

Message

From: Wolf, Tom [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=THOMAS.WOLF]
Sent: 11/04/2016 16:12:46
To: Stout, Robert [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Robert.Stout]; Morrell, Geoff [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Geoff.Morrell]; Guinn, Shanan [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Shanan.Guinn]; Streett, Mary [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Mary.Streett]; Ellis, Joe [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Joe.Ellis]; Dempsey, Ray C [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Ray.Dempsey]; Sidoti, Elizabeth [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Elizabeth.Sidoti]; Stutz, Rachel [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Rachel.Stutz]; Nolan, James [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=James.Nolan]; van Hoogstraten, David Jan [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=David.vanHoog]; Brien, Michael P [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Mike.Brien]; Moran, Ralph J [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Ralph.Moran]
Subject: RE: Los Angeles Times: OP-ED: How to drive a stake through the heart of zombie fossil fuel

I'm sorry, I live on earth so I don't get what planet this guy lives on. We all know his diatribe has many holes in it...but his biggest one is the infrastructure piece. Americans are fighting pipelines, but they are also fighting transmission lines that would bring wind energy and solar energy to market....they are fighting utility solar farms in the desert because it affects the desert turtle, they are fighting home solar that looks ugly.

Simply put, Americans have a *Dire Straits* mentality. They want their money for nothin' and their chicks for free.

Tom

Tom Wolf

Director, Communications and External Affairs
BP America Inc.
30 S. Wacker Drive MC: 7N-379
Chicago, IL 60606

office: [REDACTED]
lync: [REDACTED]
mobile: [REDACTED]
[REDACTED]

From: Stout, Robert
Sent: Sunday, April 10, 2016 12:39 PM
To: Morrell, Geoff; Guinn, Shanan; Streett, Mary; Ellis, Joe; Dempsey, Ray C; Sidoti, Elizabeth; Stutz, Rachel; Nolan, James; Wolf, Tom; van Hoogstraten, David Jan; Brien, Michael P; Moran, Ralph J
Subject: Fwd: Los Angeles Times: OP-ED: How to drive a stake through the heart of zombie fossil fuel

Most of us got this but am forwarding because I think McKibben's manifesto is a must-read.

Sent from my iPhone

Begin forwarded message:

From: Virginia Northington <[REDACTED]>
Date: April 10, 2016 at 2:12:11 PM GMT+1
To: Arturo Silva <[REDACTED]>, Brett Clanton <[REDACTED]>, Geoff Morrell <[REDACTED]>, Jason Ryan <[REDACTED]>, Jessica Gonzalez <[REDACTED]>, Joe Ellis <[REDACTED]>, Karen Gase <[REDACTED]>, Liz Sidoti <[REDACTED]>, "Mary Perkins" <[REDACTED]>, Mary Streett <[REDACTED]>, "Matthew Chen" <[REDACTED]>, Mike Nash <[REDACTED]>, Rachel Stutz <[REDACTED]>, Ray Dempsey <[REDACTED]>, Rebecca Raftery <[REDACTED]>, Robert Stout <[REDACTED]>, Shanan Guinn <[REDACTED]>
Cc: Ellen Moskowitz <[REDACTED]>
Subject: Los Angeles Times: OP-ED: How to drive a stake through the heart of zombie fossil fuel

OP-ED: How to drive a stake through the heart of zombie fossil fuel

By Bill McKibben
Los Angeles Times
April 9, 2016

When I was a kid, I was creepily fascinated by the wrongheaded idea that your hair and your fingernails keep growing after you die. The lesson seemed to be that momentum was hard to kill. The same thing is at work right now with the fossil fuel industry. Even as global warming makes it clear that coal, natural gas and oil are yesterday's energy, two centuries of fossil fuel development means new projects keep emerging in zombie-like fashion.

In fact, the climactic fight at the end of the fossil fuel era is underway. In statehouse hearing rooms and far off farmers' fields, local activists are making desperate stands to stop new fossil fuel projects, while the energy companies are making equally desperate attempts to build while they still can. The outcome of these thousands of fights, as much or more than the paper promises made at the U.N. climate conference in Paris in December, will determine whether we emerge from this century with a habitable planet. They are the battle for the future.

Here's how Diane Leopold, president of Virginia-based Dominion Energy put it last year: "It may be the most challenging" period in fossil fuel history because of "high-intensity opposition" to infrastructure projects that is becoming steadily "louder, better-funded and more sophisticated." Or, in the words of the head of the American Natural Gas Assn.: "Call it the Keystone-ization of every project that's out there."

I hesitate to even start listing what's "out there" because I'm going to miss dozens. In North America, people are fighting the Sandpiper pipeline in the upper Midwest; the Line 9, Energy East, Northern Gateway and Kinder Morgan pipelines in Canada; the Piñon pipeline in Navajo country; the Vermont Gas pipeline down the western side of my own state; the Constitution pipeline; the Spectra pipeline; and on and on.

And it's not just pipelines. Activists are on trial for trying to block oil trains in the Pacific Northwest. In the Finger Lakes region in central New York, not a week goes by without mass arrests of locals attempting to prevent old salt mines from being turned into a giant underground gas storage site. In California, it's fracking wells in Kern County.

The protests are endless, and the protesters have to be endlessly resourceful. Everywhere the opposition is forced by statute to make its stand not on climate change arguments but on older grounds. This pipeline will hurt water quality. That coal port will increase local pollution. All the arguments are correct and accurate but a far more important case always lurks in the background: Each of these new infrastructure projects should be stopped because it extends the fossil fuel era a few more disastrous decades.

Here's the basic math: If you build a pipeline in 2016, the investment will be amortized for 40 years or more. It is designed to last — to carry coal slurry or gas or oil — well into the second half of the 21st century. It is, in other words, designed to keep us extracting carbon, the very thing scientists insist we simply can't keep doing and survive.

The only way to short-circuit this zombie process is to fight like hell, raising the price, both political and economic, of new fossil fuel infrastructure.

Unfortunately, fossil fuel companies have the clout to keep politicians saying yes. Just a week after the Paris climate accords were adopted, for instance, the well-paid American "employees" of those companies, otherwise known as senators and representatives, overturned a 40-year-old ban on U.S. oil exports, a gift that an Exxon spokesman had asked for explicitly a few weeks earlier. "The sooner this happens, the better for us," he'd told the New York Times.

The money, however, is only part of it: The whole process is on autopilot. For many decades the economic health of the nation and access to fossil fuels were more or less synonymous. So it's no wonder that laws and regulations favor business as usual. The advent of the environmental movement in the 1970s and 1980s introduced a few new rules, but it didn't try to shut down the whole enterprise. Now fossil fuel projects continue to get approved, almost automatically, because there is no legal reason not to do so.

As 2016 began in my own backyard, Vermont — as enlightened a patch of territory as you're likely to find — the state Public Service Board approved a big new gas pipeline. Under long-standing regulations, the pipeline was found to be in the public interest, even though science has recently made it clear that the methane leaking from the fracked gas the pipeline will carry is a bigger climate problem than the burning of coal. The decision came two weeks after the temperature in the city of Burlington hit 68 on Christmas Eve, breaking the old record by, oh, 17 degrees.

The only way to short-circuit this zombie process is to fight like hell, raising the price, both political and economic, of new fossil fuel infrastructure to the point where politicians begin to balk. That's what happened with Keystone and it's happening elsewhere, too. Other Canadian tar sands pipelines have been blocked. Coal ports planned for the West Coast haven't been built. In May, a coalition across six continents is being organized to engage in mass civil disobedience to "keep it in the ground."

In a few places you can see more than just the opposition; you can see results. Last fall, in Portland, Ore., the City Council passed a remarkable resolution: The city will use its powers to keep out new fossil fuel infrastructure. The resolution will almost certainly stop a proposed propane export terminal project, but far more important, it opens the door to a better future. If you can't do fossil fuel energy, after all, you have to do something else — sun, wind, conservation.

This business of driving stakes through the heart of one project after another is exhausting. So many petitions, so many demonstrations, so many meetings. But for now, there's really no other way to kill a zombie.

Bill McKibben is the founder of 350.org and a professor of environmental studies at Middlebury College. A longer version of this essay appears at TomDispatch.com.

From: Virginia Northington

Sent: Sunday, April 10, 2016 8:53 AM

To: Arturo Silva; Brett Clanton; Geoff Morrell; Jason Ryan; Jessica Gonzalez; Joe Ellis; Karen Gase; Liz Sidoti; Mary Perkins; Mary Streett; Matthew Chen; Mike Nash; Rachel Stutz; Ray Dempsey; Rebecca Raftery; Robert Stout; Shanan Guinn

Cc: Ellen Moskowitz

Subject: Providence Journal: Edward Fitzpatrick: Climate-change battle heats up between Whitehouse, Wall Street Journal

Edward Fitzpatrick: Climate-change battle heats up between Whitehouse, Wall Street Journal

U.S. Sen. Sheldon Whitehouse, the Rhode Island Democrat who is the Senate's leading voice on climate change, is locked in a bitter brawl with the Wall Street Journal editorial page over his proposal to sue fossil fuel companies for fraud.

By Edward Fitzpatrick

Providence Journal

April 10, 2016

Oh, it is on! U.S. Sen. Sheldon Whitehouse, the Rhode Island Democrat who is the Senate's leading voice on climate change, is locked in a bitter brawl with the Wall Street Journal editorial page over his proposal to sue fossil fuel companies for fraud.

The battle began last year when Whitehouse wrote a Washington Post opinion piece, accusing fossil fuel companies of a "massive and sophisticated campaign to mislead the American people about the environmental harm caused by carbon pollution." He likened it to tobacco companies that denied the dangers of smoking, suggesting the Justice Department could file a civil suit under the Racketeer Influenced and Corrupt Organizations Act (RICO).

The Wall Street Journal blasted the idea. "Climate change is the new religion of the left, and progressives are going to treat heretics like Cromwell did Catholics," it said. "We mention Mr. Whitehouse because he has been the lead Cromwell in calling for the use of the RICO statute, a law created to prosecute the mafia, to bring civil cases against companies that fund climate research of which he disapproves."

The dispute rekindled in March when U.S. Attorney General Loretta Lynch told the Senate her department had asked the FBI to evaluate whether ExxonMobil had violated federal laws. Two Democratic congressmen from California had sought a probe after reports that Exxon's experts knew about the dangers of burning fossil fuels yet worked to undermine climate science.

In the latest exchange, Whitehouse wrote an email to supporters with the subject line: "Standing up to the Wall Street Journal." He said that while he has been accused of wanting to trash the First Amendment and jail climate skeptics, "all of that is, of course, a crock." He said, "The tobacco case didn't go after smokers, it went after the fraudulent core who convinced people smoking was OK."

On April 1, the Wall Street Journal accused Whitehouse of using its editorials for fundraising: "Mr. Whitehouse has apparently decided that if he can't persuade the general public to adopt his climate absolutism, at least he can use the controversy to motivate his deep-pocketed partisans." Whitehouse responded in a letter to the editor Wednesday, saying that he wasn't raising money and that 65 percent of Americans say climate change is caused by human activity. "Disagreeing with me isn't the culpable conduct," he wrote. "Outright fraud is."

So what do legal experts say? Jeffrey E. Grell — who teaches RICO law at the University of Minnesota and who wrote a book called "Grell on RICO" — said he doubts the RICO statute could be used successfully against the fossil fuel industry. "Believe me, if there was a legal theory here that held any promise, you would have every plaintiff's law firm in the country coming out of the woodwork," he said. "You have some of the deepest pockets in the energy industry."

Virginia Northington
Account Director

Brunswick Group LLC, 1099 New York Avenue, NW, Washington, DC 20001, USA

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Princeton Carbon Mitigation Initiative (CMI)

1. Princeton CMI's Perspective – Key messages and recommendations for responsible action

This is an update on the Princeton CMI's key messages we shared last year that are relevant to our oil and gas business. It also includes Princeton's recommendations on what an oil and gas company, like BP, should do to address climate change in a sustainable manner.

1.1 Context

1.1.1 Risks to BP from climate change

The climate problem has the potential to disrupt BP's business in at least three ways:

- i. Effective climate policies can emerge that discourage fossil fuel consumption, that impose environmental performance standards on production processes, and that subsidize or promote efficiency and low carbon energy.
- ii. Climate-motivated research can create disruptive new energy technology.
- iii. Climate impacts can directly disrupt BP's investments in energy production infrastructure and supply chains.

1.1.2 Much has changed and is changing

- Low-carbon energy is arriving unevenly: wind, solar, and vehicle fuel efficiency are being realized at a one-wedge pace, (scaled up to reduce emissions by at least 1 billion tons of carbon per year over 50 years) while hydrogen power, CCS and nuclear power are faltering. Wind, solar, and vehicle fuel efficiency have developed to the point where they are now being effectively scaled up.
- Innovation in the energy sector has been dramatically affected by the arrival of shale gas and oil and low energy prices.

- In climate science new modeling capability is enabling forceful, credible statements about extreme events.
- Following the Paris COP21 meeting, a global agreement to limit temperatures to 2 degrees C, and an ambition to 1.5 degrees C has been generally welcomed, including by BP. However, at the country level the “nationally determined contributions,” or pledges, do not deliver the 2 degrees. Governments, supported by other actors (including oil and gas), will need to strengthen plans to enable delivery of the Paris COP agreement.

1.1.3 BP supports CMI to help manage risks

- CMI sharpens BP’s corporate perspective on climate change. It provides BP with strategic understanding of the potential physical, biological and human systems impacts.
- BP benefits when CMI disseminates sound information that supports effective public policy discussions.
- BP leverages the much larger research programs of the CMI investigators.

1.2 CMI Key Messages

1.2.1 Science messages

Three independent lines of evidence support a scientific consensus that manmade greenhouse gas emissions are causing climate change and that fossil-fuel CO₂ is the single most important contributor:

- The geological past:*** During the ice-age cycles, temperature and atmospheric CO₂ rose together.
- The historical past:*** Manmade greenhouse gases and the Earth’s temperature increased rapidly after the industrial revolution.
- Physical understanding and models:*** Climate models predict observed climate change and associate the change with manmade greenhouse gas emissions and aerosols.

Natural sinks: Carbon sources and sinks in balance after 2050 (Paris Agreement): Over half of emitted CO₂ is kept from the atmosphere by being stored in terrestrial and oceanic “sinks”. CO₂ absorption in the oceans is making seas more acidic. On land, there is an overall growth in forests, despite deforestation. The sinks have continued to grow with increasing emissions, but climate change will affect carbon cycle processes in a way that will exacerbate the increase

of CO₂ in the atmosphere

Increased variability and impacts: Climate change will bring significant increases in temperature, altered patterns of precipitation, ocean acidification, sea-level rise due to ocean thermal expansion and decreased continental ice volume, and rapid increases in extremes of heat, extreme precipitation and drought. Risks of the most serious consequences of warming increase significantly for 2-3°C of mean warming. Global risks include widespread disruption of food production, multi-meter sea-level rise from loss of a continental ice sheet, and widespread extinctions. As for extreme events, a new National Academy of Science (NAS) report on “attribution” says.....”It is now often possible to make and defend quantitative statements about the extent to which human-induced climate change ...has influenced either the magnitude or the probability of occurrence of specific types of events or event classes.”

1.2.2 Technology messages

Methane leakage: Methane is the second most important manmade greenhouse gas (after CO₂), and it causes multiple times more warming than an equal mass of CO₂ in the atmosphere. However,

- Natural gas combustion produces about half the CO₂ emissions per unit of energy, compared to coal, but leakage of methane during production and distribution reduces this advantage.
- Research suggests that natural gas causes less warming than coal, provided methane leakage is well managed. For example the peer reviewed EDF analysis of the Barnett, reports a highly skewed distribution of emissions, with 10% of well sites accounting for 70% of emissions.

CO₂ capture and storage (CCS):

- CCS creates the option of low-carbon fossil fuel energy.
- CO₂ from coal or natural gas power plants can be captured chemically and stored in geological formations for hundreds of years in volumes that are material to climate change mitigation.
- Models indicate that buoyancy-driven leakage along old wells will not be a ‘show-stopper’ – i.e. the potential leakage rates are so low that they wouldn’t negate the climate benefit.
- It is much cheaper to capture CO₂ from the flue gas of a coal power plant than from ambient air, where it is 300 times more dilute – and from a natural gas power plant, where it is 100 times more dilute.

1.2.3 Integration messages

Studies on the relationship between emissions and projected temperature rises have shown the following:

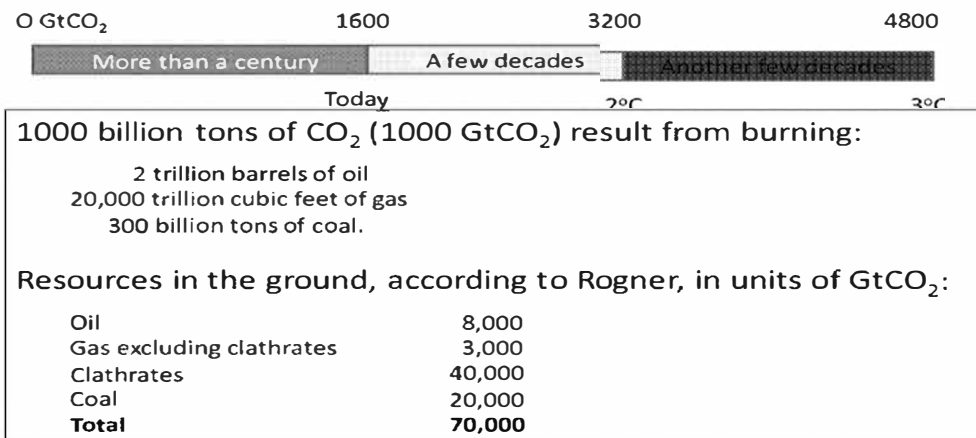
1°C rise: Man-made emissions of CO₂ already emitted to date will create 1°C of warming. This cannot be stopped.

2°C rise: If the same quantities of emissions that have been released since the industrial revolution are released again, it would bring the Earth to the 2°C target. This will occur within four decades at current emissions rates. A hard stop (i.e. immediate emissions curtailment) is required after that to prevent further warming. Alternatively, an immediate emissions reduction is required to provide a more gradual path to the 2° C target.

3°C rise: Tripling the amount of emissions emitted to date would bring us very roughly to 3°C. This is expected to occur in about eight decades at current emissions rates. Either a hard stop would then be needed to prevent further warming, or the current emissions rate would need to be maintained for a few decades followed by a more gradual decline.

Emissions “budgets” mean choices:

Fossil fuels are so abundant that, for any cumulative-emissions target, even a weak one, attractive fossil fuel would need to be left in the ground. For example, emissions of 4,800 GtCO₂ would lead to a warming of 3°C but if total fossil fuel resources were burnt, then by one estimate 70,000 GtCO₂ could be emitted (see figure below).



1.2.4 How will various industries respond to a specific economy-wide carbon price whose objective is to induce new investment?

For the sake of argument, consider \$100/tCO₂ – what is the impact of this on product prices and how much of this might be passed through to the customer?

- Upstream, the impacts are particularly dramatic upstream. \$100/tCO₂ is:
 - \$40/barrel of oil
 - \$5/million Btu of natural gas
 - \$200/ton of high-quality coal
 - Enhanced oil recovery (EOR): 1 bbl oil contains ~120 kgC, and 1 tCO₂ contains 273 kgC. Thus, EOR at 2 to 3 barrel produced per ton of CO₂ stored (typical) stores one carbon atom for each carbon atom produced. At \$30/barrel and \$100/tCO₂, the two revenue streams are about equal
- Downstream, if price-independent distribution costs are added, retail price increases are smaller, in percent. \$100/tCO₂ is:
 - \$0.80/U.S. gallon of gasoline
 - \$0.08/kWh electricity from coal
 - \$0.04/kWh electricity from natural gas

2. CMI recommendations to the Oil and Gas industry

2.1 CMI Recommendation #1

Address your core activities;

- Upstream CO₂: Lead in curtailing flaring, promote CCS where gas is processed, redesign EOR for when CO₂ storage becomes a revenue stream.
- Upstream fugitive CH₄: Demonstrate best practices – minimal release, fast response to carelessness. Beyond safety.
- Gas for coal: Work out the limits on how much and how fast, e.g., to restrain the juggernaut in Asia.

- Gas for “firming”: Provide dispatchable power via partnerships where gas backs up intermittent renewables.

2.2 CMI Recommendation #2

Engage policymaking and understand technology implications proactively;

- Be real and helpful about carbon pricing. What should we expect to see happen at \$5/tCO₂? What about \$100/tCO₂, reached by a ramp that is credible?
- Identify yourselves with carbon efficiency. Examples:
 - When bringing gas to new cities, assure efficient buildings/appliances.
 - Help your industrial and power-plant customer to use your fuel efficiently (the customer’s side of the meter).
- Understand the potential for CCS to enable the full use of fossil fuels across the energy transition and beyond.

Message

From: Hill, Gardiner [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=GARDINER.HILL]
Sent: 19/04/2016 17:16:18
To: Okonek, Kellie [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Okonk1]; Stout, Robert [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Robert.Stout]; van Hoogstraten, David Jan [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=David.vanHoog]
CC: Jaffer, Ilhaam [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Ilhaam.Jaffer]; Dunn, Tame L [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Tame.Dunn]; Jones, Linda [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Linda.jones]; Feil, Richard L [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Richard.Feil]
Subject: RE: Princeton

Kellie,

Terrific! I will work with Princeton to pull together the pre-read as proposed and re-purpose the briefing note for John.

Looking forward to the meetings next week.

Kind regards,

Gardiner

Director Carbon Solutions
Group Technology
BP
Phone: [REDACTED]
Cell: [REDACTED]

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From: Okonek, Kellie
Sent: 19 April 2016 18:13
To: Hill, Gardiner; Stout, Robert; van Hoogstraten, David Jan
Cc: Jaffer, Ilhaam; Dunn, Tame L; Jones, Linda
Subject: RE: Princeton

Gardiner –

That works for us, and we'll hold off on changing trains until the schedule clarifies. I think even the 1230 will work if needed. I think the brief for Lamar is great, and we should re-purpose it for John. It also helps assure consistency of messaging.

Thanks so much – he is looking forward to the trip!

Kellie Okonek

Executive Assistant to John Mingé
Office of the Chairman and President

BP America Inc. | 501 WestLake Park Blvd. | Houston, TX 77079
mobile: [REDACTED] office: [REDACTED] email: [REDACTED]

From: Hill, Gardiner
Sent: Tuesday, April 19, 2016 10:28 AM
To: Okonek, Kellie; Stout, Robert; van Hoogstraten, David Jan
Cc: Jaffer, Ilhaam; Dunn, Tame L; Jones, Linda
Subject: RE: Princeton

Kellie,

I just spoke to Princeton and they are planning to issue a final draft agenda to all of us by COB today. This should give us time for one more round of review and comment prior to finalising on Thursday. Does this schedule work for you?

Princeton are currently planning on using Friday morning, but we should aim to finish by 10:45am, to give John plenty of time to catch a train at Trenton Station. He needs to catch the 11:30am (Train 95) that gets into DC at 2pm. The next train (Train 125) at 12:30 arrives at 3:05pm.

Princeton will also prepare a “Face Book” for all of the people John will meet during the trip. This contains pictures and bios.

We also have a briefing document that we used last week here in London with the Executive Team members who met Princeton. I have attached the copy we sent to Lamar for your information, as this may also be appropriate for John. What do you think?

Hence the pre-read, could consist of:

- Meeting Agenda
- Face book with bios for everyone we are meeting
- A Princeton CMI Key Messages paper, which provides an overview of the current CMI work and Princeton recommendations of the kinds of things oil and gas companies should be doing in the face of Climate Change concerns.

Let me know if there are any other questions.

Kind regards,

Gardiner

Director Carbon Solutions
Group Technology
BP
Phone: [REDACTED]
Cell: [REDACTED]

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From: Okonek, Kellie
Sent: 19 April 2016 15:49
To: Stout, Robert; van Hoogstraten, David Jan; Hill, Gardiner
Cc: Jaffer, Ilhaam; Dunn, Tame L
Subject: Princeton

Bob/David & Gardiner –

Are you planning to create any brief for this trip? I have the climate presentation from Liz Rogers that Tame will be printing – I think bios of the Princeton folks we'll be meeting and an agenda for the trip (once landed) will be sufficient material, unless you think there's additional that will be helpful.

When do we expect they'll land the agenda? I spoke with Shanan today and as long as John's train arrives in DC by 3pm I think we're fine. That said, if there is content for Friday (i.e. meetings/lectures on climate topics with additional professors, policy discussion over breakfast, etc.) I think it's silly to waste the opportunity of being there. I said as much on the call, but I wanted to make sure you knew as well that John is totally okay with that.

Thanks,

Kellie Okonek

Executive Assistant to John Mingé
Office of the Chairman and President

BP America Inc. | 501 WestLake Park Blvd. | Houston, TX 77079
mobile: [REDACTED] office: [REDACTED] email: [REDACTED]

Message

From: Morrell, Geoff [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=68A33E1F188A46299E8ACB2C84440814-MORRELL, GE]
Sent: 27/03/2019 07:11:17
To: Looney, Bernard [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f73fc9fd5acd464b9105ce14cf4e3d5d-Looney, Ber]
CC: King, Dave J [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=df19480beec34d979eaa9b9328e240e0-King, Dave]; Stout, Robert [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=03dabeb0bf8d45e99472ded8f9f4e8ed-Stout, Robe]; Ford, Susan J (Sunbury) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f3ad7cd1564e4ffd9167898e2acec310-Ford, Susan]; Birrell, Gordon Y [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0e84da2b892b4e23a4bcd6346f9cb566-Birrell, Go]; Boodhai, Chan R [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c4244f2d6d574de787b1081a302795a4-Boodhai, Ch]; Bitar, Fawaz K [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9e3989adb71c4928aa8368e2a7abf1a9-Bitar, Fawa]; Fryar, Robert T [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4d445c8a2ea7499187624f752f6cc1ae-Fryar, Robe]; Naughton, Eamonn J. [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1582f540066544989fa07b4498245a8f-Naughton, E]
Subject: Re: Carbon Fund

I know I am just copied on Bernard's thank you note but I would like to chime in as well because I too appreciate your work in this space. The low carbon space is increasingly competitive and our peers seem to be rolling something new out everyday. Not sure how much of it is real but when we announce something it is and this a great example. As BL said, incremental commitments along the way would be good to know about so we can consider showcasing. But progress even more than investments is what we are all looking to show so please keep us in the loop on those developments as well.

Thanks, Geoff

Geoff Morrell
Group Head of C&EA
BP p.l.c.
[REDACTED]

On Mar 26, 2019, at 8:39 PM, Looney, Bernard <[REDACTED]> wrote:

Guys

Awesome job on the Carbon Fund! Went down very well here in NYC. And with our team around the world.

Let's make a big deal about our first investment.

With much thanks for your collective leadership.

B

Bernard Looney

Chief Executive, Upstream

BP p.l.c. | [REDACTED] London SW1Y 4PD

Registered in England & Wales Number 102498

Message

From: Stout, Robert [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ROBERT.STOUT]
Sent: 10/08/2017 17:16:11
To: Ellis, Joe [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=Joe.Ellis]
Subject: RE: POLITICO Pro Breaking News: 2016 broke global temperature records — again

A “hot toddy” maybe?

Bob

From: Ellis, Joe
Sent: Thursday, August 10, 2017 1:08 PM
To: Streett, Mary; Stout, Robert; Dempsey, Ray C
Subject: FW: POLITICO Pro Breaking News: 2016 broke global temperature records — again

I recall Ray’s question of Paul Jefferiss a couple of years ago (I’m paraphrasing): “Paul, is this something to be only a little concerned about, or are we all going to burn up next Tuesday?”

Well, Ray, it sounds like we have an answer. I’ll buy the first round Monday night before we say our goodbyes.

From: POLITICO Pro Energy [mailto:politicoemail@politicopro.com]
Sent: Thursday, August 10, 2017 9:02 AM
To: Ellis, Joe
Subject: POLITICO Pro Breaking News: 2016 broke global temperature records — again

2016 was the warmest year on the Earth's surface in nearly 150 years of measuring, scientists said today in an international report that also found the highest sea levels since 1993 and the highest carbon dioxide concentrations in at least 800,000 years.

It was the third year in a row to set a new global temperature record.

The annual assessment coordinated by the U.S. National Oceanic and Atmospheric Administration is the first comprehensive climate report released under President Donald Trump, who has dismissed man-made climate change as a “hoax” and announced he's withdrawing from the Paris climate agreement.

To change your alert settings, please go to <https://www.politicopro.com/settings>



This email was sent to [REDACTED] by: POLITICO, LLC 1000 Wilson Blvd. Arlington, VA, 22209, USA

■

■

Message

From: Stout, Robert [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ROBERT.STOUT]
Sent: 25/09/2017 14:10:10
To: Noble, William J. [/O=MSXBP/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=William.Noble]
Subject: RE: Interesting article from E&E News re: D.C Circuit decision requiring FERC to consider downstream GHG emissions in pipeline case

Ha! Sierra Club is on place I would not go for a policy discussion!

Bob

From: Noble, William J.
Sent: Monday, September 25, 2017 10:02 AM
To: Stout, Robert
Subject: RE: Interesting article from E&E News re: D.C Circuit decision requiring FERC to consider downstream GHG emissions in pipeline case

Thanks, Bob. My favorite part was the reference to Sierra Club's "Beyond Dirty Fuels" campaign. Is that a shameless rip-off of BP's "Beyond Petroleum" slogan or, more likely, ironical humor – a sort of historical reference to a corporate campaign that would have been called Beyond Dirty Fuels if it had only been courageous / honest enough and intended to deliver the promise of the slogan. Next time you call on the Sierra Club for a policy discussion, you should ask. ☺

From: Stout, Robert
Sent: Monday, September 25, 2017 8:36 AM
To: Stutz, Rachel; Stultz, Mark; Nolan, James; van Hoogstraten, David Jan; Raftery, Becky; Sitomer, Gabrielle; Brien, Michael P
Cc: Nash, Mike A (Legal); Noble, William J.; Stout, Robert; Streett, Mary; Ellis, Joe
Subject: Interesting article from E&E News re: D.C Circuit decision requiring FERC to consider downstream GHG emissions in pipeline case

PIPELINES

Court's climate rebuke drives debates in other cases

Ellen M. Gilmer, E&E News reporter

Published: Monday, September 25, 2017

Environmental groups are using a recent court decision to pressure the Federal Energy Regulatory Commission to consider climate change more carefully. Ryan McKnight/Flickr (building); Bilfinger SE/Flickr (pipelines)

A month-old federal court decision favoring in-depth climate analysis for natural gas pipelines is already cropping up in a slew of other development skirmishes.

After the U.S. Court of Appeals for the District of Columbia Circuit last month ordered federal regulators to closely consider downstream greenhouse gas emissions from the Sabal Trail pipeline, environmental lawyers have hustled to apply the model in other battles.

Last week, advocates flagged the ruling's relevance to a number of pipeline proposals pending before the Federal Energy Regulatory Commission. In a [letter](#) to FERC last Monday, for example, Sierra Club attorney Elly Benson argued that the agency must beef up its analysis for the Appalachia-region Mountain Valley pipeline (MVP) in light of the D.C. Circuit decision, known as *Sierra Club v. FERC*.

"Several holdings from the decision apply to FERC's environmental review of the MVP, and indicate that FERC has impermissibly downplayed and avoided legally sufficient disclosure of the Project's impacts here," she wrote.

Environmental lawyers are eager to see precedent from the Sabal Trail decision take root, even as some critics say the court's decision may not be the final word on the issue.

Advertisement

Benson noted that many issues in the Sabal Trail case are mirrored in other proposals.

"FERC and other agencies have been failing to fully account for the indirect greenhouse gas emissions and climate impacts of these major fossil fuel projects," she told E&E News. "And under the Sabal Trail decision, they need to go back, and in some cases that means doing a supplemental environmental impact statement and actually do that analysis that they failed to do."

In the August decision, a panel of judges ruled 2-1 that FERC violated the National Environmental Policy Act when it declined to quantify downstream emissions from the Southeast Market Pipelines Project, a network that includes Sabal Trail. The court ordered the agency to revise its environmental impact statement (EIS) to detail those emissions or offer a better explanation for not doing so ([Energywire](#), Aug. 23).

FERC has often avoided such in-depth, quantitative climate analysis, arguing that constantly shifting market conditions and other variables make such calculations highly speculative and too imprecise to be relied upon for decisionmaking. Courts have accepted that argument in many cases, while occasionally pushing FERC and other agencies to do more.

The Sabal Trail decision was the most forceful D.C. Circuit ruling to date requiring more climate analysis for pipelines.

"The court's ruling was crystal-clear. FERC's past reviews of fracked gas pipelines have been woefully inadequate," Kelly Martin, director of the Sierra Club's Beyond Dirty Fuels campaign, said last week. "As a result, the agency has rubber-stamped dirty projects that pumped dangerous pollutants into our communities and disrupted our climate."

Pipeline landscape

Environmental lawyers hope the Sabal Trail ruling sets a new baseline for the government's obligation to account for climate change. In addition to the Mountain Valley pipeline proposal, they've recently pushed the court decision in FERC dockets for the Atlantic Coast, Atlantic Sunrise and Nexus pipelines.

In a letter about Atlantic Coast, lawyers note that FERC's EIS for the West Virginia-to-North Carolina route contains language that is identical to portions of the Sabal Trail review criticized by the court. In particular, both documents include a determination that "even if [FERC] were to find a sufficient connected relationship between the proposed project and ... downstream end-use, it would still be difficult to meaningfully consider these impacts, primarily because emission estimates would be largely influenced by assumptions rather than direct parameters about the project."

FERC estimated downstream greenhouse gas emissions for Atlantic Coast, but the agency concluded that "downstream combustion of gas is not causally connected" to the pipeline and therefore shouldn't steer decisionmaking.

The Sierra Club, which is challenging the pipeline, pushed back last week, arguing, "Pursuant to the D.C. Circuit's opinion in *Sierra Club v. FERC*, this analysis is not overly speculative and should inform the decision-making process." The group is urging FERC to do additional environmental review.

Pipeline opponents are also pushing the agency to reconsider project permits it has already issued. For example, attorneys for Appalachian Mountain Advocates last week requested formal reconsideration of FERC's certificate for the Nexus pipeline, which stretches from Ohio to Michigan.

FERC's analysis for the project included a rough estimate of downstream greenhouse gas emissions but dismissed them as minor in relation to the overall yearly emissions from both Ohio and Michigan. Appalachian Mountain Advocates attorney Ben Luckett slammed the approach, arguing that it falls far short of the standard used by the court in the Sabal Trail case.

"The D.C. Circuit was at pains to direct FERC to conduct its NEPA review such that both policy makers and the public have enough information to make informed decisions about the environmental impact of the project," he wrote. "A comparison between total yearly emissions of a state and the yearly emissions from NEXUS does nothing to help inform decision makers and the public about the relative size or effects of the NEXUS downstream emissions."

Similar critiques were raised in a petition for reconsideration of the Atlantic Sunrise pipeline, an expansion project along the East Coast. Again, FERC quantified downstream emissions but dismissed them as having an insignificant effect on climate change, especially because some of the natural gas could displace dirtier-burning coal.

The Sierra Club argued last week that the review is inadequate and that the agency should revoke permission for pipeline construction until the analysis is revised.

More battlegrounds

State regulators are getting in on Sabal Trail action, too.

The New York Department of Environmental Conservation last month denied state permits for Millennium Pipeline Co. LLC's Valley Lateral gas line, citing inadequate review in light of Sabal Trail ([Greenwire](#), Aug. 31).

The state's decision came just a week after the D.C. Circuit's ruling. FERC has since overruled the state's action on procedural grounds but did not weigh in on the Sabal Trail argument.

Environmental lawyers are also seizing on peripheral aspects of the D.C. Circuit's decision. The ruling came in handy for opponents of the Dakota Access pipeline, who are urging a federal district court to take the oil line out of service while the government sharpens environmental review for it.

They noted in briefs last month that in the Sabal Trail decision, the D.C. Circuit found fault in the government's environmental review and promptly concluded that the underlying pipeline permits must be vacated. They urged the district court to take that same approach with Dakota Access ([Greenwire](#), Aug. 29).

The D.C. Circuit's decision is also cropping up outside the pipeline context. Immediately after the ruling was issued, Sierra Club lawyers flagged the case for the 10th U.S. Circuit Court of Appeals, arguing that the Interior Department's hands-off approach to climate analysis for coal leases was just as inadequate as FERC's failure to quantify downstream emissions from pipelines.

The 10th Circuit recently decided that case in the environmental groups' favor, though it did not reference the Sabal Trail decision in its ruling ([Energywire](#), Sept. 18).

Not so settled?

As legal filings trumpeting Sabal Trail fly, however, some critics caution that heavy reliance on the decision might be premature.

The D.C. Circuit issued the decision on Aug. 22 but has not yet issued the mandate — a court document that finalizes the judgment. As is common in appellate courts, the panel has held off on issuing the mandate to give parties the chance to seek reconsideration or en banc review from the full court.

ClearView Energy Partners analyst Christi Tezak said FERC may be inclined to take that step.

"While requests for reconsideration by the original panel or petition for en banc reviews do not succeed often, we think FERC may pursue one here," she said in an email. "In general, split decisions can have better chances of being reconsidered."

Tezak noted that the case might even make its way to the Supreme Court, given the high-stakes legal questions surrounding FERC's jurisdiction and its ability to constrain or even second-guess state-level power generation decisions by scrutinizing downstream emissions.

FERC has until late next week to seek a rehearing of the case.

Bob Stout

Robert L. Stout, Jr.
Vice President & Head of Regulatory Affairs
BP America Communications & External Affairs

1101 New York Avenue NW
Washington, DC 20005

Office:
Mobile:



Message

From: Rubio, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3B3166511E6147E6B7E9F72D92533E3E-NXCU]
Sent: 3/24/2021 3:36:48 AM
To: Niemeyer, Bruce L (BNiemeyer) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=34bc8ca3fa164a7eba525c4bca5469c0-niemeb1]
Subject: "Just Transition" talking points

Bruce – Should the topic of a “just transition” come up tomorrow, below are a few talking points. Thanks, Michael

- Affordable, reliable, and ever-cleaner energy is essential to achieving a more sustainable world for all people. Oil and natural gas have a vital role to play in any global transition of energy by providing scalable, lower carbon solutions that ensures a just transition.
- Billions of people in the developed and developing world rely on oil and gas every day to meet their energy needs and improve their quality of life – and, with a lower carbon footprint, will continue to do so for decades to come.
- Therefore, lowering the carbon intensity of the energy source billions of people use represents a tremendous opportunity to make progress toward the global net zero ambitions of the Paris Agreement.
- Critical to a just transition will be policy making by governments. We believe the most effective way for policymakers to address the energy transition is a price on carbon. In doing so, policymakers should consider three things:
 1. Primary policy: To reduce emissions, a market approach is far better than mandates.
 2. Economy wide: the policy should apply to all sectors to achieve ghg reductions at the lowest cost.
 3. Shared benefits: the policy should spur innovation and mitigate harm to consumers.

Message

Sent: 9/18/2019 12:34:16 PM
To: Yilmaz, Pinar O [REDACTED]
CC: Gregory, John C [REDACTED]
Subject: RE: SIS Global Forum - content approval

Pinar – Just to confirm, this is for those attending, not a public website, correct?

If so,

Neely Nelson
Upstream Public & Gov't Affairs Manager
[REDACTED]

From: Yilmaz, Pinar O
Sent: Wednesday, September 18, 2019 7:31 AM
To: Nelson, Neely S <[REDACTED]>
Cc: Gregory, John C <[REDACTED]>
Subject: Fwd: SIS Global Forum - content approval

FYI and comments—

Regards,
Pinar Yilmaz

Sent from my iPhone

Begin forwarded message:

From: Steven Smith <[REDACTED]>
Date: September 18, 2019 at 12:02 PM GMT+1
To: [REDACTED]
Subject: SIS Global Forum - content approval

Hi John / Pinar,

I am Communications Manager for Swiss Reber SIS and am currently working on the SIS Global Forum 2019. As part of our communications around the event we will be preparing 'showdailies' which we will post on the SIS Global Forum website (www.software.slb.com/sis-global-forum-2019). These will contain short quotes from some of our Plenary Speakers' presentations.

For today's showdaily we would like to use the following content around Liam Mallon's Plenary Presentation. Can you confirm if that is okay? We hope to issue this at 6.00pm Monaco time today.

1000% in 5 years - Liam Mallon, ExxonMobil

"We are still partnering like we partnered 40 years ago. Technology enables us to collaborate in a different way."

In his plenary presentation, ExxonMobil's Liam Mallon talked about the Dual Challenge - meeting the world's energy demands, reliably and affordably, while addressing the risks of climate change. These two goals, he said, are not mutually exclusive, but significant advances in technology are needed to help reach them.

Referencing ExxonMobil's work with Schlumberger on the transformation of well construction, Liam stressed the importance of transitioning to a different way of partnering to speed up the adoption of technology and achieve ambitious production goals (1000% increase within 5 years in the Permian!) while lowering flare, reducing methane, cutting water use.

Thanks

Steven Smith

Steven Smith
Communications Manager

Schlumberger - Software Integrated Solutions

Innovation House, Prime Four Business Park
Kingswells, Aberdeen, UK, AB15 8PU

www.software.slb.com/sis-global-forum-2019



Registered Name: Schlumberger Oilfield Services
Registered Office: Schlumberger House, Business Park, Gatwick Airport, West Sussex. RH6 0NZ, United Kingdom
Registered in England and Wales. No. 4157867

Schlumberger-Private

Message

From: Nelson, Neely S [/O=EXXONMOBIL/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=NEELY.S.NELSON]
Sent: 9/18/2019 12:43:22 PM
To: Yilmaz, Pinar O [REDACTED]
CC: Gregory, John C [REDACTED]
Subject: RE: SIS Global Forum - content approval

Pinar – Just to confirm, this is for those attending, not a public website, correct? Just want to confirm and then I can send the info below to Liam as an FYI as don't see we need endorsement per [REDACTED] will be good to ensure he is aware.

If so, I edited below to remove the 1000% as we don't want that written anywhere where it can be taken out of context. Thus, changed the top pull quote, the parenthetical reference changed Exxon to EM and one other minor word change.

Neely Nelson
Upstream Public & Gov't Affairs Manager
[REDACTED]

From: Yilmaz, Pinar O
Sent: Wednesday, September 18, 2019 7:31 AM
To: Nelson, Neely S [REDACTED]
Cc: Gregory, John C [REDACTED]
Subject: Fwd: SIS Global Forum - content approval

FYI and comments—

Regards,
Pinar Yilmaz

Sent from my iPhone

Begin forwarded message:

From: Steven Smith [REDACTED]
Date: September 18, 2019 19:12 PM GMT+1
To: [REDACTED]
Subject: SIS Global Forum content approval

Hi John / Pinar

I am Communications Manager for Schlumberger SIS and am currently working on the SIS Global Forum 2019. As part of our communications around the event we will be preparing 'showdailies' that will be posted on the SIS Global Forum website (www.software.slb.com/sis-global-forum-2019). These will contain short quotes from some of our Plenary Speakers' presentations.

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Thanks

Steven Smith

Steven Smith
Communications Manager

Schlumberger - Software Integrated Solutions

Innovation House, Prime Four Business Park
Kingswells, Aberdeen, UK, AB15 8PU

www.software.slb.com/sis-global-forum-2019



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Registered Office: Schlumberger House, Business Park, Gate, Gatwick Airport, West Sussex. RH6 0NZ, United Kingdom
Registered in England and Wales No. 4157867

Schlumberger-Private

Message

From: Nelson, Neely S [/O=EXXONMOBIL/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=NEELY.S.NELSON]
Sent: 9/18/2019 12:50:20 PM
To: Yilmaz, Pinar O [REDACTED]
CC: Gregory, John C [REDACTED]
Subject: RE: SIS Global Forum - content approval

OK, thanks. I will operate under the premise it is not, just to be safe

Neely Nelson
Upstream Public & Gov't Affairs Manager
H

From: Yilmaz, Pinar O
Sent: Wednesday, September 18, 2019 7:49 AM
To: Nelson, Neely S [REDACTED]
Cc: Gregory, John C [REDACTED]
Subject: Re: SIS Global Forum - content approval

Also I asked them to confirm that it's for only the attendees.

Regards,
Pinar Yilmaz

Sent from my iPhone

On Sep 18, 2019, at 1:48 PM, Nelson, Neely S [REDACTED] wrote:

Ok, then I will need his endorsement. The good thing is I removed the 1000% part so we should be good. Will send to him and copy you both.

Neely Nelson
Upstream Public & Gov't Affairs Manager
H

From: Yilmaz, Pinar O
Sent: Wednesday, September 18, 2019 7:45 AM
To: Nelson, Neely S [REDACTED]
Cc: Gregory, John C [REDACTED]
Subject: Re: SIS Global Forum - content approval

Neelv. from the note below it will be posted on Schlumberger website as well.

Regards,
Pinar Yilmaz

Sent from my iPhone

On Sep 18, 2019, at 1:43 PM, Nelson, Neely S [REDACTED] wrote:

Pinar – Just to confirm, this is for those attending, not a public website, correct? Just want to confirm and then I can send the info below to Liam as an FYI as don't see we

need endorsement per se, but will be good to ensure he is aware.

If so, I edited below to remove the 1000% as we don't want that written anywhere where it can be taken out of context. Thus, changed the top pull quote, the parenthetical reference, changed Exxon to EM and one other minor word change.

Neely Nelson
Upstream Public & Gov't Affairs Manager
[REDACTED]

From: Yilmaz, Pinar O
Sent: Wednesday, September 18, 2019 7:31 AM
To: Nelson, Neely S [REDACTED]
Cc: Gregory, John C [REDACTED]
Subject: Fwd: SIS Global Forum - content approval

FYI and comments—

Regards,
Pinar Yilmaz

Sent from my iPhone

Begin forwarded message:

From: Steven Smith [REDACTED]
Date: September 18, 2019 at 12:49:12 PM
To: [REDACTED]
[REDACTED]
Subject: SIS Global Forum - content approval

Hi John / Pinar,

I am Communications Manager for Schumberger SIS and am currently working on the SIS Global Forum 2019. As part of our communications around the event we will be preparing 'showdailies' that will be posted on the SIS Global Forum website (www.schumberger.slb.com/global-forum-2019). These will contain short quotes from some of our Plenary Speakers' presentations.

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Thanks

Steven Smith

Steven Smith
Communications Manager

Schlumberger - Software Integration Solutions

Innovation House, Prime Four Business Park
Kingswells, Aberdeen, UK, AB9 8PU

www.software.slb.com/sis-glob-forum-2019

<image001.jpg>

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Registered Office: Schlumberger House, Buckingham Palace Road, Gatwick Airport, West
Sussex. RH6 0N, United Kingdom
Registered in England and Wales No. 4157867

Schlumberger-Prime

Message

Sent: 9/18/2019 12:50:10 PM
Subject: FW: SIS Global Forum - content approval

Liam – Schlumberger's Communications Manager reached out to us as they would like our approval of a synopsis/quote for you. This is part of their daily website post that captures a high level synopsis/quote for each speaker and would be posted to their website by this afternoon, along with today's other speakers. We kept their structure and length, but made a few quotes just so we are good in case it got picked up broader.

Technology enables growth - Liam Mallon, ExxonMobil

"We are still partnering like we did 40 years ago. Technology enables us to collaborate in a different way"

In his plenary presentation, ExxonMobil's Liam Mallon talked about the 'Energy Challenge' – how to meet the world's energy demands, reliably and affordably, while addressing the risks of climate change. The two goals, he said, are not mutually exclusive, but significant advances in technology are needed to help reach them.

Referencing ExxonMobil's work with Schlumberger on the transformation of well completion, Liam stressed the importance of transitioning to a different way of partnering to support the adoption of new technology and achieve ambitious production goals (1M BOED within 5 years in the Permian!) while lowering flare, reducing methane, and cutting water use.

Neely Nelson
Upstream Public & Gov't Affairs Manager

I am Communications Manager for Schlumberger SIS and am currently working on the SIS Global Forum 2019. As part of our communications around the event we will be preparing 'dailies' that will be posted on the SIS Global Forum website (www.software.slb.com/sis-global-forum-2019). These will contain short quotes from some of our Plenary Speakers' presentations.

For today's daily we want to use the following content around Liam Mallon's Plenary presentation. Could you confirm if that is okay? We hope to issue this at 6.00pm Chicago time today.

Steven Smith

Steven Smith
Communications Manager

Schlumberger - Software Integrated Solutions

Innovation House, Prime Four Business Park
Kingswells, Aberdeen, UK, AB15 8PU

www.software.slb.com/sis-global-forum-2019

<image001.jpg>

Registered Name: Schlumberger Oilfield UK Plc
Registered Office: Schlumberger House, Buckingham Gate, Gatwick Airport, West Sussex. RH6 0NZ,
United Kingdom
Registered in England and Wales No. 4157867

Schlumberger-Private

HCOOR

Message

From: Nelson, Neely S [/O=EXXONMOBIL/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=NEELY.S.NELSON]
Sent: 9/18/2019 1:41:30 PM
To: Yilmaz, Pinar O [REDACTED]
Subject: Re: [Ext] Re: SIS Global Forum - content approval

Thanks! I appreciate it.

Neely Nelson
Sent from my iPhone

On Sep 18, 2019, at 2:34 PM, Yilmaz, Pinar O <[REDACTED]> wrote:

I forwarded once I got ok from Liam to us.
All done.

Regards,
Pinar Yilmaz

Sent from my iPhone

On Sep 18, 2019, at 2:29 PM, Nelson, Neely S [REDACTED] wrote:

Ok, thanks. I scrubbed it so we will be good once I hear from Liam.

Neely Nelson
Upstream Public & Gov't Affairs Manager
[REDACTED]

From: Yilmaz, Pinar O
Sent: Wednesday, September 18, 2019 8:14 AM
To: Nelson, Neely S <[REDACTED]>
Subject: Fw: [Ext] Re: SIS Global Forum - content approval

Regards,
Pinar Yilmaz

Sent from my iPhone

Begin forwarded message:

From: Steven Simon <[REDACTED]>
Date: September 18, 2019 at 1:48:21 PM GMT+1
To: "Yilmaz, Pinar O" <[REDACTED]>
Cc: "Gregory, John C" <[REDACTED]>
Subject: Re: [Ext] Re: SIS Global Forum - content approval

Hi Pinar,

It would be wider than that - it would be publicly available on the Forum website at www.software.slb.com/sis-global-forum-2019

Steven

Get Outlook for iOS

From: Yilmaz, Pinar O <[REDACTED]>
Sent: Wednesday, September 18, 2019 2:46:43 PM
To: Steven Smith <[REDACTED]>
Cc: Gregory, John C <[REDACTED]>
Subject: [Ext] Re: SIS Global Forum - content approval

Please let us know where this will be posted — for conference attendees?

Regards,
Pinar Yilmaz

Sent from my iPhone

On Sep 18, 2019, at 12:49 PM, Steven Smith <[REDACTED]> wrote:

Hi John / Pinar,

I am Communications Manager for Schlumberger SIS and am currently working on the SIS Global Forum 2019. As part of our communications around the event we will be preparing 'showdailies' that we will post on the SIS Global Forum website (www.software.slb.com/sis-global-forum-2019). These will contain short notes from some of our Plenary Speakers' presentations.

For today's showdaily I would like to use the following content around Liam Mallon's Plenary Presentation. Can you confirm if that is okay? We hope to publish this at 6.00pm Monaco time today.

1000% in 5 years - Liam Mallon, ExxonMobil

"We are still partnering like we partnered 40 years ago. Technology enables us to collaborate in a different way."

In his plenary presentation, ExxonMobil's Liam Mallon talked about the Dual Challenge - meeting the world's energy demands, reliably and affordably, while addressing the risks of climate change. These two goals, he said, are not mutually exclusive, but significant advances in technology are needed to reach them.

Referencing Exxon's work with Schlumberger on the transformation of well construction, Liam stressed the importance of transitioning to a different way of partnering to speed up the adoption of technology and achieve ambitious production goals (1000% increase within 5 years in the Permian!) while lowering flare, reducing methane, cutting water use.

Thanks

Steven Smith

Steven Smith
Communications Manager

Schlumberger - Software Integrated Solutions

Innovation House, Prime Four Business Park
Kingswells, Aberdeen, UK, AB15 8BH
T. 01224 657115 | M. 0773 400000
www.software.slb.com/slb-software-forum

<image001.jpg>

Registered Name: Schlumberger Oilfield UK Plc
Registered Office: Schlumberger House, Buckingham Gate
Gatwick Airport, West Sussex RH6 0NZ, United Kingdom
Registered in England and Wales No. 4157867

Schlumberger-Private

Date: August 20, 2019

To: D. W. Woods

Re: OGCI CEOSC
Meeting on August
21-22, 2019

From: P. W. Trelenberg

c: R. M. Ebner A. L. Feick
S. M. McCarron G. T. Allman
T. J. Wojnar G. A. Powell
C. S. Morford L. R. Rzakulieva
V. Swarup R. A. Schober
G. H. Walton L. K. Tran

Darren,

On Thursday, August 22, 2019, the next OGCI CEO Steering Committee (CEOSC) meeting will be held in Geneva.

Key Engagements

- August 21 7:00-10:00pm - Joint OGCI CEOs and WEF dinner
- August 22 7:30-9:30am - OGCI Steering Committee

Agenda

1. Welcome and Competition Law briefing; Minutes of 9th of July call – comments; Objective of call
2. Climate Investments Update
3. September CEO Event & Narrative
4. September Announcement package and Statement on responding to the climate challenge
5. CCUS Kickstarter & CCUS CEM OGCI Joint Declaration

ExxonMobil Objectives for CEO SC Meeting

1. Align on objectives and scope of OGCI engagements and CEO events during Climate Week.
2. Incorporate remaining critical edits (summarized below) into September announcements, statements, and annual report. Chevron has expressed that they are generally aligned with these edits. Remind CEOSC and OGCI staff that major publications, must be formally approved by CEOSC consensus per Charter Article 2.2.1f.
3. Convey view that discussion of the governance proposal at the CEOSC is premature. The proposal for governance enhancements has not been worked with the Legal TF nor reviewed with the ExCom. The Legal TF and ExCom need to ensure that the options being proposed identify and address the root causes of observed governance issues. We suggest the following next steps:
 - Align at ExCom on fundamental governance issues.
 - Excom with support of Legal TF to develop options to address governance issues that include potential structural, process, and personnel changes.

Examples of Ongoing Governance Issues

OGCI staff continues to feel empowered to act beyond ExCom and CEOSC guidance. Recent examples are:

- The Responsible Engagement Statement was initiated without ExCom endorsement or CEOSC direction. Subsequent to the July 9th CEOSC call, OGCI staff expanded the draft Responsible Engagement statement (now renamed to 'Statement on Responding to the Climate Challenge and Stakeholder Engagement') beyond the Vatican statements, contrary to CEOSC guidance.
- On multiple occasions, OGCI staff has misrepresented the extent of ExCom endorsements. For example, on the draft narratives and statements, OGCI staff unilaterally declared ExCom approval without casting a formal vote by ExCom, to address changes provided since the June ExCom meeting. Further, September announcements and narrative were worked by OGCI staff, independent of the Communications TF (CTF). Only recently has the CTF been engaged on the details of the announcement and engagement planning.
- OGCI staff initiated negotiations with the Climate Energy Ministerial (CEM) without prior endorsement of ExCom or CCUS WS. They then drafted a joint CEM/OGCI declaration on accelerating the CCUS industry. Member companies have expended significant effort to restructure the initial agreement/declaration to be acceptable to member companies. Further, the initial agreement was drafted without any involvement from the CCUS WS or Legal TF.

Background Summary by Agenda Topic

Agenda Item	Materials	EM Position and Actions	Recommendation for CEOSC Discussion
Agenda Item 1: 1a. Welcome and Competition Law Briefing/Agenda	AttA, P2	EM supports this best practice to provide this reminder at the beginning of the meeting.	NA
1b. July 9 th Meeting Minutes	AttB	Minutes appear consistent with DWW's summary of key decisions.	Approval of minutes per DWW's review.
Agenda Item 2: Climate Investments Update	AttA, P3-12	Progress being made toward 1 GT/yr target.	Expect update only, no decision being asked.
Agenda Item 3: September CEO Event & Narrative Proposal to highlight 2019 deliverables and activities through multiple announcements throughout September and put more emphasis on engagements with other organizations and stakeholders during UN Climate Week. We have limited our comments to those areas we feel strongly need to be modified, because they are either factually incorrect, they don't accurately represent previous decisions made either by the ExCom or CEOSC, or because they are premature and have not yet been vetted and agreed. A number of these comments have been previously communicated but not yet included in the current drafts.	AttC, CEO Event Summary AttA, P14, Highlights Att6 GMA Att7 NCS Alliance	<p>EM is supportive of the overall event agenda but awaits additional details on format, topics and expectations for CEO engagement. Other companies are supportive of the overall approach and similar to EM, awaiting details.</p> <p>The current list of announcement topics includes CCUS KickStarter, CI Investments, methane progress, ADNOC joining OGCI, CCS OGCI - Clean Energy Ministerial declaration, alignment on carbon intensity metrics and statement on responding to climate challenge.</p> <p>Methane – Focus on methane reduction progress and support for engagement on the Global Methane Alliance (GMA). EM supports this engagement.</p> <p>Carbon Intensity metric – This table on P14 mentions the fact that 11 members have submitted 2025 target. EM is also working with Chevron on reviewing industry analysis and comparison vs. 2017 baseline carbon intensity.</p> <p>CCUS Kickstarter & CEM Declaration – Narrative and Declaration need further refinement by WS and review with ExCom.</p> <p>Transportation – Need ExCom/CEO SC alignment. Premature to share 2020 GHG reduction plan at Climate Week.</p> <p>Natural Climate Solutions – Need to understand what about the NCS Alliance will be announced or shared, awaiting details</p>	<p>Emphasize need for CTF to develop details with support of OGCI Staff and align with ExCom.</p> <p>There is lack of clarity and specificity on the planned engagements around these topics and narratives. Request that the details be worked and finalized with CTF and ExCom with support from OGCI Staff, WS, and TF as appropriate.</p> <p>Continue to reinforce that any announcement of a specific target be removed from all narratives and announcements, consistent with prior CEO-SC guidance.</p> <p>Support further refinement at the WS level.</p> <p>Express concern that reduction activities have not been identified by the Transportation WS nor vetted with ExCom.</p> <p>Express need to align on the plan for the announcement and plan for engagement</p>

Background Summary by Agenda Topic Continued

Agenda Item	Materials	EM Position and Actions	Recommendation for CEOSC Discussion
<p>Agenda Item 4: 4a. September Announcement package</p> <p>Comments reflected here are critical areas. The attachment includes additional EM input on other important areas</p>	<p>Att1 with remaining EM input</p>	<ul style="list-style-type: none"> Continuing debate regarding the meaning of 'near zero emissions'. OGCI staff's desire is to maintain reference to this term consistent with previous years' announcements. Term is being applied to methane emission reductions with lack of definition and alignment on its meaning. OGCI is now suggesting that the RoG work this definition as needed but timing may not be feasible for September announcement. Providing a definition will provide clarity on what standard will be expected of OGCI. For methane, we had proposed the following definition: 'consistent with 0.25% OGCI Upstream operated methane intensity target'. The carbon intensity narrative also mentions expanding scope to include the downstream which could imply that we will commit to a target for downstream. Members are not yet aligned on including downstream in the intensity targets. OGCI staff advocating for this language and believes it is consistent with CEOSC's ask. CCUS Kickstarter narrative needs refinement by CCUS WS. The concept of 'getting five emerging hubs into operation and capturing a specified volume' needs further discussion at WS and review by ExCom. Includes a statement on plans to deliver GHG reductions through transport-related initiatives which has yet to be defined. OGCI staff believes that this commitment was approved by CEOSC per Aramco's ask during December 2018 CEOSC meeting, contrary to meeting minutes. 	<p>Direct OGCI Staff to work with ExCom and CTF to further enhance and appropriately align on content.</p>

Background Summary by Agenda Topic Continued

Agenda Item	Materials	EM Position and Actions	Recommendation for CEOSC Discussion
4b.Statement on responding to the climate challenge Comments reflected here are critical areas. The attachment includes additional EM input on other important areas	Att2 with remaining EM input	<ul style="list-style-type: none"> Need to remove reference to Paris Agreement as support for the Paris Agreement goals and member company advocacy are separate concepts and are not directly related. Creating a tie between our advocacy/engagements and the Paris Agreement could create a potential commitment to advocate on the Paris Agreement goals. Support for Paris Agreement is already mentioned in Announcement Package. Need to remove language that potentially commits members to enhanced climate-related governance, strategy, risk management, and performance metrics and targets; language is not consistent with the Vatican statements. 	Direct OGCI Staff to work with ExCom, LTF and CTF to further enhance and appropriately align on content.
Agenda Item 5: CCUS Kickstarter & CCUS CEM OGCI Joint Declaration	Att3	CCS OGCI and Clean Energy Ministerial Declaration - Draft Declaration needs further refinement to emphasize the need for supportive policy and economic incentives versus creation of hubs. Will be further refined by CCUS WS.	Direct OGCI Staff to work with ExCom, CCUS WS, and CTF to further enhance and appropriately align on content.
Other Materials			
Governance Proposal	Att4	This proposal has not been vetted with ExCom nor Legal TF. Proposed Governance changes appears to be more on organization changes as a means of addressing governance deficiencies. Before proposing a new org structure, there should be appropriate consideration of existing governance and process/personnel gaps. For CI the SIP should be revisited.	Current challenges with governance will not be solved by organization design, but by looking at strategic plan and process to approve decisions. Proposal for enhancements need to be worked with Legal TF and ExCom.
Draft Annual Report	Att5 Draft3 with EM comments	Draft4 under review. EM feedback on Draft3 not accepted. Key areas of concern are similar to critical comments listed above on the September package. In addition, the report includes explicit commitment for OGCI companies to align their advocacy with their climate related positions. We have raised concerns with this linkage through our previous comments.	Insist on alignment between annual report and all approved narratives, statements and declarations. Remind CEOSC and OGCI staff that major publications, including the annual report must be formally approved by CEOSC consensus per Charter Article 2.2.1f.

Memorandum

Date: August 20, 2019

To: D. W. Woods

Re: OGCI CEOSC
Meeting on August
21-22, 2019

From: P. W. Trelenberg

c: R. M. Ebner A. L. Feick
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		Natural Climate Solutions – Need to understand what about the NCS Alliance will be announced or shared, awaiting details	
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Background Summary by Agenda Topic Continued

Agenda Item	Materials	EM Position and Actions	Recommendation for CEOSC Discussion
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Background Summary by Agenda Topic Continued

Agenda Item	Materials	EM Position and Actions	Recommendation for CEOSC Discussion
<p>4b.Statement on responding to the climate challenge</p> <p>Comments reflected here are critical areas. The attachment includes additional EM</p>	Att2 with remaining EM input	<ul style="list-style-type: none"> Need to remove reference to Paris Agreement as support for the Paris Agreement goals and member company advocacy are separate concepts and are not directly related. Creating a tie between our advocacy/engagements and the Paris Agreement could 	Direct OGC staff to work with ExCom, LTF and CTF to further enhance and appropriately align on content.

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input on other important areas		<p>create a potential commitment to advocate on the Paris Agreement goals. Support for Paris Agreement is already mentioned in Announcement Package.</p> <ul style="list-style-type: none"> Need to remove language that potentially commits members to enhanced climate-related governance, strategy, risk management, and performance metrics and targets; language is not consistent with the Vatican statements. 	
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Draft Annual Report	Att5 Draft3 with EM comments	Draft4 under review. EM feedback on Draft3 not accepted.	Insist on alignment between annual report and all approved narratives, statements and declarations.

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HCOR

Memorandum

DRAFT FOR DWW PREVIEW dated 8/16/2019

Date: August 20, 2019

To: D. W. Woods

Re: OGCI CEOSC
Meeting on August
22, 2019

From: P. W. Trelenberg

c: R. M. Ebner A. L. Feick
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- September CEO Event & Narrative
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ExxonMobil Objectives for CEO SC Meeting

- Emphasize that lack of effective governance continues to pose significant challenges for effective decision-making and causes inefficiencies. Ensure that proposals developed by OGCI Staff, including recommendations for governance enhancements, be reviewed by the Excom and worked with the appropriate work streams (WS) and task forces (TF), including Communications and Legal TFs.
- Align on objectives and scope of OGCI engagements and CEO events during Climate Week. Communications Task Force (CTF) should be leading this activity with support from appropriate WSs and OGCI Staff.
- Incorporate remaining critical edits (summarized below) into September announcements, statements, and annual report. Chevron is aligned with these edits. CTF should be leading this activity with support from appropriate WSs and OGCI Staff.

Ongoing Governance Issues

OGCI staff continues to feel empowered to act beyond ExCom and CEOSC guidance. Recent examples are:

- We understand that a proposal on Governance enhancements will be discussed during the CEOSC meeting. This proposal has not been reviewed by or aligned with ExCom nor Legal TF.
- On the draft Responsible Engagement Statement (which is now the “Statement on Responding to the Climate Challenge and Stakeholder Engagement”), OGCI staff expanded the language beyond the Vatican statements, contrary to CEOSC guidance from the July 9th call.
- OGCI and Climate Energy Ministerial (CEM) joint declaration on accelerating the CCUS industry has been worked outside of CCUS WS. Other members experience similar, ‘no action’ response on multiple iterations of feedback.
- On the evolving content of the draft narratives and statements, OGCI staff declared Excom approval without casting a formal vote by Excom to consider changes provided since the June Excom meeting.
- Much of the September announcements and narrative were being worked by OGCI staff, independent of the CTF. CTF is starting to engage on the details and planning.

Background Summary by Agenda Topic

Agenda Item	Materials	EM Position and Actions	Recommendation for CEOSC Discussion
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4b.Statement on responding to the climate challenge Comments reflected here are critical areas. The attachment includes additional EM input on other important areas	Att2 with remaining EM input	<ul style="list-style-type: none"> Need to remove reference to Paris Agreement as support for the Paris Agreement goals and member company advocacy are separate concepts and are not directly related. Creating a tie between our advocacy/engagements and the Paris Agreement could create a potential commitment to advocate on the Paris Agreement goals. Support for Paris Agreement is already mentioned in Announcement Package. Need to remove language that potentially commits members to enhanced climate-related governance, strategy, risk management, and performance metrics and targets; language is not consistent with the Vatican statements. 	Encourage OGCI Staff continuing to work with ExCom, LTF and CTF to further enhance and appropriately align on content.
Agenda Item 5: CCUS Kickstarter & CCUS CEM OGCI Joint Declaration	Att3	CCS OGCI and Clean Energy Ministerial Declaration - Draft Declaration needs further refinement to emphasize the need for supportive policy and economic incentives versus creation of hubs. Will be further refined by CCUS WS.	Encourage OGCI Staff continuing to work with ExCom, CCUS WS, and CTF to further enhance and appropriately align on content.
Other Materials			
Governance Proposal	Att4	This proposal has not been vetted with ExCom nor Legal TF. Proposed Governance changes appears to be more on organization changes as a means of addressing governance deficiencies. Before proposing a new org structure, there should be appropriate consideration of existing governance and process gaps. For CI the SIP should be revisited.	Current challenges with governance will not be solved by organization design, but by looking at strategic plan and process to approve decisions. Proposal for enhancements need to be worked with Legal TF and Excom.
Draft Annual Report	Att5 Draft3 with EM comments	Draft4 under review. EM feedback on Draft3 not accepted. Key areas of concern are similar to critical comments above on the September package. In addition, the report includes explicit commitment for OGCI companies to align their advocacy with their climate related positions. We have raised concerns with this linkage through our previous comments.	Encourage alignment between annual report and all approved narratives, statements and declarations.

[PAGE * MERGEFORMAT]

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This document constitutes a proposal for an Announcement Package for the UN Climate Summit. The UN may select or prioritize some components for announcement at the Summit. Any components that are accepted by the UN would require further expansion and details. Many potential elements in this package are still under discussion, are subject to change, and will ultimately require final approval by OGCI. The content of this document will serve as the basis for communication & press release as well as talking points for the CEO event.

OGCI Announcement Package for September 2019 – Scaling Up Action

Energy companies have an important role to play in accelerating the energy system transition required to tackle the climate challenge urgently, alongside governments, civil society and other key stakeholders, while continuing to provide reliable, accessible and affordable energy for all.

Since OGCI's launch five years ago, member companies have aimed to take a lead in facilitating this transition in the energy industry and along our value chains, while encouraging other emitting sectors to take action. In 2019 and onwards, OGCI is working to increase the speed, scale and impact of our actions as the world aims for net zero emissions as early as possible ~~in the second half of the century~~.

Reinforcing our engagement and collaboration

We, as OGCI member companies, regard stakeholder engagement and collaboration on climate change as critical to delivering solutions to the challenge of climate change. We will enhance our efforts as constructive partners with governments, civil society, businesses and other stakeholders, working to transition to a low carbon economy. In support of that role, we embrace the following principles:

- **We support the Paris Agreement.** As a condition of membership to OGCI, all member companies explicitly support the Paris Agreement and its aims.
- **We are committed to openness, transparency and consistency.** All member companies report greenhouse gas emissions data collectively through OGCI. OGCI and its member companies make its climate targets, aspirations and related performance publicly available.
- **We utilize third-party review of data.** From 2019, all data published by OGCI is collected using consistent methodologies, reviewed and anonymized by an independent third party, using internationally recognized practices for greenhouse gas accounting and reporting.
- **We engage responsibly.** Each member company values stakeholder engagement and is committed to take proactive steps to exercise influence constructively, consistently and transparently in support of publicly disclosed climate-related positions, and in line with explicit support of the Paris Agreement and its aims.

We recognize that OGCI can help to accelerate the achievement of net zero emissions by **collaborating with other industries, civil society, governments and institutions**. We are currently working on several global initiatives and engaging with stakeholders in the areas of reducing methane emissions and flaring, while facilitating carbon capture and storage, and nature-based solutions (see Appendix for a list of organizations with which OGCI is collaborating).

Aiming for net zero emissions

OGCI is developing a suite of practical actions intended to accelerate decarbonization, by reducing, mitigating and removing greenhouse gases and developing low carbon solutions. As member companies, we aim to implement these actions in our operations and collaborate with our partners and customers to help reduce the climate footprint of the energy, transport and industry sectors. We leverage the investments made by our US\$1 billion+ fund, OGCI Climate Investments, as appropriate. These aim to accelerate the emergence of new lower carbon energy solutions and technologies, delivering a measurable reduction in emissions from a range of industries.

Commented [A1]: EM Comment: this language has been in the prior versions of the Sept announcement package and has been used widely externally as an aspirational goal. This should remain in package as it is consistent with the Paris Agreement.

Commented [A2R1]: OGCI: Request from other members to remove because it is illogical to say as early as possible but then to state it should not be until the second half of the century.

Commented [A3]: Comment from CVX: change to individually

Commented [A4R3]: OGCI: Not all company individually publicly report GHG emissions

Commented [A5]: EM comment - Not all OGCI member companies have or make their targets and performance publicly available. Have updated for accuracy.

Commented [A6R5]: OGCI: OK

Commented [A7]: EM comment - "Climate targets" is ambiguous. Either delete "climate" or replace "climate" with "emissions".

Commented [A8R7]: OGCI: Not all target will be emissions target – Climate is more inclusive but less strong than "target" alone

Commented [A9]: CVX comment : change to emissions reduction

Commented [A10R9]: OGCI: Net zero emissions is the goal and our support to it is historical

As OGCI member companies, we aim to reduce our carbon footprints, by

- 1) Continuing to make progress in reducing methane emissions in OGCI member companies' operations to near zero (i.e., consistent with 0.25% OGCI Upstream-operated methane intensity target), and to support reductions across the gas value chain. Our target is to reduce by 2025 the collective average methane intensity of member companies' aggregated upstream oil and gas operations to below 0.25%, with the ambition to achieve 0.20%. In 2018, we already reduced the collective methane intensity of the 13 OGCI member companies to 0.29% from a 2017 baseline of 0.32%.
- 2) Working on a target to reduce by 2025 the collective average carbon intensity of our aggregated upstream oil and gas operations, scope 1 and 2. Data is currently being collected and evaluated internally so as to provide a collective target contributing to the global attainment of the Paris Agreement goals. To set such a target OGCI companies have developed transparent reporting rules, a methodology and assumptions, with data aggregated by an independent third party.¹ Our baseline in 2017 is 24kg CO₂e/boe, taking into account our total upstream carbon dioxide and methane emissions from all operated oil and gas assets. Emissions intensity is calculated as a share of marketed oil and gas production. ~~This level is around half of the industry average.² This level is around half of the industry average.^{1, 4}~~
- 3) ~~Considering expanding progressively from 2020 the scope of our collective efforts to encompass a carbon intensity metric beyond upstream operations (e.g., downstream operations);~~

We aim to accelerate decarbonization in key emitting sectors, by

- 1) Launching CCUS Kickstarter in 2019, a major new initiative designed to unlock large-scale commercial investment in CCUS, by enabling multiple low-carbon industrial hubs. These hubs capture carbon dioxide from several industrial companies and bring economies of scale by sharing transport and storage infrastructure. We aim to work with governments and other industries to facilitate the necessary market conditions for investment in hubs and projects by OGCI member companies, OGCI Climate Investments, governments and other investors.
We want to play our part in the emergence of a commercially viable, safe and environmentally responsible CCUS industry that can contribute at the scale needed to help meet the aims of the Paris Agreement, while supporting economic growth.
To achieve this aspiration, OGCI will build on the work of many others to jointly kickstart high-potential CCUS hubs in both developed and developing regions. We will start by helping to get five emerging hubs into operation, doubling the amount of carbon dioxide that is currently stored globally. At the same time, we are building a pipeline of potential additional hubs that, if successful, could multiply our impact by 2030.

¹ The data and methodology is available at: www.oilandgasclimateinitiative.com

² The average industry carbon intensity has been estimated for a similar estimator as the one used by OGCI, based on global energy-related carbon dioxide emissions and total primary energy demand, using data from the International Energy Agency's World Energy Outlook 2018 (table 7.2, 15, page 488 and page 489), as well as the Representative Concentration Pathway Database (RCP2.6 from the Intergovernmental Panel on Climate Change (IPCC). It considers a Global Warming Potential of methane over a 100-year time horizon. This estimation, based on top-down assessments, is comparable with other scientific papers, such as "Global carbon intensity of crude oil production" published by Stanford in August 2018 (<https://science.sciencemag.org/content/361/6415/651>)

Commented [A11]: CVX Comment: delete

Commented [A12R11]: OGCI: This is an on-going language since 2017

Commented [A13]: EM comment – the meaning/understanding of what is meant by "near zero" can vary. Suggest adding a footnote to clarify the meaning of "near zero"

Commented [A14R13]: OGCI: The 2019 methane target did not propose a definition to this, by intent, in order to leave it to stakeholders appreciation as to 0,25% or 0,20% was not already near zero... This language was proposed by CEOs back in 2017, and part of our 2017 and 2018 annual report. I would not recommend to add at this stage a definition. If you want to discuss it at the RoG workstream thanks to bring it to the agenda there (or to the end august excom)

Commented [A15]: CVX Comment: change in "toward"

Commented [A16R15]: OGCI: Recommend not to – we actually work on a target and are expected to deliver it by the CEOs as per their request expressed in August 2018 and repeatedly confirmed at the following CEO-SCs

Commented [A17]: EM comment - EM and CVX are currently vetting calculation methodology to see if this calculation methodology supports the proposed statement on comparison with industry average.

Commented [A18R17]: OGCI: CVX have accepted the statement and is reviewing the footnote. All other companies support it too. The alternative is to say "well below"? We are in touch with EM teams to finalize their review

Commented [A19]: EM comment - Expansion of carbon intensity metric beyond upstream has not been endorsed by Excom or CEO SC.

Commented [A20R19]: OGCI: Actually this is a request from multiple last CEOSC to explore it. CEOs requested the TF not ignore downstream. The language does not address targets – just efforts to focus on downstream. This work is ongoing.
The alternative text proposed was in fact stronger than what was intended and not ok for other companies. We came back to the original version

Commented [A21]: CVX comment: is this realistic?

Commented [A22R21]: OGCI: Please bring this to the CCUS WS – this wording has been discussed multiple times and approved by this WS

- 2) **Developing collaborative opportunities**, including co-operation between OGCI member companies and Clean Energy Ministerial countries.
- 3) Sharing good practice and learnings about policy and regulatory frameworks for CCUS, assessment and monitoring of storage and other essential practices. OGCI will work closely with other organizations, such as the International Energy Agency and the Global Carbon Capture and Storage Institute.
- 4) Launching in 2020 a set of initiatives to deliver greenhouse gas emissions reductions in the transport sector by 2025, as part of an action plan to facilitate climate-responsible transport.

We aim to support removal of carbon dioxide from the atmosphere, by

- 1) **Actively exploring measures to catalyse natural climate solutions at scale**, noting their significance to many developing regions and their contribution to the achievement of several Sustainable Development Goals. [We are supporting the Natural Climate Solutions Alliance and Call to Action, led by the World Economic Forum and the World Business Council for Sustainable Development].
- 2) Considering exploring together whether OGCI can play a role in the potential of emerging carbon removal technologies to accelerate progress towards **the aim of net zero emissions**, potentially building on synergies with our CCUS initiatives.

Commented [A23]: EM comment - this statement is premature. While we recognize that this item is being worked, the workstream has not yet defined and reviewed with Excom/CEO SC a set of initiatives and we feel it's premature to announce either a commitment or a timeline until these are vetted through the normal governance process.

Commented [A24R23]: OGCI: December 2018 CEOs steering committee approved, at the request and proposal of Aramco, that 2020 would be the year of transportation for OGCI. Every year OGCI writes a short teaser to prepare for its next year priority. Last year there was a teaser as such on CCUS. The principle of this one has been approved at the China June Excom, as the entire document subject to hard stop legal reviews by companies. If Exxon believes this should be reconsidered a consensus decision should be taken at the Excom end august to this effect. I leave it to you to propose it.

Commented [A25]: EM suggestion – to add “the aim of”

Commented [A26R25]: OGCI: We suggest not to add as inconsistent with the title and the rest of the text/report/language of OGCI

Commented [A27]: OGCI: Ok to add this constructive language to this new direct capture item proposed by Exxon in June and approved at the same June China Excom.

Subject: Re: animatics and quick hit notes

Subject: Fwd: animatics and quick hit notes

Look to simplify either Vijay's set-up to more directly introduce the metaphor with same language, or see & say with the supers on screen.

Will replace any lines that imply the technology is live today, and more the solution more future focused (e.g. we're building a plant to test this...)

Gear heads

Will replace any lines that imply the technology is live today, and the solution is more future focused (e.g. this could be a biofuel in the future...)

NEED TO ADD MORE SCIENCE TO UNDERSCORE POINT THAT THIS IS IN THE RESEARCH PHASE...MAYBE ADD IN THE PETRI DISH FROM RASCAL FLAT VERSION WHEN VIJAY ENTERS THE TUNNEL. CAN REEMERGE TO DAYLIGHT AND REMEMBER WHEN HE 'REACHES THE OTHER SIDE OF THE TUNNEL' END WITH 'COULD BE AWESOME'

Whistle

Will show employees in the order the jobs have been affected – start with Exxon/Baytown jobs and expand to 4.3MM examples.

LOVES THE ENDING OF THE SHORT VERSION. WILL CHANGE A LINE TO THE ENDING – BRILLIANT

AROUND THE 11-12 SECOND MARK...HOLD THE BEAT ONE NOTE TO COMPLETE THE UPBEAT IN THE WHISTLE – I CAN EXPLAIN IF NECESSARY

Simply Put (all spots)

Will work to increase comprehension on back end of spots – increase readability of supers, consider see & say.

LIKES THE SPOTS AND AGREES THAT WOULD BE GOOD VO TO REEL THE SUPPERS WOULD LIKE THE UPFRONT MUSIC TO BE MORE POTTER-ESQUE – MORE OF A TINKERING, WONDERMENT TYPE OF MUSIC, THEN HARD RECORD SCRATCH AND MOVE TO A FEW UPBEAT NOTES. SIMILAR TO THE STYLE NOW BUT MAYBE PLAY WITH THE MUSIC A BIT. AGAIN, I CAN EXPLAIN IF THIS DOESN'T MAKE SENSE. COMMENT APPLIES TO ALL THREE SPOTS

Simply Put/CCS

Will replace any lines that imply the technology is live today, and the solution is more future focused (e.g. we're building a plant to test this...)

Simply Put/Algae

Will replace any lines that imply the technology is live today, and the solution is more future focused (e.g. this could be a biofuel in the future...)

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Message

From: [REDACTED]
Sent: 11/20/2016 9:18:36 PM
To: Walton, Gantt H [REDACTED]
Subject: Re: Energy Farmer and Whistle with changes discussed this am.

I think so. They doubled the pace and go thru it twice which I think is nicer than the earlier version.

Want me to send it to her

Sent from my iPhone

On Nov 20, 2016, at 3:11 PM, Walton, Gantt H <[REDACTED]> wrote:

Is she going to be ok with this version for testing?

On Nov 20, 2016, at 3:05 PM, Rodgers, Abigail L <[REDACTED]> wrote:

Agree.

If we shoot it, we would take the titles off and click thru faster and then bring titles back up for the slower cadence.

Sent from my iPhone

On Nov 20, 2016, at 2:55 PM, Walton, Gantt H
<[REDACTED]> wrote:

Looks like it is still slower than the 11/14 version but probably ok for testing.

On Nov 20, 2016, at 2:05 PM, Rodgers, Abigail L
<[REDACTED]> wrote:

On Energy Famer - the put the words into the art cards.
On Whistle - they doubled the speed of the images over the "whistle while you work" melody :11-:15 to better match the whistling. SMM wanted us to use the 11/14 reference as our model, which I attach.

They are burning all the CDs. I will ask them for a filecargo tonight with all the files for research tomorrow. Robin will take the CDs to Chicago in the morning.

<https://www.filecargo.ca/message/axskbiYThiCK3lEyRFR>
[ETI](#)

Abigail Rodgers
Corporate Brand Manager

Exxon Mobil Corporation

22777 Springwoods Village Parkway
Spring, Texas 77389
Office: [REDACTED]
Mobile: [REDACTED]

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From: Fowler, Brandon

Sent: Sunday, November 20, 2016 1:39 PM

To: Rodgers, Abigail L

[REDACTED]; Snow, Angela K

Cc: Ritter, David [REDACTED]; Shroff, Shahnaz <[REDACTED]>

Subject: Re: feedback notes

Here are the final spots for testing tomorrow, all notes below have been addressed and we are prepping materials.

<https://www.filecargo.ca/message/axskbiYThiCK3IEyRFR ET1>

From: "Fowler, Brandon"

[REDACTED]

Date: Sunday, November 20, 2016 at 9:16 AM

To: Abigail Rodgers

[REDACTED], Angela Snow

Cc: "Ritter, David" [REDACTED]
"Shroff, Shahnaz" [REDACTED]

Subject: feedback notes

Here are the notes we just discussed.

On "energy farmer," you'd like us to revise the language in art cards...at :18 from "exxonmobil is cultivating it" to "exxonmobil is researching it"...at :20 from "for a future" to "for a potential future."

On "whistle" versions, you'd like us to speed up the pacing of the portraits from around :09-:11 to better match the whistling, see previous version from 11/14 for a reference.

For the groups, Lee will set-up the work with the existing versions of "to do list" and "ccs" and explain to participants that what they're about to see won't look the same today, but will eventually be in the same vein with people actually talking to camera, etc.

We are pulling out “simply put/nat gas” for the research on Monday and Tuesday.

<WhistleWhileYouWork_11-14-16_WWYW.mov>

HCOR

Message

From: Snow, Angela K [/O=EXXONMOBIL/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ANGELA.K.SNOW1]
Sent: 12/2/2016 3:51:31 PM
To: Walton, Gantt H [REDACTED]; Rodgers, Abigail L [REDACTED]
Subject: RE: Revised animatics for review

Oh – ok – sorry – she is working this morning and we are on the same telecon with Burson – I will go on hold and ring you while she stays on Burson call.

From: Walton, Gantt H
Sent: Friday, December 02, 2016 9:51 AM
To: Snow, Angela K [REDACTED]; Rodgers, Abigail L [REDACTED]
Subject: RE: Revised animatics for review

I called you since Abby is on vacation

From: Snow, Angela K
Sent: Friday, December 02, 2016 9:50 AM
To: Walton, Gantt H [REDACTED]; Rodgers, Abigail L [REDACTED]
Subject: RE: Revised animatics for review

Hi Gantt – am on the Burson ad moment call at moment with Abby and can ring after (not sure if you are on it too?) – or did you mean for Abby to ring you? (I'm happy to)

From: Walton, Gantt H
Sent: Friday, December 02, 2016 9:41 AM
To: Rodgers, Abigail L [REDACTED]
Cc: Snow, Angela K [REDACTED]
Subject: RE: Revised animatics for review

I like the new SSB and the hi no song. The nat gas does not sound very technical to me but it may work. Any reason why they decided not to go with Chris' script? The CCS opening is odd...DoE and FCE – no one will know what that means.

Angela...can you call me when you can.

From: Rodgers, Abigail L
Sent: Friday, December 02, 2016 7:04 AM
To: Walton, Gantt H [REDACTED]
Cc: Snow, Angela K [REDACTED]
Subject: Revised animatics for review

Gantt, Below is a link with some of the requests SMM had for the animatics prior to research Monday. BBDO would like to get these circulated to her this am so they can action any requests earlier in the day and don't have to clutter up their time with her this afternoon on these smaller tasks.

The link has:

America's Energy- alternative music to SSB for testing ,

Simply Puts - revised scripts to address our asks on nat gas (more technical opener), algae (reference partners and don't have a guy correct the woman and ccs(partners). They also end one with the "you thought we just made the gas."

Whistle - they found a cool HI Ho.... song

<https://www.filecargo.ca/message/i922F2PGeMAxx5q5dtkUqz>

If you are comfortable with these, we would like SMM to see them this am

A

Sent from my iPhone

HCOR

Appointment

From: Shultz, Ryan T /C [/O=EXXONMOBIL/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=RYAN.T.SHULTZ]
Sent: 5/11/2017 7:49:51 PM
To: Nelson, Neely S [REDACTED]; Snow, Angela K [REDACTED]; Rodgers, Abigail L [REDACTED]
[REDACTED]; Fowler, Brandon [REDACTED]; Perrelli, Justin [REDACTED]
Tiffany Swiney [REDACTED]; Hoffman, Logan [REDACTED]

Subject: Review/scrub CCS TV Script
Location: [REDACTED]

Start: 5/12/2017 3:30:00 PM
End: 5/12/2017 4:00:00 PM
Show Time As: Tentative

Required Attendees: Nelson, Neely S; Snow, Angela K; Rodgers, Abigail L [REDACTED]; 'Fowler, Brandon'; Perrelli, Justin [REDACTED];
Tiffany Swiney [REDACTED]; Hoffman, Logan

HCOR

Message

From: Fowler, Brandon [REDACTED]
Sent: 12/16/2016 4:24:09 PM
To: Walton, Gantt H [REDACTED]
CC: Rodgers, Abigail [REDACTED]
Subject: Re: Additional units = CCS, right?

Roger that. Thank you.

From: "Walton, Gantt H" <[REDACTED]>
Date: Friday, December 16, 2016 at 11:23 AM
To: "Fowler, Brandon" <[REDACTED]>
Cc: Abigail Rodgers <[REDACTED]>
Subject: RE: Additional units = CCS, right?

Yes, CCS would be the spot. Abby and a few others are getting a plan together for the remaining money.

From: Fowler, Brandon [REDACTED]
Sent: Friday, December 16, 2016 10:22 AM
To: Walton, Gantt H <[REDACTED]>
Cc: Rodgers, Abigail L [REDACTED]
Subject: Additional units = CCS, right?

We are potentially getting a unit in Sunday night football on NBC.

Based on the conversation earlier this morning, I'm assuming that spot should be ccs, instead of women in tech. Can you confirm?

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Message

Sent: 5/25/2017 10:16:57 PM
Subject: Scenario Background

Darren – as we discussed several weeks ago, attached is a briefing paper on scenarios that Haroon and I prepared, in preparation for the annual shareholder meeting. It includes general material on scenarios and how they are constructed and modelled, and discussion of the IPCC analysis of scenarios. I have highlighted areas throughout that I consider key points and takeaways. Included in the back is some more detailed background on various studies that we have reviewed that are of particular interest, or that received particular media attention. Key takeaways:

- 2 deg C scenarios would require unprecedented gains in efficiency and transformation of the global energy system
- We do not currently see a policy framework, finance flows, or enablers supportive of this rapid, unprecedented transformation of the energy system
- CCS and biofuels are important enabling technologies for all low carbon scenarios

Happy to discuss. Pete.

Pete Trelenberg
Manager Environmental Policy & Planning
Exxon Mobil Corporation
Phone [REDACTED]
Fax [REDACTED]
Cell [REDACTED]

Message

From: Darren Woods Email Address
Sent: 5/29/2018 10:32:33 PM
To: Wojnar, Theodore J [theodore.j.wojnar@exxonmobil.com]
Subject: Re: GHG Emissions Avoided

Works, thanks

Darren

On May 29, 2018, at 4:03 PM, Wojnar, Theodore J <[REDACTED]> wrote:

Darren:

Coming back on your question on GHG emissions avoided. The chart below is the one used in the Energy and Carbon Summary that you referenced. The basis used (driven by data available at the time) was:

- <!--[if !supportLists]--><!--[endif]-->Energy efficiency (cogen and Flare) reduction since 2007
- <!--[if !supportLists]--><!--[endif]-->CCS since 2011

<image001.png>

The data used in the chart above is in the table below (it quickly loses hands on 2007 for Efficiency / cogen & Flare reduction). As you can see, we now have data back to 2008.

Note that we have not yet publicly commented on data for 2017 on GHG avoidance, nor on CCS from 2008 – 2011.

CO2 Annual Avoidance (2008-2017) MTonnes CO2e, including CCS

<image002.png>

CO2 Cumulative Avoidance (2008-2017) MTonnes CO2e, including CCS

<image003.png>

So as I see it we have 2 options for how to respond to a query:

- <!--[if !supportLists]--><!--[endif]-->As we noted in the Energy and Carbon Summary published earlier this year, ExxonMobil has taken action to reduce GHG emissions by approximately 55 million tons from 2008 to 2016.
- <!--[if !supportLists]--><!--[endif]-->Over the last decade, ExxonMobil has taken action to reduce GHG emissions by approximately 75 million tons

Let me know if you need anything else.

Pete / Guy / Sufang – let me know if I missed anything.

T. J. Wojnar, Jr., Vice President

Corporate Strategic Planning
ExxonMobil Corporation
5959 Las Colinas Blvd
Irving, TX 75039-2298

HCOR

Message

From: Forde, Steve M [/O=EXXONMOBIL/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=82DE926DD901497895053A0A9B8560E8-STEVE M FORDE]
Sent: 9/20/2018 4:04:49 PM
To: Freeman, Kenneth J [REDACTED]
Subject: RE: Important ExxonMobil climate initiative announcement

The Appalachian Basin always leads the way

From: Freeman, Kenneth J
Sent: Thursday, September 20, 2018 12:00 PM
To: Soper, Steven W <[REDACTED]>
Cc: Forde, Steve M [REDACTED]
Subject: Fwd: Important ExxonMobil climate initiative announcement

More from Karen

Sent from my iPad

Begin forwarded message:

From: "Nelson, Neely" <[REDACTED]>
Date: September 20, 2018 at 10:57:48 AM CD
To: "Matusic, Karen" <[REDACTED]>, "Freeman, Kenneth J" <[REDACTED]>
Subject: RE: Important ExxonMobil climate initiative announcement

Very nice!

Neely Nelson
XTO Public & Gov't Affairs Manager
832-625-8465

From: Matusic, Karen
Sent: Thursday, September 20, 2018 9:36 AM
To: Freeman, Kenneth J <[REDACTED]>; Nelson, Neely <[REDACTED]>
Subject: FW: Important ExxonMobil climate initiative announcement

Nice note from [REDACTED] of Marcellus Shale Coalition

Karen Matusic
Manager, Public and Government Affairs
Appalachia District
XTO Energy, an ExxonMobil subsidiary
190 Thorn Hill Road
Warrendale, PA 15086
Ph: [REDACTED]
[REDACTED]

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From: Dave Spigelmyer [mailto: [REDACTED]]
Sent: Thursday, September 20, 2018 10:35 AM
To: Matusic, Karen < [REDACTED]>
Subject: Re: Important ExxonMobil climate initiative announcement

Thanks Karen for sharing. There are some in our industry who push back on climate change, when by its very nature climate changes constantly. What we need is a just and rational discussion about the science. Many with an agenda try to sow the seeds of doubt. It makes perfect sense that we get every molecule of the stuff that we use on the gas meter. As tight pricing environment, the incentives are clear.

Thanks Karen.

[Get Outlook for iOS](#)

From: Matusic, Karen < [REDACTED]>
Sent: Thursday, September 20, 2018 10:17:36 AM
To: Matusic, Karen
Subject: Important ExxonMobil climate initiative announcement

Good morning

Today ExxonMobil announced it is joining the [Oil and Gas Climate Initiative](#). The CEO-led organization focuses on developing practical solutions in areas including carbon capture and storage, [methane emissions reductions](#) and energy and transportation efficiency. As part of the initiative, ExxonMobil will expand its investment in research and development of long-term solutions to reduce greenhouse gas emissions as well as partnerships and multi-stakeholder initiatives that will pursue lower-emission technologies. It is expected that the OGI will make additional announcements on [methane](#) initiatives on Monday, September 24th.

[ExxonMobil to Join Oil and Gas Climate Initiative](#)

Please forward as you see fit
Thanks!
Karen Matusic
Manager, Public and Government Affairs
Appalachia District
XTO Energy, an ExxonMobil subsidiary
190 Thorn Hill Road
Warrendale, PA 15086
Ph: [REDACTED]
[REDACTED]

Visit [ExxonMobil's Energy Factor](#), an online resource covering the cutting-edge technology and innovations that are helping to meet tomorrow's energy needs.

This document may contain information that is privileged, confidential and exempt from disclosure under applicable law. If you are not the intended recipient, you are on notice that any unauthorized disclosure, copying, distribution or taking of any action in reliance on the contents of this document is prohibited.

HCOR

Message

From: Sinclair, Andrew [/O=EXXONMOBIL/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D75D256C0FD6436F9AD9A3A10C519F91-SINCLAIR, AND]
Sent: 5/7/2018 8:01:42 PM
To: Freeman, Kenneth J [REDACTED]
CC: Bergman, Cynthia L [REDACTED]
Subject: RE: NJ Ads
Attachments: ExxonMobil - Science Ad 2.pdf; ExxonMobil - Science Ad.pdf

Please see attached . .

From: Freeman, Kenneth J
Sent: Monday, May 7, 2018 1:53 PM
To: Sinclair, Andrew <[REDACTED]>
Cc: Bergman, Cynthia L <[REDACTED]>
Subject: NJ Ads

Andrew – Can you please send Cynthia the NJ ads you had on [REDACTED] Thanks, -Ken

Ken Freeman
U.S. Government Relations Manager
Exxon Mobil Corporation
5959 Las Colinas Blvd
Irving, TX 75039

Office [REDACTED]
Mobile [REDACTED]

Visit [ExxonMobil's Energy Factor](#), an online resource covering the cutting-edge technology and innovations that are helping to meet tomorrow's energy needs.



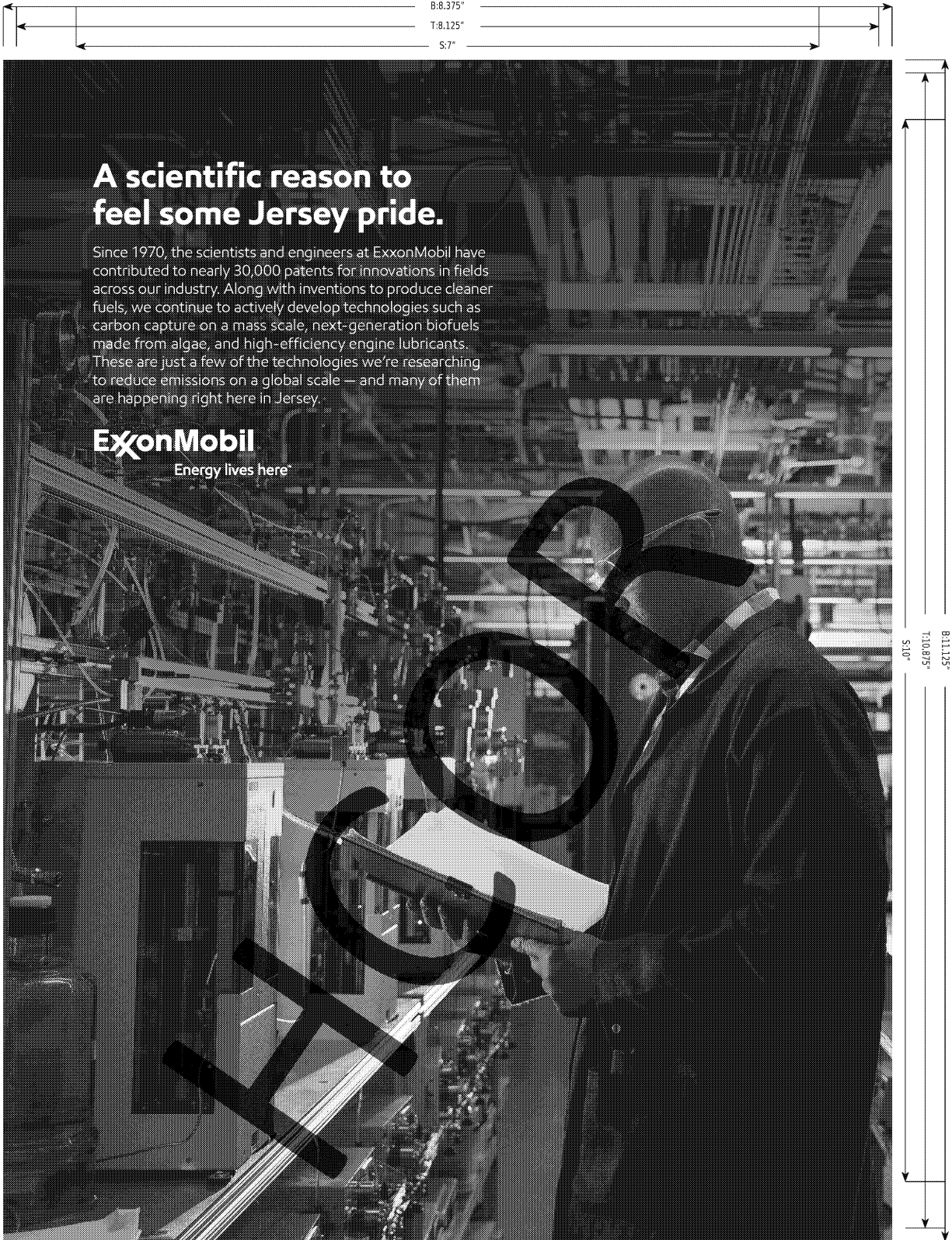
There's a lot of science happening right in your backyard.

Next-generation biofuels made from algae. Carbon capture on a mass scale. High-efficiency engine lubricants. These are just a few of the technologies being developed right here in Jersey at ExxonMobil's Research and Engineering facilities. With over 400 labs and nearly 100 pilot plants on 800 acres in New Jersey, much of our research on reducing the world's emissions is a homegrown effort — and a great reason to feel some Jersey pride.

ExxonMobil
Energy lives here™

approval	init.	date	eg+ worldwide		Filename: 727081-2_V5.indd			
proofreader			<div>CLIENT: 8800 New York ExxonMobil Corporation</div> <div>PRODUCT: NJ ads</div> <div>JOB#: 8DNY P00010435</div> <div>SPACE: Full Pg 4C</div> <div>BLEED: 8.375" x 11.125"</div> <div>TRIM: 8.125" x 10.875"</div> <div>SAFETY: 7" x 10"</div> <div>GUTTER: None</div> <div>PLUSE: NJ Business</div> <div>SSUE: Name</div> <div>TRAFFIC: Bob McCann</div> <div>ART BUYER: Name</div> <div>ACCOUNT: NATHAN KING</div> <div>RETOUCH: Name</div> <div>PRODUCTION: Name</div> <div>ART DIRECTOR: Name</div> <div>COPYWRITER: Name</div>		Agency Job Number: None		Cradle Job Number: 727081-2 (EMC-COR)	
art director					Proof # 5		Created: 2-21-2018 4:18 PM	
copywriter					Pat: EG-PLUS-NY-EGPlus_Departments:Print-A--F-8800-Exxon:727081-2_NJ_Business_		Saved: 3-1-2018 3:13 PM	
art/mgr/qc	/	/			LogoScience:727081-2_Mechanicals:727081-2_V5.indd		Printed: 3-1-2018 3:13 PM	
account					Operators: Patricia Chang / Patricia Chang		Print Scale: None	
client					Ink Names: CMYK Cyan		Fonts: EM/print Bold, Regular	
legal (media)					Magenta		X1a	
legal (prod)					Yellow			
medical					Black			
production					Ink Density: None			
					OOH Scaling Info:		Page: 1 of 1	
					Build Scale: 100%			
					Final Safety: 10" H x 7" W			
					Final Viewing Area: 10.875" H x 8.125" W			
			Final Trim: 10.875" H x 8.125" W					
			Final Bleed: 11.125" H x 8.375" W					

IMAGES: 727081-2_EMREC_0859_V1_CMYK_HR.tif CMYK 458 ppi
emmo_tag_tm_white.eps



A scientific reason to feel some Jersey pride.

Since 1970, the scientists and engineers at ExxonMobil have contributed to nearly 30,000 patents for innovations in fields across our industry. Along with inventions to produce cleaner fuels, we continue to actively develop technologies such as carbon capture on a mass scale, next-generation biofuels made from algae, and high-efficiency engine lubricants. These are just a few of the technologies we're researching to reduce emissions on a global scale — and many of them are happening right here in Jersey.

ExxonMobil
Energy lives here™

approval	init.	date	eg+ worldwide		Filename: 727081-1_V8.indd			
proofreader			CLIENT: 8800 New York ExxonMobil Corporation PRODUCT: NJ ads JOB#: 8DNY P00010435 SPACE: Full Pg 4C BLEED: 8.375" x 11.125" TRIM: 8.125" x 10.875" SAFETY: 7" x 10" GUTTER: None PULSE: N/ Business TRAFFIC: Bob McCann ART BUYER: None ACCOUNT: NATHAN KING RETOUCH: None PRODUCTION: None ART DIRECTOR: None COPYWRITER: None		Agency Job Number: None		Cradle Job Number: 727081-1 (EMC-COR)	
art director					Proof # 8 Path: EG-PLUS-NY-EGPlus_Departments:Print-A--F-8800-Exxon:727081-1_NJ_Business_SchReason:727081-1_Mechanical:727081-1_V8.indd Operators: Patricia Chong / Patricia Chong		Created: 2-21-2018 4:03 PM Saved: 3-2-2018 1:50 PM Printed: 3-2-2018 1:50 PM Print Scale: None	
copywriter					Ink Names: <input checked="" type="checkbox"/> Cyan <input checked="" type="checkbox"/> Magenta <input checked="" type="checkbox"/> Yellow <input checked="" type="checkbox"/> Black		OOH Scaling Info: Build Scale: 100% Final Safety: 10" H x 7" W Final Viewing Area: 10.875" H x 8.125" W Final Trim: 10.875" H x 8.125" W Final Bleed: 11.125" H x 8.375" W	
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medical								
production								

IMAGES: 727081-1_Lab_0880_V2_CMYK_HR.tif CMYK 300 ppi, -301 ppi
emmo_tag_tm_white.eps

Message

From: Nelson, Neely S [/O=EXXONMOBIL/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=NEELY.S.NELSON]
Sent: 4/29/2016 10:03:50 PM
To: Mizan, Tahmid I [REDACTED]; Snow, Angela K [REDACTED] Onderdonk, Todd W [REDACTED]
CC: Rodgers, Abigail L [REDACTED]
Subject: RE: Updated TV Scripts

I am fine with those.

Angela – I know you are trying to keep the lines tight. The concern on abundant is that, even though they are abundant, it will take a ton of them to make biofuels so that might create some angst with the research folks who know that.

Neely Nelson
URC & EMRE Public & Gov't Affairs Manager
[REDACTED]

From: Mizan, Tahmid I
Sent: Friday, April 29, 2016 5:01 PM
To: Snow, Angela K; Nelson, Neely S; Onderdonk, Todd W
Cc: Rodgers, Abigail L
Subject: RE: Updated TV Scripts

Could try "growing algae for biofuels" or "finding the algae that will make abundant and cheap biofuels"

Tahmid Mizan

Senior Technology Advisor
Corporate Strategic Planning, Exxon Mobil Corporation
5959 Las Colinas Boulevard, Irving, TX 75039-2298
Email: [REDACTED] **Phone:** [REDACTED]

From: Snow, Angela K
Sent: Friday, April 29, 2016 4:58 PM
To: Nelson, Neely S <[REDACTED]>; Onderdonk, Todd W <[REDACTED]>; Mizan, Tahmid I <[REDACTED]>
Cc: Rodgers, Abigail L <[REDACTED]>
Subject: RE: Updated TV Scripts

The point we wanted to make is that there is an abundance/a lot of algae...

From: Nelson, Neely S
Sent: Friday, April 29, 2016 4:38 PM
To: Snow, Angela K <[REDACTED]>; Onderdonk, Todd W <[REDACTED]>; Mizan, Tahmid I <[REDACTED]>
Cc: Rodgers, Abigail L <[REDACTED]>
Subject: RE: Updated TV Scripts

Angela – That word has some different connotations as I think what you are trying to get across is the efficiency piece (we are wanting to get more out of the algae...with photosynthesis, genetics, etc.). Could we say something like "researching ways to make algae into more efficient biofuels"?

Neely Nelson

From: Snow, Angela K
Sent: Friday, April 29, 2016 4:33 PM
To: Onderdonk, Todd W; Mizan, Tahmid I; Nelson, Neely S
Cc: Rodgers, Abigail L
Subject: RE: Updated TV Scripts

Thanks Todd.

Tahmid – on the Algae line we'd also like to add "researching ways to turn abundant algae into biofuels." Is it ok to also capture it that way? (Neely ccing you in on this too – ok to add abundant?)

Also, for the added engine efficiency line we'd like to also capture "Engines with far greater efficiency" and wanted to ensure that is ok.

Thanks

From: Onderdonk, Todd W
Sent: Friday, April 29, 2016 2:23 PM
To: Snow, Angela K <[REDACTED]>
Cc: Mizan, Tahmid I <[REDACTED]>; Landuyt, William <[REDACTED]>
Subject: Re: Updated TV Scripts

Angela -
Some comments/suggestions below for consideration as noted by (TWO:). Todd

Sent from my iPad

On Apr 29, 2016, at 6:52 PM, Snow, Angela K <[REDACTED]> wrote:

Todd/Tahmid/Billy,

Attached are the updated scripts for our shoot that starts Monday.

Todd/Tahmid these are in keeping with what you reviewed a couple of weeks ago. What has mainly changed here is really just the addition of several alternate lines so we have more editorial options when we build the spots in edit. Sometimes we might need more ExxonMobil identity and you will see we've added that in more. Also we have added context on the Unexpected Jobs so in some of the examples what we are talking about is more closely aligned to our business.

For CCS we have added an alt section that mentions the fuel cell technology. Don't know if we will use it but we wanted to capture it.

The intent here is to keep all these alt lines as we go into the shoot - so I wanted to run them by you to ensure no exception. The bold text is the previously endorsed scripts that were an outcome of the earlier reviews you did.

I'd be most appreciative to confirm no exception as soon as you are able today.

Thank you

“UNEXPECTED JOBS”

Improving energy efficiency

Mapping the oceans

[ALT] Mapping the oceans where we (may) explore.

Defeating malaria

[ALT] Helping prevent malaria in the communities (countries) where we operate.

[ALT] Helping prevent malaria in the communities (countries) where we work.

Monitoring marine wildlife

[ALT] Monitoring marine wildlife near our operations.

Increasing opportunity for women

[ALT] Increasing opportunity for women in the developing world.

Protecting biodiversity

[ALT] Protecting the biodiversity around our operations.

[ALT] Protecting biodiversity in areas where we operate.

Supporting local communities

[ALT] Supporting local communities where we work

[ALT] Supporting local communities where we work and live

Researching algae biofuels

[ALT] Turning algae into biofuels. (TWO: maybe "Using algae for biofuels")

[ALT] Making biofuels from algae.

[ALT] Exploring biofuels made from algae. (TWO: "Researching biofuels made from algae")

Supporting math and science education.

Reducing energy poverty in the developing world.

[ALT] Reducing energy poverty in developing nations.

Fueling the global economy.

Developing more cleaner-burning natural gas. (TWO: suggest we say "Producing clean-burning natural gas"....)

[ALT] Capturing carbon. (TWO: maybe add "... emissions")

[ALT] Reducing emissions from power plants. (helping to reduce instead???) (TWO: yes, "helping reduce....")

[ALT] Providing cleaner-burning natural gas. (TWO: again, suggest we make it "clean-burning" to avoid confusion that might suggest this natural gas is different from some other type of natural gas)

Making cars go further with less.

TITLE: Providing energy is one of our jobs.

But the most surprising things we do are the other things we do.

**Energy
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Here**

HCOR

“CARS”

Cars that get many more miles per gallon.

[ALT] How is ExxonMobil helping cars get a lot more miles per gallon?

[ALT] At ExxonMobil we see a future where cars could get many more miles per gallon.

It's going to take a lot of things to get there.

[ALT] At ExxonMobil, we know it's going take a lot of things to get there.

Like advanced plastics that make cars lighter...

... make cars stronger.

Improved engine efficiency.(this line is a new addition)

[ALT] Engines with greater efficiency.

[ALT] Engines with increased efficiency.

The liners for your tires.

The lubricants for your engine.

We're working on all of these things.

[ALT] At ExxonMobil we are working on all these things.

[ALT] At ExxonMobil, we work on all of these things.

[ALT] At ExxonMobil, we've put a lot of work into all these things.

To help cars go further with less.

Which could save billions of gallons of gas a year.

Saving a lot of money.

Reducing a lot of emissions.

And you thought we just made the gas.

[ALT 1] And you thought at ExxonMobil we just made the gas.

[ALT 2] A lot of people think we just make the gas. When you work at ExxonMobil, you get a lot of that. (TWO: hmmm... Supposed to be funny I know but don't want to suggest that a lot of people are ignorant.)

[ALT 3] A lot of people think ExxonMobil just makes the gas. We get a lot of that.

Energy lives here.

“CCS”

Curiosity.

Determination.

Confidence.

It's important to reduce emissions.

[ALT] At ExxonMobil, we believe it's important to reduce emissions.

It will take our brightest minds to find answers. (TWO: suggest we say "more answers" since we have been finding ways to reduce various sources/types of emissions for quite some time)

I'm working on ways to address it.

[ALT] We've been working for years on ways to address it. (TWO: suggest "for years to improve our options/technology")

Carbon Capture technology.

We can capture the carbon emissions before they're released in to the atmosphere.

I want to make that technology better.

Affordable.

So it can be used around the world.

That's what I want to do.

Solve problems that haven't been solved before.

Make the next big breakthrough.

[ALT] Potentially make the next big breakthrough.

[ALT SECTION ADD]

[ALT] Like special fuel cell technology that separates carbon dioxide from power plant emissions.

[ALT] Like special fuel cell technology that separates carbon from power plant emissions.

(TWO: seems we should be consistent in saying "carbon" or "carbon dioxide".... I prefer we use what in fact we expect to capture)

[ALT] That's what we're working on.

I want to push the possibilities.

[ALT] I want to find new possibilities.

[ALT] I want to see what's possible.

Ready.

Set.

Go.

In addition to "Ready. Set. Go" we want to have employees cover a few other words that could be used in this spot, for example:

[ALT] Ideas.
[ALT] Ingenuity.
[ALT] Action.
(etc.)

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“WOMEN IN TECH”

TITLES OR VO: BIOCHEMIST

 PHYSICIST
 [ALT:] GEOPHYSICIST

 BIOLOGIST

 RELENTLESS

 GEOSCIENTIST
 [ALT] GEOLOGIST

 DOCTOR

 CURIOUS

 OCEANOGRAPHER

 LEADER

 MATHMETICIAN

 ENGINEER

 FEARLESS

ENDING OPTION 1 (WORK-IN-PROGRESS SUMMATION LINE – DOES NOT AFFECT SHOOT, OFF CAMERA VO)

FEMALE VO: It takes a lot of different skills to power the world responsibly.

 Join the women of ExxonMobil in our efforts to launch more girls into careers in math and science.

FEMALE EMPLOYEE: (TO CAMERA) Don't let anyone tell you you can't.

ENDING OPTION 2 (WORK-IN-PROGRESS SUMMATION LINE – DOES NOT AFFECT SHOOT, OFF CAMERA VO):

FEMALE VO: It takes a lot of different talents to power the world responsibly.

 Join the women of ExxonMobil in supporting young women pursuing careers in STEM.

FEMALE EMPLOYEE: (TO CAMERA) Don't let anyone tell you you can't.

ENDING OPTION 3 (AIMED AT OL PARENTS WHO HAVE DAUGHTERS):

FEMALE VO: It takes a lot of different talents to power the world responsibly.

Join the women of ExxonMobil in supporting young women pursuing careers in STEM.

FEMALE EMPLOYEE: (TO CAMERA) Don't let anyone tell your daughter she can't.

Energy
Lives
Here

(Here)
(Here)
(Here)

HCOR

Message

From: Onderdonk, Todd W [/O=EXXONMOBIL/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=TODD.W.ONDERDONK1]
Sent: 8/29/2018 10:14:37 PM
To: Wojnar, Theodore J [REDACTED]
Subject: RE: ECC Deck
Attachments: ExxonMobil_2018 Energy Outlook_ECC_v2.pdf; ExxonMobil_2018 Energy Outlook_ECC_v2.pptx

TJ –
Attached is an updated set of draft slides for the ECC (PDF and an animated PPT version).

There are two slides that I created on 'digital' technology based on material from Vivienne Hesha at EMRE and the Corporate Digital Strategy. These slides haven't been approved for external use but I trust you can do so if appropriate for this audience as it is all pretty generic while providing a basis for remarks you may want to add on the subject.

Justin also pulled in to anecdotal points relating to 50 years ago on the opening slide.

Glad to take any feedback, suggestions you have.

Lastly, I ran into Rick Fedock yesterday and he wanted me to pass along his regards to you.

Todd

Todd Onderdonk
ExxonMobil – Corporate Strategic Planning
[REDACTED]

From: Wojnar, Theodore J
Sent: Wednesday, August 29, 2018 1:16 PM
To: Onderdonk, Todd W [REDACTED]
Subject: ECC Deck

Sorry to bug you....but let me know if you want me to look at any slides for ECC, know you guys area busy

T. J. Wojnar, Jr., Vice President
Corporate Strategic Planning
ExxonMobil Corporation
5959 Las Colinas Blvd
Irving, TX 75039-2298



2018 Outlook for Energy: A View to 2040

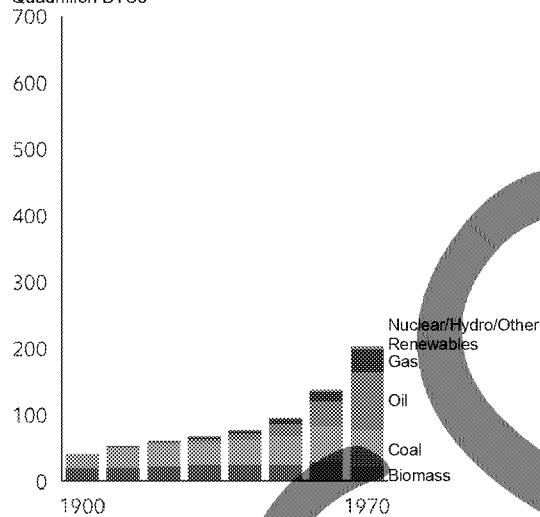
DRAFT

The Outlook for Energy: A View to 2040 is a draft document and should not be used for decision-making purposes. It is intended to provide a high-level overview of the energy market and the role of ExxonMobil in the energy industry. The Outlook for Energy: A View to 2040 is a draft document and should not be used for decision-making purposes. It is intended to provide a high-level overview of the energy market and the role of ExxonMobil in the energy industry.

ExxonMobil
30th Annual General Meeting
September 10-11, 2018

Energy evolution reflects technology, scale & complexity

Primary energy demand
Quadrillion BTUs



Source: Smil, *Energy Transitions (1900-1960)*

50 years ago...

- Seatbelts mandated in all new cars
- Ford Mustang - top seller in the U.S.
- Boeing revealed the revolutionary 747
- HP introduced the 1st desktop computer
- Polaroid camera – digital imaging pioneer
- Offshore oil production – max water depth
 - 1968: ~400 feet (now ~12,000 feet)
- U.S. refineries
 - 1968: 282 (now ~135, +65% capacity)

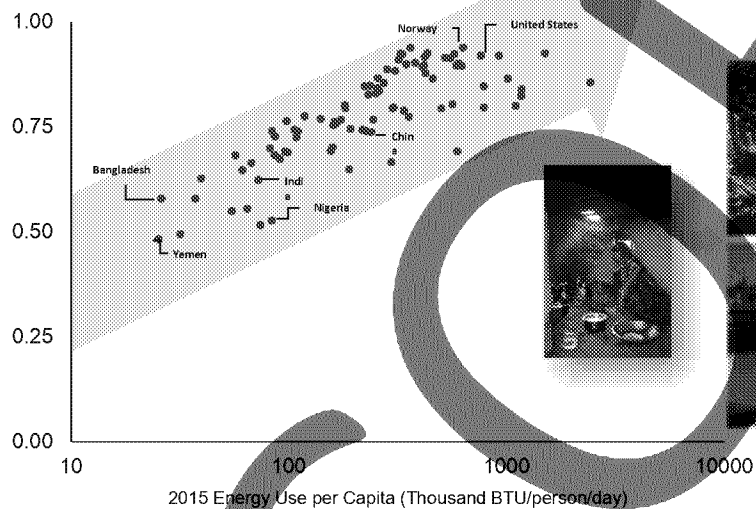
ExxonMobil

ExxonMobil 2018 Outlook for Energy

Energy Fuels Human Development

U.N. Human Development Index

2015 Index



Source: United Nations, ExxonMobil estimates

The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions.

-<http://hdr.undp.org/en/content/human-development-index-hdi>

Note that slide uses a log scale for the energy axis. Here is what it looks like on a linear scale.

Global trends continue to evolve

Growth from 2016 level
Percent

100%
75%
50%
25%
0%

2016

2040



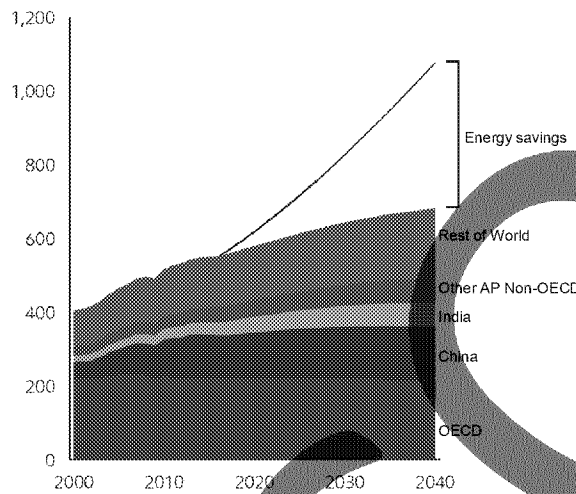
ExxonMobil

ExxonMobil 2018 Outlook for Energy

Global efficiency limits demand growth

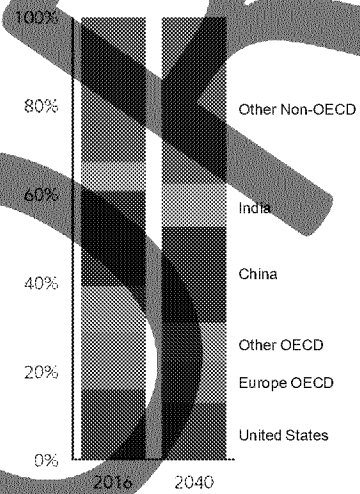
Energy demand

Quadrillion BTUs



Share of primary energy demand by region

Share of Quadrillion BTUs



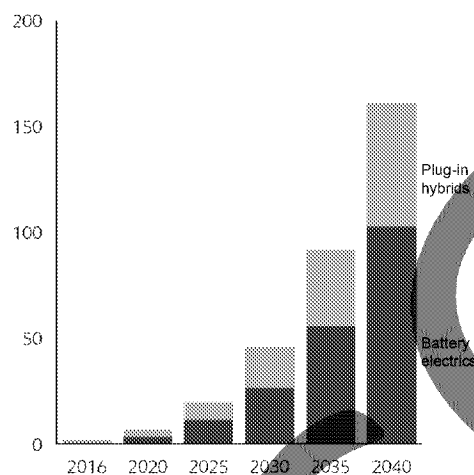
ExxonMobil

ExxonMobil 2018 Outlook for Energy

Policy and consumer choices impact demand

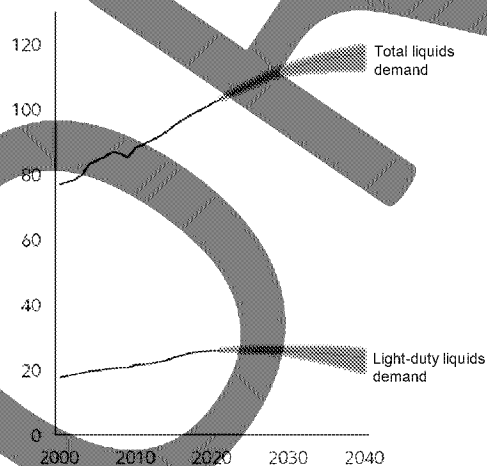
Electric vehicles grow rapidly

Million cars



Liquids demand remains resilient

MBDOE



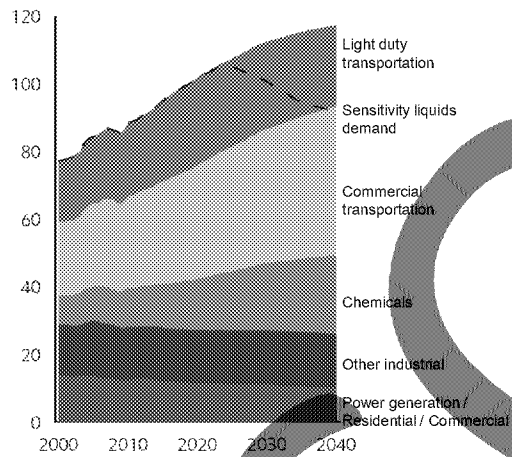
Shaded ranges are indicative of potential shifts in demand relative to base Outlook

ExxonMobil

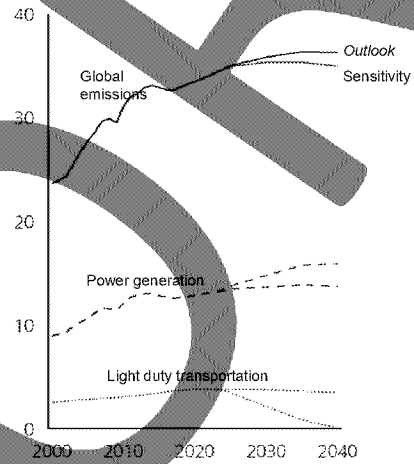
ExxonMobil 2018 Outlook for Energy

Hypothetical electric vehicle sensitivity

Liquids demand by sector
MBDOE



Energy-related CO₂ emissions
Billion tonnes



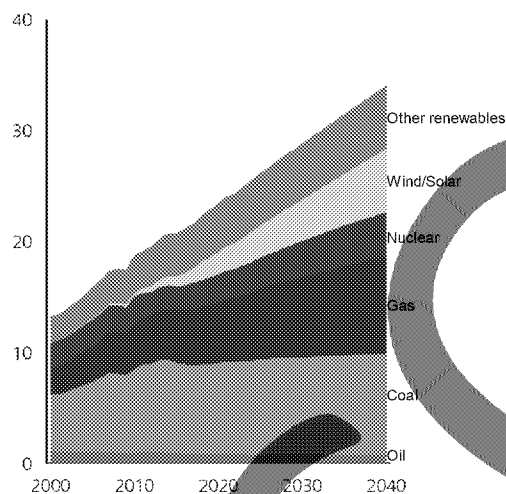
ExxonMobil

ExxonMobil 2018 Outlook for Energy

Electricity demand grows and sources shift

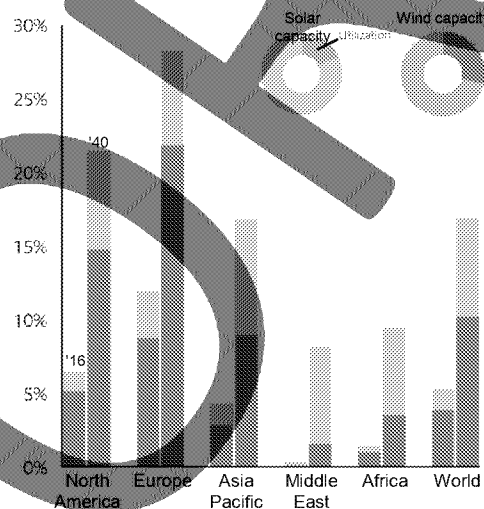
Electricity sources shift

Thousand TWh



Wind / Solar share of delivered electricity

Share of TWh



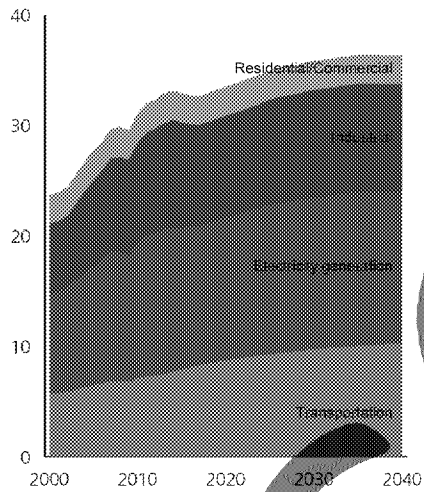
ExxonMobil

ExxonMobil 2018 Outlook for Energy

Energy related CO₂ emissions

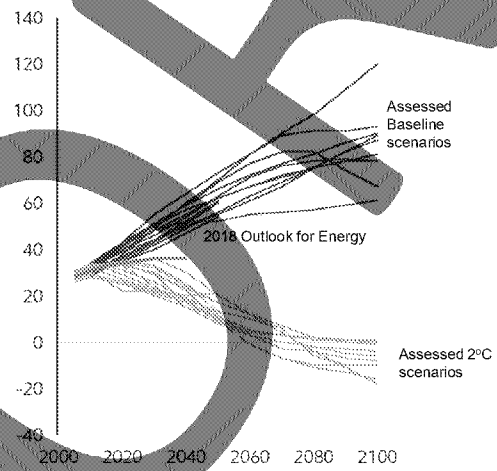
Energy-related CO₂ emissions by sector

Billion tonnes



Global energy-related CO₂ emissions

Billion tonnes



Baseline and 2°C scenarios based on Stanford EMF27 full technology scenarios
EMF27-PT cases include CO₂ emissions from energy and industrial processes

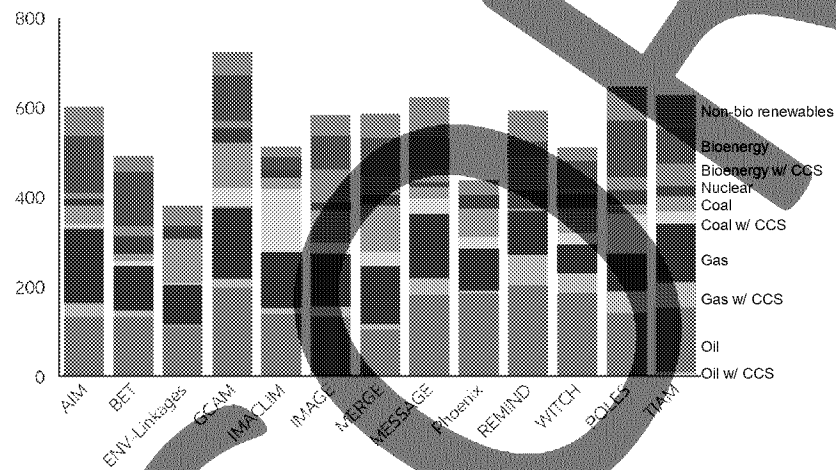
ExxonMobil

ExxonMobil 2018 Outlook for Energy

Assessed 2°C Scenarios: 2040 Global energy demand

2040 Global demand by model and energy type

Exajoules



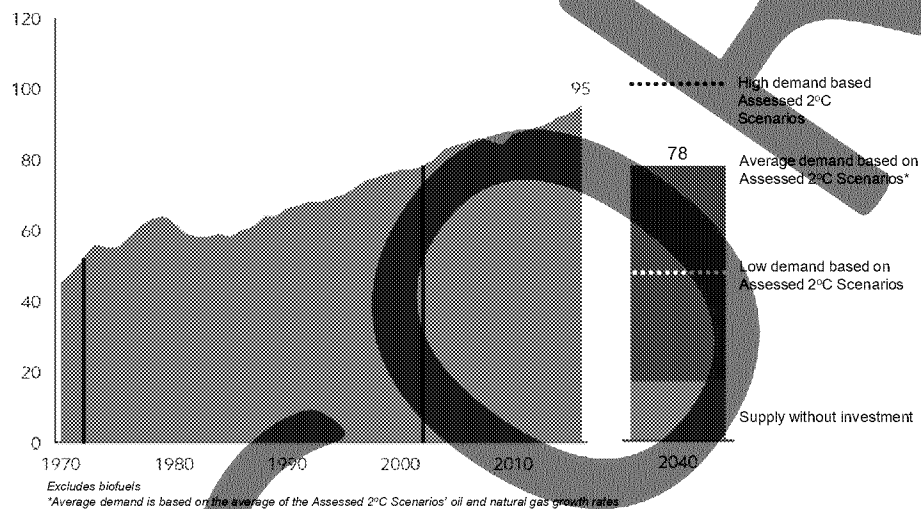
Based on EMF27 full technology / 450 ppm scenarios (Assessed 2°C Scenarios)
EMF27 full technology scenarios data downloaded from: <https://secure.iiasa.ac.at/web-apps/ene/AR5DB>

ExxonMobil

ExxonMobil 2018 Outlook for Energy

Significant investments needed to meet demand

Global liquids supply
MBOE

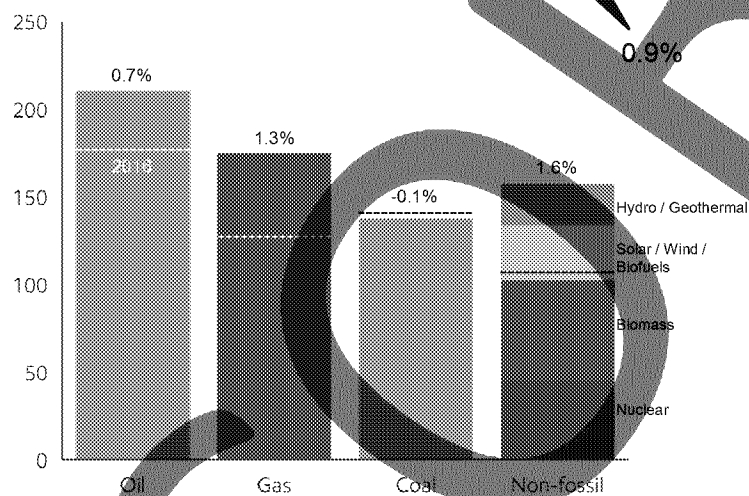


ExxonMobil

ExxonMobil 2018 Outlook for Energy

Global Demand

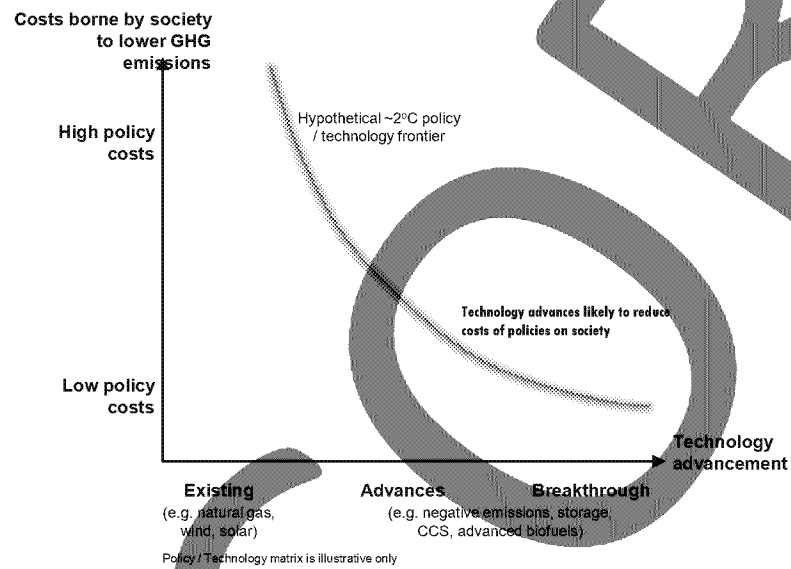
2040 by fuel
Quadrillion BTUs



ExxonMobil

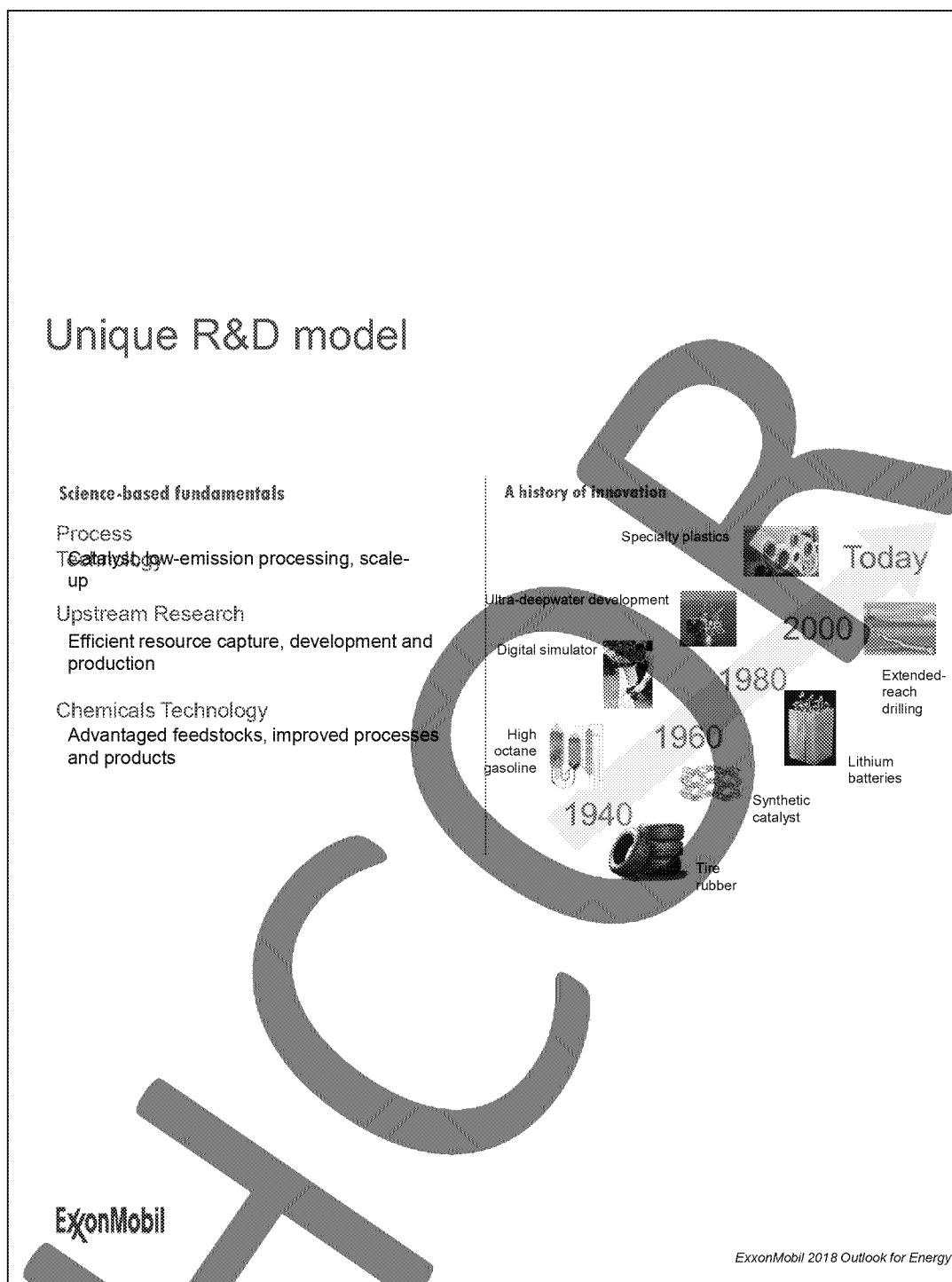
ExxonMobil 2018 Outlook for Energy

Technology key to reducing societal costs of 2°C pathway



ExxonMobil

ExxonMobil 2018 Outlook for Energy



This chart shows some of these technologies. The very things we are doing routinely today to supply the safe and affordable energy were unimaginable at the beginning of this industry.

In the 1940's we developed the process to make high octane fuels and synthetic tires, which were critical components in winning World War II.

In the 1950's we used then state-of-the-art computers to simulate reservoirs to more efficiently and effectively produce oil. We also produced the first synthetic catalyst to make high-octane fuels. This was the genesis of several innovations that continues through today.

The 1960's and 1970's we pioneered the fundamental science which enabled the lithium ion battery, still the leading battery

technology.

We were pioneers in low-sulfur fuels greatly improving air quality.

Completed in 2000, the Hoover Diana platform in the Gulf of Mexico achieved many world and industry firsts including setting a world water depth record for a floating drilling and production platform with subsea tiebacks.

We continue to develop specialty plastics that can provide tougher and thinner packaging films reducing waste and energy.

Today's computers have allowed us to set a record for number of processors used in modeling a reservoir. And, we now have annual protection Mobil 1.

The projects mentioned over the next 10 years will utilize state-of-the-art computing as well as several new catalyst and processing configurations that will lead to more effective and efficient production of oil, gas, fuels and chemicals.

HCOR

Technology is the foundation for the future

Near-term

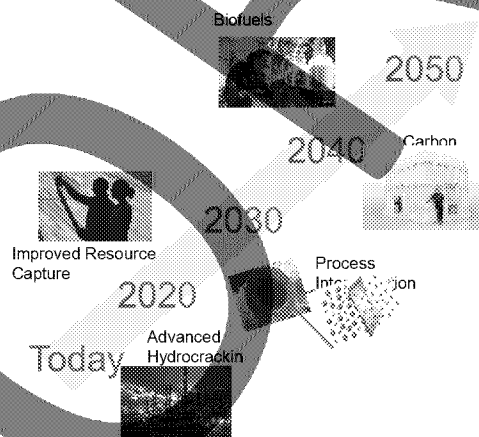
Advantaged technology delivery

Mid-term

Industrial processes with lower emissions

Long-term

Biofuels, CCS



ExxonMobil

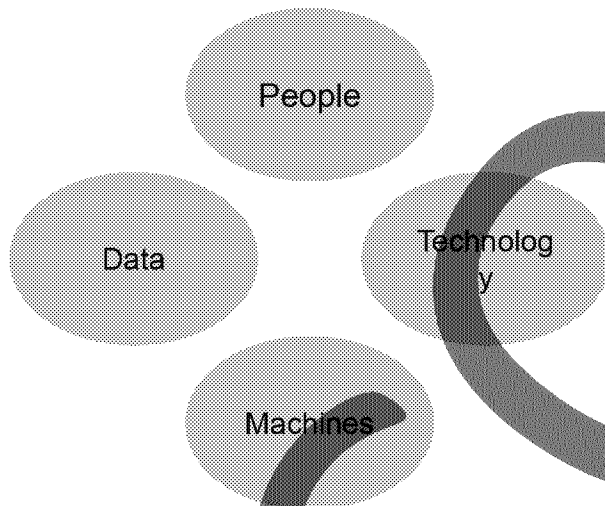
ExxonMobil 2018 Outlook for Energy

Continue to go down efficiency line (PI)
Focused on efficiency of existing sites. But we know we have to turn left.
Only 2 ways.
Use CO₂ as a feed (e.g. Biofuels, bioproducts)
Capture and sequester.
We need new materials, new processes.

2020 FWI or improved resource capture
2030 Novel reactors and membranes (PI)
2040 Biofuels
2040/2050 Carbon Capture

Technology increasing means digital

Digital applications – enabled by convergence of people, data, technology & machines



The case for digital:

- Explosion of data & enabling technologies
- Unprecedented opportunities to create value and competitive advantages (first movers)
- Emerging threats from “digital masters”

Potential barriers:

- Low awareness
- Low ambition
- Limited accountability

Digital – a broad opportunity set

Optimize current businesses

- Seismic to simulation (oil and gas)
- Capital project management
- Production / manufacturing optimization
- Asset maintenance
- Worker productivity
- Knowledge and collaboration
- Cyber security

• Create new value

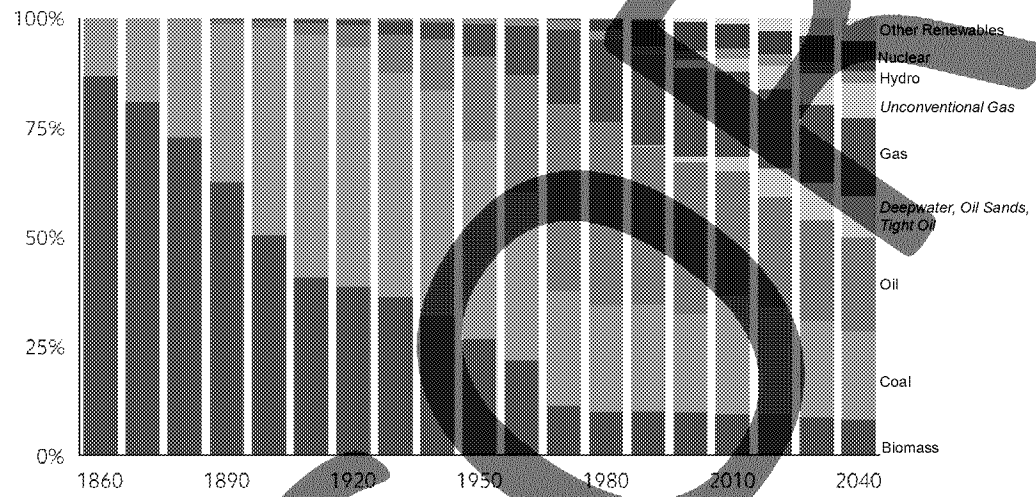
- Expand into adjacent business opportunities
- Disruptive/transformational opportunities

An example: Enhanced Construction Mobility

Boost construction project productivity by providing up-to-date information & streamlined work processes through new mobility solutions for field personnel

Energy evolution reflects technology, scale & complexity

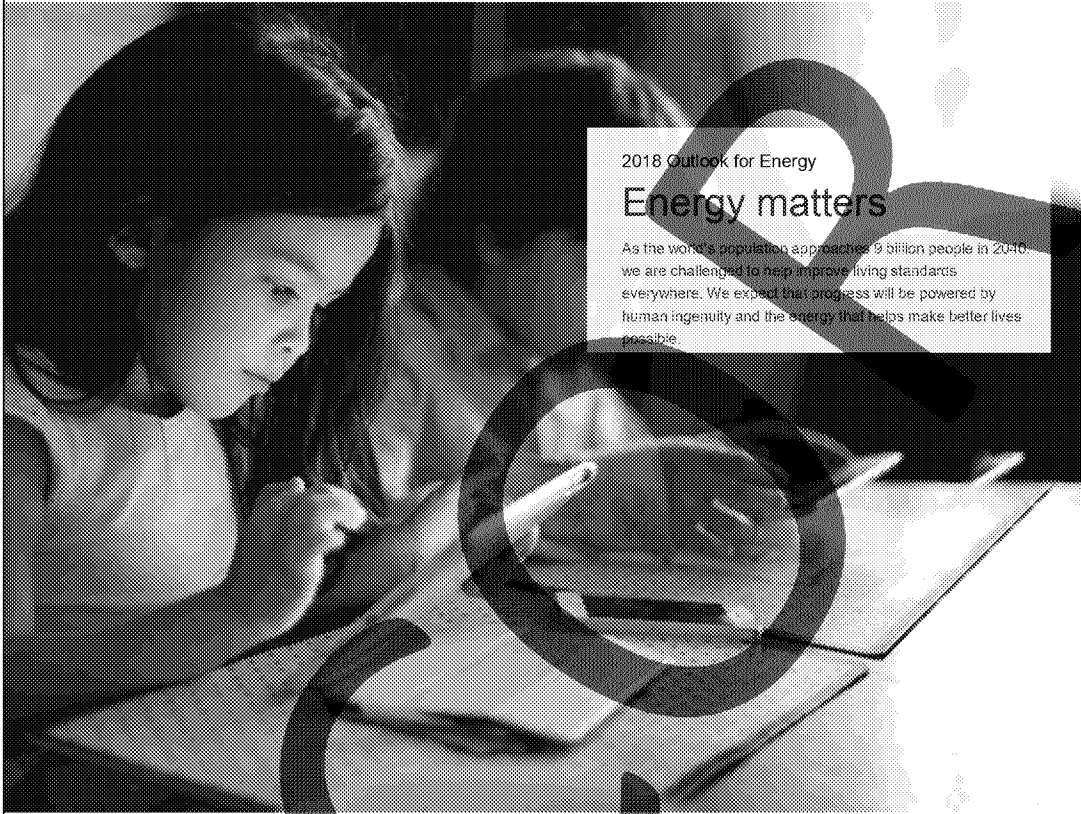
Global Mix of Fuels



Source: Smil, *Energy Transitions (1800-1960)*

ExxonMobil

ExxonMobil 2018 Outlook for Energy



2018 Outlook for Energy

Energy matters

As the world's population approaches 9 billion people in 2040, we are challenged to help improve living standards everywhere. We expect that progress will be powered by human ingenuity and the energy that helps make better lives possible.

ExxonMobil

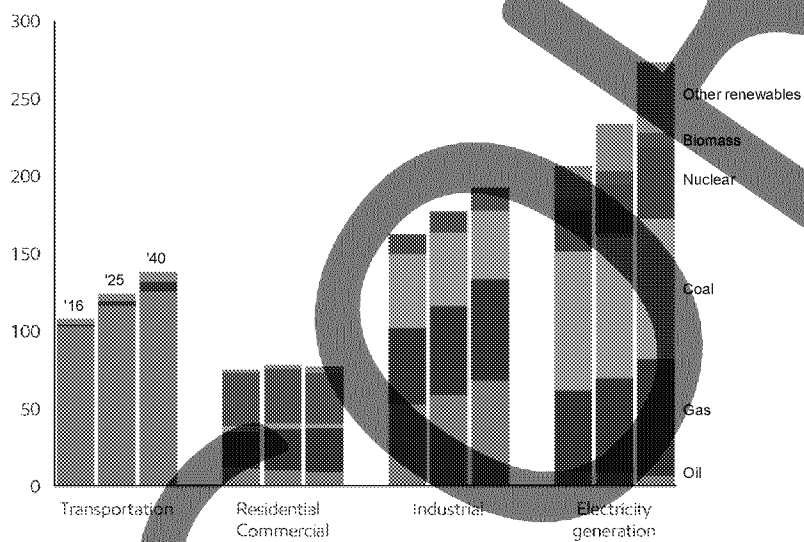
ExxonMobil 2018 Outlook for Energy

ExxonMobil

Energy demand varies by sector

Primary energy demand by sector

Quadrillion BTUs

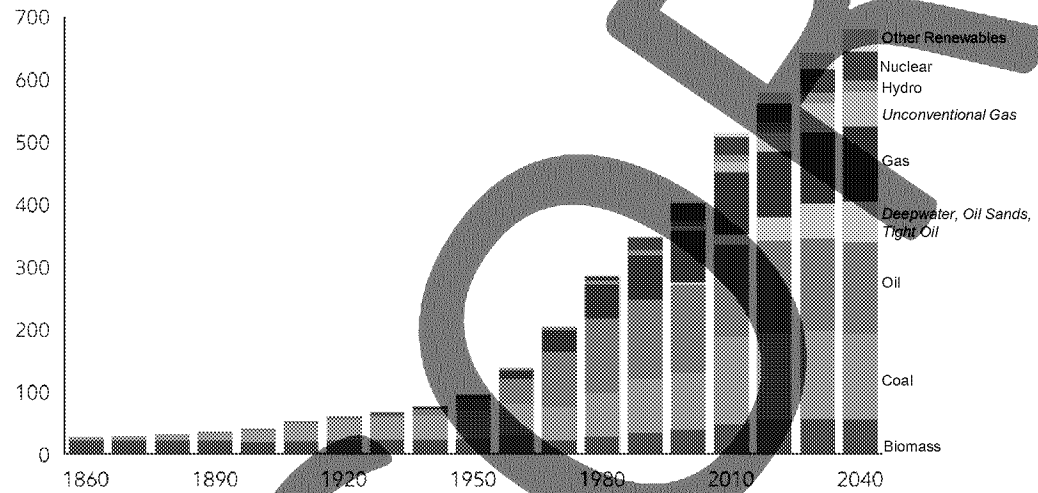


ExxonMobil

ExxonMobil 2018 Outlook for Energy

Energy evolution reflects technology, scale & complexity

Primary energy demand
Quadrillion BTUs



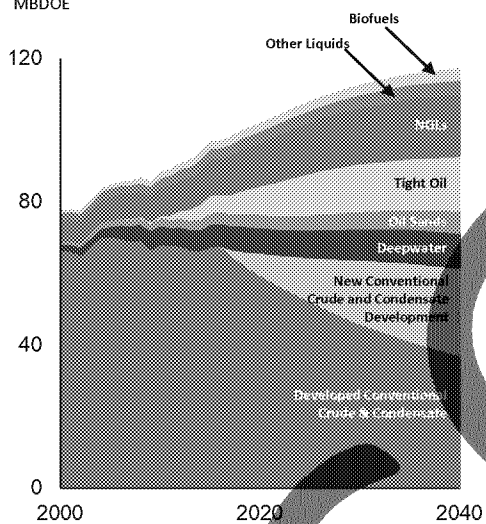
Source: Smil, *Energy Transitions (1800-1960)*

ExxonMobil

ExxonMobil 2018 Outlook for Energy

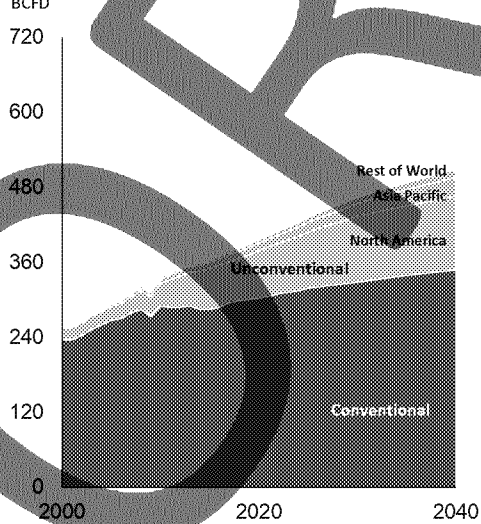
Global Liquids and Gas Supply

World Supply by Type
MBDOE



Gas

BCFD



Industrial processes with lower emissions

Today's approach: Energy intensive and complex

Our research: Novel reactor and separations materials, less energy

Near term step: Lab scale fundamentals leading to pilot plant trials



ExxonMobil

First, let's address the very nature of our industry: it requires energy and high capital infrastructure to produce fuels and chemicals.

Our industry starts with a feedstock of crude oil or natural gas which contain a distribution of molecules of different shapes and sizes and converts them into other molecules that can be used for products.

Separations (today it's mostly distillation)

Conversions (today we have advanced catalysts and process configurations, but we still use high pressure and temperature.)

Here we depict producing natural gas (mostly methane), perform chemical conversions using novel reactors that make use of novel materials and configurations to be incredibly efficient.

So, we are looking at the process blocks (separation and chemical conversion reactions) and challenging ourselves to do this differently. Why use higher temperature when membranes or specialized filters can do the separation with much lower energy use?

Learning from adjacent industries like water purification and working with leading institutions like Georgia Tech, we are developing membranes that can separate chemical building blocks at much lower temperatures, which could have a significant reduction in emissions.

We are also looking at conversion, where we use large reactors to perform the chemistry needed to produce products. Here we are researching process intensification steps (essentially do more with less energy, less capital and smaller footprint). Again learning from adjacent industries that have deployed modular solutions and working with, we have a portfolio of programs in this area.

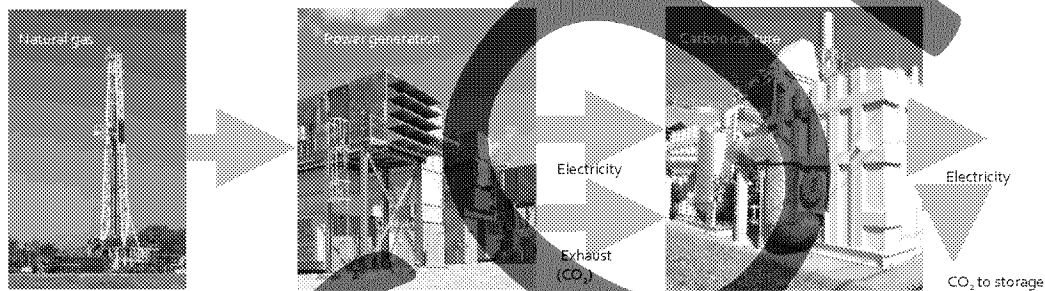
Separations and conversion will always be core to producing large-scale fuels and chemicals. We are working on transformative solutions for future deployment, which will be critical to the growing middle class and meeting the needs of society.

To describe the potential, at the bench scale, we have demonstrated chemical separations of liquids that could result in up to a 25% reduction in CO2 emissions. Imagine what we could do if we developed similar technology for large-scale fuels production. It could be a nearly 50% reduction in CO2 emissions. That's why we are working on this.

HCOR

Low emissions electricity from Carbon Capture and Storage

Today's approach: Power consuming, complex
Our research: Natural gas power generation without CO₂ emission
Near term step: Carbonate Fuel Cell Pilot Plant demonstration



95

Longer term, wide-scale carbon capture will be required to curb carbon emissions.

IPCC models predict need for CCS as part of future energy mix to reach 2C!

We are leaders in carbon capture and storage. Today we capture and store ¼ of the world's total captured CO₂.

But we know the process is complex, costly, and requires additional power (up to 20%) to capture the CO₂.

We ask – why not capture the CO₂ and produce energy. This will require new materials and new processes – right in our area of expertise.

Think of that, concentrate CO₂ while generating power – that is transformative.

Once again, collaborations are key. And here, we are working with companies like Fuel Cell Energy and TDA as well as research institutes like the Netherlands' ECN and leading universities like UC Berkeley to develop materials and process configurations.

The schematic shown is that of using a fuel cell to concentrate CO₂ from a natural gas turbine while generating power. A natural gas turbine is a good place to start as it is a cleaner burning fuel both in terms of CO₂ produced and other impurities that need to be removed before sequestration.

We are working with Fuel Cell Energy to understand the fundamentals with an eye towards longer-term, large-scale deployment. The process works in the lab and we are progressing a process demonstration unit in Alabama to further assess this technology.

We are also working on other novel materials and processes to concentrate CO₂.

This is hard. And we continue to look for additional ideas to add to our portfolio.

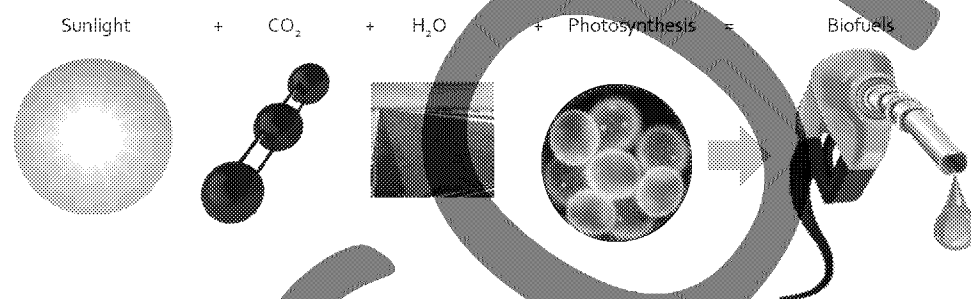
HCOR

Low emissions transportation with advanced biofuels

Today's approach: Small scale, competes with food and water

Our research: Large scale, global solutions, non-competitive with food and water

Near term step: 10,000 BPD by 2025



Finally, I'd like to address transportation fuels. Transportation fuels, particularly for trucks and airplanes will continue to require a high energy density liquid fuel.

Biofuels have the potential to provide the energy density required, but scale has been a challenge.

We have been researching biofuels for a long time and we are making progress.

Today, biofuels are largely made from food sources (corn, sugar cane) and are small scale.

We challenge that paradigm and say we need large-scale biofuel production that does not compete with food and water.

We are pursuing options that don't compete with food

Algae

Cellulosic sugars from waste biomass (e.g. corn stover, ...)

Algae are fast growing, can grow in brackish water, and absorb CO₂.

Let's not use the crop, let's use the crop residue, called cellulose.

Again, working with universities and companies like Synthetic Genomics and Renewable Energy Group, we are making progress in both algae based and cellulosic fuels.

Still decades away from the scale we need. But, fundamentals are driving our research and recent results are driving our enthusiasm.

HCOR

Scientific collaboration to develop new solutions

Emissions reducing focus areas		MIT (^{'14})	Princeton (^{'15})	U Texas (^{'16})	Stanford (^{'18})	Singapore (^{'19})
Electricity Generation	Renewable power (solar, nuclear)	✓	✓	✓		
	Carbon Capture (active materials)	✓		✓	✓	
	e Storage: Grid (electro-chemistry)			✓		
Transportation	e Storage: mobile (electro-chemistry)		✓			
	Gas storage (adsorption)	✓		✓		
Industry	Gas Conversion (biocatalysis)	✓	✓		✓	✓
	New Products (building materials)	✓				
	Liquids Conversion (membranes)	✓		✓		

✓ Ongoing
✓ Future

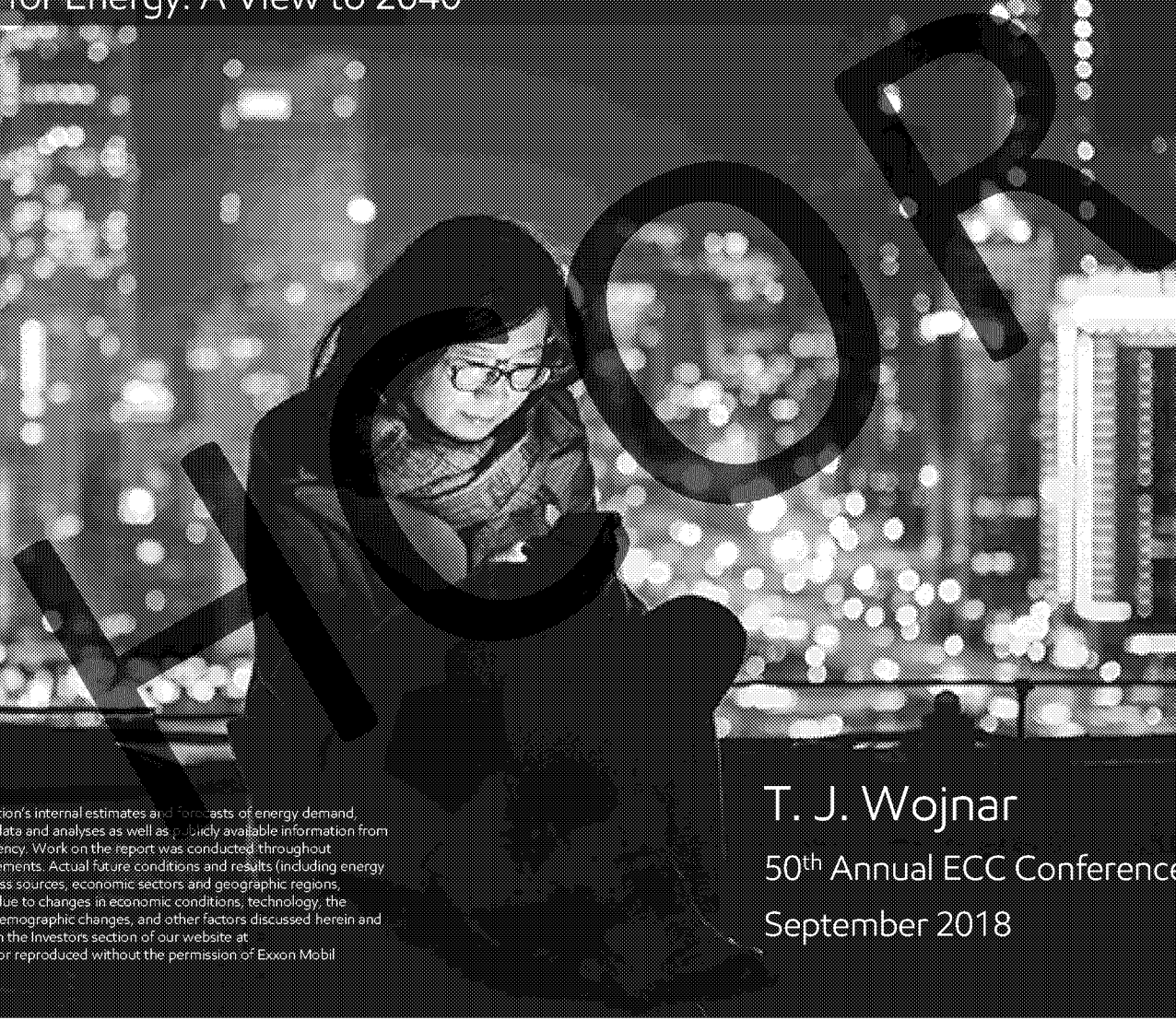
We're not going to do this ourselves.
Over 80 University partners globally, with 5 Energy Centers.

Let me now show you three focus areas for our Clinton R&D site also focused on these three main areas.



DRAFT

2018 Outlook for Energy: A View to 2040



The Outlook for Energy includes Exxon Mobil Corporation's internal estimates and forecasts of energy demand, supply, and trends through 2040 based upon internal data and analyses as well as publicly available information from external sources including the International Energy Agency. Work on the report was conducted throughout 2017. This presentation includes forward looking statements. Actual future conditions and results (including energy demand, energy supply, the relative mix of energy across sources, economic sectors and geographic regions, imports and exports of energy) could differ materially due to changes in economic conditions, technology, the development of new supply sources, political events, demographic changes, and other factors discussed herein and under the heading "Factors Affecting Future Results" in the Investors section of our website at www.exxonmobil.com. This material is not to be used or reproduced without the permission of Exxon Mobil Corporation. All rights reserved.

T. J. Wojnar

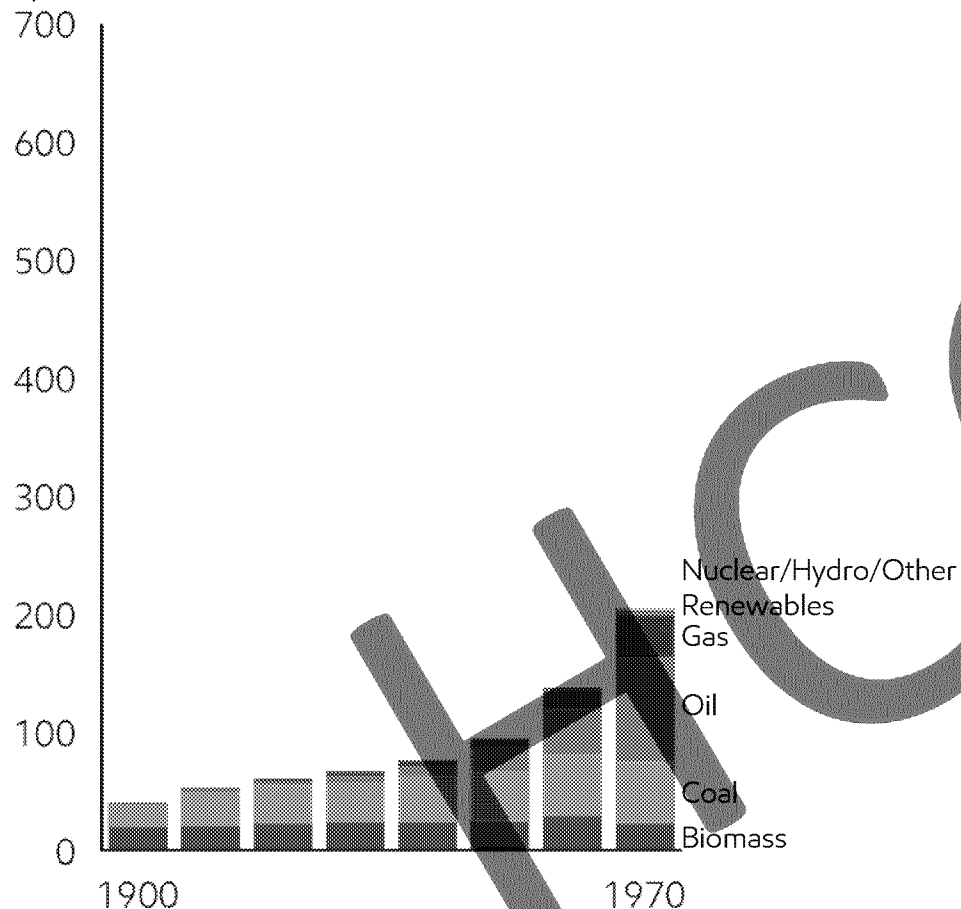
50th Annual ECC Conference

September 2018

Energy evolution reflects technology, scale & complexity

Primary energy demand

Quadrillion BTUs



Source: Smil, *Energy Transitions (1900-1960)*

50 years ago...

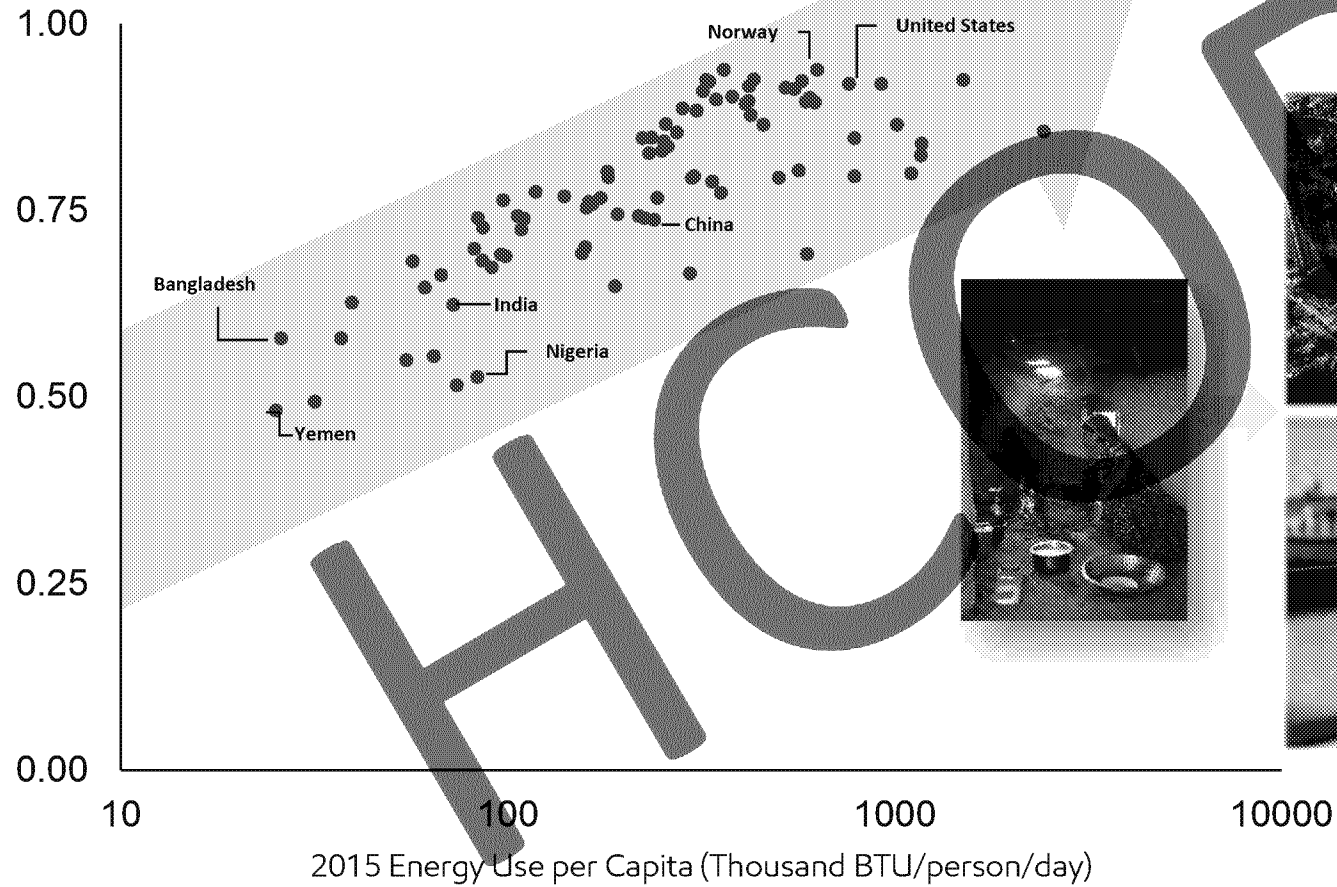
- Seatbelts mandated in all new cars
- Ford Mustang – top seller in the U.S.
- Boeing revealed the revolutionary 747
- HP introduced the 1st desktop computer
- Polaroid camera – digital imaging pioneer
- Offshore oil production – max water depth
 - 1968: ~400 feet (now ~12,000 feet)
- U.S. refineries
 - 1968: 282 (now ~135, +65% capacity)

ExxonMobil

Energy Fuels Human Development

U.N. Human Development Index

2015 Index



Source: United Nations, ExxonMobil estimates

Global trends continue to evolve

Growth from 2016 level

Percent

100%

75%

50%

25%

0%

2016

2040

2016

2x
GDP

+25%
demand

+1.7 billion
people

+10%
CO₂ emissions

-45%
CO₂ intensity

ExxonMobil

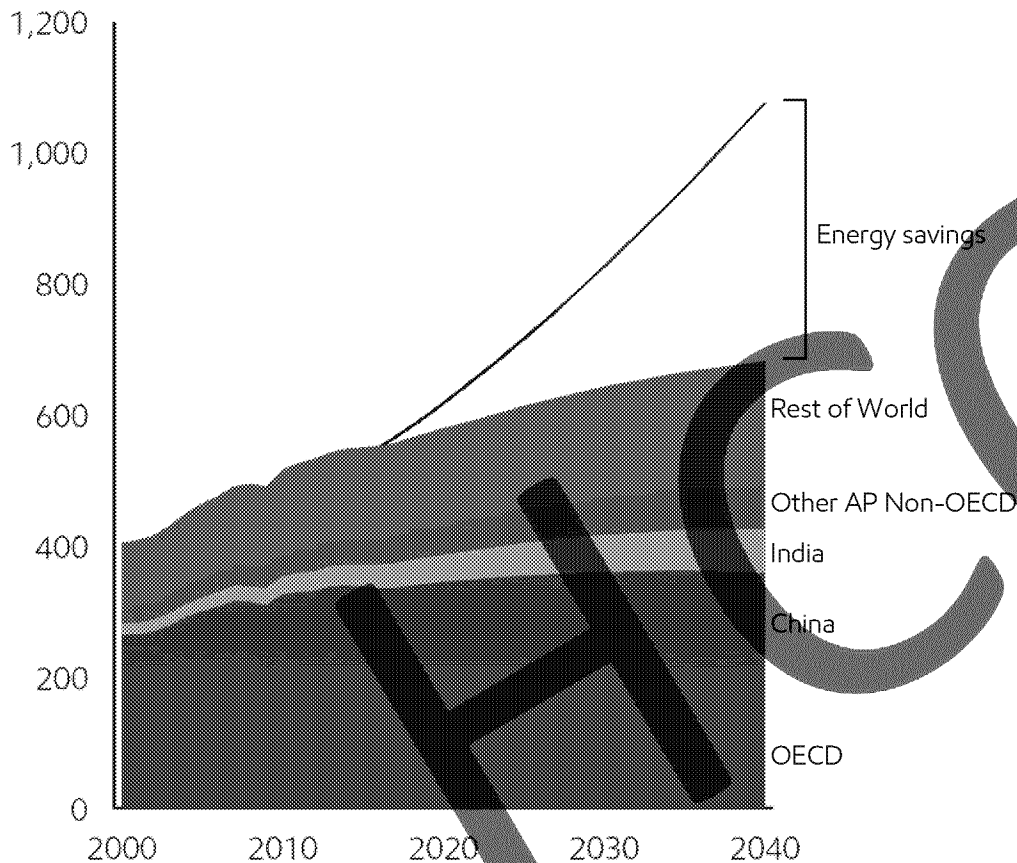
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ExxonMobil 2018 Outlook for Energy
EM-HCOR3-00451127

Global efficiency limits demand growth

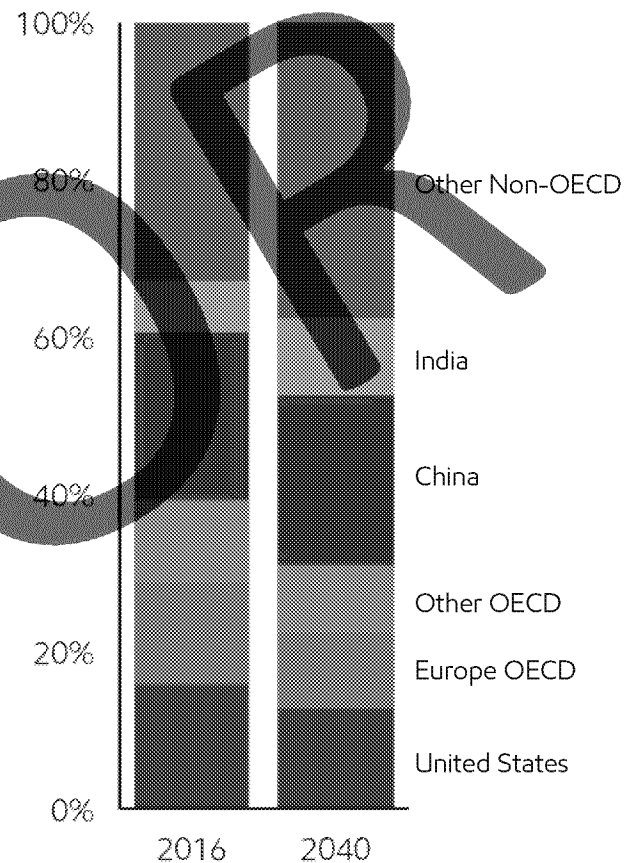
Energy demand

Quadrillion BTUs



Share of primary energy demand by region

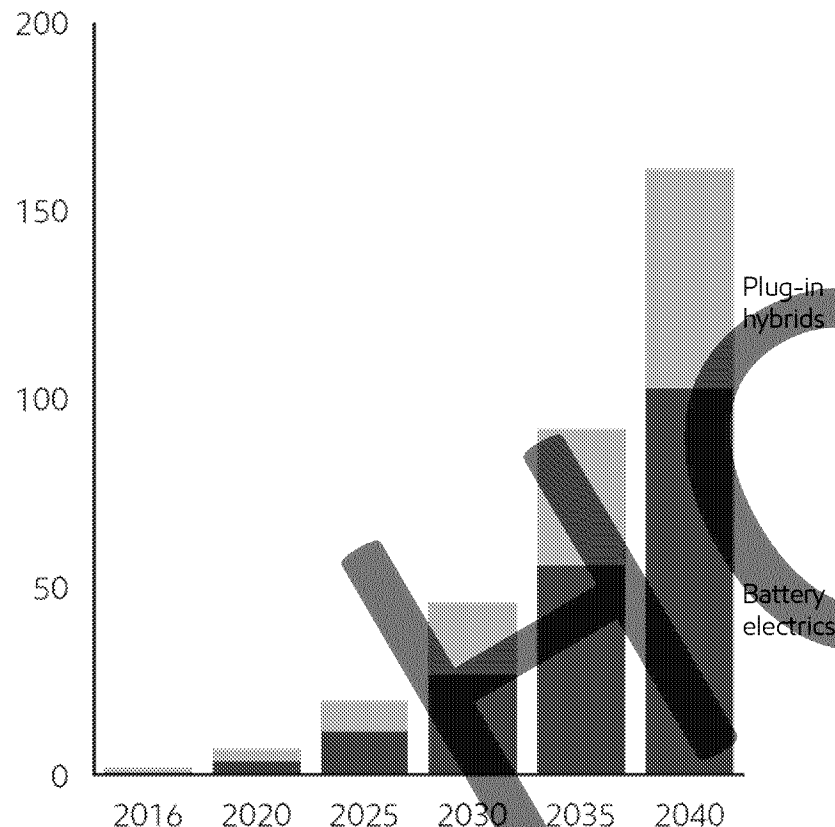
Share of Quadrillion BTUs



Policy and consumer choices impact demand

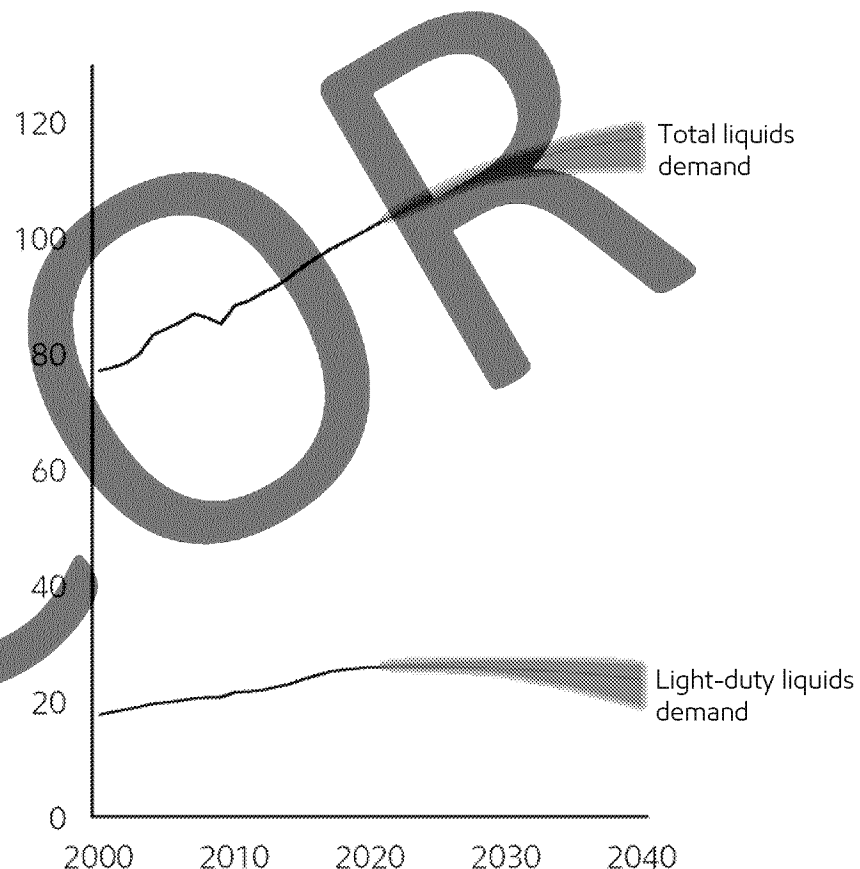
Electric vehicles grow rapidly

Million cars



Liquids demand remains resilient

MBDOE

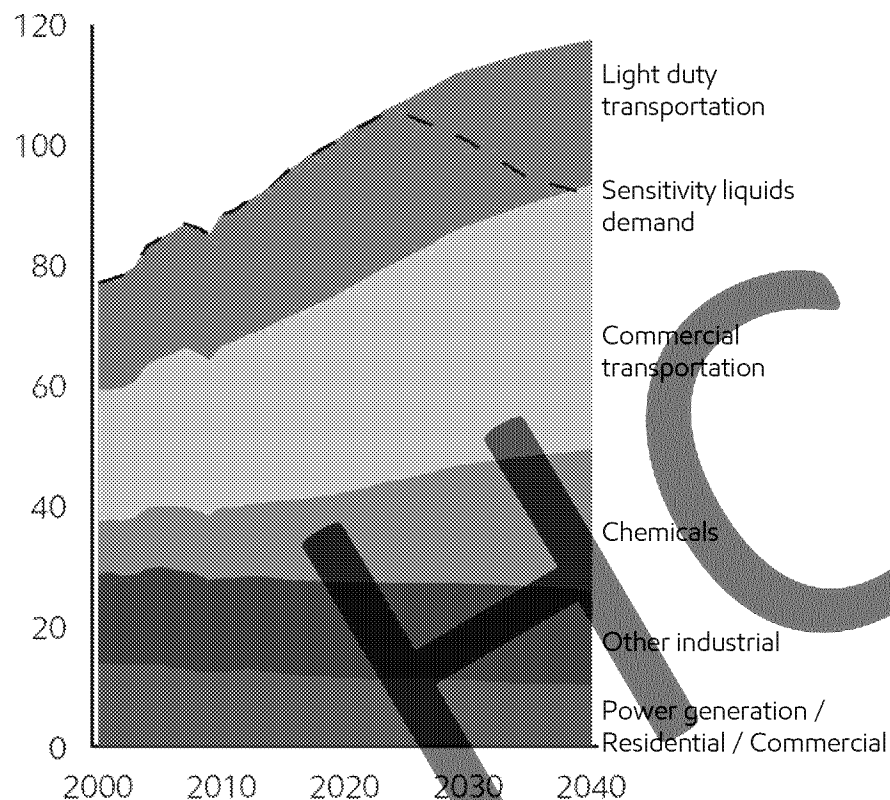


Shaded ranges are indicative of potential shifts in demand relative to base Outlook

Hypothetical electric vehicle sensitivity

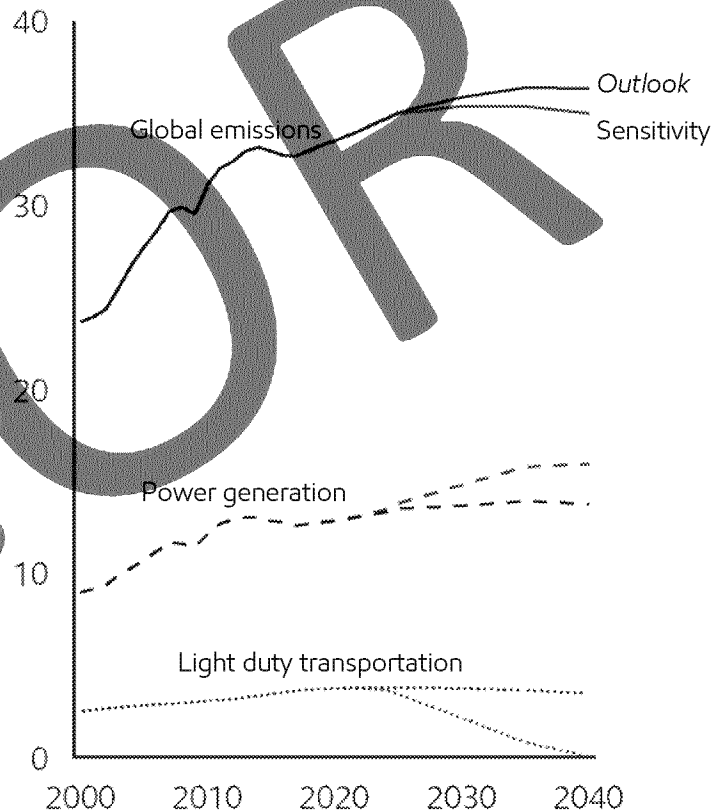
Liquids demand by sector

MBDOE



Energy-related CO₂ emissions

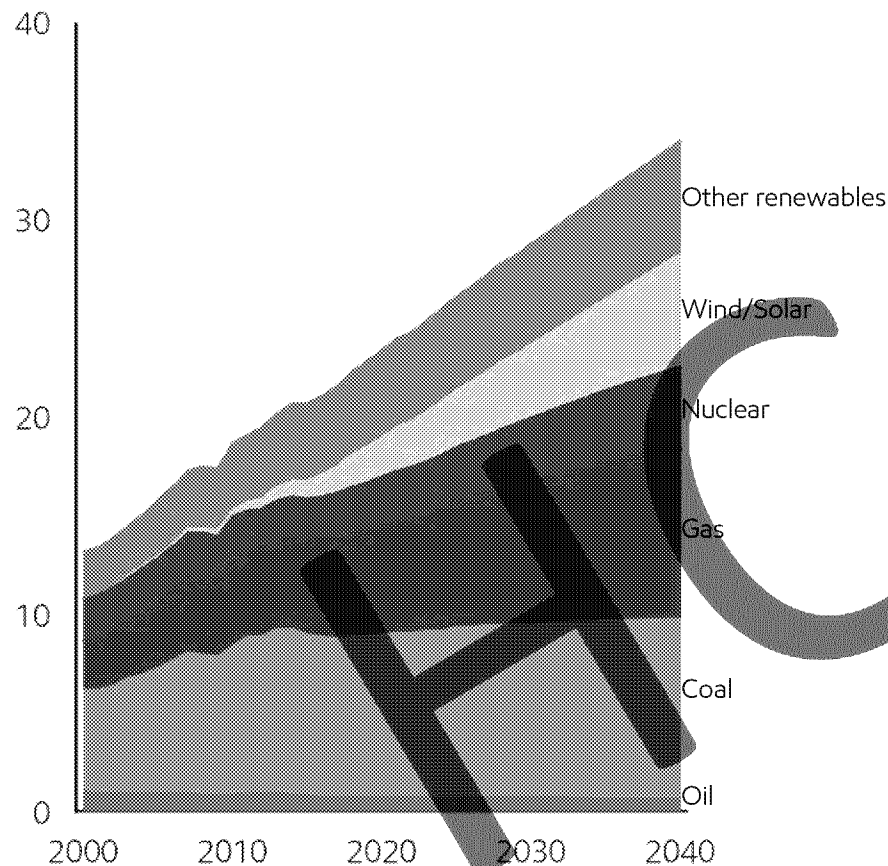
Billion tonnes



Electricity demand grows and sources shift

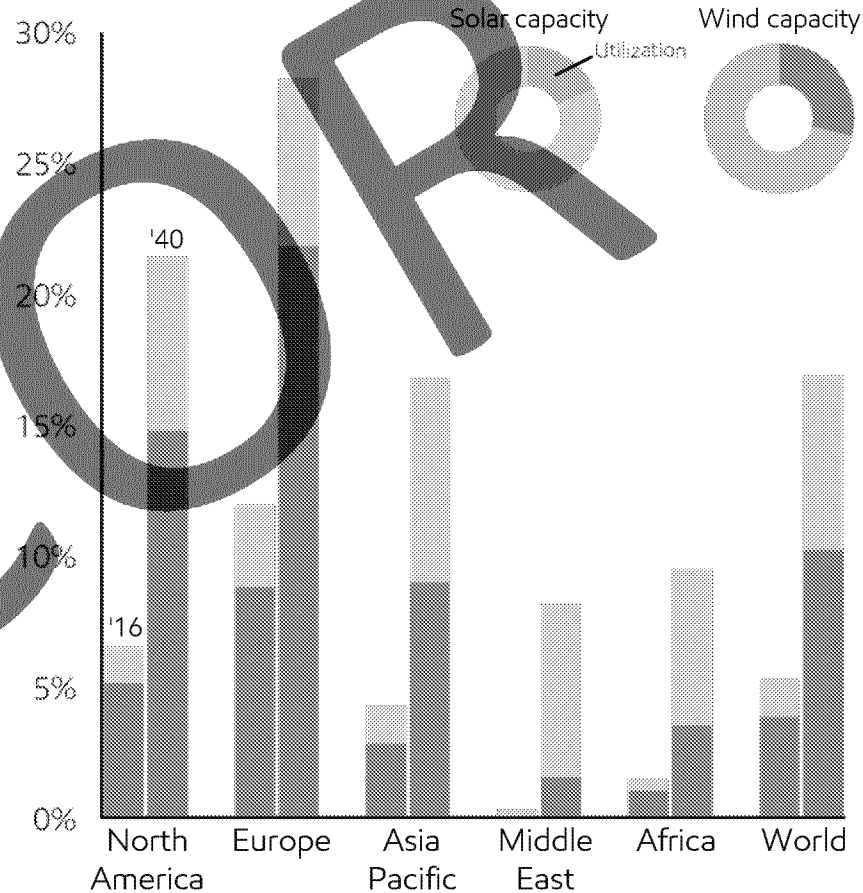
Electricity sources shift

Thousand TWh



Wind / Solar share of delivered electricity

Share of TWh



ExxonMobil

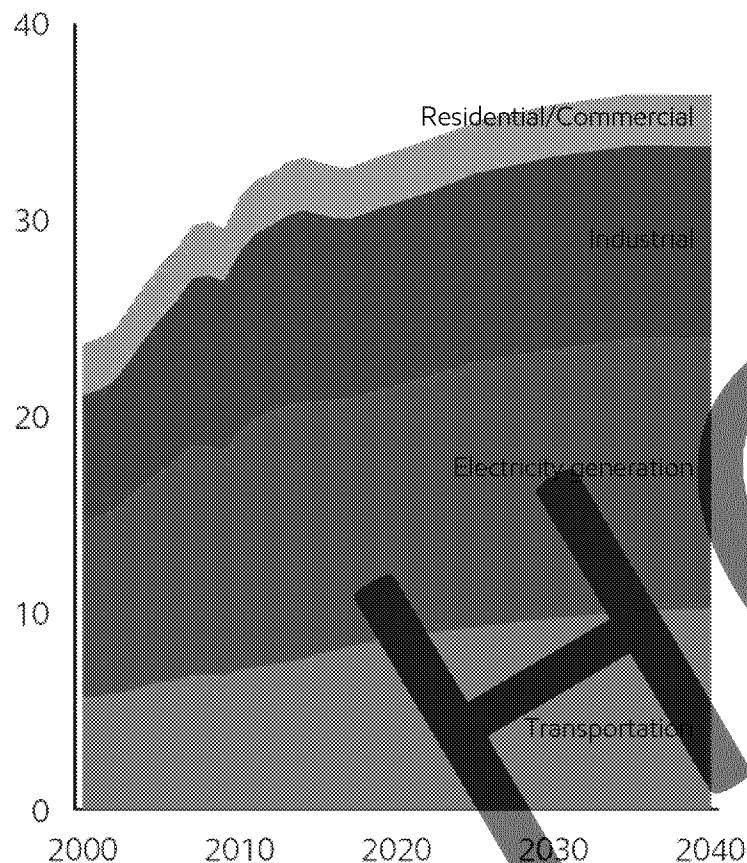
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EM-HCOR3-00451131

Energy related CO₂ emissions

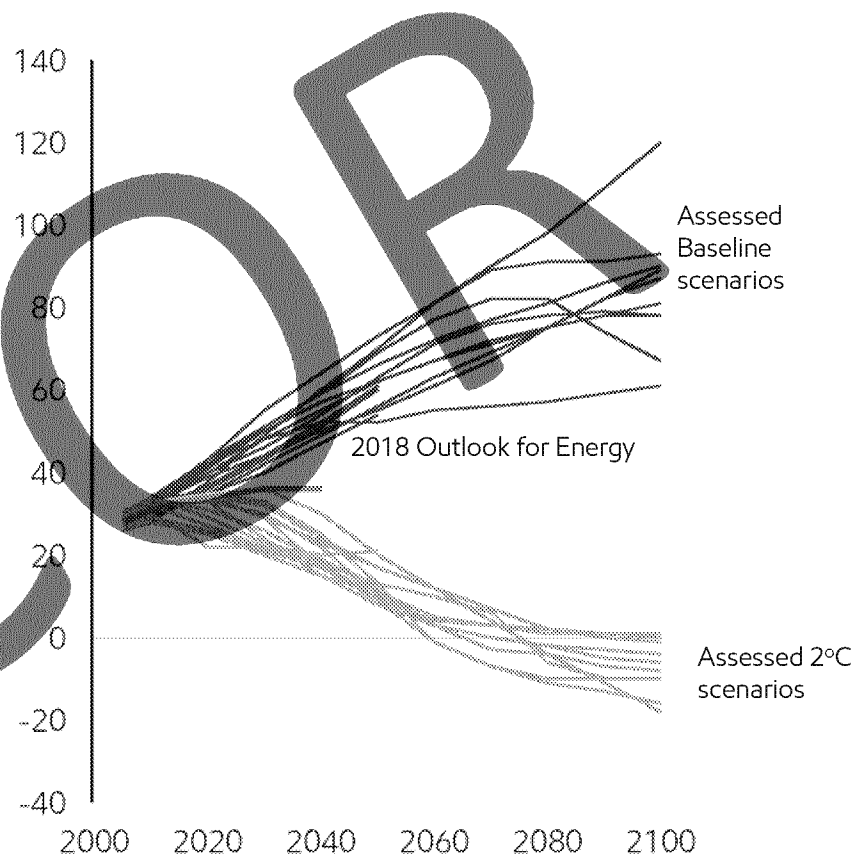
Energy-related CO₂ emissions by sector

Billion tonnes



Global energy-related CO₂ emissions

Billion tonnes



Baseline and 2°C scenarios based on Stanford EMF27 full technology scenarios
EMF27-FT cases include CO₂ emissions from energy and industrial processes

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ExxonMobil 2018 Outlook for Energy
EM-HCOR3-00451132

Assessed 2°C Scenarios: 2040 Global energy demand

2040 Global demand by model and energy type

Exajoules



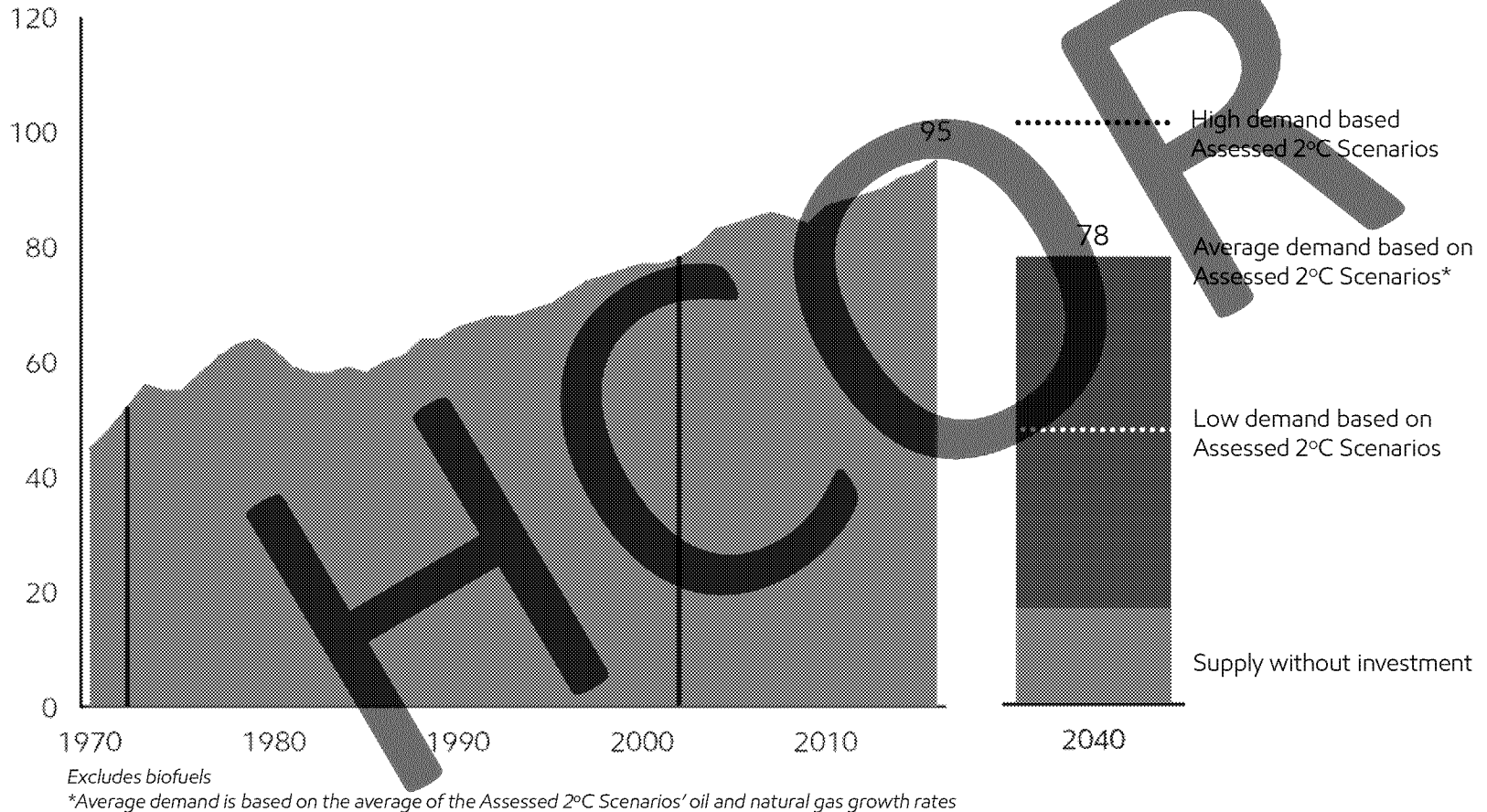
Based on EMF27 full technology / 450 ppm scenarios (Assessed 2°C Scenarios)

EMF27 full technology scenarios data downloaded from: <https://secure.iiasa.ac.at/web-apps/ene/AR5DB>

Significant investments needed to meet demand

Global liquids supply

MBDOE

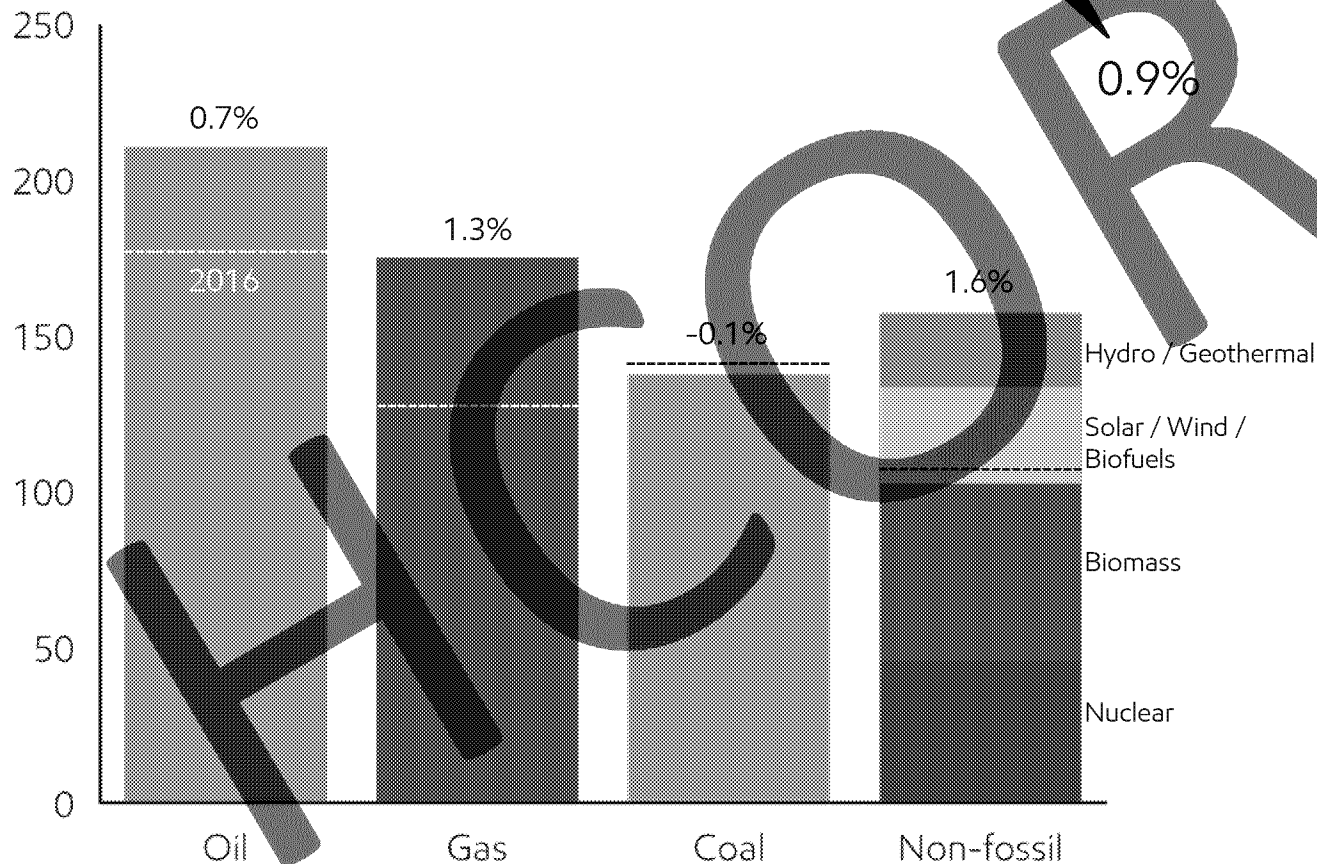


Global Demand

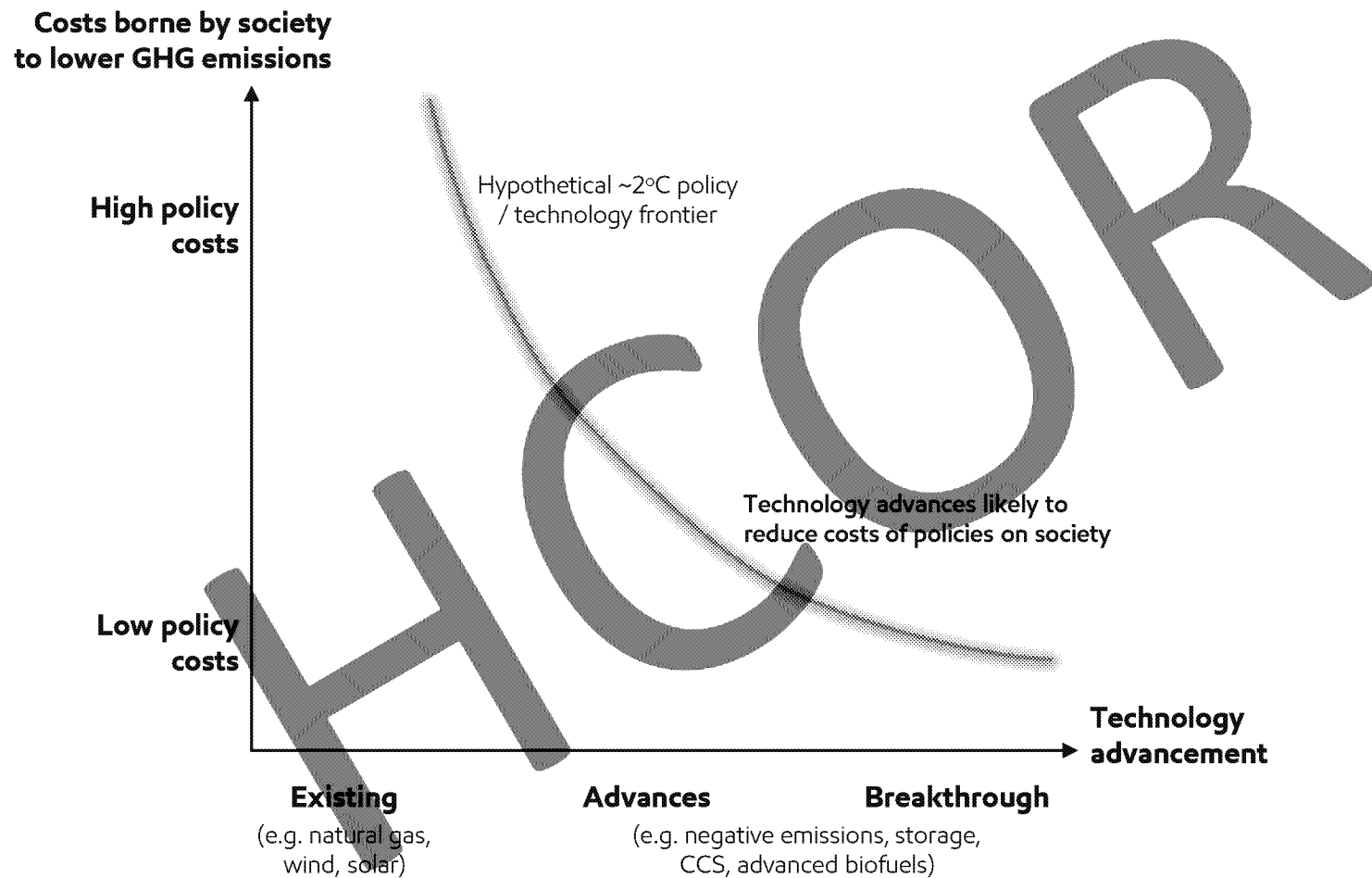
2040 by fuel

Quadrillion BTUs

Average Growth / Yr.
2016 - 2040



Technology key to reducing societal costs of 2°C pathway



Policy / Technology matrix is illustrative only

Unique R&D model

Science-based fundamentals

Process Technology

Catalyst, low-emission processing, scale-up

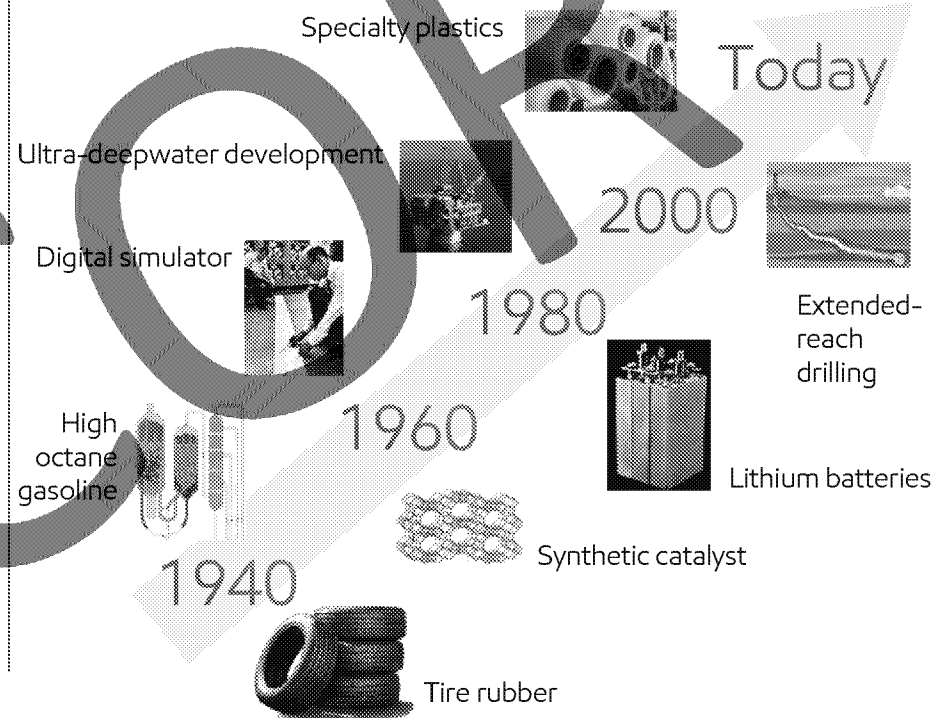
Upstream Research

Efficient resource capture, development and production

Chemicals Technology

Advantaged feedstocks, improved processes and products

A history of innovation



Technology is the foundation for the future

Near-term

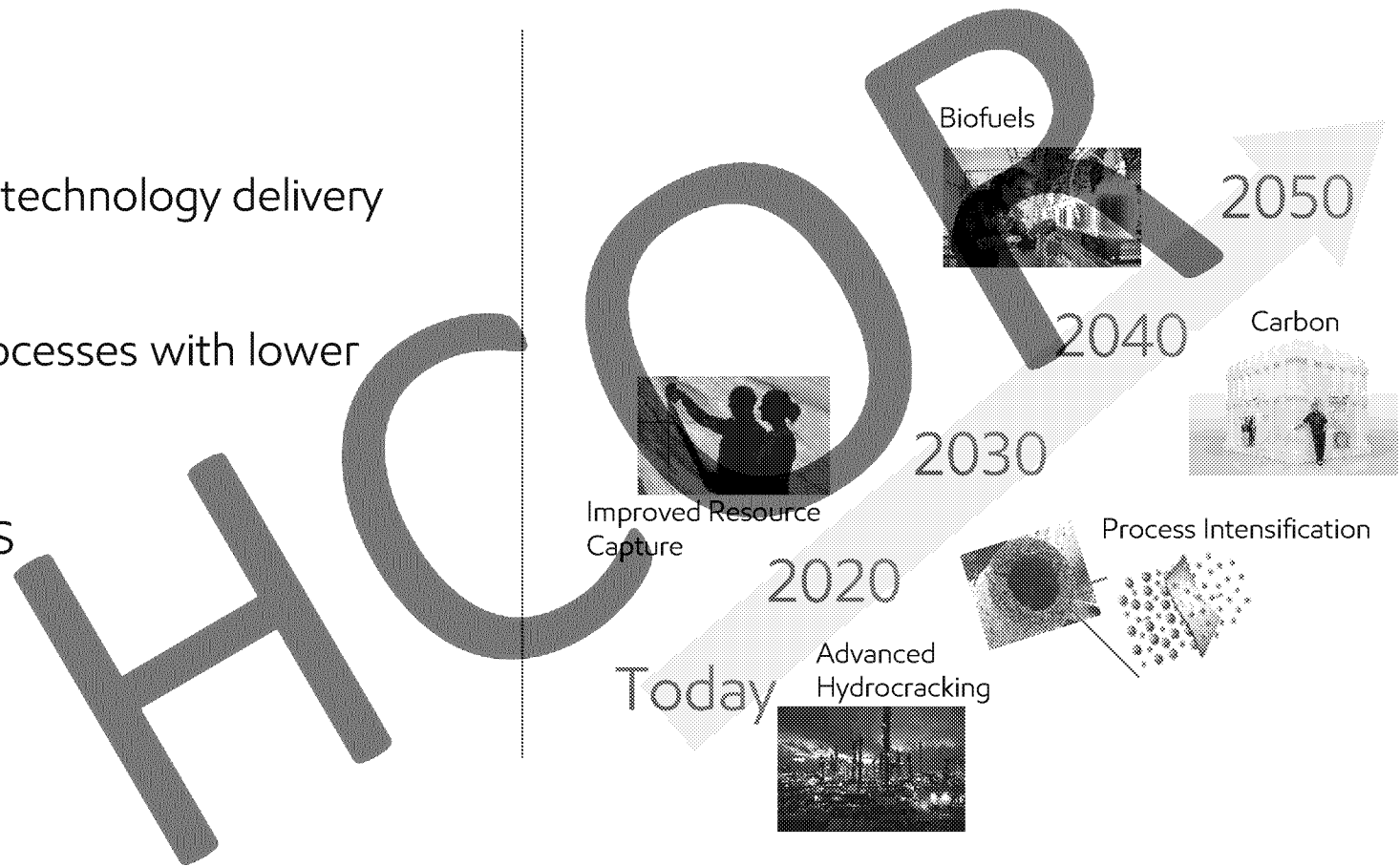
Advantaged technology delivery

Mid-term

Industrial processes with lower emissions

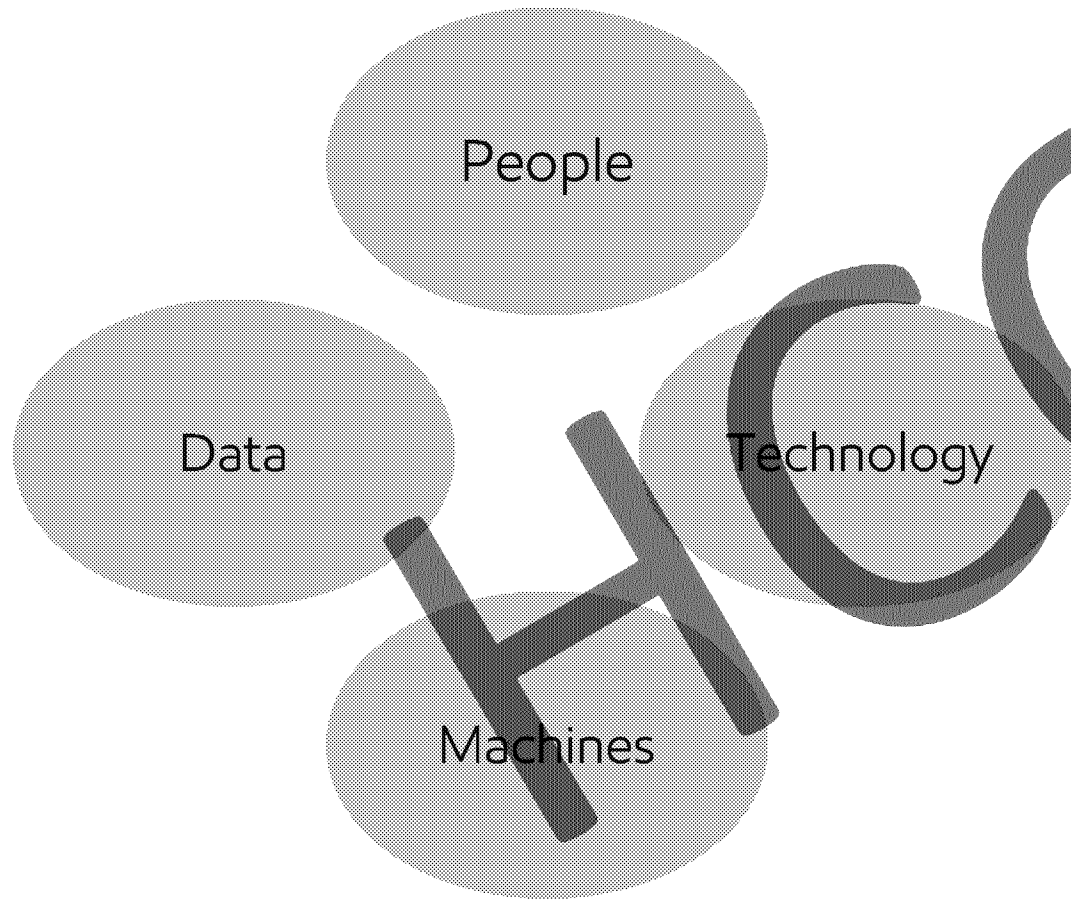
Long-term

Biofuels, CCS



Technology increasing means digital

Digital applications – enabled by convergence of people, data, technology & machines



The case for digital:

- Explosion of data & enabling technologies
- Unprecedented opportunities to create value and competitive advantages (first movers)
- Emerging threats from “digital masters”

Potential barriers:

- Low awareness
- Low ambition
- Limited accountability

Digital – a broad opportunity set

Optimize current businesses

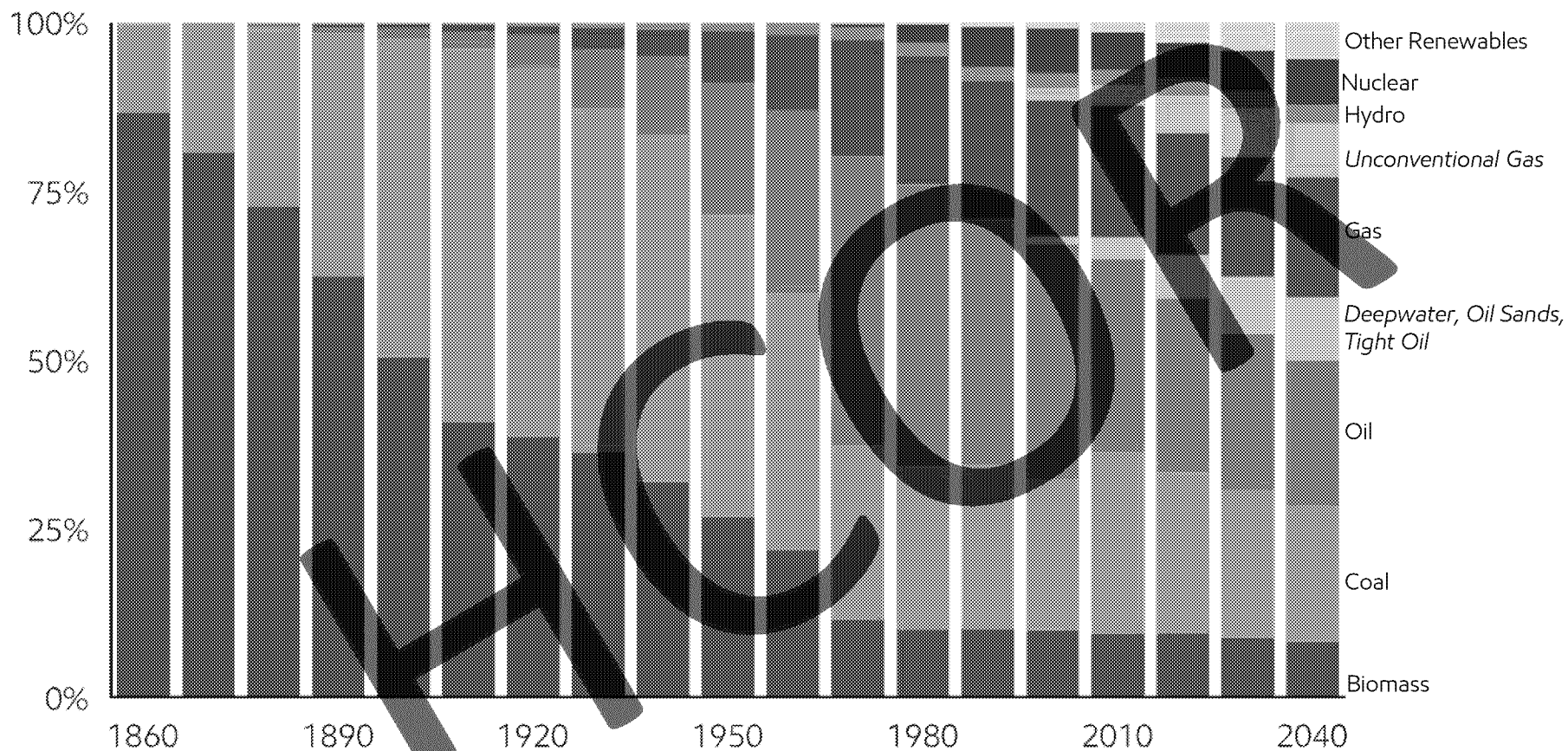
- Seismic to simulation (oil and gas)
- Capital project management
- Production / manufacturing optimization
- Asset maintenance
- Worker productivity
- Knowledge and collaboration
- Cyber security
- **Create new value**
 - Expand into adjacent business opportunities
 - Disruptive/transformational opportunities

An example: Enhanced Construction Mobility

Boost construction project productivity by providing up-to-date information & streamlined work processes through new mobility solutions for field personnel

Energy evolution reflects technology, scale & complexity

Global Mix of Fuels



Source: Smil, *Energy Transitions (1800-1960)*

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ExxonMobil 2018 Outlook for Energy
EM-HCOR3-00451141

A black and white photograph of a classroom scene. In the foreground, a young girl with dark hair is leaning over a desk, looking at a tablet. Behind her, another child is partially visible, also looking at a tablet. The desk is cluttered with papers, a pen, and other school supplies. The lighting is soft, coming from the right side.

2018 Outlook for Energy

Energy matters

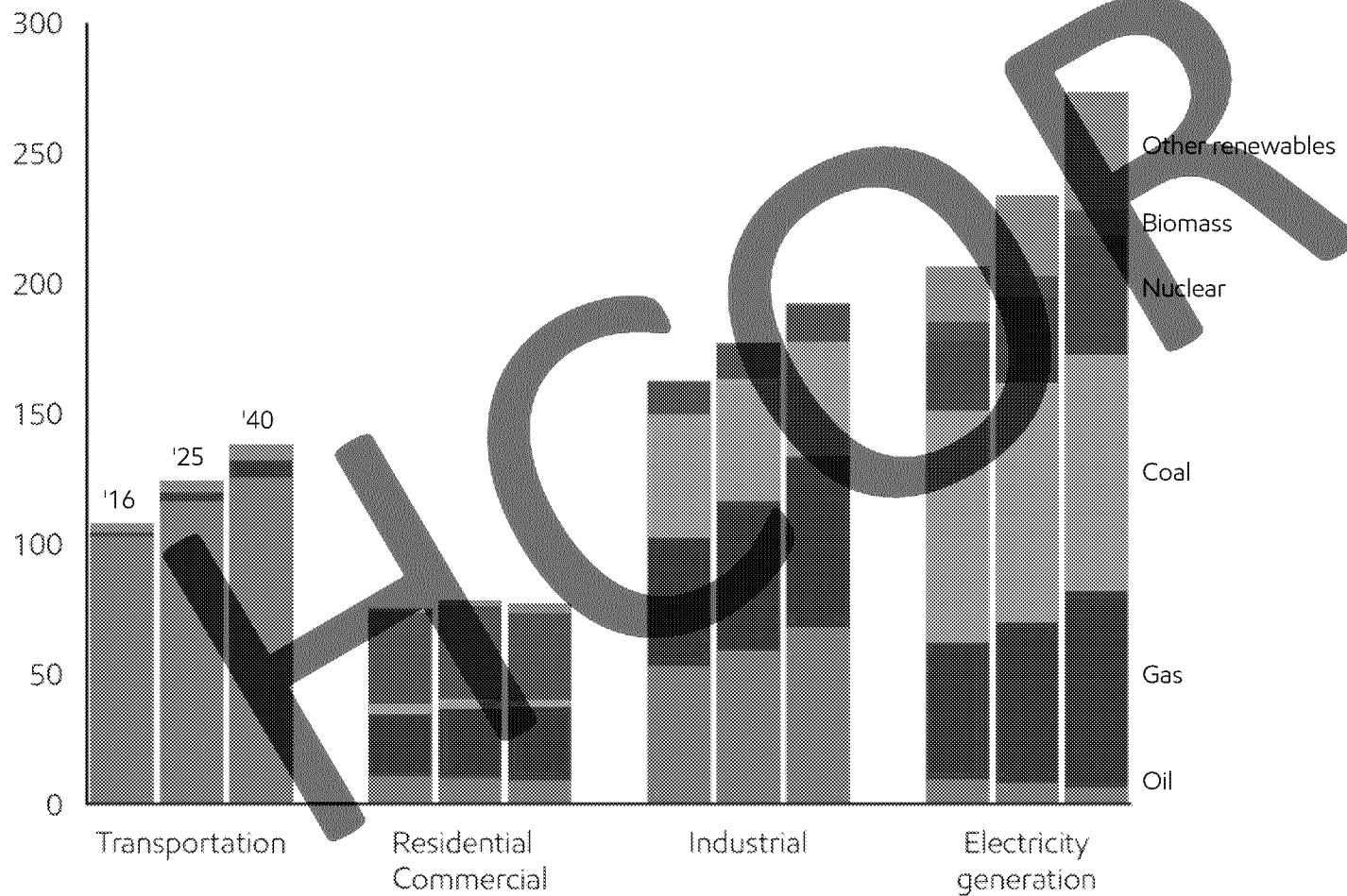
As the world's population approaches 9 billion people in 2040, we are challenged to help improve living standards everywhere. We expect that progress will be powered by human ingenuity and the energy that helps make better lives possible.

ExxonMobil
HCOR

Energy demand varies by sector

Primary energy demand by sector

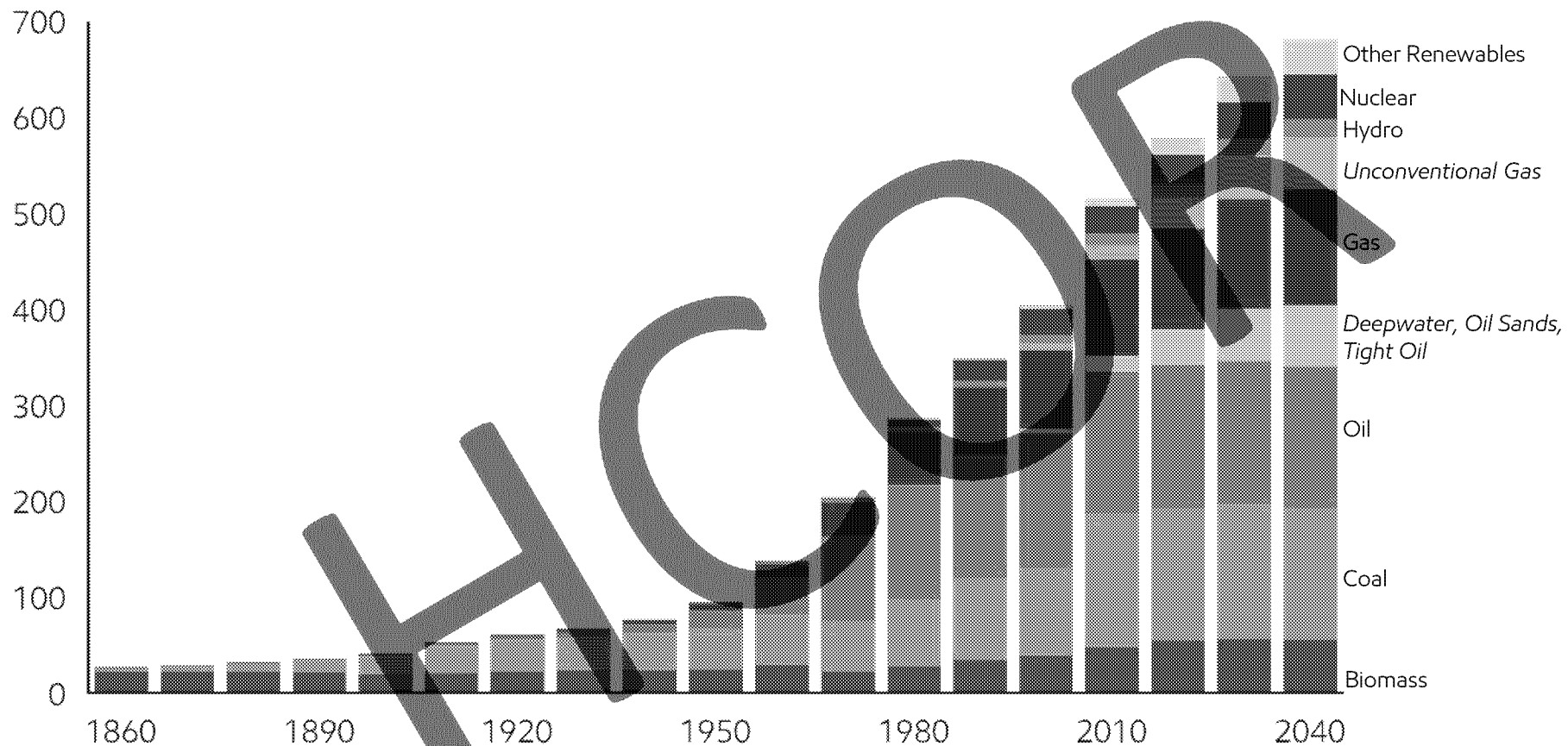
Quadrillion BTUs



Energy evolution reflects technology, scale & complexity

Primary energy demand

Quadrillion BTUs



Source: Smil, Energy Transitions (1800-1960)

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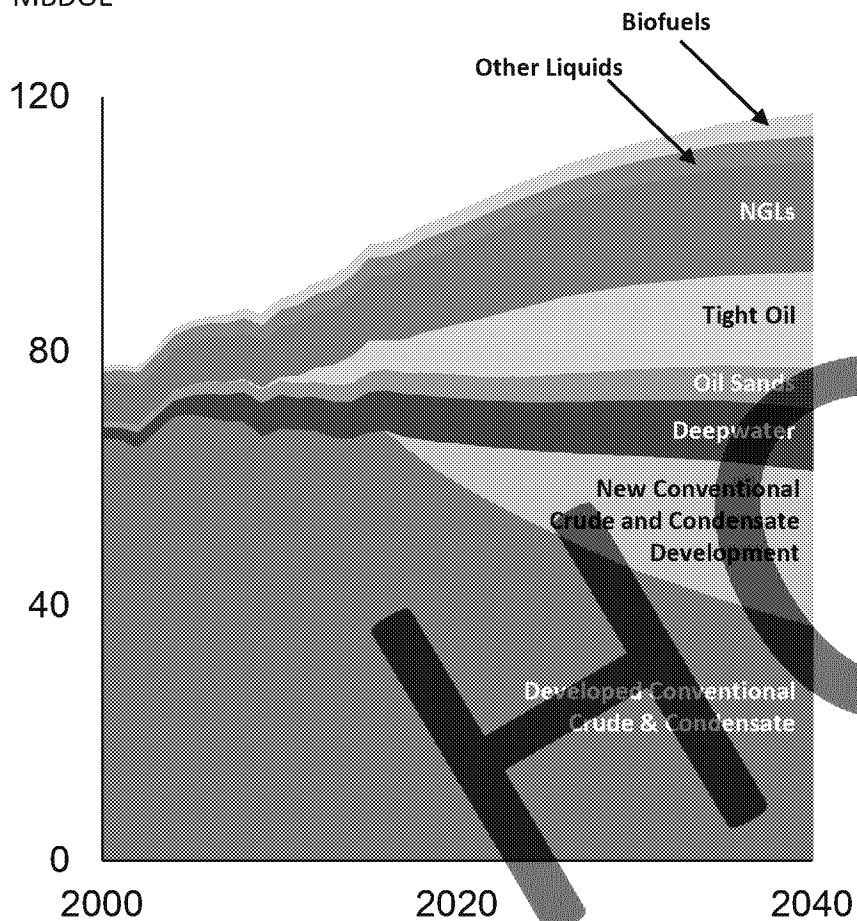
ExxonMobil 2018 Outlook for Energy

EM-HCOR3-00451145

Global Liquids and Gas Supply

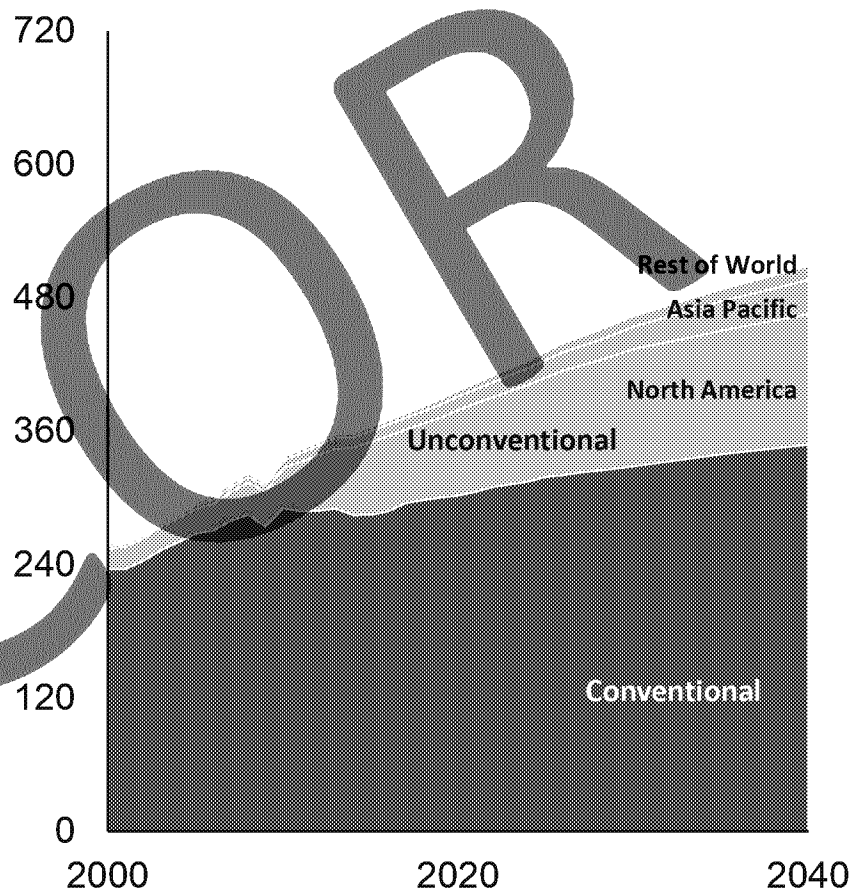
World Supply by Type

MBDOE



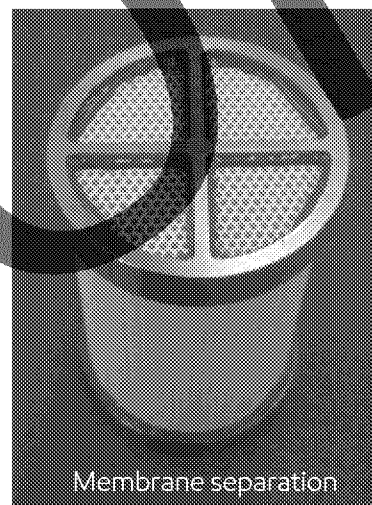
Gas

BCFD



Industrial processes with lower emissions

- Today's approach: Energy intensive and complex
- Our research: Novel reactor and separations materials, less energy
- Near term step: Lab scale fundamentals leading to pilot plant trials

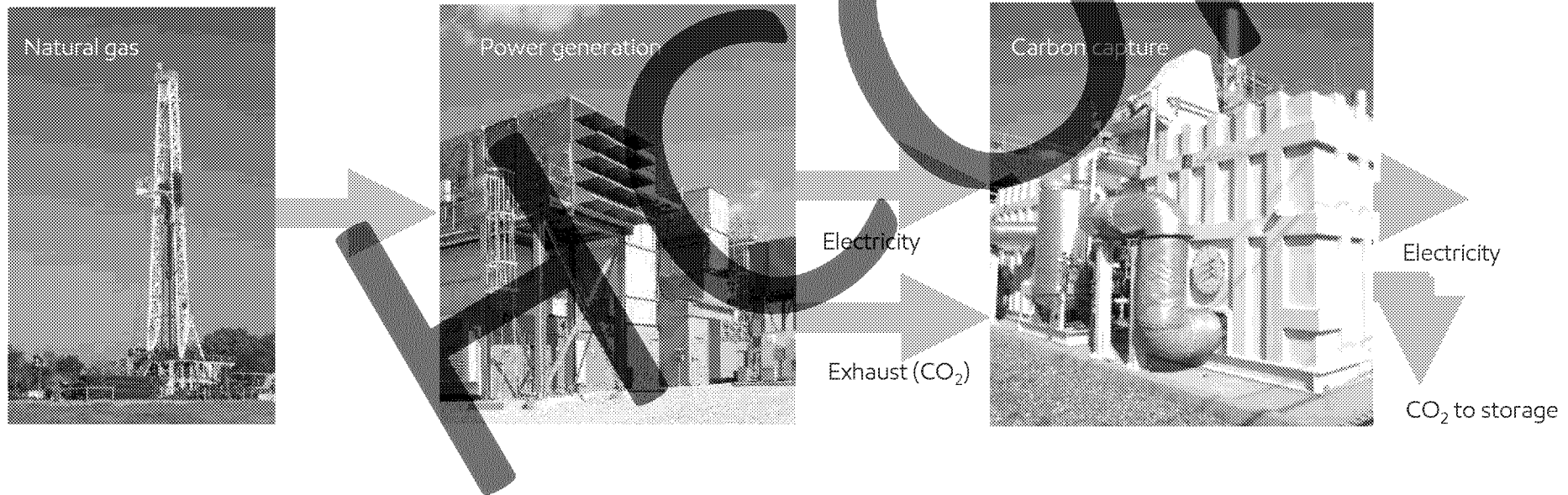


Fuels

Chemicals

Low emissions electricity from Carbon Capture and Storage

- Today's approach: Power consuming, complex
- Our research: Natural gas power generation without CO₂ emission
- Near term step: Carbonate Fuel Cell Pilot Plant demonstration

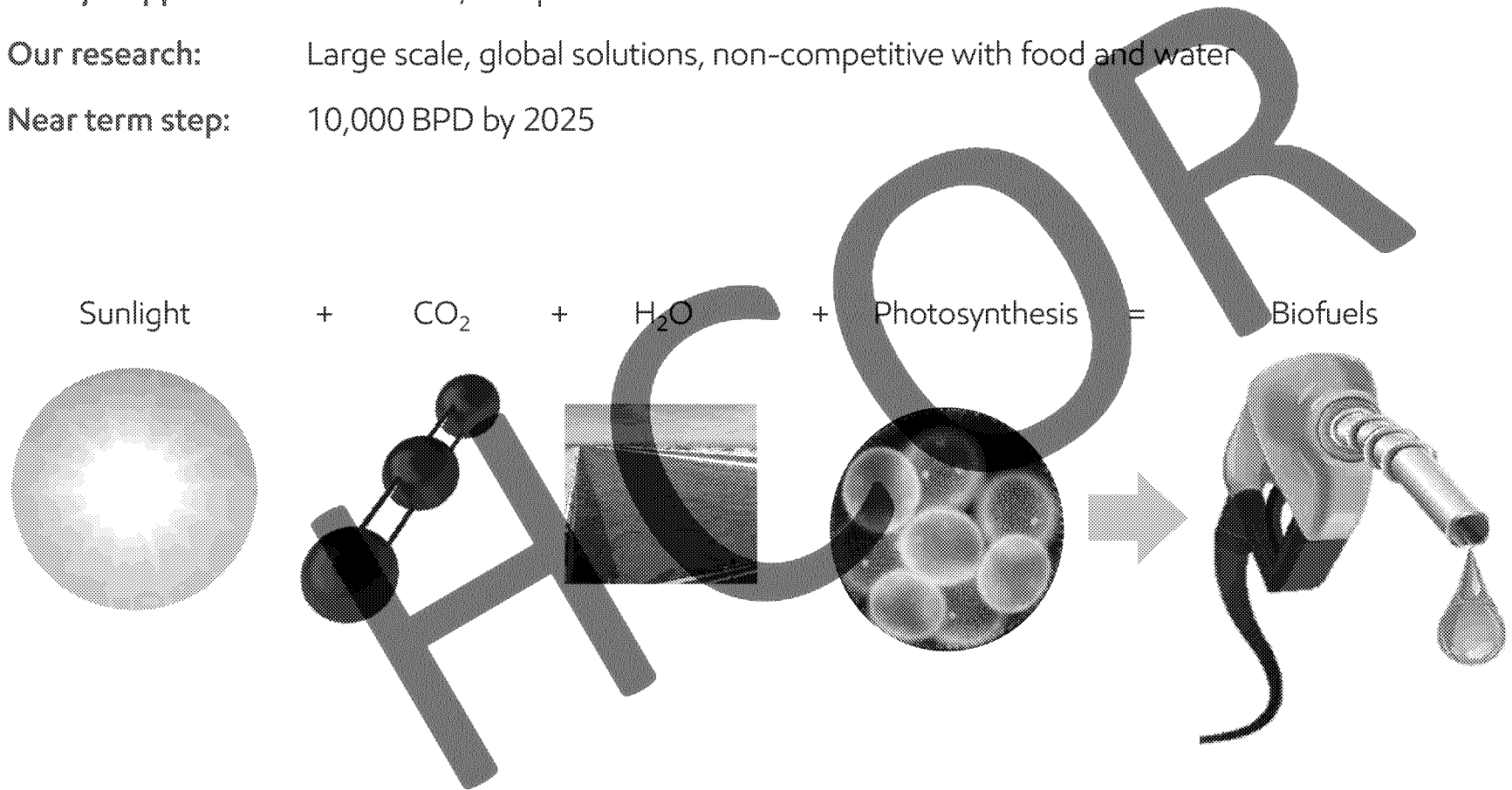


Low emissions transportation with advanced biofuels

Today's approach: Small scale, competes with food and water

Our research: Large scale, global solutions, non-competitive with food and water

Near term step: 10,000 BPD by 2025



Scientific collaboration to develop new solutions

Emissions reducing focus areas		MIT (^{'14})	Princeton (^{'15})	U Texas (^{'16})	Stanford (^{'18})	Singapore (^{'19})
Electricity Generation	Renewable power (solar, nuclear)	✓	✓	✓	✓	✓
	Carbon Capture (active materials)	✓		✓	✓	✓
	e ⁻ Storage: Grid (electro-chemistry)			✓		
Transportation	e ⁻ Storage: mobile (electro-chemistry)		✓			
	Gas storage (adsorption)	✓		✓	✓	✓
Industry	Gas Conversion (biocatalysis)	✓	✓		✓	✓
	New Products (building materials)	✓	✓			✓
	Liquids Conversion (membranes)	✓		✓		

✓ Ongoing
 ✓ Future

Message

From: Snow, Angela K [/O=EXXONMOBIL/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ANGELA.K.SNOW1]
Sent: 12/13/2016 8:59:51 PM
To: Onderdonk, Todd W [REDACTED]; Nelson, Neely S [REDACTED]
Mizan, Tahmid I [REDACTED]
CC: Rodgers, Abigail L [REDACTED]; Shultz, Ryan T/C [REDACTED]
Subject: New Ads For Review
Attachments: America's Energy - Substantiation.docx; Heigh Ho - Whistle_12.8.docx; Energy Farmer_12.8.docx; Americas_Energy V2_Heigh Ho_12.9.pdf; Energy Farmer_Gearheads_12.9.pdf

Todd, Tahmid, Neely –

Attached are some new ad concepts we intend to produce.

I would like to ask for CSP and EMRE review to ensure no exception taken to the content or claims.

The substantiation we based our claims upon is noted on the word docs, and the concepts are found in the two pdfs. Actual employees to be featured are tbd at this time and may not be those shown in the boards.

Todd – the two jobs/economic impact spots are “America’s Energy” and “Heigh-Ho”. I will also run “Heigh-Ho” by EMCC given the 10,000 jobs associated with the expansion project is their proof point.

Tahmid/Neely the two algae spots are “Energy Farmer” and “Gearheads”.

As we will be going into production soon, could we have your feedback as soon as you are able this week?

Thank you

ExxonMobil
Algae as a source of renewable biofuels
“Energy Farmer”

We move through an ExxonMobil algae facility, but everything we see feels more akin to farming than science. We see algae ponds that resemble fields, geometric patches of different kinds of algae that resemble Midwestern farmland from above, and a grow room that looks more like a greenhouse than a lab.

MUSIC UP: “FARMER IN THE DELL”
TITLE: ALGAE
TITLE: A RENEWABLE SOURCE OF ENERGY
TITLE: EXXONMOBIL IS RESEARCHING ITS POTENTIAL
TITLE: TO REVOLUTIONIZE THE FUTURE OF BIOFUELS
TITLE: FOR MORE ENERGY
TITLE: AND REDUCED EMISSIONS

Cut to ExxonMobil’s biofuels expert, Kelsey McNeely.

TITLE: Kelsey McNeely
ExxonMobil Scientist

McNeely: My name is Kelsey McNeely, and I like to consider myself an energy farmer.

Quick flutter cut of XOM faces transitions to logo.

McNeely: Energy Lives Here

LOGO: ExxonMobil

HASHTAG: #SOLUTIONS

Algae is a renewable source of energy.

For a future with more biofuel and fewer emissions.

Dr. Allesandro Faldi
ExxonMobil Biofuels Scientist

ExxonMobil
Algae
"Gearheads"

Open on a shot out the window of a car as a man on a motorcycle passes by, pumping his fist and nodding at an unknown driver cranking "Born to be Wild."

MUSIC: "BORN TO BE WILD" – STEPPENWOLF

DRIVER VOICE: Here's a wild idea ... biofuels made from algae.

Cut to a trucker as he acknowledges the driver with a blast of his air horn.

DRIVER VOICE: It could become a whole new source of energy.

Cut to a woman in a convertible sports car as she blows a kiss at the unknown driver.

DRIVER VOICE: ...that lowers emissions....

Cut to a series of other drivers and passengers as they pass by, wave and offer approval of the driver's music.

DRIVER VOICE: ...while working in our existing vehicles.

Who's working on it?

ExxonMobil - that's who.

Cut to reveal Vijay Swarup, ExxonMobil Head of Research & Development. He is driving a sensible sedan. As he pulls up at a stop sign, he turns to camera to speak. His name and title appear on screen.

SUPER: Vijay Swarup, Ph.D.
ExxonMobil VP R&D

VIJAY: It's gonna be awesome.

He turns up the volume of his stereo. As he pulls away, the chorus of the song kicks in.

LYRICS: Born to be wiiiiiild...

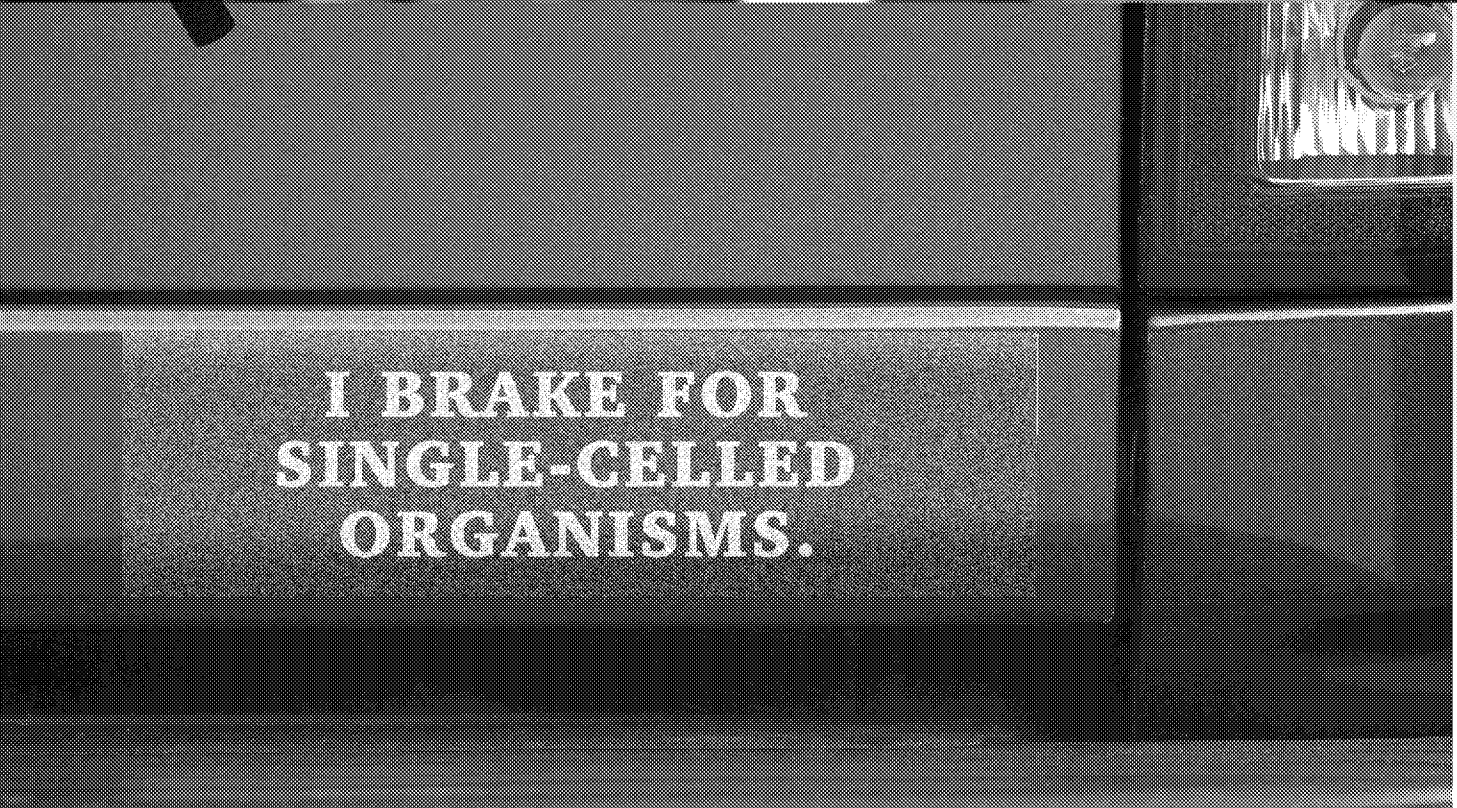
Cuts to reveal his bumper sticker, which reads:
I BRAKE FOR SINGLE-CELLED ORGANISMS.

A quick flutter cut of XOM faces transitions to the ExxonMobil logo.

VIJAY (VO): Energy lives here.

LOGO: ExxonMobil

HASHTAG: #SOLUTIONS

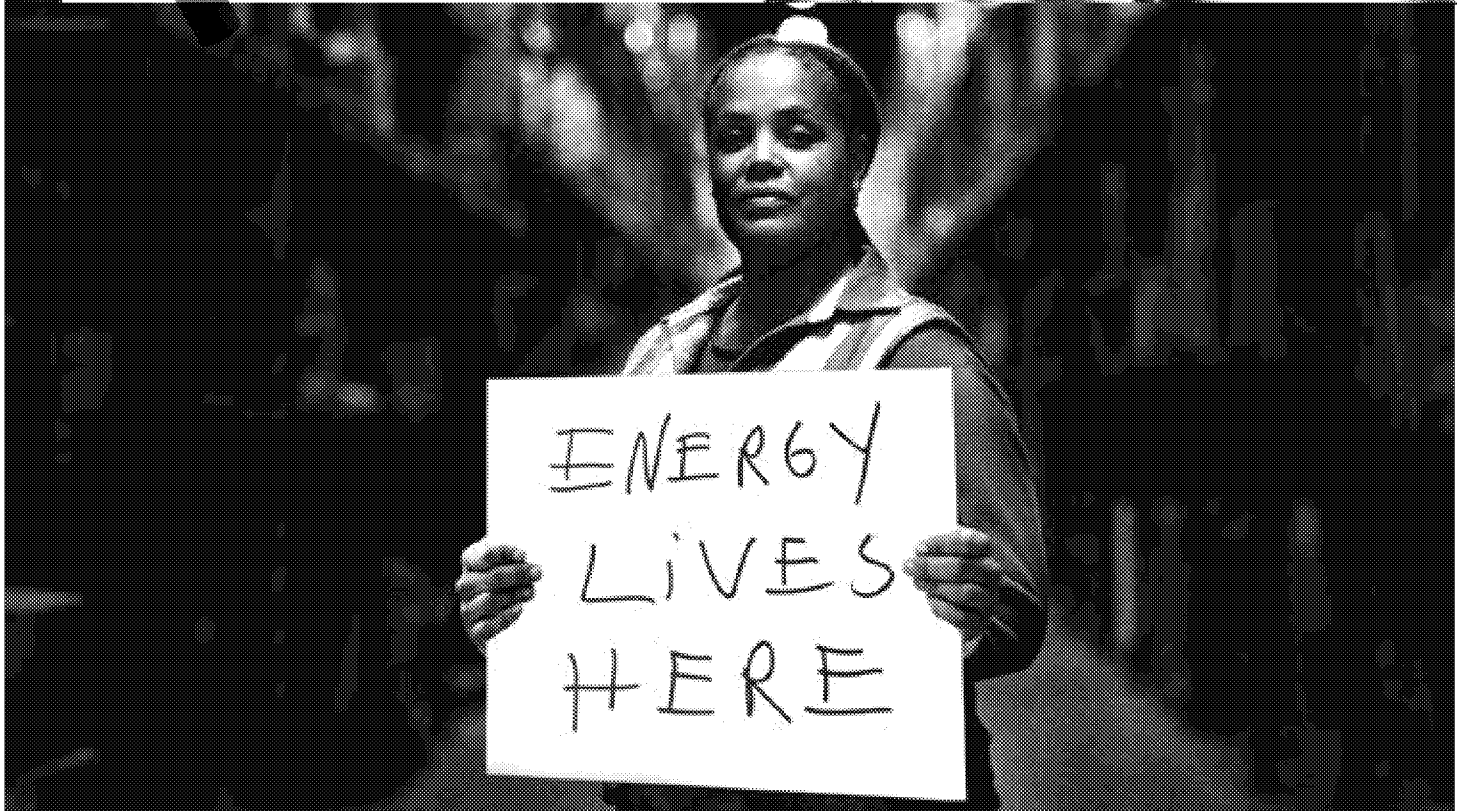


ExxonMobil
Energy Independence/Jobs/Impact
"America's Energy" (long form)

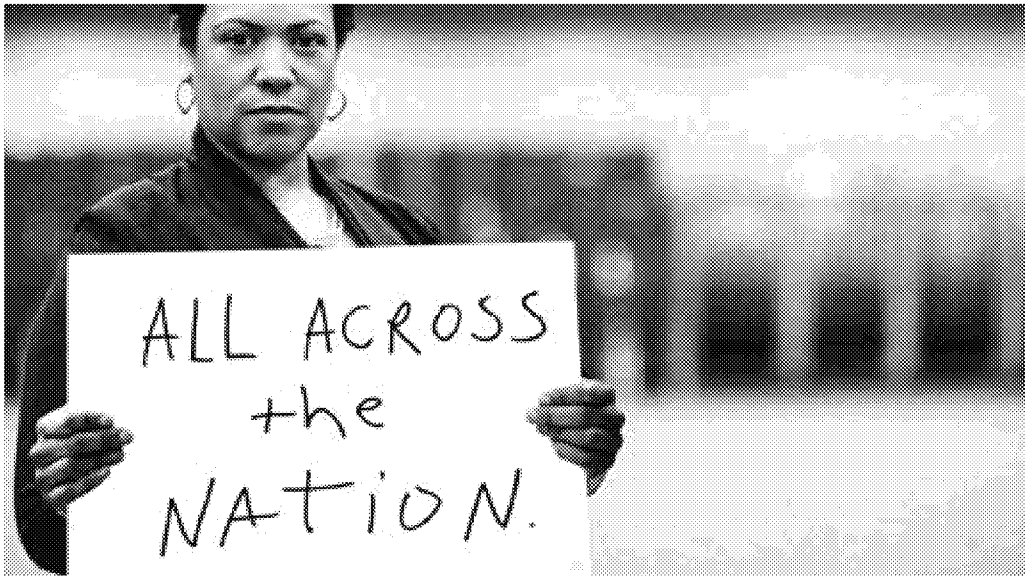
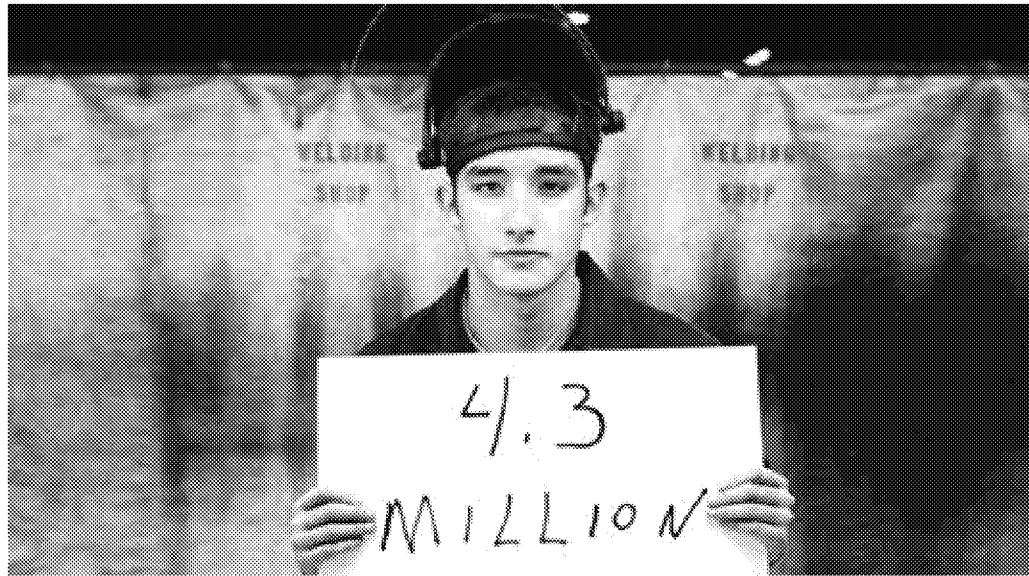
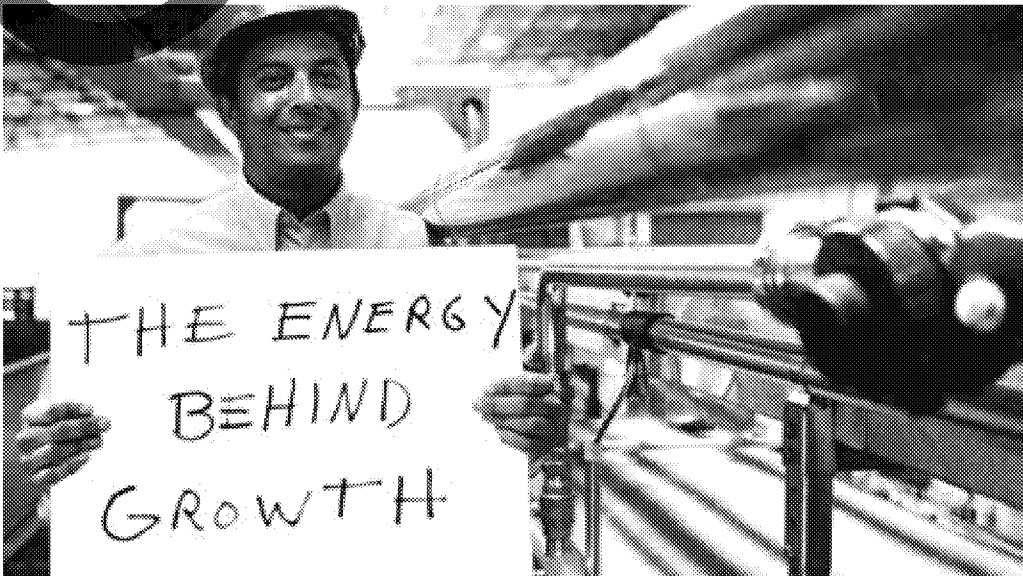
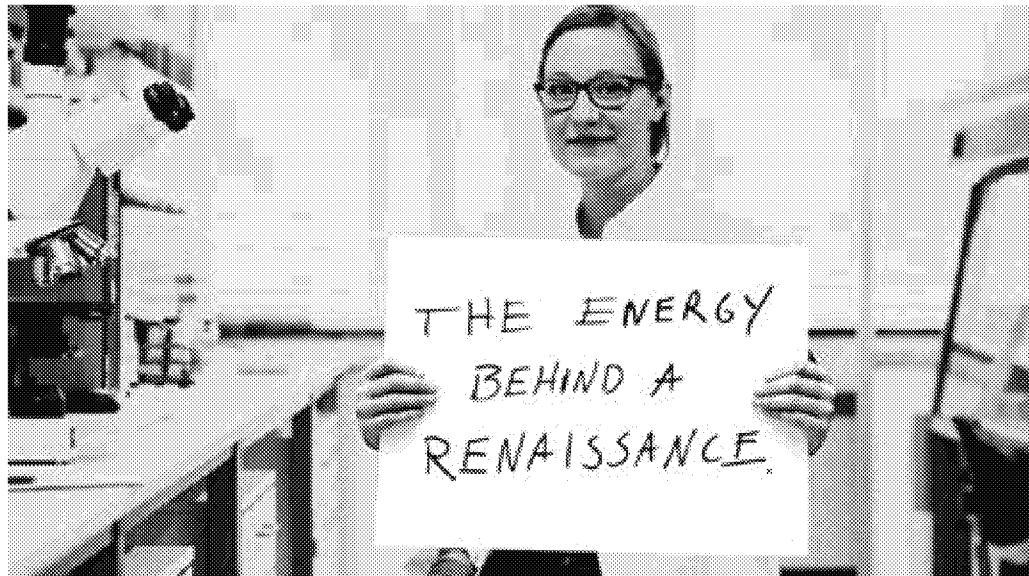
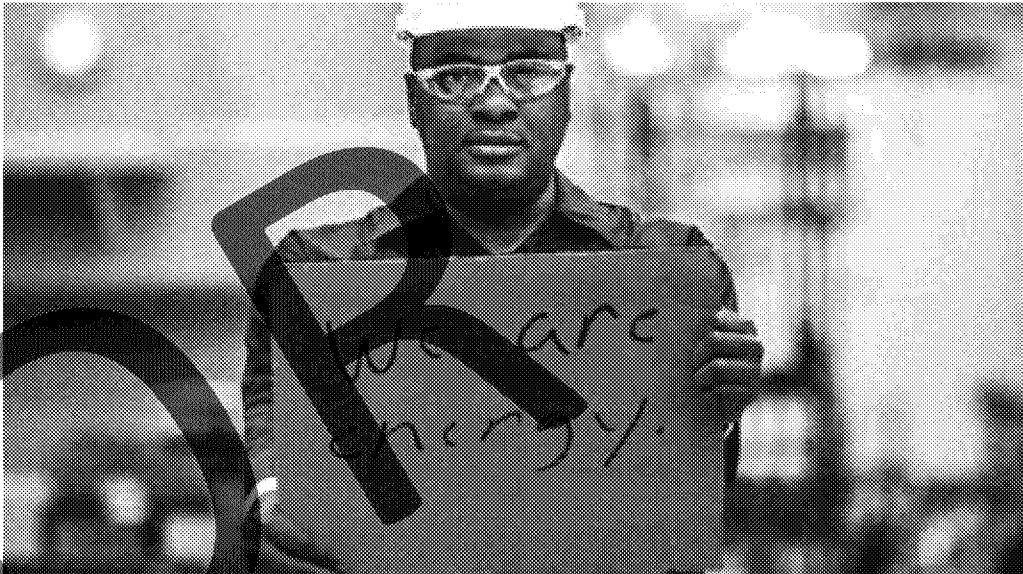
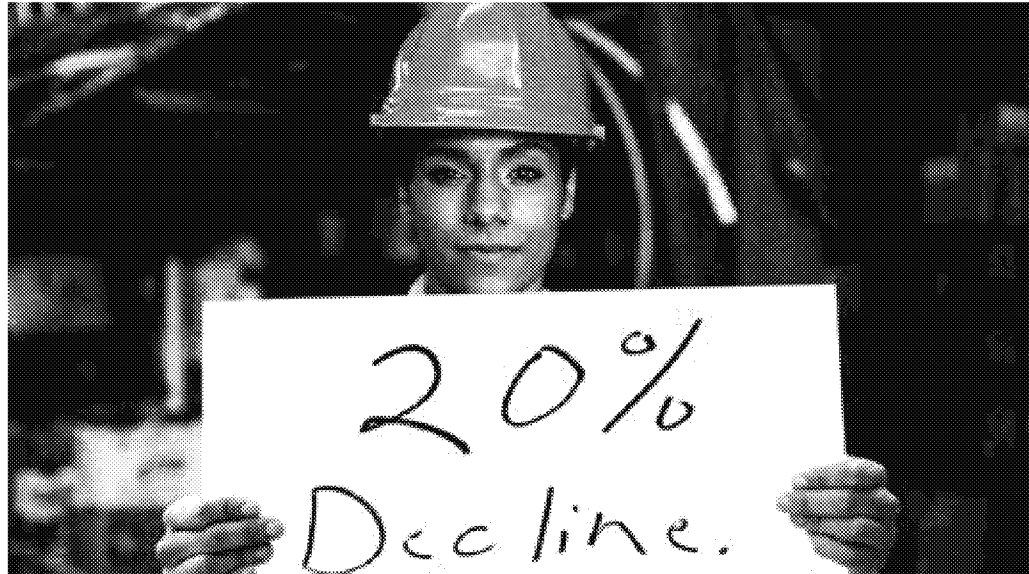
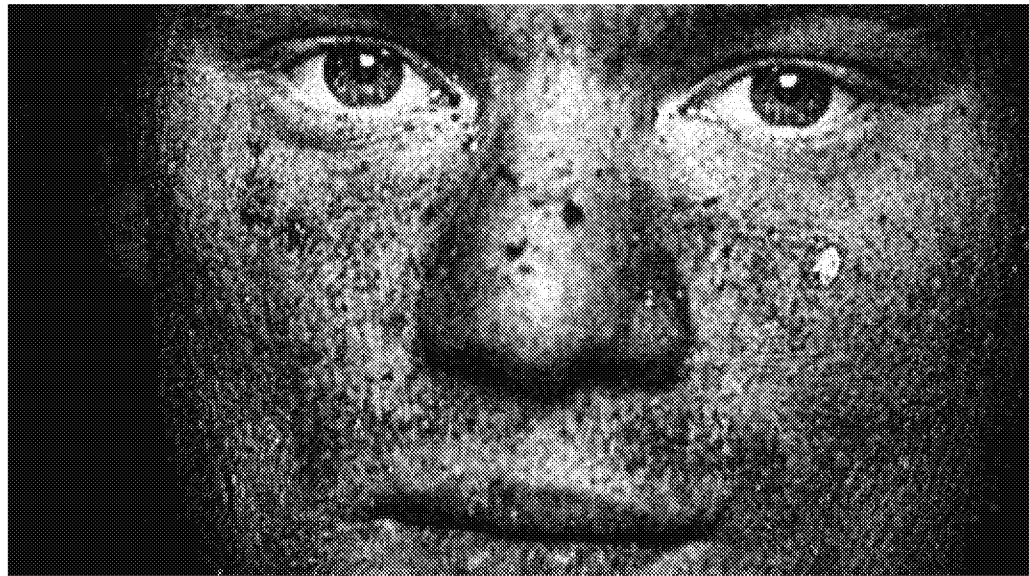
Portraits of ExxonMobil workers representing various types of jobs in the company, with an emphasis on jobs at XOM's Baytown facility. The workers hold up signs with handwritten messages on them.

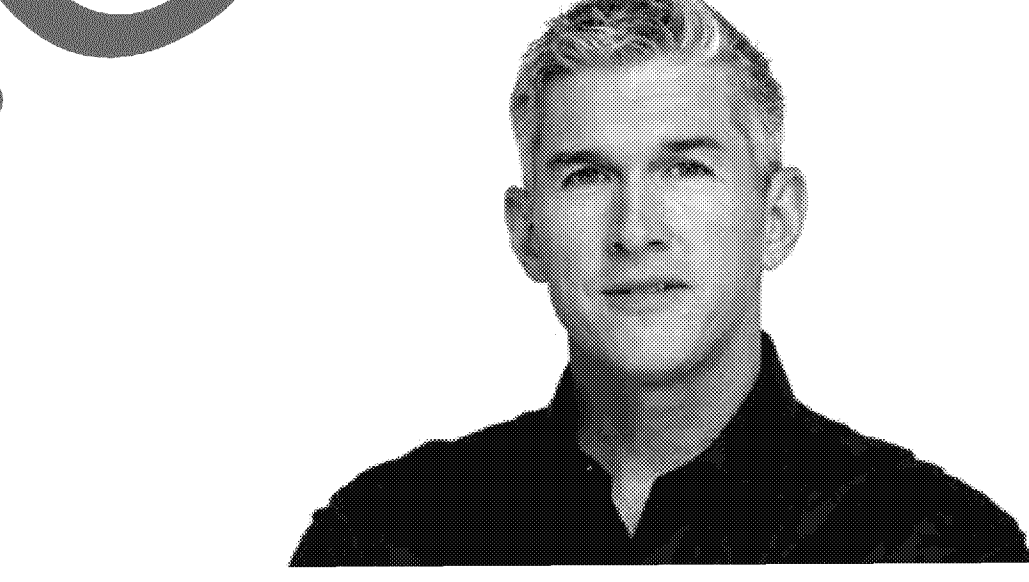
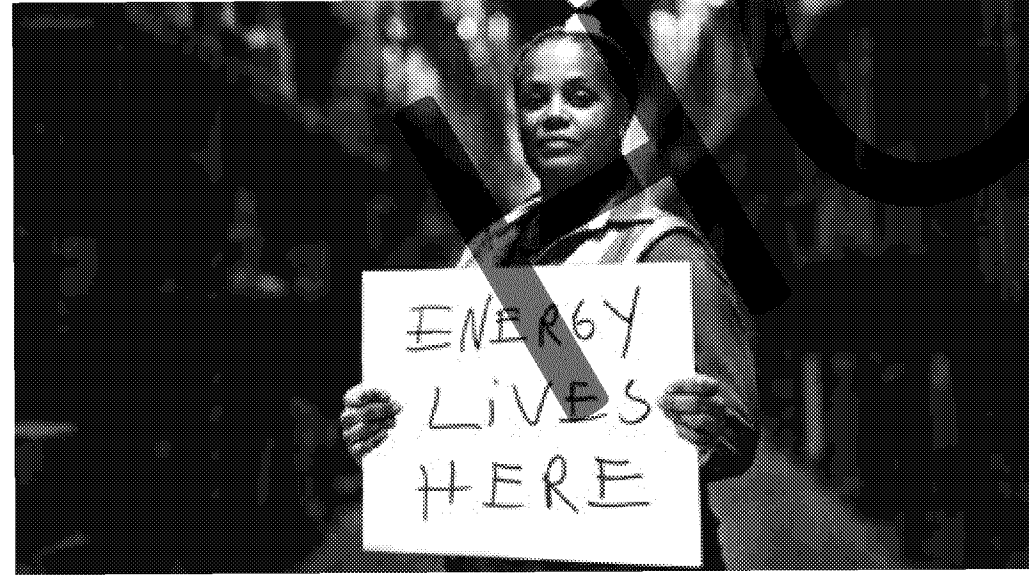
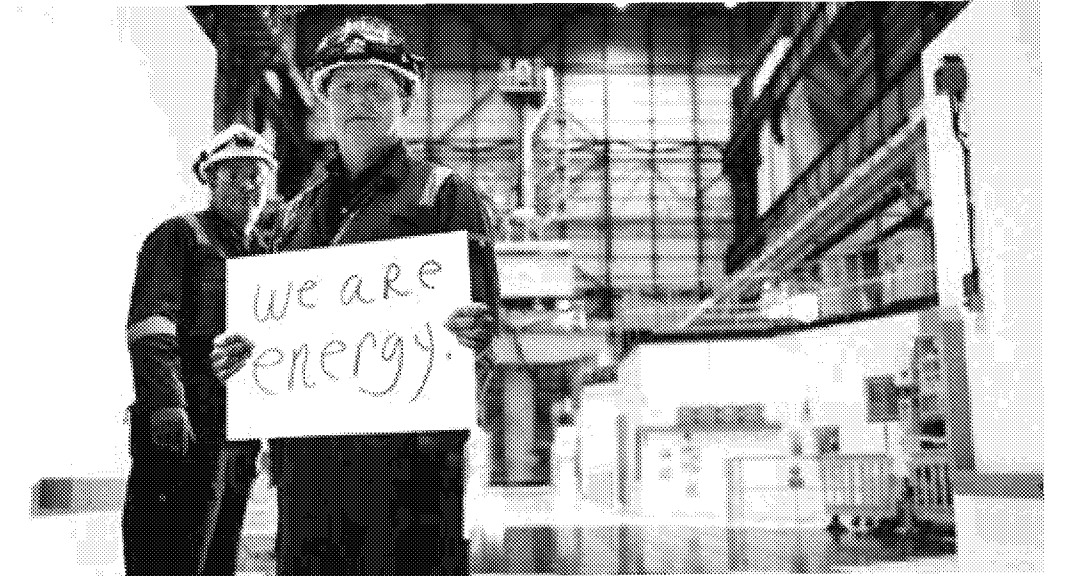
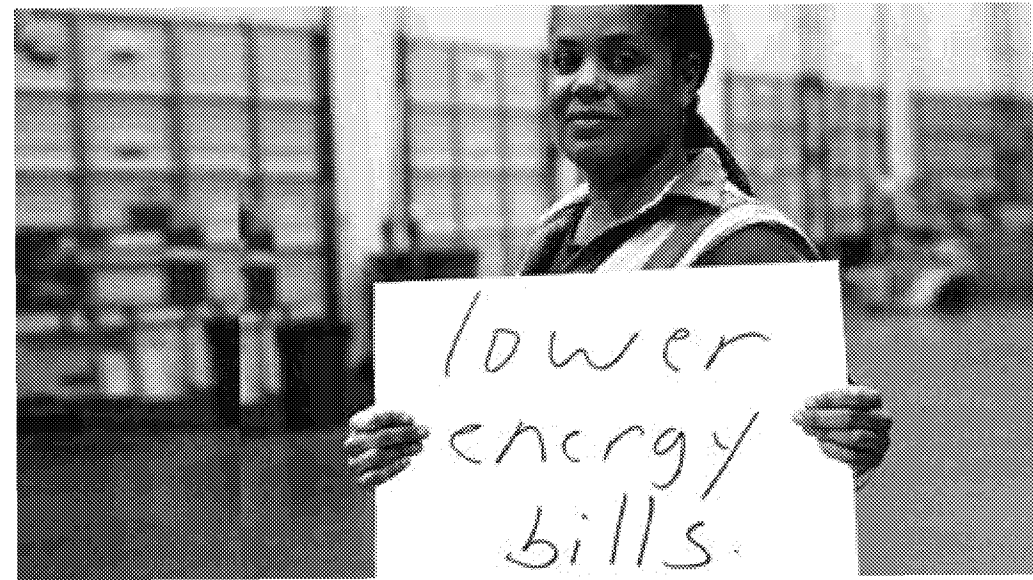
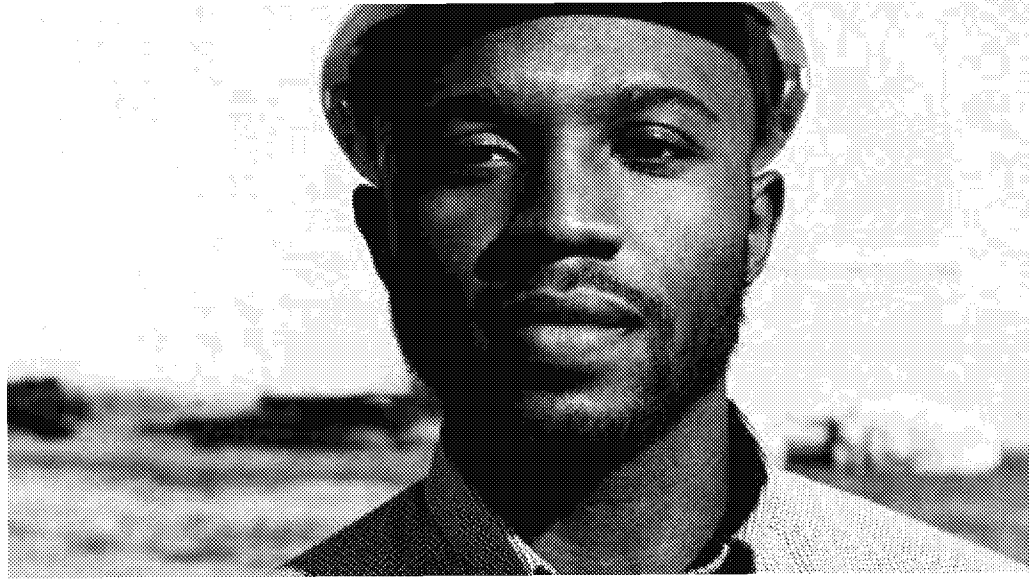
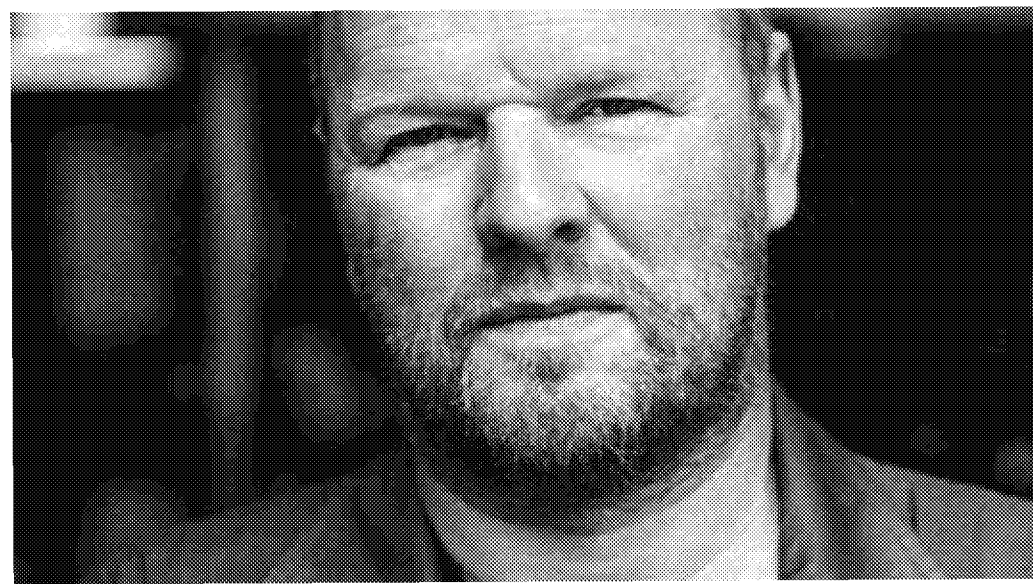
MUSIC: "The Star Spangled Banner" performed by Jimi Hendrix

- SIGN: WE ARE ENERGY
- SIGN: THE ENERGY OF FREEDOM
- SIGN: THE ENERGY OF AMERICA
- SIGN: 26% DECLINE IN OIL IMPORTS SINCE 2007
- SIGN: WE ARE ENERGY
- SIGN: THE ENERGY BEHIND A RENAISSANCE
- SIGN: AMERICA'S MANUFACTURING RENAISSANCE
- SIGN: ADDING \$20 BILLION TO THE ECONOMY ANNUALLY
- SIGN: WE ARE ENERGY
- SIGN: THE ENERGY BEHIND JOBS
- SIGN: 4.3 MILLION NEW JOBS
- SIGN: ALL ACROSS THE NATION
- SIGN: WE ARE ENERGY
- SIGN: THE ENERGY THAT SAVES \$
- SIGN: LOWER ENERGY BILLS
- SIGN: =
- SIGN: \$1200 MORE PER U.S. HOUSEHOLD
- SIGN: WE ARE ENERGY
- SIGN: THE ENERGY BEHIND INNOVATION
- SIGN: RESEARCHING ALTERNATIVE FUELS
- SIGN: LOWERING EMISSIONS
- SIGN: NOW THE LOWEST IN A GENERATION
- SIGN: ENERGY LIVES HERE
- SIGN: HERE
- SIGN: HERE
- SIGN: HERE
- LOGO: ExxonMobil



ExxonMobil





CONFIDENTIAL

ExxonMobil
Nat Gas – Economic + Enviromental Impact
Hi Ho (formerly Whistle)

Portraits of workers representing various types of jobs directly and indirectly generated by America’s natural gas boom. A diverse cross-section of people and trades, including workers at the Baytown facility. Quick cuts between them.

MUSIC UP: "HEIGH HO"

SUPERS OVER PORTRAITS:

Trucker
Nurse
Mechanic
Engineer
Plumber
Technician
Pipe Fitter
Cook
Teacher
(etc.)

TITLE: 10,000 JOBS

RINA(VO): From 10,000 jobs to expand our Baytown facility, which have reinvigorated the community...

TITLE: 4.3 MILLION JOBS

RINA(VO): ...to similar energy industry investments that have led to 4.3 million jobs nationwide.

RINA: These are jobs that natural gas is helping produce.

TITLE: Rina Batra

ExxonMobil Engineer

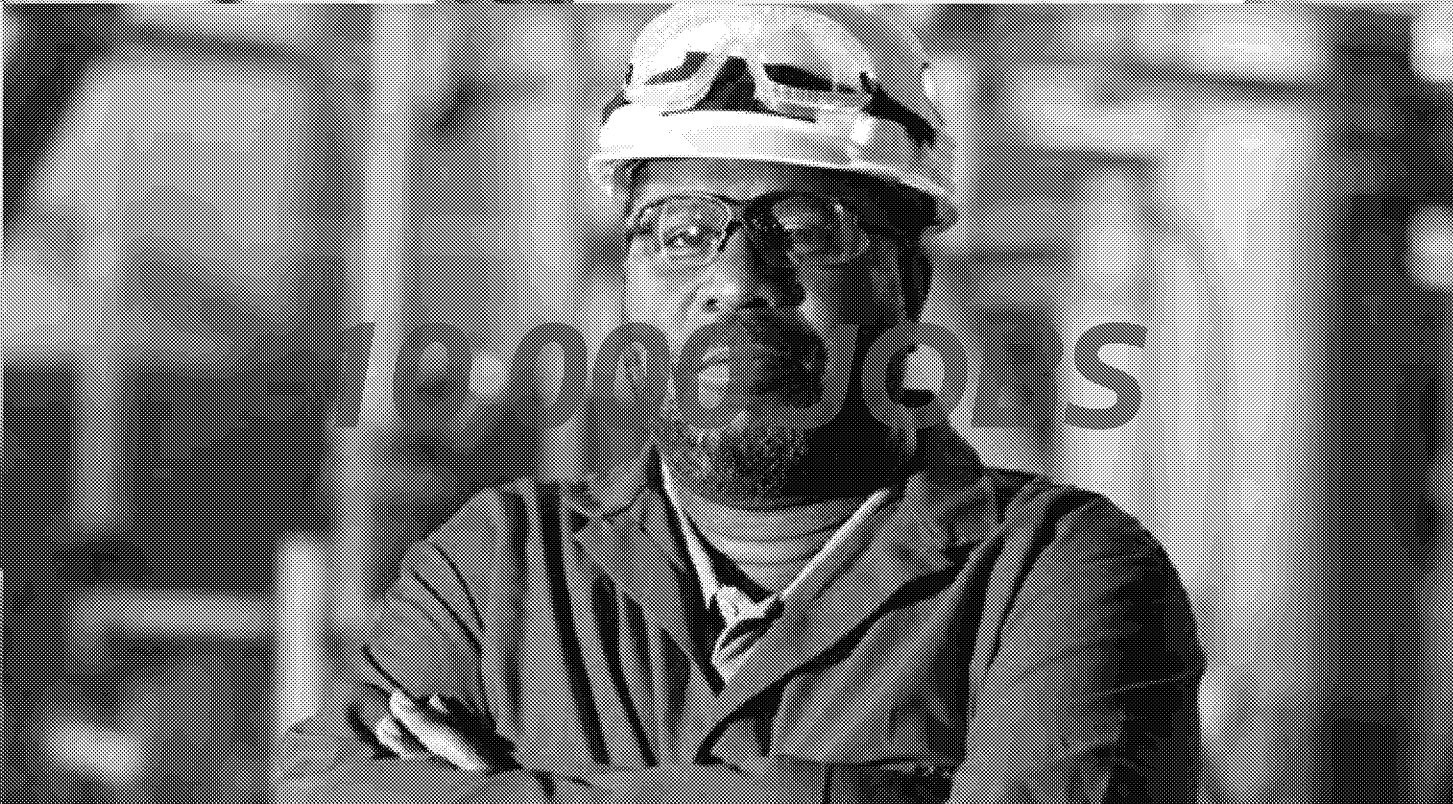
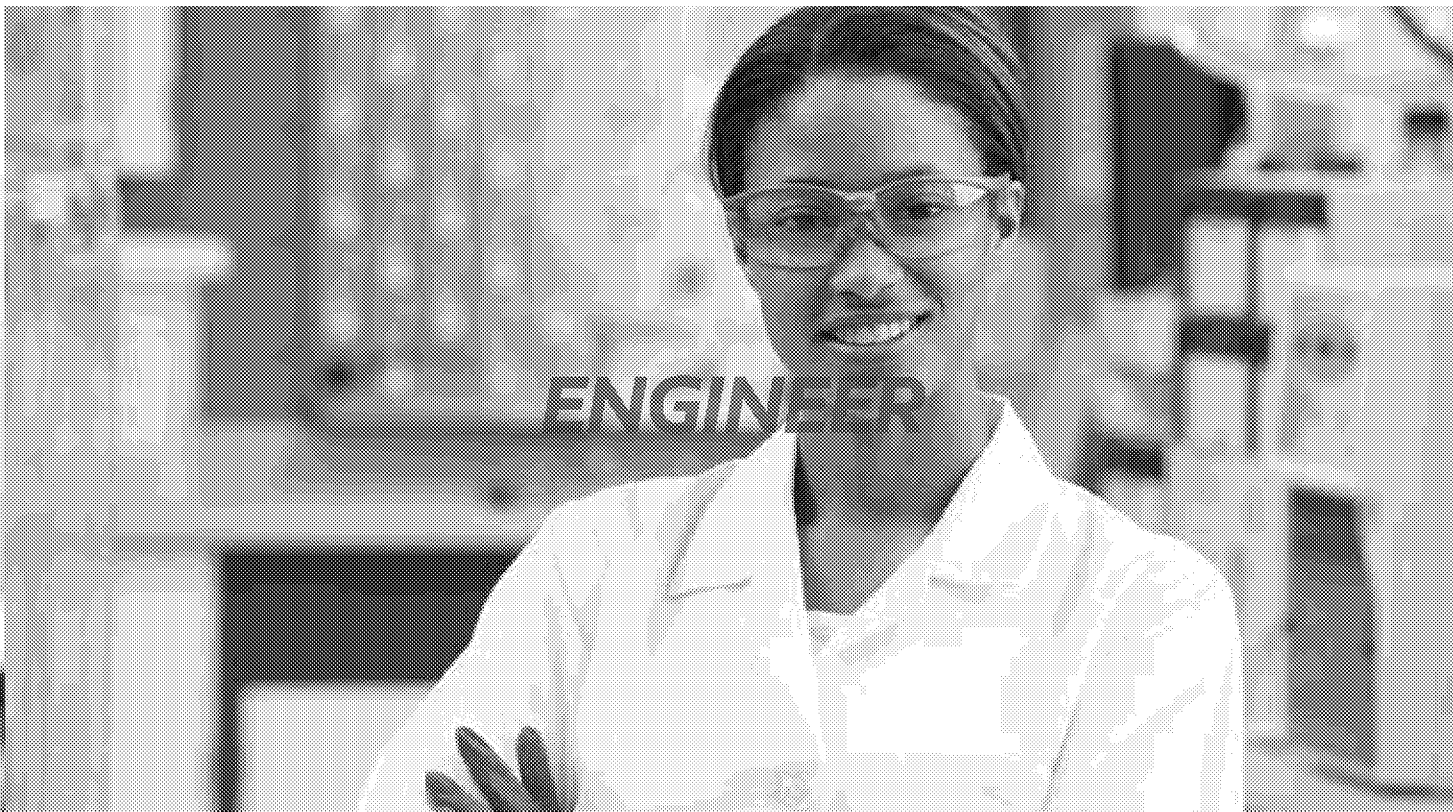
RINA: All while reducing America’s emissions.

Quick flutter cut of XOM faces transitions to logo.

RINA (VO): Energy lives here.

LOGO: ExxonMobil

HASHTAG: #SOLUTIONS



"Algae – Energy Farmer"

FULL SCRIPT COPY

We move through an ExxonMobil algae facility, but everything we see feels more akin to farming than science. We see algae ponds that resemble fields, geometric patches of different kinds of algae that resemble Midwestern farmland from above, and a grow room that looks more like a greenhouse than a lab.

MUSIC UP: "FARMER IN THE DELL"

TITLE: ALGAE

TITLE: A RENEWABLE SOURCE OF ENERGY

TITLE: EXXONMOBIL IS RESEARCHING IT

TITLE: FOR A POTENTIAL FUTURE

TITLE: WITH MORE BIOFUEL

TITLE: AND FEWER EMISSIONS

Cut to ExxonMobil's biofuels expert, Allesandro Faldi.

**TITLE: Dr. Allesandro Faldi
ExxonMobil Scientist**

FALDI: My name is Allesandro Faldi, and I like to consider myself an energy farmer.

Quick flutter cut of XOM faces transitions to logo.

FALDI (VO): Energy lives here.

LOGO: ExxonMobil

HASHTAG: #SOLUTIONS

SUBSTANTIATION

Algae: A renewable energy source

- "The Energy Department is researching one of the fuel sources of the future found here: in algae. ... These large, man-made ponds are called raceways, and **they cultivate a new crop of algae every few weeks.**"
 - U.S. Department of Energy:
 - [HYPERLINK "<http://energy.gov/eere/videos/energy-101-algae-fuel>"]
- "Algae can be cultivated on land unsuitable for other purposes with water that can't be used for food production."
 - ExxonMobil Research and Development:
 - [HYPERLINK "<http://corporate.exxonmobil.com/en/energy/research-and-development/advanced-biofuels/advanced-biofuels-overview>"]

SUBSTANTIATION

More biofuel.

- "Discovery in algae cell biology overcomes key challenge to algal biofuels – Researchers at the Scripps Institute of Oceanography made a significant breakthrough in the metabolic **engineering of algae to improve yield of lipids (the energy-storing fat molecules that can be used in biofuel production).**"
 - U.S. Department of Energy
 - [HYPERLINK "<http://www.energy.gov/eere/articles/making-algal-biofuel-production-more-efficient-less-expensive>"]
- "In addition to using non-arable land and not requiring the use of fresh water, algae could also potentially yield greater volumes of biofuels per acre than other sources."
 - ExxonMobil Research and Development:
 - [HYPERLINK "<http://corporate.exxonmobil.com/en/energy/research-and-development/advanced-biofuels/advanced-biofuels-overview>"]

SUBSTANTIATION

Fewer emissions

- "Advantages of microalgae-based biofuels are greater production yields and available land area (compared with terrestrial crops); algae's ability to

capture CO₂ as bicarbonate in ponds, reducing atmospheric CO₂ emissions..."

- Oxford Journals: BioScience
- [HYPERLINK "<http://bioscience.oxfordjournals.org/content/60/9/722.full>"]

- **"...researchers from MIT, ExxonMobil, and SGI published an assessment of algal biofuels in the peer-reviewed journal Environmental Science and Technology, which concluded that if key research hurdles are overcome, algal biofuels will have about 50% lower life cycle greenhouse emissions than petroleum-derived fuel."**

- ExxonMobil Research and Development:
- [HYPERLINK "<http://corporate.exxonmobil.com/en/energy/research-and-development/advanced-biofuels/advanced-biofuels-overview>"]

"Heigh Ho (formerly Whistle)"

FULL SCRIPT COPY

Portraits of workers representing various types of jobs directly and indirectly generated by America's natural gas boom. A diverse cross-section of people and trades, including workers at the Baytown facility. Quick cuts between them.

MUSIC UP: "Heigh Ho"

SUPERS OVER PORTRAITS:

Trucker
Nurse
Mechanic
Engineer
Plumber
Technician
Pipe Fitter
Cook
Teacher
(etc.)

RINA (VO): From 30,000 jobs on the Gulf Coast our projects alone are creating...

RINA (VO): ...to similar energy industry investments that have created 4.3 million other jobs nationwide.

RINA: These are jobs that natural gas is helping produce.

TITLE: Rina Batra
ExxonMobil Engineer

RINA: All while reducing America's emissions.

Scenes of natural gas and power plant infrastructure, pipeline valves being turned, switches turning on, etc.

RINA (VO): And if the whole world used natural gas for electricity the way the U.S. does...

Rina delivers a final line to camera.

RINA: ...it would be like taking every house in America off the grid.

RINA (VO): That's the work of natural gas.

Quick flutter cut of XOM faces transitions to logo.

RINA (VO): Energy lives here.

LOGO: ExxonMobil

HASHTAG: #SOLUTIONS

SUBSTANTIATION

30,000 jobs on the Gulf Coast our projects alone are creating

- "ExxonMobil also is adding 1.3 million tons in annual polyethylene capacity in Mont Belvieu, about 30 miles east of Houston. As such, the Houston region likely will still add nearly 20,000 jobs this year. ...ExxonMobil Chemical, for instance, will have 10,000 peak construction jobs during its expansion..."
 - Houston Chronicle:
 - [HYPERLINK
"http://www.houstonchronicle.com/business/energy/article/Natural-gas-is-cheap-too-so-Gulf-Coast-chemical-6483958.php"]

SUBSTANTIATION

Energy industry investments that have created 4.3 million other jobs nationwide

- "Combining the incremental economic impacts across the value chain and the residential and industrial impacts spurred on by lower energy prices, our analysis finds that the energy renaissance added nearly \$550 billion in GDP to the U.S. economy in 2015 and 4.3 million jobs." (Page 7)

Table 2: U.S. Aggregate Economic Impacts Due to the Energy Renaissance, 2015

	OIL AND GAS VALUE CHAIN IMPACT	LOWER ENERGY PRICE IMPACT	TOTAL IMPACT
GDP	\$319.5 BILLION	\$228.2 BILLION	\$547.7 BILLION
Annual Employment	1.9 MILLION JOBS	2.4 MILLION JOBS	4.3 MILLION JOBS

- U.S. Chamber of Commerce: [HYPERLINK "http://www.energyxxi.org/sites/default/themes/bricktheme/pdfs/er-fullreport-16.pdf"] (Page 8)

SUBSTANTIATION

All while reducing America's emissions

- "Many nations are already reducing their level of CO₂ emissions... By 2040, the carbon-intensity of the global economy is likely to fall by half, with substantial contributions from OECD... nations."
 - ExxonMobil 2016 Outlook for energy
 - [HYPERLINK "http://corporate.exxonmobil.com/en/energy/energy-outlook/lowering-emissions/emissions"]
- "Many of the changes in energy-related CO₂ emissions in recent history have occurred in the electric power sector because of the decreased use of coal and the increased use of natural gas for electricity generation."
 - U.S. Energy Information Administration
 - [HYPERLINK "https://www.eia.gov/todayinenergy/detail.php?id=26152"]

SUBSTANTIATION

And if the whole world used natural gas for electricity the way the U.S. does it would be like taking every house in America off the grid

- "Both the U.S. and Germany have seen a drop in emissions. Based on government data, by 2012, **the CO₂ intensity of delivered electricity in the U.S. was lower than that of Germany because the U.S. saw an improvement about three and a half times that of Germany between 2005 and 2012.** While these transitions were occurring, electricity costs have risen much faster in Germany than the U.S. over the past decade."
 - ExxonMobil 2016 Outlook for Energy:
 - [HYPERLINK "http://corporate.exxonmobil.com/en/energy/energy-outlook/meeting-growing-demand/demand"]

America's Energy

FULL SCRIPT COPY

Portraits of ExxonMobil workers representing various types of jobs in the company, with an emphasis on jobs at XOM's Baytown facility. The workers hold up signs with handwritten messages on them. Each line of script below is a different sign.

Music: "The Star Spangled Banner" performed by Jimi Hendrix

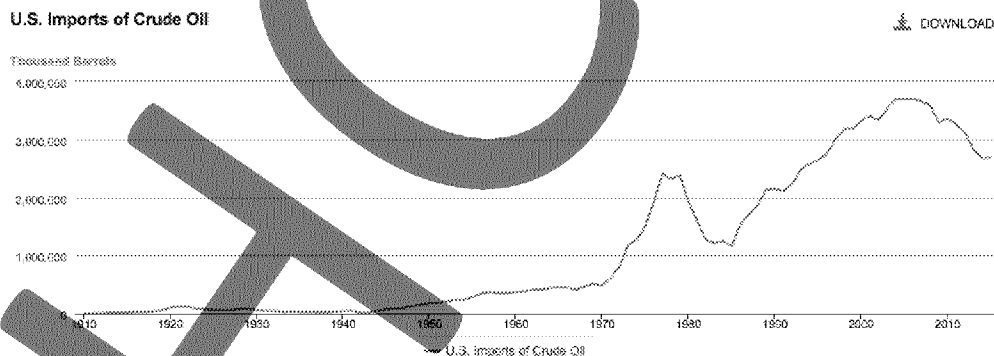
We are energy
The energy of freedom
The energy of America
26% decline
In oil imports
Since 2007
We are energy
The energy behind a renaissance
America's Manufacturing Renaissance
Adding \$20 billion to the economy annually
We are energy
The energy behind growth
4.3 million new jobs
All across the nation
We are energy
The energy that saves \$
Lower energy costs
Lower energy bills
=
Lower costs for other goods and services
=
More disposable income
\$1200 more per U.S. household
We are energy
The energy behind the economy
The energy behind America
Energy lives here
Here
Here
Here
LOGO: ExxonMobil
#Solutions

SUBSTANTIATION

26% Decline in Oil Imports since 2007

- According to the U.S. Energy Information Administration (EIA), oil imports dropped from 3,661,404 barrels in 2007 to 2,687,409 barrels in 2015.

Decade	Year-0	Year-1	Year-2	Year-3	Year-4	Year-5	Year-6	Year-7	Year-8	Year-9
1910's	557	1,710	7,383	17,809	16,913	18,139	30,570	30,127	37,736	52,822
1920's	106,175	125,364	127,308	82,815	77,775	61,824	68,382	58,449	79,767	78,933
1930's	62,129	47,250	44,682	31,893	35,458	32,239	32,327	27,484	26,412	33,095
1940's	42,662	50,606	12,297	13,833	44,815	74,337	86,066	97,532	129,093	153,686
1950's	177,714	179,073	209,591	236,455	239,479	285,421	341,833	373,255	348,007	352,344
1960's	371,575	381,548	411,039	412,660	438,643	452,040	447,120	411,649	472,323	514,314
1970's	483,293	613,417	811,135	1,183,996	1,269,155	1,498,181	1,935,012	2,414,327	2,319,826	2,379,541
1980's	1,926,162	1,604,703	1,273,214	1,215,225	1,253,949	1,168,297	1,524,978	1,705,922	1,869,005	2,132,761
1990's	2,151,387	2,110,532	2,226,341	2,477,230	2,578,072	2,638,810	2,747,838	3,002,299	3,177,584	3,186,663
2000's	3,319,816	3,404,694	3,356,175	3,527,696	3,692,063	3,695,971	3,693,061	3,661,404	3,580,694	3,289,675
2010's	3,362,856	3,261,422	3,120,755	2,821,480	2,680,626	2,687,409				



- [HYPERLINK
["https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pets&s=mcrimus1&f=a"](https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pets&s=mcrimus1&f=a)]

SUBSTANTIATION

Adding \$20billion to the economy annually

- "We calculate that the manufacturing sector added approximately \$20 billion on an annual basis due to lower energy prices."
 - U.S. Chamber of Commerce: [HYPERLINK "http://www.energyxxi.org/sites/default/themes/bricktheme/pdfs/er-fullreport-16.pdf"] (Page 33)

SUBSTANTIATION

4.3 million new jobs

- "Combining the incremental economic impacts across the value chain and the residential and industrial impacts spurred on by lower energy prices, our analysis finds that **the energy renaissance added nearly \$550 billion in GDP to the U.S. economy in 2015 and 4.3 million jobs.**" (Page 7)

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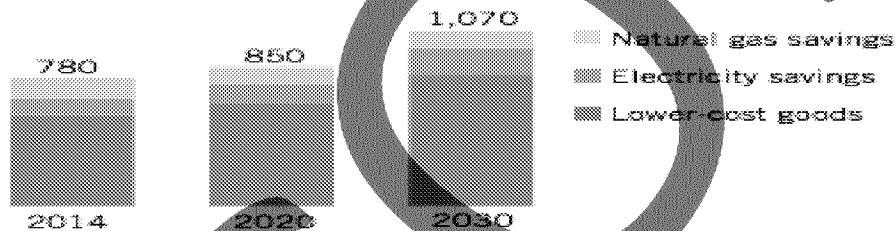
SUBSTANTIATION

The energy that saves money. Lower energy costs. Lower energy bills

- Consumers across America are major beneficiaries of *unconventionals*, extending well beyond just the regions where significant production or conversion of gas and oil is occurring. BCG'S "Made in America, Again" series estimated that the average U.S. residential household has enjoyed nearly \$800 in **annual savings from the availability of low-priced unconventional natural gas**. (See Figure 10.)

Figure 10: Annual household savings from low-cost energy

(2014 \$)



Source: BCG and HBS Competitive Impacts Model; please refer to Appendix I for detailed methodology.

- - [HYPERLINK "<http://www.hbs.edu/competitiveness/Documents/america-unconventional-energy-opportunity.pdf>"]

SUBSTANTIATION

Lower costs for other goods and services

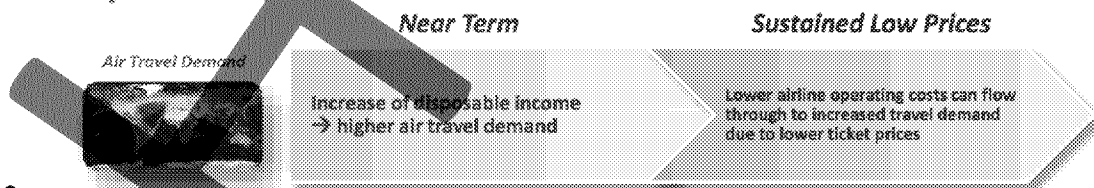
- "The consumer component in the drop in oil prices has gotten a lot of attention, as falling prices at the pump not only provide more disposable income, but also have the potential to reduce the input costs of many goods and services."
 - Drum Hill Capital:
[HYPERLINK "<http://www.drumhill.com/wp-content/uploads/2015/09/American-Energy-Renaissance-Reboot.pdf>"]
(Page 3)

- "Our analysis shows the U.S. households would be paying 31% more for their electricity today and 43% more for motor fuels if the energy renaissance had not occurred. Those savings hit the bottom line for most households, allowing consumers the choice to spend that additional money on other goods and services."
 - U.S. Chamber of Commerce: [[HYPERLINK](http://www.energyxxi.org/sites/default/themes/bricktheme/pdfs/er-fullreport-16.pdf) "http://www.energyxxi.org/sites/default/themes/bricktheme/pdfs/er-fullreport-16.pdf"] (Page 2)

SUBSTANTIATION

More disposable income

- "One method to consistently decrease these prices could provide consumers with up to \$5.8 billion in additional disposable income per year... according to research by ICF International."
 - Washington Post: [[HYPERLINK](http://www.washingtonpost.com/sf/brand-connect/wp/enterprise/opening-additional-markets-for-u-s-crude-oil-will-benefit-consumers/) "http://www.washingtonpost.com/sf/brand-connect/wp/enterprise/opening-additional-markets-for-u-s-crude-oil-will-benefit-consumers/"]
- 2015 ICF International report: "ICF sees a number of potential impacts on aviation if low oil prices are sustained [including increase of disposable income]" (see figure below)
ICF sees a number of potential impacts on Aviation if low oil prices are sustained



- "Regions... are likely to see increases in disposable income per household, which are estimated to be higher across all regions..."
 - November 12, 2015 -- [[HYPERLINK](https://nextgenamerica.org/news-reports/our-clean-energy-future/) "https://nextgenamerica.org/news-reports/our-clean-energy-future/"]

SUBSTANTIATION

\$1,200 more per U.S. household

- "Unconventional oil and gas activity increased disposable income by an average cost of **\$1,200 per U.S. household** in 2012 as savings from lower energy costs were passed along to consumers in the form of lower energy bills, as well as lower costs for all other goods and services."
 - <http://news.ihsmarkit.com/press-release/economics/us-unconventional-oil-and-gas-revolution-increase-disposable-income-more-270>

Message

From: Mizan, Tahmid I [/O=EXXONMOBIL/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=TAHMID.I.MIZAN1]
Sent: 12/15/2016 11:52:21 PM
To: Snow, Angela K [REDACTED]
CC: Nelson, Neely S [REDACTED]; Rodgers, Abigail L [REDACTED]; Shultz, Ryan T /C [REDACTED]; Onderdonk, Todd W [REDACTED]; Fu, Dong [REDACTED]; Faldi, Alessandro [REDACTED]
Subject: FW: New Ads For Review
Attachments: America's Energy - Substantiation.docx; Heigh Ho - Whistle_12.8.docx; Energy Farmer_12.8.docx; Americas_Energy V2_Heigh Ho_12.9.pdf; Energy Farmer_Gearheads_12.9.pdf

Angela,

Looks like the America's Energy substantiation is more to do with the Economy than technology, so I would suggest we ask Dong Fu our economist at CSP to review the substantiation.

With respect to the Energy Farmer: the person in the picture is not Alessandro Faldi (unless he lost a lot of hair since I saw him this morning!). I agree with Neely's comments with respect to Energy Farmer. Gearheads, very cool!

Regards

Tahmid Mizan

Senior Technology Advisor
Corporate Strategic Planning, Exxon Mobil Corporation
5959 Las Colinas Boulevard, Irving, TX 75039-2298
Email: [REDACTED] Phone: [REDACTED]

From: Snow, Angela K
Sent: Tuesday, December 13, 2016 3:00 PM
To: Onderdonk, Todd W [REDACTED]; Nelson, Neely S [REDACTED]
Mizan, Tahmid I [REDACTED]
Cc: Rodgers, Abigail L [REDACTED]; Shultz, Ryan T /C [REDACTED]
Subject: New Ads For Review

Todd, Tahmid, Neely --

Attached are some new ad concepts we intend to produce.

I would like to ask for CSP and EMRE review to ensure no exception taken to the content or claims.

The substantiation we based our claims upon is noted on the word docs, and the concepts are found in the two pdfs. Actual employees to be featured are tbd at this time and may not be those shown in the boards.

Todd -- the two jobs/economic impact spots are "America's Energy" and "Heigh-Ho". I will also run "Heigh-Ho" by EMCC given the 10,000 jobs associated with the expansion project is their proof point.

Tahmid/Neely the two algae spots are "Energy Farmer" and "Gearheads".

As we will be going into production soon, could we have your feedback as soon as you are able this week?

Thank you

ExxonMobil
Algae as a source of renewable biofuels
“Energy Farmer”

We move through an ExxonMobil algae facility, but everything we see feels more akin to farming than science. We see algae ponds that resemble fields, geometric patches of different kinds of algae that resemble Midwestern farmland from above, and a grow room that looks more like a greenhouse than a lab.

MUSIC UP: “FARMER IN THE DELL”
TITLE: ALGAE
TITLE: A RENEWABLE SOURCE OF ENERGY
TITLE: EXXONMOBIL IS RESEARCHING ITS POTENTIAL
TITLE: TO REVOLUTIONIZE THE FUTURE OF BIOFUELS
TITLE: FOR MORE ENERGY
TITLE: AND REDUCED EMISSIONS

Cut to ExxonMobil’s biofuels expert, Kelsey McNeely.

TITLE: Kelsey McNeely
ExxonMobil Scientist

McNeely: My name is Kelsey McNeely, and I like to consider myself an energy farmer.

Quick flutter cut of XOM faces transitions to logo.

McNeely: Energy Lives Here

LOGO: ExxonMobil

HASHTAG: #SOLUTIONS

Algae is a renewable source of energy.

For a future with more biofuel and fewer emissions.

Dr. Allesandro Faldi
ExxonMobil Biofuels Scientist

ExxonMobil
Algae
"Gearheads"

Open on a shot out the window of a car as a man on a motorcycle passes by, pumping his fist and nodding at an unknown driver cranking "Born to be Wild."

MUSIC: "BORN TO BE WILD" – STEPPENWOLF

DRIVER VOICE: Here's a wild idea ... biofuels made from algae.

Cut to a trucker as he acknowledges the driver with a blast of his air horn.

DRIVER VOICE: It could become a whole new source of energy.

Cut to a woman in a convertible sports car as she blows a kiss at the unknown driver.

DRIVER VOICE: ...that lowers emissions....

Cut to a series of other drivers and passengers as they pass by, wave and offer approval of the driver's music.

DRIVER VOICE: ...while working in our existing vehicles.

Who's working on it?

ExxonMobil - that's who.

Cut to reveal Vijay Swarup, ExxonMobil Head of Research & Development. He is driving a sensible sedan. As he pulls up at a stop sign, he turns to camera to speak. His name and title appear on screen.

SUPER: Vijay Swarup, Ph.D.
ExxonMobil VP R&D

VIJAY: It's gonna be awesome.

He turns up the volume of his stereo. As he pulls away, the chorus of the song kicks in.

LYRICS: Born to be wiiillld...

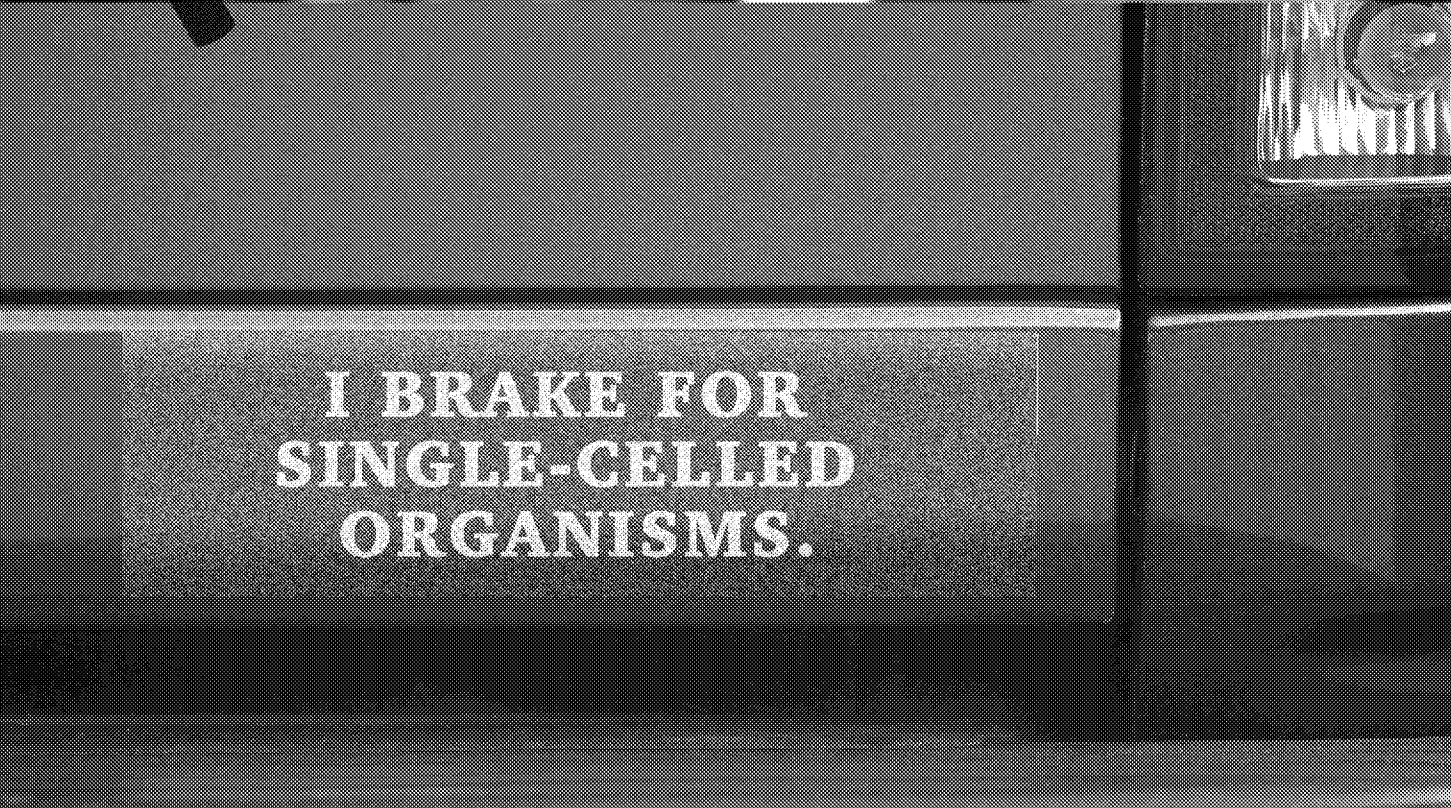
Cuts to reveal his bumper sticker, which reads:
I BRAKE FOR SINGLE-CELLED ORGANISMS.

A quick flutter cut of XOM faces transitions to the ExxonMobil logo.

VIJAY (VO): Energy lives here.

LOGO: ExxonMobil

HASHTAG: #SOLUTIONS

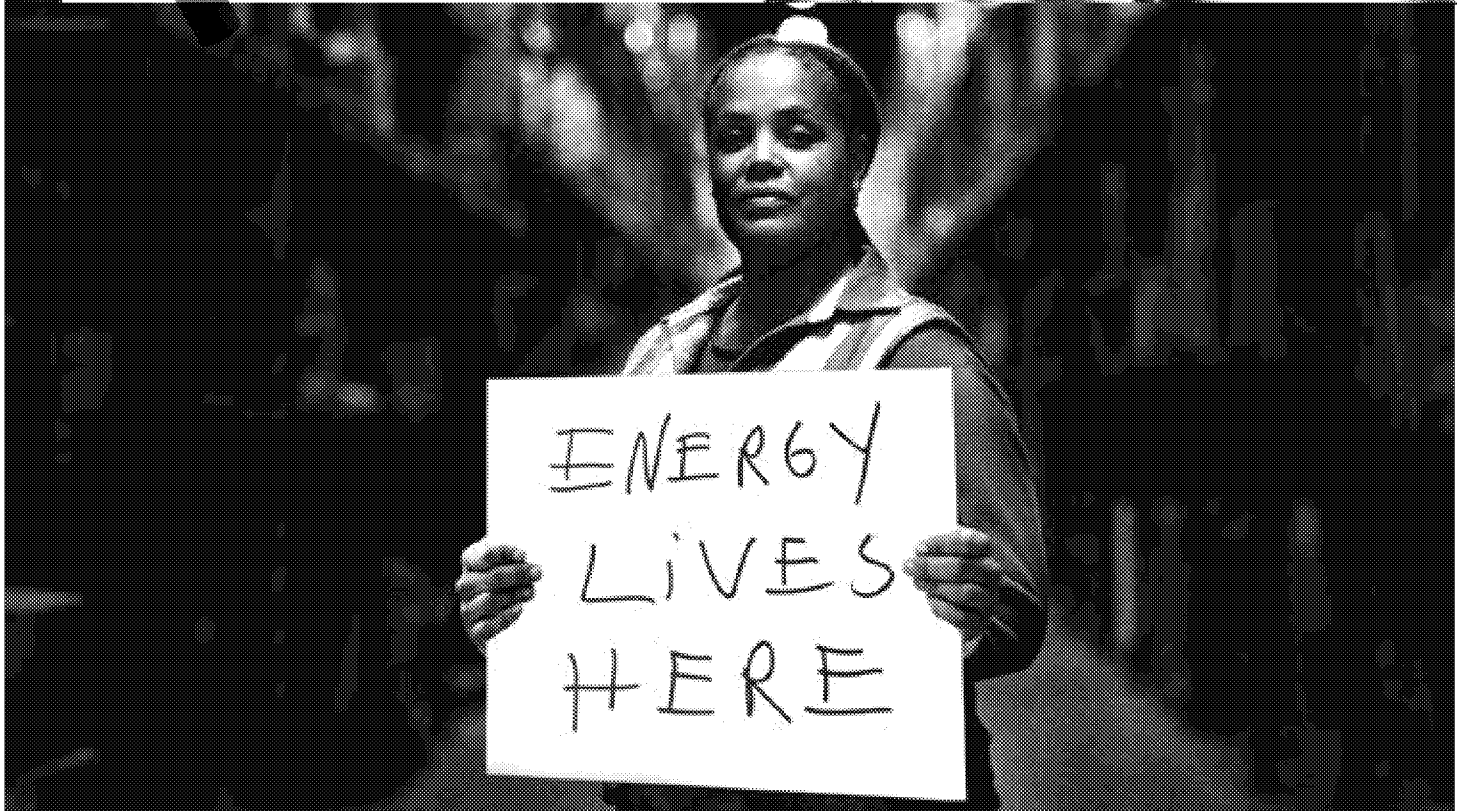


ExxonMobil
Energy Independence/Jobs/Impact
"America's Energy" (long form)

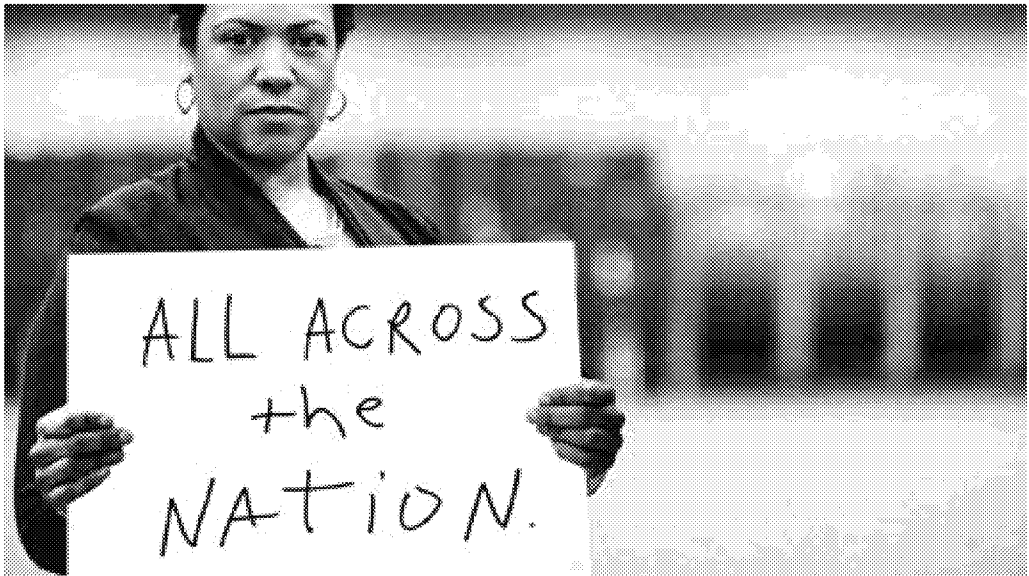
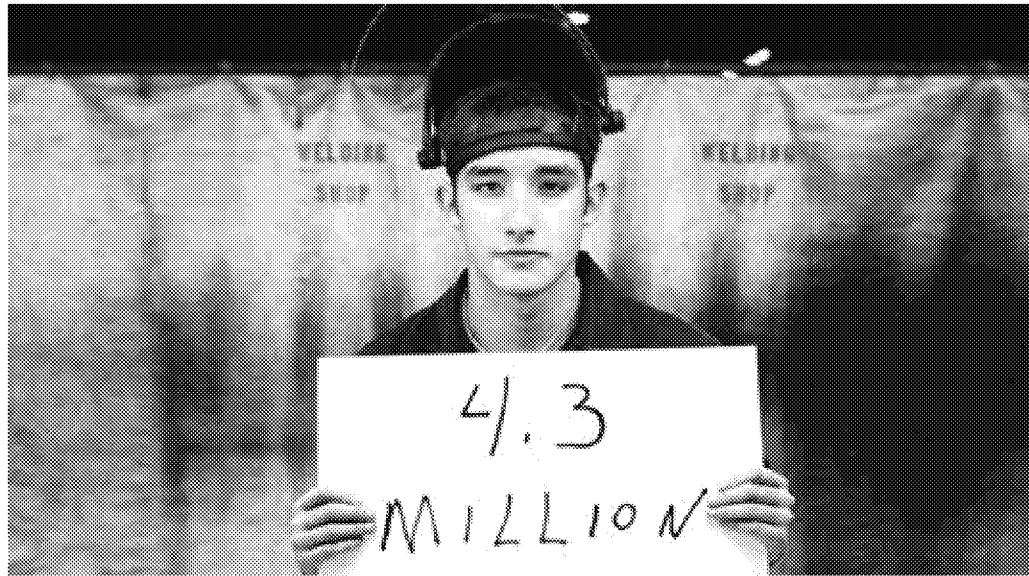
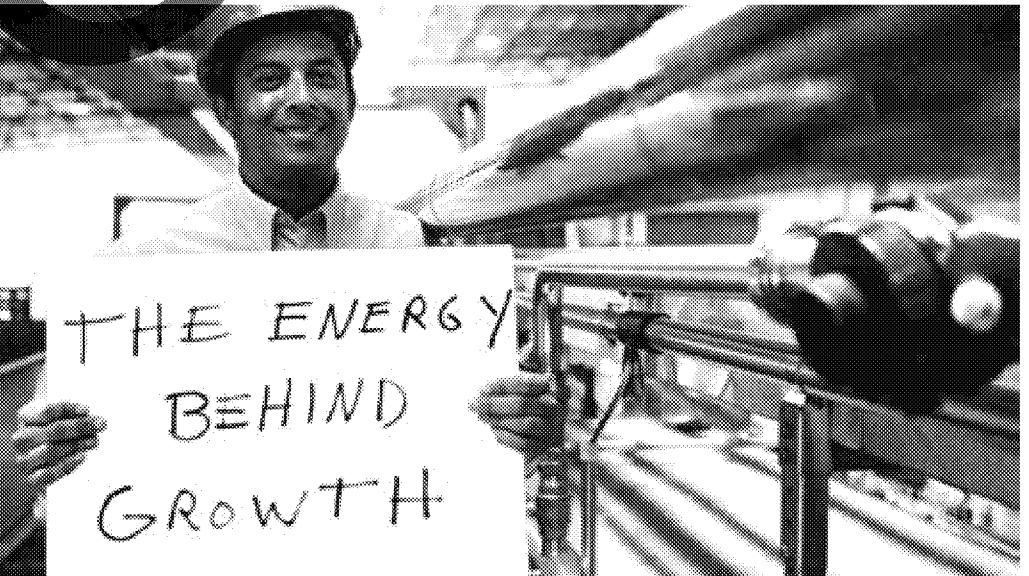
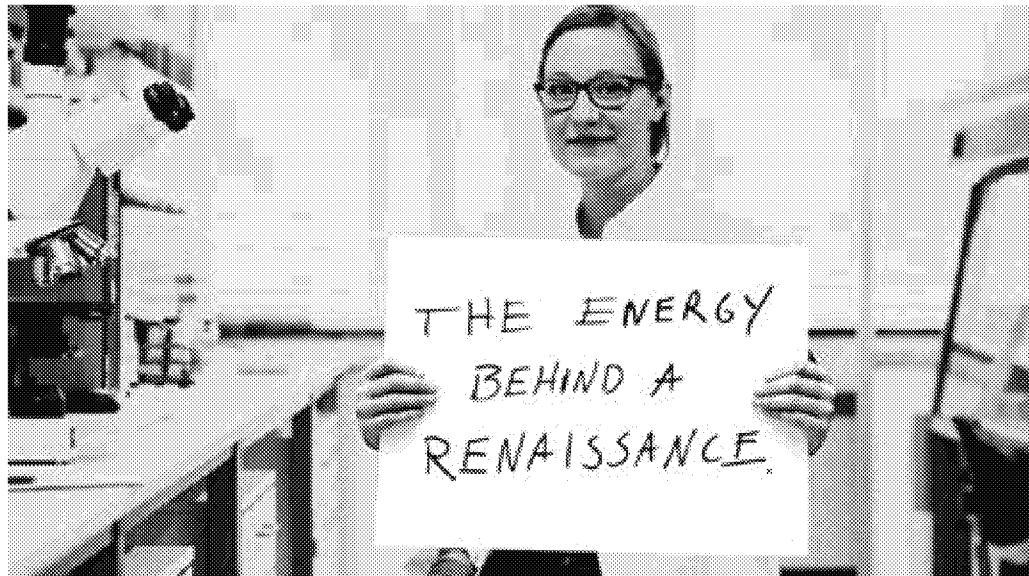
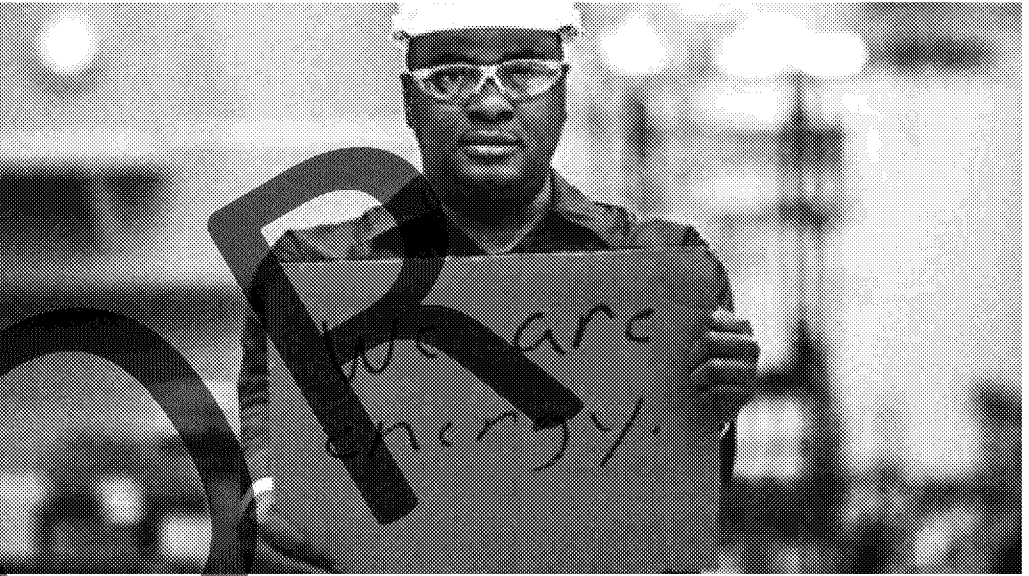
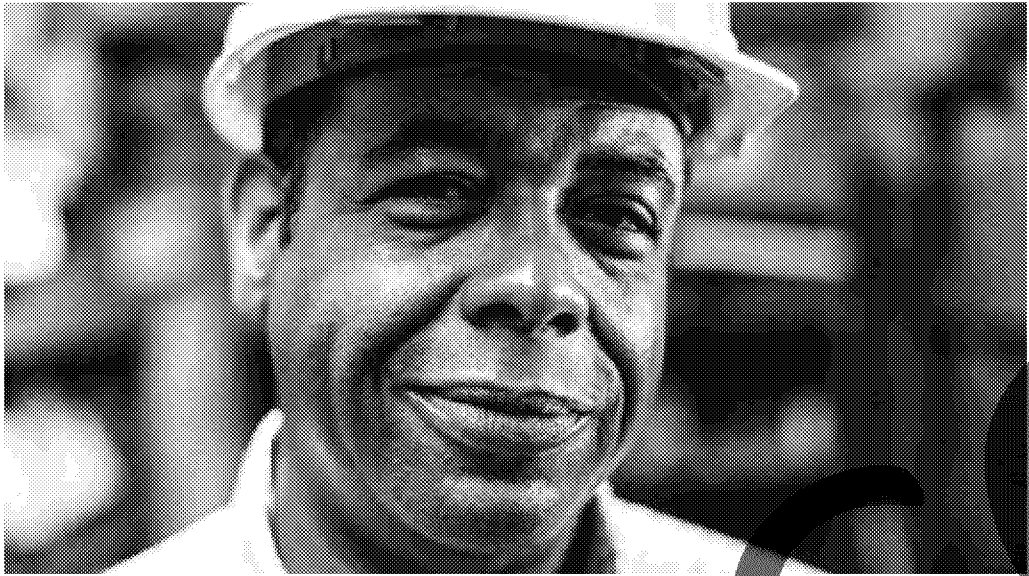
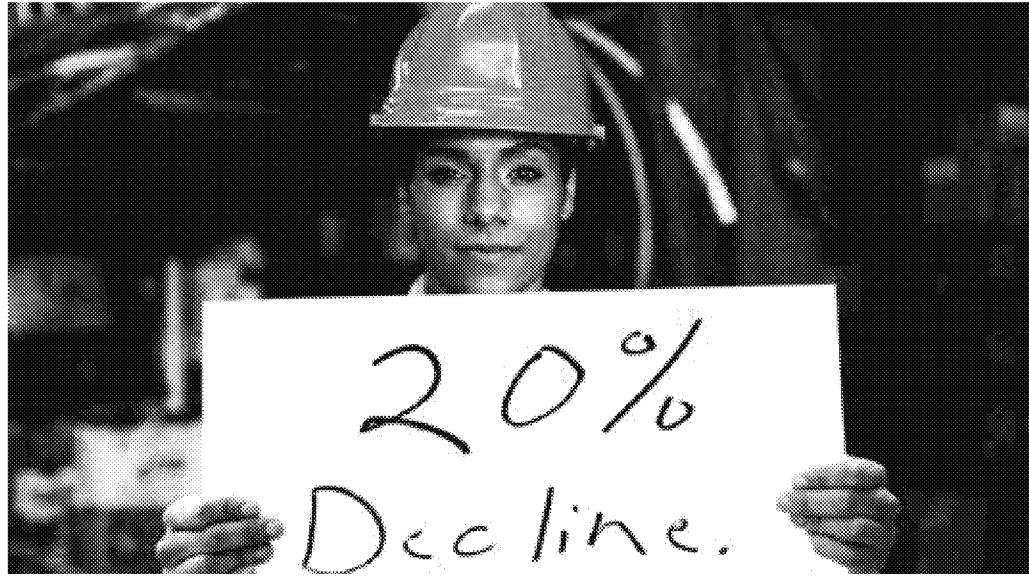
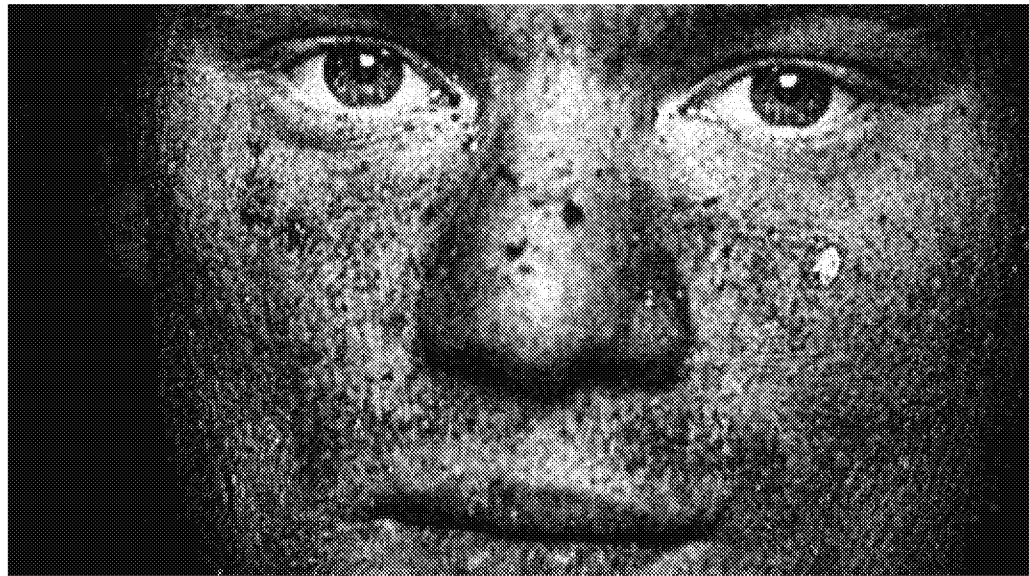
Portraits of ExxonMobil workers representing various types of jobs in the company, with an emphasis on jobs at XOM's Baytown facility. The workers hold up signs with handwritten messages on them.

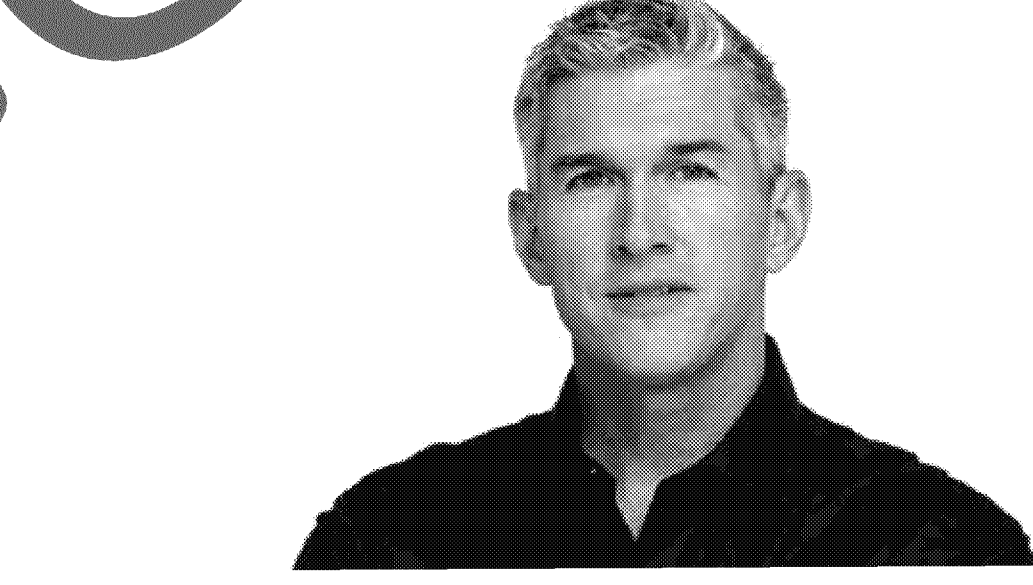
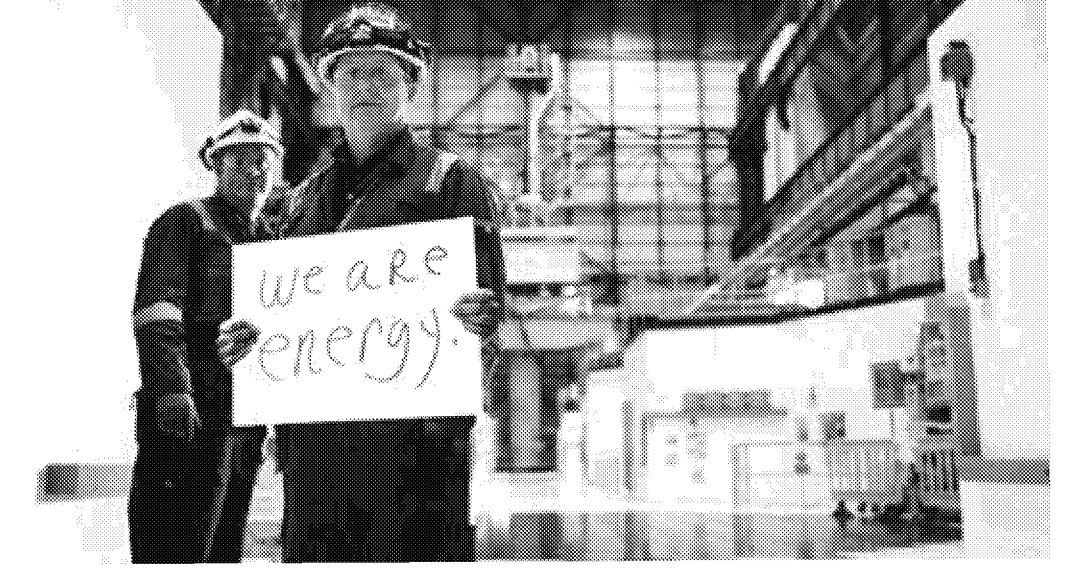
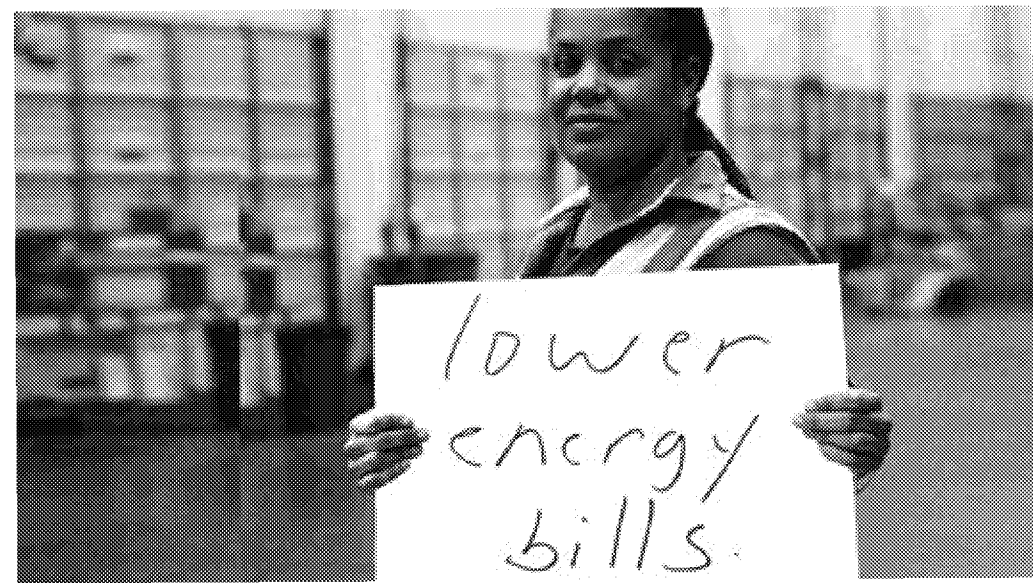
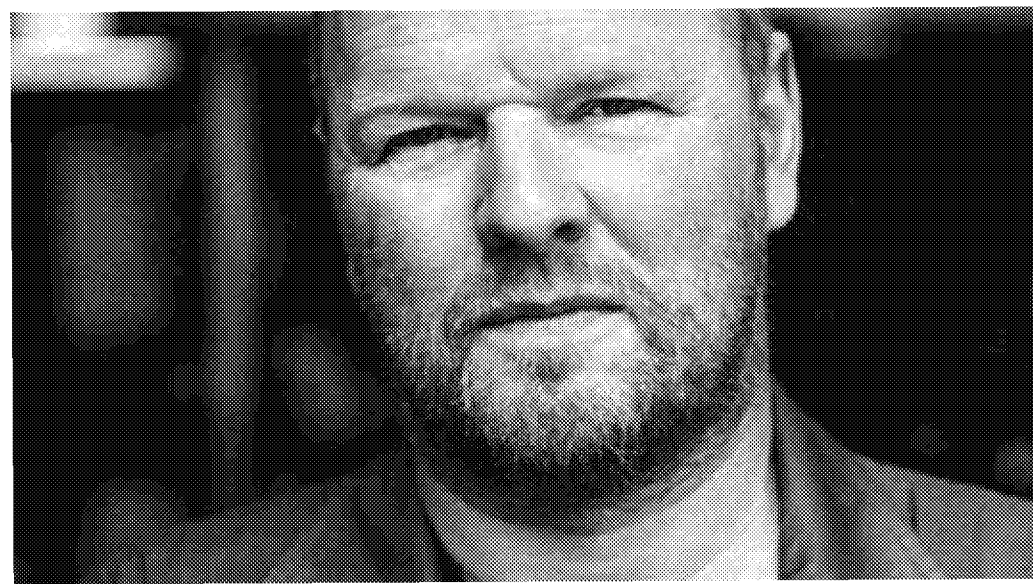
MUSIC: "The Star Spangled Banner" performed by Jimi Hendrix

- SIGN: WE ARE ENERGY
- SIGN: THE ENERGY OF FREEDOM
- SIGN: THE ENERGY OF AMERICA
- SIGN: 26% DECLINE IN OIL IMPORTS SINCE 2007
- SIGN: WE ARE ENERGY
- SIGN: THE ENERGY BEHIND A RENAISSANCE
- SIGN: AMERICA'S MANUFACTURING RENAISSANCE
- SIGN: ADDING \$20 BILLION TO THE ECONOMY ANNUALLY
- SIGN: WE ARE ENERGY
- SIGN: THE ENERGY BEHIND JOBS
- SIGN: 4.3 MILLION NEW JOBS
- SIGN: ALL ACROSS THE NATION
- SIGN: WE ARE ENERGY
- SIGN: THE ENERGY THAT SAVES \$
- SIGN: LOWER ENERGY BILLS
- SIGN: =
- SIGN: \$1200 MORE PER U.S. HOUSEHOLD
- SIGN: WE ARE ENERGY
- SIGN: THE ENERGY BEHIND INNOVATION
- SIGN: RESEARCHING ALTERNATIVE FUELS
- SIGN: LOWERING EMISSIONS
- SIGN: NOW THE LOWEST IN A GENERATION
- SIGN: ENERGY LIVES HERE
- SIGN: HERE
- SIGN: HERE
- SIGN: HERE
- LOGO: ExxonMobil



ExxonMobil





ExxonMobil
Nat Gas – Economic + Enviromental Impact
Hi Ho (formerly Whistle)

Portraits of workers representing various types of jobs directly and indirectly generated by America’s natural gas boom. A diverse cross-section of people and trades, including workers at the Baytown facility. Quick cuts between them.

MUSIC UP: "HEIGH HO"

SUPERS OVER PORTRAITS:

Trucker
Nurse
Mechanic
Engineer
Plumber
Technician
Pipe Fitter
Cook
Teacher
(etc.)

TITLE: 10,000 JOBS

RINA(VO): From 10,000 jobs to expand our Baytown facility, which have reinvigorated the community...

TITLE: 4.3 MILLION JOBS

RINA(VO): ...to similar energy industry investments that have led to 4.3 million jobs nationwide.

RINA: These are jobs that natural gas is helping produce.

TITLE: Rina Batra

ExxonMobil Engineer

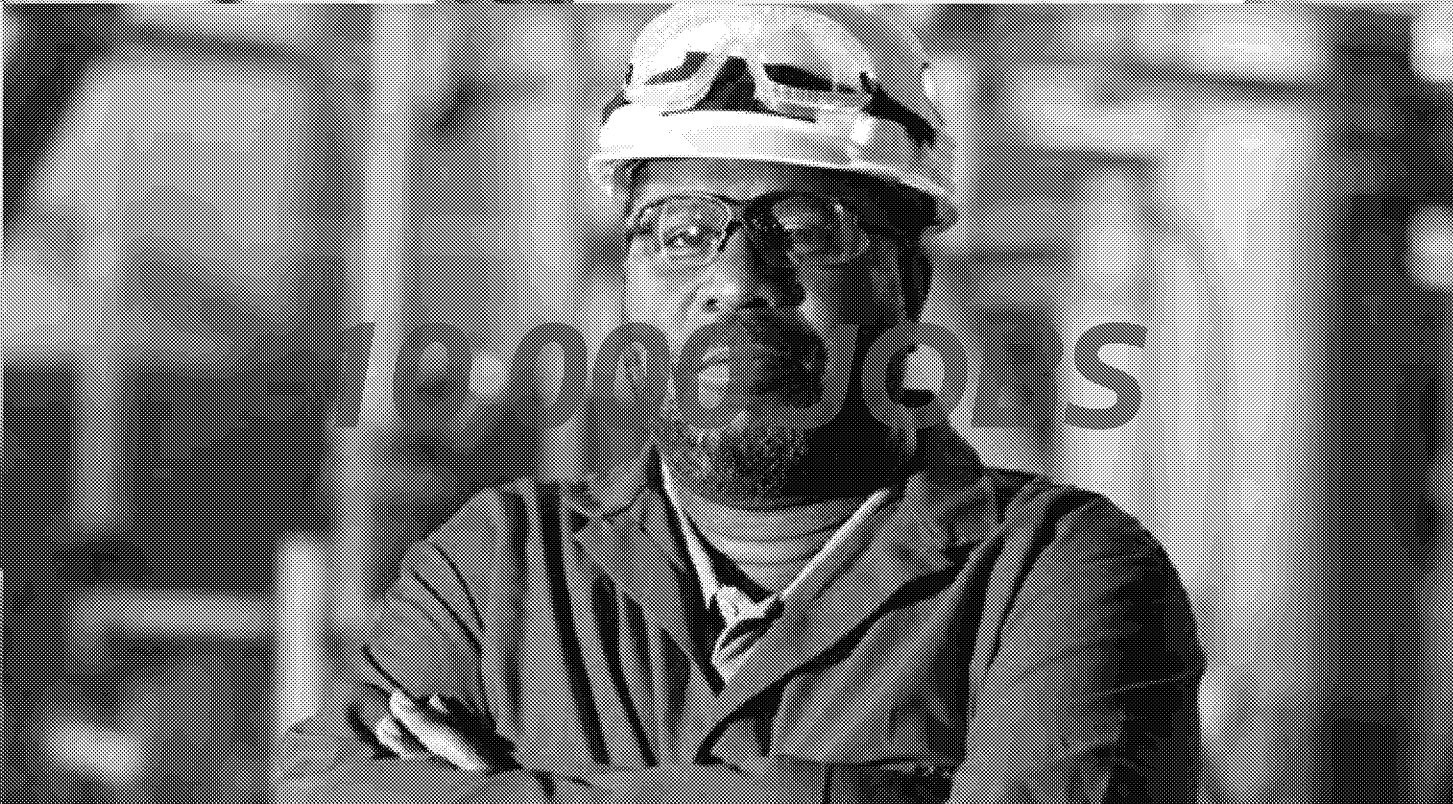
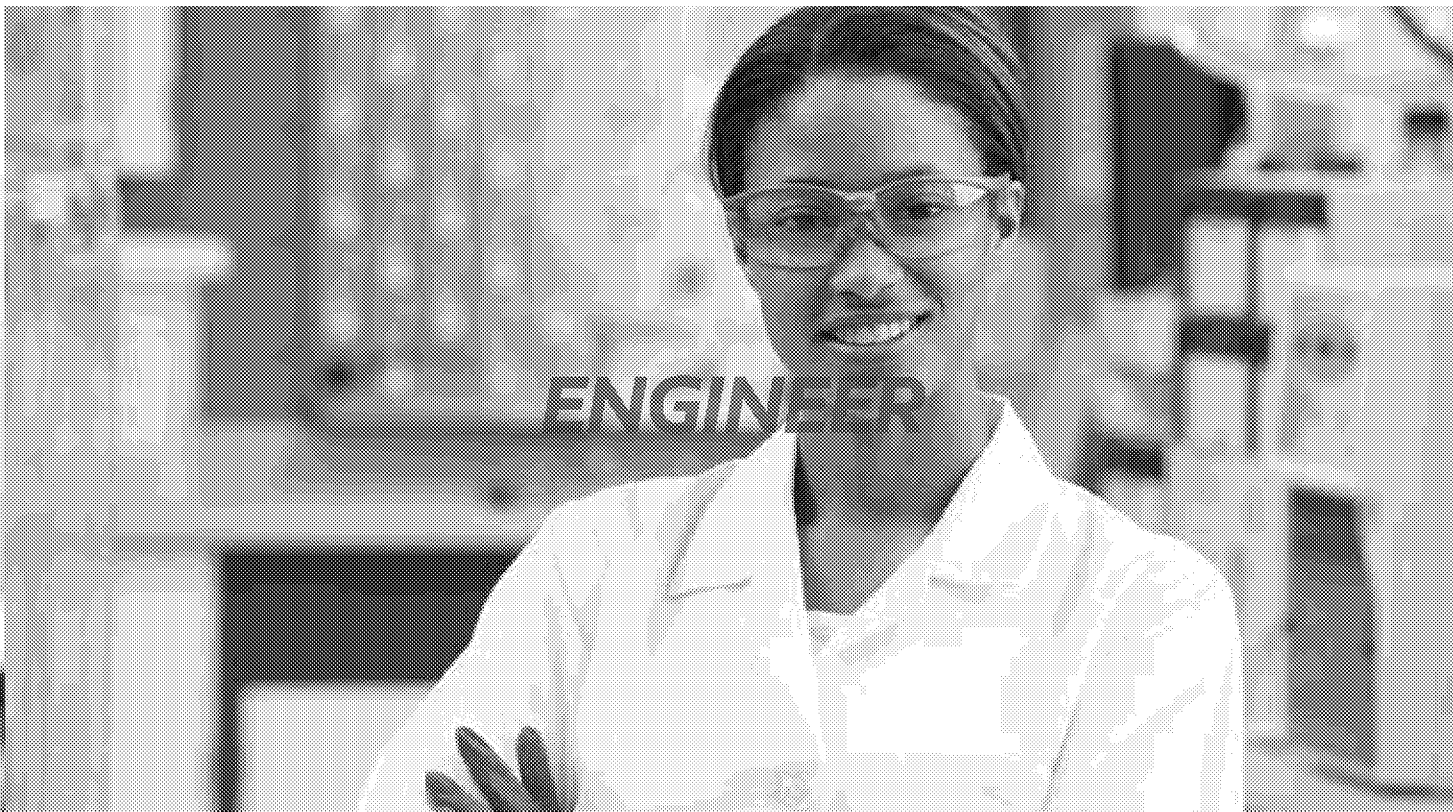
RINA: All while reducing America’s emissions.

Quick flutter cut of XOM faces transitions to logo.

RINA (VO): Energy lives here.

LOGO: ExxonMobil

HASHTAG: #SOLUTIONS



"Algae – Energy Farmer"

FULL SCRIPT COPY

We move through an ExxonMobil algae facility, but everything we see feels more akin to farming than science. We see algae ponds that resemble fields, geometric patches of different kinds of algae that resemble Midwestern farmland from above, and a grow room that looks more like a greenhouse than a lab.

MUSIC UP: "FARMER IN THE DELL"

TITLE: ALGAE

TITLE: A RENEWABLE SOURCE OF ENERGY

TITLE: EXXONMOBIL IS RESEARCHING IT

TITLE: FOR A POTENTIAL FUTURE

TITLE: WITH MORE BIOFUEL

TITLE: AND FEWER EMISSIONS

Cut to ExxonMobil's biofuels expert, Allesandro Faldi.

**TITLE: Dr. Allesandro Faldi
ExxonMobil Scientist**

FALDI: My name is Allesandro Faldi, and I like to consider myself an energy farmer.

Quick flutter cut of XOM faces transitions to logo.

FALDI (VO): Energy lives here.

LOGO: ExxonMobil

HASHTAG: #SOLUTIONS

SUBSTANTIATION

Algae: A renewable energy source

- "The Energy Department is researching one of the fuel sources of the future found here: in algae. ... These large, man-made ponds are called raceways, and **they cultivate a new crop of algae every few weeks.**"
 - U.S. Department of Energy:
 - [HYPERLINK "<http://energy.gov/eere/videos/energy-101-algae-fuel>"]
- "Algae can be cultivated on land unsuitable for other purposes with water that can't be used for food production."
 - ExxonMobil Research and Development:
 - [HYPERLINK "<http://corporate.exxonmobil.com/en/energy/research-and-development/advanced-biofuels/advanced-biofuels-overview>"]

SUBSTANTIATION

More biofuel.

- "Discovery in algae cell biology overcomes key challenge to algal biofuels – Researchers at the Scripps Institute of Oceanography made a significant breakthrough in the metabolic **engineering of algae to improve yield of lipids (the energy-storing fat molecules that can be used in biofuel production).**"
 - U.S. Department of Energy
 - [HYPERLINK "<http://www.energy.gov/eere/articles/making-algal-biofuel-production-more-efficient-less-expensive>"]
- "In addition to using non-arable land and not requiring the use of fresh water, algae could also potentially yield greater volumes of biofuels per acre than other sources."
 - ExxonMobil Research and Development:
 - [HYPERLINK "<http://corporate.exxonmobil.com/en/energy/research-and-development/advanced-biofuels/advanced-biofuels-overview>"]

SUBSTANTIATION

Fewer emissions

- "Advantages of microalgae-based biofuels are greater production yields and available land area (compared with terrestrial crops); algae's ability to

capture CO₂ as bicarbonate in ponds, reducing atmospheric CO₂ emissions..."

- Oxford Journals: BioScience
- [HYPERLINK "<http://bioscience.oxfordjournals.org/content/60/9/722.full>"]

- "...researchers from MIT, ExxonMobil, and SGI published an assessment of algal biofuels in the peer-reviewed journal Environmental Science and Technology, which concluded that if key research hurdles are overcome, **algal biofuels will have about 50% lower life cycle greenhouse emissions than petroleum-derived fuel.**"

- ExxonMobil Research and Development:
- [HYPERLINK "<http://corporate.exxonmobil.com/en/energy/research-and-development/advanced-biofuels/advanced-biofuels-overview>"]

"Heigh Ho (formerly Whistle)"

FULL SCRIPT COPY

Portraits of workers representing various types of jobs directly and indirectly generated by America's natural gas boom. A diverse cross-section of people and trades, including workers at the Baytown facility. Quick cuts between them.

MUSIC UP: "Heigh Ho"

SUPERS OVER PORTRAITS:

Trucker
Nurse
Mechanic
Engineer
Plumber
Technician
Pipe Fitter
Cook
Teacher
(etc.)

RINA (VO): From 30,000 jobs on the Gulf Coast our projects alone are creating...

RINA (VO): ...to similar energy industry investments that have created 4.3 million other jobs nationwide.

RINA: These are jobs that natural gas is helping produce.

TITLE: Rina Batra
ExxonMobil Engineer

RINA: All while reducing America's emissions.

Scenes of natural gas and power plant infrastructure, pipeline valves being turned, switches turning on, etc.

RINA (VO): And if the whole world used natural gas for electricity the way the U.S. does...

Rina delivers a final line to camera.

RINA: ...it would be like taking every house in America off the grid.

RINA (VO): That's the work of natural gas.

Quick flutter cut of XOM faces transitions to logo.

RINA (VO): Energy lives here.

LOGO: ExxonMobil

HASHTAG: #SOLUTIONS

SUBSTANTIATION

30,000 jobs on the Gulf Coast our projects alone are creating

- "ExxonMobil also is adding 1.3 million tons in annual polyethylene capacity in Mont Belvieu, about 30 miles east of Houston. As such, the Houston region likely will still add nearly 20,000 jobs this year. ...ExxonMobil Chemical, for instance, will have 10,000 peak construction jobs during its expansion..."
 - Houston Chronicle:
 - [HYPERLINK
"http://www.houstonchronicle.com/business/energy/article/Natural-gas-is-cheap-too-so-Gulf-Coast-chemical-6483958.php"]

SUBSTANTIATION

Energy industry investments that have created 4.3 million other jobs nationwide

- "Combining the incremental economic impacts across the value chain and the residential and industrial impacts spurred on by lower energy prices, our analysis finds that the energy renaissance added nearly \$550 billion in GDP to the U.S. economy in 2015 and 4.3 million jobs." (Page 7)

Table 2: U.S. Aggregate Economic Impacts Due to the Energy Renaissance, 2015

	OIL AND GAS VALUE CHAIN IMPACT	LOWER ENERGY PRICE IMPACT	TOTAL IMPACT
GDP	\$319.5 BILLION	\$228.2 BILLION	\$547.7 BILLION
Annual Employment	1.9 MILLION JOBS	2.4 MILLION JOBS	4.3 MILLION JOBS

- U.S. Chamber of Commerce: [HYPERLINK "http://www.energyxxi.org/sites/default/themes/bricktheme/pdfs/er-fullreport-16.pdf"] (Page 8)

SUBSTANTIATION

All while reducing America's emissions

- "Many nations are already reducing their level of CO₂ emissions... By 2040, the carbon-intensity of the global economy is likely to fall by half, with substantial contributions from OECD... nations."
 - ExxonMobil 2016 Outlook for energy
 - [HYPERLINK "http://corporate.exxonmobil.com/en/energy/energy-outlook/lowering-emissions/emissions"]
- "Many of the changes in energy-related CO₂ emissions in recent history have occurred in the electric power sector because of the decreased use of coal and the increased use of natural gas for electricity generation."
 - U.S. Energy Information Administration
 - [HYPERLINK "https://www.eia.gov/todayinenergy/detail.php?id=26152"]

SUBSTANTIATION

And if the whole world used natural gas for electricity the way the U.S. does it would be like taking every house in America off the grid

- "Both the U.S. and Germany have seen a drop in emissions. Based on government data, by 2012, **the CO₂ intensity of delivered electricity in the U.S. was lower than that of Germany because the U.S. saw an improvement about three and a half times that of Germany between 2005 and 2012.** While these transitions were occurring, electricity costs have risen much faster in Germany than the U.S. over the past decade."
 - ExxonMobil 2016 Outlook for Energy:
 - [HYPERLINK "http://corporate.exxonmobil.com/en/energy/energy-outlook/meeting-growing-demand/demand"]

America's Energy

FULL SCRIPT COPY

Portraits of ExxonMobil workers representing various types of jobs in the company, with an emphasis on jobs at XOM's Baytown facility. The workers hold up signs with handwritten messages on them. Each line of script below is a different sign.

Music: "The Star Spangled Banner" performed by Jimi Hendrix

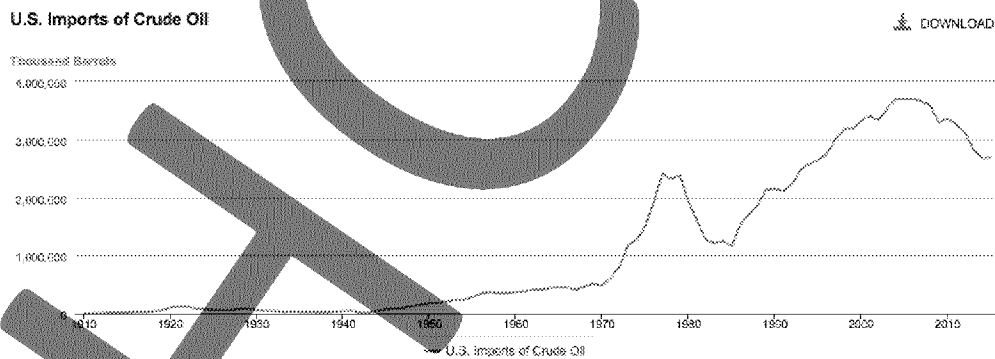
We are energy
The energy of freedom
The energy of America
26% decline
In oil imports
Since 2007
We are energy
The energy behind a renaissance
America's Manufacturing Renaissance
Adding \$20 billion to the economy annually
We are energy
The energy behind growth
4.3 million new jobs
All across the nation
We are energy
The energy that saves \$
Lower energy costs
Lower energy bills
=
Lower costs for other goods and services
=
More disposable income
\$1200 more per U.S. household
We are energy
The energy behind the economy
The energy behind America
Energy lives here
Here
Here
Here
LOGO: ExxonMobil
#Solutions

SUBSTANTIATION

26% Decline in Oil Imports since 2007

- According to the U.S. Energy Information Administration (EIA), oil imports dropped from 3,661,404 barrels in 2007 to 2,687,409 barrels in 2015.

Decade	Year-0	Year-1	Year-2	Year-3	Year-4	Year-5	Year-6	Year-7	Year-8	Year-9
1910's	557	1,710	7,383	17,809	16,913	18,139	30,570	30,127	37,736	52,822
1920's	106,175	125,364	127,308	82,815	77,775	61,824	68,382	58,449	79,767	78,933
1930's	62,129	47,250	44,682	31,893	35,458	32,239	32,327	27,484	26,412	33,095
1940's	42,662	50,606	12,297	13,833	44,815	74,337	86,066	97,532	129,093	153,686
1950's	177,714	179,073	209,591	236,455	239,479	285,421	341,833	373,255	348,007	352,344
1960's	371,575	381,548	411,039	412,660	438,643	452,040	447,120	411,649	472,323	514,314
1970's	483,293	613,417	811,135	1,183,996	1,269,155	1,498,181	1,935,012	2,414,327	2,319,826	2,379,541
1980's	1,926,162	1,604,703	1,273,214	1,215,225	1,253,949	1,168,297	1,524,978	1,705,922	1,869,005	2,132,761
1990's	2,151,387	2,110,532	2,226,341	2,477,230	2,578,072	2,638,810	2,747,838	3,002,299	3,177,584	3,186,663
2000's	3,319,816	3,404,694	3,336,175	3,527,696	3,692,063	3,695,971	3,693,061	3,661,404	3,580,694	3,289,675
2010's	3,362,856	3,261,422	3,120,755	2,821,480	2,680,626	2,687,409				



- [HYPERLINK
["https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=p&s=mcrimus1&f=a"](https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=p&s=mcrimus1&f=a)]

SUBSTANTIATION

Adding \$20billion to the economy annually

- "We calculate that the manufacturing sector added approximately \$20 billion on an annual basis due to lower energy prices."
 - U.S. Chamber of Commerce: [HYPERLINK "http://www.energyxxi.org/sites/default/themes/bricktheme/pdfs/er-fullreport-16.pdf"] (Page 33)

SUBSTANTIATION

4.3 million new jobs

- "Combining the incremental economic impacts across the value chain and the residential and industrial impacts spurred on by lower energy prices, our analysis finds that **the energy renaissance added nearly \$550 billion in GDP to the U.S. economy in 2015 and 4.3 million jobs.**" (Page 7)

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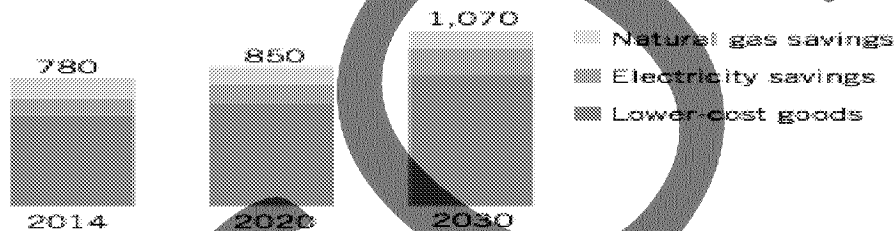
SUBSTANTIATION

The energy that saves money. Lower energy costs. Lower energy bills

- Consumers across America are major beneficiaries of *unconventionals*, extending well beyond just the regions where significant production or conversion of gas and oil is occurring. BCG'S "Made in America, Again" series estimated that the average U.S. residential household has enjoyed nearly \$800 in **annual savings from the availability of low-priced unconventional natural gas**. (See Figure 10.)

Figure 10: Annual household savings from low-cost energy

(2014 \$)



Source: BCG and HBS Competitive Impacts Model; please refer to Appendix I for detailed methodology.

- - [HYPERLINK "<http://www.hbs.edu/competitiveness/Documents/america-unconventional-energy-opportunity.pdf>"]

SUBSTANTIATION

Lower costs for other goods and services

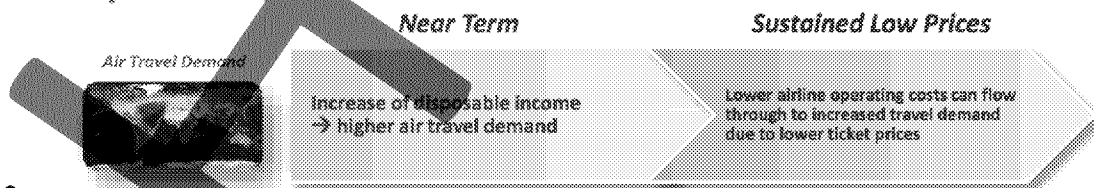
- "The consumer component in the drop in oil prices has gotten a lot of attention, as falling prices at the pump not only provide more disposable income, but also have the potential to reduce the input costs of many goods and services."
 - Drum Hill Capital:
[HYPERLINK "<http://www.drumhill.com/wp-content/uploads/2015/09/American-Energy-Renaissance-Reboot.pdf>"]
(Page 3)

- "Our analysis shows the U.S. households would be paying 31% more for their electricity today and 43% more for motor fuels if the energy renaissance had not occurred. Those savings hit the bottom line for most households, allowing consumers the choice to spend that additional money on other goods and services."
 - U.S. Chamber of Commerce: [[HYPERLINK](http://www.energyxxi.org/sites/default/themes/bricktheme/pdfs/er-fullreport-16.pdf) "http://www.energyxxi.org/sites/default/themes/bricktheme/pdfs/er-fullreport-16.pdf"] (Page 2)

SUBSTANTIATION

More disposable income

- "One method to consistently decrease these prices could provide consumers with up to \$5.8 billion in additional disposable income per year... according to research by ICF International."
 - Washington Post: [[HYPERLINK](http://www.washingtonpost.com/sf/brand-connect/wp/enterprise/opening-additional-markets-for-u-s-crude-oil-will-benefit-consumers/) "http://www.washingtonpost.com/sf/brand-connect/wp/enterprise/opening-additional-markets-for-u-s-crude-oil-will-benefit-consumers/"]
- 2015 ICF International report: "ICF sees a number of potential impacts on aviation if low oil prices are sustained [including increase of disposable income]" (see figure below)
ICF sees a number of potential impacts on Aviation if low oil prices are sustained



- "Regions... are likely to see increases in disposable income per household, which are estimated to be higher across all regions..."
 - November 12, 2015 -- [[HYPERLINK](https://nextgenamerica.org/news-reports/our-clean-energy-future/) "https://nextgenamerica.org/news-reports/our-clean-energy-future/"]

SUBSTANTIATION

\$1,200 more per U.S. household

- "Unconventional oil and gas activity increased disposable income by an average cost of **\$1,200 per U.S. household** in 2012 as savings from lower energy costs were passed along to consumers in the form of lower energy bills, as well as lower costs for all other goods and services."
 - <http://news.ihsmarkit.com/press-release/economics/us-unconventional-oil-and-gas-revolution-increase-disposable-income-more-270>

Message

From: Fowler, Brandon [REDACTED]
Sent: 11/18/2016 5:55:45 AM
To: Walton, Gantt H [REDACTED]; Rodgers, Abigail L [REDACTED]; Snow, Angela K [REDACTED]
Subject: updated animatics and notes
Attachments: XOM-Creative 110416_CCS Dragnet.pdf

Hi. Per our conversation earlier, I've attached two links to several animatics.

The first link contains updates to the previous round, with notes below. The second link contains previous versions of "whistle" while we continue to work (pun intended) on those versions and the animatic for "star spangled banner."

As discussed, we are going back to the IP owners of Pac Man to plead our case re: ccs, and in the meantime will begin concepting new ideas for ccs against the brief of a visual metaphor that demonstrates the tech and solution, while leveraging a pop culture touchstone in the creative. That said we've attached the previous "dragnet" concept should you want to float that for further consideration.

Link 1 (new animatics)

<https://www.filecargoc.ca/message/73I57G9Qm5OFefJAXBiVGz>

Simply Put

- Across all three Simply Put animatics
- Adjusted the on-screen titles to make them easier to read.
- We did not include the version with see and say on the backend of each spot – the voice over was wall-to-wall and thus we recommend a simpler approach, but can make this change quickly, if necessary.

1. Simply Put - Algae

2. Simply Put – CCS

- Edited to read "CO2" instead of "carbon" and to now read "up to 90%".

3. Simply Put - Nat Gas

4. Energy Farmer

- Added in visual of guy in boots to introduce farming earlier in the spot.
- Incorporated Alessandro into the lab setting.
- Adjusted the cadence of the art cards so the thought reads easier.
- Worked with the music so it's easier to recognize the melody earlier in the spot.

Algae Driving

Using a replacement line to replace "figured out" to make the solution more future-focused.

Four different music tracks to consider. Recommend using Rascall Flatts for testing purposes.

5. Algae – Drive My Car (Rascal Flatts)

6. Algae – Drive My Car (Eagles Life in the Fast Lane – instrumental)

7. Algae – Drive My Car (Woodie Guthrie)

8. Algae – Drive My Car (Steppenwolf Magic Carpet)

Gearheads

- We struggled to include a logical visual reference to algae in the spot, it looks like he's driving into a petri dish or some abstract drawing, recommend we keep it focused on the driving aspect and pay off algae with the bumper sticker.
- Called out "in the future..."

9. Gearheads – V1 (Original)

10. Gearheads – V2 ("How Awesome is That")

Link 2 (previous animatics)

<https://www.filecargo.ca/message/I9JkuiDHphuicuI6t3hH4o>

- 1. Whistle v1 (economic impact + U.S. emissions reduction)**
- 2. Whistle v2 (economic impact + potential global emissions reduction)**

Message

From: Powers, Marti D SHLOIL-ERUP [/O=SHELL/OU=EXTERNAL (FYDIBOHF25SPDLT)/CN=RECIPIENTS/CN=E4E4F0DF961949A48F45B667806FD5E5]
Sent: 10/25/2020 4:09:48 PM
To: O'Connor, Helen C SHLOIL-ERUP/U [REDACTED]
Subject: Re: FYI and Q r.e. GW speaking at Reuters Events

Cool, thanks for connecting all the internal dots.

Marti

Sent from my iPhone

On Oct 25, 2020, at 2:32 PM, O'Connor, Helen C SHLOIL-ERUP/U <[REDACTED]> wrote:

Thx – I've setup a call for Wednesday for all of us to meet and chat. Tom's included on that, as are Anna, Melanie, Audrey and Lauren.

H

Helen O'Connor
Manager, US Stakeholder Relations, External Relations

Shell Oil Company | 150 N. Dairy Ashford, Houston, TX, 77079
(o): [REDACTED] (c): [REDACTED]

From: Powers, Marti D SHLOIL-ERUP <[REDACTED]>
Sent: Saturday, October 24, 2020 9:17 AM
To: O'Connor, Helen C SHLOIL-ERUP/U <[REDACTED]>
Subject: RE: FYI and Q r.e. GW speaking at Reuters Events

I guess maybe connect with Tom to run a bit of pro and con because mixing the two, as you point out, would not be a good thing.

Regards/Saludos,

Marti Powers, MBA
External Relations Manager, USA & Global Shales
Shell Oil Company

Tel: [REDACTED]
Cell: [REDACTED]
Email: [REDACTED]

From: O'Connor, Helen C SHLOIL-ERUP/U <[REDACTED]>
Sent: Friday, October 23, 2020 6:38 PM

To: Powers, Marti D SHLOIL-ERUP <[REDACTED]>
Subject: RE: FYI and Q r.e. GW speaking at Reuters Events

Sorry, didn't mean to ignore this ... and thanks for forwarding the email.

I've been on the periphery of the Shell NZE Ambition U.S. campaign so not taken too much of it in, but I was originally going to ask if you had an opinion on Gretchen promoting the upcoming U.S. NZE 2050 scenarios sketch both in the Reuters event, but also in LinkedIn once it's released on Dec 2nd.

However, the brand campaign focused on Shell's climate ambition is a different topic to the US NZE 2050 thought-leadership material and as you say, she's due to release a LinkedIn post aligned with the brand campaign.

Seems the timing for both mean we might want to at least determine whether we want her LinkedIn post to focus on Shell's global climate ambition or US NZE thought-leadership from the SX group? I don't think I want to link the two in the same post or article because one impacts Shell's business portfolio and one is a scenario and so nothing to do with our business plans, but if we're not careful we could easily confuse external stakeholders if we start taking about both together.

I'll reach out to the campaign team and begin to align with them and let them know how I bumped into an update of their plans.

Many thanks,

Helen

Helen O'Connor
Manager, US Stakeholder Relations, External Relations

Shell Oil Company | 150 N. Dairy Ashford, Houston, TX., 77079
(o): [REDACTED] (c): [REDACTED]

From: Powers, Marti D SHLOIL-ERUP <[REDACTED]>
Sent: Friday, October 23, 2020 11:17 AM
To: O'Connor, Helen C SHLOIL-ERUP/U <[REDACTED]>
Subject: RE: FYI and Q r.e. GW speaking at Reuters Events

Tom already has on the calendar a USGW LinkedIn long form post and Melanie is holding some brand money to amplify. Brand has a Net Zero campaign almost ready to support the NZE ambition. It's being modified for US usage. Lauren has taken this on as a special project – her email is attached. She'd be happy to walk anyone through this.

So lots for USGW to 'tease up' – what did you have in mind?

Regards/Saludos,

Marti Powers, MBA
External Relations Manager, USA & Global Shales
Shell Oil Company

Tel: [REDACTED]
Cell: [REDACTED]
Email: [REDACTED]

From: O'Connor, Helen C SHLOIL-ERUP/U <[REDACTED]>
Sent: Friday, October 23, 2020 11:04 AM
To: Powers, Marti D SHLOIL-ERUP <[REDACTED]>
Subject: FYI and Q r.e. GW speaking at Reuters Events

See below as FYI and quick Q:

I'm starting to work (with Marni) the Comms plan for the U.S. NZE 2050 scenarios sketch that will be released on 2nd Dec.

Given GW is speaking at a Reuters event, SX wonder if we'd like to put out a teaser for her to use at this event.

Separately I'd wondered if we'd want GW to post a LinkedIn article related to the U.S. NZE sketch? If so I'll add that to my list of comms materials requests.

Thought I'd run all this by you before I answer Jess.

Thank you,

H

Helen O'Connor
Manager, US Stakeholder Relations, External Relations

Shell Oil Company | 150 N. Dairy Ashford, Houston, TX., 77079
(o): +[REDACTED] (c): [REDACTED]

From: Whysall, Jessica SI-SX/B <[REDACTED]>
Sent: Friday, October 23, 2020 10:39 AM
To: Sinclair, Darci A SI-SX/B <[REDACTED]>; O'Connor, Helen C SHLOIL-ERUP/U <[REDACTED]>
Subject: FW: Invitation - Meeting on Energy Transition with your team and Reuters Events

Hello

See the email below

Could this be an opportunity to tease the fact that we are working on the US Sketch as part of Gretchen's speech?

Should we develop some messaging for this?

Jess

From: Rolt, Owen (Reuters) <[REDACTED]>
Sent: Friday, October 23, 2020 3:01 PM
To: Whysall, Jessica SI-SX/B <[REDACTED]>
Subject: Invitation - Meeting on Energy Transition with your team and Reuters Events

Think Secure. This email is from an external source.

Hi Jessica,

I hope you're well. I wanted to drop you a quick note, as Gretchen Watkin, President of Shell Oil Company & Paul Boger, VP Hydrogen, Shell, will be speaking next month as part of Reuters Events: Energy Transition 2020.

The meeting unites CEO's and senior delegations from the likes of bp, Shell, Equinor, ENGIE, EDF, Wood Mackenzie, BlackRock, Deloitte, Uniper and more, to tackle the big questions around decarbonisation, sustainability and net-zero head on!

Registration for the live stream is free:

- Sign up for the North America edition (19 – 20 November) here: <https://bit.ly/3lZFgH4>
- And the Europe edition (23 – 24 November) here: <https://bit.ly/3o5w3Pc>

Despite the virtual setting, we're still able to offer industry leading speakers, full interactivity, breakouts and networking – it would be great to see you there! There's also more information on the event websites – just google Reuters Events Energy Transition!

Any questions, let me know.

Best,

Owen Rolt
Head of Energy Transition

Reuters Events

Telephone: [REDACTED]
[REDACTED]

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Message

From: Sinclair, Darci A SI-SX/B [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4C610C45499A45DA87A050A38996D238-USDSI2]
Sent: 7/9/2019 7:08:57 AM
To: Smith, Curtis A SHLOIL-ERM/A [REDACTED]
Subject: RE: Controversy at PPT in the USA

Lmao... oh boy do we need more beach time

Thank you

From: Smith, Curtis A SHLOIL-ERM/A
Sent: Tuesday, July 9, 2019 12:59 PM
To: Sinclair, Darci A SI-SX/B [REDACTED]
Subject: RE: Controversy at PPT in the USA

You bet. Here we go. The clean up on isle 5 because of this shit show continues.

Powering Progress Together aims to foster innovation and engagement through conversation from leaders across government, NGOs, research, business, and academia. The event is meant to facilitate constructive dialogue towards solutions needed to address the energy and climate challenges and seeks to generate two-way conversation and action to help accelerate a net-zero world.

The panel of which Mr. Kalmus was invited to participate differed from his presentation, which did not meet the objective of the session.

Shell has spoken on the record numerous times and in great detail addressing the very questions highlighted in his presentation. Subsequently, we offered to connect with Mr. Kalmus and meet with him in the future.

From: Sinclair, Darci A SI-SX/B
Sent: Tuesday, July 9, 2019 6:57 AM
To: Smith, Curtis A SHLOIL-ERM/A [REDACTED]
Subject: RE: Controversy at PPT in the USA

Cool - thank you!

From: Smith, Curtis A SHLOIL-ERM/A
Sent: Tuesday, July 9, 2019 12:51 PM
To: Sinclair, Darci A SI-SX/B [REDACTED]
Cc: Reilly, Jennifer LB SHLOIL-ERC [REDACTED]
Subject: Re: Controversy at PPT in the USA

I do. Stand by.

Sent from my iPhone

On Jul 9, 2019, at 6:44 AM, Sinclair, Darci A SI-SX/B [REDACTED] wrote:

Hi Jen, Curtis – is there a holding statement that we can share with the scenarios LT in case they are asked about this during external engagements?

From: Hone, David C SI-SX/B
Sent: Tuesday, July 9, 2019 12:39 PM
To: Sinclair, Darci A SI-SX/B <[REDACTED]>
Subject: Re: Controversy at PPT in the USA

Yes, would be good to know as I get challenged on stuff like this via social media. Will catch up when I am in Den Haag for the EC rehearsal meeting on the 23rd.

Sent from my iPhone

On 9 Jul 2019, at 12:34, Sinclair, Darci A SI-SX/B <[REDACTED]> wrote:

Please let's not comment or speculate via email. I can share what I know (from Jen) if there is interest F2F or at an LT meeting.

From: Hone, David C SI-SX/B
Sent: Tuesday, July 9, 2019 12:31 PM
To: Bentham, Jeremy B SI-SX/B <[REDACTED]> Thomas, Wim L SI-SX/B
[REDACTED]; Fries, Steven M SI-SX/B <[REDACTED]>; Sinclair,
Darci A SI-SX/B <[REDACTED]>; Tatarenko, Oleksiy SI-SX/B
<[REDACTED]>; Khong, Cho O SI-SX/B <[REDACTED]>
Cc: Haigh, Martin D SI-SX/B <[REDACTED]>; Reilly, Jennifer LB SHLOIL-ERC
[REDACTED]
Subject: Controversy at PPT in the USA

This may be of interest. Not a very flattering account of what went on, but I do not know what the actual sequence of events was.

Also looks like the organisers didn't do their due diligence before reaching out to a climate scientist. I am not aware that they asked anyone that might actually know!

<https://theintercept.com/2019/07/05/shell-conference-climate-change/>

Sent from my iPhone

Message

From: Tamez, Patricia V SHLOIL-GRA [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BD6D9A3D7CF24238A8F94B217376B538-USPTAH]
Sent: 1/31/2020 2:43:56 PM
To: Johnson, Krista SHLOIL-GRA [REDACTED]; Whitman, Kristin P SHLOIL-GRA [REDACTED]; Salmon, Scott R SHLOIL-GRA [REDACTED]; Funk, Marnie SHLOIL-GRA [REDACTED]
CC: Colbert, Niki G SHLOIL-GRP [REDACTED]
Subject: CCT Slides... Patricia's thoughts
Attachments: Let's talk energy transitions_the essentials .pptx; Energy Transitions and Shell_CCT Slides.pptx

For discussion on Monday...

I went through a variety of slidedecks from the New Energies and Energy Transition sharepoint sites and compiled what I believe to be a good way to frame the bulk of our discussions next week. First, I think we should utilize the Let's talk energy transitions deck as the basis for a pre-read since they are approved messages and align with our goals for Feb. 11th.

The second attachment is a deck that has hill worthy slides. I know we're not generally pro-slides in our group, but here are some reasons I think they'd be worthwhile, assuming someone doesn't go slide by slide on a 30 minute monologue. First, they are helpful to organize thoughts, especially for people who are new to advocacy. Secondly, many of the offices we will meet with are just learning our narrative, so a more comprehensive deck would be a good starting point.

Have a good weekend,

PT

Patricia Tamez
Government Relations
Shell Oil Company
1050 K Street, NW, Suite 700
Washington, DC 20001
ph: [REDACTED]



Let's talk energy transitions: The essentials

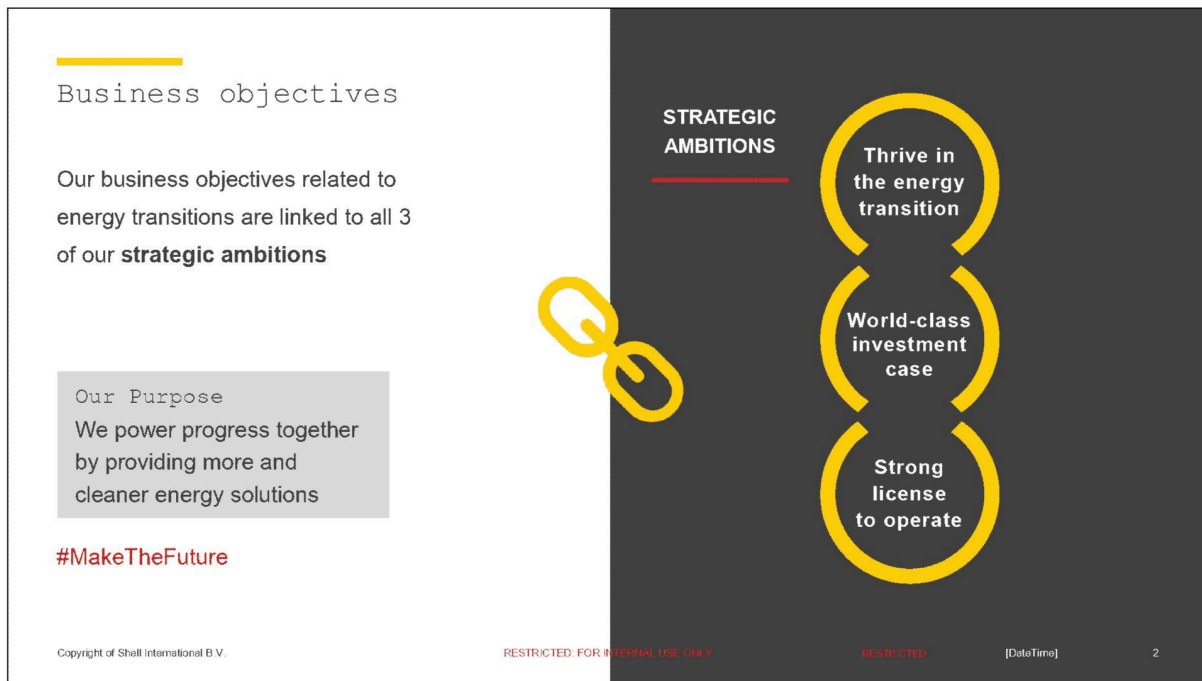
As you should be aware, we are seeing a rising number of legal cases including active litigation specifically against Shell and other oil companies related to climate change and its impacts.

Discipline, consistency and heightened awareness of the sensitivities in our communications regarding energy transitions is therefore paramount, as what we are saying has the potential to either expose or insulate Shell to/from the legitimacy of further claims—from greenwashing to misleading investors.

This brief overview is intended to run through the 'keys' to our key messaging around energy transition, as well as a checklist of the absolute essentials when repurposing approved messaging on key topics.

So PLEASE NOTE it's not the key messages themselves, but rather, an overview of our objectives for communicating on energy transitions, and some of the most critical nuances to our messaging.

When in doubt, please don't hesitate to ask for further clarification!



Our business objectives related to energy transitions directly link to all 3 of our strategic ambitions. They are interdependent.

Our strategy is founded on our outlook for the energy sector as well as the chance to grasp the opportunities arising from the substantial changes in the world.

A growing global population and a rise in living standards are likely to continue to drive energy demand, including oil and gas, for years to come.

At the same time, new energies, increasingly cost-competitive emerging technologies, economic diversification objectives, and the need to tackle environmental concerns—including climate change and air quality—means there is a transition under way to a lower-carbon, multi-source energy system with increasing customer choice. We recognise that the pace and specific path forward is uncertain, and so requires agile decision making.

Against this backdrop, we have three strategic ambitions guiding us in the pursuit of our purpose:

1. World class investment case. Ultimately this means being the world's most valuable energy company, both today and in the future, and developing a resilient portfolio in line with our purpose of providing more and cleaner energy to society.

2. To thrive in, and through, society's transition towards a low-carbon energy system.

Even as Shell continues to provide the oil and gas the world needs, and works to reduce our own emissions in the process, we aim to reduce emissions of greenhouse gases per unit of energy our customers use. We will seek to do so by transforming our product mix over time—our Net Carbon Footprint ambition.

We will seek opportunities through transition in ways that make commercial sense for Shell, in response to changing consumer demand, and in step with society's progress towards the aims of the Paris Agreement.

We cannot fall behind, and no business can survive if it moves ahead of what its customers want and are willing to pay.

3. And by providing the lower-carbon energy the world needs and wants, Shell can also make progress towards our third strategic ambition of maintaining a strong societal licence to operate.

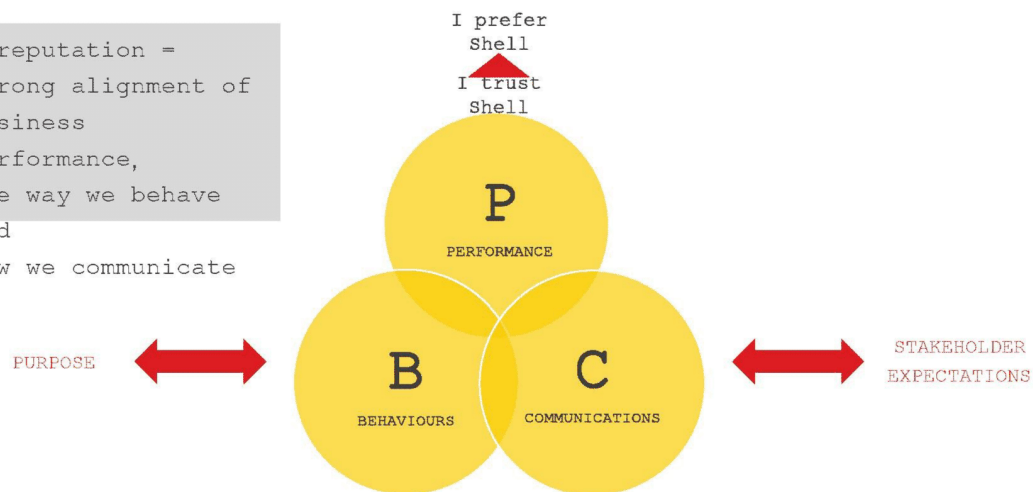
In part, this means selling products people feel are relevant to them. This requires Shell to keep a firm focus on the customer and their needs.

It also means that alongside our new energies aspirations, we must also continue to make the case for our oil, gas and chemical products, helping to reveal how essential they are to modern life.

Not a defence of oil and gas, per se – but rather, an explanation of the many uses for (and benefits of) oil, gas and related products in a changing energy system... alongside, and in coordination with ever more new energies, new technologies and complimentary approaches such as carbon capture, utilization and storage (CCUS), as well as nature-based solutions (NBS) like reforestation.

Reputation is a valuable intangible asset

+ reputation =
strong alignment of
business
performance,
the way we behave
and
how we communicate



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To achieve our business objectives, reputation is a valuable intangible asset

The company cannot achieve its strategic goals without first having the right reputation. Positive reputation can be achieved when we align three things: our business performance, the way we behave as an organisation and how we communicate.

The greatest impact to reputation can be achieved when all three intersect and align with our company purpose, and with stakeholder expectations. If we get this right, we can build trust with the right stakeholders so they will choose Shell more often and support our goals. With a better reputation comes better opportunities and better business outcomes.

So, what do we want to be known for? We want to be recognised as the energy company that lives by its purpose (e.g. “we power progress together by providing more and cleaner energy solutions”) and as a company that is:

- a well-led, strong and resilient world class investment;
- thriving through the energy transition and beating competitors;
- a responsible company with a strong societal licence to operate.

Each of these reputation objectives support elements of our 3 strategic ambitions. Achieving them will help Shell win by enabling the company to sustain current businesses and grow new ones.

In aligning these crucial elements, we will build trust, encourage brand preference and secure greater support from our stakeholders.

Communications objectives

In a nutshell...

Our communications on energy transition should **seek to help enable** the delivery of **our purpose and strategy**

How?

- Optimistic tone, realistic content
 - Consistent, constructive, collaborative
 - Thought leader, trusted partner
 - Reinforce Shell global policy & advocacy positions
- + Fair, accurate, balanced and complete

"If I speak as though the way I'm thinking is the only reality, it doesn't leave much room for collaboration."
-Adam Kahane

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Our communications carry the most weight when they align with, support, and showcase our business performance and behaviours. Therefore our overarching communication objective when speaking to energy transitions is quite straightforward...

Simply put, our communications on energy transition should seek to help enable the delivery of Shell's purpose and strategy... from core upstream to emerging opportunities.

It will require success in explaining our views on how transitions could evolve (including the role of oil and gas and the long term need for oil and gas investments) and how we can thrive as a company and business through transition.

It will require a careful and continuous balancing act, that conveys credible optimism while setting realistic expectations of how fast both Shell and the energy system can change.

It will involve working constructively with others to demonstrate we are not only advocating a sustainable future, but actively participating and working to 'build' it as well.

We must also recognize true thought leadership means successful thought partnership. Rather than debate (I'm right, you're wrong), we should encourage constructive dialogue towards shared aims.

Therefore, central to our approach is the need to listen and learn as much as to talk and educate. This involves putting the societal challenge of transition itself, rather than Shell, at the heart of dialogue and engagement.

And whenever possible, our communications should help to reinforce Shell global policy & advocacy positions:

We support the goals of the Paris Agreement on climate change

We support government-led carbon pricing mechanisms to drive low carbon investment and consumption

We support policy frameworks to enable innovation in low-carbon technologies

We support the role of natural gas in helping society make the transition to lower-carbon energy □ PLEASE NOTE: The degree of emphasis and approach to advocacy on each of the above varies by country.

Finally, we must ensure Shell provides fair, balanced, complete and accurate content/messages to avoid litigation risks.

Guiding principles: Communications and engagement should focus on solutions that will be required during the energy transition and ensure our constructive intent is clear. We must be clear in our support for the Paris Agreement and climate goals. We must demonstrate what we're already doing: where and how our products, services, technologies and advocacy can contribute to a lower carbon future (gas, oil products, CCUS, carbon pricing policies), and our ambition to find compelling business models in new energies as well. We must constructively give our 'realistic' view of the changes required across the energy system and the policies, technologies and timelines that we think will be required.

5 'keys' to our energy transition key messages



- ▶ TRANSITIONS ARE NECESSARY
- ▶ TRANSITION BRINGS OPPORTUNITIES
- ▶ ROLES FOR OIL, GAS & NEW ENERGIES
- ▶ MUST TRANSFORM END USE
- ▶ TOGETHER, WE CAN

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No matter where you sit within Shell, there are some important things to know about Shell's key messages on energy transition

We believe that energy transitions are both desirable, and necessary, in order for society to meet its decarbonisation and development [or environmental and economic] objectives.

We believe that energy transitions bring opportunities—to individuals, to countries, and to companies like Shell.

We see continuing, changing roles for oil and gas through transition, alongside and in coordination with new energies, new technologies, and complimentary approaches such as carbon capture and use or storage (CCUS), and nature-based solutions (NBS).

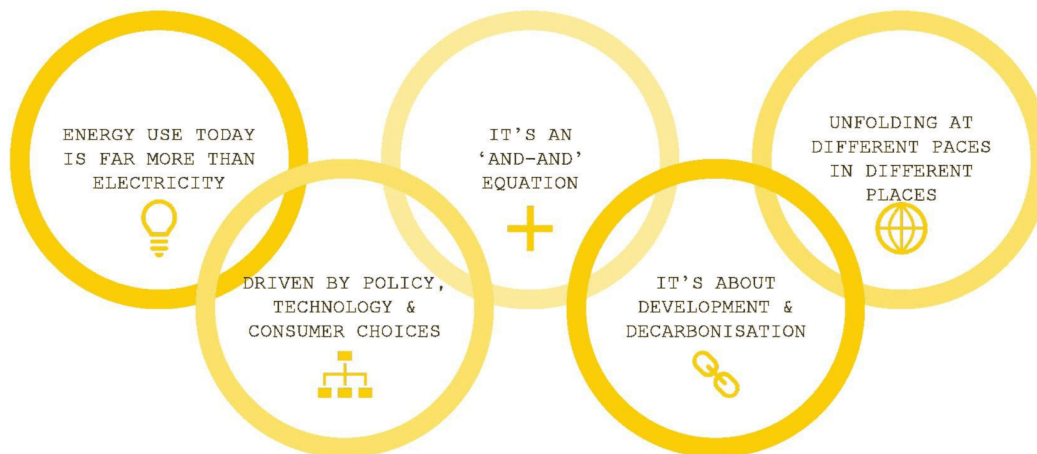
For oil, we still expect demand for oil products to grow through at least 2030 because of key sectors like road freight, aviation and petrochemicals. A faster transition is certainly possible for sectors like passenger cars—though bearing in mind different paces, different places. And headline sales will run significantly ahead of the global fleet average.

As for gas, in the near-term coal to gas switching is paramount, through the medium term it should serve as a partner for an ever-increasing share of renewables, and over the longer term is likely to continue to help address parts of the energy system that are not easily electrified.

Changes are required across both the supply AND demand side of the energy system. They go hand in hand. Successful and sustainable transitions will require an economy-wide approach that addresses emissions in energy type, supply and usage—enabling the creation of low carbon economies that can thrive on low carbon energy systems.

Our purpose says 'we power progress TOGETHER...' for a reason. Together, we can help unlock and enable the breadth of solutions needed to enable a world of opportunities alongside effective climate change mitigation.

Energy transitions: 5 key insights we aim to reinforce



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The following insights are central to Shell's understanding of the energy system and transition, which we aim to reinforce both directly AND indirectly—by seeking to mobilise powerful influencers to champion shared views and perspectives

Energy use today is far more than electricity. So while increasing use of renewable sources of energy like wind and solar is essential to reducing emissions, they chiefly produce electricity, which today meets less than 20% of energy needs for end use. For renewables to have a bigger impact, the use of electricity will need to be extended to a larger range of activities. We expect the power sector to grow significantly over the course of the century as more and more things become powered by increasingly lower carbon electricity.

It is impossible to predict with precision how future energy systems will evolve, because there are too many unknowns. Unknowns about how technologies will develop, about the types of energy consumers will choose, and about the energy policies governments will implement. Shell is actively engaged in all of these areas and we want to work together to #MakeTheFuture – better! – but collaboration is required to advance the solutions the world both needs and wants.

It's an and-and equation... not an either-or. So, it's not a question of gas or renewables... biofuels, battery powered or hydrogen vehicles... renewables or CCS... etc... It's all of the above. Energy transitions will feature co-evolution of established and new components of the system. If you like math, think not A to B, but $A + B + C(CS) + N(BS)$... and more. With overall balance shifting considerably over time.

While there are a range of factors driving energy transitions, it's important to bear in mind both development and decarbonization objectives. Optimising the equation of energy, environment, and economic growth will be essential, as all are interdependent.

Energy transitions will unfold at different paces in both different places, and across different sectors of the economy [e.g. power, buildings, industry, transport]. But ultimately, a fundamental transformation of the global economy is needed... alongside recognition that the world needs every solution we can get, because no single solution meets all needs, in all places, at all times.

An evolving conversation –
internally, and externally



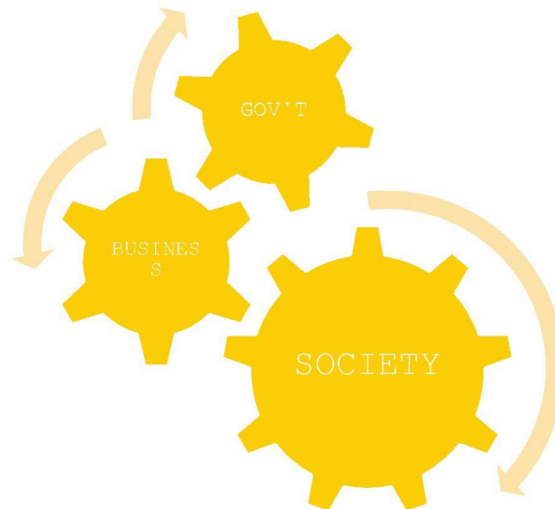
See ER Portal > Themes: Energy Transitions > Reference Materials for links to all of the above Shell publications, recent speeches, and more.

But even if you've read them all... please bear in mind, there's a lot of thoughtful word choice behind those familiar lines.

So let's take a moment now to cover a checklist of the absolute essentials when repurposing approved messaging.

On Shell's role...

- RECOGNIZE WE'RE ONE OF MANY
- DETERMINED TO PLAY OUR PART
- REINFORCE NEED FOR COOPERATION;
DON'T PASS THE BUCK



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When repurposing messaging on Shell's role...

#1 Have you recognised that everyone has a role to play?

When speaking to the Paris Agreement, Sustainable Development Goals, net-zero emissions or the climate challenge in general, please bear in mind these are collective goals and challenges for society. No one individual or organization can succeed alone. Please avoid inadvertently assuming ownership for parts of the challenge beyond Shell's control. Thus please be exceedingly mindful and explicit in the use of 'we' and 'our' when these do not = Shell. (i.e. 'We all...' 'As a society, we...' vs 'Our biggest challenge...')

#2 Please do not give the impression that Shell is willing to take actions that do not make business sense

Success requires mutually reinforcing actions from governments, business, consumers and society at large. We are determined to play our part when it makes business sense. In order to champion sustainable business, you have to have a sustainable business model.

#3 Don't simply pass the buck!

Our purpose says 'we power progress TOGETHER...' for a reason. We will have to work together—collaboration is key. But please take care to reinforce the need for cooperation without seemingly passing the buck!

On Shell's Net Carbon Footprint* ambition...

- ❑ INTENSITY-BASED METRIC
- ❑ FOCUS ON PRODUCTS
- ❑ WILL MOVE IN STEP WITH SOCIETY

*Our "Net Carbon Footprint" refers to a specific legal definition and must always be capitalized.

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When repurposing messaging on our Net Carbon Footprint (NCF) ambition...

#1 Is it clear that Shell's Net Carbon Footprint (NCF) is not an absolute emissions metric?

Our Net Carbon Footprint (NCF) is an intensity-based metric designed to track the change in the energy products that we supply, in comparison to the global energy-mix. This is because the world will need more energy, so the total amount of energy Shell contributes is likely to increase. An intensity-based metric allows Shell to focus on providing the energy that our customers want, while contributing to decarbonisation of the global energy system by also supplying lower-carbon energy products. This means fewer products that come with higher levels of greenhouse gas emissions, and more and more products with lower-or-no emissions. And we describe it as a Net Carbon Footprint because it includes scope for complimentary approaches to enabling emissions reductions where the use of oil and gas will still be needed for some time to come. For example, we will subtract emissions that are stored using carbon capture and storage in our own operations. We will also subtract any carbon dioxide emissions that are removed from the atmosphere and stored via nature-based solutions, such as reforestation.

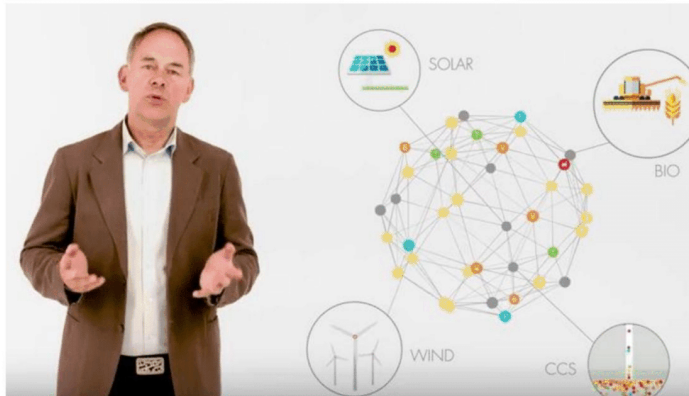
#2 Is it clear that the focus of our NCF ambition is on the carbon intensity of the energy products we sell?

While reducing our NCF starts with ensuring our operations use energy as efficiently as possible, most of the reductions will come from changing our portfolio to supply customers more products that produce lower emissions, as that's where around 85% of the emissions associated with our energy products occur. Shell only controls its own emissions, but by changing the mix of energy products we supply, we aim to help and influence others to lower their emissions.

#3 Please do not give the impression that Shell is willing to reduce carbon dioxide emissions to levels that do not make business sense

Our ambition is pegged to society's progress. We will seek opportunities through transition in ways that make commercial sense for Shell, in response to changing consumer demand, and in step with society's progress as it moves towards the Paris goal of limiting global warming.

On carbon 'pricing'...



- ☐ GOVERNMENT-LED
- ☐ FRAMEWORK OR MECHANISM
- ☐ NOT A PROJECT SCREENING VALUE

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When repurposing messaging on government-led carbon pricing mechanisms/frameworks...

#1 Have you used carbon pricing as an adjective?

Carbon pricing should generally be used as an adjective, rather than a noun, for purposes of our advocacy.

Key elements to avoid antitrust sensitivities are 'government-led' (e.g. a policy tool, not driven by industry coordination) and 'mechanism' or 'framework' (such that it's clear we're not signaling a specific level or value).

#2 You're talking about the policy tool, right?

The external solutions for which Shell advocates must be distinguished from the internal project screening values (PSVs) that Shell typically applies to help assess portfolio decisions. And in recognition of the shifting policy landscape and the differing pace of energy transitions underway in different regions, please note that we have moved away from a uniform internal PSV.

On referencing Shell and other scenarios...

- ❑ POSSIBLE VISIONS OF THE FUTURE
- ❑ NOT PREDICTIONS OR PRESCRIPTIONS
- ❑ SPECIFY UNDER WHAT CONDITIONS A PARTICULAR SCENARIO HOLDS



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When repurposing messaging about scenarios...

#1 Have you recognised that the future is uncertain?

Scenarios ask “what if?” and “how?” questions, encouraging leaders to consider events that may be highly likely or just remote possibilities. Shell uses scenarios to navigate medium- and long-term uncertainty and to inform and test our business decisions. Alongside our own work, we also study third party scenarios, such as those from the IEA and others.

#2 Have you ensured it's clear scenarios are not predictions, prescriptions (or Shell's business plan)

Scenarios do not describe what will happen (a forecast) or what should happen (a policy proposal), but what could happen, under certain circumstances. Like Shell, the IEA's outlooks should not be considered forecasts or predictions. Therefore, please refrain from the use of “will” unless explicitly linked to “In this scenario or under these conditions, X will...” ... Instead of ‘will’... consider ‘could’...‘may’...or...‘will likely’ [if a consensus view]... Instead of ‘must’... consider ‘should.’

#3 Have you specified under what conditions a particular scenario holds?

In particular when integrating a variety of outlooks within a presentation or other content (whether internal OR external), please be explicit under what conditions each scenario holds, such that it's clear what's [not] happening that would drive such an outcome (e.g. BAU or well-below 2C-compatible trajectory, etc.) It's also worthwhile to consider acknowledging a range of possible outcomes, given significant uncertainties in how future energy use will evolve.

On net-zero emissions...

- ❑ SOCIETAL GOAL
- ❑ REQUIRES ECONOMY-WIDE ACTION
- ❑ SHOULD NOT IMPLY OR SUGGEST IT'S A SHELL TARGET



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When repurposing messaging on net-zero emissions (NZE)...

#1 Be explicit in defining NZE as a goal for society

NZE represents a collective ambition for the world. The Paris Agreement became the first international climate agreement to refer to the need for net-zero emissions by stating: “(...) to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century” (Article 4.1). Please avoid the ambiguous use of ‘we’.

#2 Focus on the need to decarbonise the economy, rather than solely the energy system

NZE requires changes that are economy-wide, rather than energy-narrow. It necessitates changes in both energy supply and energy end use sectors. It also requires changes in agriculture and land use, and tackling process emissions from manufacturing materials like cement.

#3 Please do not imply, suggest, or leave it open for possible misinterpretation that NZE is a Shell goal or target

While we seek to enhance our operations’ average energy intensity through both the development of new projects and divestments, Shell has no immediate plans to move to a net-zero emissions portfolio over our investment horizon of 10-20 years.

On Shell's Sky Scenario...



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- ☐ TECHNICALLY POSSIBLE
- ☐ CHALLENGING
- ☐ PATHWAY FOR SOCIETY

When repurposing messaging on Shell's Sky Scenario...

Any first mention of Sky must recognise and be consistent with all three of these critical elements

Sky illustrates #1) a technically possible but #2) challenging #3) pathway for society to achieve the goals of the Paris Agreement.

On thriving through transition and/or portfolio resilience...



- ❑ WE SUPPORT THE PARIS AGREEMENT
- ❑ PORTFOLIO RESILIENCE THROUGH 2030
- ❑ LONG-TERM FLEXIBILITY TO ADAPT & THRIVE

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When speaking to thriving through transition and/or portfolio resilience, as outlined in the 2018 Shell Energy Transition (SET) Report...

#1 Have you made it clear that we are embracing the transformation of the energy system?

Shell recognizes climate change and supports the goals of the Paris Agreement. We are confident in our long-term ability to evolve with the energy system and provide the energy and related products that people want in their lives.

#2 Express credible optimism

The SET Report presents why we are confident that Shell is resilient to the changes that may take place in the short- to medium-term to 2030.

#3 Recognise over the longer term there is greater uncertainty, but our strategy gives us flexibility to adapt

The SET Report also outlines how our strategy should allow Shell the flexibility to thrive over the longer term by supplying the types of energy our customers will need through the transition.

Words of caution...

This [presentation] contains data and analysis from Shell's new Sky scenario. Unlike Shell's previously published Mountains and Oceans exploratory scenarios, the Sky scenario is based on the assumption that society reaches the Paris Agreement's goal of holding the rise in global average temperatures this century to well below two degrees Celsius (2°C) above pre-industrial levels. Unlike Shell's Mountains and Oceans scenarios, which unfolded in an open-ended way based upon plausible assumptions and quantifications, the Sky scenario was specifically designed to reach the Paris Agreement's goal in a technically possible manner. These scenarios are a part of an ongoing process used in Shell for over 40 years to challenge executives' perspectives on the future business environment. They are designed to stretch management to consider even events that may only be remotely possible. Scenarios, therefore, are not intended to be predictions of likely future events or outcomes and investors should not rely on them when making an investment decision with regard to Royal Dutch Shell plc securities.

Additionally, it is important to note that Shell's existing portfolio has been decades in development. While we believe our portfolio is resilient under a wide range of outlooks, including the IEA's 450 Scenario (World Energy Outlook 2016), it includes assets across a spectrum of energy intensities, including some with above-average intensity. While we seek to enhance our operations' average energy intensity through both the development of new projects and divestments, we have no immediate plans to move to a net-zero emissions portfolio over our investment horizon of 10-20 years. Although we have no immediate plans to move to a net-zero emissions portfolio, in November of 2017, we announced our ambition to reduce our Net Carbon Footprint in step with society's progress toward the Paris Agreement's goal of holding global average temperature to well below 2°C above pre-industrial levels. Accordingly, assuming society aligns itself with the Paris Agreement's goals, we aim to reduce our Net Carbon Footprint, which includes not only our direct and indirect carbon emissions associated with producing the energy products which we sell, but also our customers' emissions from their use of the energy products that we sell, by around 20% in 2035 and by around 50% in 2050. The use of the term Shell's "Net Carbon Footprint" is for convenience only and not intended to suggest these emissions are those of Shell or its subsidiaries.

Also, in this [presentation] we may refer to Shell's "Net Carbon Footprint", which includes Shell's carbon emissions from the production of our energy products, our suppliers' carbon emissions in supplying energy for that production and our customers' carbon emissions associated with their use of the energy products we sell. Shell only controls its own emissions. But, to support society in achieving the Paris Agreement goals, we aim to help such suppliers and consumers to likewise lower their emissions. The use of the term Shell's "Net Carbon Footprint" is for convenience only and not intended to suggest these emissions are those of Shell or its subsidiaries.

The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate legal entities. In this [presentation] "Shell", "Shell group" and "Royal Dutch Shell" are sometimes used for convenience where references are made to Royal Dutch Shell plc and its subsidiaries in general. Likewise, the words "we", "us" and "our" are also used to refer to Royal Dutch Shell plc and its subsidiaries in general or to those who work for them. These terms are also used where no useful purpose is served by identifying the particular entity or entities. "Subsidiaries", "Shell subsidiaries" and "Shell companies" as used in this [presentation] refer to entities over which Royal Dutch Shell plc either directly or indirectly has control. Entities and unincorporated arrangements over which Shell has joint control are generally referred to as "joint ventures" and "joint operations", respectively. Entities over which Shell has significant influence but neither control nor joint control are referred to as "associates". The term "Shell interest" is used for convenience to indicate the direct and/or indirect ownership interest held by Shell in an entity or unincorporated joint arrangement, after exclusion of all third-party interest.

This [presentation] contains forward-looking statements (within the meaning of the U.S. Private Securities Litigation Reform Act of 1995) concerning the financial condition, results of operations and businesses of Royal Dutch Shell. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future expectations that are based on management's current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of Royal Dutch Shell to market risks and statements expressing management's expectations, beliefs, estimates, forecasts, projections and assumptions. These forward-looking statements are identified by their use of terms and phrases such as "aim", "intention", "anticipate", "believe", "could", "estimate", "expect", "goals", "intend", "may", "objectives", "outlook", "plan", "probably", "project", "risk", "schedule", "seek", "should", "target", "will" and similar terms and phrases. There are a number of factors that could affect the future operations of Royal Dutch Shell and could cause those results to differ materially from those expressed in the forward-looking statements included in this [presentation], including (without limitation): (a) price fluctuations in crude oil and natural gas; (b) changes in demand for refined petroleum products; (c) changes in government policy; (d) drilling and production results; (e) operational performance; (f) changes in market share and industry competition; (g) environmental, social and governance risks; (h) risks associated with the identification of suitable potential acquisition properties and targets, and successful negotiation and completion of such transactions; (i) the risk of doing business in developing countries and countries subject to international sanctions; (j) legislative, fiscal and regulatory developments including regulatory measures addressing climate change; (k) economic and financial market conditions in various countries and regions; (l) political risks, including the risks of expropriation and nationalization of the terms of contracts with governmental entities, delays or advancements in the regulatory process; and (m) other factors that could affect the future operations of Royal Dutch Shell.

On our cautionary note...

Read it. Know it. Use it (the non-highlighted version) whenever our Scenarios and/or Shell's Net Carbon Footprint ambition will be mentioned. [Now available via the Shell Wizkit slide library]

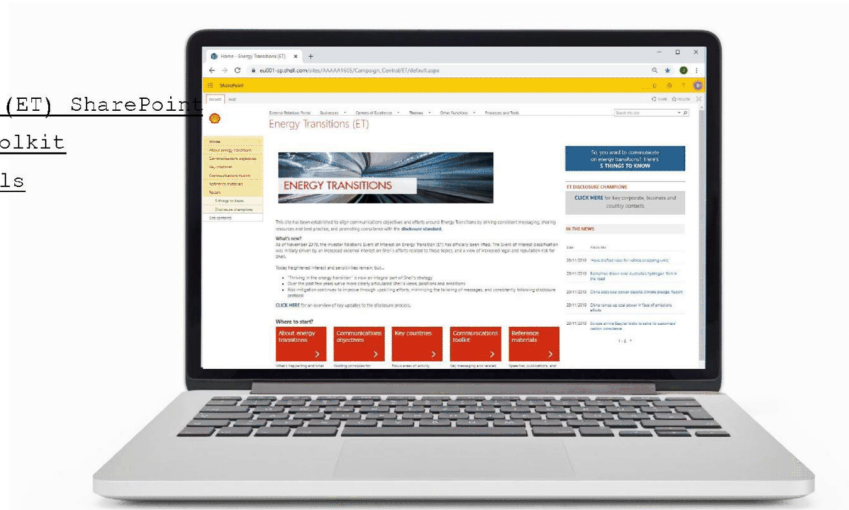
Please also remember this disclaimer applies to our communications beyond just presentations. When using elsewhere, please be sure to insert the correct type of document being disclosed—in places where [presentation] appears in red—e.g., report, press release, web page, video etc.

And of course, don't forget to insert the date the document is first released or published, also highlighted in red!

Where to get more information

On the ER Portal

- Energy Transitions (ET) SharePoint
- Communications toolkit
- Reference materials



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Where to get more information

The ER Portal has a growing repository of information on a dedicated Energy Transitions SharePoint, available from the 'themes' drop-down.

PLEASE DO...

Start from, and work with, the growing library of latest messaging and materials in the ET communications toolkit

Repurpose and repackage, rather than reinvent!

Self-check against the basics of the this pack before sending any ET-related content on for further review

Clear all new or adapted content through your designated ET Disclosure Champion(s)

Respect the minimum two weeks' lead time required for clearance of new materials or messaging

Seek additional guidance or support from ER Corporate (ERC) and/or ET Legal focal points when needed



Q&A



Message

From: Klein, Jason SHLOIL-UP/CCUS [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FAB658397D324B409ED05331ED20BADA-USJKLC]
Sent: 6/18/2019 12:23:53 PM
To: Johnson, Krista SHLOIL-GRA [REDACTED]; Watkins, Gretchen H SERC-UPU [REDACTED]
Subject: RE: Sky Scenario Update

Krista,

We are working to understand the extent to which we can use this externally, as well as more granular detail on the assumptions behind it. I don't want to start using it until we can answer those types of questions. And, of course, this is not intended to drive policy necessarily, but rather to show ONE scenario in the US that is part of a larger global scenario that could deliver on the Paris goals. It doesn't necessarily represent how we recommend the US go forward, but I think it will be very useful to demonstrate the scale of the challenge and the key levers that policymakers should be trying to pull.

I'll keep you posted.

Regards
Jason

From: Johnson, Krista SHLOIL-GRA
Sent: Monday, June 17, 2019 2:37 PM
To: Watkins, Gretchen H SERC-UPU [REDACTED]; Klein, Jason SHLOIL-UP/CCUS [REDACTED]
Subject: RE: Sky Scenario Update

Gretchen and Jason –

This is good baseline content – will be interested in how much of it is approved for external use – The next question I think we will get asked after any one of these points is, “and where are we in terms of meeting this metric?”, or “how do we get there from here”? In thinking about something like, zero auto emissions by 2050, MoC will want to know how we transition our current fleet on that time frame – 10%/year? Very little to start and then lots of transition at the end? – do we know if that work exists?

Best,
Krista

From: Watkins, Gretchen H SERC-UPU
Sent: Monday, June 17, 2019 11:55 AM
To: Klein, Jason SHLOIL-UP/CCUS [REDACTED]; Johnson, Krista SHLOIL-GRA [REDACTED]
Subject: FW: Sky Scenario Update

Jason, I think this is a good start, certainly more than I have seen before. If we can start using this publicly, it might be useful. Copying Krista here as I think some of our key stakeholders that might use this are in DC. Let me know what else you learn while in NL this week.

Krista, what are your thoughts?

Best Regards,

Gretchen

Gretchen H. Watkins
President Shell Oil Company
Executive Vice President Global Unconventionals
Shell Oil Company

150 North Dairy Ashford, | Houston, TX 77079 | United States of America

Direct ☎: [REDACTED]

Email ✉: [REDACTED]

From: Klein, Jason SHLOIL-UP/CCUS
Sent: Friday, June 14, 2019 5:56 AM
To: Watkins, Gretchen H SERC-UPU <[REDACTED]>
Subject: RE: Sky Scenario Update

Gretchen,

Here is some of the raw data for the US. To be clear, these are the assumptions for the US that underpin Sky. Easiest to just look at the chart tabs on the bottom. I am hoping to get more granular data on a few other points (such as EV penetration rates). I am also following up on whether and to what extent we can share this externally (either privately or publicly).

A couple highlights:

- US to have 100mtpa of CCS by 2040; 400mtpa by 2055.
- Close to zero emissions from passenger cars by 2050
- Zero coal fired power by 2050; zero natgas power by 2070. By 2060, more solar power in US than all electricity generated in US today
- Total US energy demand peaked in 2008 and is in decline to 2050 (presumably due to efficiency gains)

More to come...

Jason

From: Watkins, Gretchen H SERC-UPU
Sent: Thursday, June 13, 2019 4:53 PM
To: Klein, Jason SHLOIL-UP/CCUS <[REDACTED]>
Subject: FW: Sky Scenario Update

Jason, please dig into what is available now and what we might use on an immediate basis. Please also get clear on what we would want to see as output from this refresh project. Thanks

Best Regards,

Gretchen

Gretchen H. Watkins
President Shell Oil Company
Executive Vice President Global Unconventionals
Shell Oil Company

150 North Dairy Ashford, | Houston, TX 77079 | United States of America

Direct ☎: [REDACTED]

Email [redacted]

From: Bentham, Jeremy B SI-SX/B

Sent: Tuesday, June 11, 2019 5:59 PM

To: Thomas, Wim L SI-SX/B <[redacted]>

Cc: Watkins, Gretchen H SERC-UPU <[redacted]>; Daniels, Edward D RDS-SX <[redacted]>
Klein, Jason SHLOIL-UP/CCUS <[redacted]>; Fries, Steven M SI-SX/B <[redacted]>; Tatarenko,
Oleksiy SI-SX/B <[redacted]>; Sinclair, Darci A SI-SX/B <[redacted]>; Blancke, Diane R SI-
SX/B <[redacted]>

Subject: Re: Sky Scenario Update

Thanks Wim. I guess folks are looking for the whole package of policies and practices that are consistent with the energy data, alongside our new insights into transitions and how domestic political economy considerations can be served by these.

Best,
Jeremy.

Sent from my iPhone
Please forgive brevity and typos

On 11 Jun 2019, at 13:38, Thomas, Wim L SI-SX/B <[redacted]> wrote:

Jeremy Gretchen,

We have USA Sky data, and North America (US+Can) is already on our public [website](#). All data can be downloaded. Happy to take Jason through when he is over in The Hague this week.

Best regards,
Wim

Wim Thomas

Mob: [redacted]

Email: [redacted]

-----Original Message-----

From: Bentham, Jeremy B SI-SX/B

Sent: Tuesday, June 11, 2019 21:56

To: Watkins, Gretchen H SERC-UPU <[redacted]>

Cc: Daniels, Edward D RDS-SX <[redacted]>; Klein, Jason SHLOIL-UP/CCUS
<[redacted]>; Fries, Steven M SI-SX/B <[redacted]>; Thomas, Wim L SI-SX/B
<[redacted]>; Tatarenko, Oleksiy SI-SX/B <[redacted]>; Sinclair, Darci A
SI-SX/B <[redacted]>; Blancke, Diane R SI-SX/B <[redacted]>
Subject: Re: Sky Scenario Update

Hi Gretchen,
I'm in the US this week so I'm afraid Jason and I will miss each other!

It's worthwhile that he picks this up with Steven, Wim and Oleksiy (coped) when he's over in NL. Perhaps Diane can help set up a meeting. Our scenario work always goes much more granular than global, but the global overview is generally what is summarized for publication. But we can consider, for example, localized leaflets and always customize presentations etc for local circumstances. In this case,

different potential attitudes to Paris agreement in the US are anyway very pertinent to global progress, so it would be excellent to remain close in our perspectives.

In this case, however, it sounds like you're looking for a simultaneous publication? In which case it would be useful for Jason to discuss the content thinking with the subject-matter folks in The Hague that I already mentioned, and then also later with Darci around project management for a specific customized piece.

All best wishes,
Jeremy.

Sent from my iPhone
Please forgive brevity and typos

> On 11 Jun 2019, at 12:19, Watkins, Gretchen H SERC-UPU <[REDACTED]> wrote:

>

> Hi Jeremy, I ran into Ed last week at the MD19 in New York. He mentioned that you are starting a refresh on Sky. I'd very much appreciate if you could include a scenario that specifically looks at the US. When I meet with government officials and policy makers here in the US they are always appreciative of the Sky work, but look for a US specific narrative. Policy here in the US is quite US focused, and while our lawmakers look globally, their constituents vote locally. We could really help advance our energy transition plans by having a US scenario.

>

> I discussed with Ed and he recommended I drop you a line with this request. Jason is in The Hague this week and I've asked him to try to connect with you on this request. Also happy to meet if that would be useful. Please let me know if this is something you can take on as part of your work. Thanks so much.

>

> Best Regards,

>

> Gretchen

Message

From: /o=shell/ou=ag1-shell/cn=recipients/cn=usi+les5 [/o=shell/ou=ag1-shell/cn=recipients/cn=usi+les5]
Sent: 11/4/2020 1:49:25 PM
To: Butcher, Brian J SHLOIL-GRA [REDACTED]
Subject: RE: Shell Twitter issue

Okay, I'm old too, but as I understand it, gaslighting is a millennial term for manipulating a person's emotions, causing them to question themselves instead of you. It is, frankly, a criticism not totally without merit in this case though I would never say that in mixed company. We are, after all, in a tweet like this implying others need to sacrifice without focusing on ourselves. We do, focus on ourselves, of course, but I can see where someone looking to take a shot would see this tweet as one such opportunity.

From: Butcher, Brian J SHLOIL-GRA [REDACTED]
Sent: Wednesday, November 4, 2020 11:09 AM
To: Lesh, Stephen C SHLOIL-GRA [REDACTED]
Subject: RE: Shell Twitter issue

So I'm an old guy; help me out – what the heck is “gaslighting?”

And yes, a pretty tone-deaf tweet.

From: Lesh, Stephen C SHLOIL-GRA [REDACTED]
Sent: Wednesday, November 4, 2020 1:50 PM
To: Johnson, Krista SHLOIL-GRA [REDACTED]; Toohey, Cam SHLOIL-GRA [REDACTED]
Whitman, Kristin P SHLOIL-GRA [REDACTED]; Funk, Marnie SHLOIL-GRA [REDACTED]
Tamez, Patricia V SHLOIL-GRA [REDACTED]; Salmon, Scott R SHLOIL-GRA [REDACTED]
Pelofsky, Eric SHLOIL-GRA [REDACTED]; Perry, Ruth L SEPCO-GRA/A [REDACTED] and,
Nicole M SEPCO-GRA [REDACTED]; Simpson, Kevin C SEPCO-GRA [REDACTED] Shull,
Charlie S SEPCO-GRA/A [REDACTED]; Butcher, Brian J SHLOIL-GRA [REDACTED]; Colbert, Niki G
SHLOIL-GRA [REDACTED]; Francis, Dick E SEPCO-GRA [REDACTED] m>; Palmer, Frederick B
SHLOIL-GRA [REDACTED]; Hines, John T SHLOIL-GRA [REDACTED] Sutton, Cody M SHLOIL-GRA
[REDACTED]; Morello, Brad GSCAT-PTX/M/N [REDACTED]
Subject: Shell Twitter issue

Others may have already seen this, but amidst all the electoral news, apparently we sent a climate tweet that has been picked up and mocked by AOC and Geta Thumberg.

<https://www.theguardian.com/business/2020/nov/03/shells-climate-poll-on-twitter-backfires-spectacularly>

<https://uproxx.com/viral/aoc-shell-oil-twitter/>

<https://www.commondreams.org/news/2020/11/02/shell-oil-asked-what-people-are-willing-do-reduce-emissions-im-willing-hold-you>

Steve Lesh
Manager of Government Relations, U.S. West Coast
Shell Oil Company
[REDACTED] Office
[REDACTED] Cell
[REDACTED]

Message

From: Powers, Marti D SHLOIL-ERUP/U [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9E64B2E4E4F4450EB790E04F4E82AE11-USMPOU]
Sent: 3/12/2019 2:12:37 PM
To: Smith, Curtis A SHLOIL-ERM/A [REDACTED]
CC: Johnson, Krista SHLOIL-GRA [REDACTED]
Subject: Re: FYI - "Road to the Green New Deal Tour"

They're missing Jazzfest!

Marti

Sent from my iPhone

On Mar 12, 2019, at 2:05 PM, Smith, Curtis A SHLOIL-ERM/A [REDACTED] wrote:

...and bedbugs.

Sent from my iPhone

On Mar 12, 2019, at 2:04 PM, Johnson, Krista SHLOIL-GRA [REDACTED] wrote:

FYI – 100 town hall meetings in a month. Having enjoyed some rich experiences on the 50 City Tour, I wish them the very best.

From: John Mulligan [REDACTED]
Sent: Tuesday, March 12, 2019 2:52 PM
To: Whitman, Kristin P SHLOIL-GRA [REDACTED]; Johnson, Krista SHLOIL-GRA [REDACTED]; Tamez, Patricia V SHLOIL-GRA [REDACTED]; Salmon, Scott R SHLOIL-GRA [REDACTED]; Funk, Marnie SHLOIL-GRA [REDACTED]
Cc: Stewart Verdery [REDACTED]
Subject: FYI - "Road to the Green New Deal Tour"

Hey all – flagging that the Sunrise Movement recently announced that they're organizing a "[Road to the Green New Deal](#)" tour – it's a 9-city tour that will include more than 100 town hall meetings across the country. It kicks off on April 18th in Boston and concludes on May 13th in DC. Also flagging that they'll be in New Orleans on 5/7 where I'd guess O&G/GOM sector issues to come up....

<image005.jpg>

John P. Mulligan

p: [REDACTED] m: [REDACTED]
w: www.monumentadvocacy.com e: [REDACTED]
<image006.jpg> <image007.jpg> <image008.jpg>

Message

From: /o=exchangelabs/ou=exchange administrative group (fydibohf23spdlt)/cn=recipients/cn=842b57008d50494fb2191aa980bcbd5f-usi+les5 [/o=exchangelabs/ou=exchange administrative group (fydibohf23spdlt)/cn=recipients/cn=842b57008d50494fb2191aa980bcbd5f-usi+les5]
Sent: 5/25/2021 12:25:25 PM
To: Gavin McHugh [REDACTED]
Subject: RE: Deer Park sale
Sensitivity: Company Confidential

Yes, we finally unloaded that piece of crap in Denmark we've been trying to sell for a decade. I wouldn't necessarily put that in this GHG—sensitivity category. That was just a crappy facility. Pernis, the site in the Netherlands, will be an interesting one to watch. It's right there in the motherland where we are most sensitive and our reputation is mixed.

The other pattern to notice is where we DO own high GHG intensive things, it's in areas where they aren't that politically sensitive about such matters: China, Singapore, Malaysia, Louisiana. . .

From: Gavin McHugh [REDACTED]
Sent: Tuesday, May 25, 2021 6:16 AM
To: Leshar, Stephen C SHLOIL-GRA [REDACTED]
Subject: Re: Deer Park sale
Sensitivity: Confidential

Think Secure. This email is from an external source.

Any movement on similar asset sales from abroad?

On May 25, 2021, at 2:28 AM, [REDACTED] wrote:

FYI that we announced today we are selling Shell Deer Park. This is a big deal, since it's such a huge facility and operates in the shadow of our U.S. headquarters in Houston. "The Park" as it's known in the company, was once Shell's flagship refinery in the U.S.

This is further evidence of where Shell is dramatically reducing its traditional manufacturing footprint (Martinez, Puget Sound, Deer Park, Mobile (AL), Convent (LA), and Sarnia (CAN))—all out of the portfolio in the last two years). It's also further evidence that the company is divesting of most of the really energy intensive carbon emitters. You can throw in our sale of the Canadian oil sands operation from a few years back (a big greenhouse gas headache with a lot of NGO opposition), and see this trend pretty clearly. No one in the company has said this, mind you, but the pattern is pretty clear: If you're a major greenhouse gas emitter, and particularly if you operate in a GHG-sensitive area like CA, WA, or CAN, your days in the Shell Family are probably numbered.

<https://www.prnewswire.com/news-releases/shell-to-sell-interest-in-deer-park-refinery-to-partner-pemex-301297863.html>

Steve Leshar
Manager of Government Relations, U.S. West Coast
Shell Oil Company

[REDACTED] Office
[REDACTED] Cell
[REDACTED]

Please be informed that any personal data submitted and handled as a part of the Shell business relationship with its customers, supplier or partners is processed in accordance with the Shell Global Privacy Policy - Business Customers, Suppliers and Business Partners available at the relevant webpage under the domain www.shell.com, as supplemented by any further specific and/or local privacy statements. For any queries or concerns regarding processing of your personal data, please refer to the Shell Global Privacy Policy - Business Customers, Suppliers and Business Partners or contact your relevant Customer Service Centre.

Message

From: /o=shell/ou=ag1-shell/cn=recipients/cn=[REDACTED]/o=shell/ou=ag1-shell/cn=recipients/cn=[REDACTED]
Sent: 10/23/2019 7:01:35 PM
To: Sherman, Jan B SERC-UPU/N/L [REDACTED]; Funk, Marnie SHLOIL-GRA [REDACTED]
Subject: RE: AOC workshop in DC next week - logistics etc

The quick answer:

Open and safe but still with NRDC, WWF and GPeace so I'd be cagey about project specifics, and about traversing far from the CCUS topic regarding Shell and climate change during breaks. We've worked well with NRDC on CCUS, but in general they are not friends and likely closely aligned with those working hard to litigate against us.

However, we've been fully open about our commitment to CCUS and the role it needs to play in meeting the Paris agreement goals as per Sky Scenario, so be bullish on our commitment to a viable and scalable CCS business and your title gives away our interest in pursuing the technology in the Gulf Coast – but that's good and also aligns with where we say in Sky that CCS will be needed for those industries that do not have a clear path to electrification and need dense energy. Sky, is not a Shell business plan, but a technically possible, although challenging scenario for how global society might meet the goals of the Paris agreement.

Even though we're moving away from EOR, It will still be interesting to listen for opinions on EOR as method for sequestration, and whether there is a demonstrable difference between sentiment for that and sentiment for pure storage. I doubt not as much now, but still curious.

Be interesting to hear what they're learning from the phone interviews.

Helen O'Connor
Manager, US Stakeholder Relations, External Relations

Shell Oil Company | 150 N. Dairy Ashford, Houston, TX., 77079
(o): [REDACTED] (c): [REDACTED]

From: Sherman, Jan B SERC-UPU/N/L <[REDACTED]>
Sent: Wednesday, October 23, 2019 6:49 PM
To: Funk, Marnie SHLOIL-GRA <[REDACTED]>; O'Connor, Helen C SHLOIL-ERUP/U <[REDACTED]>
Subject: FW: AOC workshop in DC next week - logistics etc

Anything "not" to say in these "open, safe" conversations?

Jan S.

From: Dr. Gabrielle Walker <[REDACTED]>
Sent: Wednesday, October 23, 2019 3:06 PM
To: Sherman, Jan B SERC-UPU/N/L [REDACTED]
Cc: Steve Esau <[REDACTED]> Ewa Merchel <[REDACTED]>; [REDACTED]
Subject: Re: AOC workshop in DC next week - logistics etc

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Time: 18:30 – 21:30

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Dr Gabrielle Walker

Director

Valence Solutions Limited

T: [REDACTED]

E: [REDACTED]

W: www.gabriellewalker.com

From: [REDACTED] <[REDACTED]>
Date: Wednesday, 23 October 2019 at 15:09
To: "Dr. Gabrielle Walker" <[REDACTED]>
Cc: Steve Esau <[REDACTED]> Ewa Merchel <[REDACTED]>, [REDACTED]
Subject: RE: AOC workshop in DC next week - logistics etc

Attached is brief bio and photo.

From: Dr. Gabrielle Walker <[REDACTED]>
Sent: Wednesday, October 23, 2019 2:24 AM
To: Sherman, Jan B SERC-UPU/N/L <[REDACTED]>
Cc: Bye Bruun, Kim B NORSKE-PTS/GR <[REDACTED]>; Steve Esau <[REDACTED]>; Ewa Merchel <[REDACTED]>; Delia Meth-Cohn <[REDACTED]>
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[Dr Gabrielle Walker](#)

Director

Valence Solutions Limited

T:

E:

W:

Message

From: Funk, Marnie SHLOIL-GRA [/O=SHELL/OU=EXTERNAL (FYDIBOHF25SPDLT)/CN=RECIPIENTS/CN=493CD9F5B6034E908802648A88FB8128]
Sent: 10/24/2019 8:06:53 AM
To: Sherman, Jan B SERC-UPU/N/L [REDACTED]; O'Connor, Helen C SHLOIL-ERUP/U [REDACTED]
Subject: RE: AOC workshop in DC next week - logistics etc

Jan, Shell is one of the most progressive oil and gas companies on the environmental issues related to CCUS that the more liberal eNGOs (NRDC and WRI for this meeting) care about, such as SGS. In the environmental space, you are good. We want to be careful to not talk about CCUS as prolonging the life of oil, gas or fossil fuels writ large. We want to proceed carefully in any conversation about expanding 45Q credits or getting government to pay for CCUS. If we talk about the estimated cost of storage (the \$110 figure NPC is using,) I recommend we do talk about it in terms of a carbon price and not in terms of incentives or grants. (So, the reverse of what NPC decided.) I am well acquainted with all of the eNGO reps on this list, but am not acquainted with the labor reps. So no insights about any sensitivities from that community. Thanks for the opportunity to provide input.

Marnie

Marnie Funk | Senior Advisor, Government Relations | SHELL | 1050 K Street, NW Suite 700 | Washington, DC 20001 | Desk Skype Tel: [REDACTED]
Mobile: [REDACTED]

From: Sherman, Jan B SERC-UPU/N/L <[REDACTED]>
Sent: Wednesday, October 23, 2019 7:49 PM
To: Funk, Marnie SHLOIL-GRA <[REDACTED]>; O'Connor, Helen C SHLOIL-ERUP/U [REDACTED]
Subject: FW: AOC workshop in DC next week - logistics etc

Anything "not" to say in these "open, safe" conversations?

Jan S.

From: Dr. Gabrielle Walker <[REDACTED]>
Sent: Wednesday, October 23, 2019 3:06 PM
To: Sherman, Jan B SERC-UPU/N/L [REDACTED]
Cc: Steve Esau <[REDACTED]>; Ewa Merchel [REDACTED]
Subject: Re: AOC workshop in DC next week - logistics etc

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Valence Solutions Limited

T: [REDACTED]

E: [REDACTED]

W: www.gabriellewalker.com

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Dr Gabrielle Walker

Director

Valence Solutions Limited

T: [REDACTED]

E: [REDACTED]

W: www.gabriellewalker.com

Message

From: /o=exchangelabs/ou=exchange administrative group (fydibohf23spdlt)/cn=recipients/cn=9e64b2e4e4f4450eb790e04f4e82ae11-usmpou [/o=exchangelabs/ou=exchange administrative group (fydibohf23spdlt)/cn=recipients/cn=9e64b2e4e4f4450eb790e04f4e82ae11-usmpou]
Sent: 11/4/2020 2:59:57 PM
To: Watkins, Gretchen H SERC-UP [REDACTED]; Johnson, Krista SHLOIL-GRA [REDACTED]; Klein, Jason SHLOIL-UPU [REDACTED]
CC: Arata, Anna J SHLOIL-ERM/A [REDACTED]; Smith, Curtis A SHLOIL-ERM [REDACTED]
Subject: RE: FYI: AOC - Shell Retweet

Thanks, note coming out shortly.

While I'd argue the question could have been posed differently and was taken out of context, it's these examples and the internal reaction that beg the question if we are ready to be as bold as we say. Food for thought.

Regards/Saludos,

Marti Powers, MBA
External Relations Manager, USA & Global Shales
Shell Oil Company

Tel: [REDACTED]
Cell: [REDACTED]
Email: [REDACTED]

From: Watkins, Gretchen H SERC-UP <[REDACTED]>
Sent: Wednesday, November 4, 2020 1:03 PM
To: Powers, Marti D SHLOIL-ERUP <[REDACTED]>; Johnson, Krista SHLOIL-GRA [REDACTED]; Klein, Jason SHLOIL-UPU <[REDACTED]>
Cc: Arata, Anna J SHLOIL-ERM/A <[REDACTED]>; Smith, Curtis A SHLOIL-ERM [REDACTED]
Subject: RE: FYI: AOC - Shell Retweet

Agree we should do this, it was a menti question in a townhall Weal had this morning.

What debate are we going to post? Thanks

Best Regards,

Gretchen

Gretchen H. Watkins
President Shell Oil Company
Executive Vice President Global Unconventionals
Shell Oil Company

150 North Dairy Ashford, | Houston, TX 77079 | United States of America
Direct ☎: [REDACTED]
Email ✉: [REDACTED]

From: Powers, Marti D SHLOIL-ERUP [REDACTED]
Sent: Wednesday, November 4, 2020 12:32 PM
To: Watkins, Gretchen H SERC-UP [REDACTED]; Johnson, Krista SHLOIL-GRA

[REDACTED] Klein, Jason SHLOIL-UPU <[REDACTED]>
Cc: Arata, Anna J SHLOIL-ERM/A <[REDACTED]>; Smith, Curtis A SHLOIL-ERM <[REDACTED]>
Subject: RE: FYI: AOC - Shell Retweet

Gretchen,

While this has died in the press, the internal churn is hard at work particularly in Retail and Lubricants. I've now received requests through US ER staff in the business for information and messaging. I suggest a short note to the CCT to describe the incident and share the below points for their use with staff. If you agree, I'll get this pulled together with Anna and Curtis and send.

Holding statement from Anna: We're aware of an earlier Twitter poll from The Great Energy Debate that could be construed as suggesting the onus is squarely on consumers to address climate change. To be clear: it's not. We believe climate change is the most important issue of our time and that we, as Shell, have a role to play in the global efforts against it. Our ambition is to be a net-zero emissions energy business by 2050 or sooner and we fully support the Paris Agreement. That said, the energy transition requires collaboration from companies, governments, and consumers. Everybody has a role to play and we cannot do it alone.

For info, here are the lines Nebahat shared with Maarten for use during the Townhall:

- *Moving through the energy transition requires this type of open discussion*
- *We want to have these tough conversations*
- *If we wanted to avoid them or shy away – we wouldn't actively create forums such as The Great Energy Debate*
- *The social conversations you see online, on Twitter, are to be expected, and not something to back away*
- *We'll publish the debate on the Hub in the coming days (once the recording is available), and I'd encourage you to watch it and judge for yourselves*

Regards/Saludos,

Marti Powers, MBA
External Relations Manager, USA & Global Shales
Shell Oil Company

Tel: [REDACTED]
Cell: [REDACTED]
Email: [REDACTED]

From: Arata, Anna J SHLOIL-ERM/A <[REDACTED]>
Sent: Monday, November 2, 2020 8:01 PM
To: Smith, Curtis A SHLOIL-ERM <[REDACTED]>; Powers, Marti D SHLOIL-ERUP <[REDACTED]>
Watkins, Gretchen H SERC-UP <[REDACTED]>; Johnson, Krista SHLOIL-GRA <[REDACTED]>
Cc: De Castro, Renata SI-ERM/U <[REDACTED]> Sherwin, Rob A SI-ER <[REDACTED]> Smart,
Kirsten SI-ERM <[REDACTED]>
Subject: RE: FYI: AOC - Shell Retweet

Hi all,

Sending through an evening report on the social activity stemming from the Great Energy Debate. Conversation surrounding this continues, though is limited to Twitter at the present time. I anticipate a decline in activity tomorrow as election news reaches a fever pitch; we'll continue to monitor the situation and will keep you apprised if further high-profile individuals engage. Please let me know if you have any questions.

Stakeholders

In addition to AOC, a selection of notable individuals who have shared Shell's tweet are below, including climate advocate Greta Thunberg, US Senator from Oregon Ron Wyden, US Senator from Hawaii Brian Schatz, and CNN Chief Climate Correspondent Bill Weir.

NGOs such as Extinction Rebellion, Gravel Institute, 350.org, Sunrise Movement, and Greenpeace have also added commentary.

Please note that the below responses are quote tweets (hyperlinked) and are meant to be construed as answers to the question posed by Shell of, *What are you willing to change to help reduce emissions?*

- [@AOC](#) - *I'm willing to hold you accountable for lying about climate change for 30 years when you secretly knew the entire time that fossil fuels emissions would destroy our planet*
- [@AOC](#) - *The audacity of Shell asking YOU what YOU'RE willing to do to reduce emissions. They're showing you RIGHT HERE how the suggestion that indiv choices - not systems - are a main driver of climate change is a fossil fuel talking point. Yes, make good choices. Reign in FF corps. (9.5M followers)*
- [@GretaThunberg](#) - *I don't know about you, but I sure am willing to call-out-the-fossil-fuel-companies-for-knowingly-destroying-future-living-conditions -for-countless-generations-for-profit-and-then-trying-to-distract-people-and-prevent-real-systemic-change-through-endless greenwash-campaigns. (4.2M followers)*
- [@RonWyden](#) - *End special tax breaks for Big Oil (503K followers)*
- [@brianschatz](#) - *Create millions of new clean energy jobs over your objections. (341k followers)*
- [@BillWeirCNN](#) - *This is like Freddy Krueger asking what you're willing to change to get better sleep. (124K followers)*

NGOs

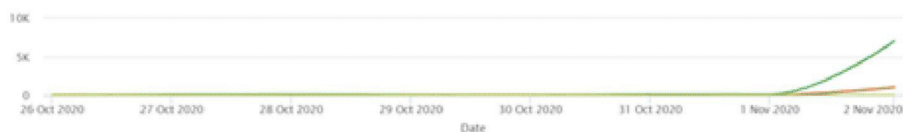
- [@Greenpeace](#) - *We're willing to fight for climate justice and for people not to fall for your dirty tricks, @Shell. Individual choices matter, but you and the other fossil fuel companies are the ones responsible for the climate crisis the world is facing right now*
- [@350](#) - *We have an idea for you @Shell - How about you NOT greenlight 35 new oil and gas projects? And how about you not use individual carbon footprints as a weak excuse to hide the fact that you produce 1.7 million barrels per day of oil.*
- [@ExtinctionR](#) - *What? After we've finished laughing at your individual blaming PR failure you mean? Probably continue working for sufficient structural change -peoples' assemblies- to maintain a livable planet.*
- [@GravelInstitute](#) - *Ending you.*
- [@SunriseMvmt](#) - *omg cute!! we're still gonna prosecute your execs for lying to the public about climate change for 30 years though!!! See-no-evil monkey*

Reach

Social conversation surrounding the event with regards to Shell has a potential reach of approx. **309.3M.**, with roughly **8.4K** mentions and **37.9K** interactions.

Volume timeline

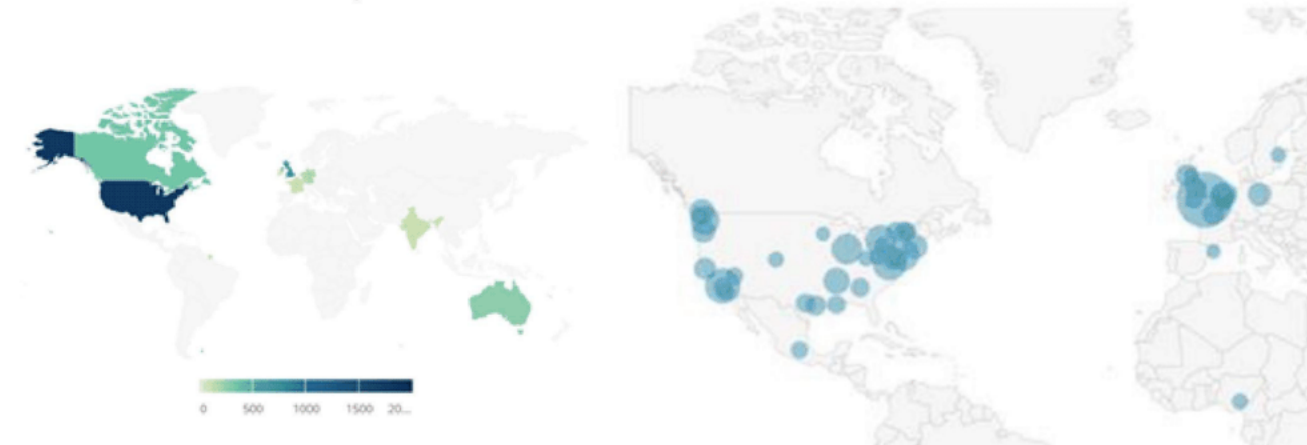
2020/10/26 - 2020/11/02



REPORT		MENTIONS
Total mentions 2020/10/26 - 2020/11/02	Total interactions 2020/10/26 - 2020/11/02	Total Potential Impressions 2020/10/26 - 2020/11/02
8.4K	37.9K	309.3M

Geographies / Share of Voice

Most conversation is currently centered in the US/UK.



Best,

Anna Arata
Media Relations

(office)
(cell)

From: Arata, Anna J SHLOIL-ERM/A

Sent: Monday, November 2, 2020 12:28 PM

To: Smith, Curtis A SHLOIL-ERM <[REDACTED]> Powers, Marti D SHLOIL-ERUP <[REDACTED]>

Watkins, Gretchen H SERC-UP <[REDACTED]>; Johnson, Krista SHLOIL-GR <[REDACTED]>

Cc: Sherwin, Rob A SI-ER <[REDACTED]>; De Castro, Renata SI-ERM/U <[REDACTED]>

Subject: FYI: AOC - Shell Retweet

Importance: High

Hi all,

Quick FYI for you: Shell tweeted out a [poll](#) as a part of the Great Energy Debate that occurred today in the UK. While the poll closed within 20 minutes, Jillian Ambrose, energy correspondent for *The Guardian*, picked up the tweet, and it gained steam from NGOs such as Extinction Rebellion, who were critical of the positioning. Alexandria Ocasio-Cortez has now retweeted the [tweet](#) and added her own [subtweet](#), below.





I don't recommend we engage in any way with this content – given the US election is imminently underway, Twitter is an extremely noisy space right now, and attention on this one will cede in favor of bigger issues. We'll continue to monitor the situation and will keep you apprised if any further high-profile individuals engage. Please let me know if you have any questions.

Best,

Anna Arata
Media Relations

[REDACTED] (office)
[REDACTED] (cell)