

Performance by design. Caring by choice.™

# BUILDING MOMENTUM OUR PATH FORWARD

2018 SUSTAINABILITY SUMMARY

### OUR SUSTAINABILITY JOURNEY

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### A MESSAGE FROM OUR CEO

Since inception in 2000, Chevron Phillips Chemical Company has aimed to be the premier chemical company known as the employer, supplier, neighbor and investment of choice. As this Sustainability Report shows, we are "Building Momentum in Our Path Forward" seeking sustainable solutions for the challenges that we face as an industry.

Although we have made considerable progress, there remains an incredible opportunity to address growing concerns about the plastic waste problem. Let me be clear: We are facing a global waste problem and plastic debris is one of many materials that end up in the wrong places. We care deeply about our environment, and that's why I'm proud that our company is collaborating with more than 30 global organizations to create the Alliance to End Plastic Waste. Together, we are committing our resources and expertise to end the flow of plastic waste into unintended places and have collectively pledged more than \$1 billion with the goal of investing \$1.5 billion over five years. Plastic products enable advancement and development around the globe. With their demand set to double by 2030, there has never been a better time to advance systems for responsibly handling the products that enhance modern life.

In 2018, we introduced a refreshed vision, mission and strategy for our company including a new trademark – **Performance** by design. **Caring** by choice.<sup>™</sup> This simple phrase tells the story of who we are, a company that is designed to deliver industryleading performance and has an employee base that cares about each other, our work, our customers, our communities and our investors. One of the new pillars of our strategy, Sustainable Growth, is representative of our broad view of sustainability, which encompasses our operational, environmental and financial performance as well as the impact we have on our workforce and our communities.

Our performance in 2018 certainly demonstrated our commitment to this strategy. For a fifth consecutive year, we achieved our best-ever Combined Employee and Contractor Recordable Injury Rate, advancing our efforts to improve our performance by putting strong emphasis on developing our people and culture around safety leadership.

The completion of our U.S. Gulf Coast Petrochemicals Project in 2018 is one of the highlights of my career. The successful start-up and commissioning of our ethane cracker at our Cedar Bayou facility in Baytown, Texas completes the most transformative project in our company's history. The ethane cracker will produce valuable product for our ethylene business and feedstock for ethylene derivatives businesses including our two new polyethylene units in Old Ocean, Texas.

I want to thank our employees, contractors, investors and our neighbors on the Texas Gulf Coast for making these milestones possible. This is an exciting time for our industry and our company, and I'm proud to lead us as we continue to build momentum.

Mark F. Lashier President and CEO Chevron Phillips Chemical Company



"As part of our longstanding commitment to sustainability, we are dedicated to protecting the health and safety of our workforce, the communities where we operate and the environment."

The report and additional information can be found at www.cpchem.com/sustainability.

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### SUSTAINABLE SOLUTIONS ARE THE PATH FORWARD



Sustainable growth is one of our core business imperatives at Chevron Phillips Chemical. We have always been committed to creating sustainable solutions, and in 2018 we intensified this focus when we changed one of our four strategic pillars from Profitable Growth to Sustainable Growth.

Sustainability is a word that can have a variety of meanings. My decades of experience in the polymer industry and time spent living outside the U.S. have helped shape my perspective on sustainability. Our products deliver solutions that minimize resource demand and deliver social benefits while lowering greenhouse gas impact at lower costs. Plastic waste in the environment is a significant global issue that needs to be addressed, but we must also recognize the value plastics provide to society,



from medical applications to keeping food fresh longer. At Chevron Phillips Chemical, we believe plastics are a sustainable solution and continue to provide these benefits, but we must ensure that they remain out of the environment where they do not belong.

#### FOUNDING MEMBER OF THE ALLIANCE TO END PLASTIC WASTE

As a founding member of the Alliance to End Plastic Waste, we have joined a global group of companies that will focus on tackling uncontrolled plastic waste through investments in waste infrastructure, innovation in sustainable plastic materials, education and awareness programs and cleanup efforts. This alliance builds on our efforts to find sustainable solutions, such as extending or renewing product life.

#### **INCREASED INVESTMENT IN SUSTAINABILITY**

We are continuously pursuing opportunities to support emerging technologies including the Materials Recovery For the Future (MRFF) pilot program, which aims to demonstrate the economic viability of recycling flexible plastic packaging. One of our joint ventures, Americas Styrenics, announced a joint venture with Agylix to operate a recycling center for post-consumer polystyrene products that converts them back into their original liquid form, styrene monomer, which will be used to make a circular polymer, PolyUsable<sup>™</sup>.

#### **EXPANDED SUSTAINABILITY TEAM**

As a company, we have put additional resources in place to support our long-term sustainability vision. In 2018, my executive responsibilities as vice president of polymers were broadened to include sustainability. We have also expanded our sustainability team which leads our research and technology efforts and helps to educate government officials, employees and the public worldwide about the value that our products provide and how we as an industry are addressing plastic waste.

As indicated by our company's mission and trademark: **Performance** by design. **Caring** by choice<sup>™</sup>, we want to create more value for our customers, for the communities we operate in and for our company while reducing our environmental footprint. Sustainability is one of our top priorities and we believe we can proactively help the world advance the path forward to sustainable solutions.

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**Jim Becker** Vice President, Polymers and Sustainability Chevron Phillips Chemical Company

### HEALTH & SAFETY

The health and safety of our employees, contractors, neighbors, customers and the environment is paramount to us. Chevron Phillips Chemical believes safety is a shared responsibility and it is central to everything we do.

#### **OUR JOURNEY TO ZERO**

Our Journey to Zero, the company's multi-year EHS strategy, gives us a clear blueprint for eliminating high-potential/high-consequence personnel and process safety events and is a great example of our commitment to our trademark **Performance** by design. **Caring** by choice.<sup>™</sup> In 2018, Chevron Phillips Chemical delivered strong operational performance, setting a record low Combined Employee and Contractor RIR for the fifth consecutive year, a 29 percent reduction from the previous year. Compared to 2017, we also improved our process safety performance, delivering our second-lowest Process Safety Event Rate (PSER) on record. As part of Our Journey to Zero, we remain committed to deepening our process safety competencies.



#### NEW TRAINING PROGRAM FOR TURNAROUNDS AND SAFETY PROCESS INTRODUCED

In 2018, we deployed a new training program for turnarounds at our facilities. The training which focused on safety, building relationships, leadership and demonstrating care and concern was inspired by a workshop that was held during the U.S. Gulf Coast Petrochemical Project (USGC PP). More than 600 employees and contractors were trained during the pilot programs held at our facilities in Pasadena and Port Arthur, Texas. Due to the training's success, we plan to move the path forward and expand the training prior to all future turnarounds.

#### TIER 1 AND TIER 2 PROCESS SAFETY EVENT RATE





#### HIGHLIGHTS



Set a record low combined Employee and Contractor Recordable Incidence Rate (RIR)

29% Reduction in Combined Employee and Contractor RIR from previous year

> AFPM American Fuel & Petrochemical Manufacturers

5 facilities received AFPM Elite Silver Safety Award



"Our Journey to Zero is what we strive for every day. We want people to come to work and go home in the same condition."

> - Richard Roark PE Pilot Plant Operator, Bartlesville

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Additional information about the Health and Safety section can be found at www.cpchem.com/sustainability.

### **RESOURCE EFFICIENCY**





"We put a lot of focus on ways to reduce our energy impact. We have several projects to reduce our nitrogen usage, which improves our efficiency."

> - Nick Spencer Plant Manager, Singapore

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We aim to reduce usage of all resources required to manufacture our products. This commitment includes implementing corporate practices to more efficiently use energy, water and raw materials, which affect the company's environmental footprint, social contributions and profitability.

#### **ENERGY EFFICIENCY AND CONSERVATION**

The company's U.S. energy consumption in 2018 was 158 trillion Btu compared to 120 trillion Btu in 2017. The addition of polyethylene and olefins capacity at Old Ocean and Baytown, Texas resulted in an increase in annual energy consumption. However, we were able to achieve a reduction in our U.S. Energy Intensity Index by 0.8% compared to 2017. The overall reduction in energy intensity was due to the energy efficient process technology incorporated into our new facilities and continuation of energy conservation projects.

#### GLOBAL WATER CONSUMPTION INTENSITY TRENDS DOWNWARD

The management and conservation of fresh water resources is critical to the sustainability of our business, our communities and our future. Last year's global water consumption intensity was a 10% improvement over 2017 establishing a 10-year low. We are committed to the ongoing development of technology and management practices that conserve and protect fresh water resources as well as enhancing water efficiency at our facilities.

#### CHEVRON PHILLIPS CHEMICAL ASIA HELPS SCHOOL BUILD A SELF-WATERING SYSTEM

Our Chevron Phillips Chemical Asia facility sponsored a local school's effort to build a self-watering system. Once completed, the portable water filter system will be installed in Lakeside Primary School's herb and spice garden and vegetable plots. Upon success, the same portable water filter system will be connected to a community garden in a nearby neighborhood. This created a recyclable fresh water intake structure for both the school and the surrounding areas while educating students about water preservation.

#### **ENERGY INDEX**



#### **FRESH WATER INTAKE**



Additional information about the Resource Efficiency section can be found at www.cpchem.com/sustainability.

### EMISSIONS

We track and work to reduce the emissions generated through the lifecycle of our products. This includes the sourcing and transportation of raw materials, generation during production, transportation to direct customers and the use of the products through the renewal or end of their life.

#### FACILITIES BOAST IMPROVED EFFICIENCY AND LOWER EMISSIONS

Our company continuously implements tools to improve energy efficiency and reduce emissions at our operations. In 2018, with the start-up of the ethylene cracker in Baytown, Texas, Chevron Phillips Chemical's actual production increased by more than 25% compared to 2017. With growth comes the need for additional resources and the potential for increased emissions. Despite this production increase, we achieved our lowest ever global emissions intensity rate and our second-lowest GHG emissions intensity rate. Chevron Phillips Chemical experienced our lowest-ever number of reportable emissions events due to normal operations. Although there was an increase in total reportable emissions events compared to the previous year, 23 of those occurred during the start-up of our new assets. Here are some of the success stories of reduced emissions throughout our company:

- At our Q-Chem facilities, a new Flaring Reduction Program is credited with reducing the number of flaring events than in previous years. Additionally, several equipment replacements and upgrades helped reduce NOx emissions by almost 40%.
- In Tessenderlo, Belgium there was a significant reduction of sulfur dioxide emissions compared to 2017. Several investment projects and better maintenance at the facility are credited with the reduction.

#### **OPERATION CLEAN SWEEP**

Our company has long supported **Operation Clean Sweep**,<sup>®</sup> a product stewardship program of the American Chemistry Council's Plastics Division and Plastics Industry Association with the goal of achieving zero pellet and flake loss to the environment. In 2018, 31.5 million pounds of pellets and flake were recycled from our facilities, which have 7.525 billion pounds of production capacity. Additionally, less than 4 pounds of pellets were released into the environment from our facilities. This is the first time since we began publishing our sustainability report, that we are publicly reporting pellet spills at the facilities. To learn more about our program and best practices see our Pellet Management section of our website: http://www.cpchem.com/en-us/sustain/Pages/Pellet-Management.aspx

#### GREENHOUSE GAS EMISSIONS AND INTENSITY (DIRECT AND INDIRECT)



#### GLOBAL EMISSIONS

(AGGREGATED NO<sub>x</sub>,SO<sub>2</sub>, CO, VOC, PM10)



#### HIGHLIGHTS

BEST EVER Global Emissions Inventory Intensity

> LOWEST EVER Emissions events unrelated to new gaset start-up

**JST REPORT** Including pellet release data



#### REPORTABLE EMISSION EVENTS

1.0



Additional information about the Emissions section can be found at www.cpchem.com/sustainability.



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### INTEGRITY & COMPLIANCE



#### HIGHLIGHTS







Our ethical standards that make Chevron Phillips Chemical an admired business partner

"Fair employment practices don't just keep Chevron Phillips Chemical in compliance with the law, they contribute to our culture of mutual respect, inclusion, cooperation, and responsibility."

> Chevron Phillips Chemical Code of Conduct

Compliance with financial, environmental and societal laws and regulations is a foundation of our identity. The integrity with which we meet our compliance obligations and the level of ethics we expect of our employees, suppliers and customers ensure we maintain our license to operate.

#### **CORE VALUES**

The strength of a company is based on more than financial performance. We measure ourselves by the strength of our company values. Our core values – safety, respect, integrity and drive, are embodied in our Code of Conduct which establishes the standards for ethical conduct and compliance with laws that apply to our employees. Our Code of Conduct establishes the principles that guide our behavior:

- Employees are required to complete annual training on the Code of Conduct.
- We encourage reporting of suspected compliance violations.
- We investigate allegations of misconduct as appropriate in a timely manner.

#### **CONTINUOUS IMPROVEMENT**

As the global business landscape constantly evolves, our Ethics & Compliance Office seeks to continuously improve our policies, practices and training to adapt to the ever-changing regulatory and compliance environment.

#### GOVERNANCE

Developing and marketing innovative products requires a company culture that encourages ethical behavior and helps detect and prevent criminal conduct. That's why our Ethics & Compliance Program includes roles for a cross-section of our stakeholders, from our Board of Directors to frontline supervisors and employees.

#### **SUPPLY CHAIN**

Respect for fundamental human rights is integral to how we conduct business. Therefore, we choose to do business with those who act in an ethical and responsible manner. Our supply chain procurement policies and practices integrate sustainable procurement criteria that promote the protection of the environment and society in seeking goods and services that are resource-efficient, while also balancing quality, availability and cost considerations.

Additional information about the Integrity and Compliance section can be found at www.cpchem.com/sustainability.



We also maintain a 24/7 ethics and compliance hotline where employees, contractors, community members and other stakeholders may report via telephone or online portal good-faith concerns regarding potential ethical misconduct or violations of law or policy.



### PRODUCT RESPONSIBILITY



We consider and communicate the health, safety and environmental impacts of our products, including factors such as intended use, especially product lifetime, durability, reuse, recyclability and beneficial disposition.

# WE'VE GOT A PLAN FOR THE PLANET.

#### Chevron Phillips Chemical Joins New Global Alliance Pledging More Than \$1 Billion Against Unchecked Plastic Waste

We intensified our environmental stewardship focus as one of the founding members of a new, unprecedented consortium of more than 30 top global companies, the Alliance to End Plastic Waste. With more than \$1 billion pledged and a goal of investing \$1.5 billion over five years to eliminate unchecked plastic waste in the environment and especially the oceans, the Alliance to End Plastic Waste is the most comprehensive group of companies across the entire plastics and consumer goods value chains. Members include manufacturers, consumer goods companies, retailers, converters and waste management firms, along with leaders in government, intergovernmental organizations and civil society from across the globe. The nonprofit organization is committed to making investments and driving progress to reduce plastic waste, as well as reuse and recycle by focusing on infrastructure, innovation, education and clean-up efforts, especially in regions suffering most from plastic waste. Learn more at www.endplasticwaste.org.

#### Promoting Partnership with ACC's Materials Recovery for the Future Research Program

Chevron Phillips Chemical joined a partnership with the American Chemistry Council's Materials Recovery for the Future Research Program to help develop new technologies to expand recycling. The organization's goal is to use off-the-shelf technology to upgrade recycling facilities to sort plastic film. The pilot program will be the first of its kind to demonstrate the technical and economic feasibility of recycling household flexible plastic packaging from curbside residential singlestream recycling programs.



#### **Keeping Our Beaches Around the World Clean**

As part of the company's continued commitment to keeping our coastlines clean, in 2018 our employees participated in various beach clean-up programs around the globe. Volunteers collaborated with the Texas Adopt-A-Beach Program to pick up trash along Surfside Beach. Approximately 400 people from various companies cleaned up 13 miles of coastline and collected nearly 3,300 pounds of trash. Our Chevron Phillips Chemicals Asia (CPCA) and Chevron Phillips Singapore Chemicals (CPSC) employees jointly organized a beach clean-up at Changi Beach Park and collected 40 kg of debris. Employees from our Tessenderlo, Belgium facility collected 26 garbage bags of debris at a Koksijde beach clean-up.

#### HIGHLIGHTS



PLASTICS HALL OF FAME Sr Research Fellow, Max McDaniel, recognized for lifelong product innovations

"Plastics play such a vital role now in today's world — from healthcare applications to longterm food preservation — and so many other applications in between. Chevron Phillips Chemical is one of the leading companies in the industry for polyethylene and produces the material that is vital for many of these applications."

> Dr. Jennifer Lynch, Scientist and Program Coordinator for the U.S. National Institute of Standards and Technology (NIST)

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Additional information about the Product Responsibility section can be found at www.cpchem.com/sustainability.

## SOCIAL ENRICHMENT



#### HIGHLIGHTS

Forbes Named one of America's Best Midsized Employers and one of the Best Employers for Women in 2018

45,000+ Students impacted by company-sponsored educational and outreach programs



"I can see the future of our industry and it's exciting to see so many women and so many people excited about coming into the industry. I think it's a positive to have events like the Women in Industry Conference. This is not just a job for me, it's a career. It's a life-changing event. It's the best decision I've ever made."

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We value our employees and communities by promoting local volunteerism and investments and by emphasizing open communication and trusting relationships. Building a diverse workforce and inclusive company culture enables us to attract and retain highly qualified, diverse employees to fuel innovation and creativity for a sustainable competitive advantage.

#### DEVELOPING A WORKFORCE WITH THE RIGHT CHEMISTRY

Chevron Phillips Chemical continues to build and expand our programs to attract, develop and retain top talent and to enhance the overall employee experience. In 2018, we optimized the way we recruit talent, resulting in hiring strong candidates faster and increased organizational efficiency. This included hosting our first CPChem University, an event for Graduate Rotation & Development (GRAD) candidates to learn about our business, meet with representatives across the company and interview



for our GRAD positions. Our Diversity & Inclusion program, led by our ICARE Principles (Inclusion, Cooperation, Accountability, Respect, Everyday) also continues to provide guidelines that help employees of varied backgrounds work together effectively.

#### WOMEN THRIVE HERE

In 2018, Forbes Magazine named our company one of America's Best Midsize Employers and one of the Best Employers for Women. Several of our key senior leadership and management positions are held by women and we also continued our commitment to support organizations that advance opportunities for women in the petrochemical industry, including the Women in Industry Conference and the Women's Global Leadership Conference in Energy.





#### REDUCING PLASTIC WASTE IN DOHA, ONE BOTTLE AT A TIME

Over the last two years, the American School of Doha (ASD) sustainability committee and high school eco council developed the Go Refillable Initiative to reduce the need for disposable water bottles. The sustainability committee, comprising teachers, high school students and parents, developed the initiative as one the many ways to reduce the number of disposable water bottles on campus. In 2018, Chevron Phillips Chemical Qatar donated 700 reusable water bottles to support this effort.

#### MAKING AN IMPACT IN THE COMMUNITIES WE SERVE

In 2018, our employees brought positive, measurable change to communities around the globe by volunteering more than 20,000 hours toward projects that support various organizations that align with our company's business strategy and trademark **Performance** by design. **Caring** by



*choice*<sup>™</sup>. From volunteering with programs that promote educational opportunities for more than 45,000 students to building homes for families in need, Chevron Phillips Chemical strives to be the neighbor of choice in the communities we serve.

Additional information about the Social Enrichment section can be found at www.cpchem.com/sustainability.

<sup>-</sup> Audra Smith, Operator 1796/99, Cedar Bayou

### ECONOMIC PERFORMANCE



The company's driver for corporate sustainability is to provide value to our stakeholders. Our 2018 earnings delivered record discretionary distributions to our owners through strong operational performance at our global facilities and the start-up of our U.S. Gulf Coast Petrochemicals Project assets.

#### Our Vision, Mission and Strategy for the Future includes Sustainable Growth

In 2018, we unveiled a refreshed vision, mission and strategy for the company's future, which included a new trademark, **Performance** by design. **Caring** by choice.<sup>™</sup> This trademark clearly defines who we are as a company, one that is designed to deliver industry-leading performance and has an employee base who care about each other. As part of the new mission, there is now an emphasis on Sustainable Growth – representative of Chevron Phillips Chemical's broad view of sustainability, which encompasses our operational, environmental and financial performance as well as the impact we have on our workforce and communities.



#### Chevron Phillips Chemical Completes \$6B U.S. Gulf Coast Petrochemicals Project (USGC PP)

In 2018, Chevron Phillips Chemical successfully introduced feedstock and commenced operations of a new ethane cracker at our Cedar Bayou facility in Baytown, Texas. The unit produces 1.7 million metric tons/3.8 billion pounds per year and is one of the largest and most energy efficient crackers in the world. Ethylene produced by the new ethane cracker will be used to meet the needs of our two new PE units at Old Ocean, which are capable of producing a wide variety of products that are turned into consumer and industrial products, such as plastic films for food safety and preservation and polyethylene pipe for water distribution and natural gas transport. In addition, the ethylene feeds our company's AlphaPlus® NAO plants, which are used extensively for polyethylene comonomers, plasticizers, synthetic motor oils, lubricants, automotive additives, surfactants, paper sizing and a wide range of other specialty applications. At peak production, USGC PP employed approximately 10,000 construction workers and today employs 400 additional permanent careers.

#### HIGHLIGHTS

\$16.6 Billion in assets and \$12 Billion in annual revenue

40%

U.S. ethylene and polyethylene capacity increase

MILLION Metric-ton-per year ethane cracker at Cedar Bayou in Baytown, Texas



**Performance** by design. **Caring** by choice.<sup>™</sup>

New trademark, vision and mission

"The U.S. Gulf Coast Petrochemicals Project is the most transformational project in the history of our company. Chevron Phillips Chemical and our growing employee base, the communities we call home and the entire Gulf Coast region's economy will benefit for decades to come as our project comes to life."

> - Mark Lashier, President and CEO

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Additional information about the Economic Performance Section can be found at www.cpchem.com/sustainability.

### ABOUT THIS SUMMARY

Chevron Phillips Chemical Sustainability Summary contains information on the company's performance in the following areas: environment, social, safety, product stewardship and financial results. Our goal is to communicate our business

financial results. Our goal is to communicate our business strategy of sustainable growth and demonstrate that, since our formation in 2000, we have focused on continuous improvement in all areas of our operations.

This summary reflects the company's efforts during the 2018 calendar year. The previous reports can be found online at www.cpchem.com/sustainability. Any information, including references to prior years, is provided for context only. The report includes information on wholly owned operations as well as joint venture operations where, pursuant to contract, Chevron Phillips Chemical employees participate in the operations and/or management of the facilities. Environmental intensity rates have been adjusted in this report compared to previous reports to include NGL production totals, which had been previously omitted. Reportable emissions events have been adjusted to include start-up activities, which had been omitted from the 2017 report. Aggregated Emissions Inventory and associated intensity rate have been adjusted for 2017 data compared to the previous report to properly reflect the continued scope of including permitted emissions from each source collected from the Emissions Inventory. International air emissions for years 2014 through 2017 have also been updated due to increased accuracy of metering equipment.

Report boundaries and measurement methods are similar in all reports. Our report follows Global Reporting Initiative (GRI) 3.1 guidelines.

We strive to be transparent and engage with our stakeholders on their issues of concern in a positive and constructive manner. We also respond throughout the year to direct requests from environmental, social and governance research agencies, shareholders, non-governmental organizations, academic institutions and individual students regarding the company's environment, health and safety and social responsibility policies, programs and performance.

This summary and additional notes can be found at www.cpchem.com/sustainability.



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