Hello, I’m Mike Sommers,

President and CEO of the American Petroleum Institute. 2020 was a challenging year for everyone, especially those who lost loved ones or their livelihoods to the coronavirus. Last year also was hard on businesses, and the U.S. natural gas and oil industry was no different, given the historic drop in global energy demand during the pandemic. But just as this industry has overcome difficulty in the past, we’re transcending today’s trials as we work to build a better future for all Americans.
Led by an innovative workforce, U.S. natural gas and oil companies have propelled America to a position of global energy leadership and geopolitical strength, creating stability even in chaotic times. Throughout this 2021 State of American Energy report, you will see how we are working to meet the challenges ahead, for a stronger economy, increased security and a cleaner future. You’ll also learn about the energy policies that can help our country build on our hard-earned progress, and the policies that would hinder it.

We’re developing best-in-class standards, driving new technologies, creating the workforce of the future, and collaborating with policymakers on both sides of the aisle to provide economic and environmental progress — all while delivering the affordable, reliable energy needed by American families from coast to coast.

Put simply, we have long been relied on to deliver what’s essential. It’s at the heart of what our industry does best, and it’s never been more important than right now. Read the report to learn more about how we are restoring our economy today, strengthening national security tomorrow and innovating to deliver continued environmental progress in the future.
POLICIES FOR THE NEW CONGRESS, ADMINISTRATION AND STATE POLICYMAKERS

America’s prosperity, modern standard of living and personal freedoms are built on economic growth and opportunity for all. Energy – abundant, affordable and reliable energy from natural gas and oil – is critical for our country today and in the future. As a new Congress and administration begin work in Washington and state policymakers meet across the country, this policy guide details the energy policies that can help our country build on hard-earned progress.

Develop Natural Gas And Oil Here At Home To Keep America Strong And Free

ENERGY POLICIES TO EMPOWER AMERICA’S PROGRESS

Lift restrictions to allow safe development across federal lands and waters. Ensure that permitting processes are transparent, efficient and predictable. Determine an area’s energy potential before withdrawing it from consideration for development.

ENERGY POLICIES THAT WOULD HINDER AMERICA’S PROGRESS

Ban new natural gas and oil leasing on federally controlled lands and waters, including the Outer Continental Shelf (OCS) can be a robust source of future supply, yet 94% of federal offshore acreage remains off limits to development. The country should be preparing for the future with a well-crafted, five-year offshore leasing plan instead of unilaterally removing areas from possible exploration and production – as with recent presidential actions to bar development in the Eastern Gulf of Mexico and Southern Atlantic Ocean. Policies for offshore development should ensure reliable, predictable and orderly leasing on the OCS. For onshore, 95% of new wells are developed with hydraulic fracturing (fracking), so proposals to ban fracking would essentially stop all new development on federal lands. Producing natural gas and oil on federal lands and waters requires a legal and regulatory structure that fosters investment certainty and operational efficiency – such as the Bureau of Safety and Environmental Enforcement’s 2019 revised well control rule – while reducing greenhouse gas emissions, such as the Bureau of Ocean Energy Management’s offshore air quality rule.
Craft Energy Regulation And Legislation To Maximize Benefits To The Nation

ENERGY POLICIES TO EMPOWER AMERICA’S PROGRESS

Use smart, cost-effective and science-based regulation to promote safe operations and environmental progress. Continue to modernize National Environmental Policy Act and renew the Nationwide Permit 12 program.

ENERGY POLICIES THAT WOULD HINDER AMERICA’S PROGRESS

Impose a one-size-fits-all, top-down federal regulatory approach, versus effective state regulation. Enact more stringent NAAQS PM standards, even though existing standards are effective. Both could needlessly hinder safe energy development.

API’s members support sensible federal and state regulation. Efforts to improve regulatory oversight should focus on rules that are cost-effective, performance-based and predictable, using the best available science and technology to reduce emissions, protect the environment and public health and promote safe operations. Substantial recent regulatory and legislative gains should not be rolled back – including actions to modernize the National Environmental Policy Act (NEPA) and to renew the Nationwide Permit 12 program (NWP 12), both of which are critically important in advancing needed energy infrastructure. Smart energy regulation ensures safe and responsible development. EPA’s proposed Benefit-Cost Rule under the Clean Air Act is an example. It would help ensure sound analyses for new regulations by requiring that data used to evaluate environmental, scientific and economic impacts be transparent and replicable. Likewise, EPA’s National Ambient Air Quality Standards Particulate Matter action (NAAQS PM) retaining existing standards, recognizes that annual concentrations of Particulate Matter 2.5 dropped 39% between 2000 and 2016. It also acknowledges that fuel switching to natural gas in the power sector has played a significant role in reduced emissions that can contribute to PM, as well as greenhouse gases.
Build And Expand Infrastructure To Bring Affordable Energy To All

**ENERGY POLICIES TO EMPOWER AMERICA’S PROGRESS**

Exercise smart, consistent project oversight through streamlined permitting processes. Ensure consistent, apolitical FERC review for pipelines and LNG export projects.

**ENERGY POLICIES THAT WOULD HINDER AMERICA’S PROGRESS**

Block or limit construction or expansion of needed natural gas and oil pipeline projects, impeding consumer access to safe, affordable energy.

A robust and technologically advanced U.S. infrastructure system – including pipelines, waterways, rail and trucking networks – is the safe connection between America’s vast natural gas and oil reserves and consumers. To fully take advantage of the abundant supplies of North American natural gas and oil, the U.S. needs to maintain its existing infrastructure while building new infrastructure to support parts of the country that do not have full access to these energy supplies. However, opponents of natural gas and oil are increasingly abusing the courts and regulatory processes to stymie needed projects. Legislative and regulatory policies and timelines are needed to clearly and consistently establish requirements for operators. On the regulatory front, it’s critically important that the Nationwide Permit 12 program be renewed, the National Environmental Policy Act be modernized and EPA’s new rule clarifying states’ roles and timelines for water quality certification be fully implemented. API will continue to promote timely and consistent permitting, appropriate regulatory jurisdiction for interstate pipelines, cost-effective regulations and continued access for infrastructure development and maintenance.
Adopt Fuels And Transportation Policies That Prioritize Consumers' Needs

ENERGY POLICIES TO EMPOWER AMERICA'S PROGRESS

Repeal or significantly reform the Renewable Fuel Standard. Clearly label higher ethanol-blend fuels to protect consumers from misfueling that could damage engines in vehicles, boats, ATVs and other devices.

ENERGY POLICIES THAT WOULD HINDER AMERICA'S PROGRESS

Favor one vehicle technology over another via tax subsidies and credits and sales mandates, distorting the marketplace and limiting consumer choice.

Consumer choice and protection should be the focus of federal fuels and transportation policies. The Renewable Fuel Standard should be repealed or significantly reformed to protect consumers from ever-increasing biofuel mandates that force more ethanol into the nation's fuel supply than can be safely used in engines designed for standard, E10 gasoline. Pushing higher ethanol-blend fuels such as E15 into the supply could result in misfueling and/or damage to vehicles – including some new vehicles – boats, motorcycles, ATVs and outdoor power equipment not designed to use the fuel. Financial incentives for buying battery electric vehicles (BEVs), usually at taxpayer expense via subsidies and tax credits, distort the marketplace by directing consumer choice. Further, studies have shown these incentives are mostly enjoyed by wealthier Americans. Likewise, sales mandates like the one announced last fall by California and under consideration by other states, and banning new gasoline- and diesel-fueled vehicles by a certain date, limit options for Americans who can't afford zero-emission vehicles (ZEVs) or might prefer a conventionally powered vehicle. Consumer choice must be preserved, unencumbered by mandates and bans that distort the market. A fuel- and technology-neutral approach to reducing greenhouse gases on a life-cycle basis will likely provide the most cost-effective options.
Support The Free Trade Of U.S. Energy

**ENERGY POLICIES TO EMPOWER AMERICA’S PROGRESS**

Support free trade of U.S. natural gas, oil and petroleum products. Expand international trade and investment and market access for U.S. energy. Eliminate tariffs and other barriers that undermine U.S. energy exports.

**ENERGY POLICIES THAT WOULD HINDER AMERICA’S PROGRESS**

Impose indiscriminate tariffs and sanctions, such as those on steel and aluminum, which negatively impact domestic industries. Block or unnecessarily delay approvals for LNG export facilities, hurting U.S. competitiveness globally.

Trade barriers hurt consumers. U.S. imposition of tariffs, quotas and other sanctions against other nations, most notably China, has caused significant harm to Americans. 2018 tariffs caused a loss of about $1.4 billion per month in real incomes, according to National Bureau of Economic Research analysis. Instead, the U.S. should continue promoting expanded international trade and investment, fair and equitable market access for American products abroad, and the elimination of trade barriers that undermine trade flows. Free trade, especially energy trade, supports U.S. jobs and builds energy security for U.S. consumers. Conversely, tariffs and sanctions, such as those on imported steel, ultimately delay energy projects, harm U.S. energy leadership and impact consumers. Free trade also provides enormous benefits to American businesses and families. For example, LNG exports bring overseas sales revenue into America and lower global carbon emissions by helping other nations follow the U.S. in switching power generation to lower-emission natural gas. The permitting process for LNG export facilities must be swift, transparent and consistently applied, following the process developed by the Federal Energy Regulatory Commission and the U.S. Department of Energy, so that the U.S. can continue to increase LNG exports and help reduce global greenhouse gas emissions.
Incentivize Technology Innovation To Further Reduce GHG Emissions

**ENERGY POLICIES TO EMPOWER AMERICA’S PROGRESS**

Enact market-based government policies to reduce GHG emissions from all economic sectors. Support the ambitions of the Paris Agreement to reduce GHG emissions and maximize U.S. leadership in addressing the global climate challenge.

**ENERGY POLICIES THAT WOULD HINDER AMERICA’S PROGRESS**

Adopt policies that achieve limited GHG emissions reductions at a high cost to taxpayers and consumers. Add duplicative or unnecessary regulation for emissions reduction.

The risks of climate change are real. Our companies have played and will continue to play a significant role in reducing U.S. greenhouse gas emissions (GHG) that contribute to climate change. Increased use of natural gas is the No. 1 reason U.S. power sector carbon dioxide emissions decreased 8% in 2019 and have fallen 33% since peaking in 2007. Government policies that spur technologies and innovation can help tackle the dual challenge of reducing GHG emissions while meeting demand for affordable, reliable energy. Market-based policies can foster meaningful emissions reductions across the economy at the lowest societal cost. An example can be carbon pricing – balancing reducing GHGs with flexibility and pacing to keep energy affordable. Government policy can encourage more innovation from industry, such as carbon capture, utilization and storage (CCUS). According to the National Petroleum Council, CCUS needs increased government support to achieve deployment at scale. Meanwhile, The Environmental Partnership, whose participants represent 74% of new U.S. natural gas and oil production, and other initiatives show industry’s commitment to continuous reductions of GHG emissions associated with production. The Partnership’s program of sharing knowledge, best practices and technologies – expanded in 2020 to invite midstream companies – is building on progress. Preliminary analysis of EPA’s latest GHGRP report and EIA data shows methane emission rates from five of the largest U.S. producing regions fell nearly 70% between 2011 and 2019. The Partnership’s focus continues to expand, adding a flaring program in 2020.
Support Investment And Fair Treatment Under The Tax Code

ENERGY POLICIES TO EMPOWER AMERICA’S PROGRESS

Treat natural gas and oil the same as other capital-intensive businesses in the tax code. Maintain cost-recovery mechanisms, such as those for intangible drilling costs, interest expense and research and development – to encourage future investment.

ENERGY POLICIES THAT WOULD HINDER AMERICA’S PROGRESS

Single out natural gas and oil for tax increases by taking away tax provisions available to other industries, potentially discouraging new investment and development. Increase industry taxes to fund new programs or initiatives. Impose burdensome and costly changes to international tax policy that could make U.S. companies less competitive abroad.

As the U.S. continues to address economic impacts from the pandemic, policymakers should continue to promote American investment and wage growth by defending tax changes from the Tax Cuts and Jobs Act (TCJA) – including a 21% corporate tax rate, full expensing and new investments for research and development. The law’s historic changes to international tax policy should be maintained. Those changes already address concerns around shipping jobs and investment overseas and encourage businesses to invest more at home. Further changes to the TCJA’s international tax policy, however, could subject American companies to double taxation and hurt our industry’s ability to compete abroad and bring revenue back to the U.S. According to IRS data as of 2018, our industry returned $100 billion on average a year from foreign operations. American businesses and consumers shouldn’t be punished so lawmakers can score political points. The natural gas and oil industry does not receive special tax treatment. It uses expensing and cost recovery mechanisms like other capital-intensive industries, all of which promote investment and economic growth. Non-retail industry employees earn almost twice the national average, while industry pays billions every year in taxes, royalty payments and fees to state and federal coffers. In addition, our industry’s revolutionary investment in natural gas production has reduced electricity bills for American families 14.5% since 2008, according to the Bureau of Labor Statistics.
The Report

U.S. NATURAL GAS AND OIL BUILDING TODAY, TOMORROW AND THE FUTURE

Americans appreciate the inextricable links between energy from natural gas and oil and prosperity and security. In the sections that follow, see how our industry is focused on keeping America growing and secure by providing a firm, reliable and resilient energy foundation – safely and responsibly developed to protect the environment as well as the communities in which we operate – Today, Tomorrow and in the Future.

Today

BUILDING TODAY

America is the globe’s energy leader, with high-quality natural gas and oil reserves and a strong, technologically advanced industry that has been integral to every chapter of modern U.S. history. Our industry has the size and resources to help lead a national economic recovery. Energy empowers American progress; it takes energy to grow and adapt, to innovate and move forward – and to build a better future. Today, we’re powering the lives of Americans from coast to coast – keeping the lights on, heating homes, getting people to work, helping family budgets with lower energy costs, reinvigorating U.S. manufacturing and providing the challenges of today for a stronger economy and a brighter, cleaner future.

Powering Economic Recovery and Spurring Job Growth

American global energy leadership means increased self-sufficiency and the ability to help Americans find opportunities for better lives – through high-paying industry jobs that are valued by union and non-union tradespeople alike, as well as those industry supports across the economy. Industry supports more than 10 million jobs and contributes billions to U.S. GDP. According to government and private data, we’re driving nearly $270 billion of capital investments currently being maintained or under construction – from pipelines, refinery and petrochemical expansions to processing, storage and export facilities. These kinds of high value-added projects can transform communities and states, contributing an array of benefits throughout the economy not seen in the U.S. in a generation.
Committing to the Highest Performance through New ‘Energy Excellence’ Initiative

API members affirm their commitment to continuously improving safety, environmental, security and sustainability performance through a new Energy Excellence program. It includes 13 core elements – from corporate leadership and community engagement to emergency preparedness and risk management – that every API member is expected to pursue and reach. The program is a roadmap for applying API/industry standards (see developing professional standards section below), implementing workforce training, participating in performance initiatives and sharing best practices. Members will show progress through annual, transparent reporting, assuring accountability and sustained effort. The goal is API-wide conformance by 2025.

Leading the World in Natural Gas and Oil Production

Natural gas and oil are the most important energy sources for the U.S. and other modern economies – affordable and reliable now and potentially for decades to come. The U.S. is the global leader in natural gas and oil production, built through innovative technologies, including advanced hydraulic fracturing, 4D imaging and horizontal drilling, that harnessed the country’s vast shale reserves – resources that once were economically unavailable.

U.S. Natural Gas and Oil Production

Quadrillion British thermal units
Developing Feedstocks at Refineries That Go Into Products Americans Use Every Day

Refineries provide petrochemical feedstocks that are used principally for the manufacturing of chemicals, synthetic rubber and a variety of plastics found in a variety of everyday products. These include soaps and detergents, solvents, medicine, fertilizers, pesticides, synthetic fibers, paints, epoxy resins, flooring and insulating materials – all things that make daily life better.

Did you know that petroleum is a key ingredient in:

- Medicine
- Sports equipment
- Toiletries
- Clothing
- Electronics
- Automobiles

Creating Safe Connections Between Energy and Consumers Through Infrastructure

Every day, Americans can count on the delivery of crude oil, natural gas and products through a vast infrastructure network that has grown 12% over the past five years. Transmission and distribution lines total more than 2.6 million miles. Total crude oil and petroleum product barrels delivered by pipelines totaled more than 21 billion barrels in 2017. These are fuels and other finished products that power Americans’ personal mobility and the country’s commerce. They are the components used to manufacture countless consumer items. U.S. pipelines safely deliver products to Americans virtually all of the time, and industry is committed to its goal of operating with zero incidents through a robust safety program. Beyond pipelines, properly investing in both coastal and inland waterway infrastructure ensures that the natural gas and oil industry – in addition to all of the other industries that rely on the U.S. waterway system – can continue to safely transport energy into, out of and around the U.S.
Lowering Household Energy Costs and Supporting Communities

Abundant domestic energy has helped lower energy costs for American households, providing $203 billion in annual savings – about $2,500 a year for a family of four, according to a 2019 White House report. And electricity generated using low-cost natural gas has contributed to even more savings through lower heating bills. Further, gasoline prices in 2020 were about 39% lower than they were in 2011. Meanwhile, the natural gas and oil industry sends billions of dollars to federal, state and local treasuries through taxes, royalty payments and fees. Severance taxes, the vast majority from natural gas and oil activity, contributed more than $14 billion to state treasuries in 2019. Industry pays its fair share in taxes and then some, with an effective tax rate of 34% between 2013 and 2017, compared to 26.7% for the S&P industrials.

Continuously Improving Our Environmental Performance

Producing More Energy While Lowering Methane Emissions
Methane emissions rates – emissions relative to production – were down nearly 70% in five of the largest producing regions in the U.S. between 2011 and 2019, according to data from EPA and EIA.

Promoting Technologies and Protocols to Reduce Flaring
Participants in The Environmental Partnership, industry’s coalition focused on continuously improving environmental performance, have committed to sharing technologies and best practices to reduce flaring.

Making Products that Perform Better and Cleaner
U.S. refiners are producing cleaner gasoline and diesel fuels which, coupled with advanced vehicle technologies, means today’s new cars, SUVs and pickup trucks are about 99% cleaner for most tailpipe pollutants than vehicles in 1970.
Falling Methane Rates in Natural Gas Production From Key Basins

Metric Tons CO₂ equivalent per million cubic feet produced

Being Good Neighbors

Our companies recognize that being a good neighbor is integral to the impact they make with the communities where they operate – where their workers live and raise their families.

DURING THE PANDEMIC, THE ENERGY INDUSTRY HAS DONATED OVER $100 MILLION and more than two million pieces of PPE to keep our communities safe.

Supporting Conservation and Preservation in All 50 States

Offshore oil and natural gas development has supplied virtually all of the billions of dollars spent since 1965 on parks, conservation and recreation from the federal Land and Water Conservation Fund (LWCF). The LWCF was to distribute more than $227 million to all 50 states, five U.S. territories and the District of Columbia.
The LWCF was to distribute more than $227m to all 50 states, five U.S. territories and the District of Columbia.

Understanding Public Interests, Strengthening Community Relationships

As the industry expands or maintains natural gas and oil infrastructure, pipeline operators must establish local relationships, address performance issues and engage community stakeholders. Critically important is communicating the value of infrastructure to businesses, families and individual consumers. Energy infrastructure creates opportunities for local economic growth and other benefits for communities. The industry’s commitment to being a good neighbor throughout a pipeline project requires ongoing dialogue with local communities and other key stakeholders. API’s Community Engagement Guidelines for Pipeline Projects provide actionable strategies for identifying interests, issues and concerns.

Developing Professional Standards to Protect Workers and Communities

Safety – for industry workers, the facilities where they work and the surrounding community and environment – has been advanced for nearly 100 years through API industry standards. The natural gas and oil industry does not wait for legislation or regulation to advance safety. With more than 700 standards covering all segments of the industry – developed through a rigorous process accredited by the country’s foremost certifying organization, energy development has never been safer.

PLEASE GO TO DIGITAL REPORT TO VIEW
Building Tomorrow

Natural gas and oil will continue to play a foundational role in the world’s energy mix for decades to come, according to the U.S. Energy Information Administration and the International Energy Agency. Consider: Even if the United States participated in meeting the aggressive sustainability goals of the Paris Climate Agreement, natural gas and oil would be needed to supply close to half of the world’s energy in 2040. Affordable, reliable natural gas will continue to partner with renewables, including wind and solar, so that consumers are served 24/7, rain or shine. Oil will continue to be integral to fuel the world’s transportation sector – supplying 62% or more of energy demand in 2040 – and to others, including manufacturing, pharmaceuticals, consumer products and more. We’ll do this and reduce emissions while we’re doing it through continued innovation and new technologies. These include the broad deployment of carbon capture, utilization and storage, fuel cells, more efficient gasoline- and diesel-fueled vehicles and others. The natural gas and oil industry is at the forefront of next-generation energy research and development that will shape America’s tomorrow and the future. Natural gas and oil are here for the long haul.

World Energy in 2040: Oil & Natural Gas Will Continue to Lead

Produce Natural Gas as a Foundation for a Cleaner Future

Abundant, affordable natural gas is the linchpin for a cleaner future, based on what it already is doing: America has increasingly turned to natural gas to generate electricity, often replacing coal, which has helped lower U.S. carbon dioxide emissions to their lowest levels in a generation. No other nation has cut CO₂ emissions more than the U.S. since 2000. Even progressive climate plans include a critical role for natural gas in advancing sustainable technologies. Fuel switching from coal to natural gas has accounted for about 61% of reduced carbon dioxide emissions from the power sector since 2005.

The Environmental Partnership’s participants performed more than 116 million component inspections and surveyed more than 87,000 sites in 2019.

No other nation has cut CO₂ emissions more than the U.S. since 2000.
Natural Gas, Renewables and CO₂ Savings In Electricity Generation

Since 2006, natural gas accounted for more than 60% of carbon dioxide emissions reductions resulting from fuel switching in the power sector.

Capitalize on CCUS to Lower CO₂ Emissions From Energy Use

Carbon Capture, Utilization and Storage (CCUS) Holds Great Promise for a Future That Must Include Natural Gas and Oil.

**STEP 1: CAPTURE**
CO₂ emissions from energy facilities are captured before they enter the atmosphere. CO₂ is separated out of the captured gas and processed into a compressed gas for safe transport.

**STEP 2: TRANSPORT**
CO₂ is transported via pipelines to a safe storage site.

**STEP 3: STORE**
The CO₂ is injected deep underground into a carefully selected geological formation, where it will remain permanently separated from the atmosphere. In other cases, it can be transported to a manufacturing facility to be used in products.

Between 2006 and 2016, the natural gas and oil industry spent $60.4 billion on end-use technologies to reduce greenhouse gas emissions, including CCUS.
Partner Reliable Natural Gas with Renewables

Going forward, the United States needs contributions from all energy sources. As renewable energy grows, it’s clear wind and solar need a reliable, quick-starting partner to expand further, and that’s natural gas. Natural gas has a number of unique attributes that are good for the health of the electricity grid. This allows grid operators and public utilities to invest more in renewables, knowing dependable natural gas will provide fuel for generation when the sun isn’t shining and/or the wind isn’t blowing.

Invent Materials for the Next Evolution of Technologies from Natural Gas and Oil

Crude oil, natural gas, petroleum, coal and natural gas liquids will have an important role to play as sources for a number of carbon-based materials – nanotube and graphene-based components, for example – that can provide effective solutions for future challenges. These are strong, lightweight, highly conductive and biologically compatible. Their applications include micro- and nano-electronics for environmentally actuated sensors, solar cell textiles, roll-up screens for televisions and computers, body prosthetics, inexpensive processes to produce fresh water from sewer water and seawater. Other applications include advanced batteries, corrosion mitigation, improved medical imaging agents and targeted drug delivery and cancer treatments. Large graphene sheets will enable building and transportation materials that are stronger and lighter, which would apply to most auto and aerospace components, rail cars, locomotives, shipping containers, and new ship designs.
Reduce Greenhouse Gas Emissions by Adapting Traditional Refineries to Produce Renewable Fuels

Refiners are doing their part to lower GHG emissions by converting traditional refineries to plants that produce renewable fuels. For example, one company has announced plans to reconfigure its California refinery to process used cooking oil, fats, greases and soybean oils to produce renewable diesel, renewable gasoline and sustainable jet fuel. Another company has initiated the permitting process to convert a California refinery to produce renewable diesel from biobased feedstocks such as animal fat, soybean oil and corn oil. In addition to producing renewable fuels, U.S. refineries also are looking to improve their energy efficiency, which will lead to reductions in GHG emissions.

Improve Efficiency of Liquid-Fueled Vehicles

Ongoing research in the formulation and application of advanced motor fuels, lubricants and petrochemicals will continue to support efforts to mitigate the growth of GHG emissions and improve efficiency in the transportation sector. For example, the use of lightweight plastics and polymer-composite technologies in automobiles has contributed to improved fuel efficiency while keeping passengers safe. National Highway Traffic Safety Administration (NHTSA) studies from 2012 and 2017, concluded that plastics and composites (which are primarily manufactured using petrochemical feedstocks supplied by refineries) can offer considerable weight savings in the vehicle while still satisfying safety requirements. Additionally, refineries are actively partnering with the auto industry through the Coordinating Research Council and the U.S. Department of Energy Co-Optima and USDRIVE programs to identify new ways to improve fuels and advance the design of combustion engines to boost efficiency and reduce emissions.
BUILDING THE FUTURE

While we can’t know precisely what lies beyond America’s far horizon, we’re confident it will be brighter and cleaner because of today’s natural gas and oil abundance and our adapting, evolving industry. Long-range forecasts, glimpsing the second half of this century, suggest natural gas and oil will be an important piece of the energy picture — even as our companies pioneer new technologies to continue increasing production efficiency, maximize reserves, protect the environment and open paths to new energy sources altogether. We’ll help solve some of society’s biggest energy challenges — and challenges in other sectors of society, too — because that’s what we’ve always done. We’ll do our work to bring American energy forward and to help Americans in the future have better lives.

Support Industry’s ESG Engagements

The natural gas and oil industry’s continuous focus on environmental, social and corporate governance issues — which is integral to the way companies conduct business — is based on recognizing the relationship between effective management of these issues and a company’s operational performance. While our members always have been responsive to the financial sector’s expectations, the partnership between the two is growing. There’s an increase in corporate reporting on climate risks and opportunities and the way companies manage both. Taking action to reduce greenhouse gas emissions associated with the natural gas and oil industry is at the core of industry’s mission, and API’s Climate Policy Principles underscore industry’s commitment to engage constructively on climate policymaking.

Assemble a More Diverse, Inclusive Workforce to Tackle Future Challenges

Industry itself is preparing for the future by building the workforce of the future, one that grows in its diversity and inclusiveness — because industry needs the intellect and creativity of people from all races, ethnicities, genders and experiences to tackle challenges ahead. In short, diversity makes us better. Our companies are laying this foundation by helping increase educational opportunities for more students in science, technology, engineering and mathematics (STEM). They’re also diversifying supply networks by engaging more minority-owned businesses. Nearly 50% of new industry-related job opportunities will be filled by African Americans, Hispanic Americans, Asian Americans and non-whites through 2040.
Between 2019 and 2040, nearly 930,000 job opportunities in the natural gas, oil and petrochemicals industries are projected to be filled by people of color; more than 390,000 jobs are projected to be filled by women.

Expand Deployment of CCUS to Further Reduce CO₂ Emissions

Broadening the use of carbon capture, utilization and storage is key to a lower-emissions future, one that will continue to be powered in large part by natural gas and oil – about half and perhaps more of the world’s energy use in 2040, according to the International Energy Agency. The National Petroleum Council – an advisory group that includes the oil and natural gas industry, other industries, federal and state government officials, prominent associations and NGOs, and public and private universities – recommends substantial increases in government policy support for deployment of CCUS at scale – 16 times today’s level of capture in the next 25 years.

Serve More Americans with Affordable Energy via Modern Infrastructure

Affordable, reliable energy can be made available to Americans in all parts of the country by adding to the nation’s infrastructure network – pipelines built with state-of-the-art materials and serviced with next-generation technologies that enable real-time responses to any integrity issues that may arise. Building toward the infrastructure network of the future will require furthering stakeholder involvement, from pre-planning stages through to completion and into operation. The goal will be broader, fairer access to dependable energy in under-served parts of the country.

Act to Ensure Future Grid Reliability

The electricity grid of the future will be more stable, reliable and stronger to serve the needs of consumers everywhere – lowering emissions and keeping the lights on. It will require generating fuel sources to support the grid’s complex engineering needs. Natural gas generation provides dispatchable, affordable and flexible power to maintain electric reliability while accommodating the integration of additional intermittent renewables such as wind and solar. California’s difficulties meeting electricity demand last year illustrates the need for natural gas as the foundation power generation.

Increase Energy Production and Efficiency through Technology

A wide range of emerging technologies will help our industry meet growing demand for natural gas and oil as efficiently as possible. From new forecasting analytics that predict the amount of natural gas and oil to be found in newly drilled wells, to using microscopic saltwater droplets and inexpensive, non-toxic nanofluid to enhance oil recovery, industry’s partners in scientific research are working on ways to make production more efficient – ultimately benefiting consumers.
Deploy New Innovations to Further Reduce CO₂ Emissions

Beyond natural gas’ ability to reduce CO₂ emissions fueling electricity generation, innovations and developing technologies could lower them further in other processes that use natural gas. A method called chemical looping combustion, allowing natural gas facilities to operate without any emissions, is under research. Another study by MIT scientists, with industry support, would use membranes made of anodized aluminum oxide to continuously remove CO₂ from waste gases in a range of industrial exhaust systems and from the air itself. Still another methodology, which is being developed by National Institute of Standards and Technology researchers, uses a chemical process at room temperature – versus the high temperatures of conventional processes – to eliminate CO₂ in power plant exhaust and also reduce costs and energy requirements in chemical manufacturing.

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What opportunities will be available for minority Americans in the industry of the future?

How well does the natural gas and oil industry pay compared to other sectors?

Are natural gas and oil energy sources for the future?

What role will oil play in transportation two decades from now?

How important do Americans feel natural gas and oil are for the future?

Who benefits from tax credits given to buyers of electric vehicles?
Ready to Build the Future

With abundant and affordable natural gas and oil as a foundation, the United States can look to a future full of possibilities that will benefit Americans, their families and our country, together.

“By tapping American ingenuity and adopting a bipartisan approach, the natural gas and oil industry is prepared to advance practical energy solutions that benefit U.S. businesses and consumers, today and tomorrow.”

– API President and CEO Mike Sommers.

FEATURED VIDEOS

PLEASE GO TO DIGITAL REPORT TO VIEW VIDEO CONTENT