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INDUSTRY PREPARED FOR COVID-19

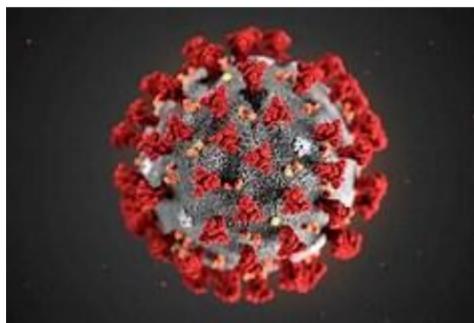
US oil and gas trade groups voice confidence on industry preparedness for virus

US oil and gas industry officials Wednesday, March 25, expressed confidence in the sector's ability to keep energy supplies flowing amid the corona virus outbreak and downplayed the likelihood of supply chain interruptions.

Suzanne Lemieux, American Petroleum Institute manager of operations, security and emergency response, said preparing for the corona virus was "not a new planning scenario" for sophisticated companies that have faced international viruses before such as Ebola, SARS, MERS, and H1N1. "There are a lot of conditions that we're operating under and may see in the future that are similar to what happens during a hurricane or natural disaster," said Lemieux. "As far as production, refining and transportation, we don't see a scenario that would directly affect the supply chain at this point." She made reference to the industry's ability to keep operations running even "while going through minimal staffing." She and other trade group officials highlighted their ability to share workforce resources across locations, should one area experience problems.

Gas Pipelines

C.J. Osman, Interstate Natural Gas Association of America vice president for operations, safety and integrity, emphasized the resilience afforded by the interconnected nature of the natural gas grid and diverse US sources of gas supply. And he noted that pipeline companies are standing up business continuity plans, INGAA members are working on social distancing, for instance, limiting access to key sites like control rooms, and rotating workgroups into different shifts to separate key workers. He also cited cleaning protocols, particularly at key locations, tests of communications to ensure continuity, and standing up plans to respond to an infection or event at a given location, similar to plans to respond to pipeline disruptions, as required for Department of Transportation exercises on a recurring basis. The officials expressed confidence that their preparation, much of which is required by regulation, sets



them up well to face the current emergency.

Pandemic planning

"Pandemic emergency planning is part of the DNA of the gas industry and our members," said Andrew Lu, American Gas Association managing director for operations and engineering services. Such planning has been part of gas utilities' emergency drills and simulations for decades, he said.

He noted steps to reduce virus exposure such as ensuring supplies of soap and water for field staff, keeping six-foot separations from the public, and, where possible, deferring non-essential work inside customers' homes.

Lara Swett, American Fuel and Petrochemical Manufacturers vice president of technical and safety programs, said companies have set up their own emergency response centers, established communications across the sites, and have been implementing their customized COVID-19 plans.

"These include considerations for staffing, regular disinfecting, remote working and implementing social distancing for all personnel functions," she said.

The groups also noted their regular contact with government agencies, such as the Department of Homeland Security, Department of Energy, Department of Transportation, and FEMA.

Asked about how refineries or other industrial facilities would respond to staff shortages at a specific facility, Swett suggested in such a case there would be consideration of changing operations to adjust for staffing levels. "But the most important thing is that operations are maintained safely. So as things come out, this is a very fluid situation. That is something that our facilities and our companies are seriously looking at," she said.

EXTENDED RANGE FORECAST OF ATLANTIC SEASONAL HURRICANE ACTIVITY AND LANDFALL STRIKE PROBABILITY FOR 2020

By Philip J Klotzbach, Michael M. Bell, and Jhordanne Jones

We anticipate that the 2020 Atlantic basin hurricane season will have above-normal activity. Current warm neutral ENSO conditions appear likely to transition to cool neutral ENSO or potentially even weak La Niña conditions by this summer/fall. Sea surface temperatures averaged across the tropical Atlantic are somewhat above normal. Our Atlantic Multi-decadal Oscillation index is below its long-term average; however, most of the tropical Atlantic is warmer than normal. We anticipate an above-average probability for major hurricanes making landfall along the continental United States coastline and in the Caribbean.

ATLANTIC BASIN SEASONAL HURRICANE FORECAST FOR 2020

Forecast Parameter and 1981-2010 Average (in parentheses)	Issue Date 2 April 2020
Named Storms (12.1)	16
Named Storm Days (59.4)	80
Hurricanes (6.4)	8
Hurricane Days (24.2)	35
Major Hurricanes (2.7)	4
Major Hurricane Days (6.2)	9
Accumulated Cyclone Energy (106)	150
Net Tropical Cyclone Activity (116%)	160

PROBABILITIES FOR AT LEAST ONE MAJOR (CATEGORY 3-4-5) HURRICANE LANDFALL ON EACH OF THE FOLLOWING COASTAL AREAS:

- 1) Entire continental U.S. coastline - 69% (average for last century is 52%)
- 2) U.S. East Coast Including Peninsula Florida - 45% (average for last century is 31%)

Continued on page 3.

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Census 2020 Making Your Population Count



The beginning of the next decade means it's time for another national census. The constitutionally required

decennial census attempts to determine exactly how many people live in the United States, regardless of citizenship. Unlike the annual population estimates that guess how populations have changed, the decennial census methodically attempts to count every single person residing in this country. The results will have a lasting impact on the nation, on both a federal and state level.

The census also significantly impacts local communities. While the most talked about implication will be the reapportionment of the U.S. House of Representatives (and thereby the Electoral College), other changes will arguably have a greater effect on residents' daily lives. For starters, the census results also impact the electoral representation of states and municipalities.

Following the 2020 Census, the General Assembly will use the new data to redraw state House and Senate boundaries, in preparation for the 2022 election.

- ◆ Similarly, municipalities that use an aldermanic system will have an opportunity to redraw their boundaries using the census results. The Illinois Municipal Code provides the number of aldermen that a city should retain based on the census population:

- ◆ Up to 3,000 inhabitants = 6 aldermen
- ◆ 3,001 to 15,000 inhabitants = 8 aldermen
- ◆ 15,001 to 20,000 inhabitants = 10 aldermen
- ◆ 20,001 to 50,000 inhabitants = 14 aldermen
- ◆ 50,001 to 70,000 inhabitants = 16 alderman
- ◆ 70,001 to 90,000 inhabitants = 18 aldermen
- ◆ 90,001 to 500,000 inhabitants = 20 aldermen

Alternatively, cities exceeding 15,000 in population can adopt an ordinance or resolution establishing two fewer aldermen than prescribed above (e.g., eight aldermen for a city of 18,000 people). There is also an exception that allows an increase in aldermen to 16, but only for cities with a population between 40,001 and 50,000 people.

Therefore, a city that moves up or down into a new tier following the 2020 Census may choose to add or subtract the appropriate number of aldermen on its city council. While changing the number of aldermen is not required, a city council that wants to retain its current number of aldermen despite the increased population must adopt an ordinance or resolution to that effect within one year of receiving the census results.

Regardless of whether a city changes its number of aldermen, the census provides a natural opportunity to review and possibly alter ward boundaries based on population. The census counts will allow municipalities to see how many residents live in each ward. If there is a large discrepancy among ward sizes, cities may choose to draw new ward boundaries to account for the shifting population.

Changes to the number of aldermen and ward boundaries in a city will not occur until after the next municipal elections, though. The federal government plans to send census counts to the President in December 2020, but municipalities will not receive their specific data until the spring of 2021, likely after the next consolidated election. Therefore, the first local election affected by the 2020 Census will be in 2023.

The census impacts municipalities beyond elections, though. For municipalities that were hovering under 25,000 inhabitants in 2010, this new census might make them home rule units of government, giving them greatly expanded authority and powers. The results of the census will also significantly impact the amount of money local communities receive over the next decade. Part of that is because census data helps businesses and other entities determine where future locations should be built. Primarily, though, numerous state and federal programs use census figures as a qualifier or quantifier for distributing grants.

The biggest user of census data for fund distribution is Medicaid, which distributed well over \$300 billion last year on that basis. The Supplemental Nutrition Assistance Program (SNAP), Medicare Part B, Highway Planning and Construction, Temporary Assistance of Needy Families (TANF), and Section 8 Housing Choice Voucher are among the top 10 of 132 programs using census data to determine the appropriate use of funds. Similarly, school districts rely on census-based grants, with the National School Lunch Program, Title 1 Grants, Special Education Grants, and Head Start basing their recipients at least partly on census data.

For municipalities, though the likelihood of obtaining needed funds for infrastructure, public transit, housing, energy, crime, and a bevy of social services is tied closely to the population figures. Generally speaking, most state and federal agencies rely on the population numbers revealed by the census to determine where their involvement is most needed in a community.

With so much riding on these numbers, when the data is eventually released, municipal leaders often dispute the U.S. Census Bureau count. There is a formal process for challenging the results of the census-Count Question Resolution (CQR)-but the Census Bureau has not yet published the guidelines for submitting a challenge. That information will likely be available in May 2020.

If the CQR operates as it did for the 2010 census, there are only three types of challenges: boundary (were the correct boundaries used?), geocoding (were people assigned to the right governmental units?), and coverage (were entire housing units excluded?). No additional data is collected to resolve the challenges; municipalities would need to provide their own detailed evidence of mistakes made, which is why they have two years to file a challenge. Most importantly, the Bureau will not research whether a mistake was made in counting individual households; only broad mistakes can form the basis of a challenge.

If a municipality can satisfy the Bureau's conditions, it might be worth submitting a challenge, despite the associated cost. For the 2010 census, 16 municipalities in Illinois submitted challenges, and all but one resulted in a population adjustment. However,, the amount of change was typically just a handful of people.

Challenging the results of the census is a long-term concern. No challenges can be made until June 2021, after the data is released, and municipalities will have two full years to submit the required paperwork. For now, municipal leaders should focus on how to make sure their residents are counted correctly from the start.

Many municipalities invest in marketing campaigns, above and beyond what the U.S. Census Bureau does, to make sure residents know the value of timely and accurate responses. The census will largely be conducted online this year, so links and information on a municipal website will be beneficial, as will social media campaigns. There will still be a door-to-door presence for people who have not responded online. Thus, municipalities should be prepared for residents calling with questions about people knocking on their doors.

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James Danly sworn in as FERC Commissioner

James Danly was sworn in as a member of the Federal Energy Regulatory Commission (FERC) on March 31, 2020 by Judge Danny J. Boggs of the U.S. Court of Appeals for the Sixth Circuit.

"I'm so glad to have James join my colleagues and me as a Commissioner, particularly as FERC is dealing with many pressing issues related to the COVID-19 pandemic in addition to continuing the important work of the agency," FERC Chairman Neil Chatterjee said. "The Commission and the American people will benefit from Commissioner Danly's viewpoint on the many issues that we now have before us."

On March 12, the Senate approved on a 52-40 vote the President's nomination of James Danly to serve on the Federal Energy Regulatory Commission (FERC). Mr. Danly would fill the seat formerly held by the late Chairman Kevin McIntyre, with a term expiring on June 30, 2023. Mr. Danly previously served as FERC General Counsel. Prior to joining FERC, Mr. Danly was a member of the energy regulation and litigation group at Skadden, Arps, Slate, Meagher and Flom LLP.

The President nominated Mr. Danly last year and his nomination was approved in November on a 12-8 vote in the Senate Energy and Natural Resources Committee but the nomination never came before the full Senate, which is why he had to be renominated with the start of the second session of the 116th Congress. His renomination was approved by the Senate Energy and Natural Resources Committee on March 3 on a 12-8 vote.

In January, FERC Commissioner Bernard McNamee announced that he would not seek another term at the Commission but said he would stay longer at the agency if needed. McNamee's current term expires at the end of June.

Cheryl LaFleur, who served as a Commissioner at FERC for nine years, departed the agency last summer and now serves as a member of the ISO New England Board of Directors. With LaFleur's departure, the other Democratic seat remains open.



FERC Commissioner Richard Glick is a Democrat while FERC Chairman Neil Chatterjee is a Republican.

EXTENDED RANGE FORECAST OF ATLANTIC SEASONAL HURRICANE ACTIVITY

Continued from page 1.



3) Gulf Coast from the Florida Panhandle westward to Brownsville - 44% (average for last century is 30%)

PROBABILITY FOR AT LEAST ONE MAJOR (CATEGORY 3-4-5) HURRICANE TRACKING INTO THE CARIBBEAN (10-20°N, 88-60°W)

1) 58% (average for last century is 42%)

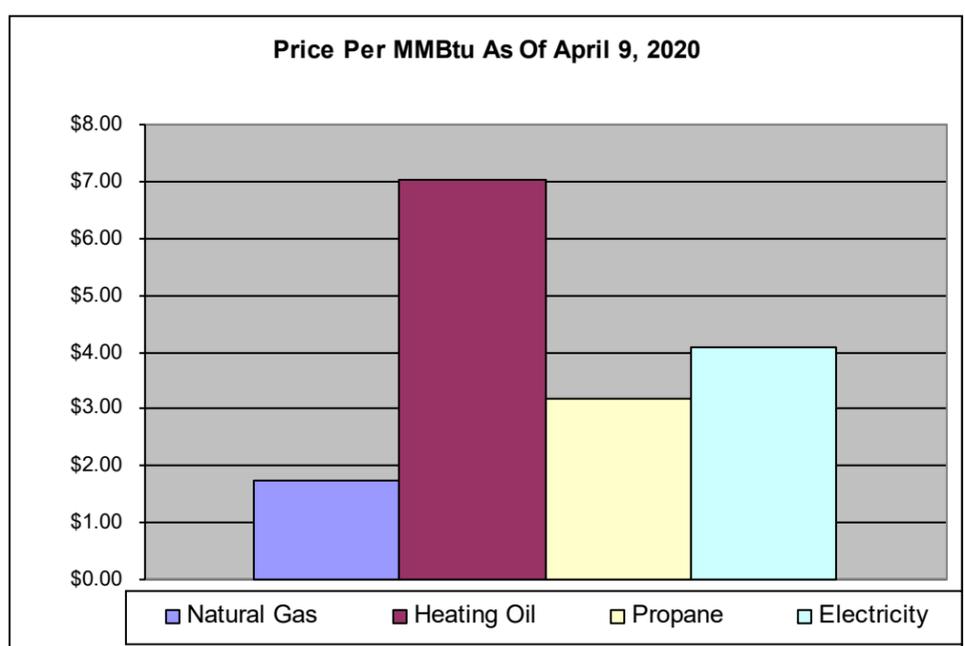
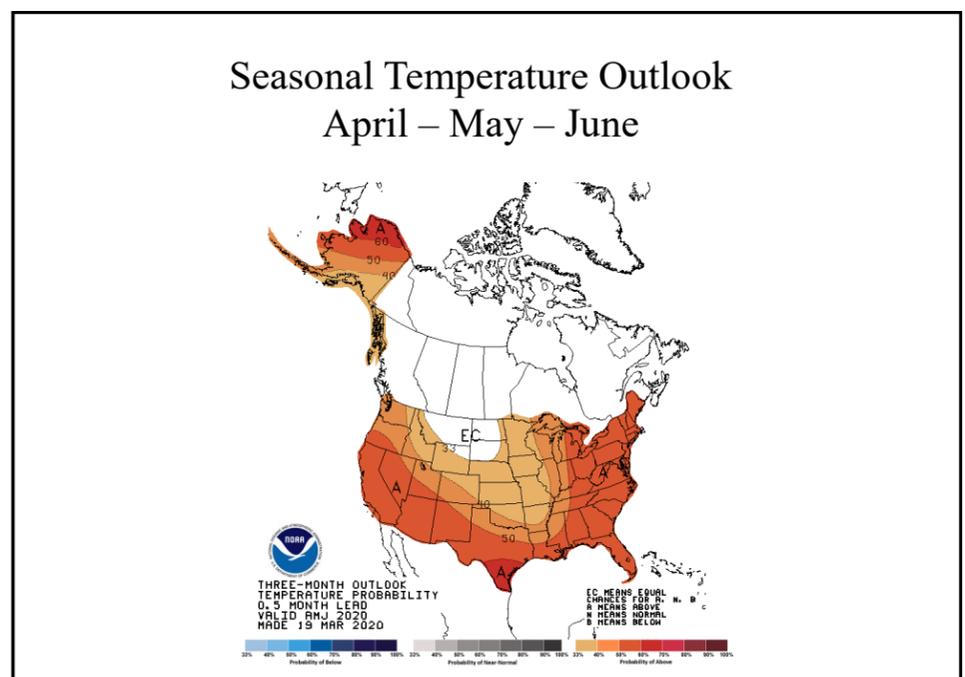
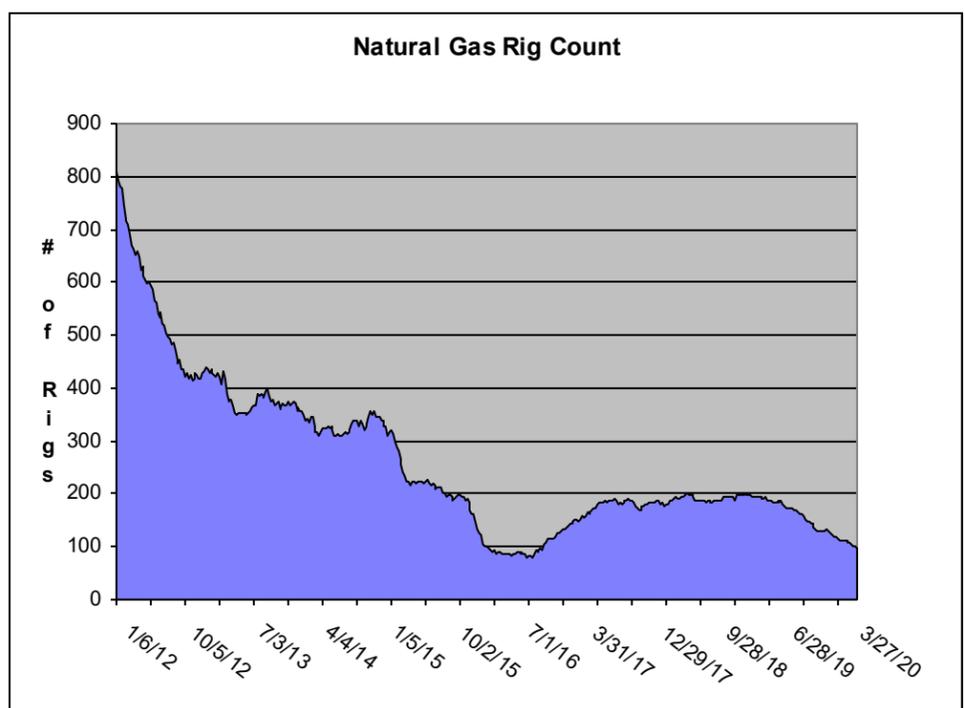
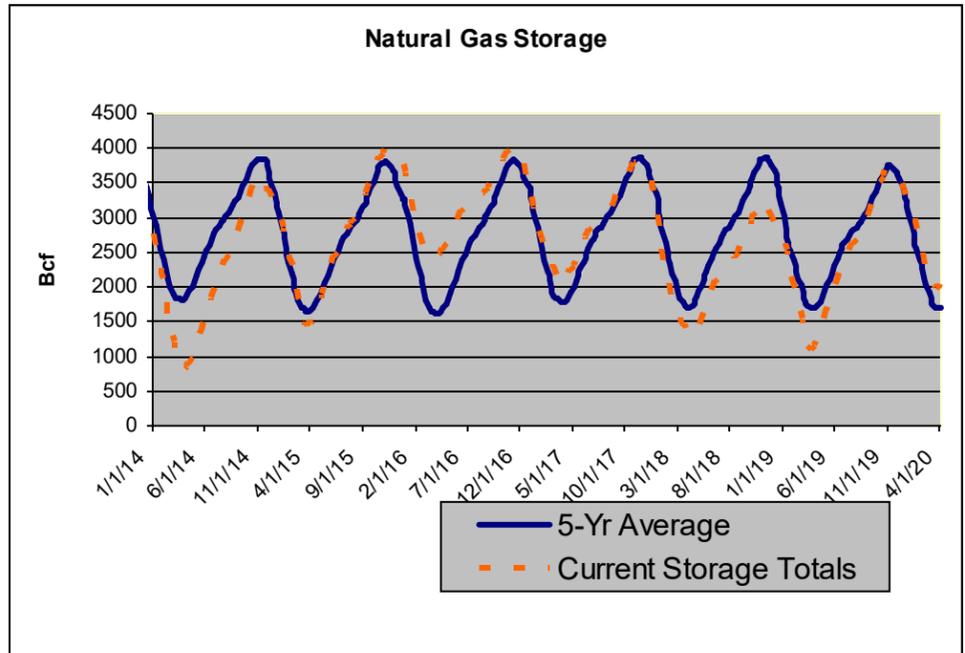
ABSTRACT

Information obtained through March 2020 indicates that the 2020 Atlantic hurricane season will have activity above the 1981-2010 average. We estimate that 2020 will have about 8 hurricanes (average is 6.4), 16 named storms (average is 12.1), 80 named storm days (average is 59.4), 35 hurricane days (average is 24.2), 4 major (Category 3-4-5) hurricanes (average is 2.7), and 9 major hurricane days (average is 6.2). The probability of U.S. major hurricane landfall is estimated to be about 130 percent of the long-period average. We expect Atlantic basin Accumulated Cyclone Energy (ACE) and Net Tropical Cyclone (NTC) activity in 2020 to be approximately 140 percent of their long-term averages.

This forecast is based on a new extended-range early April statistical prediction scheme that was developed using 38 years of past data. Analog predictors are also utilized. We are also including statistical/dynamical models based off data from both the ECMWF SEAS5 model and the Met Office GloSea5 model as two additional forecast guidance tools. We are also including probability of exceedance curves to better quantify the uncertainty in these outlooks.

The current warm neutral ENSO event appears likely to transition to either cool neutral ENSO or weak La Niña during the summer/fall. The tropical Atlantic is warmer than normal, while the subtropical Atlantic is quite warm, and the far North Atlantic is anomalously cool. The anomalously cold sea surface temperatures in the far North Atlantic lead us to believe that the Atlantic Multi-decadal Oscillation is in its negative phase. While a cold far North Atlantic is typically associated with a cold tropical Atlantic, that has not occurred this winter.

Snapshots



Reducing Methane Emissions The Natural Gas Solution

Why methane emissions continue to drop.

All energy sources have an environmental effect; from the space they take up to emissions produced throughout their life-cycle. As an example, there is some methane released during natural gas development. But despite a record-setting over the last three decades, the amount of methane emitted into the atmosphere during natural gas extraction continues to drop. Why? Because leading companies are working hard to continuously improve their environmental performance by developing new technologies, collaborating with other companies and colleagues, and implementing best practices that will bring these emissions down to nearly zero.

What is methane?

Methane is the primary component of natural gas. With a chemical formula of CH₄, methane is made up of four hydrogen atoms and only one carbon atom. The result? For the same amount of energy produced, burning natural gas emits significantly less CO₂ into the air than other fossil fuels.

Moving even faster in the right direction.

According to the Environment Protection Agency, methane emissions from the energy sector decreased 14 percent from 1990 to 2016, while natural gas output increased by more than 50 percent during the same period. And now, new industry programs are bringing companies together to share information and take actions that reduce methane emissions further and faster than ever before.

The Oil and Gas Climate Initiative has committed \$20 million to support technologies and businesses that detect, measure and mitigate methane emissions. And The Environmental Partnership, comprised of dozens of the country's largest natural gas companies responsible for 30 percent of U.S. production, has made a collective commitment to reach specific goals within the next five years that will drastically reduce operational methane emissions.

One of these goals is to create a more airtight infrastructure through the widespread replacement of pneumatic control valves. Pneumatic control

focus. Over the next eighteen months, companies will rapidly increase the use of technologies like optical gas imaging (OGI) infrared cameras to detect and measure methane leaks from a variety of gas industry equipment and will complete necessary repairs more quickly.

Companies are also ramping up internal training programs to ensure employees understand and follow all best practice protocols and procedures to reduce or eliminate methane emissions.

In addition to industry-led initiatives like these, natural gas companies are voluntarily participating in programs administered by the U.S. Environmental Protection Agency, including Natural Gas STAR, and Methane Challenge, both of which promote the use of technologies and practices that reduce methane emission. One successful practice is a protocol for completing new natural gas wells known as reduced emissions completion. Or "green completions." The process captures gas that would otherwise be released into the atmosphere during the final stage of bringing a new gas well online.

Since the start of these EPA programs, U.S. energy partners have implemented approximately 150 new technologies and practices and eliminated nearly 1.39 trillion cubic feet (Tcf) of methane emissions.

One goal, many benefits.

Controlling methane emissions is not only about environmental health and safety - it's also good economics. Methane is a valuable commodity; eliminating methane leakage means more natural gas is captured and retained, which can be sold and used as energy.

The increased use of natural gas has reduced carbon emissions, lowered costs to American consumers, and increased our nation's manufacturing competitiveness. U.S. industrial electricity costs are lower than those of our foreign competitors, giving manufacturers - including producers of steel, chemicals, refined fuels, plastics, fertilizers and numerous other products - a major competitive advantage.

Industry standards and existing regu-

Administration Finalizes Rule Impacting NGVs

By Doug MacGillivray, APGA

On March 31, the Trump Administration finalized its Safer Affordable Fuel Efficient (SAFE) Vehicles final rule. This final rule reflects the administration's updates for corporate average fuel economy (CAFÉ) standards for model years 2021 through 2026. The SAFE Vehicles rule had been in the works for several years and governs the fuel economy and tailpipe emissions of light duty vehicles. This includes alternative fuel vehicles, like natural gas vehicles.

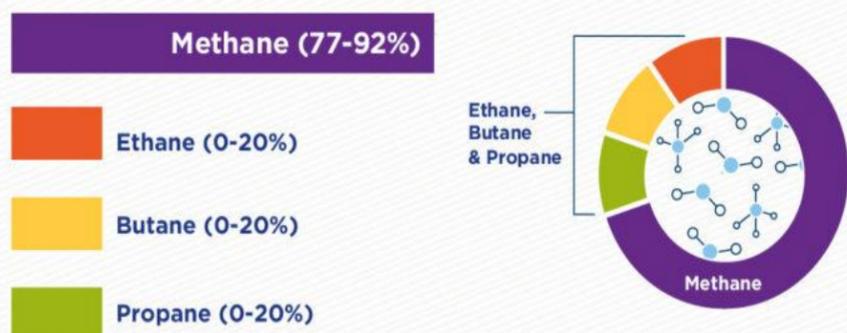
The SAFE Vehicles rule contains a number of provisions that impact natural gas vehicles (NGVs). The two-x sales multiplier for NGVs was extended, doubling value or credits generated by each NGV in a fleet. Greenhouse gas (GHG) emissions are factored at the tailpipe and not discounted, meaning that NGVs get more credit for GHG reductions than in the past. Additionally, the final SAFE Vehicles rule will better capture the benefits of NGV use across the light duty sector. It also removes a two-to-one driving range restriction and drive to empty provision.

lations on air emissions from EPA and other agencies are empowering the private sector to continue to innovate and deliver more natural gas and oil to customers while improving air quality and protecting public health and the environment without unnecessarily hampering manufacturing and business expansion.

What's more, the methane mitigation industry has taken off over the past six years, leading not only to cleaner air, but also to high quality jobs in a growing field. Methane mitigation equipment manufacturers and service providers are providing an array of good-paying jobs across nearly all 50 states.

The industry's numbers are trending in all the right directions. Natural gas production is up while carbon emissions are down, and the industry's big steps forward in reducing methane emissions are having a broad and positive impact. It all adds up to a win-win situation - for the industry, the environment, the American workforce, and energy consumers everywhere.

Natural gas primarily consists of:



Source: http://www.iea.org/publications/freepublications/publication/ngl2010_free.pdf

Methane is the clean-burning energy source that fuels our nation more efficiently and cost effectively than ever before. However, methane in the atmosphere is a greenhouse gas. That's why the industry's proactive stance on reducing methane emissions that occur during the development of natural gas is so important.

valves manage liquid levels, temperature and pressure during the production, transmission and storage of natural gas. Replacing existing pneumatic controllers with low- or zero-bleed alternatives will nearly eliminate a major source of emissions.

Methane leak detection, monitoring, and repair is another area of increased

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