



U.S. Economic Impact Report
2017



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A Message from BP America Chairman and President John Mingé

I am pleased to share with you our fifth annual U.S. Economic Impact Report, which highlights the many ways in which BP supports American communities while also helping to accelerate the global transition toward lower-carbon energy sources. As you will see in the pages that follow, BP has spent the past few years working to make our U.S. operations more productive, more efficient and more sustainable.

We have facilities and offices everywhere from the North Slope of Alaska, to the city streets of downtown Chicago, to the forests and wetlands of South Carolina. In fact, all of our key global business lines — exploration and production, refineries and petrochemicals, marketing and trading, renewable energy and technology, fuels and lubricants, pipelines, shipping, and retail — are represented somewhere in the United States.

BP employs around 14,000 people across the country, while supporting another 106,000 U.S. jobs throughout the supply chain. In 2016 alone, our operations contributed \$67 billion to the American economy. We also have donated \$130 million to U.S. community programs since 2012.

To give you some perspective on the scale and scope of our U.S. operations:


- BP is the biggest investor in the deepwater Gulf of Mexico over the past decade, and our average daily production in the region increased from 252,000 barrels of oil equivalent in 2014 to more than 300,000 in 2017.
- Our Lower 48 onshore business is one of America's largest natural gas producers, and in 2016 its investment and operating expenditures totaled nearly \$1.6 billion.
- In Alaska, BP operates the entire Greater Prudhoe Bay area — which produces around 55 percent of Alaska's oil and gas — and we support more than 10,300 jobs across the state.
- Our Whiting Refinery can produce enough gasoline each day to support the average daily travel of more than 7 million cars.
- Our Cherry Point Refinery supplies a majority of the jet fuel used at international airports in Seattle, Portland, and Vancouver, British Columbia.
- The BP-Husky Toledo Refinery produces enough gasoline each day for an average car to drive back and forth from Toledo to Miami more than 30,000 times, while also processing enough jet fuel each day for an airplane to fly round-trip from Toledo to Miami 100 times.

- Our Cooper River Chemicals plant is America's largest producer of purified terephthalic acid (PTA), and it can produce enough PTA each year to make more than 1 billion children's backpacks.
- Our Texas City Chemicals plant can produce enough paraxylene each year to make seat belts for 1.1 billion cars.
- BP is North America's top marketer of natural gas, selling enough to meet the average daily needs of every home and commercial building in the United States.
- We delivered enough fuel to our U.S. customers in 2016 to run all the cars in New York and New Jersey for the entire year.
- Our *Castrol* lubricants business is America's No. 1 motor oil brand for consumers who change their own oil.
- The combined network of pipelines that BP's U.S. Pipelines and Logistics business owns or manages is long enough to stretch from Chicago to London.
- Our U.S. wind farms can generate enough electricity to power all the homes in a city the size of Philadelphia, and in 2016, a net wind portfolio the size of BP's helped avoid nearly 3 million tons of carbon dioxide emissions.
- Since 2006, BP Ventures has invested more than \$230 million in 30 U.S. companies, including seven alternative energy companies.

- In 2016, BP Shipping moved over 42 million tons of cargo in the United States — enough to fill more than 15,000 Olympic-sized swimming pools.

Of course, BP's most important commitment is to protect our people, the environment and the communities where we do business. On every job, at every site, we make safety the foundation of our work. That means giving our people the training, technology and support they need to operate safely, while empowering each of them to stop a job — any job — if something seems wrong.

BP has a long history of helping to solve the world's biggest energy challenges, and our U.S. businesses reflect that. Even as we provide the investment, jobs and products that power economic growth, we're also helping to drive the shift to a lower-carbon fuel mix. This report shows how we're doing it.



John Mingé
BP America Chairman and President



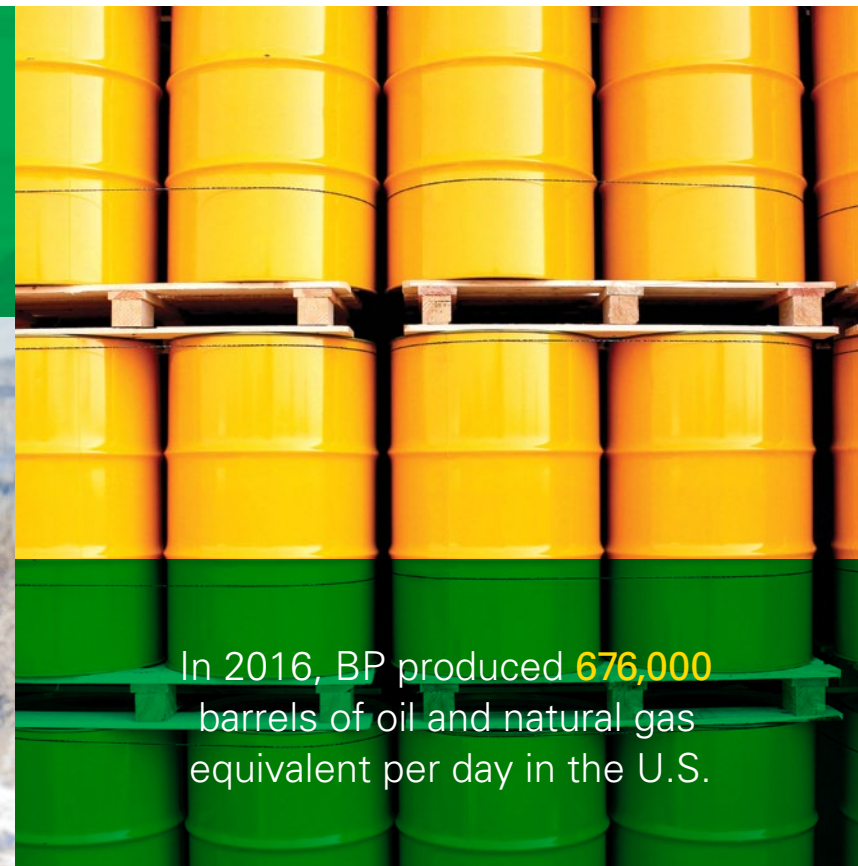
The Numbers Tell the Story



BP generated **\$67 billion** in economic value in the U.S. in 2016¹



BP invested **\$90 billion** in the U.S. from 2007 through 2016²



In 2016, BP produced **676,000** barrels of oil and natural gas equivalent per day in the U.S.



Safety is our **No. 1 priority**



BP donated **\$130 million** to U.S. community programs (2012-16)



BP paid **11,000** U.S. vendors in 2016



BP supports more than **120,000** jobs across the U.S.³



BP employs about **14,000** people across the U.S.

NOTE All figures on these pages are approximate.

¹ Includes revenue plus interest and dividend receipts, and proceeds from divestments.

² Capital expenditures and acquisitions.

³ The number of jobs supported includes BP employees.

How BP Operates

A closer look at the oil and gas business

BP delivers energy products and services to people around the world.

Through BP's two main operating divisions, Upstream and Downstream, the company finds, develops and produces essential sources of energy, turning them into products that people need.

This process creates jobs, opportunities for local suppliers and tax revenues for governments.

First, BP acquires exploration rights. Then, the company searches for hydrocarbons beneath the Earth's surface using seismic imaging technologies.

Finding oil and gas



Developing and extracting oil and gas

Once BP has found hydrocarbons, the company drills into the Earth to bring them to the surface.

BP moves hydrocarbons using pipelines, ships, trucks and trains.

Transporting and trading

BP refines, processes and blends hydrocarbons to make fuels, lubricants and petrochemicals.

Manufacturing

BP supplies its customers with fuel for transportation, energy for heat and light, lubricants to keep engines moving and petrochemicals required to make everyday items.

Marketing fuels and products

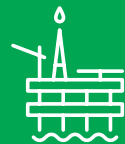
Generating renewable energy

BP invests in and develops advanced biofuels, and it operates a major wind business.

BP in the U.S.



150 years of history in the U.S.



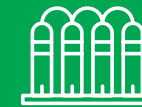
4 production platforms operated in the deepwater Gulf of Mexico — Atlantis, Mad Dog, Na Kika, Thunder Horse



7,100 BP- and ARCO-branded retail sites in the U.S. at the end of 2016



6 million net acres is the span of BP's Lower 48 onshore business resource base



3 refineries — Cherry Point (Wash.); Toledo (Ohio); Whiting (Ind.)



14 wind farms in eight states

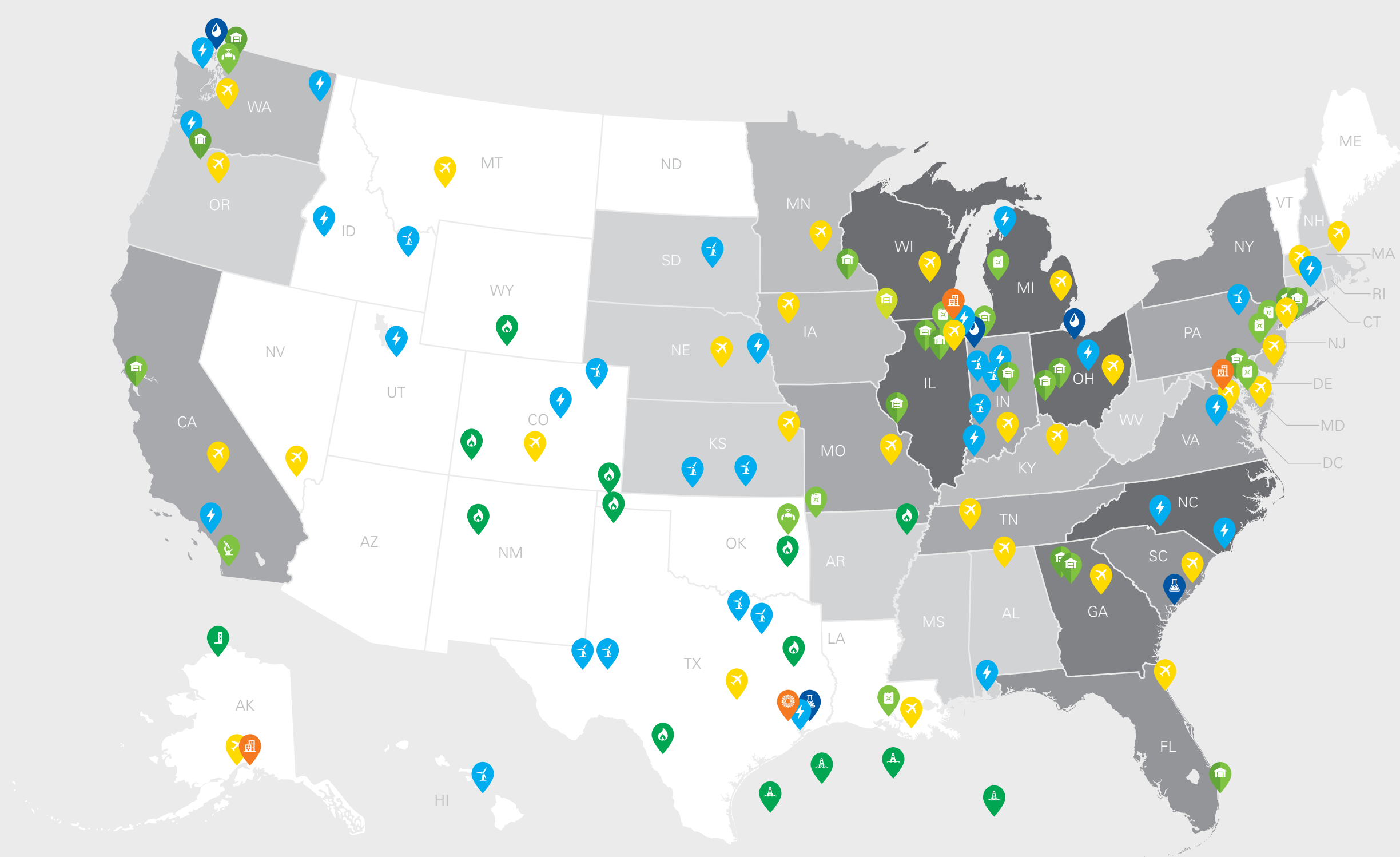


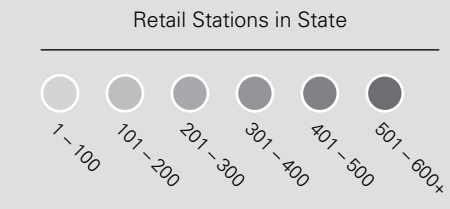
1.3 million barrels of oil equivalent produced and refined each day



2 petrochemicals sites — Cooper River (S.C.) and Texas City (Texas)

BP's Activity in the U.S.



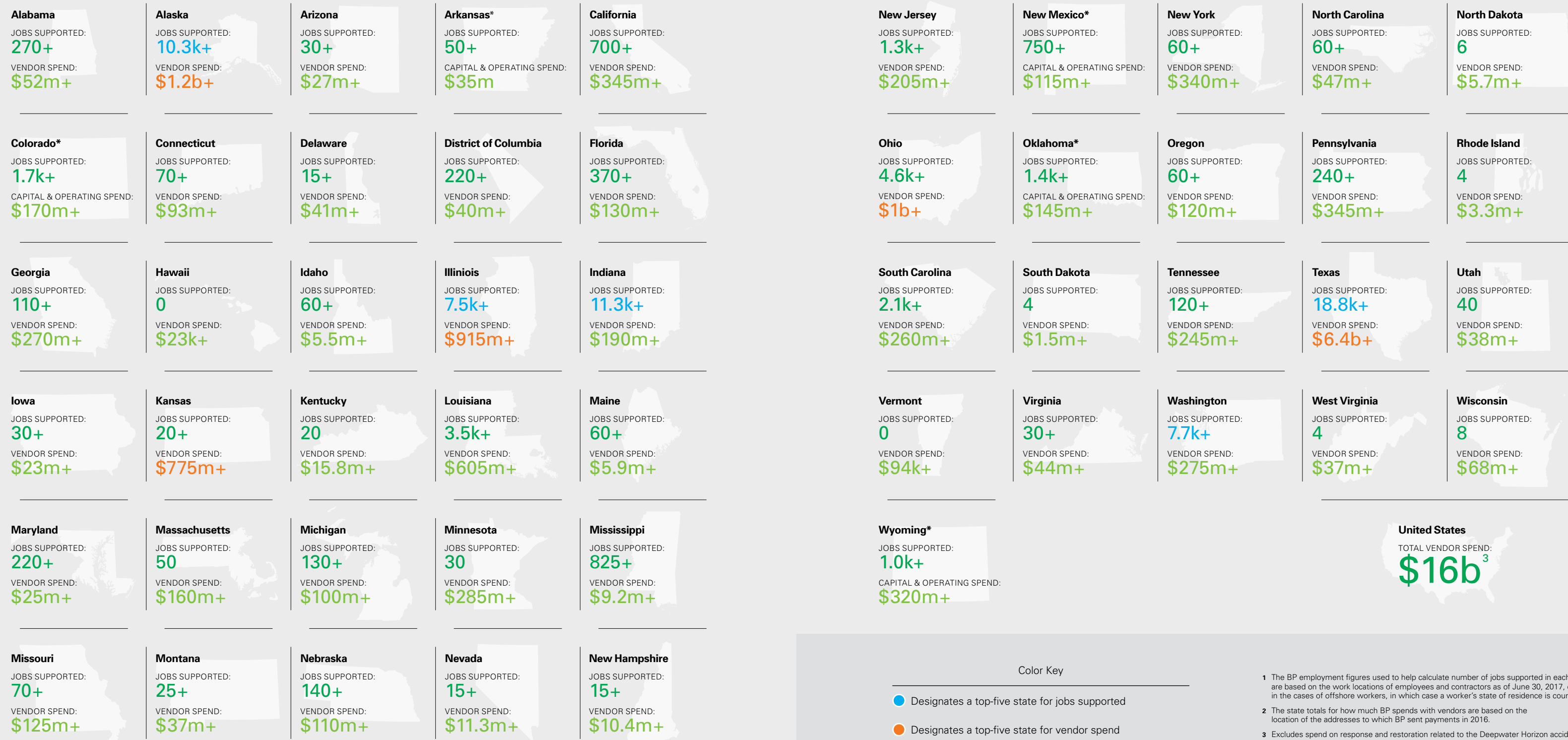


View more at bp.com/WhereWeOperate

¹ Indicates a state where Air BP is active at one or more airports.
² BP-operated and -owned terminals.
³ BP has a 25 percent interest in these terminals through a joint venture with its partner and terminal operator Kinder Morgan.
⁴ In August 2017, BP announced an agreement to hold a 49 percent ownership stake in these terminals through a new joint venture called Seaport Midstream Partners, LLC.

BP's Economic Impact Across the U.S.

By the numbers



Safety

Committed to compliant and reliable operations

Safety is the foundation of everything BP does, every single day. Its goals are clear: no accidents, no harm to people and no damage to the environment. That's a huge responsibility — one BP does not take for granted.

A safer BP

From 2005 to 2010, BP had serious accidents in its refining, pipeline and offshore operations — in Texas City, in Alaska and in the Gulf of Mexico, respectively. Each had different causes, and each taught BP important safety lessons.

In the years since, BP has transformed itself by, among other things, introducing new training programs, deploying innovative technologies and strengthening its safety culture — all of which provide interlocking, overlapping layers of protection. As a result, the people who work for BP have never been better prepared

or equipped to operate safely than they are today.

The numbers tell the story. From 2010 through 2016, BP's most important safety metrics showed significant improvement. For instance, the company's total number of Tier 1 process safety events — the most consequential events involving an unplanned or uncontrolled release of materials — fell by more than 75 percent across the globe.

In fact, whether looking at oil and gas production or refining and petrochemicals, BP's rate of Tier 1 events is below the published industry sector average.

BP is proud of this progress, but also recognizes that it cannot rest on past achievements. Complacency undermines safety, which is why BP is working every day to become even better, even safer.

How BP works

BP's approach starts with its core values, including safety, excellence and respect. These values define BP, and its people strive to

demonstrate them in all aspects of their work.

BP also has company-wide guidelines for how to operate, which it calls its Operating Management System (OMS), and it organizes people according to their functional responsibilities. Each function has its own rules and requirements — consistent with BP's broader OMS guidelines — for how to do particular jobs.

In the company's Global Wells Organization, for example, BP drillers around the world meet specific requirements in their training, contractor management and well operations. This helps ensure that BP teams in the Gulf of Mexico conduct well operations in a similar way to teams in the Caspian Sea.

All BP teams — no matter where they work or what they do — can consult with the company's Safety and Operational Risk (S&OR) organization if they have any questions about how to safely execute their jobs.

While front-line workers still have the primary responsibility for safe and reliable operations, the S&OR

organization works alongside BP businesses to deliver an independent view of risk, offering an additional and valuable layer of assistance and expertise.

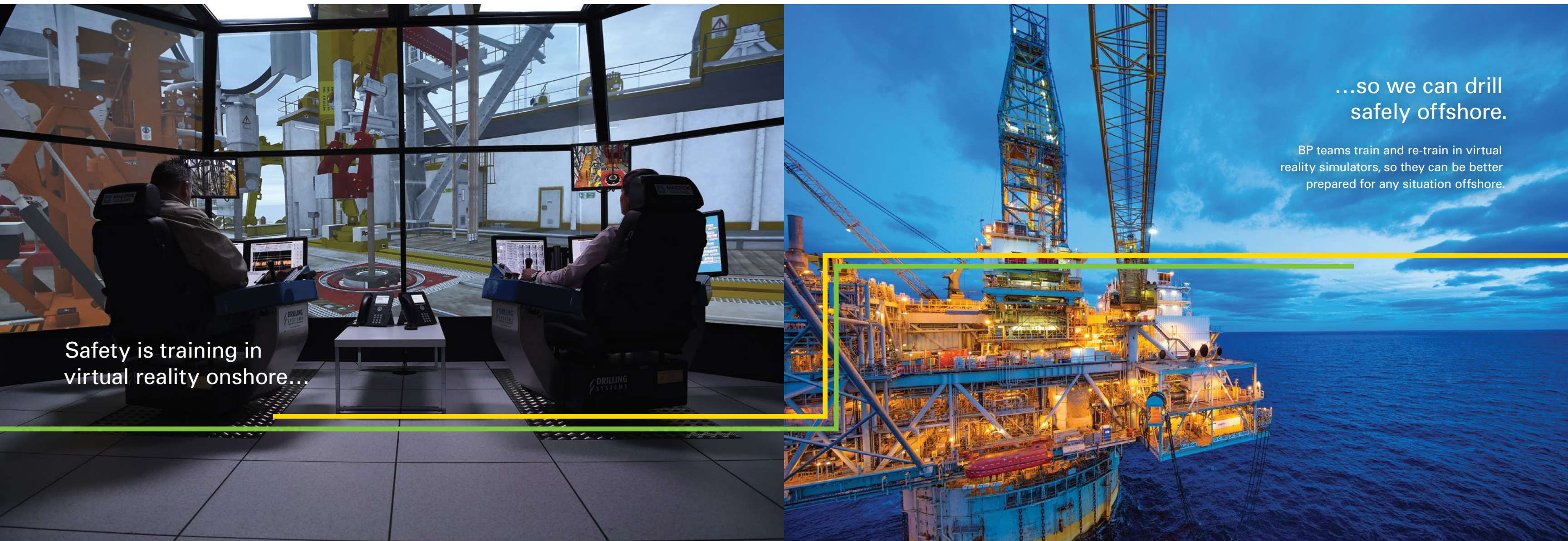
Taken all together, BP's values, OMS, functional organizations and the S&OR team provide the framework and the support to operate safely.

How BP trains

BP takes a comprehensive approach to training its workers, combining rigorous standards, world-class instruction and sophisticated tools to prevent accidents and injuries.

Its training programs emphasize not just classroom instruction, but also hands-on simulation. BP replicates scenarios its teams are likely to encounter, as well as potential challenges that, though unlikely, BP expects people to be ready to handle.

For example, through BP's partnership with Maersk Training, both employees and contractors train on lifelike, state-of-the-art simulators that can replicate



Safety is training in virtual reality onshore...

...so we can drill safely offshore.

BP teams train and re-train in virtual reality simulators, so they can be better prepared for any situation offshore.

nearly every critical job on an offshore drilling rig. BP uses the simulation facilities to run customized exercises that allow its offshore teams to practice scenarios relevant to specific wells, and to prepare for a wide range of possible contingencies.

BP also uses simulators to train workers at its refineries and chemical plants. Much like the offshore simulators, these systems allow people to practice different job tasks — such as unit start-up and shutdown, and pump and valve operations — in both normal and abnormal conditions, which helps them learn how to monitor for potential problems and avoid accidents.

How BP responds

While BP instructs, trains and practices to prevent accidents, it also prepares its teams to respond in the unlikely event that one were to occur. This way, if an accident were to happen, BP could quickly take the steps necessary to minimize its impact and protect people and the environment.

BP's response plans and preparation incorporate what

it has learned over many years of operation, including from the 2010 Deepwater Horizon accident. For example, BP has global standards and experts to help ensure that teams in deepwater regions are prepared and equipped to respond to an oil spill, and it has shared research and best practices with governments, partners and competitors around the world.

Even as BP has prepared to respond to an accident, it also has worked hard to ensure that such a response is never needed. Among its many initiatives, BP continues to work with industry members to improve standards on the safety and reliability of subsea blowout preventers and other critical equipment.

Technology

Once people are trained and on the job, BP uses leading-edge technologies to help its teams see things their naked eyes can't. These technologies help BP teams predict where safety challenges might arise so that they can prevent incidents from occurring.

BP's objective is to identify potential issues and intervene

before they become actual problems. For example:

- BP's Global Monitoring Center provides round-the-clock support for deepwater well operations in the Gulf of Mexico, ensuring that offshore personnel receive 24/7 assistance from onshore experts — and extra sets of eyes on the company's wells. Specialists in the Monitoring Center are in constant communication with rig teams to help analyze real-time data, focusing on pumps, pits, flow pressures and rates.
- BP has developed a suite of intuitive computer consoles — known as BP Well Advisor — that use sensory technology to gather data about the company's well operations and then translate the data into simple, real-time indicators to help rig crews and office-based experts enhance safety and performance.
- At its Cherry Point Refinery, BP uses phased array ultrasonic testing to confirm the safety and soundness of piping systems and pressure vessels. This technology allows BP to explore for interior corrosion and other damages, while also assuring weld quality.

Culture

Of course, BP workers provide the ultimate safety net. That means that anyone, anywhere, can and should stop any job for any reason if he or she thinks it is unsafe. Given the scale of BP's operations, that is a big responsibility. But it is a responsibility everyone has and must fulfill.

BP recognizes that to have a strong safety culture, it has to promote a strong speak-up culture — a culture in which employees and contractors alike are encouraged to raise questions or concerns. BP supervisors know they have a special duty to be accessible to their team members, and to ensure that everyone feels comfortable speaking up.

Conclusion

BP is committed to the safety of its people and the communities where it operates. This requires constant vigilance and dedication. That's why BP is working every day to improve its training, technology and culture. Because at BP, safety is never being satisfied and always working to be better.



Safety is giving everyone access to the brakes...



...so everyone comes home safely.

At BP, our goal is no accidents, no harm to people, and no damage to the environment. That's why we empower anyone to stop a job if something doesn't feel right.

Technology

Innovating for the future

Throughout its history, BP has pioneered a wide range of technologies that have made its operations and products safer, more efficient and better for the environment. The company's breakthroughs often have spurred changes across the entire oil and gas industry. In some cases, they have revolutionized the industry.

Today, BP tests, uses or creates innovative technologies at all its major U.S. facilities, including in its well operations, at its refineries and petrochemical plants, and in its fuels and lubricants businesses. It also supports game-changing startup companies and low-carbon technologies through venturing and other investments.

Upstream technology

Technologies such as seismic imaging, digital advisor

systems and acoustic sensing help BP find and produce more oil and gas, safely and efficiently.

The company remains a leader in developing seismic imaging capabilities, which allow oil and gas explorers to see deep into the Earth's subsurface. For example, a recent breakthrough in seismic processing technology — which enhanced the clarity of survey images — allowed BP to unlock 200 million barrels of additional resources in its Atlantis field in the Gulf of Mexico.

"This innovation again shows that BP remains at the forefront of advanced seismic imaging and digital technologies," says Ahmed Hashmi, BP's head of upstream technology. "The new technique has produced the best images of this reservoir that we have ever seen."

The imaging breakthrough was made possible by BP's continued investment in its Center for High-Performance Computing (CHPC), which is one of the world's largest supercomputers for commercial research. Since the CHPC

opened in 2012, BP has tripled its computing power and doubled its storage capacity, and it plans to continue expanding the facility in 2017.

Digital technologies, meanwhile, have huge potential to modernize and transform BP's businesses. Through a partnership with GE, the company is pilot-testing Plant Operations Advisor, an offshore digital technology designed to improve the safety, reliability and efficiency of its Gulf of Mexico operations.

This technology gives BP teams real-time surveillance tools to detect potential facility issues well in advance. For example, BP uses Plant Operations Advisor to process more than 150,000 sensor records per minute on the condition of its equipment. The company plans to deploy it in more than 30 fields by 2018.

BP also uses fiber cables — installed several miles below the ocean floor — to help identify sand that is entering its offshore wells or causing damage at the surface. Known

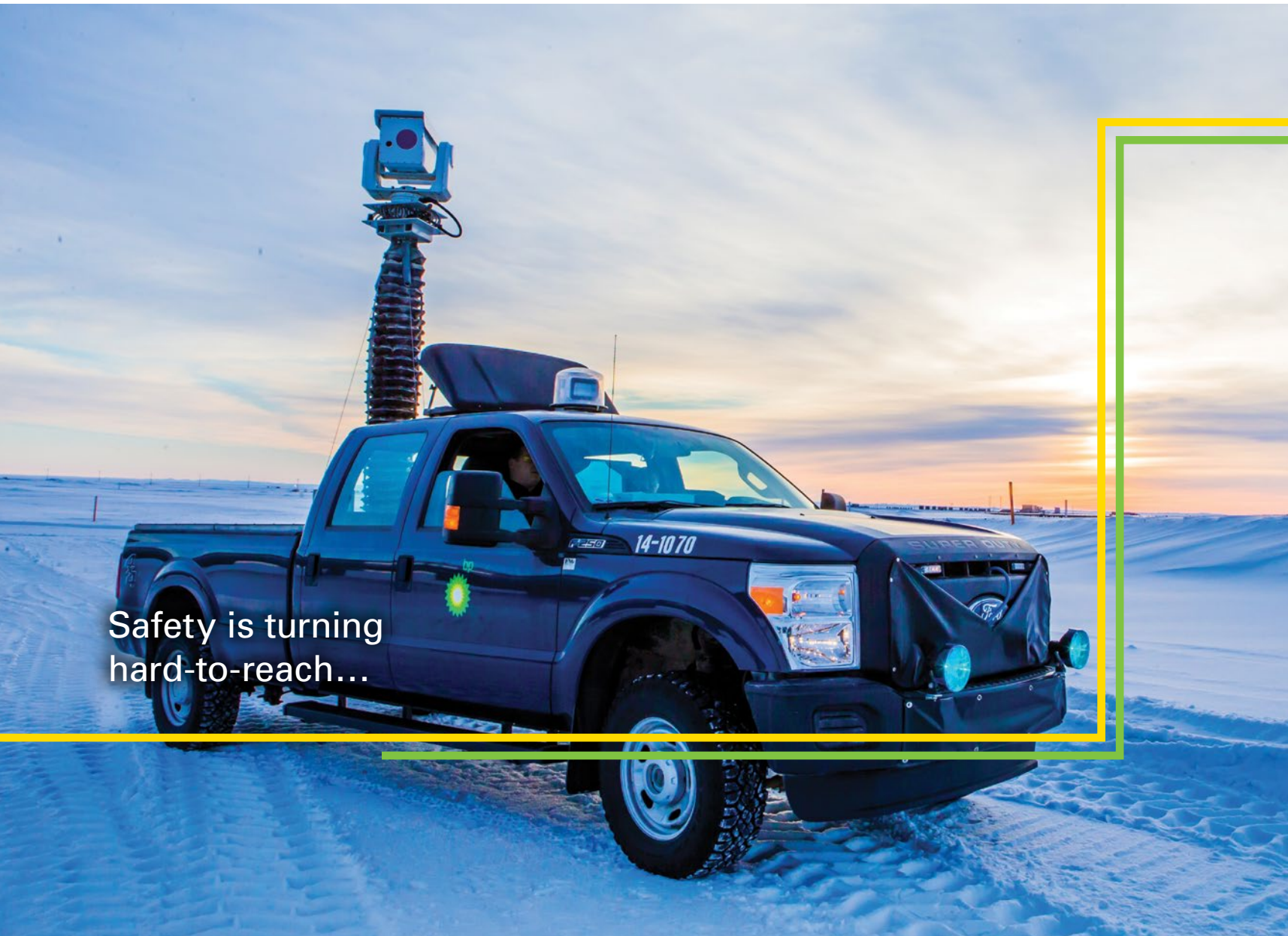
as "acoustic sensing," this technology enables BP to hear the sand and locate its precise entry point, so that the well can be repaired. If too much sand is produced along with oil, it can cause erosion and equipment problems; in extreme cases, it even can stop a well's production. Thus, identifying sand entry points helps BP recover more oil and gas.

Downstream technology

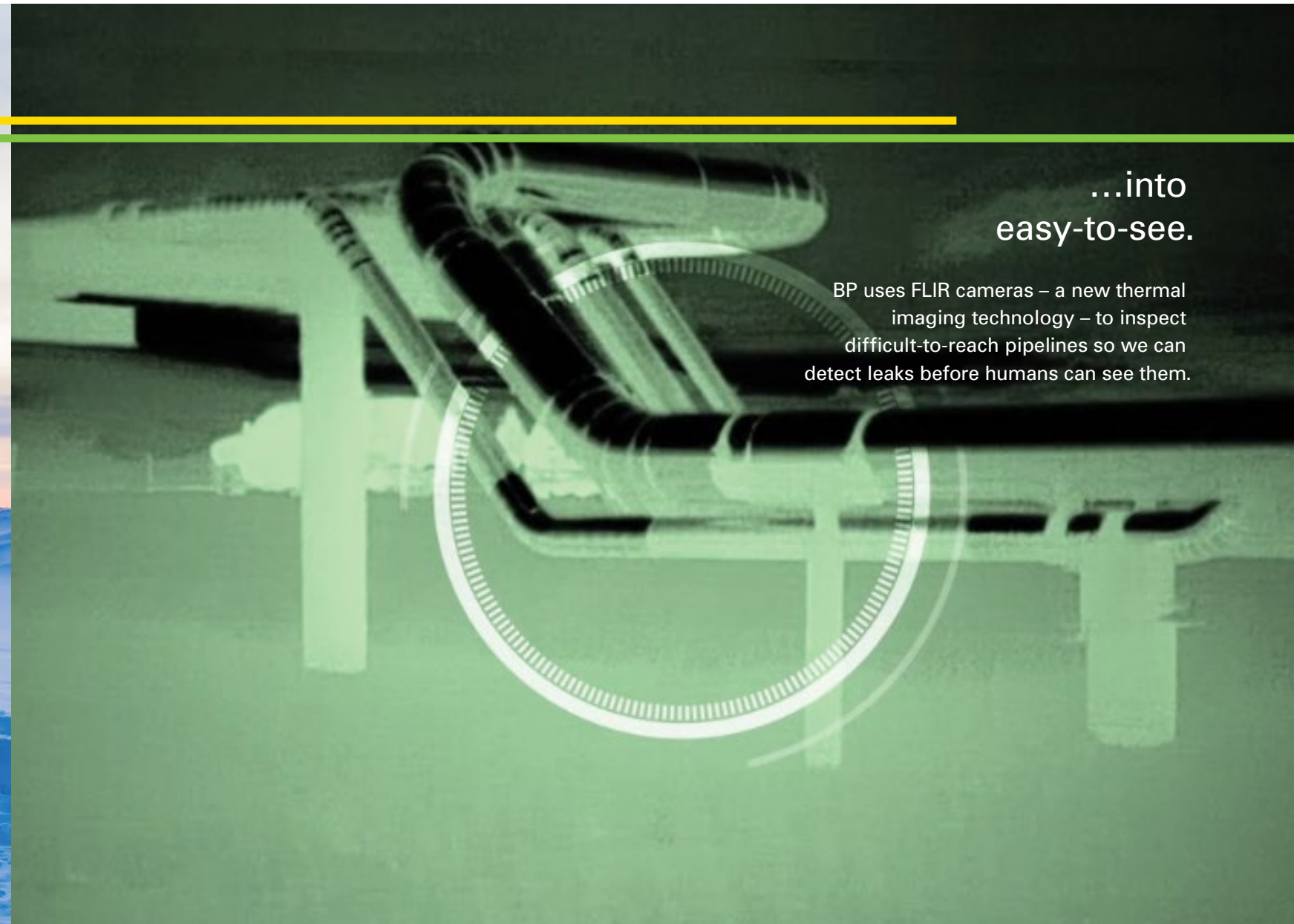
Beyond oil and gas production, technology plays a big role in helping BP enhance the safety and reliability of its refineries and petrochemical plants, and it also helps the company create high-quality, energy-efficient fuels and lubricants.

The BP campus in Naperville, Illinois, serves as the company's U.S. technology hub for these operations and products. Scientists and engineers in Naperville test innovative ideas and share the results with BP facilities worldwide.

In its refineries and chemical plants, BP develops and applies technologies that enhance operational integrity,



Safety is turning
hard-to-reach...



...into
easy-to-see.

BP uses FLIR cameras – a new thermal imaging technology – to inspect difficult-to-reach pipelines so we can detect leaks before humans can see them.

boost conversion efficiency and reduce emissions. For example, at its Whiting Refinery, BP uses the steam generated by operations to help power the refinery. This has led to a reduction in Whiting's indirect greenhouse gas emissions, with more electricity generated on-site.

"Technology underpins all that we do across BP's downstream businesses — advancing safety and reliability, optimizing production, increasing operational efficiency, and creating innovative products," says Mike Ingraham, BP's vice president of refining technology and engineering.

BP also has a long record of investing in technology to produce high-performance gasolines for U.S. drivers. In 2016, the company launched a new gasoline with the *Invigorate* additive at BP-branded fuel stations. The new formula is specially designed to help remove dirt from engines and give drivers more miles per tank.¹

BP's global lubricants business — which operates under the *Castrol* brand name — has its Western Hemisphere

headquarters in Wayne, New Jersey. *Castrol* has been a pioneer in lubricant technology for over a century, with its products working in extreme environments from the deepest oceans on Earth to the surface of Mars.

Castrol also brings innovation, sustainability and performance to everyday consumers with products like *EDGE Bio-Synthetic*, which helps protect engines and improve performance while being formulated with 25 percent sugarcane-based oil compounds.²

In addition, many of *Castrol's* engine oils contain BP's proprietary S3 additive chemistry, which was developed at the Wayne technology center. These advanced lubricants maintain their viscosity while helping improve the cleanliness of today's high-performance engines.

BP Ventures

BP Ventures identifies and invests in high-growth companies across the energy spectrum, with a strategic focus on five key areas: bio and low-carbon products, carbon

management, power and storage, advanced mobility and digital transformation.

BP has invested more than \$350 million in corporate venturing since 2006, including more than \$230 million in 30 U.S. companies.

For example, BP has invested \$30 million in Fulcrum BioEnergy, a California-based company that produces lower-carbon jet fuel from household waste, and \$20 million in Beyond Limits, a Caltech startup that is commercializing artificial intelligence and cognitive computing software originally developed for NASA and the space program.

Oil and Gas Climate Initiative

BP supports the Oil and Gas Climate Initiative (OGCI), an effort started by 10 companies — including both international oil companies like BP and Shell, and national oil companies like Saudi Aramco and CNPC — that together represent more than 20 percent of global oil and gas production. Part of OGCI's work is the creation of OGCI

Climate Investments, which is backed by a collective pledge from OGCI companies to invest \$1 billion in low-carbon technologies over 10 years.

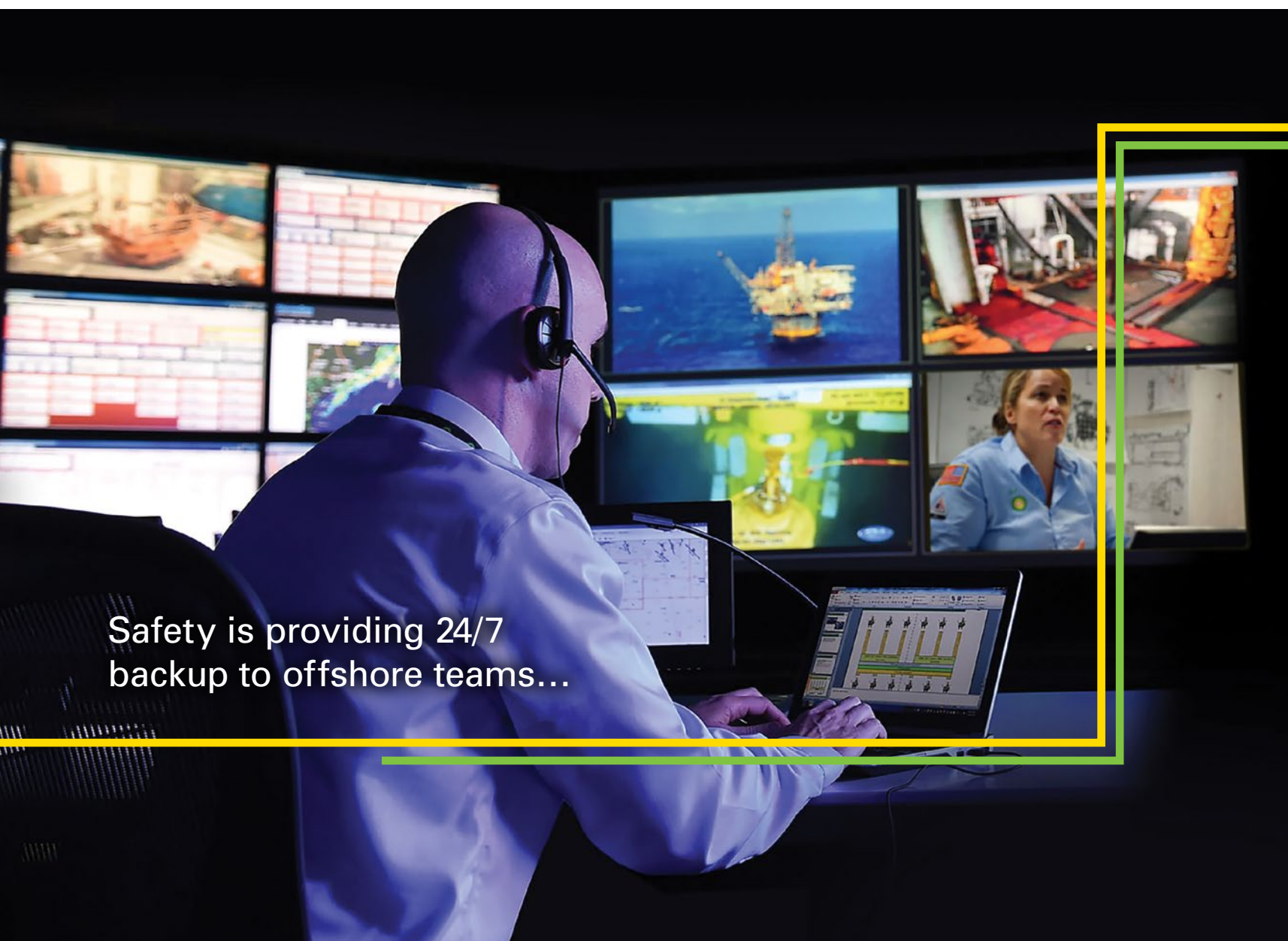
Right now, the biggest focus areas for OGCI Climate Investments are reducing methane emissions; developing carbon capture, use and storage technology; and improving energy efficiency in the transportation and industrial sectors.

Joint biofuel venture with DuPont

BP has a joint venture with DuPont to develop bio-isobutanol, an advanced biofuel produced from renewable feedstocks. In 2017, the joint venture acquired a state-of-the-art ethanol plant in Scandia, Kansas, and it plans to add bio-isobutanol production capacity to the facility.

¹ Dirt refers to deposits formed on critical engine parts. Compared to minimum detergent gasoline. Requires continuous use over 5,000 miles. Restores an average of 3-5 miles per tank that had been lost due to deposits. Based on fleet testing representative of the U.S. car population. Fuel economy can be affected by many factors. Benefits may be more significant in older model vehicles.

² *Castrol* and *EDGE* are registered trademarks.



Safety is providing 24/7 backup to offshore teams...



...so we have extra eyes on our wells every day.

BP drill teams have around-the-clock communication with onshore experts at our Global Monitoring Center.

Community Investment

Building a stronger America

BP's commitment to America goes well beyond providing the energy and jobs that fuel economic prosperity. The company also supports a wide range of institutions and initiatives that strengthen the communities where its employees live and work.

These include everything from education programs for underprivileged children, to career transition programs for military veterans, to charity fundraisers for disease research, to world-class training for America's Olympic and Paralympic athletes.

Over the past five years alone, BP has donated \$130 million to U.S. community programs, while also maintaining business partnerships with hundreds of women- and minority-owned enterprises.

BP Foundation

The BP Foundation is a charitable organization — separate from but funded entirely by BP — that supports philanthropic activities around the world. Since 2007, it has contributed more than \$185 million to thousands of community groups and causes in the United States.

As part of its commitment to service, the foundation matches personal charitable donations — including donations of time and effort — made by BP employees. In 2016 alone, U.S. employees contributed nearly \$5.1 million and more than 53,000 volunteer hours to 32,000-plus organizations. The foundation matched these contributions with grants totaling \$5.3 million.

Supplier diversity

Every year, BP partners with 300 of America's certified minority and women's business enterprises. In fact, it was one of the first major corporations in the U.S. to create a formal program aimed at increasing supplier diversity, and it has spent nearly \$6 billion with diverse suppliers since 2008.

This investment creates jobs and strengthens local employers in the communities where BP operates. In 2016, the Women's Business Enterprise National Council recognized BP as one of America's Top Corporations for Women's Business Enterprises, while the Women's Business Enterprise Alliance named BP Corporation of the Year.

The most important recognition of BP's supplier diversity work comes from the suppliers themselves. For example, Angelica Garcia-Dunn of AIM Global Financial says that "the trust BP has placed in us has given AIM credibility with other large potential clients."

Military veterans

BP is proud to support American military personnel both during and after their time in uniform. In 2015, it won the Secretary of Defense Employer Support Freedom Award, which is the highest recognition the U.S. government gives to employers for supporting workers serving in the Guard or the Reserve.

In addition, G.I. Jobs magazine has designated BP America as a "Military Friendly Employer," while U.S. Veterans Magazine has named it one of America's "Best of the Best Top Veteran Friendly Companies."

Beyond its own workforce, BP helps veterans across America transition back into civilian life. For example, its contributions to adaptive sports — including Paralympic programs and events such as the Warrior Games — help injured or disabled veterans with the process of rehabilitation and reintegration. Meanwhile, through its support for the Hiring Our Heroes initiative, BP makes it easier for veterans, transitioning service members, and military spouses to find meaningful employment.

The company also partners with Student Veterans of America to provide scholarships for veterans pursuing STEM careers, and its Military Placement Program gives veterans the opportunity to hold a six-month paid position with BP's marketing and trading business.



Since 2007, the BP Foundation has contributed more than **\$185 million** to thousands of U.S. community groups and causes.



In 2016 alone, BP's U.S. employees contributed nearly **\$5.1 million** and more than **53,000 volunteer hours** to **32,000-plus organizations**.



Since 2008, BP has spent nearly **\$6 billion** with women- and minority-owned businesses in the United States.



Over the past five years alone, BP has donated **\$130 million** to U.S. community programs.

BP knows that veterans want to achieve the sense of purpose they had in the military. With that in mind, the company supports Team Rubicon and The Mission Continues as they help veterans find rewarding ways to serve their communities.

STEM education

For more than six decades, BP has supported science, technology, engineering and math (STEM) education programs across America. The company has donated nearly \$70 million to STEM programs over the past five years alone, which reflects BP's broader commitment to expanding economic opportunity, developing a highly skilled workforce and inspiring the next generation of innovators.

BP supports programs that encourage students to pursue STEM careers, that educate and train teachers, and that mobilize employees to volunteer and mentor in their communities.

For example, it partnered with the Offshore Technology Conference (OTC) in 2017 to present the inaugural OTC Energy Challenge, a competition in which teams of high school students developed and presented solutions to real-world energy challenges.

The company also has partnered with the Association of Science-Technology Centers to create the Energy Education Initiative, a program aimed at equipping STEM teachers with energy-related curriculum and programming. In addition, BP supports the Million Women Mentors project, which helps young women learn about and succeed in the STEM fields.

Olympic and Paralympic support

A proud partner of the U.S. Olympic Committee (USOC) and Team USA since 2010, BP was honored to support an outstanding group of U.S. athletes who won a combined 16 medals at the Rio 2016 Olympic and Paralympic Games. In 2017, BP announced that it will sponsor six U.S. Paralympic national teams — the cycling, swimming, track and field, alpine skiing, Nordic skiing and snowboarding teams — as they prepare for the Paralympic Winter Games PyeongChang 2018 and the Paralympic Games Tokyo 2020.

BP helps U.S. athletes receive world-class training all year round. For example, it donated \$1 million to build the USOC's Ted Stevens Sports Services Center in Colorado Springs, Colorado. It also partnered with the USOC and the University of Illinois to create America's first official Paralympic wheelchair racing training site, located on the university's Urbana-Champaign campus.

BP MS 150

BP is the title sponsor of the BP MS 150 bike ride, the National Multiple Sclerosis (MS) Society's largest annual fundraising event. Since 2001, BP and Team BP riders have raised or contributed more than \$19 million to support MS research and programs, including more than \$900,000 in donations in 2017 alone.

Student Conservation Association

Since 2015, BP has contributed \$1.5 million to the Student Conservation Association to support environmental programs — for college students, high schoolers and military veterans — in the Chicagoland and northwest Indiana region.

Through this partnership, the company has helped improve conditions at Chicago's Calumet Watershed and the Indiana Dunes National Lakeshore, while helping local youths gain valuable skills and experience.

Chicago Architecture Biennial

In 2015, BP served as presenting sponsor of the inaugural Chicago Architecture Biennial, to which it contributed \$2.5 million. The three-month exhibition featured projects designed by many of the world's leading architects. BP will

contribute \$1 million as founding sponsor of the second Chicago Architecture Biennial, which runs from September 2017 to January 2018.

Support for the arts

BP has a rich history of supporting the arts in America. For example, BP and the BP Foundation have made significant donations to the Art Institute of Chicago and the Los Angeles County Museum of Art.

In 2017, BP sponsored an historic exhibition at the National Gallery of Art, "Vermeer and the Masters of Genre Painting: Inspiration and Rivalry," which featured more than 60 masterpieces from the Dutch Golden Age.

Houston Livestock Show and Rodeo

Since 2012, BP has contributed nearly \$5 million to the Houston Livestock Show and Rodeo (HLSR), including more than \$400,000 in direct support for HLSR scholarship programs.

United Way

A longtime supporter of the United Way (UW), BP has raised more than \$17 million for local UW organizations over the past five years alone.



BP is sponsoring **six U.S. Paralympic national teams** as they prepare for the 2018 and 2020 Paralympic Games.



Since 2001, BP has raised or contributed more than **\$19 million** to support the National Multiple Sclerosis Society.



Over the past five years alone, BP has raised more than **\$17 million** for local United Way organizations.



Between 2012 and 2016, BP donated nearly **\$70 million** to U.S. science, engineering, technology and math programs.

Exploration and Production

Alaska | Gulf of Mexico | Lower 48

Alaska

BP's economic investment

BP has spent more than half a century exploring and developing Alaska's oil and gas resources, while playing an important role in driving economic growth and supporting local communities throughout the state.

The company began working in Alaska in 1959, started drilling at the massive Prudhoe Bay oil field in 1968, and helped build the Trans-Alaska Pipeline System in the mid-1970s. Since Prudhoe Bay began production in 1977, it has generated more than 12.5 billion barrels of oil — far exceeding initial projections — thanks in part to enhanced oil recovery technologies that BP pioneered.

Four decades after starting up, Prudhoe Bay is the most prolific oilfield in U.S. history and continues to support thousands of jobs.

Alaska depends on Prudhoe Bay's oil output to help fuel its economy and finance government services.

"Alaska must compete at this lower for longer oil price," says Janet Weiss, president of BP's Alaska region. "Prudhoe Bay has repeatedly defied the odds and remains a major contributor to U.S. energy security and to the state's economy. But it will take improved efficiencies and technologies and sound fiscal policies to keep the Alaska oil and gas industry competitive."

BP has a significant business interest in Alaska's North Slope. The company operates the entire Greater Prudhoe

Bay area, which consists of the Prudhoe Bay field and a number of smaller fields. This area produces around 55 percent of Alaska's oil and gas, and in 2016 it averaged nearly 281,000 barrels of oil equivalent each day. BP also owns interests in seven other North Slope oil fields, including Alaska's newest oil and gas field, Point Thomson.

Through its investments and operations, the company makes enormous contributions to Alaska's economic and fiscal health. BP supports more than 10,300 jobs across the state, and in 2016 alone it spent more than \$1.2 billion with vendors in Alaska, while paying \$464 million in taxes, royalties and other government payments.

BP also has spent the past few years working with industry partners and the state government to advance the Alaska liquefied natural gas (LNG) project, which, if sanctioned,

would move North Slope gas to global markets. BP continues to support the state-led Alaska LNG project, and it has a joint cooperation agreement with the Alaska Gasline Development Corporation, which has assumed responsibility for technical and regulatory issues associated with the project.

In 2016, BP donated nearly \$3.5 million to Alaska community organizations, with its employees supporting more than 800 specific initiatives and about 230 youth teams.

Over the past 30 years, the company has awarded more than \$3.5 million to 825 graduating high school seniors from across the state as part of the Principals' and Commissioner's Scholarship program. Meanwhile, the BP Teacher of Excellence program receives more than 1,000 Alaska teacher nominations each year, and it has recognized around 750 teachers since 1995.



In 2016, BP-operated fields in Alaska produced an average of nearly **281,000 barrels** of oil equivalent each day.



BP owns the largest share of the Trans-Alaska Pipeline System, which carries crude oil **800 miles** from Prudhoe Bay to the port city of Valdez.



In 2016, BP spent more than **\$1.2 billion** with vendors in Alaska.



BP has contributed more than **\$32 million** to the University of Alaska system since 2001.



BP supports more than
10,300 jobs
in Alaska.

Gulf of Mexico

BP's economic investment

Nearly three decades after BP began exploring the deepwater Gulf of Mexico, the company remains one of the region's leading oil and gas producers, with lease blocks covering an area about the size of Delaware. In fact, BP has been the largest energy investor in the deepwater Gulf of Mexico over the past decade.

Between 2014 and 2017, its average daily production in the region increased from 252,000 barrels of oil equivalent to more than 300,000. This reflects BP's continued investment at its four massive Gulf of Mexico production platforms: Atlantis, Na Kika, Thunder Horse and Mad Dog. Elsewhere in

the gulf, the company holds interests in four hubs that other companies operate: Mars, Olympus, Ursa and Great White.

In a significant move, BP approved the Mad Dog Phase 2 project for development in late 2016, and the project co-owners sanctioned it in early 2017. The \$9 billion project is expected to start up in late 2021 and produce up to 140,000 barrels of crude oil per day from as many as 14 production wells.

In another important development, BP successfully completed its Thunder Horse South Expansion project 11 months ahead of schedule and \$150 million under budget. The project added a new subsea production system roughly two miles south of the existing Thunder Horse platform.

The new system is a collection point for wells that

are connected to the Thunder Horse platform by two 11,000-foot flowlines installed on the seabed in late 2016.

The project is expected to boost production at the facility by an estimated 50,000 gross barrels of oil equivalent per day, further increasing output at one of the largest oil fields in the gulf.

Meanwhile, recent advances in BP's proprietary seismic imaging technology have identified additional resources around the company's Gulf of Mexico hubs that could yield an additional 1 billion barrels of oil in place. In effect, BP's seismic imaging breakthroughs have allowed it to find new oil fields within existing oil fields.

"The Gulf of Mexico is central to BP's upstream portfolio, and we've proven that deepwater projects can be economical

even in a low oil price environment," says Richard Morrison, regional president of BP's Gulf of Mexico business. "By executing projects through existing infrastructure at our major hubs, we are leveraging our portfolio of high-value, longer-life assets and strategic partnerships across deepwater to provide BP with operational momentum for years to come."

To support its Gulf of Mexico business, BP maintains a logistics base in Port Fourchon, Louisiana, along with a heliport in Houma. In any given month, about 2,500 people pass through the Houma heliport on their way to BP facilities.

Once well operations begin, offshore teams receive 24/7 support — including constant communication and real-time data analysis — from the company's Global Monitoring Center, to help ensure safe and reliable operations.



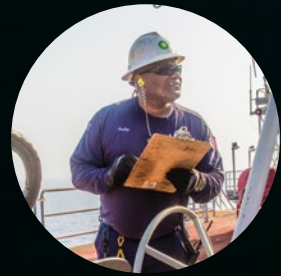
In 2016, BP produced an average of **264,000 barrels** of oil equivalent in the Gulf of Mexico each day.



BP's Thunder Horse facility is the deepwater gulf's **largest production and drilling platform.**



BP's Na Kika platform serves as a hub for **eight subsea fields.**



BP's Gulf of Mexico business supports **thousands of jobs** across the Gulf Coast region.



BP is the
No. 1 investor
in the deepwater Gulf of Mexico
over the past 10 years.

Lower 48

BP's economic investment

With operations that stretch from the Rocky Mountains to east Texas, BP's Lower 48 onshore business is one of America's largest natural gas producers. Over the past two years, it has grown to include a major presence in the Haynesville and Bossier shale plays near the Texas–Louisiana border.

The business operates nearly 10,000 wells and has interests in close to 13,000 others. It produces primarily natural gas — along with oil, condensate and gas liquids — from both conventional and unconventional rock formations. In 2016, it produced an average of 302,000 barrels of oil equivalent each day, and its investment and operating expenditures totaled nearly \$1.6 billion.

Its operations span five states — Colorado, New Mexico, Oklahoma, Texas and Wyoming — and seven oil and gas basins, covering an area (6 million net acres) roughly the size of New Jersey.

While wholly owned by BP, the Lower 48 business began operating as a separate entity in 2015 in order to become more competitive in a rapidly changing exploration and production environment. The move has delivered significant results.

"Two years after separating our U.S. Lower 48 onshore business, we have clearly accomplished what we set out to do," says Lower 48 CEO Dave Lawler. "We have closed the operating cost gap with competitors in every basin where we work, and in some cases we're now in a leading position. We've created a high-performance culture based on innovation, empowerment and accountability, and it's helping us deliver sustainable returns, even in a

low commodity price environment. Meanwhile, we've maintained BP's steadfast commitment to safety."

"Consequently, we've gained visibility among investors as a premier U.S. onshore oil and gas business. As we move into the next phase of our growth, we will build on this early momentum and continue working to unlock the full potential of our business," Lawler adds.

With decades of experience in the San Juan Basin — located mainly in New Mexico and Colorado — BP has a deep understanding of its reservoirs, and the Lower 48 business has combined that knowledge with innovative technology to help boost production efficiency. In 2015, for example, the company made history by completing its first-ever "multilateral" wells in the basin. Multilateral wells feature multiple horizontal wells connected to a single drilling hole, or "wellbore," allowing producers to access

more of the oil and gas in a given reservoir while reducing the number of drilling sites.

The Lower 48 business expects that a majority of its new wells in the San Juan Basin will be multilaterals, and it is pursuing similar well design improvements across all of its operations.

In 2017, the business announced that it had brought online a highly productive natural gas well in the basin's Mancos Shale, highlighting the potential of the New Mexico field to be a significant new source of U.S. natural gas supply.

Also in 2017, the business expanded its presence in the east Texas portion of the Haynesville–Bossier shale gas fairway, which is one of America's deepest shale fairways. The Lower 48 team more than doubled its project footprint in the first half of the year, and it had plans to deliver 18 Haynesville and Bossier horizontal wells by the end of the year.



In 2016, BP's Lower 48 business produced an average of **302,000 barrels** of oil equivalent each day.



The Lower 48 business employs about **1,100 people**.



The Lower 48 business is the **largest oil and gas operator** in the Colorado portion of the San Juan Basin.



BP donated **\$5 million** to help build the BP Center for Energy Education at San Juan College in New Mexico.



In 2016, the investment and operating expenditures of BP's Lower 48 business totaled nearly **\$1.6 billion.**

Refineries and Petrochemicals

The Whiting Refinery | The Cherry Point Refinery | The BP-Husky
Toledo Refinery | Cooper River Chemicals | Texas City Chemicals

The Whiting Refinery

BP's economic investment

BP's Whiting refinery — a sprawling, 1,400-acre complex on the Lake Michigan shoreline — can produce enough gasoline each day to support the average daily fuel needs of more than 7 million cars.¹ Whiting is the largest refinery in the Midwest — as well as BP's largest refinery in the world — and it makes enormous contributions to the region's transportation network.

The facility first opened in 1889, as part of John D. Rockefeller's Standard Oil Company, and for more than 125 years it has been a key anchor of the northwest Indiana economy. Located about 17 miles southeast of downtown Chicago, Whiting is at the intersection of pipelines and railroads that carry its products to Midwest destinations.

BP stores many of these products at its Whiting terminal before moving them across the region.

Nearly three times the size of the Indianapolis Motor Speedway, the Whiting Refinery produces about 10 million gallons of gasoline and 1.7 million gallons of jet fuel each day, and it was one of the first U.S. facilities to refine low-sulfur gas and ultra-low-sulfur diesel fuel. Whiting also produces around 5 percent of all asphalt in the United States.

In 2013, BP finished a massive modernization project at the refinery that amounted to the biggest private investment in Indiana's history. The upgrades have allowed Whiting to process growing supplies of North American crude oil — up to 430,000 barrels a day — including heavy grades from Canada.

More recently, Whiting completed a \$180 million flare gas recovery project. This new unit allows the site to recover,

and use as fuel for refining processes, certain gases that would normally be released, including carbon dioxide and sulfur dioxide.

The refinery also has built a \$235 million treatment unit that removes oil and solids from its waste water, thereby reducing emissions even further.

In 2017, Whiting began constructing a \$300 million naphtha hydrotreating unit that will significantly reduce the amount of sulphur in its fuel and help it meet federal fuel-quality standards.

The Whiting team uses innovative technologies, not only to protect the environment and boost efficiency, but also to improve safety. For example, to inspect tall gas combustion devices, the refinery has deployed unmanned aerial vehicles — or "drones" — rather than have workers climb up temporary scaffolding.

"The Whiting Refinery is committed to helping build a safer, stronger, more sustainable BP," says Refinery Manager Don Porter. "Technology is a big part of that, and we're proud of the ways in which we've harnessed innovation to enhance our operations and increase our competitiveness."

Over the years, Whiting and its employees have supported a diverse range of local and regional institutions, such as Ivy Tech Community College, Purdue University and the Lake Area United Way (LAUW). In 2017, the LAUW gave Whiting its Volunteer of the Year award, in recognition of the fundraising work done by refinery employees.

BP also has supported local environmental initiatives, including a number of Student Conservation Association projects at Indiana Dunes National Lakeshore, along with the Northwest Indiana CommuniTree program, which works with municipalities to plant trees in parks and vacant lots.

¹ Calculation based on the average amount of gasoline an American passenger car uses each day.



BP's Whiting Refinery can process up to **430,000 barrels** of crude oil each day.



The Whiting Refinery can produce enough gasoline each day to fuel the average daily travel of more than **7 million cars**.



Beyond its fuel production, Whiting also produces around **5 percent of all asphalt** in the United States.



In 2016, BP spent more than **\$190 million** with vendors in Indiana.



BP supports more than **11,300 jobs** in Indiana.

The Cherry Point Refinery

BP's economic investment

Located in Blaine, Washington, BP's Cherry Point Refinery helps fuel cars, trucks and airplanes throughout the Pacific Northwest, while making major contributions both to the local community and to the global aluminum industry.

Surrounded by forest, wetland, stream, pond and shoreline habitats, the refinery also devotes considerable resources every year to help preserve its natural environment.

When Cherry Point first opened in 1971, refining crude oil brought by tanker ships from the North Slope of Alaska was its primary purpose.

Since then, the refinery has diversified its capabilities, and today it accepts and refines crude oil from around the world.

Its close proximity to rail, shipping and pipeline infrastructure helps Cherry Point move its products swiftly to market.

On an average day, it processes up to 236,000 barrels of crude oil, roughly 90 percent of which emerges as transportation fuel. Cherry Point provides a majority of the jet fuel used at international airports in Seattle, Portland, and Vancouver, British Columbia. The remaining 10 percent of its crude oil typically gets converted into anode-grade calcined coke, which the refinery sells to aluminum smelters worldwide.

Over the past decade, BP has made more than \$1.5 billion worth of capital improvements at the refinery. In 2013, for example, Cherry Point began using new technology to produce ultra-low-sulfur diesel fuel.

The refinery marked an important safety milestone at the beginning of 2017, when it surpassed 20 million consecutive work hours without a day away from work case.

Beyond its business operations, Cherry Point has a proud history of conserving and improving the rich habitats that surround it. Employee initiatives include monitoring a colony of great blue herons, documenting amphibians in protected wetlands and conducting an inventory of native wild species.

Cherry Point also partners with the Nooksack Salmon Enhancement Association to restore salmon habitat and teach water science to local schoolchildren, and it helped underwrite the BP Heron Center for Environmental Education at Birch Bay State Park.

In addition to its environmental work, the refinery supports a diverse mix of community programs throughout Whatcom County.

In 2016 alone, its employees donated more than 4,500 volunteer hours to the Boys & Girls Clubs, the Whatcom Literacy Council, the American Red Cross and other organizations. Meanwhile, Cherry Point has long been the

largest contributor to the Whatcom County United Way, with nearly \$5 million donated since 2004.

The refinery also invests in the next generation of energy and technology workers by sponsoring local schools and education initiatives, ranging from Bellingham Technical College to the Blaine High School Technology Student Association.

"Cherry Point is powered by our people, and we share a deep commitment to the communities in which we operate," says Refinery Manager Bob Allendorfer. "We're proud to provide jobs for more than 1,500 people. We're proud to provide a tax base that supports local school and fire districts. And we're proud that so many of our employees serve as mentors, coaches, Sunday school teachers and other community leaders.

"In short: We value being a good neighbor, as we have for more than 45 years."



BP's Cherry Point Refinery processes up to **236,000 barrels** of crude oil each day.



Cherry Point provides a majority of the **jet fuel** used at international airports in Seattle, Portland, and Vancouver, B.C.



The refinery has donated nearly **\$5 million** to the Whatcom County United Way since 2004.



In 2016, BP spent more than **\$275 million** with vendors in Washington state.

BP supports more than
7,700 jobs
in Washington state.

The BP-Husky Toledo Refinery

BP's economic investment

The BP-Husky Toledo Refinery, which BP operates as part of a joint venture with Husky Energy, provides the Midwest with gasoline, diesel, jet fuel, propane and asphalt. Located east of Toledo in the city of Oregon, Ohio, the refinery can process up to 160,000 barrels of crude oil each day.

To put that number in perspective: The BP-Husky Toledo Refinery produces enough gasoline each day for an average car to drive back and forth from Toledo to Miami more than 30,000 times. Meanwhile, it processes enough jet

fuel each day for an airplane to fly round-trip from Toledo to Miami 100 times.

During the summer of 2016, the refinery — which opened in 1919 — underwent its largest maintenance turnaround in 40 years. The renovations and equipment upgrades included changing out catalysts, tying in new processing units and installing new metallurgy to help the site process more lower-cost crude oil from Canada.

Not only did this project enhance the safety and efficiency of the refinery, but it also provided a boost to the local economy: Toledo brought in another 3,000 contractors to work alongside its regular personnel.

To train people for both the routine and the unexpected, the refinery uses advanced simulators, including high-fidelity

equipment that replicates real operations and processes.

A separate training program enables workers to improve their footing and balance in winter weather or slippery conditions by practicing on a mechanical “slip simulator.” BP has shared this technology with local firefighters, police officers, rescue personnel and others.

In 2017, the Toledo Refinery opened a new, interactive hazard recognition training facility that can reproduce actual workplace scenarios and help workers learn how to identify potential problems.

“The safety of everyone who works at the site and lives in the surrounding community is our top priority,” says Refinery Manager Mark Dangler. “That’s why we place such emphasis on workforce training and on regular inspections

and maintenance of our equipment.”

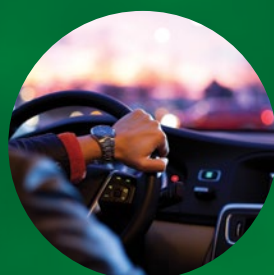
Beyond developing its current workforce, the Toledo Refinery also helps cultivate America’s workforce of the future.

For example, it has partnered with the University of Toledo (UT) to sponsor a scholarship program that gives local high school students the opportunity to pursue a career in engineering. The students who are selected attend summer college-prep courses, and after successfully completing three years of classes they receive full scholarships to study engineering at UT.

In addition, BP has donated more than \$300,000 to UT over the past five years to support engineering and business education programs for women and minorities.



The BP-Husky Toledo Refinery can process up to **160,000 barrels** of crude oil each day.



The Toledo Refinery produces enough gasoline each day for an average car to drive back and forth from Toledo to Miami more than **30,000 times**.



The refinery also processes enough jet fuel each day for an airplane to fly round-trip from Toledo to Miami **100 times**.



In 2016, BP spent more than **\$1 billion** with vendors in Ohio.

BP supports more than
4,600 jobs
in Ohio.



Cooper River Chemicals

BP's economic investment

Located in a picturesque wilderness on the outskirts of Charleston, South Carolina, BP's Cooper River Chemicals plant is America's largest producer of purified terephthalic acid (PTA), a key building block of clothing, home textiles, carpets, plastic bottles and thousands more everyday items.

BP invented PTA — a chemical feedstock used primarily to make polyester products — and today its Cooper River plant has the capacity to generate about 1.5 million tons' worth each year. That's enough PTA to make more than 1 billion children's backpacks.

Recent upgrades at Cooper River reflect BP's wider effort

to drive the low-carbon energy transition. In 2017, the plant completed a \$200 million project that will significantly reduce its energy use and emissions, and prepare it for the launch of a new line of low-carbon products.

With the improved equipment and systems, Cooper River will be able to reduce electricity use by 40 percent and cut up to 110,000 tons of carbon emissions per year — which is the equivalent of eliminating the electricity and heating emissions of around 2,000 U.S. households — while also boosting overall production by 10 percent.

"The upgrades we've made improve safety, reliability and efficiency, while enabling our facility to produce one of the lowest carbon products of its kind in the world," says Plant Manager John Harvey. "This investment also makes our plant one of the most environmentally friendly and cost-competitive in the industry."

Beyond its business operations, Cooper River has a distinguished record of conservation, which its employees exemplify through their support for nearby wildlife.

The plant is surrounded by dense forests and wetlands with a rich ecosystem of plants and animals indigenous to the South Carolina Lowcountry, including longleaf pines, wild turkeys, white-tailed deer, wood ducks, bluebirds and red-cockaded woodpeckers. The forests and wetlands serve as a vast outdoor classroom and nature preserve for local schools and community organizations, such as search-and-rescue dog training teams and veterans groups.

Cooper River has received recognition for its environmental programs from the Wildlife Habitat Council, the National Land Conservation Conference and other nature groups. Meanwhile, the plant's safety efforts have earned it the South Carolina Chamber of Commerce Workplace Safety

Award for three consecutive years.

BP contributes to the communities around Cooper River by, among other things, supporting education programs focused on science, technology, engineering and math (STEM).

For example, the company donated money to help build a new interactive STEM lab for a neighboring elementary school, and it supported the construction of a new fabrication lab at Laing Middle School, which in 2017 was named America's top STEM-focused middle school.

In addition, Cooper River employees support the PTSD River Challenge, a 125-mile kayaking excursion in which combat veterans paddle through South Carolina waterways to raise awareness of post-traumatic stress disorder and veteran suicide.



BP's Cooper River plant can produce enough purified terephthalic acid each year to make more than **1 billion** children's backpacks.



In 2017, Cooper River received the **Workplace Safety Award** from the South Carolina Chamber of Commerce for the third consecutive year.



BP supports more than **2,100 jobs** in South Carolina.



In 2016, BP spent more than **\$260 million** with vendors in South Carolina.



BP's Cooper River Chemicals plant is using improved equipment and systems to reduce its carbon emissions by up to **110,000 tons per year.**

Texas City Chemicals

BP's economic investment

BP's Texas City Chemicals plant (TCC) is a leading producer of paraxylene (PX) and metaxylene (MX), which help make everything from clothes and carpets to soda bottles and surfboards.

Located about 60 miles southeast of the company's U.S. headquarters in Houston, TCC has three process units and a deepwater marine terminal, and it can produce nearly 1.5 million tons' worth of chemicals each year. In fact, TCC can produce enough PX each year to make seat belts for 1.1 billion cars.

The plant buys hydrocarbon mixtures known as "xylenes" from Gulf Coast refineries, and it uses them to manufacture PX and MX.

It delivers much of its PX output to BP's Cooper River facility in South Carolina, which in turn manufactures purified terephthalic acid (PTA), a BP-invented chemical feedstock used to make polyester products such as home textiles and X-ray film.

Meanwhile, TCC sells its MX output to other manufacturers, who use it to make a wide variety of plastic products, including fiberglass auto bodies and cooling fans.

Committed to safe and reliable operations, TCC has received the Distinguished Safety Silver Award for top industry safety

performance from the American Fuel & Petrochemical Manufacturers association.

TCC began operating more than half a century ago, and today it is part of BP's global aromatics business, headed by Luis Sierra.

"BP's world-leading technologies in both paraxylene and PTA were developed in its U.S. laboratories and have been deployed by our partners and licensees around the world, giving rise to a whole new industry," says Sierra. "Today, polyester plays an important role in so many different aspects of our lives — from clothing, to food packaging, to electronics such as smartphones."

Since its first unit started up in 1962, TCC has made

significant contributions, not only to the southeast Texas economy, but also to local schools and regional community organizations.

For example, TCC employees volunteer for and donate to groups such as the United Way and Junior Achievement. Over the past five years alone, they have contributed more than 20,000 volunteer hours to community service initiatives.

Elsewhere in Texas City, BP continues to partner with Eastman Chemical Company on the production and marketing of acetic acid, which can be used to make household fabrics, washing powder and other everyday items. In fact, BP is the exclusive marketer of Eastman's annual output, which can reach around 580,000 tons.



In 2015, the American Fuel & Petrochemical Manufacturers association honored TCC for **top industry safety performance**.



TCC can produce nearly **1.5 million** tons' worth of chemicals each year.



Over the past five years alone, TCC employees have contributed more than **20,000 volunteer hours** to community service initiatives.



BP supports more than **18,800 jobs** in Texas.



BP's Texas City Chemicals plant (TCC) can produce enough paraxylene each year to make seat belts for **1.1 billion** cars.

Additional Businesses

Marketing and Trading | Retail, Fuels and Lubricants
Wind Energy | Pipelines and Logistics | Shipping

Marketing and Trading

BP's economic investment

BP's marketing and trading business reliably delivers energy supplies around the world, while offering financial services that help customers guard against fluctuations in energy prices. It works with a wide range of companies, as well as other BP businesses, to buy, sell and transport commodities such as natural gas, natural gas liquids (NGLs), power, crude oil, chemicals, sulphur and refined products.

Because the marketing and trading team is integrated with the rest of BP, the company can maximize the value of its energy resources. For example, the trading group buys crude oil for BP's refineries and helps them maintain their product inventory levels.

In an average year, BP's marketing and trading team completes around 1.2 million transactions in the U.S. and serves about 3,500 customers across North America. The company's two major U.S. trading hubs are located in Houston and Chicago, and its North American marketing and trading business also has offices in Canada and Mexico.

BP is the No. 1 marketer of natural gas in North America, selling enough to meet the average daily needs of every home and commercial building in the United States.

"In addition to our gas and power businesses, we are expanding our natural gas liquids business both domestically and globally," says Orlando Alvarez, head of BP's gas, NGLs, and power marketing and trading business in Houston. "We have deep expertise across the value chain — including in pipelines, railcars and ships — which allows us to deliver to multiple destinations for our U.S. customers."

Beyond oil and gas, BP provides customers with access to renewable energy products. For example, the company has been active in carbon emissions trading markets since their inception, including the one that took effect in California in 2013. Energy Risk magazine named BP the Emissions House of the Year in 2017, recognizing its carbon emissions trading expertise in markets from North America to Europe and China.

BP also is the largest supplier of renewable natural gas (RNG) to the U.S. transportation sector.

In 2017, the company acquired Clean Energy's RNG production facilities, including existing plants in Michigan and Tennessee, along with Clean Energy's share of two plants currently under construction in Oklahoma and Georgia. Produced entirely from organic waste, RNG fuel is estimated to result in up to 70 percent lower greenhouse

gas emissions than from equivalent gasoline or diesel-fueled vehicles.

"BP is committed to helping drive the transition toward a lower-carbon energy future," says Carey Mendes, head of BP's oil, products and low-carbon trading business in Chicago. "Our partnership with Clean Energy is part of that commitment, as it enables us to participate in the growth of renewable natural gas and support a more sustainable energy mix in the United States."

For its industrial customers — including oil and gas producers, refineries, petrochemical plants and power generators — BP provides hedging products and other risk management services that support capital investments and promote long-term economic growth.¹

¹ BP Energy Company is the entity that is provisionally registered under the Dodd-Frank Act.



In an average year, BP's marketing and trading team completes around **1.2 million** transactions in the U.S.



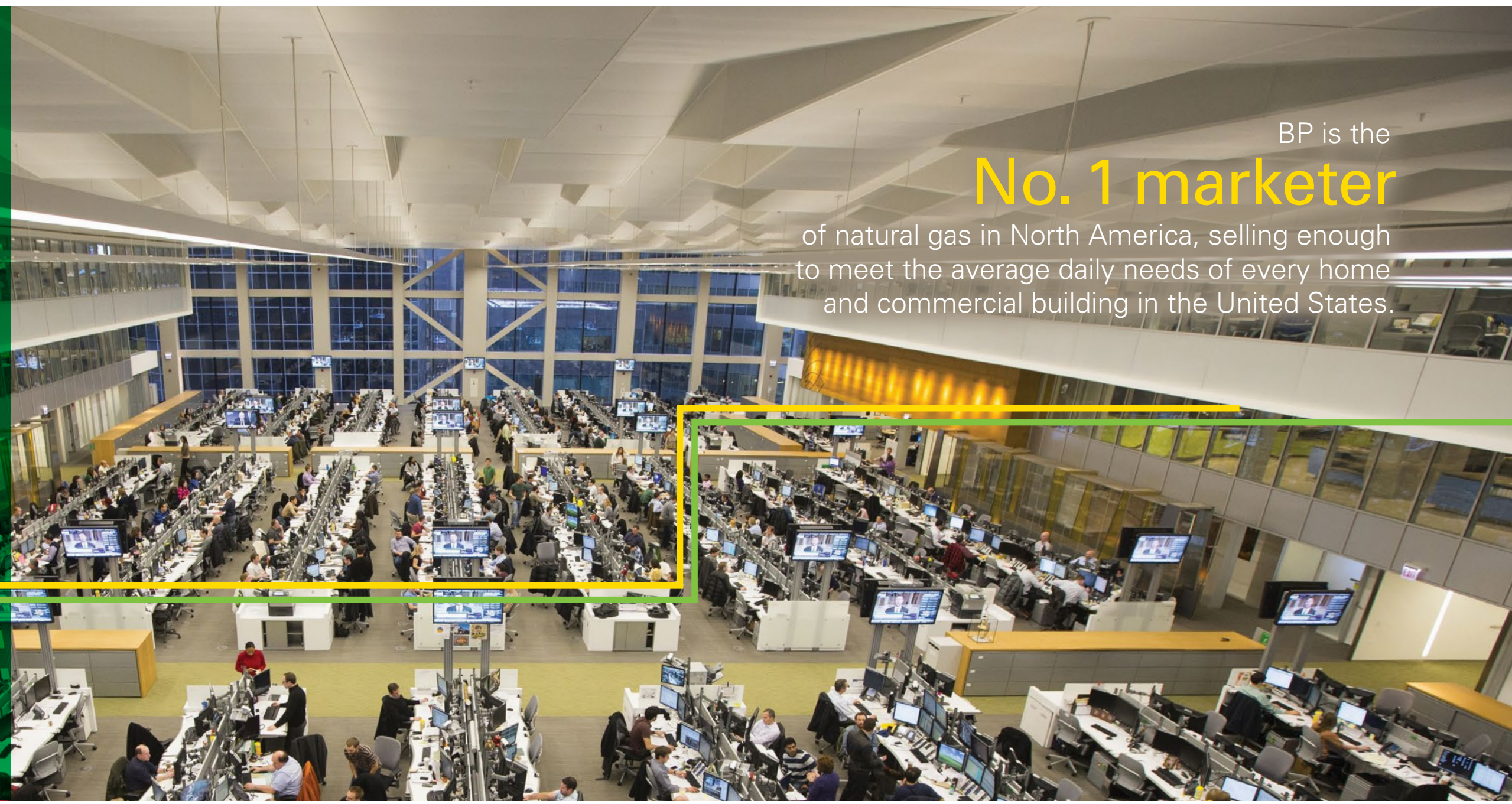
The marketing and trading team serves about **3,500 customers** across North America.



BP is the **largest supplier** of renewable natural gas to the U.S. transportation sector.



In 2017, Energy Risk magazine named BP the **Emissions House of the Year**, in recognition of its carbon trading expertise.



BP is the **No. 1 marketer** of natural gas in North America, selling enough to meet the average daily needs of every home and commercial building in the United States.

Retail, Fuels and Lubricants

BP's economic investment

From New York to San Francisco, BP has a growing network of retail stations that provide Americans with fuels, lubricants and other products essential to modern transportation.

The company's nationwide retail presence includes around 7,100 BP- and ARCO-branded sites, along with close to 1,000 *ampm* convenience stores in California, Oregon, Washington, Arizona and Nevada.

In 2016, BP delivered 11.4 billion gallons of fuel, including 7.3 billion gallons of BP-branded fuel, to its U.S. customers.

It continues to make new investments in its retail business, both to enhance its products and to upgrade its stations. In 2016, for example, BP launched a new version of its leading fuel brand, BP gasoline with *Invigorate*, which uses an innovative formula to help remove dirt from car engines.¹ Meanwhile, nearly 300 BP-branded sites joined the company's U.S. retail network.

"Understanding our consumers' needs and exceeding their expectations is a cornerstone of our business," says Rick Altizer, senior vice president for sales and marketing at BP's North American fuels business. "We work hard to provide a great product at our pumps and also to give our consumers a great experience when they fill up — with modern, updated stores serving quality food and drinks."

The company also markets products made by *Castrol*, BP's

world-class lubricants business, which is America's No. 1 motor oil brand for consumers who change their own oil. Internationally renowned for its pioneering technologies, *Castrol* directly serves around 500,000 customers, and more than 200 million people use its products.

Many of those products — such as *Castrol EDGE*, *Castrol Elixion* and the new *Nexcel* oil cell — can significantly boost engine efficiency and help drivers reduce their carbon intensity. The business recently introduced a new "bio" variant of *Castrol EDGE* and *Castrol MAGNATEC*, with 25 percent of the oil derived from plant sources.²

In 2017, *Castrol* became the exclusive premium lubricants brand in America's largest supermarket chain, Kroger.

Castrol has facilities across the United States, from Port

Allen, Louisiana — where it blends, packs and distributes lubricants — to Wayne, New Jersey, which is home to its Western Hemisphere headquarters.

BP's fuel and lubricant customers include commercial airlines and other aircraft operators. In fact, the company's aviation business, known as Air BP, is one of the world's largest suppliers of aviation fuel products and services, with customers in around 50 countries.

In 2016, Air BP launched Environmental Solutions, a new package of products and services designed to help aircraft operators reduce their carbon dioxide emissions. Also in 2016, BP announced the creation of a strategic partnership with California-based Fulcrum BioEnergy, a pioneer in the development and production of low-carbon jet fuel, in which BP will invest \$30 million.

¹ Dirt refers to deposits on critical engine parts.

² *Castrol*, *EDGE*, *Elixion*, *Nexcel* and *MAGNATEC* are registered trademarks.



BP delivered enough fuel to its U.S. customers in 2016 to run all the cars in New York and New Jersey for the **entire year**.



BP's *Castrol* business accounts for **23 out of every 100 gallons** of consumer motor oil purchased in U.S. stores.



Castrol is America's **No. 1** motor oil brand for consumers who change their own oil.



In 2016, Air BP launched a new package of products and services designed to help aircraft operators reduce their **carbon dioxide emissions**.

In 2016, BP delivered
11.4 billion gallons
 of fuel, including 7.3 billion gallons of
 BP-branded fuel, to its U.S. customers.



Wind Energy

BP's economic investment

BP has the largest operated renewable energy business of any major international oil and gas company. In the United States, its renewable assets include 14 onshore wind farms located everywhere from the Hawaiian island of Maui to the hills of northeast Pennsylvania.

The company's U.S. wind farms have a gross generating capacity of 2,259 megawatts. That's enough electricity to power all the homes in a city the size of Philadelphia, and it makes BP one of America's top wind energy producers.

BP directly operates 13 wind farms — in Colorado, Idaho, Indiana, Kansas, Pennsylvania, South Dakota and Texas —

while holding an interest in a separate wind facility in Hawaii. Its largest wind facility is the Flat Ridge 2 farm in south-central Kansas, which can generate enough electricity to power twice the number of homes in the state capital of Topeka.

Wind power accounts for more than half of all renewable power in the world today, and it is helping propel the transition to a lower-carbon future. In 2016, a net wind portfolio the size of BP's helped avoid nearly 3 million tons of carbon dioxide emissions. To put that number in perspective, it is equivalent to:

- the annual energy-related emissions of around 326,000 typical homes;
- the emissions produced by burning roughly 3.3 billion pounds of coal;

- the emissions produced by consuming more than 347 million gallons of gasoline.

Every BP-operated wind farm receives round-the-clock support from on-site personnel and/or from BP's Remote Operating Center (ROC) in Houston. During normal business hours, operators at individual wind farms manage their sites. During off-hours, weekends and holidays, operators at the ROC take control.

Using advanced technology, ROC teams centrally monitor all BP sites — 24 hours a day, seven days a week — while working with colleagues in the field to enhance performance, reliability and safety.

ROC monitoring systems capture turbine availability, power generation capacity, wind speed, weather and other critical factors. An embedded alarm system immediately notifies

operators of potential problems, such as approaching storms or flash flood warnings.

BP works hard to prevent its wind operations from affecting the wildlife and habitats that surround its facilities. For example, it voluntarily adjusts the movement of wind turbines to reduce their impact on bat populations during peak migration seasons.

"We are always focused on safety and sustainability in everything we do at our wind farms," says BP Wind Energy CEO Laura Folse. "Our staffers at the ROC provide an extra set of eyes and help our people in the field work safely and responsibly.

"Additionally, we continue to optimize our business by seeking out technological advancements and finding ways to deliver power more efficiently."



BP is one of **America's top** wind energy producers.



BP's U.S. wind farms can **power all the homes** in a city the size of Philadelphia.



In 2016, a net wind portfolio the size of BP's helped avoid nearly **3 million tons** of carbon dioxide emissions.



BP's Remote Operating Center provides **24/7 support** to all the company's wind facilities.

Globally, BP has the **largest operated renewables business** of any major oil and gas company.

Pipelines and Logistics

BP's economic investment

BP's U.S. Pipelines and Logistics business (USPL) moves and delivers the energy that helps power economic growth, serving both the Midwest and Pacific Northwest regions.

Every day, USPL manages more than 3,200 miles of pipelines carrying 1.1 million barrels of crude oil, natural gas liquids and refined products. It also has an ownership stake in close to 1,500 miles of additional pipelines.

The combined network of pipelines that USPL owns or manages is long enough to stretch from Chicago to London.

As of late 2017, the business will maintain 72 above-ground storage tanks with a combined capacity of about 5.3 million barrels.

USPL functions as the transportation and delivery hub for BP businesses and third parties across America, ensuring that energy resources reach their destination safely.

For example, USPL operates the 400-mile Olympic Pipeline, which moves gasoline, diesel and jet fuel from four Puget Sound refineries — including BP's Cherry Point Refinery — to seven intermediate delivery sites and 17 terminals in the Pacific Northwest. The Olympic system helps fuel cars, trucks and planes from Blaine, Washington, to Portland, Oregon, including the planes at Portland and Seattle-Tacoma international airports. It transports more than 12 million

gallons of fuel each day, meaning it effectively does the work of around 1,400 tanker trucks.

USPL also provides key pipeline transportation services in supplying crude oil to BP's refinery in Whiting, Indiana, and moving finished products out of the refinery to distribution hubs throughout the Midwest.

"The pipeline system operated by BP is a key element of the economic and security infrastructure of the United States," says Clive Christison, vice president of pipelines, supply and optimization for BP's North American fuels business. "Our extensive network of pipes safely and reliably delivers the energy that America needs to heat homes, businesses and schools, and it also delivers the energy that fuels the vehicles, airplanes and machines that make modern life possible."

USPL has its largest control center in Tulsa, Oklahoma, where employees schedule and monitor the movement of specific energy products. The Tulsa facility uses satellite communications and other innovative technologies — including a state-of-the-art leak detection system and an industry-leading damage prevention program — to make BP's pipeline operations run safely and efficiently.

In fact, USPL received the American Petroleum Institute Pipeline Occupational Safety Performance Award for large operators in 2016.

Beyond the pipelines and terminals that USPL operates directly, BP also has access to more than a dozen additional terminals in California, Florida, Georgia, Illinois, Indiana, Maryland, Minnesota, New Jersey, New York and Ohio.



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The pipelines that USPL manages carry **1.1 million barrels** of crude oil, natural gas liquids and refined products each day.



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Shipping

BP's economic investment

For more than a century, BP Shipping has transported oil and gas products across the world's oceans. It is BP's oldest continuously operating business unit, with a history that dates to 1915, when the British Tanker Company began carrying products from Persia.

Today, BP Shipping brings the company's oil and gas cargoes to market while providing technical and maritime expertise for its business activities.

In 2016, BP Shipping completed about 1,140 voyages to or from U.S. ports and moved over 42 million tons of cargo,

which is enough cargo to fill more than 15,000 Olympic-sized swimming pools. The business relies on a combination of company-operated, time-chartered and spot-chartered vessels.

BP delivered 13 new oil tankers into its fleet in 2016, and it expects to deliver another 13 in 2017. The new vessels feature propulsion technology and hull forms designed to increase fuel efficiency and reduce carbon emissions, which will help make BP's operations more sustainable.

The company also is building six new, state-of-the-art liquefied natural gas (LNG) tankers to support its expanding global LNG portfolio, including its long-term contract with the Freeport LNG terminal project in Texas.

The new vessels will join the BP-operated fleet in 2018 and

2019. Equipped with next-generation engine technology, BP's new LNG tankers will be about 25 percent more fuel-efficient than their predecessors, and their advanced hull designs will make them faster and easier to maneuver.

"These vessels will significantly increase BP's ability to safely transport clean-burning natural gas anywhere in the world," says BP Shipping Americas President Lambros Klaoudatos. "They will be among the most fuel-efficient and technically advanced LNG tankers ever built."

BP also owns a 25 percent stake in the Alaska Tanker Company (ATC), which it helped create in 1999 to consolidate all of its Alaskan crude oil shipping requirements into one operating company. ATC's four tankers deliver crude oil from the Valdez Marine Terminal in southeast Alaska to facilities on the West Coast and in Hawaii.

BP Shipping works hard to monitor the safety, not only of its own vessels, but also of third-party vessels moving BP cargoes.

For example, it runs a ship-vetting and port/terminal inspection program in which BP teams rigorously assess vessels based on a range of criteria, including management, operational, crewing and structural standards.

In 2017, the Chamber of Shipping of America (CSA) recognized the crews of 27 BP vessels for their excellent safety performance and honored them with CSA's prestigious Jones F. Devlin Award. To receive the award, a merchant marine vessel must operate for at least two years without a crew member losing a full turn at watch due to an occupational injury.



BP Shipping completed about **1,140 voyages** to or from U.S. ports in 2016.



BP's new oil tankers feature propulsion technology and hull forms designed to **reduce carbon emissions**.



BP's new liquefied natural gas tankers will be about **25 percent** more fuel-efficient than their predecessors.



In 2017, the Chamber of Shipping of America **recognized the crews of 27 BP vessels** for their excellent safety performance.



In 2016, BP Shipping moved over **42 million tons** of cargo in the United States, which is enough to fill more than 15,000 Olympic-sized swimming pools.

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