



BP in the U.S. – Advancing the Energy Transition

How our U.S. investments support resilience, sustainability and competitive growth.

BP around the World

BP is a global business with operations in 70 countries.

The energy we provide is essential to human welfare.

We are committed to working for all stakeholders, shareholders, customers, partners, governments, employees and communities.

We have to work safely and responsibly while doing our part to help build a sustainable future.



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74,000
employees

Operations in
70 countries



Key global
business lines:

Exploration
& production

Pipelines

Refineries &
petrochemicals

Renewable energy
& technology

Shipping

Marketing
& trading

Retail

BP in the U.S.

Here in the U.S., we have facilities and offices everywhere from the North Slope of Alaska, to the streets of downtown Chicago, to the Houston energy corridor, to the South Carolina Lowcountry.

In 2017 alone, BP's operations contributed \$85 billion to the American economy.

Between 2013 and 2017, we donated more than \$125 million to U.S. community programs and more than \$42 million to U.S. STEM education initiatives.



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14,000
employees



120,000
jobs supported



\$100 billion+
invested since
2005



All key global business
lines represented

Major U.S. operations:

- 3 exploration & production businesses
- 3 refineries
- 2 petrochemical plants
- 14 wind farms in 8 states
- 7,200 BP/ARCO-branded retail sites
- 4,700 miles of pipelines owned or managed by USPL business

BP in Houston

The Houston region is home to BP's U.S. headquarters, and it represents our largest global employee base.

Our Houston-area businesses include exploration and production (oil and gas), marketing and trading (gas, natural gas liquids, and power), wind energy and petrochemicals.

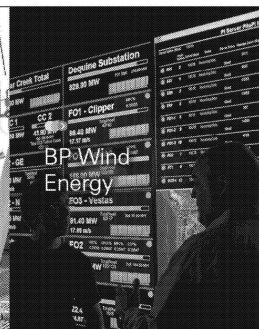
After Hurricane Harvey, BP and the BP Foundation joined with our employees to donate nearly \$1.6 million combined, along with 200,000 gallons of fuel, to help Houston recover.



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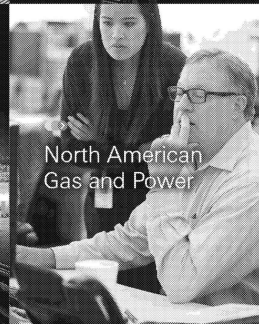
Gulf of Mexico



BP Wind Energy



Texas City Chemicals



North American Gas and Power

Global Monitoring Center

(round-the-clock support for deepwater well operations in the Gulf of Mexico)

Center for High-Performance Computing

(one of the world's largest supercomputers for commercial research)

BP MS 150

(more than \$19 million raised or contributed since 2001)

BP in Alaska

BP has spent more than half a century exploring and developing Alaska's oil and gas resources.

Today, we operate the entire Greater Prudhoe Bay area, which produces around 50% of the state's oil and gas.

We are working with the Alaska Gasline Development Corporation to advance the Alaska LNG project.

Our employees support hundreds of Alaska community initiatives and youth sports teams.



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10,000+ jobs supported



\$857 million+ in 2017 vendor spend



\$35 million+ donated to University of Alaska since 2001



Largest owner of Trans-Alaska Pipeline System

In 2017...

Nearly 281,000 barrels of oil equivalent produced daily in Greater Prudhoe Bay area

\$543 million paid to the state of Alaska in taxes, royalties and other government payments

\$3.9 million donated to Alaska community organizations

BP in Chicagoland and Northwest Indiana

BP has a rich, proud history in Chicago that dates back more than a century.

Through our heritage company Amoco, we built what was then Chicago's tallest skyscraper in the 1970s.

The Chicagoland/Northwest Indiana region represents our third-largest global employee base.



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17,000+ jobs
supported



Naperville
technology
center



Major
trading
hub



Whiting
refinery
(BP's largest)

\$39 million
in community
donations
since 2006

Museum of
Science & Industry,
Chicago Children's
Museum at Navy Pier,
Chicago Architecture Biennial,
Student Conservation
Association

Headquarters of
North American
fuels business

Third-largest
global employee
base

BP in Washington State

Located in Blaine, Washington, BP's Cherry Point Refinery helps fuel cars, trucks and airplanes throughout the Pacific Northwest, while supporting a diverse mix of local community initiatives.

Over the past decade, BP has made more than \$1.5 billion worth of capital improvements at the refinery.

Cherry Point has a proud history of conserving and improving the rich habitats that surround it.



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7,700+ jobs supported



\$385 million+ in 2017 vendor spend

Nearly \$5 million donated to Whatcom County United Way since 2004



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

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

Cherry Point helped underwrite the BP Heron Center for Environmental Education at Birch Bay State Park

Global Energy Demand Is Rising

In the decades to come, the world has to meet rising global energy demand while simultaneously helping to reduce greenhouse gas emissions.

People don't want just any kind of energy — they want affordable, reliable and accessible energy.

Our challenge is to meet the growing demand for that type of energy while also transitioning to a lower-carbon future.



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A Race to Renewables Will Not Be Enough

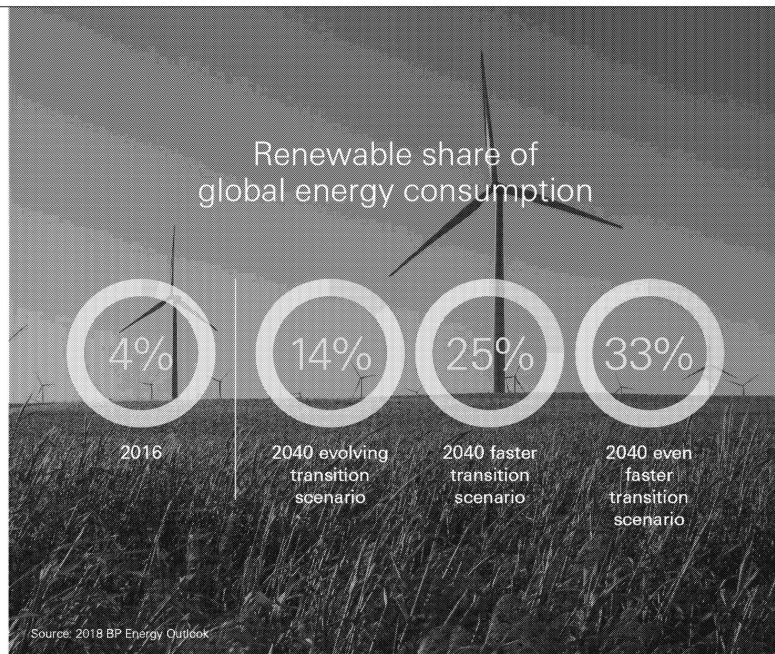
Over the past few decades, the fastest-growing form of energy has been renewable energy, such as wind, solar, biomass and biofuels.

On current trends, renewables will gain demand share in the power sector faster than any source of energy in history.

Yet even in the most aggressive lower-carbon scenario in BP's Energy Outlook report, non-renewables still account for two-thirds of global energy consumption in 2040.



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Closing the Emissions Gap

In BP's "evolving transition" scenario, net global carbon dioxide emissions increase by around 10% out to 2040.

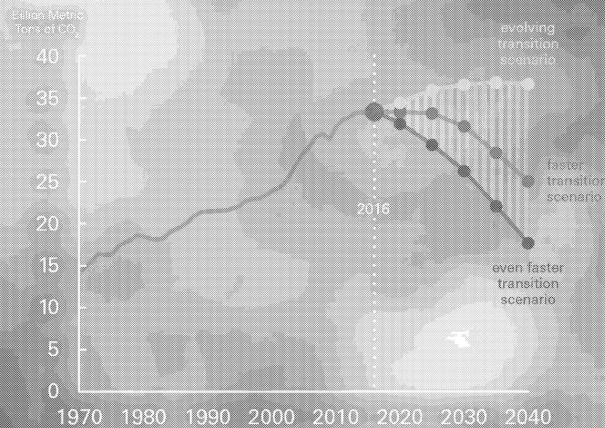
That is much slower growth than we saw between 1990 and 2016, but it's still nowhere close to the carbon reductions the world needs.

By comparison, in BP's "even faster transition" scenario — a scenario thought to be consistent with meeting the Paris climate goals — emissions decline by 47% out to 2040.



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Net global carbon dioxide emissions



Source: 2018 BP Energy Outlook

BP's Purpose and Strategic Priorities

BP is taking action to support the world's transition to a lower-carbon economy.

We are limiting greenhouse gas emissions across our businesses while continuing to meet growing global energy demand.

BP has decades of experience addressing this dual challenge, and today all four components of our business strategy are working to advance a lower-carbon future.



Advancing the Energy Transition in the U.S.

Heat, light and mobility
solutions for a changing world

Growing gas and
advantaged oil
in the upstream

Market-led growth
in the downstream

Venturing and low carbon
across multiple fronts

Modernizing the
whole group

Our Lower-Carbon Framework

BP's strategy for advancing the energy transition is based around a simple framework: "Reduce-Improve-Create."

We're working to reduce emissions in our operations, improve our products, and create new low-carbon businesses while growing our established portfolio of renewables.

Globally, BP plans to allocate at least \$500 million a year for low-carbon activities.



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Reducing emissions in our operations

Zero

net growth in operational emissions out to 2025

3.4Mte

of sustainable GHG emissions reductions by 2025

Targeting methane intensity of

0.2%

and holding it below 0.3%

Improving our products



Provide lower emissions gas



Develop more efficient and lower-carbon fuels, lubricants and petrochemicals



Grow lower-carbon offers for customers

Creating low-carbon businesses



Expand low-carbon and renewable businesses



\$500 million invested in low-carbon activities each year



Collaborate and invest in the Oil and Gas Climate Initiative's \$1 billion fund for research and technology

Modernizing Our Operations

Throughout the U.S., BP is using digital technology, big data analytics, innovative drilling techniques and other modernization strategies to help make our operations safer, more efficient and less carbon-intensive.

For example, we recently completed a modernization project at our Cooper River Chemicals plant that will allow the site to reduce electricity use by 40% — and cut up to 110,000 tons of carbon emissions per year — while also boosting production by 10%.



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Producing Oil More Efficiently

BP is using a wide range of innovative strategies and technologies — including one of the world's largest supercomputers for commercial research — to help us produce oil more efficiently.

For example, we recently used seismic processing technology and our Houston supercomputer to identify an additional 1 billion barrels of oil in place in the Gulf of Mexico.



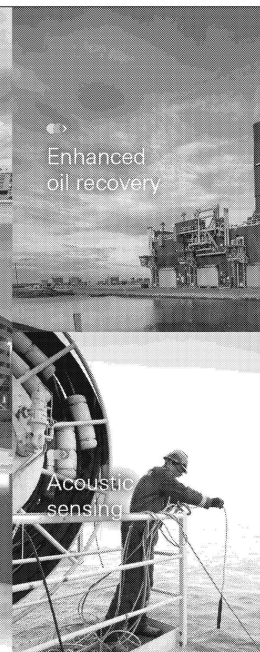
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Major offshore project
\$150 million under budget

One of the world's largest
supercomputers for
commercial research

New discoveries
through seismic
processing



Enhanced
oil recovery

Acoustic
sensing

The Lower-Carbon Benefits of Natural Gas

America's energy-related CO₂ emissions have fallen back to where they stood in the early 1990s.

The main reason is that gas has been displacing other fossil fuels in electricity generation.

Gas accounted for 32% of U.S. electricity generation in 2017, up from 19% in 2005.

Over that same period, coal's share of generation went from 50% to 30%.



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BP's Increased Focus on Gas

BP sees natural gas as not only a "bridging" fuel, but also a "destination" fuel, since it can provide crucial backup generation for renewables such as wind and solar.

The industry needs to control methane emissions, but we can do it by developing and deploying advanced technologies.

BP's Lower 48 business has achieved significant methane reductions through a number of voluntary actions.



Advancing the Energy Transition in the U.S.

No. 1 marketer of natural gas in North America



One of the biggest gas producers in the U.S.

Supporting the Alaska LNG project



Building new, state-of-the-art LNG tankers



Expanding our U.S. gas operations



Advanced Fuels, Lubricants & Petrochemicals

BP is working hard to build lower-carbon solutions into our traditional products and services, including our fuels, lubricants and petrochemicals.

For example, BP *Castrol*—America's No. 1 motor oil brand for consumers who change their own oil—offers a growing number of carbon-neutral engine oils and lubricants.

In 2017, it launched *Castrol EDGE Bio*, a USDA-certified motor oil made with base stocks derived from sustainably produced sugar cane.



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Focus Areas for Technology Investments

BP is taking a different approach to lower-carbon technologies than we did in the past. We are infusing lower carbon throughout our business and making more narrowly targeted investments across a wider range of technologies and models.

We've identified five focus areas: (1) advanced mobility, (2) bio- and low-carbon products, (3) carbon management, (4) digital transformation and (5) power and storage.



Advancing the Energy
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Advanced
mobility

Bio- and low-carbon
products

Carbon
management

Digital
transformation

Power
& storage

TESLA



VICTOR
FLY SMARTER



BEYOND LIMITS

lightsourcebp

Partnerships, Venturing & Experimentation


Our approach is based on strategic partnerships, venturing and experimentation.

We're working at the grassroots level with new technologies to help us understand which ones may work and make great investments for the future.


Since 2006, BP Ventures has invested more than \$290 million in dozens of U.S. companies, including eight alternative energy companies.



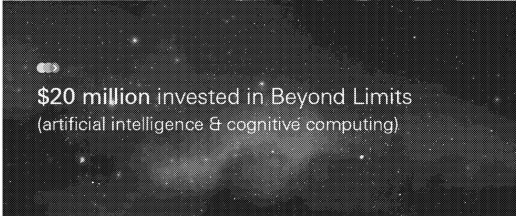
Advancing the Energy
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Largest supplier
of renewable
natural gas to U.S.
transportation sector



\$30 million invested in
Fulcrum BioEnergy
(lower-carbon jet fuel & diesel)



\$20 million invested in Beyond Limits
(artificial intelligence & cognitive computing)

Investing in
the Oil & Gas
Climate Initiative's
\$1 billion fund

Co-investing
alongside the
OGCI fund in U.S.
companies like
Solidia, which
produces lightweight
concrete in a way
that can reduce its
carbon footprint by
up to 70%

BP's Renewable Energy Business

BP has the largest operated renewable energy business among the world's major oil and gas companies.

Our U.S. wind farms can produce enough electricity to power all the homes in a city the size of Philadelphia.

BP also has a joint venture with DuPont known as Butamax, which converts corn sugar into bio-isobutanol — a biofuel that is more energy rich than ethanol and can be blended with gasoline in higher concentrations.



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In 2016, a net wind portfolio the size of BP's helped avoid nearly 3 million tons of CO₂ emissions, which 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

Source: BP Wind Energy calculations

The Enduring Importance of Oil and Gas

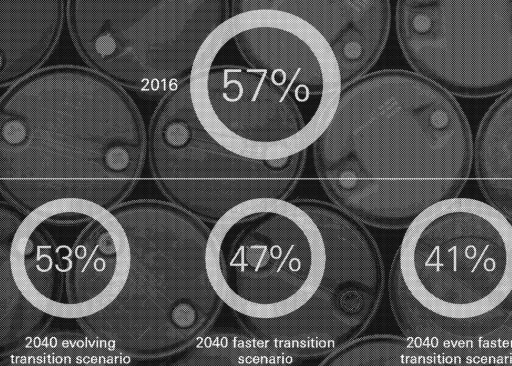
Even in many highly aggressive lower-carbon scenarios, oil and gas remain a significant part of the global energy mix for decades to come.

In BP's "even faster transition" scenario, for example, oil and gas account for more than 40% of primary energy in 2040. (That figure takes into account the important role that carbon capture, use and storage, or CCUS, will play in achieving emissions reductions.)



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In 2016, oil and gas accounted for 57% of global energy consumption



Source: 2017 BP Energy Outlook

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Final Thoughts on the Energy Transition

The transition to a lower-carbon economy is the challenge of our time.

No one company or sector can meet the challenge alone.

To deliver significantly lower GHG emissions, every type of energy must be cleaner and better. A race to renewables will not be enough.

That's why BP is making bold changes across our entire business — by reducing, improving and creating.



Advancing the Energy Transition in the U.S.

Renewables are coming of age, but they are not yet ready to assume the burden of powering the world

Even the most aggressive carbon-reduction scenarios project that oil and gas will be an important part of the global fuel mix for decades to come.

We believe BP can achieve competitive growth and deliver value to our shareholders while also working to advance a lower-carbon future

