower-carbon businesses, and the Company will continue to innovate.

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.
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.
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.
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.
6. What organizations does your company belong to with required GHG emission reduction targets? What are those targets?
7. Please identify the emissions targets your company utilizes in strategic business planning and decision-making.
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?

Answer to Questions 2-8:

To enable others to track Chevron's performance, Chevron voluntarily reports its greenhouse gas emissions, including Scope 3 emissions from the use of its products, and provides the information in its annual Sustainability Report and its Climate Change Resilience Report, which is aligned with the Financial Stability Board's Task Force on Climate-related Financial Disclosures framework.<sup>3</sup>

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<sup>3</sup> See e.g., *Chevron Sustainability Report 2021*, pg. 62. Chevron Corporation. May 2022.

(<https://www.chevron.com/-/media/shared-media/documents/chevron-sustainability-report-2021.pdf>); *Chevron*

Chevron supports the global net-zero ambitions of the Paris Agreement and believes that reducing carbon intensity of the energy on which billions of people rely every day is a tremendous opportunity to make progress toward that goal. Chevron has set ambitious and achievable targets to reduce its emissions intensity. Throughout Chevron's upstream operations, Chevron is already producing energy at a carbon intensity well below the global industry average, but it has plans to do even more. Chevron set carbon-intensity targets for 2023 and already exceeded them, three years ahead of schedule. Last year, Chevron laid out even more ambitious goals for 2028, and a net zero 2050 aspiration for Upstream Scope 1 and 2 emissions, as well as a Portfolio Carbon Intensity (PCI) metric, which covers Scopes 1 and 2, and certain categories of Scope 3 and will allow for the measurement of the full value chain carbon intensity of Chevron's entire business. Chevron is also on track to eliminate routine flaring by 2030, reduce methane emission intensity by 50% from 2016 levels by 2028, and reduce its carbon intensity by 35%. Chevron's carbon-intensity metrics for 2028 and historical performance are described in more detail in Chevron's Climate Change Resilience report and Corporate Sustainability Report. Chevron is also taking steps to help customers address scope 3 emissions by growing its lower-carbon business lines as discussed above. To achieve economy-wide GHG reductions, Chevron supports well-designed, market-based policies, such as a price on carbon.

**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?

No.

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

Since February 24, 2022, the Company received one cargo of Russian crude oil in mid-March. This cargo had been purchased prior to February 24. No new cargoes have been received since.

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*Sustainability Report 2020*, pg. 49. Chevron Corporation. May 2021. (<https://www.chevron.com/-/media/shared-media/documents/chevron-sustainability-report-2021.pdf>); *Chevron Climate Change Resilience Report 2021*, pg. 64, 66. Chevron Corporation. October 2021. (<https://www.chevron.com/-/media/chevron/sustainability/documents/climate-change-resilience-report.pdf>)

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.<sup>4</sup> 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?

No. Based on our country-of-origin due diligence process, we do not believe any “Latvian Blend” (or other obfuscated source country) crude oil or refined petroleum products have been purchased or sold by the Company since February 24, 2022.

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<sup>4</sup> Javier Blas, *The Backdoor That Keeps Russian Oil Flowing Into Europe*, Bloomberg (Apr. 8, 2022).