



Michael K. Wirth
Chairman and Chief Executive Officer

February 28, 2019

CLASSIFIED

Dr. Wanda M. Austin
Mr. John B. Frank
Dr. Alice P. Gast
Mr. Enrique Hernandez, Jr.
Mr. Charles W. Moorman IV

Dr. Dambisa F. Moyo
Ms. Debra Reed-Klages
Dr. Ronald D. Sugar
Mr. Inge G. Thulin
Mr. D. James Umpleby III

Performance

- January earnings were \$770 million, up \$200 million from December primarily due to lower operating expenses. This represents 106% of YTD plan on a price-normalized basis.
- Unit operating expense (excluding fuel) was \$14.14/bbl, about 2% above January 2018.
- Total cash flow was \$400 million, with \$1.5 billion cash generated from operations. Total C&E expenditures were \$1.4 billion in January, ~\$0.3 billion below ratable plan.
- Production of 3,028 MBOED was down ~90 MBOED from December, primarily due to storm-related effects in Thailand and unplanned downtime at Gorgon Train 3.

Portfolio

- Our GS Caltex affiliate (Chevron 50% owned) sanctioned a project to produce olefins-based petrochemicals. Integration synergies with its existing refining and petrochemical complex will deliver advantages over greenfield Asia naphtha crackers. This investment will enhance our competitiveness in petrochemicals, with start-up slated for 2021

Industry Conditions

- Brent prices rose this month as supply conditions tightened. To date, Brent is averaging \$61. U.S. sanctions on Venezuela are not expected to materially impact international oil prices. Enclosed is a brief detailing the oil market impact and outlook for Venezuela production.
- U.S. Henry Hub spot gas prices continue to average around \$3/mmbtu. Ample supplies have kept prices in check despite cold weather in the U.S.
- Asia spot LNG prices have moderated and are averaging \$7-8/mmbtu, reflecting warm seasonal temperatures in North Asia.

Next Board Meeting

- During our visit to Houston next month, we'll provide an update on Permian operations and associated value chain strategy. You'll also have an opportunity to tour Chevron Phillips Chemical's Cedar Bayou facility and our Houston cyber intelligence center, and we'll update you on business development opportunities discussed in January.

Chevron Corporation
6001 Bollinger Canyon Road, San Ramon, CA 94583
Tel 925 842 3232 Fax 925 842 1230

- This will be Pat Yarrington's last Board meeting. You'll have a chance to thank her for her service at Tuesday's dinner, and hear her reflections on a dynamic decade as CFO on Wednesday.

Among the enclosures, you'll find our update to the [2018 Climate Change Resilience Report](#) released on February 7.

I look forward to seeing you next month. Please don't hesitate to call me if you have any questions.

Best regards,

A handwritten signature in blue ink, appearing to read "Mike", is positioned above the typed name.

Michael K. Wirth
Chairman & CEO
Chevron Corporation

Enclosures

cc: Mr. R. Hewitt Pate
Ms. Mary A. Francis

Enclosures

1. [Oil Market Impacts of U.S. Sanctions on Venezuela brief](#)
2. [Stockholder proposals and revised draft Board responses for final Board review](#)
3. [Update to Climate Change Resilience final report](#)
4. [January Performance Summary](#)
5. [Reactions to Chevron's 4Q18 conference call](#)
6. [Reactions to Competitors' 4Q18 conference calls](#)

OIL MARKET IMPACTS OF U.S. SANCTIONS ON VENEZUELA

Summary

New unilateral U.S. sanctions on Venezuela's state oil company Petroleos de Venezuela (PDVSA) will result in further oil production declines and will pressure exports. They are not expected to have a material impact on international oil prices, but likely will boost heavy crude prices, particularly in the U.S. Gulf Coast. Output is projected to decline further this year and any eventual recovery is contingent on the ability to attract new investment into the sector and the pace of economic reform. As such, Venezuelan oil production is not likely to recover to 2017 levels until 2025 at the earliest.

New U.S. Sanctions

On January 28, the U.S. Treasury Department announced a new round of unilateral sanctions that limit the ability of U.S. entities to transact with PDVSA, subject to a few exceptions noted in General Licenses. The sanctions effectively block U.S. oil trade, but permit U.S. entities to import Venezuelan crude until April 28th, provided funds are directed into a blocked escrow account. Chevron and select USA oil field service providers were authorized under General License 8 to continue business activities in Venezuela until July 27th.

Short-Term Impacts

Uncertainty surrounding the new sanctions have temporarily halted Venezuelan oil trade as traders, operators, ship owners, insurers, and banks seek clarity on the new rules. Although some loading activity has resumed, cargoes destined for the U.S. are being held in Venezuelan waters and it appears market participants remain cautious.

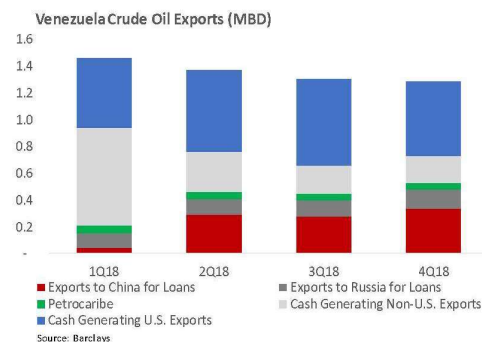
Venezuela's oil production has been on a steady decline since reaching a peak of 3.1 MMBD in 1998 due to persistent underinvestment in the oil sector, budgetary strains within PDVSA, and a steady exodus of skilled workers. The pace of decline has accelerated since 2016 and U.S. sanctions are projected to drive Venezuelan oil production below 1.0 MMBD by the end this year.

The new sanctions provide little incentive for PDVSA to export to the U.S. PDVSA will be forced to seek alternative outlets for ~500 MBD

of U.S.-bound exports. This will come at a price discount to attract buyers and to offset higher shipping costs.

The combination of lower exports and deeper price discounts will further dampen cash flow and compound current domestic economic challenges. Oil accounts for over 98% of Venezuela's export revenues and has been the primary source of income for the country.

Today, about 40% of oil exports are earmarked to pay back debt to China and Russia, leaving only 60% of oil exports generating real income for the country. The U.S. market accounts for about 70% of these income generating exports.



Impact on Global Oil Markets

The latest round of U.S. sanctions on PDVSA should not materially impact international oil prices. There is ample spare capacity within OPEC to cover expected losses in Venezuelan output. China, India, and the U.S. purchase over 80% of PDVSA's oil exports making the practical impact of sanctions more targeted to specific regions and crude types.

The new sanctions will have a more material short-term impact on heavy crude markets. Complex refiners in the U.S. Gulf Coast will be most impacted as they are forced to pay a premium for alternatives to replace Venezuelan heavy crude imports. Medium and heavy crude prices in the U.S. have already risen in the wake of sanctions. Gulf Coast refiners will also be negatively impacted by the loss of product exports to Venezuela.

Globally, medium and heavy crude oil markets are experiencing a period of adjustment as crude price spreads shift to re-direct trade flows. Heavy crude prices in the Atlantic basin will be

OIL MARKET IMPACTS OF U.S. SANCTIONS ON VENEZUELA

bid up as Gulf Coast refiners seek alternatives, while Venezuelan exports to Asia will be priced at a discount to attract buyers. PDVSA may be challenged to find buyers for all 500 MBD of exports displaced from the U.S. due to limited Asia refinery configurations that can process Venezuelan crude.

Eventual Recovery

Venezuelan production is projected to decline below 1.0 MMBD in 2019 amid ongoing uncertainty and negative impacts from sanctions. Any initial recovery in production, assuming an improved political and trade environment, is contingent on reliable electricity supply, investment in basic maintenance, and the return of the international service sector. Under favorable conditions, production may be able to rebound by 100-200 MBD within a year.

**Redacted – Business Confidential
(competitively sensitive internal
projections)**

Long-term, boosting production above 2.0 MMBD is possible given Venezuela's large oil resource base. Boosting overall output by 1.0 MMBD will require an estimated \$15 Billion/Year in capital investment for a decade or more—a rate nearly triple recent levels. PDVSA will not have the financial capacity to do it alone, therefore, any long-term recovery is dependent on attracting foreign investment.

This will require macroeconomic reforms that alleviate the current debt burden, create a competitive foreign exchange regime, and reduce risk of further hyper-inflation. Fiscal reforms will be required to make the oil sector more attractive to international investors. Venezuela currently has the highest share of government take and lowest estimated project internal rates of return (IRR) in Latin America, according to WoodMackenzie. Thus, significant fiscal reform will be required to make the Venezuelan oil sector more competitive and attract international capital.

The long-term recovery of Venezuelan production remains highly uncertain given the complexity and breadth of reforms required. Our baseline forecast assumes production

**Redacted – Business Confidential
(competitively sensitive internal projections)**

2019 Proxy Statement Stockholder Proposals and Draft Board Responses

The stockholder proposals and draft Board responses expected to be included in the 2019 Proxy Statement are attached. This redlined version of the draft Board responses shows changes from the drafts sent to the Board on January 23 (the redline on the proposals shows the changes to the repeat proposals from last year). The Board Nominating and Governance and Public Policy Committees reviewed the proposals and draft Board responses at a joint meeting on January 29, and the suggestions and comments made at that meeting have been incorporated.

We would appreciate receiving any additional comments and suggestions on the responses by March 7, in order that these may be finalized and provided to stockholder proponents 30 days prior to our proxy print date, as required by SEC rules. **Please provide your comments and suggestions to Mary Francis at (925) 842-1298 or by fax to (925) 842-6047.**



2019 stockholder proposals and board responses



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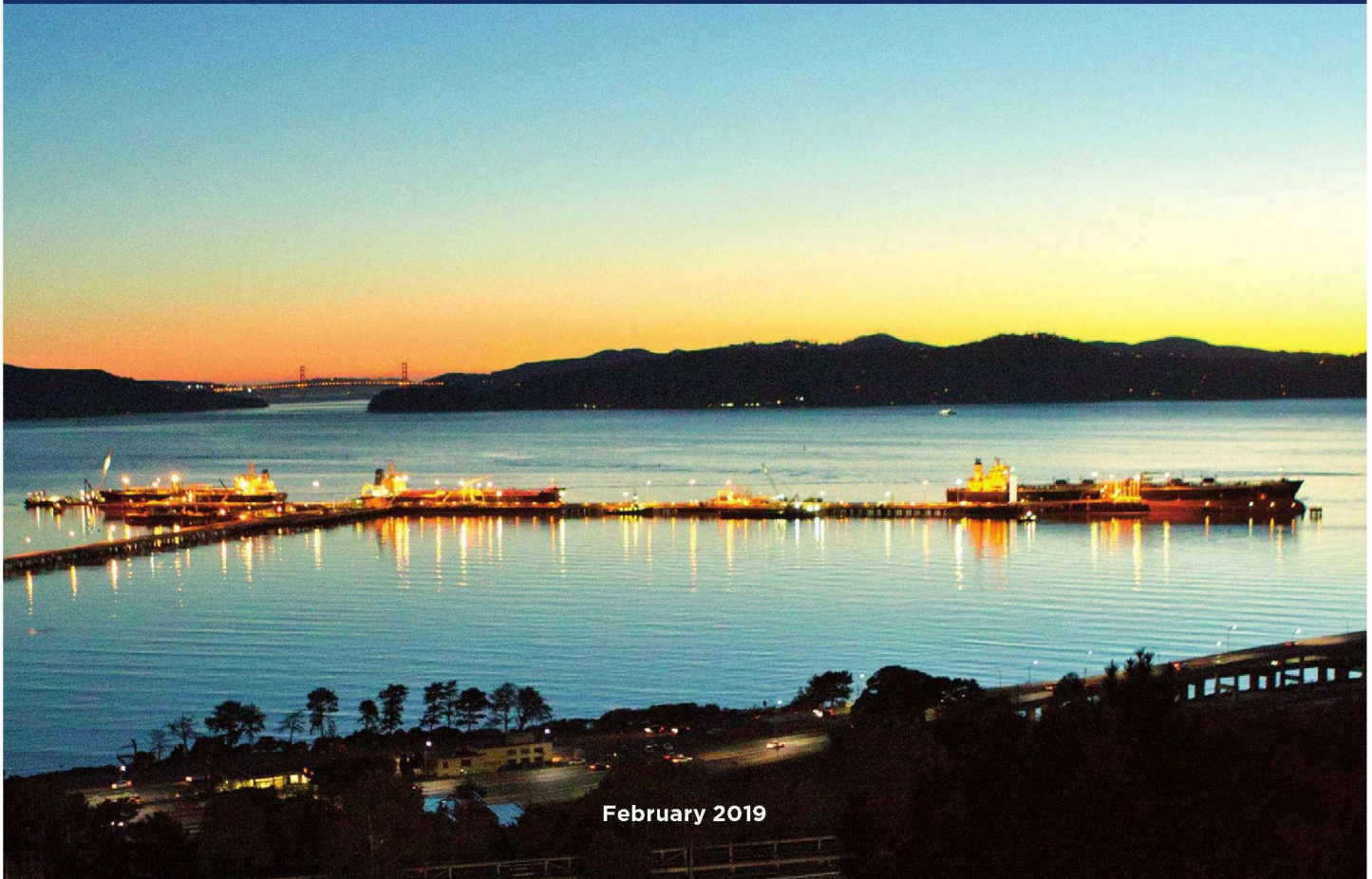
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update to climate change resilience

a framework for decision making

human energy*



February 2019

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"We take our corporate responsibility seriously. I am pleased that Chevron is providing this update to its previous reports on climate risks. In prior engagements with stockholders, I have reinforced the important role the Board plays in overseeing Chevron's management of climate change risks and its assessment of opportunities."

— Dr. Ronald D. Sugar
Lead Director

forward-looking statements warning

CAUTIONARY STATEMENTS RELEVANT TO FORWARD-LOOKING INFORMATION FOR THE PURPOSE OF "SAFE HARBOR" PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

This report contains forward-looking statements relating to Chevron's operations that are based on management's current expectations, estimates and projections about the petroleum, chemicals and other energy-related industries. Words or phrases such as "anticipates," "expects," "intends," "plans," "targets," "forecasts," "projects," "believes," "seeks," "schedules," "estimates," "positions," "pursues," "may," "could," "should," "will," "budgets," "outlook," "trends," "guidance," "focus," "on schedule," "on track," "is slated," "goals," "objectives," "strategies," "opportunities" and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and are subject to certain risks, uncertainties and other factors, many of which are beyond the company's control and are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or forecasted in such forward-looking statements. The reader should not place undue reliance on these forward-looking statements, which speak only as of the date of this report. Unless legally required, Chevron undertakes no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

Among the important factors that could cause actual results to differ materially from those in the forward-looking statements are: changing crude oil and natural gas prices; changing refining, marketing and chemicals margins; the company's ability to realize anticipated cost savings and expenditure reductions; actions of competitors or regulators; timing of exploration expenses; timing of crude oil liftings; the competitiveness of alternate-energy sources or product substitutes; technological developments; the results of operations and financial condition of the company's suppliers, vendors, partners and equity affiliates, particularly during extended periods of low prices for crude oil and

natural gas; the inability or failure of the company's joint-venture partners to fund their share of operations and development activities; the potential failure to achieve expected net production from existing and future crude oil and natural gas development projects; potential delays in the development, construction or start-up of planned projects; the potential disruption or interruption of the company's operations due to war, accidents, political events, civil unrest, severe weather, cyber threats and terrorist acts, crude oil production quotas or other actions that might be imposed by the Organization of Petroleum Exporting Countries, or other natural or human causes beyond the company's control; changing economic, regulatory and political environments in the various countries in which the company operates; general domestic and international economic and political conditions; the potential liability for remedial actions or assessments under existing or future environmental regulations and litigation; significant operational, investment or product changes required by existing or future environmental statutes and regulations, including international agreements and national or regional legislation and regulatory measures to limit or reduce greenhouse gas emissions; the potential liability resulting from other pending or future litigation; the company's future acquisition or disposition of assets or shares or the delay or failure of such transactions to close based on required closing conditions; the potential for gains and losses from asset dispositions or impairments; government-mandated sales, divestitures, recapitalizations, industry-specific taxes, tariffs, sanctions, changes in fiscal terms or restrictions on scope of company operations; foreign currency movements compared with the U.S. dollar; material reductions in corporate liquidity and access to debt markets; the effects of changed accounting rules under generally accepted accounting principles promulgated by rule-setting bodies; the company's ability to identify and mitigate the risks and hazards inherent in operating in the global energy industry; and the factors set forth under the heading "Risk Factors" on pages 19 through 22 of the company's 2017 Annual Report on Form 10-K. Other unpredictable or unknown factors not discussed in this report could also have material adverse effects on forward-looking statements.

update to climate change resilience: a framework for decision making, february 2019

chairman's letter

**for nearly 140 years, chevron has provided
affordable, reliable, ever-cleaner energy
to improve lives and power the world forward**



**“Chevron’s greatest resources
are the ingenuity, creativity
and innovation of our people.
Throughout this report, we
profile some of these innovators
working to solve challenges
and shape the future of energy.
It’s our goal to win in any
energy environment by delivering
industry-leading returns and
superior stockholder value.”**

This year, Chevron celebrates an important milestone—our 140th anniversary of enabling human progress. We are proud of Chevron’s historic past, and are committed to upholding our legacy by providing the affordable, reliable, ever-cleaner energy that improves people’s lives.

As more energy, and more forms of energy, are required to power the world forward, Chevron will remain focused on improving current sources and scaling future solutions to deliver greater human benefit with less environmental impact. Just as we have successfully navigated the energy transitions that have occurred since our company’s founding nearly a century and a half ago, Chevron will continue to lead in the transition into the next energy future.

This update highlights work we are doing to address climate change risks to our business and new opportunities we’re pursuing. It incorporates responses to some of the thoughtful insights stockholders have shared with us during our engagements. This update builds on our two prior climate change reports: *Managing Climate Change Risks: A Perspective for Investors*, published in March 2017; and *Climate Change Resilience: A Framework for Decision Making*, published in March 2018.

Thank you for investing in Chevron. We look forward to ongoing conversations on how we are managing climate risks to our business and taking on new opportunities to reduce greenhouse gas emissions and develop lower-carbon energy.

Michael K. Wirth
Chairman of the Board and
Chief Executive Officer
February 2019

chevron at a glance

**we take great pride in
enabling human progress by
developing the energy
that improves lives and
powers the world forward**

Chevron is one of the world's leading integrated energy companies. Our success is driven by our people and our collective commitment to delivering industry-leading results and superior stockholder value in any business environment. We do this by operating efficiently, applying advanced technologies, capturing new high-return opportunities, and executing with excellence in a socially and environmentally responsible manner. We explore for, produce and transport crude oil and natural gas; refine, market and distribute transportation fuels and lubricants; manufacture and sell petrochemicals and additives; and develop and deploy technologies that enhance business value in every aspect of the company's operations.

total assets*
\$253.9 billion

sales and other operating revenues**
\$158.9 billion

net oil-equivalent daily production**
2.93 million barrels

net oil-equivalent proved reserves*
12.1 billion barrels

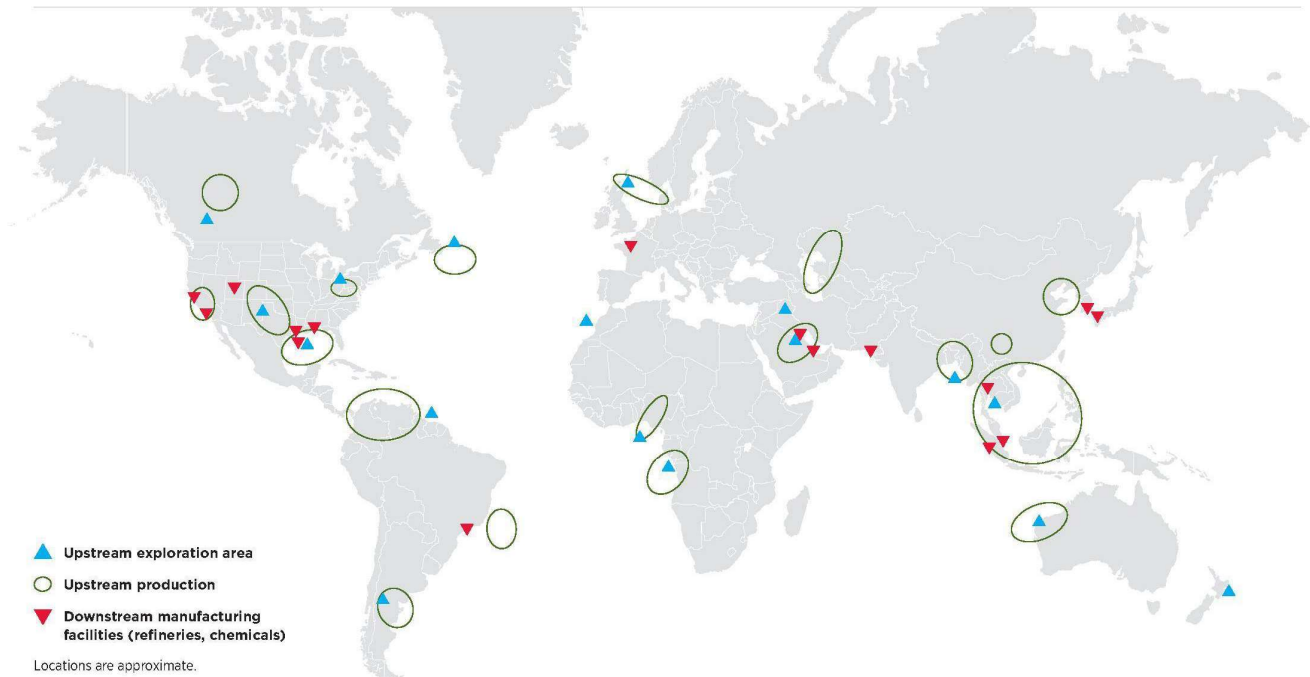
daily refining capacity*
1.6 million barrels

daily refined product sales**
2.7 million barrels

* At December 31, 2018.

** Year ended December 31, 2018.

overview of upstream and downstream portfolios



update to climate change resilience: a framework for decision making, february 2019

executive summary

we believe that managing climate change risks to our business is an important element of returning value to stockholders, and we are continuing our strong governance and increasing our actions and investments

Since our March 2018 *Climate Change Resilience* report, we have continued our strong governance, taken additional actions and made new investments. Aligned with the framework outlined by the Financial Stability Board's Task Force on Climate-Related Financial Disclosures (TCFD), we are updating our 2018 report with respect to Section 1: Governance Framework, Section 4: Actions and Investments, and Section 5: Metrics. See Section 6 Update: About This Report, on [Page 21](#).

continuing our strong governance

In response to ongoing discussions with stockholders, we are providing more voluntary disclosure on our governance related to climate change issues. This includes information on the multiple avenues for the Board of Directors and executive leadership to exercise their oversight responsibilities with respect to climate change risks to our business. In 2018, the Board and executive management engaged with both internal and external experts with diverse views on energy transition and climate change issues. The Board established new methane and flaring performance measures for inclusion in the Chevron Incentive Plan (CIP) Scorecard, a component of management and workforce variable compensation. We also created an Environmental, Social and Governance (ESG) engagement team.

increasing our actions and investments

We took concrete steps to lower our greenhouse gas (GHG) emissions and address climate change risks to and opportunities in our business. We joined the Oil and Gas Climate Initiative (OGCI) and committed \$100 million to its \$1 billion+ fund investing in technologies to reduce GHG emissions within the oil and gas value chain. Chevron employees worked to increase energy efficiency, reduce methane emissions, decrease water consumption, develop biofuels, apply innovative technology and identify lower-carbon investment opportunities. We also continued to invest in companies developing technologies for lowering GHG emissions and for capitalizing on lower-carbon opportunities.



in summary

We continue our voluntary reporting on climate-related issues to detail our strong governance, thorough risk management, resilient strategies, and targeted actions and investments. In this update, we share additional information on our governance, as well as recent actions and investments.

section 1 update

governance framework

**we continue our strong governance to
ensure chevron maintains an effective framework
for managing the company's performance and
mitigating risks to our business**

In our March 2018 report, we detailed the structure of our Board- and executive-level oversight, including committees. We also highlighted the qualifications of our Board of Directors. Over the course of 2018:

- We engaged with internal and external experts with diverse views on energy transition and climate issues.
- We continued our Enterprise Risk Management process.
- Our Board established new methane and flaring performance measures.
- We created a dedicated ESG engagement team.

a duty to stockholders

We have a fiduciary duty to our stockholders. Many of our stockholders have their investments managed through index or other funds, such as pension funds, and many of these funds consider how climate change risks to their investments are managed. Through reports like this one, and ongoing engagements, we aim to assist fund managers in meeting their obligations. We strive to have honest conversations about governance, risk management, strategic actions and investments, and metrics related to GHG emissions. We believe such activities support our fiduciary duty to stockholders. Our nearly 140 years of experience inform us that this thoughtful approach, combined with prudent action, best positions us to deliver value to stockholders.



**\$100 invested in chevron in 1985
would be worth \$5,160 in 2018***

1.1 board-level committees

Chevron's Board of Directors has four standing committees, all of which discuss climate change, consistent with their respective charters. These committees are: Public Policy, Audit, Board Nominating and Governance, and Management Compensation. Each committee comprises only independent Directors. Outside experts of differing viewpoints are engaged to enable the Board to consider the risks to our business arising from climate change. The Board and its committees also have access to Chevron subject matter experts and receive briefings on climate change-related issues, such as the policy and regulatory landscape, technology and adaptation. In addition to the oversight roles of the Public Policy, Audit, and Board Nominating and Governance committees detailed in our March 2018 report, the Management Compensation Committee approves the annual CIP Scorecard's performance measures, including the achievement of GHG-related performance measures announced in this update, which will affect management and workforce variable compensation.

In addition, the Board and its committees annually review the Enterprise Risk Management (ERM) process, which assists the Board of Directors and executive leadership in overseeing risks related to key strategic decisions for the company. In our March 2018 report, we detailed how the ERM process aims to address climate change in a comprehensive manner by integrating its potential risks into multiple ERM categories.

* Assumes stock purchase date of January 1, 1985, at close price on December 31, 1984, dividends reinvested when paid, and an ending investment value based on close of market on December 31, 2018. Adjusted for stock splits.

update to climate change resilience: a framework for decision making, february 2019



“As the chair of the Public Policy Committee, I see it as my role to help lead a discussion with my fellow Directors that challenges our thinking and Chevron management’s views on how policy will develop, how quickly it will happen and the options we are considering. The Public Policy Committee benefits from briefings on stockholder engagements—the briefings help us understand stockholders’ concerns and key questions. In addition, hearing from outside experts as well as Chevron experts assists us in developing our thinking.”

— **Dr. Wanda M. Austin**
Public Policy Committee Chair

1.1.1 New performance measures related to climate change

The full Board, and each committee, considered metrics that could be used to aid in achieving progress on managing climate change risks to our business. In light of increasing demand for energy, Chevron’s competitive advantages, evolving climate policies, and the importance of energy to human progress and economic development, the Board focused on how Chevron can meet future energy demands in an affordable, reliable, ever-cleaner way. To align employee—including management—incentives with achieving progress on climate-related issues, the Board set Upstream intensity reduction metrics of 25 to 30 percent for flaring and 20 to 25 percent for methane emissions for the 2016–2023 time period. These new performance measures will be added to the CIP Scorecard, our annual variable pay program that affects approximately 45,000 employees. See the Section 4 Update: Actions and Investments, on [Page 8](#) of this document for more information on Chevron’s two new performance measures.

1.2 executive-level committees

Under the oversight of the Board, Chevron’s Executive Committee is composed of executive officers of Chevron. The Enterprise Leadership Team (ELT) and Global Issues Committee (GIC) are subcommittees of the Executive Committee.

1.2.1 Enterprise Leadership Team

The ELT is responsible for managing the composition, resource allocation and strategic direction of Chevron’s portfolio to achieve our objectives. The ELT oversees our ERM process. The ELT meets monthly. At these meetings, the ELT receives briefings from Chevron subject matter experts on topics such as geopolitical risk, technology changes, the policy landscape, market conditions and energy transitions. It also consults outside experts to discuss climate change issues. In addition to these topical discussions, the ELT reviews carbon cost forecasts, which are incorporated into all business units’ plans and, as appropriate, their carbon management plans. You can read more about business planning on [Page 25](#) of our March 2018 report.

1.2.2 Global Issues Committee

The GIC oversees the development of Chevron’s policies and positions with respect to issues of global significance, including climate change, and recommends appropriate actions to respond. The GIC receives updates from subject matter experts on an array of climate change–related issues, such as carbon policy developments around the world, political developments, technological opportunities, and stockholder and stakeholder positions. The committee also reviews competitors’ climate change–related actions to understand how our peers are responding to the risks and opportunities of climate change.

1.2.3 ESG engagement team

The GIC oversees our stockholder engagement plan related to environmental, social and governance issues. In 2018, we created a dedicated team to engage on ESG issues with investors, with other stakeholders—including framework developers such as the TCFD and the Sustainability Accounting Standards Board (SASB)—and with rating agencies. The ESG engagement team and, when appropriate, senior executives, subject matter experts and our Lead Director, regularly conduct in-depth discussions with investors and stakeholders. We aim to engage annually with our top 50 investors and other key stakeholders. Chevron gains valuable feedback during these engagements, and this feedback is shared with the Board and relevant Board committees. The ESG engagement team regularly briefs the GIC on its efforts.

1.3 board qualifications

Our Board of Directors comprises members who bring to the Board relevant skills and qualifications, including leadership, operations, environmental, policy, regulatory and finance skills. Their experience comes from the academic, business and technology sectors. This diverse set of perspectives helps ensure that the Board challenges itself and management on the risks and opportunities related to climate change. Each Director is committed to improving Chevron's environmental performance while delivering value to stockholders.

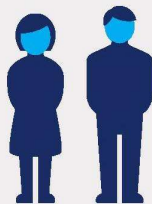
1.4

in summary: continued strong governance

We frequently reassess our governance structure to ensure that Chevron maintains an effective framework for managing the company's performance and assessing the risks to its business. In 2018, we enhanced engagement with both internal and external experts on climate change issues; we continued to integrate climate issues into our ERM process; the Board established new methane and flaring performance measures; and we created an ESG engagement team.

director skills and qualifications

number of directors
with relevant skills



CEO/senior exec./leader of significant business operations: **9**
Science/technology/engineering/research/academia: **9**
Government/regulatory/legal/public policy: **9**
Finance/financial disclosure/financial accounting: **11**
Global business/international affairs: **10**
Environmental: **8**

At January 17, 2019.

update to climate change resilience: a framework for decision making, february 2019

board of directors

highly engaged, diverse board
with relevant skills and qualifications



Michael K. Wirth
Chairman and Chief Executive Officer

Former Vice Chairman of the Board
and Executive Vice President of
Midstream & Development, Chevron



Ronald D. Sugar
Lead Director

Retired Chairman and
Chief Executive Officer,
Northrop Grumman Corporation (3, 4)



Wanda M. Austin
Retired President and
Chief Executive Officer,
The Aerospace Corporation (2, 3)



John B. Frank
Vice Chairman,
Oaktree Capital Group, LLC (1)



Alice P. Gast
President,
Imperial College London (2, 3)



Enrique Hernandez Jr.
Chairman, Chief Executive
Officer and President,
Inter-Con Security Systems Inc. (2, 4)



Charles W. Moorman IV
Retired Chairman and
Chief Executive Officer,
Norfolk Southern Corporation (1)



Dambisa F. Moyo
Chief Executive Officer,
Mildstorm LLC (1)



Inge G. Thulin
Executive Chairman and Retired
President and Chief Executive Officer,
3M Company (1)



D. James Umpleby III
Chairman and
Chief Executive Officer,
Caterpillar Inc. (3, 4)



Debra Reed-Klages
Retired Chairman, Chief Executive
Officer and President,
Sempra Energy (2, 4)

Skills and qualifications: ● CEO/senior executive/leader of significant business operations ● Science/technology/engineering/research/academia
● Government/regulatory/legal/public policy ● Finance/financial disclosure/financial accounting ● Global business/international affairs ● Environmental

Committees of the Board: (1) Audit: Charles W. Moorman IV, Chair (2) Public Policy: Dr. Wanda M. Austin, Chair
(3) Board Nominating and Governance: Ronald D. Sugar, Chair (4) Management Compensation: Enrique Hernandez Jr., Chair

update to climate change resilience: a framework for decision making, february 2019

section 4 update

actions and investments

we increased our actions to address potential climate change risks to our business and we furthered our investment in technologies that could reduce emissions

In our March 2018 report, we highlighted the prudent, practical and cost-effective actions we are taking as part of our commitment to addressing climate change risks to our business. In 2018, we:

- Joined the OGCI, and its investment fund.
- Established new CIP Scorecard GHG intensity performance measures.
- Continued our support of the United Nations Sustainable Development Goals.
- Focused on lower-carbon measures like CCUS, biofuels, methane management and energy efficiency, as well as reduction of our water consumption.
- Launched \$100 million Future Energy Investment Fund.

4.1 oil and gas climate initiative

We joined the OGCI, a global collaboration focused on the industry's efforts to address climate change issues. We also joined OGCI Climate Investments, which plans to invest more than \$1 billion in technologies and businesses that will reduce GHG emissions across the oil and gas value chain. Chevron has pledged \$100 million in investment through OGCI Climate Investments, in addition to the \$100 million Chevron Future Energy Fund launched in 2018.

4.2



corporate scorecard performance measures

Chevron aims to reduce emissions intensity while improving our operations and supporting the objectives of society as expressed in the Paris Agreement. To this end, we are establishing two equity-based GHG intensity reduction performance measures to reduce GHG emissions intensity from 2016 to 2023: a 25 to 30 percent flaring intensity reduction and a 20 to 25 percent methane emissions intensity reduction. Assigning 2016 as the baseline year aligns with the year the Paris Agreement was ratified. Designating 2023 as the end measurement year also aligns with the Paris Agreement, which calls for the first global emissions "stocktake" in 2023 and every five years thereafter. We are applying these performance measures not just in our operations but on an equity basis across all our assets. These performance measures will be included in our CIP Scorecard, which affects variable compensation for our workforce.

A portion of the variable compensation of Chevron's approximately 45,000 incentive plan-eligible employees around the world will be tied to reducing GHG emissions intensity through our flaring and methane metrics.

our view on how the paris agreement works and what chevron is doing to respond

The 2016 Paris Agreement aims to limit global warming to less than 2 degrees Celsius above preindustrial levels. As noted by the Intergovernmental Panel on Climate Change's *Special Report: Global Warming of 1.5°C*, there are many ways to limit global warming. Under the Paris Agreement, each country may pursue its own strategies for achieving its Nationally Determined Contributions.

Under credible third-party projections, all forms of energy, including oil and gas, will be required to meet the world's growing energy demand. Even in a low-carbon scenario like the International Energy Agency's (IEA) Sustainable Development Scenario, oil and gas would be approximately 48 percent of the world energy mix in 2040 (IEA, *World Energy Outlook 2018*).

In line with the aims of the Paris Agreement, Chevron supports the use of metrics to address climate change, while also maintaining our ability to supply affordable, reliable, ever-cleaner energy to meet global demand. Chevron also supports well-designed market-based mechanisms as an efficient way to advance lower-carbon outcomes while protecting energy reliability and economic prosperity. But Chevron does not support establishing targets associated with the use of Chevron's products (emissions related to the energy demand of consumers). We believe that compelling select oil and gas producers to unilaterally reduce their production or change their portfolios to align with a possible future energy mix does not advance the goals of the Paris Agreement. Doing so could result in companies like Chevron diverting resources away from their competitive strengths and could lead to less efficient companies—ones that may be less socially and environmentally responsible and may not be subject to public company oversight—increasing their share of fossil fuel production. This would neither serve the interests of our stockholders nor result in progress related to the Paris Agreement. **It is our view that a decrease in overall fossil fuel emissions is not inconsistent with continued or increased fossil fuel production by the most efficient producers. Our strategy is to be among the most efficient producers. We support market-based mechanisms and set the performance measures outlined in this report consistent with this strategy and our view of the Paris Agreement.**

4.3 sustainable development goals

In September 2015, all 193 United Nations member states adopted 17 Sustainable Development Goals (SDGs), setting a global agenda for overcoming poverty, protecting the planet, and promoting peace and prosperity.

Chevron contributes to the SDGs primarily by safely developing affordable, reliable, ever-cleaner energy (SDG 7, Affordable and Clean Energy). Consistent with SDG 13, Climate Action, we are working to reduce our GHG emissions intensity and further our lower-carbon efforts. In addition, numerous other SDGs could not be met without affordable, reliable, ever-cleaner energy:

our products enable human progress and help solve global challenges

Overcoming poverty, protecting the planet and promoting prosperity are all dependent on affordable, reliable, ever-cleaner energy. We're proud to contribute to the U.N.'s SDGs.



3B

people still use biomass or animal dung for indoor cooking and heating. Roughly 1 billion people have no electricity. Our products can provide a cleaner solution.



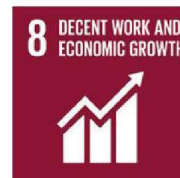
45%

of the world's population would lack adequate food supplies without the use of nitrogen fertilizers, which are largely derived from natural gas.



4.5B

people lack safely managed sanitation. Reliable energy is needed to meet this challenge.

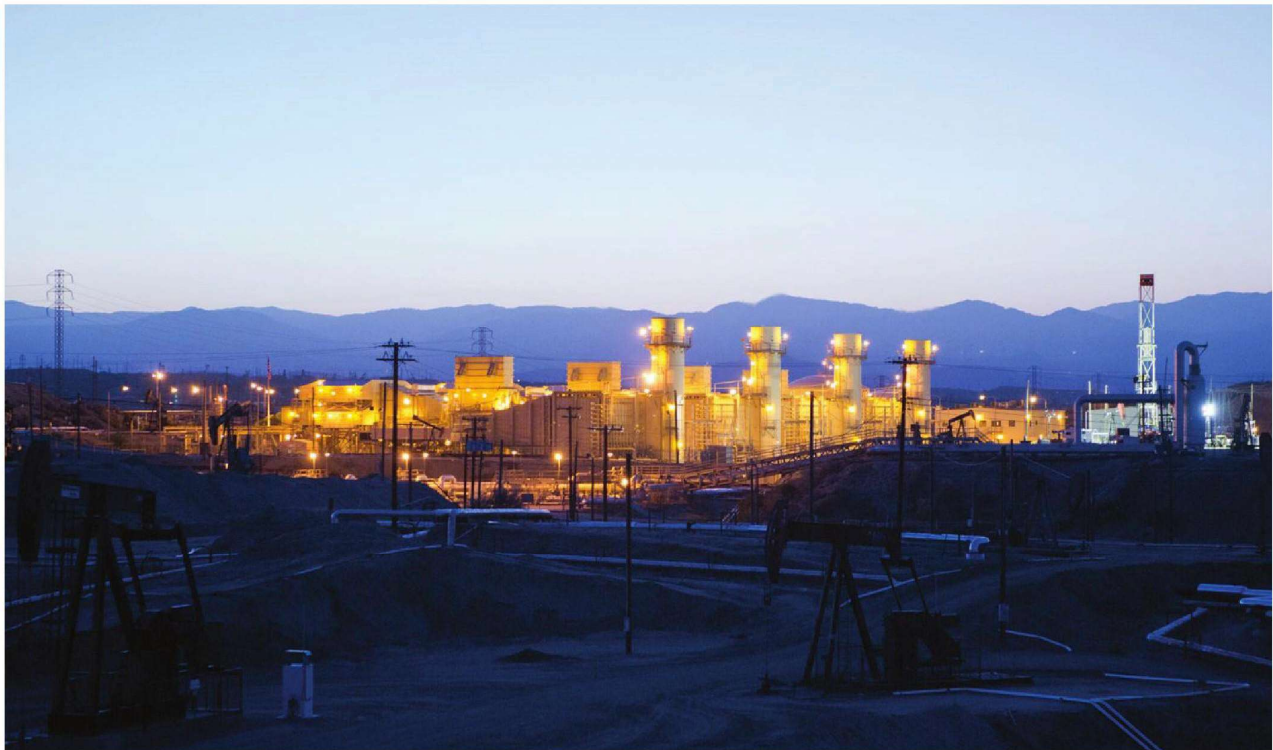


\$167B

has been spent by Chevron on goods and services globally in the past five years.

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9



Sycamore cogeneration plant in Kern River. Gas-fired cogeneration facilities are examples of highly efficient energy production, generating electricity from the turbine-powered generator and steam from the turbine exhaust. The electricity is exported to the utility grid, while the steam is used by Chevron for thermally enhanced oil recovery. Each unit can generate up to 75 megawatts of power and 30,000 barrels (cold water equivalent) of steam per day.

4.4

lower-carbon energy activities

Our innovative employees apply ingenuity to solving energy challenges. In this section, we highlight some of the actions we are currently taking to promote energy efficiency; Carbon Capture, Utilization and Storage (CCUS); renewable energy; methane emissions reductions, including reduced flaring; sustainable water resources management; and, investment in developing technologies.

4.4.1 Carbon Capture, Utilization and Storage

CCUS is part of a portfolio of emerging GHG-mitigation technologies that could help manage future emissions, although the economics of this technology remain challenging. According to the IEA, CCUS is an important tool for mitigating GHG emissions and meeting the goals expressed in the Paris Agreement. CCUS is one of the key focus areas for the OGCI's \$1 billion+ investment fund, which aims to invest in projects that demonstrate commercial viability and scalability.

Chevron has invested approximately \$1.1 billion in CCUS projects, which, once operational, are expected to reduce GHG emissions by about 5 million metric tons per year, approximately the equivalent of GHG emissions attributable to 620,000 U.S. homes' annual electricity usage. In addition, Chevron has invested more than \$75 million in CCUS research and development over the past decade.



4.4.2 Renewable energy

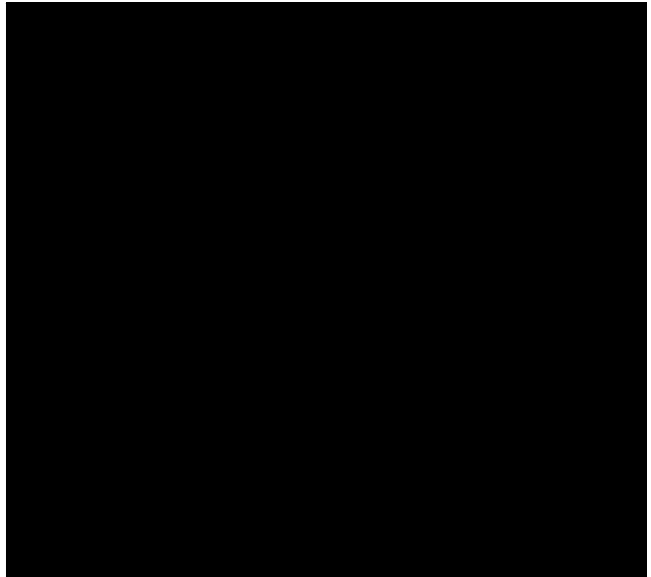
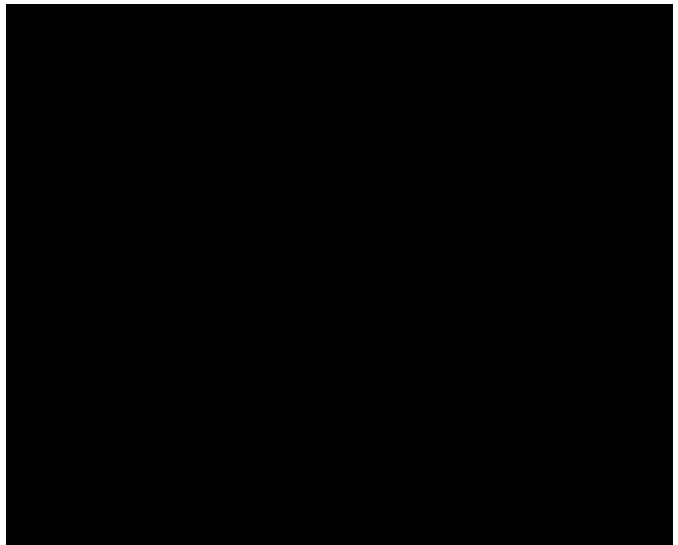
As emphasized in our March 2018 report, Chevron's goal remains to continue to understand and evaluate the economic viability of renewable energy sources. We conduct internal research and collaborate with governments, businesses and academia to develop alternative and renewable energy sources. We also consider renewable energy to power our operations.

Renewable power purchase agreements

We are executing renewable power purchase agreements (PPAs) to supply energy to our operations. In 2018, we executed a PPA for solar power at our Lost Hills Field.

Renewable fuels

Biofuels, such as renewable diesel, that complement conventional transportation fuels can play an important role in reducing the carbon intensity of transportation fuels while helping meet the world's growing energy needs. In 2017, Chevron began to distribute diesel fuel containing between 6 and 20 percent renewable diesel. In 2018, Chevron began to sell renewable diesel—R99—to commercial customers.





Chevron is an equity investor in Novvi LLC, a California-based company that engages in the development, production, marketing and distribution of high-performance base oils from renewable sources. In 2018, Novvi and Chevron entered into an agreement to jointly develop and bring to market novel renewable base oil technologies. In 2019, Novvi is expanding their Deer Park, Texas, plant to accommodate production of these new renewable base oils. Chevron believes that the new base oil products and technology will enable Novvi and Chevron to deliver sustainable, high-performance solutions in a range of lubricant applications that will exceed what is currently commercially available.



Pacific Ethanol, Inc. is a leading producer and marketer of low-carbon renewable fuels in the United States. For more than a decade, Chevron has worked with Pacific Ethanol for fuel supply in the California market.

Pacific Ethanol is the lowest-carbon ethanol supplier in California. It owns and operates nine biorefineries across the U.S., including two in California. The plants have a combined production capacity of 605 million gallons per year—or enough to fuel 840,000 cars for a year.* Pacific Ethanol is actively exploring cutting-edge cellulosic technology and alternative grain stocks, both of which lower the carbon footprint and increase manufacturing efficiencies.

* A gallon of ethanol has about two-thirds as much energy as a gallon of gasoline. 605 million gallons of ethanol is equivalent to about 403 million gallons of gasoline. An average car in the U.S. uses about 480 gallons of gasoline per year (12,000 miles at 25 mpg).



Already a leader in recycling, Waste Management (WM) now powers some of its trucks with gas emitted by its cargo. At Waste Management's landfill gas-to-energy facilities, methane produced by decomposing trash is captured and used as an alternative fuel. More than half of the landfill gas collected at WM facilities goes to beneficial-use projects, making it North America's leader in the space. Although much of WM's landfill gas produces electricity, the Houston-based company is also a leader in converting landfill gas into natural gas fuels. Renewable natural gas (RNG) produced from processed landfill gas now fuels more than 33 percent of the company's natural gas trucks. In 2018, Chevron and WM signed an agreement for Chevron to purchase gas produced by WM and ensure supply to WM's trucks. "Chevron is a legacy supporter of our renewable natural gas program and recently increased that support by partnering with WM Renewable Energy to purchase the RNG produced at our American landfills," said Randy Beck, senior director of renewable energy at WM. "This move furthers our commitment to each other, but more importantly, our commitment to sustainability initiatives."



Chevron is part of the San Francisco International Airport (SFO) landmark agreement for the use of Sustainable Aviation Fuels (SAF), a low-carbon and sustainably produced alternative to jet fuel. SFO is working with a group of eight airlines and fuel producers to expand the use of SAF at the airport in what is the first project of its kind to include fuel suppliers, airlines and airport agencies in an effort to accelerate the global transition to sustainable fuels. Airlines at SFO currently use more than 1 billion gallons of jet fuel annually, and the use of SAF could reduce GHG emissions by nearly 4.8 million metric tons per year—equivalent to the annual GHG emissions of a million cars.

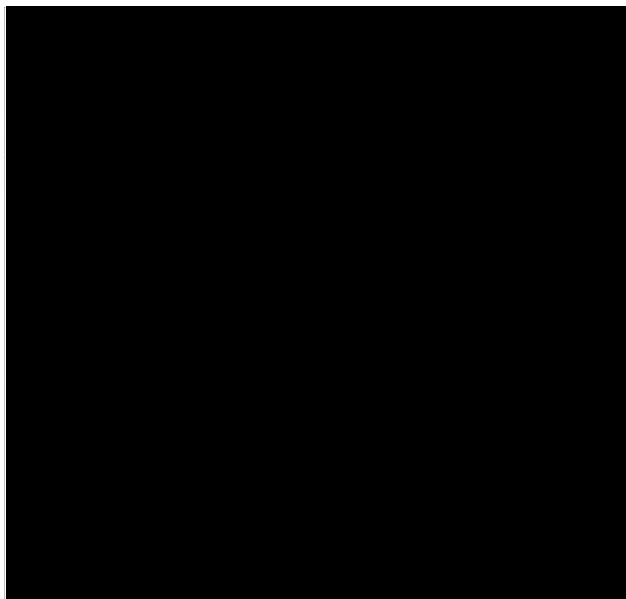


Angola LNG has built one the world's most modern liquefied natural gas processing facilities.

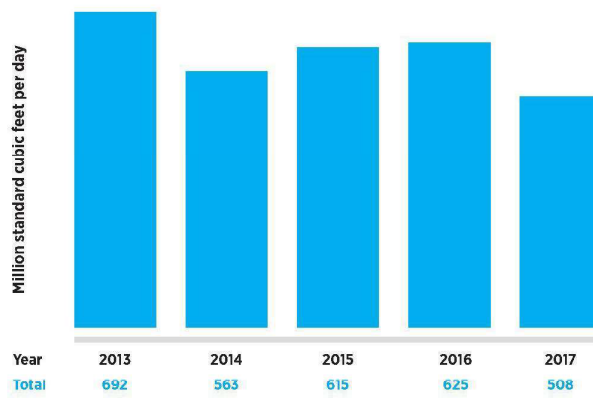
4.4.3 Flaring reduction

Methane accounts for about 5 percent of Chevron's total GHG emissions. Approximately a third of the 5 percent are considered fugitive emissions, or leaks from equipment and piping; of the remaining emissions, most are generated by flaring and venting.

Since 2013, Chevron has reduced flaring and associated emissions by 22 percent. We have developed internal country-specific plans to minimize gas flaring, and we are a member of the World Bank-led Global Gas Flaring Reduction Partnership. Chevron flares natural gas only when required for safety and operational purposes and in areas where pipelines and other alternatives for transporting gas do not exist.

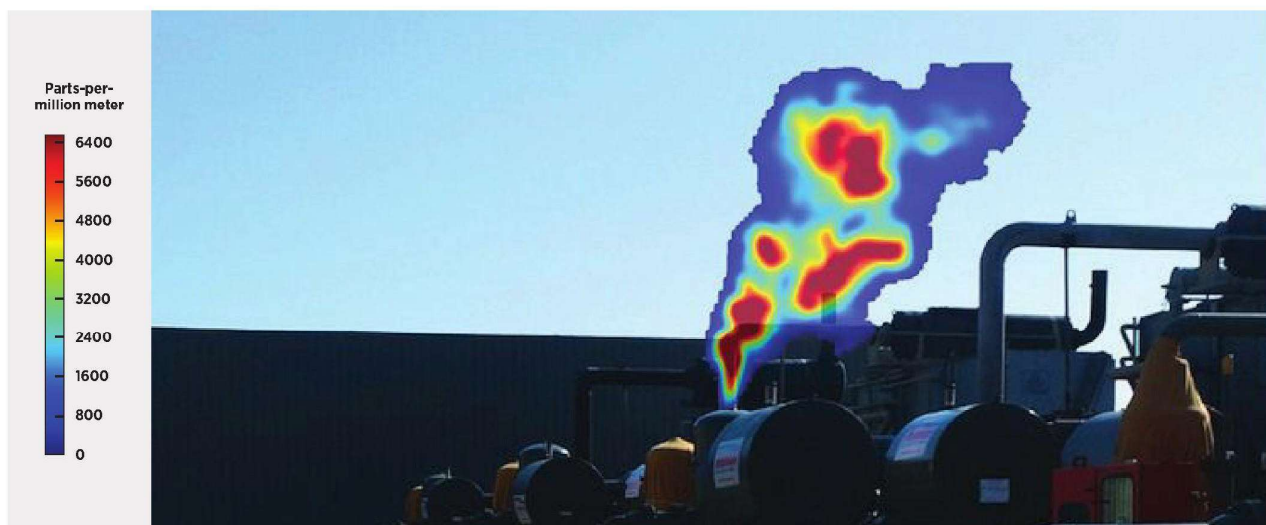


enterprisewide average flare gas volume rate direct, operated basis



The 2015 and 2016 enterprisewide flare gas volume rate increased due to the startup of major capital projects (MCPs). We anticipate that the enterprisewide flare gas volume rate will decrease after steady-state operations of the MCPs are achieved.

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Rebellion Photonics' Gas Cloud Imaging technology provides gas detection videos and images of methane and other gases. The color scale corresponds to gas concentration.

4.4.4 Managing fugitive methane emissions

We continue to design, construct and operate our facilities with an eye toward reducing emissions from our operations and limiting fugitive emissions. We monitor and verify the integrity of our wells and production equipment with regular inspections and safety tests. To more efficiently track fugitive emissions, we use infrared cameras in select oil and gas operations to help pinpoint and remedy leaks. We continue to test and deploy new innovations to improve our capacity to detect and reduce emissions.

Our leadership in this area includes being a founding member of the American Petroleum Institute-led Environmental Partnership.

We have retrofitted or replaced more than 1,000 continuous high-bleed pneumatic controllers from our onshore U.S. facilities with low-emitting or non-continuous-bleed technologies to reduce emissions. In addition to making operational commitments, Chevron has participated in workshops to share best practices with other operators and has taken action to implement the lessons learned from these workshops.

In addition, Chevron provides financial and technical support to research efforts, including the Collaboratory to Advance Methane Science and the OGCI. Chevron also continues to serve on the Industrial Advisory Board of the Methane Emissions Test and Evaluation Center (METEC), a Colorado State University and U.S. Department of Energy advanced research facility.



Chevron was an early partner of Rebellion Photonics in its efforts to develop and deploy innovative gas imaging technology, which currently is used primarily as an early warning system for gas loss of containment. In addition to being a customer, Chevron has provided Rebellion Photonics with technical expertise to help scale up its product, make it more reliable and improve the user experience. Chevron is currently working with Rebellion Photonics to apply its technology to methane detection, to enable further reductions in emissions.

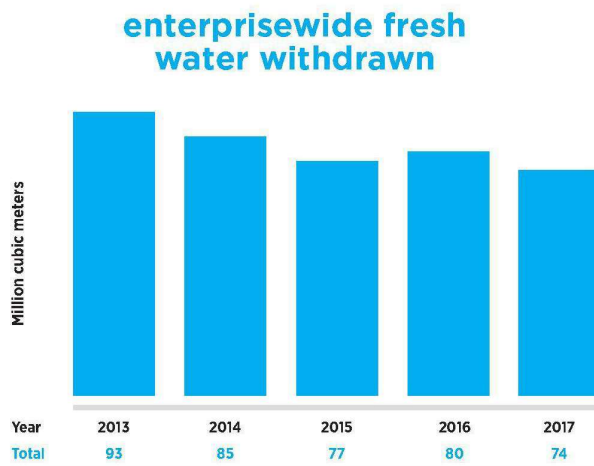


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4.4.5 Managing water resources

Water plays a critical role in both the development and processing of oil and natural gas. Chevron strives to conserve, reuse and recycle water in water-constrained areas.

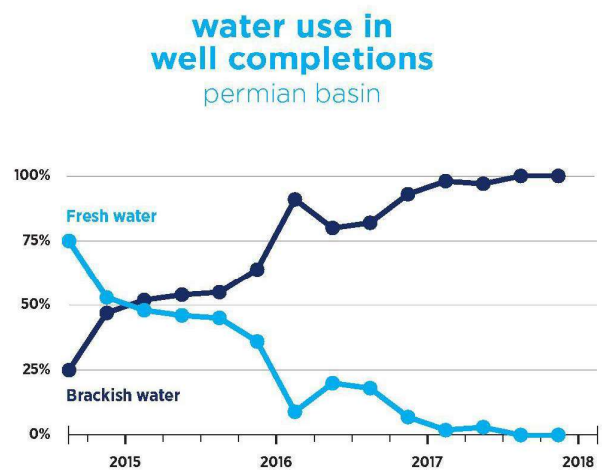
Chevron monitors the amount of both fresh and nonfresh water withdrawn across the enterprise, as shown in Section 5: Metrics, on Page 18. From 2013 through 2017, Chevron's withdrawal of fresh water decreased by 20 percent.



In 2016, we withdrew a greater amount of fresh water than in 2015 due to increased cooling needs and a leak that we subsequently repaired at our Pascagoula Refinery, and insufficient recycled water being available at our Richmond Refinery. Fresh water withdrawn from the environment is defined per local legal definitions. If no local definition exists, fresh water is defined as water extracted, directly or indirectly, from surface water, groundwater or rainwater that has a total dissolved solids concentration of less than or equal to 2,000 mg/L. Fresh water withdrawn does not include effluent or recycled/reclaimed water from municipal or other industrial wastewater treatment systems, as this water is reported under nonfresh water withdrawn, nor does it include water that is brought to the surface when extracting oil and gas.

Managing water use in hydraulic fracturing

Chevron strives to reduce the amount of fresh water used in our hydraulic fracturing operations. Hydraulic fracturing involves injecting a mixture of fluids under high pressure into deep shale formations, creating hairline cracks through which previously inaccessible oil and natural gas molecules can flow. For hydraulic fracturing in the Permian Basin, Chevron endeavors, whenever possible, to use brackish water, which is not suitable for human consumption or agricultural use. As shown in the chart below, more than 95 percent of the water used in our well completions in the Permian Basin is from brackish water sources.



Water recycling at our refineries

We also partner with local communities to reuse water. For over a decade, Chevron has provided capital and operational funding to the East Bay Municipal Utility District for a facility in Richmond. Over the past three years, more than 40 percent of the water used by the Richmond Refinery was recycled water, making it the largest user of recycled water in the San Francisco Bay Area. Refer to chevron.com/water for additional success stories related to water management.

**Through conservation,
reuse and recycling, our operations
promote the efficient use of
water in water-constrained areas.**

4.5 chevron technology ventures

We believe that meeting a growing demand for energy requires a broad mix of energy sources and unprecedented advances in technology. Chevron Technology Ventures (CTV) helps make that happen by pursuing new business solutions and innovative technologies that have the potential to enhance the way Chevron produces and delivers affordable, reliable, ever-cleaner energy. CTV fosters innovation outside and inside Chevron, supporting vibrant startup ecosystems externally and championing technology integration and innovation internally.

CTV has actively managed an investment portfolio since 1999. In 2018, CTV announced the launch of its Future Energy Fund. With an initial commitment of \$100 million, the Chevron Future Energy Fund was established to invest in breakthrough technologies that enable the ongoing transition to a greater diversity of energy sources, advancing carbon emission reductions from oil and gas, as well as exploring other efficient and low-carbon energy value chains. For example, as highlighted on this page and on [Page 17](#), CTV has invested in ChargePoint, Natron Energy and Carbon Engineering.



-chargepoint+

ChargePoint, based in Campbell, California, has built the world's leading electric vehicle charging network and offers a comprehensive suite of charging solutions across Europe and North America as well as in Asia and Australia. ChargePoint is the only charging technology company in the market that designs, develops and manufactures hardware and software solutions in every EV-charging category: at home, at work, around town and on the road. Leading EV hardware makers and other partners rely on the ChargePoint network to make data available via mobile apps as well as online and through vehicle navigation systems. ChargePoint plans to build its network across Europe and North America, as well as to improve driver experience and expand fleet solutions in anticipation of continued rapid growth in electrified transportation.



Mark Nelson

Vice President, Midstream, Strategy, Policy

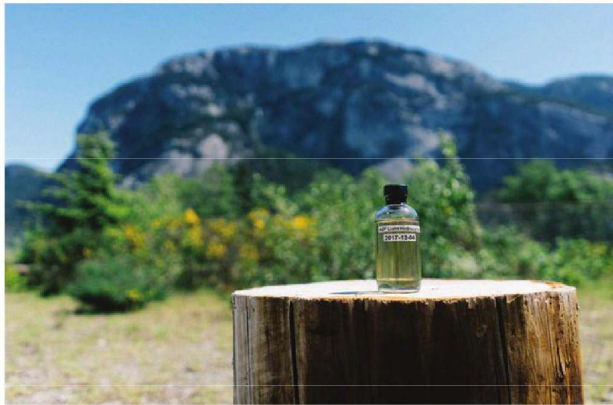
fuels for transport in 2100

In my role, I engage with some of the leading thinkers on climate change. This year, during a session at the Bipartisan Policy Center in Washington, D.C., I was asked about Chevron's view on fuels for various means of transportation beyond 2100.

I shared that we regularly perform deep-dive analyses of trends in transportation that could fundamentally change the type and quantity of fuel our customers demand. Recently, we took a look at personal mobility, including several emerging dynamics, such as:

- Trends in vehicle ownership and new models of shared mobility.
- Technology advancements in autonomous vehicles.
- Investments in public transit infrastructure.
- Alternative vehicle adoption and charging infrastructure deployment.
- Urban planning that favors walking and cycling.
- Government ambitions to ban new internal combustion engine vehicle sales.
- Interaction with other markets, such as offsets.

Broadening and deepening our perspective has enabled Chevron to identify potential opportunities to be more responsive to our customers' current and future demands.



Carbon Engineering is an innovative British Columbia-based company advancing Direct Air Capture (DAC) technology, which can remove CO₂ directly from the atmosphere, and is working on applying this technology to industrial-scale plants. Carbon Engineering's Air to Fuels™ technology uses air, water and renewable energy to convert CO₂ captured via DAC into lower-carbon-intensity fuels that can be used in all the conventional ways—powering cars, trucks and airplanes—without any redesign or retrofit. The company's value proposition extends across an emerging value chain as it works to commercialize the next generation of carbon capture technology while also advancing carbon conversion, through which emissions can be transformed to valuable end products that supply existing global markets.



Natron Energy

Natron Energy was founded in 2012 as a spin-out of research at Stanford University. The developer of a new generation of sodium-ion battery products based on a novel electrode chemistry, the company serves energy storage applications that include critical backup power systems, material handling, behind-the-meter application and renewables support. Natron's battery offers higher performance advantages over incumbent technologies, including improved power density, faster recharge and significantly longer cycle life, compared to lithium-ion storage. Widespread resource availability and lower cost further support the company's value proposition. Natron Energy plans to adapt its battery technology, originally developed for data center and utility-scale applications, to meet the power requirements of the emerging and dynamic electric vehicle market.

4.6

in summary: increased actions and greater investments

Chevron is a leader in improving how affordable, reliable, ever-cleaner energy is developed and delivered to meet global demand. In 2018, our innovative workforce continued to act to lower our GHG emissions intensity and improve our operations. We also invested in companies addressing GHG emissions challenges and progressing lower-carbon technologies.

section 5 update metrics

performance data from 2017 corporate responsibility report

Environmental performance ¹	2017	2016	2015	2014	2013
Greenhouse gas					
Equity basis					
Direct GHG emissions (Scope 1), equity basis (million metric tons of CO ₂ -equivalent) ^{2, 3, 4}	56	58	58	56	57
GHG emissions from imported electricity and steam (Scope 2), equity basis (million metric tons of CO ₂ -equivalent) ^{2, 4}	4	4	4	5	5
GHG emissions from exported electricity and steam, equity basis (a type of Scope 3 emissions) (million metric tons of CO ₂ -equivalent) ^{2, 4}	4	4	5	5	5
GHG emissions from third-party use of our products, equity basis (a type of Scope 3 emissions) (million metric tons of CO ₂) ^{2, 5}	376	364	368	358	363
Operated basis					
Direct GHG emissions (Scope 1), operated basis (million metric tons of CO ₂ -equivalent) ^{2, 3, 4}	63	64	66	66	69
GHG emissions from imported electricity and steam (Scope 2), operated basis (million metric tons of CO ₂ -equivalent) ^{2, 4}	5	6	6	6	6
Methane emissions, direct, operated basis (million metric tons of CO ₂ -equivalent) ⁴	4	6	6	6	7
Upstream GHG emissions intensity, direct, operated basis (metric tons of CO ₂ -equivalent per 1,000 barrels of oil-equivalent production) ⁴	31	33	34	34	36
Upstream direct GHG emissions (Scope 1), operated basis (million metric tons of CO ₂ -equivalent) ⁴	45	45	47	47	52
Refining GHG emissions intensity, direct, operated basis (metric tons of CO ₂ -equivalent per 1,000 barrels of crude oil and other refinery feed) ⁴	36	36	35	37	38
Refining direct GHG emissions (Scope 1), operated basis (million metric tons of CO ₂ -equivalent) ⁴	15	15	15	15	15
Average flare gas volume rate, direct, operated basis (million standard cubic feet per day) ⁶	508	625	615	563	692
Energy efficiency					
Total energy consumption, operated assets and non-operated joint venture refineries (trillion BTUs) ⁷	809	830	865	920	881
Total energy consumption, operated assets	654	671	711	744	697
Total energy consumption, operated assets and non-operated joint venture refineries (million gigajoules) ⁷	854	876	913	970	929
Total energy consumption, operated assets	690	708	750	785	735
Manufacturing Energy Index (Refining) (no units) ⁷	85.0	84.6	85.2	87.6	88.8
Upstream Energy Intensity (thousand BTUs per barrel of oil-equivalent) ⁷	303	308	330	341	344
Pipeline Energy Intensity (BTUs per barrel of oil-equivalent-mile) ⁷	13	20	24	29	31
Shipping Energy Intensity (BTUs per metric ton-mile) ⁷	39	43	32	49	51
Non-Manufacturing Energy Index (Oronite, Lubricants, etc.) (no units) ⁷	77	75	79	86	82
Natural resources – water					
Fresh water withdrawn (million cubic meters) ⁸	74	80	78	85	93
Fresh water consumed (million cubic meters) ⁸	73	79	77		
Nonfresh water withdrawn (million cubic meters) ⁸	41	36	43	41	37

footnotes are on Page 19

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notes to page 18

1 This section reflects 2017 data collected as of April 13, 2018. All data are reported on an operated basis unless otherwise noted.

2 The World Resources Institute/World Business Council for Sustainable Development *Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* defines three "scopes" that Chevron uses to report GHG emissions. Scope 1 includes direct emissions from sources within a facility. Scope 2 includes indirect emissions from electricity and steam that Chevron imports. Scope 3 includes all other indirect emissions. Chevron reports information related to two types of Scope 3 emissions: emissions associated with electricity and steam that Chevron exports to third parties and emissions from third-party use of our products.

3 Direct GHG emissions related to *production* of energy in the form of electricity or steam exported or sold to a third party have been included in the reported Scope 1 emissions to conform to the 2015 IPIECA Reporting Guidance.

4 2017 direct GHG emissions, on both an equity and operated basis, decreased primarily due to reductions in flaring and asset divestments.

Methane emissions decreased in 2017 due to a change in calculation methodology in our Thailand operations and asset divestments.

Refinements were made in the data reporting for 2015 and 2016 equity and operated GHG emissions.

All six Kyoto GHGs—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride, perfluorocarbons and hydrofluorocarbons—are included in Chevron's Scope 1 emissions. CO₂, CH₄ and N₂O are accounted for in Chevron's Scope 2 emissions and in Chevron's Scope 3 emissions related to the electricity and steam that Chevron exports to third parties.

The following entities are not currently included in the 2017 Chevron corporate GHG inventory: Chevron Phillips Chemical Co., the Caspian Pipeline Consortium, a polyethylene pipe plant and a valve plant in Kazakhstan, and other nonoperated assets in which Chevron has an equity interest of 16 percent or less. Emissions from the Wheatstone asset have been included in the inventory where Chevron has operational control, as defined by Australia's *National Greenhouse and Energy Reporting Act 2007*.

Information regarding GHG emissions from Chevron Phillips Chemical Company LLC can be found at cpchem.com.

Additional GHG emissions data can be found at chevron.com/ghgmanagement.

5 Chevron calculated emissions from third-party use of our products by multiplying total 2017 Upstream liquids and gas production by emissions factors from API's *Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry* (2004, 2009).

6 The 2017 enterprisewide flare gas volume rate decreased due to improvements made in equipment reliability and lower production in our IndoAsia business unit.

The 2016 average flare gas volume rate has been restated to correct an error.

In 2017, 15 percent of Chevron's total direct (Scope 1) operated GHG emissions were from process emissions and vented sources, as defined by API's *Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry* (2004, 2009).

7 Total energy consumption and intensity decreased primarily due to asset divestments and four cogeneration plants that were not operating in 2017.

The 2016 energy data have been restated to correct an error and account for additional information that was received after the publication of the 2016 Corporate Responsibility Report.

Refining energy performance is measured by the Manufacturing Energy Index (MEI), which is calculated using the Solomon Energy Intensity Index methodology. The MEI includes operated assets and nonoperated joint venture refineries.

Energy performance for Oronite, Lubricants, Americas Products and International Products is measured by the Non-Manufacturing Energy Index, which is the energy required to produce Chevron products compared to the energy that would have been required to produce the same products in 1992 (the index's base year).

8 Fresh water withdrawn totals decreased in 2017 (relative to prior years) in part due to leaks that were repaired and asset divestments. In addition, our operations in the Permian Basin continued their transition to the use of brackish water in lieu of fresh water for well completions. This transition contributed to an enterprisewide decrease in fresh water withdrawn and an increase in nonfresh water withdrawn as drilling activities increased in 2017.

2016 fresh water withdrawn, fresh water consumed and nonfresh water withdrawn have been restated to reflect additional information that was received after the 2016 Corporate Responsibility Report was published.

Produced water is excluded from fresh water withdrawn, fresh water consumed and nonfresh water withdrawn.

Fresh water withdrawn from the environment is defined per local legal definitions. If no local definition exists, fresh water is defined as water extracted, directly or indirectly, from surface water, groundwater or rainwater that has a total dissolved solids concentration of less than or equal to 2,000 mg/L. Fresh water withdrawn does not include effluent or recycled/reclaimed water from municipal or other industrial wastewater treatment systems, as this water is reported under nonfresh water withdrawn.

Nonfresh water withdrawn could include: seawater; brackish groundwater or surface water; reclaimed wastewater from another municipal or industrial facility; desalinated water; or remediated groundwater used for industrial purposes.

climate-related disclosure

Chevron recognizes climate change is a growing area of interest for our investors and stakeholders. The table below shows how the disclosures in our March 2018 report and this update align with the recommendations of the Financial Stability Board's Task Force on Climate-Related Financial Disclosures (TCFD), as the TCFD has described the categories, and

where the relevant information can be found in our March 2018 report and this update. Further information can be found in Chevron's 2017 Annual Report Form 10-K, *Climate Change Resilience: A Framework for Decision Making* (2018), *Managing Climate Change Risks: A Perspective for Investors* (2017) and Chevron's Corporate Responsibility Reports.

TCFD recommendation*		disclosure	location
Governance			
Disclose the organization's governance around climate-related risks and opportunities.	(a) Describe the Board's oversight of climate-related risks and opportunities.	Board-level committees	1.1 (Update)
		Public Policy Committee	1.2.1
		Other Board-level committees	1.2.1
		Board member qualifications	1.3 (Update)
	(b) Describe management's role in assessing and managing climate-related risks and opportunities.	Executive-level committees	1.2 (Update)
		Enterprise Leadership Team	1.2.1 (Update)
		Global Issues Committee	1.2.2 (Update)
Strategy			
Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy and financial planning where such information is material.	(a) Describe the climate-related risks and opportunities the organization has identified over the short, medium and long terms.	Chevron's strategic and business planning processes	3.2
	(b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	Managing Chevron's portfolio	3.3
		Business planning	3.3.1
		Capital project approvals	3.3.2
	(c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Testing resilience of Chevron's portfolio against the IEA's Sustainable Development Scenario	3.4
Risk management			
Disclose how the organization identifies, assesses and manages climate-related risks.	(a) Describe the organization's processes for identifying and assessing climate-related risks.	Operational risk	2.1.1
		Physical risk	2.1.2
		Geopolitical and legislative risk	2.1.3
		Strategic risk	2.1.4
	(b) Describe the organization's processes for managing climate-related risks.	Operational risk	2.1.1
		Physical risk	2.1.2
		Geopolitical and legislative risk	2.1.3
		Strategic risk	2.1.4
	(c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	Integration of climate change into risk management	2.1
	Metrics and targets		
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	(a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	Metrics	5 (Update)
	(b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions, and the related risks.	Metrics	5 (Update)
	(c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	Corporate Scorecard performance measures	4.2 (Update)

*References to March 2018 report and this update. See Section 6 Update: About This Report.

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section 6 update

about this report

This update supplements our March 2018 *Climate Change Resilience: A Framework for Decision Making* report. It should be considered with our entire 2018 report, including our approach to Risk Management and Strategy in Sections 2 and 3 of the March 2018 report. As with our other performance measures, we will report on annual progress toward the methane and flaring performance measures announced in this update as part of our Annual Proxy Statement starting in 2020. We will also continue to assess our risk management process and develop our strategies, including testing our portfolio. Aligned with the TCFD, we may update 2018's voluntary climate change report regarding those elements as warranted.

This report covers our owned and operated businesses and does not address the performance or operations of our suppliers, contractors and partners unless otherwise noted. All financial information is presented in U.S. dollars unless otherwise noted.

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Therefore, the actual conduct of our activities, including the development, implementation or continuation of any program, policy or initiative discussed or forecasted in this report, may differ materially in the future. As with any projections or estimates, actual results or numbers may vary. Many of the standards and metrics used in preparing this report continue to evolve and are based on management assumptions believed to be reasonable at the time of preparation, but should not be considered guarantees. The statements of intention in this report speak only as of the date of this report. Chevron undertakes no obligation to publicly update any statements in this report.

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The terms "update" and "report" are used to refer collectively to this update and our March 2018 report.



**this report and additional
information on how
we view and address
climate change-related
issues can be found at
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**Performance Summary Purpose and
Notice Related to Selective Disclosure and Insider Trading**

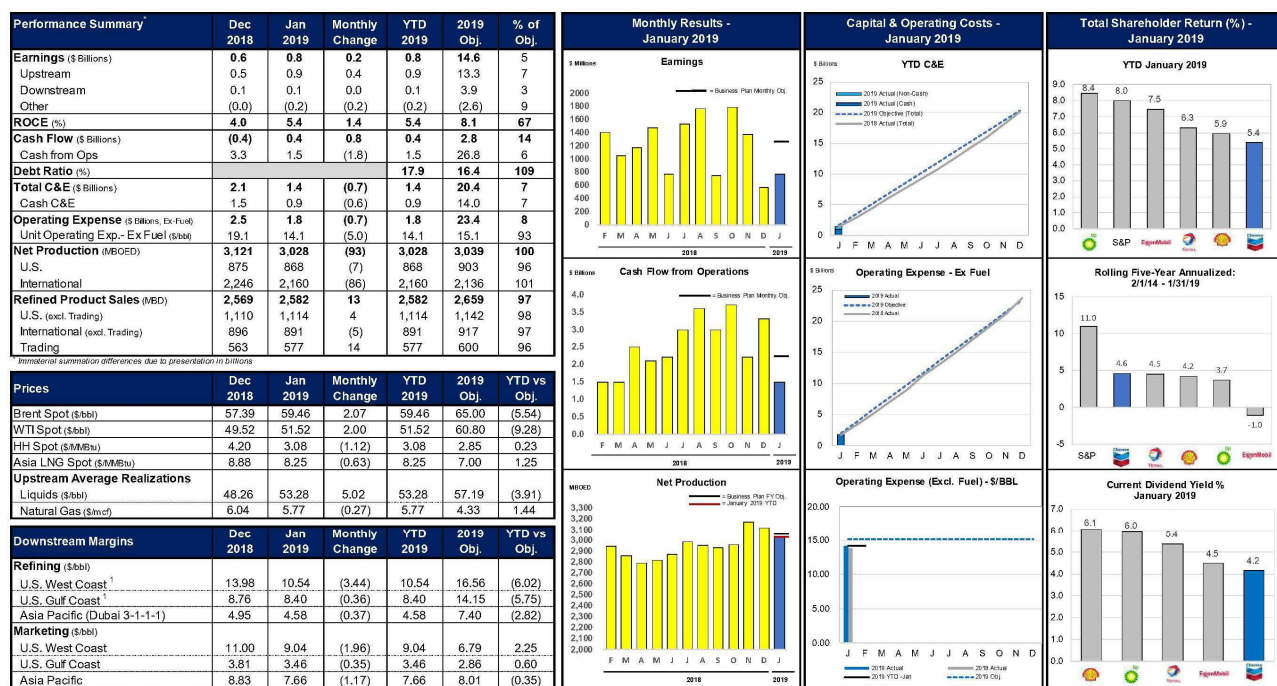
This Performance Summary report is prepared to assist the company's "chief operating decision maker" (i.e., the company's Executive Committee) in monitoring the financial performance of the company's upstream and downstream "reportable segments" [terms as defined in FASB ASC 280 "Segment Reporting (ASC 280)"]. This report is also provided to the Board of Directors to assist in its oversight role in monitoring the financial results of the company's reportable segments.

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Monthly Performance Summary – January 2019



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Earnings - January 2019							Cash Flow - January 2019 YTD				
Earnings - January 2019 \$ Millions - After Tax							January year-to-date Cash from Operating Activities was \$1.5 billion.				
	Dec 2018	Jan 2019	Monthly Change	YTD 2019	2019 Obj	% of Objective	Cash Flow \$ Billions				
Upstream	103	262	159	262	3,023	9	Earnings	14.9	0.8	14.6	
- U.S.	406	617	211	617	10,295	6	DD&A	19.4	1.4	18.3	
- International	509	879	370	879	13,318	7	Working Capital/Other	(3.7)	(0.7)	(6.1)	
TOTAL UPSTREAM							Cash from Operating Activities	30.6	1.5	26.8	
Downstream	58	147	89	147	2,529	6	Capital Expenditures	(13.8)	(0.9)	(13.2)	
- U.S.	48	(29)	(77)	(29)	1,360	(2)	Asset Sales Proc. and Return on Inv.	2.4	0.1	3.8	
- International	106	118	12	118	3,889	3	Affiliate Financing/Other	(0.9)	0.1	(2.2)	
TOTAL DOWNSTREAM							Cash used for Investing Activities	(12.3)	(0.7)	(11.6)	
ALL OTHER	(45)	(226)	(181)	(226)	(2,644)	9	Dividends	(8.5)	0.0	(8.9)	
TOTAL EARNINGS	570	771	201	771	14,563	5	Net sales of treasury shares	(0.6)	(0.3)	(3.5)	
Basic Earnings Per Share	\$0.30	\$0.41	\$0.11	\$0.41	\$7.77	5	Change in Debt	(4.5)	(1.1)	(2.8)	
Diluted Earnings Per Share	\$0.30	\$0.41	\$0.11	\$0.41	\$7.43	6	Other	(0.1)	0.0	0.0	
Memo: Impact of Asset Sales							Cash from Financing Activities	(13.7)	(1.3)	(15.2)	
	51	4		4	1,607		FX on Cash	(0.1)	0.0	0.0	
Earnings were \$771 MM in January , up \$201 MM from December.							Net Change in Cash	4.5	(0.5)	0.0	
Upstream: Increased \$370 on absence of an asset write-off and impairments, lower operating expenses, higher realizations and lower tax and depreciation expense. Unfavorable foreign exchange impacts and lower liftings, partly offset.							Less Change in Debt and Mkt Secur.	5.5	0.9	2.8	
Downstream: Increased \$12 MM primarily on lower operating expenses, higher Chemicals and Trading results, partly offset by lower margins.							Total Cash Flow⁽¹⁾⁽²⁾	10.0	0.4	2.8	
Other: Net charges were up \$181MM primarily on absence of favorable corporate tax items. Lower operating expenses, partly offset.							Cash Balance ⁽³⁾	11.5	10.8	10.0	
Year-to-date earnings were 771 MM, or 5% of objective, reflecting lower oil prices and margins, unfavorable foreign exchange and timing of planned asset sales. Lower depreciation and operating expenses, partly offset.							Debt Balance	34.5	33.4	30.8	
On a price-normalized basis , earnings were 106% of YTD plan due to lower operating and depreciation expense, partly offset by timing of planned asset sales.							January YTD Cash Capital & Exploratory expenditures of \$0.9 billion are below the rate plan primarily on lower Upstream and Downstream spend.				
							Cash flow through January generated \$0.4 billion. Debt balances decreased by \$1.1 billion, while the cash balance decreased by \$0.7 billion.				
							Cash Balance ⁽³⁾ 11.5 10.8 10.0 Debt Balance 34.5 33.4 30.8 <small>⁽¹⁾ Presented per 10-Q10-K format ⁽²⁾ Change in cash, cash equivalents, and restricted cash less change in debt, marketable securities, and time deposits ⁽³⁾ Immaterial summation differences may occur due to presentation in billions of USD ⁽⁴⁾ Cash, cash equivalents, restricted cash, marketable securities, and time deposits</small>				
Downstream Refined Product Sales - January 2019							Upstream Production - January 2019				
U.S. refined product sales rose 4 MBD between months primarily on higher gas oil driven by downtime across various refineries. Lower mogas and jet fuel volumes, partly offset.							U.S. OEG production decreased 7 MBD between months primarily on lower production in the MidContinent.				
International refined product sales decreased 5 MBD between months on lower mogas, gas oil and fuel oil. Higher affiliate sales led by increased demand, partly offset.							Net OEG Production MBD				
Trading refined product sales increased 14 between months primarily on opportunistic jet fuel sales in Asia. Lower gas oil sales, partly offset.							U.S.	875	868	868	96
							International				
							Angola	148	159	159	103
							Argentina	27	27	27	101
							Australia	483	425	425	93
							Azerbaijan	20	20	20	92
							Bangladesh	113	108	108	97
							Brazil	14	13	13	108
							Canada	132	125	125	96
							China	32	34	34	117
							Colombia	12	12	12	125
							Republic of Congo	48	57	57	121
							Denmark	21	17	17	103
							Indonesia	129	108	108	90
							Kazakhstan	436	433	433	106
							Nigeria	223	234	234	95
							Philippines	23	25	25	98
							Thailand	245	224	224	98
							U.K.	77	76	76	115
							Venezuela	49	48	48	96
							Other	14	15	15	(69)
							Total International	2,246	2,160	2,160	101
							Total OEG Production	3,121	3,028	3,028	100
							Year-to-date OEG production was 24 MBD above Objective on timing of planned asset sales, higher demand in Thailand and higher reliability in Kazakhstan and Australia. Unplanned downtime in Australia, net PSC effects, and storm impacts in Thailand, partly offset.				
							Total Refined Product Sales MBD				
							Dec	Jan	YTD	Obj	% of
							United States				
							Mogas	596	587	587	94
							Jet fuel	252	244	244	99
							Gas oil	159	182	182	105
							Fuel oil	-	-	-	-
							Other	103	101	101	104
							United States Total¹	1,110	1,114	1,114	98
							International				
							Mogas	151	137	137	94
							Jet fuel	141	137	137	105
							Gas oil	160	153	153	92
							Fuel oil	15	8	8	53
							Other	60	63	63	113
							Affiliates	369	393	393	97
							International Total¹	896	891	891	97
							<small>¹ Excludes Trading</small>				
							Trading	563	577	577	96

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Reactions to Chevron's 4Q 2018 Conference Call

Adjusted EPS was \$1.95/diluted share vs. First Call consensus of \$1.87, a 4% beat (Note: excluding foreign exchange effects, EPS was \$2.10/diluted share)

Goldman Sachs – “Reiterate Buy (on CL) as free cash flow generation gains momentum” (Buy / \$136)

“On Friday, Chevron Corp (CVX, Buy, CL) delivered earnings, production, and cash flow ahead of our expectations. We emerge from the result incrementally positive on the company's commitment to capital discipline, the outlook for capital returns given 1Q2019 share repurchase guidance of \$1 bn versus our previous estimate of \$750 mn, and the opportunity set in the Permian basin. Chevron remains a top idea among the US majors for three reasons. First, the company can continue to cover its dividend and capex near \$50/bbl Brent with free cash flow. Second, we project solid production growth from shale plays, especially the Permian, Australia LNG, and longer-term, Tengiz. Third, CVX is committed to \$18-\$20 bn in capital spending through 2020 and we expect the message of capital discipline to be intact when the company discusses its post-2020 capex in March. To that end, we now look to the company's March analyst day in New York for updates around (1) Permian production guidance, (2) longer-term capital spending guidance, (3) plans for growth in downstream, particularly at CPChem, (4) progress on the asset sale program, and (5) updates around timing/costs for the Tengiz FGP.”

Barclays – “Balanced Growth/Cash Return Story Coming Together Nicely” (Overweight / \$140 [↑ from \$136])

“We think CVX's 4Q results will have a positive impact on near term share price performance. While this marked the first time in several quarters that Chevron's results were weaker than Exxon's, in our opinion, operating results were still strong. We also think the shares will also benefit from the company's shareholder-friendly business model and strong production guidance...we think Friday's most important incremental data point to further fuel the Exxon vs. Chevron debate was XOM's 2019 capital budget announcement for spending of \$30bn compared to last year's analyst day guidance of \$28bn. This contrasts with Chevron holding the line on its \$20bn budget and increasing its buyback run-rate to \$1bn/quarter from \$750mn previously. With the capital discipline narrative as prevalent as ever and investors showing a clear preference for balanced growth/cash return business models, we think these divergent paths for 2019 position Chevron nicely to outperform its biggest competitor over the next 12 months.”

JP Morgan – “On Target in 2018, Long-Term Growth and Capex Message Will Be Key for March Analyst Day” (Overweight / \$140 [↑ from \$138])

“CVX put up a second straight beat in 4Q, delivering a low-\$50s Brent dividend coverage breakeven price for the full year. Production grew ~13% y/y in 4Q, putting the year up >7% y/y. Guidance was for another 4-7% increase in 2019, in line with our expectation (JPM +5.8%). 4Q Permian production was +84% y/y, while Australian LNG hit new records again (394kboe/d). The buyback was somewhat surprisingly raised to \$1B in 4Q (from \$750mm in 3Q), representing a ~1.8% annualized buyback yield on top of its ~4.0% dividend yield following the recent ~6% dividend hike as well. With the analyst day coming in March, long-term growth and capital spending will be the key topic. We remain Overweight with a \$140 December 2019 price target.”

Citi – “4Q18 Sees Returns (and Permian Growth) Rise” (Buy / \$135)

“For some time one of the key challenges for the Integrated Oil Companies (IOCs) has been in proving attractive to a generalist investor base. CVX, in our view, is getting closer than most. 2018 has seen ROE climb to 9.8% (vs P/Book 1.5x), trailing FCF exceeds 7% – more than half of which was returned to shareholders – and growth faster than the industry. Can it be sustained? Another year of >100% reserve replacement adds to future visibility and, in our view, suggests that that returns/growth combination still has more to go. Buy.”

Credit Suisse – “4Q Beats Highlighting Improving FCF Outlook” (Outperform / \$135 [↑ from \$130])

“Clean 4Q EPS/CFPS beat on strong Upstream & Downstream income...CVX offers one of the most visible growth profiles among Major Oil peers given a more competitively-positioned upstream portfolio of short-cycle investment opportunities anchored by its massive legacy position in the Permian Basin. With solid execution over the last several quarters, CVX is now ahead of pace on its original 2018+ growth targets (particularly in the Permian) which should translate into better than anticipated capital efficiency into 2019-20 given expectations for similar YoY spending. This superior growth visibility is coupled with material free cash flow generation already underway and set to continue in 2019+ despite the recent oil price decline, leaving CVX well positioned for continued annual dividend increases as well as (another) potential expansion to its current share repurchase program if oil prices recover further.”

Reactions to Chevron's 4Q 2018 Conference Call

Bank of America Merrill Lynch – “4Q18 earnings recap: awaiting the next stage of CVX’ investment outlook” (Neutral / \$127)

“Following another solid quarter from Chevron, our view on the shares remains Neutral ahead of what we view as a critical upcoming strategy review where we believe management will answer several key questions that are critical to the medium term outlook. Management’s current guidance is capped through 2020, albeit with one of two data points that extend beyond that date but where several things have changed since the last strategy update in March 2018. Specifically, base plus shale production that was expected to average 2%-3% through 2022 assumed PSC extensions; but the loss of two key contracts in Indonesia and Thailand means CVX has to pedal faster to stand still. Outperformance in the Permian will help but with just one major project under development at its Tengiz affiliate, the broader question in our view is how CVX’ longer term growth evolves with associated capacity for dividend expansion.”

Mizuho – “Big Darren and Big Mike Deliver: 4Q18 Results” (Buy / \$135)

“In contrast to ExxonMobil, Chevron got attention for a massive buyback announcement, of some \$25bn, and as we repeat, as the opposite dynamic of XOM, insofar as the massive ramp in spending occurred in the period 2011-2016. Now the company can have flat capex and rising volumes, and guided to good growth again in 2019. They have come in at the top end of capex guidance, but not exceeded it (\$20bn annually) and the outlook unlike XOM is flat. With less refining exposure, the beat was not as big as XOM's. The company has bought a refinery from Petrobras that may consume quite some capital - not unlike XOM's plunge into Permian; this is a long term investment plan for Texas volumes.”

Jefferies – “Breaking the records” (Buy / \$147)

“Chevron results were a second consecutive strong beat of consensus estimates and set new records for production in the quarter and free cash flow for the year. Adjusted 4Q18 EPS of \$1.95 beat both the consensus of \$1.87 and our estimate of \$1.86...Cash flow was solid at \$8.0b ex working capital, which beat our estimate of \$7.6b..On a YTD basis CFFO ex. working capital reached \$31.3b, the highest level since 2014; free cash flow of \$17.5b is a record high for the company and is 2.1x the dividend. Chevron utilized \$1b on share repurchases in 4Q18 (\$1.75b total in 2018) and intends to repurchase a further \$1b in 1Q19...Production of 3,083 kbde was a new record, was in line with our estimate of 3,072 kbde and was up 4% q/q.”

UBS – “4Q18 Review: Cashflow and balance sheet provide optionality” (Buy / \$135)

“Clean net income of \$4,000m (UBSe \$3,625m) in the quarter corresponds to an EPS of \$2.1/share, +13% above consensus of \$1.85 and UBSe \$1.89 (ex-specials, incl. FX)...Cash flow from operations of \$9.1bn was stronger than UBSe of \$8.1bn, with a WC release of \$1.2bn (vs UBSe \$0m WC movement) accounting for the difference...International Downstream led the earnings beat, driven by timing differences on inventory (\$300m), but US Downstream missed (-54% vs UBSe). US Upstream beat, although earnings were down -30% q/q on lower price realisations and higher DD&A. The +5% beat vs UBSe of International Upstream was mainly on better than forecast production...Chevron announced \$1bn of shares were repurchased in 4Q18, and it expects further buybacks of \$1bn in 1Q19; along with a dividend increase of \$0.07 (+6%) to \$1.19/share from 2019.”

Wells Fargo – “CVX/XOM: More To Come In March” (Outperform / \$148)

“Based on a higher cash shareholder returns profile (and a side-helping of capital discipline), we continue to favor CVX with our Outperform rating and unchanged \$148 price target. We retain our neutral view of XOM with our Market Perform rating and unchanged \$72 price target. CVX's decisions to deliver faster dividend growth, accelerate share repurchases and place a higher goal on total share repurchases are all clear positives, in our view...Both companies held back on the most interesting operational and financial details and forecasts with their annual analyst days directly ahead (March 5 for CVX and March 6 for XOM), but the conference calls gave us no reason to alter our views.”

Exane BNP Paribas – “Momentum” (Neutral / \$125)

“Chevron is entering 2019 with momentum: Although Q4 earnings and cash flow were broadly in-line with expectations, Q4 production growth was up >12% y/y, with the Permian again leading the way (+84% y/y) to 377 kbde/d in Q4 and now C100kbde/d ahead of the plan given at last year's strategy day. Chevron's confidence was underlined by its recent 7% dividend raise and the announcement of a USD25bn buyback authorization (albeit with no set date for completion). Focus will now turn to Chevron's Strategy Day on the 5th of March: while we expect the Permian to remain the 'start of the show', we think that Chevron will highlight its other shale/tight growth options as

Reactions to Chevron's 4Q 2018 Conference Call

compelling alternatives to higher execution risk major capital projects, and to provide reassurance on medium-term volumes."

RBC Capital Markets – "Sticking to the plan" (Neutral / \$130)

"Chevron's conference call essentially presented a confirmation of its medium term plans. The Permian continues to deliver production growth, while its Australian LNG projects provide additional free cash flow. The approval from the board to repurchase \$25bn of shares over time sends a message to the market of Chevron's intentions, and we expect this to be taken positively. The key question for the investment case is on medium term capex, where there remains uncertainty on the outlook for 2020-25. We expect spending levels to grind higher. We think Chevron will address these concerns at its Analyst Day in March."

Wolfe Research – "Right on the Fairway" (Outperform / \$146)

"CVX's 4Q earnings report and conference call contained few surprises (in a good way) other than results being better than forecast...CVX delivered FCF of >\$17B in 2018, reflecting not only production growth but also the high margin characteristics of new major projects coming on stream, specifically the Australian LNG sub-segment (Gorgon and Wheatstone). Australian LNG ran near full capacity of 400 kboe/d in 4Q18, while Permian continued to grow sequentially and delivered annual production growth of 71%...Broadly, the spending framework is unlikely to re-enter a period of multiple simultaneous long cycle projects that have many years of spend before revenue conversion. As such, we expect a steady emphasis on return of cash to shareholders particularly as leverage drops...CVX delivered its margin expansion and return of cash narratives this quarter and we expect that to continue."

Cowen – "Buyback Increase Conveys Confidence" (Outperform / \$160)

"CVX earnings missed our estimate but beat consensus while CFO was in-line with our forecast. The company raised its repurchases to \$1B/qtr and is confident it could sustain this pace in any "reasonable" price environment. CVX forecasts 4% to 7% 2019 production growth and sees its capital -weighted to short-cycle as the new normal. Maintain Outperform, \$160 target."

Redburn – "US Supermajors: Rational Exuberance" (Neutral, \$115)

"The Permian continues to outperform expectations...Chevron's 4Q Permian production was 377kboed, +84% YoY and well above the existing plan...Chevron's 'integrated' development plans are not yet as advanced as Exxon's. But the \$350m acquisition of the 110kbpd Pasadena refinery in Houston will allow the company to process more domestic light crude...The rapid pace of development in the Permian has contributed to upwards pressure on capex budgets...Chevron's 2019 capex is now seen at \$20bn, the top end of the \$18-20bn range previously guided. Of this \$3.6bn (18%) will be spent in the Permian and \$1.6bn (8%) on other shale basins...This increased spending on shale carries significantly lower execution risk relative to past investments. Historically the Majors had several large-scale capital projects underway concurrently, with limited ability to flex spending, tying up large amounts of unproductive capital. In contrast Chevron expects 70% of its 2019 capex to deliver cash flow within two years."

Societe Generale – "4Q18: Solid EPS beat. 2019 4%-7% growth and more return of capital to shareholders" (Buy / \$128)

"Adjusted EPS of \$1.95 was much higher than both our \$1.65 estimate, which we made at year end, and the Street's \$1.87...Output in 4Q18 of 3.08 million BOE/d, which included a slight international under-lift, was +4% qoq. This reflected reduced facility maintenance/turnarounds, entitlement affects and incremental volumes from shale/tight and major projects, and yoy rose 4.5%, inclusive of asset sales...Downstream, qoq cracks declined, but were partially offset by higher marketing margins domestically, and international refinery input declined given the South African R&M sale. That said, higher volumes didn't offset lower prices and cracks when comparing 4Q18 to 3Q18. Cash flow in 4Q18, from operations excluding working capital, was \$8bn vs \$9.2bn in 3Q, but was higher than \$4.1bn spent (sans affiliates ops), \$2.1bn of dividends and \$1bn on stock buybacks. So, CVX generated \$727MM in free cash."

Raymond James – "Permian Wraps Up a Strong 2018 at 12% of the Production Mix, and Share Buyback Is Already Getting a Boost" (Outperform / \$135)

"Given its upstream-weighted and oil-centric asset base, Chevron offers a higher degree of leverage than most of its peers to our forecast for oil prices to reach cyclical highs in 2020. While near-term production growth will be modest amid a hiatus of mega-project startups until Tengiz expansion in 2022, the Permian overweight has become truly needle-moving, reaching 12% of the production mix. We reiterate our Outperform rating."

Reactions to Competitors' 4Q 2018 Conference Calls

ExxonMobil – February 1, 2019 (Adj. EPS of \$1.27/diluted share vs. First Call consensus of \$1.08, 18% beat)

"XOM put up a second consecutive beat, most driven by transitory factors like LNG price lag benefits in Upstream and crude differential blow-out capture in Downstream. That said, the Upstream business clearly fulfilled SVP Neil Chapman's promise that 2Q would be the bottom, as production has been sequentially higher for two straight quarters and was up y/y for the first time in five quarters, mostly due to the Permian. On Downstream, the company showed the integrated value of the portfolio, more than offsetting Upstream differential headwinds; however, as management noted on the call, these have completely reversed in 1Q and product margins have softened. Finally, Chemicals is somewhat of a thorn in XOM's side, given challenging industry margins from capacity additions, which CEO Woods said could persist into 2019." – *JP Morgan (Neutral)*

"ExxonMobil (XOM, Neutral) delivered 4Q2018 results ahead of our expectations, led by strength in the refining segment. We continue to take a positive view of the company's increasing availability of senior management...Our Neutral view is not a function of a negative view on the company's strategy to invest in higher-return projects, as we see that as a key to improving ROCEs and the earnings power. Instead, our view is a reflection that it may take the market time to reward the stock for this strategy, as during the construction process the Brent price Exxon needs to cover its growth/sustaining capital and dividend is higher than peers." – *Goldman Sachs (Neutral)*

"ExxonMobil's second consecutive quarter of solid operating performance underlines our view that XOM has turned a corner. Aside from strong headline EPS, cash flow matched expectations with an inflection in oil production evidence of momentum building behind several of the key projects expected to double cash flow by 2025, in contrast with many of the other major oils where project visibility is sparse. The upshot is that XOM stands at a unique juncture of its investment case with attractive yield, visible growth and value with upside of about 31% to fair value." – *Bank of America Merrill Lynch (Buy)*

"We think XOM's 4Q18 result will have a positive impact on near-term share price performance...results were undoubtedly strong and should alleviate some of the market's concerns regarding the outlook for 1H19. Exxon also offered a few operational highlights, including Permian unconventional production growth of +90% y/y...While the strong result will likely be welcomed by investors, especially following a string of mediocre quarters, our view of XOM remains unchanged." – *Barclays (Underweight)*

BP – February 5, 2019 (Adjusted EPS of \$1.04/diluted share vs. First Call consensus of \$0.84, 24% beat)

"For the eighth consecutive quarter the company has beaten consensus expectations, highlighting just how cautious the market appears to be in pricing in the ongoing transformation at BP. For us, the transformation of the BP business can be seen in the underlying progress being made on free cash flow. Our analysis shows that not only is the company on track to meet its targets, it is if anything ahead. 2019 is likely to be a tricky year to track given the incorporation of the recently acquired BHP assets, the subsequent divestments that the company plans and the volatility in Canadian differentials. However, providing that debt comes down with asset sales, we do not believe this should prevent a re-rating of the shares, which we see offering a 9% FCF yield 2019-2021." – *Barclays (Overweight)*

"BP delivered a very strong quarter, materially exceeding expectations on earnings, cash flow and production volumes. The beat in operating profit was driven by strong E&P volumes, margins and gas trading, and by strong R&M margins, despite a heavy maintenance program at the Whiting refinery. This translated into the highest free cash flow (pre-Macondo, pre-OWC, US\$4.2 bn) in a decade. We believe that this is the beginning of a multi-year period of returns and free cashflow expansion at BP, driven by: (1) the delivery of the industry's strongest pipeline of Top Projects; (2) revitalization of high-margin production in the GoM and North Sea; (3) a complex refining network, which looks well-placed to benefit from IMO 2020 price dislocations; (4) unwinding of the Macondo liabilities to <5% of operating cash flow by 2020E, on our forecasts." – *Goldman Sachs (Buy – Conviction List)*

"A better showing in both Upstream and Downstream meant BP beat our and consensus expectations by a significant margin. While we do not count on help from stronger gas trading in Upstream and benefits from still wide Canadian crude differentials in Downstream to last into FY19, we nevertheless believe 4Q18 also benefited from a more sustainable further tightening cost control...We believe BP's financial frame still requires ~\$4bn of successful execution on planned disposals in FY19 in order to help balance sources and planned uses of cash (including buyback promises) – let alone reduce gearing further from the top end of its 20-30% target range today...The

Reactions to Competitors' 4Q 2018 Conference Calls

plugging of this funding deficit relies on BP's confidence and execution of successful disposals (\$10bn targeted across FY19-20). We prefer to await such success." – *Bank of America Merrill Lynch (Underperform)*

Shell – January 31, 2019 (Adjusted EPS of \$1.38/diluted share vs. First Call consensus of \$1.29, 7% beat)

"With earnings 8% ahead of Vara provided consensus, an astonishing underlying cashflow number close to 40% ahead of our estimate and the confirmation that the share repurchase scheme will continue at an unchanged pace we expect a positive reaction to the release this morning. Market opinion has been split on Shell of late, but our analysis continues to show that Shell can continue the share repurchase scheme all the way through to 2025. Shell's portfolio isn't perfect, and inorganic activity is likely to feature over the coming years, but the shares, in our view, are also far from being priced on a perfect delivery basis." – *Barclays (Overweight)*

"Two consecutive quarters of delivery do not make a meaningful track record, but they make a useful start. We believe RDS's quest to gain investor confidence in its "world-class investment case" remains on track with more to come. FY18 organic FCF of ~\$27bn now provides a de-risked platform from which to gauge RDS's ability to deliver its \$25-30bn outlook for 2020 (established in 2016 and still met with much skepticism via RDS's 10-12% FCF yields today): We reiterate our view that - at RDS's \$65/bbl. Brent assumption and (crucially) organic capex at the lower end of its range - both \$25bn buybacks and 20% gearing can be delivered organically by 2020. This way, RDS will return ~20% of its market cap to shareholders in just two years - leading its peers and in our view underlining RDS's commitment to disciplined growth into the 2020s." – *Bank of America Merrill Lynch (Buy)*

"In short all very solid. Net income was better than expected, robust underlying cash flow suggests Shell is on track to attain its 2020 targets and the CEO's commentary argues strongly that there will be no deviation from the intent to drive cash flow. We have no problem with any of it. We just don't see a huge amount of flex in the cash cycle and suspect that this will be a year when, given much greater internal visibility on cash flow, Shell's capital spend ends up including considerable inorganic capex. A company focused on per share performance, DPS is unlikely to see growth in our view although CFPS should gain from the ongoing buy-back programme. All very solid, hardly expensive but the upside feels very macro and execution dependent." – *Deutsche Bank (Hold)*

Total – February 7, 2019 (Adjusted EPS of \$1.18/diluted share vs. First Call consensus of \$1.17, 1% miss)

"TOTAL delivered solid 4Q18 results, with operating profit post-tax (\$3,727mn) and adjusted net income (\$3,164mn), respectively, 4% and 2% above company-compiled consensus, despite a difficult environment for downstream margins and Canadian oil realizations. Free cash flow generation (pre-OWC) was \$1.2bn this quarter, bringing the full-year figure to \$12 bn, the highest over the past decade, due to ongoing capital discipline, improving project delivery and cost efficiency. Our analysis suggests that TOTAL is entering harvesting mode on its mega-project developments...on the back of the ramp-up and start-up of largely de-risked projects. This supports growing cash returns to shareholders...and renewed investment in an upgraded pipeline of new high-return projects" – *Goldman Sachs (Buy)*

"Total has clearly positioned itself as a higher-growth supermajor, and extending its growth aspirations out to 2025 should give investors confidence in the longevity of cash generation. Ultimately, a growing cash profile over the next few years should result in Total degearing and growing its dividend...Weaker underlying cash generation in 4Q, does not appear to be a trend: Total's \$5.7bn underlying CFFO in 4Q was 8% below our estimate. Looking at updated guidance for 2019-20, Total has highlighted a growing cash generation profile in a \$60/bbl environment...With flat capex, this results in a competitive free cash flow yield versus peers." – *RBC Capital Markets (Sector Perform)*

"Total continues to deliver on its strategy of disciplined growth. 2018 was a particularly impressive year with 8% production growth and c80% growth of FCF post dividends, which underpinned its \$5bn share buyback, and gearing sits comfortably below its 20% target despite acquisitions. The FY presentation also provides clear visibility of where the business is heading, with production growth of >9% y/y in 2019, eight potential FIDs this year and at higher IRR than the base. These include LNG that has become an important source of growth given Total's c10% market share in the LNG market. It is interesting that the 2020 CFFO target is lifted by \$1bn vs the September 2018 CMD. We believe this reflects management's growing confidence in the cash delivery from new projects and acquisitions. This, alongside the group's discipline on cost and capital, should see sufficient FCF generation in the coming years and allow Total to extend its share buyback plan beyond 2020, in our view." – *Barclays (Overweight)*