The PIOGA Press

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Pennsylvania Independent Oil & Gas Association
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Lawmakers introduce the Pennsylvania Carbon Dioxide Cap and Trade Authorization Act

On November 20, members of the Pennsylvania House and Senate referred bipartisan companion bills House Bill 2025 and Senate Bill 950, both known as the Pennsylvania Carbon Dioxide Cap and Trade Authorization Act, to their respective Environmental Resources and Energy Committees for consideration.

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Sponsors Senator Joe Pittman (R-Armstrong) and Representative Jim Struzzi (R-Indiana) announced the bills in a press conference on November 19 in response to Governor Tom Wolf's October 3 Executive Order 2019-07. That order directed the Environmental Quality Board to propose, by July 31, 2020, a carbon dioxide cap-and-trade program for fossil-fuel-fired electric power generators which is at least as stringent as that developed under the Regional Greenhouse Gas Initiative (RGGI). (*For more detail on RGGI, see the October issue of The PIOGA Press.)*

The bills each provide a declaration of policy, procedures for the proper introduction of any program governing carbon dioxide emissions by the Pennsylvania Department of Environmental Protection and the process for submitting that program to the General Assembly for approval.

No current authority to regulate CO2 emissions

Section 2 of the bills finds there is currently no statutory or constitutional authority allowing a state agency to regulate or impose a tax on carbon emissions, and therefore the General Assembly, in consultation with DEP and other agencies, must determine whether and how to do so.

No rulemaking without specific statutory authority

Other than a measure required by federal law, Section 4 prohibits DEP from adopting any measure or taking any action to abate, control or limit carbon dioxide emissions (including joining or participating in RGGI or other state or regional greenhouse gas cap-and-trade program) or establishing a greenhouse gas cap-and-trade program unless the General Assembly specifically authorizes it by statute.

If DEP plans to propose such an action, Section 5 directs the agency to publish proposed legislation in the *Pennsylvania Bulletin* for at least 180 days and hold at least four public hearings in locations where regulated sources of carbon dioxide emissions would be directly economically affected by the proposal.

Following the public comment period, DEP must prepare a detailed report for both the Senate and House Environmental Resources and Energy Committees that

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Cap-and-trade bill *Continued from page 1*

addresses the ramifications of the proposal on affected facilities and Pennsylvania's economy. The report must identify the individual facilities, by county, that would be subject to the proposed action and must include:

• The amount of carbon dioxide emitted from each facility;

• The estimated cost of compliance;

• The effect the proposed action would have on the price of electricity;

• A list of facilities that would be unlikely to continue operating;

• An assessment of the decrease of electricity that would be exported from Pennsylvania; and

• An assessment of any impact on the resilience and diversity of Pennsylvania's electric generation fleet if an identified facility is forced to close.

The report must also address effects on the statewide economy, including:

• Direct and indirect costs to the Commonwealth, political subdivisions and the private sector;

• The wholesale and resale prices of electricity for residential, commercial, industrial and transportation consumers;

• Adverse effects on the prices of goods and services, productivity and competition; and

• The administrative, legal, consulting and accounting costs imposed by the proposal.

The report must also: i) estimate the net carbon dioxide reduction that the proposal would engender within PJM Interconnection (the regional transmission organization that coordinates the movement of wholesale electricity within Pennsylvania and 12 other states), considering electric generation in other PJM members that are not a part of RGGI or do not regulate or tax carbon dioxide emissions; ii) summarize and justify actions that would address leakage (an increase in emissions by facilities outside Pennsylvania in response to reductions in Pennsylvania); and iii) evaluate whether less costly or less intrusive alternative methods to achieve the goal of the proposed action have been considered for an employer or facility otherwise subject to the action.

Other implications

Although the sponsors centered the implications of their bills on the governor's attempt to unilaterally join RGGI, the bills were written broadly enough to require a General Assembly review and authorization process for any proposed cap-and-trade program, which would include any rulemaking that would result from the economy-wide cap-and-trade petition currently under consideration by DEP or the Environmental Quality Board. *(For more information on the cap-and-trade petition, see the April PIOGA Press.)*

Next steps

The bills will be discussed and voted on by their respective committees before reaching the floor of each chamber. As of this writing, there are no Environmental Resources and Energy Committee meetings scheduled for either the House or Senate through the end of the year. ■

Babst Calland continues to monitor HB 2025 and SB 950. If you have questions about how these bills may affect the governance of carbon dioxide emissions, please contact Kevin J. Garber at 412-394-5404 or kgarber@babstcalland.com, or Jean M. Mosites at 412-394-6468 or jmosites@babstcalland.com.

Pennsylvania Greenhouse Gas Inventory Shows a significant decline across all sectors

An interesting counterpoint to Governor Wolf's unilateral push to have Pennsylvania join the Regional Greenhouse Gas Initiative (RGGI), comes with an update to the state's Greenhouse Gas Emission Inventory. A draft of the update by the Department of Environmental Protection shows a reduction of nearly 19 percent in emissions from all sectors between 2005 and 2016.

Pennsylvania was responsible for 235 million metric tons of carbon dioxide equivalent in 2016, which represented an 18.8 percent decrease in greenhouse gas (GHG) emissions from the baseline year of 2005, according to the inventory.

The inventory is updated annually by DEP under the Pennsylvania Climate Change Act of 2008.

The latest inventory measures GHG emissions (typically carbon dioxide, methane and nitrous oxide) across seven sectors—residential, commercial, industrial, electricity generation, transportation, agriculture and waste management. The transportation, industrial and electric power sectors combined accounted for approximately 84 percent of the state's GHG emissions.

One of the most significant reductions has been in the electricity production sector, which declined steadily from 121.0 million metric tons in 2005 to 80.5 million metric tons in 2016. The electricity production sector had its lowest-ever recorded annual GHG emissions in 2016. During that same period, natural gas grew from 5.0 percent to 31.6 percent as a fuel for electric generation.

Emissions reduction goals set by Wolf call for a reduction of 26 percent by 2025 and 80 percent by 2050 from 2005 levels. A further reduction of 20.87 million metric tons is required to reach the 2025 goal, and 177.17 million metric tons to reach the 2050 target.

The draft update was to be presented this month to DEP's Climate Change Advisory Committee. ■

Pennsylvania joins a growing number of states to allow cross-unit drilling

An analysis of Act 85 of 2019

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The unconventional oil and gas well community is innovating at a lightning-fast pace, resulting in more efficient and effective wellbores that extend past the traditional 640-acre unit size. Innovation has not only lowered costs but could decrease surface disturbance and environmental factors. If a lateral can extend through multiple units, only one well pad would be necessary, not to mention a decrease in materials, access roads and temporary construction areas. However, doing so is often prevented by two issues: (i) existing spacing regulations and (ii) restrictive leasehold provisions, including restrictions on unit size and foreign gas.

This article will address these hurdles, showcasing how recently enacted legislation known as Cross Unit Drilling for Unconventional Wells (Act 85 of 2019, amending The Act of July 20, 1979, P.L. 183 No. 60 known as The Oil and Gas Lease Act) (effective January 6, 2020) has eased the burden on operators, while noting potential risks, pitfalls and best practices.

Current unconventional well spacing restrictions

Through statute, Pennsylvania mandates that any unconventional gas well must be at minimum 500 feet measured horizontally from the vertical well bore to a building or water well.[1] Further, an unconventional "well may not be drilled within 1,000 feet measured horizontally from the vertical well bore to any existing water well, surface water intake, reservoir or other water supply extraction point used by a water purveyor without the written consent of the water purveyor."[2]

Additionally, an operator would be prevented from drilling between two appropriately sized (i.e., 640 contiguous acres) units due to a setback limitation requiring that a conservation well—defined by the Commonwealth as any well which penetrates the Onondaga horizon, or in those areas in which the Onondaga horizon is nearer to the surface than 3,800 feet—be placed at least 330 feet from the limit of the leased property (meaning the closest unit boundary)[3]. For example, Unit A is restricted to 640 contiguous acres and Unit B is restricted in the same manner. The operator owns all of the working interest under all of the leases for both Unit A and Unit B. The operator wishes to drill a conservation well bore which extends beyond the unit limits of either unit and could, in theory and without additional lease-imposed restriction, drill between the two units. The operator would be explicitly barred from doing so due to the 330-foot location requirement.

These restrictions present operators with the cumbersome task of balancing the strategic placement of a well pad within the established unit in the most efficient and least wasteful geologic location, and the placement of said well in such surface location so as not to infringe on the setbacks surrounding physical structures, water supplies, etc.

Restrictive leasehold provisions

The other most common issue which has traditionally prevented a cross-unit lateral is a restrictive leasehold provision. Of course, each lease must be examined on a case-by-case basis and other restrictions other than what is discussed herein could impact cross unit drilling. However, the two most common and problematic are (i) unit size restrictions and (ii) a foreign gas clause.

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[1] 58 Pa. Consol. Stat. §3215.

[2] Id.

[3] P.L. 825, No. 369 § The Act of July 25, 1961. Please note that non-conservation wells are not subject to this 330-foot spacing requirement.

Restrictions on unit size are extremely common in oil and gas leases taken in the last 15 years—typically set at no more than 640 contiguous acres, or if lucky, 1,280 contiguous acres. The fact that the lease could not be included in a unit larger than allowable by the lease provision essentially handcuffed the operator into smaller units than current technology permits.

A foreign gas clause in a lease prohibits the transfer of "foreign" gas or other products which are attributable to another unit. Courts in Pennsylvania have not been presented with a cross-unit drilling scenario which includes a lease containing a "foreign gas" clause; however, it is possible that a court would recognize the entirety of the contiguous units as one individual unit as it has done in similar fashion when recognizing a leased tract as inseparable from its co-unitized tracts in an established unit for purposes of analyzing a foreign gas clause.

In the instances where the above-described provisions, or other equally restricting provisions, are included in an oil and gas lease, operators have been left with little option but to approach all lessors and attempt to acquire an amendment and modification to the lease. Expectedly, although most of the corpus of the lessor-impacting portions of the lease remain unchanged, lessors are not always apt to signing the necessary instrument without protest and demand of renegotiation.

Remedies of Act 85

Act 85 of 2019 allows an operator holding the working interest or fee interest for all tracts in contiguous units to utilize a wellbore that traverses via horizontal drilling more than one unit if (i) the operator reasonably allocates production and (ii) the traversing well is not expressly prohibited in the lease. By codifying this ability, an operator may now operate beyond the existing spacing restrictions and lease-imposed restrictions to traverse between units freely and extend the length of the lateral farther for more efficient drainage.

For illustration purposes, the operator may "stack" contiguous units. Unit A is 640 contiguous acres, with a well drilled thereon. Unit B is contiguous to Unit A and Unit C is contiguous to Unit B. The operator may now extend the lateral from the well pad placed on Unit A through Unit A, continuing through Unit B, ending in Unit C, all while creating surface disturbance on only one portion of Unit A and maintaining effective production for payments to lessors.

One important fact to note is that Act 85 does not permit operators to unilaterally modify lease terms or drill an oil and gas well across any property not subject to an oil and gas lease. However, so long as the leases included in the unit do not expressly prohibit cross-unit drilling, it is permitted. It remains to be seen how broadly courts will interpret lease provisions as prohibiting cross-unit drilling. Therefore, while Act 85 very clearly eliminates the first hurdle of well spacing requirements, it has fallen somewhat short of eliminating the second hurdle.

Concerns and best practices

Several concerns arise after the passage of Act 85: (i) how to allocate royalties from a cross-unit well and (ii) how to hold a cross-unit lateral by production. Act 85 does not provide much guidance regarding the allocation of royalties from a cross-unit. An operator may drill across more than one unit if:

> The operator reasonably allocates production from the well to or among each unit the operator reasonably determines to be attributable to each unit. The operator may allocate production on an acreage basis for multiple units provided the allocation has a reasonable correlation to the portion of the horizontal wellbore in each unit.

It would not be the first time that a subjectively "reasonable" standard has opened the door for litigious trouble. The most conservative operator—living in an ideal world—would obtain an allocation of payment document agreed to and acknowledged by the lessors in all affected units. This approach would grant contractual protection for the operator, thus preventing the

likelihood of a successful argument on the grounds of subsurface commingling or misallocation of payments. However, this is often not a practical solution, and would likely result in additional headaches. Therefore, best practice would be to create an internal policy which sets out a clearly defined allocation method which is utilized in all cross-unit drilling scenarios without exception.

Another potential litigious issue is one that is all too familiar in the oil and gas industry—what is sufficient to hold the leases by production. It is fairly well settled that (of course, certain exceptions in lease language aside) production resulting from any leased tract within a unit and resulting royalty payments to all lessors within the unit is sufficient to hold all unitized leased tracts by production. However, let's revisit our example above. Unit A contains the well pad, and the lateral extends through Unit A, Unit B and ends with Unit C. It is determined that it is most efficient to hydro-fracture only below Unit C for five years. At the end of year five, the primary term of the majority (if not all) of the leases comprising Unit A and Unit B are beyond their primary term. Will production from Unit C only be sufficient to hold the leases entirely comprising Unit A and Unit B by production, or will they have expired by their terms and the operator has missed the opportunity to develop those tracts? This will be a determination for the courts. Although it seems elementary, the best way to avoid this potential issue is to be diligent in maintaining lease records to be aware of which leases are held by production, which leases are not and when leases may be approaching the end of the primary term in order to extend or renew if possible.

In conclusion, the Commonwealth of Pennsylvania has acknowledged the industry's ability to innovate and prevent waste and has responded in kind. Unfortunately, due to the infancy of this new tool, little guidance exists. Therefore, diligence in lease review and consistently applying new internal policies applied without exception is the best practice as the industry navigates the waters of this exciting new development. ■

Wolf signs bill allowing horizontal drilling across units

Legislative update

To help accommodate ever-longer laterals in Appalachian Basin shale wells, Governor Tom Wolf on November 7 signed legislation allowing wells to be drilled horizontally across units, provided the operator has leases in place for all of the units crossed. The new Act 85 of 2019 also proportionately allocates production across the various members of the units crossed.

Senate Bill 694, sponsored by Senator Gene Yaw (R-Lycoming), was part of a flurry of legislative activity that occurred this fall. The measure was not a high priority for PIOGA based on member interest, but it will benefit some operators and royalty owners while at the same time reducing our industry's surface footprint.

SB 694 bill passed the Senate unanimously and received only one negative vote in the House of Representatives. The article above provides an analysis of this new law.

As of early December, one piece of the House Republicans' Energize PA package *(October PIOGA Press, page 19)* needed only a vote by the full Senate to get the bill onto the governor's desk. The sponsor of HB 1100, Representative Aaron Kaufer (R-Luzerne), would like to see the equivalent of Shell's Western Pennsylvania cracker facility built in his northeast part of the state. To accomplish that, the legislation would create a tax credit for any fertilizer or petrochemical plant with a price tag of at least $1 billion that creates at least 1,000 full-time jobs during construction and uses Pennsylvania-produced methane.

With just a handful of legislative session days remaining in December, it's not certain whether action will occur on HB 1100 before the end of the year. And even though we are only halfway through the General Assembly's two-year session, 2020 may not be promising either for industry legislative priorities like the Conventional Oil and Gas Act (COGA). When legislators return after their yearend break, they will be largely focused on passing a fiscal year 2020-21 budget. After that, all 203 members of the House and half of the Senate will be concentrating on campaigning for reelection.

For the second session in a row, that could leave unresolved the fate of legislation creating a separate regulatory framework for the state's conventional industry. SB790, sponsored by Senate President Pro Tempore Joe Scarnati (R-Jefferson), passed the Senate in late September, but has not yet come up for consideration in the House.

PIOGA continues to advocate for COGA, but we know we have an uphill battle in keeping lawmakers engaged and in overcoming opposition to the bill on the part of Wolf administration. ■

A reminder about 2020 dues/membership changes

Memberships are up for renewal the first of the year for most PIOGA members, and things may look a bit different on your renewal notice. That's because of a bylaws change consolidating several membership categories as well as Board of Directors action revising dues structures for some membership types.

As PIOGA's Dan Weaver explained in the November *PIOGA Press,* a bylaws amendment unanimously approved at the 2019 Annual Membership Meeting creates the Allies and Providers membership category. The amendment also eliminates the Service Provider, Professional Firm, Pipeline and End User categories; members currently in those four categories will be rolled into Allies and Providers. The change is intended to streamline categories and eliminate confusion.

Further, the bylaws amendment clarifies that Associate membership is only for educational institutions, chambers of commerce and other not-for-profit entities that support Pennsylvania's oil and natural gas industry.

A considerable number of self-employed consultants in the past chose the Associate category because of the $330 dues, compared to a minimum of $880 for a Professional Firm member or $900 for a Service Provider. A new Sole Proprietor dues level of $500 has been created under Allies and Providers to accommodate these members who will be moving from the Associate category.

Other dues changes. In addition to the new Sole Proprietor dues level for Allies and Providers members, the PIOGA Board of Directors lowered Producer dues in recognition of the current difficult market conditions and expanded the number of revenue-based steps in the dues levels so that members can chose a level that more closely matches their company's size.

The Allied Industry, Professional Firm, Pipeline and End User categories had three revenue-based dues levels. Under Allies and Providers, there are now five levels—again making easier to match your company with an appropriate level. In many cases, your dues now may be lower as a result.

PIOGA values your membership and we hope these changes will help to convince you that membership in our association continues to be worth far more than what you pay each year in dues. If you have questions about membership categories or dues, please contact Debbie Oyler, Director of Member Services, at 724-933-7306 ext. 22 or debbie@pioga.org. ■

An invitation to become a 2020 PIOGA Partner

We are pleased to announce the 2020 PIOGA Partners program. The program was launched in 2018 in response to member requests for a "one stop" yearlong event sponsorship option for budgetary purposes. The program also offers unique opportunities—like the Committee Partner—to both support the association's work and make your company stand out.

We also continue to offer traditional event-by-event sponsorships.

The various Partner levels and their benefits are

shown in the accompanying table. If you have questions or are ready to sign on now for 2020, contact Debbie Oyler at debbie@pioga.org or 724-933-7306 ext. 22.

And finally, a big thank-you to the members who were 2019 PIOGA Partners. They can be found on page 10 of this issue. We greatly appreciate your support! ■

2020 PIOGA Partner Levels	Yearly Sponsorship Amount	Networking Events (5-7/yr.) Comp Tickets	Golf Events (3/yr.) Comp Golfers	Spring Conference Comp Tickets	Fall Conference Comp Tickets	Marcellus to Manufacturing Conference Comp Tickets	PIOGATech Seminars (5-7/yr.) Comp Tickets	Advertising Discount*	Logo Recognition (Website, Newsletter, Signage)
Keystone	$10,000	2	2	2	2	2	2	30%	Yes
Executive	$7,500	2		2	2	2		20%	Yes
Meetings	$5,000			2	2	2		10%	Yes
Golf	$4,000		4						Yes
Committee	$3,000								Logo recognition at all PIOGA Committee Meetings only
Engineer	$2,500								Logo recognition at Spring and Fall Conferences only
Driller	$1,500								Logo recognition at Spring and Fall Conferences only

*The PIOGA Press and PIOGA eWeekly only

PIOGA community giving:
Staff brighten the lives of children this holiday season

For the fourth year, PIOGA staff partnered with member company and print company for The PIOGA Press, Print King, to collect toys for our area's children whose families are experiencing hardships through The Lighthouse Foundation. PIOGA staff recognize the importance of a child experiencing the joy of opening a new toy or game during this holiday season.

"To put a smile on a child's face is priceless, and for those families going through tough times it gives our staff great joy to help," said Dan Weaver, President & Executive Director. PIOGA staff once again gave generously and appreciate the opportunity to donate to The Lighthouse Foundation, which is doing great work on behalf of impoverished individuals and families in northern Allegheny and Butler counties. To learn more, go to www.thelighthouse-pa.org.

Thanks to our 2019 PIOGA Partners

Keystone Partners

ARG
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Groundwater and Environmental Professionals Since 1891

Engineer Partners

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Driller Partner

Aqua-Clear

Find out how to become a PIOGA Partner: www.pioga.org/publication_file/2019-PIOGA-Partners.pdf

PIOGA discusses collaboration with National Energy Technology Laboratory

Members of PIOGA's Market Development Committee and association staff visited the National Energy Technology Laboratory (NETL) in Pittsburgh on November 14 for a look at some of the oil and gas related research going on at the facility and to discuss how PIOGA and NETL might collaborate on projects addressing industry issues such as brine treatment and disposal solutions.

NETL is a U.S. Department of Energy national laboratory that produces technological solutions to America's energy challenges. The Pittsburgh facility is one three of government-owned, government-operated labs, with two additional strategic offices, across the nation that focus on fossil energy.

NETL's mission is "to discover, integrate and mature technology solutions to enhance the nation's energy foundation and protect the environment for future generations. Through forward-looking research and technology development, our team of talented and diverse experts provides technology solutions for today and options for tomorrow."

NETL is involved in over 900 R&D projects in all 50 states, has a budget of $991 million and a full-time-equivalent workforce of more than 1,200. NETL supports technology commercialization, so much of its work involves public-private partnerships with industry.

James Ferguson, Manager of State and Local Partnerships, provided the PIOGA delegation with an overview of the facility's research capabilities, technologies and current priorities, including:

- Enhancing oil and natural gas recovery;
- Developing lower-cost technologies for capturing and utilizing natural gas that would otherwise be vented or flared;
- Reducing cost and improving efficiency of systems for treating fracturing flowback or produced water for beneficial use; and
- Addressing critical knowledge gaps in the use of data analytics and machine learning to optimize reservoir management and production operations.

Several lead researchers talked about specific research projects occurring at the facility, and the PIOGA group toured the lab to see and hear about some of the work firsthand.

After PIOGA's Dan Weaver gave a presentation on PIOGA, the industry and some of the challenges our members are facing, there was an excellent discussion about how NETL could collaborate with the association. One issue that drew particular interest on the part of NETL staff was the dilemma faced by conventional operators who are losing their options to affordably dispose of produced water. It was noted that one NETL researcher has been leading water-related research in the lab's coal portfolio, but that the work—focused on extracting value-added products from acid mine discharge—is also applicable to oil and gas.

PIOGA and NETL officials agreed to continue the conversation about produced water solutions as their top priority, including the possibility of organizing a PIOGATech event that brings in regulators and others to focus more on this critical issue.

With regard to PIOGA's market-development efforts, the lab representatives expressed interest in possible collaboration with NETL's Regional Workforce Initiative. NETL officials also communicated that they also are exploring bringing their expertise to bear in the petrochemical space as the region begins to focus more on those opportunities for the industry. ■

Join us for some 'Mix, Mingle & Jingle'

There may still be time for you to register for our Mix, Mingle & Jingle holiday networking event on Tuesday, December 17, at The Chadwick in Wexford. Also happening that day at the same location is a PIOGATech covering air quality compliance topics and the December meetings of the Market Development Committee and the Executive Committee

Our holiday networking event will go from 4 to 7 p.m. and is always a popular way to round out the year. This time around, we'll be doing a little more to spread some holiday cheer.

During the event, we will accept food donations on behalf of the North Hills Community Outreach Food Bank. Bring an item to donate (nhco.org/donate/pantry-items), and you will receive an extra drink ticket.

Also, we will have a Chinese auction for a chance to win one of many great gift baskets. All proceeds collected for the auction will be donated to Animal Friends (www.thinkingoutside-thecage.org).

The event also will include a fundraiser for the PIOGA Political Action Committee. For every $20 you donate to the PAC, you will get a chance to win Pittsburgh Penguins tickets. (Cash or personal checks only.)

Visit the PIOGA Events section at pioga.org for more information.

PIOGA's annual tax and accounting seminar a great educational session

On November 21, more than 20 people attended the Annual Oil And Gas Tax And Accounting Seminar hosted by PIOGA's Tax Committee and member company Arnett Carbis Toothman, PLLC (ACT) and held at the Holiday Inn Express, Southpointe.

This year's seminar covered not only changes involving federal, state and local taxes, but also provided a detailed overview of the industry as it relates to oil and gas so those in attendance could learn how to maximize tax and economic benefits and how planning for current and future opportunities and challenges will be important.

The day was kicked off by Marlin Witt and Charlene Tenney , who provided an introduction to oil and gas operations and planning for upcoming changes in the energy sector. All of the ACT presenters utilized their years of experience in the oil and gas industry to help explain the key tax benefits such as the Marginal Well Credit and standard tax issues that everyone in the industry should be aware of and should plan for.

Participants left equipped with a broad array of informational resources. For those who needed professional development credits, they were able to earn CPE or CLE credits.

PIOGA extends a sincere thank-you to the team from Arnett Carbis Toothman for all their efforts in organizing and presenting this valuable educational event to PIOGA members and guests. A special thanks to Ryan Nestor, CPA, CGMA; Charlene Tenney, Business Outsourcing Services Supervisor; J. Marlin Witt, CPA, CFP, CGMA; Bill Phillips, CPA; and Scott Stone, Chief Information Officer. And, lastly, we thank our sponsor, Avatar Software, for supporting the seminar also. ■

Marcellus to Manufacturing

Competitive Energy for Sustainable Growth

November 7
Energy Innovation Center
Pittsburgh

The second-annual M2M Conference, organized by PIOGA's Market Development Committee, again drew an examplary lineup of speakers addressing downstream topics. For more scenes from the event, visit the Photo Galleries section at pioga.org.

PEDF lawsuit seeks to direct DCNR to manage state forests consistent with Environmental Rights Amendment to prevent drilling impacts

Editor's note: The following is excerpted from the PA Environment Digest Blog. While we often disagree with the positions expressed in this blog, it can be a solid source of information about legal, legislative and regulatory activities. PIOGA was involved as an amicus on the side of the Commonwealth in the original lawsuit by Pennsylvania Environmental Defense Foundation (PEDF) challenging how money is spent from the Department of Conservation and Natural Resources' (DCNR) Oil and Gas Lease Fund.

On November 5, the Pennsylvania Environmental Defense Foundation filed a lawsuit in Commonwealth Court asking the court to direct the Department of Conservation and Natural Resources to manage state forests consistent with its trustee responsibilities under the state constitution's Environmental Rights Amendment to protect them from drilling impacts.

PEDF said it filed the petition because DCNR adopted a State Forest Resource Management Plan in 2016 that changed the focus and purpose of management away from the science of ecosystem management. Prior to 2016, the lawsuit says, DCNR's managed oil and gas lease sales, timber sales and recreational uses of the state forest to be consistent with the paramount goal of maintaining the health of the forest ecosystem.

In 2016, PEDF said, DCNR changed the State Forest Management Plan management paradigm to equate oil and gas economic "values" with the value of the forest ecosystem itself, including people's "right to clean air, pure water, and the preservation of the natural, scenic, historic and aesthetic values of the [forest] environment" [from the Environmental Rights Amendment].

The 2016 State Forest Plan now requires DCNR to "balance" the economic value of the oil and gas resources with the ecosystem values of state forest public natural resources protected under the Environmental Rights Amendment—Article I Section 27 of the Pennsylvania Constitution.

From 2008 to 2010, DCNR was required to lease almost 139,000 acres of state forest land for Marcellus Shale natural gas extraction and the governor and General Assembly used those funds to balance the state General Fund budget and directly pay for the operations of DCNR. At the same time, the extraction of natural gas caused immediate and long-term degradation of the state forest, PEDF said.

PEDF pointed to the 2014 and 2018 Shale Gas Monitoring Reports prepared by DCNR which noted "natural gas development on State Forest land, 'especially at the scale seen in the modern shale-gas era, affects a variety of forest resources and value, such as recreational opportunities, the forest's wild character, scenic beauty, and plan and wildlife habitat.'"

Among the impacts PEDF pointed to from shale gas development since 2008 were:

- Converted 1,770 acres of state forest land from forest to shale gas infrastructure;
- Construction of 265 infrastructure pads;
- Construction of 260 miles of new roads;
- Construction of 188 miles of gas pipeline corridors;
- "[N]oticeable changes to the forest landscape are evident," with the largest increase overall resulting from "an additional 9,913 acres of forest edge (a 35 percent change in the Elk State Forest specifically); and
- Greater fragmentation of the state forest, noting core state forests have lost 15,134 acres of large intact forest blocks, which are unfragmented forest blocks of more than 500 acres.

The lawsuit says by paying for DCNR's operations from the sale of public natural resources, the governor and General Assembly have been able to divert revenue from the General Fund previously used to pay for DCNR's operations for other purposes to serve their political needs.

PEDF said DCNR's 2016 State Forest Management Plan accepts this new funding paradigm that degrades our state forest to pay for DCNR's annual operations because it supports “economic” benefits of gas extraction, rather than the value of our public natural resources, and its management directive to satisfy the political interests of the Commonwealth.

PEDF is asking the court to require DCNR to amend the State Forest Management Plan consistent with its trustee duties under the Environmental Rights Amendment. Specifically, PEDF is asking the court to find:

• DCNR has no authority to lease state forests for the extraction and sale of oil and natural gas for the economic benefit of the Commonwealth;

• DCNR has no authority to balance the degradation of state forests as a result of oil and natural gas development with the rights and benefits of the people to state forests under the Environmental Rights Amendment;

• The 2016 State Forest Management Plan has no specific plan to prevent and remedy the degradation, diminution and depletion of state forests from existing oil and gas extraction; and

• The 2016 State Forest Plan has no specific plan to implement sound scientific principles of ecosystem management to sustain state forests.

Part of ongoing legal challenges

Since the June 2017 decision by the Pennsylvania Supreme Court, PEDF has been filing follow-up motions and other petitions before Commonwealth Court and the Supreme Court seeking to enforce the 2017 decision.

On August 12, PEDF appealed a July 29 Commonwealth Court ruling that the foundation said ignored the 2017 opinion of the Pennsylvania Supreme Court saying revenue from natural gas drilling on state forest had to be held in trust under the Environmental Rights Amendment to the Constitution and only used for conservation purposes.

On July 17, the foundation filed a petition for declaratory relief with Commonwealth Court asking the court to block yet more transfers from DCNR’s Oil and Gas Lease Fund to pay for DCNR operating expenses in the FY 2019-20 budget consistent with the 2017 Supreme Court decision, and starting a new line of challenge.

Through January 2018, more than $1.1 billion from the sale of public natural resources has been used to fill

Newly elected and reelected board members. *November 21 marked the first meeting for newly elected members of PIOGA’s Board of Directors as well as those who won reelection this year. Shown here at that meeting are (from left) Jessica Houser, WGM Gas Company; Ken Fleeman, ABARTA Oil & Gas, Brian Bittinger, Bittinger Drilling and D&B Gas Production LLC; Mike Cochran, Greylock Energy; Dan Billman, Billman Geologic Consultants; and Brook Bertig-Coll, Fisher Associates. New or reelected directors missing from this photo included Robert Beatty Jr., InsightFuel LLC, Sunnyside Energy Park and Beatty Oil & Gas; Sara Blascovich, HDR Inc; Bryan Snyder, Snyder Brothers, Inc; Dan McGraw, Pennsylvania General Energy Co., LLC; Michael Hillebrand, Huntley & Huntley; William Murray, American Refining Group; and Beth Powell, New Pig Energy. Welcome to all—whether just beginning a term on the board or continuing to serve!*

gaps in the state budget through transfers to the General Fund or to pay for agency operating expenses. In addition, $69.774 million was diverted from the Oil and Gas Lease Fund in the FY 2019-20 budget.

The 2017 decision by the Pennsylvania Supreme Court declared provisions in the 2009 and 2019 Fiscal Code requiring the transfer of $478 million from the Oil and Gas Lease Fund to the General Fund unconstitutional and a violation of the public trust provisions under the Environmental Rights Amendment.

The court said, “On their face, these amendments lack any indication that the Commonwealth is required to contemplate, let alone reasonably exercise, its duties as the trustee of the environmental public trust created by the Environmental Rights Amendment.

“To the extent such payments are consideration for the oil and gas that is extracted, they are proceeds from the sale of trust principal and remain in the corpus. These proceeds remain in the trust and must be devoted to the conservation and maintenance of our public natural resources, consistent with the plain language of Section 27.”

The Supreme Court remanded the case to Commonwealth Court for further proceedings consistent with the 2017 decision. ■

PIOGA Member Profiles

Introduce your company

Introduce your company and tell other members what you offer to Pennsylvania’s oil and gas industry. The guidelines for making a PIOGA Member Profile submission are:

• Include a brief history of your company. When and where was it founded, and by whom? Is the company new to the oil and gas industry in general or to Pennsylvania?

• Describe the products and services you offer specifically for the oil and gas industry. Do you have a product in particular that sets your company apart from the competition?

• If applicable, tell how the business been positively impacted by Pennsylvania’s oil and gas industry. Have you expanded, added employees or opened new locations?

• Include a website address and/or phone number.

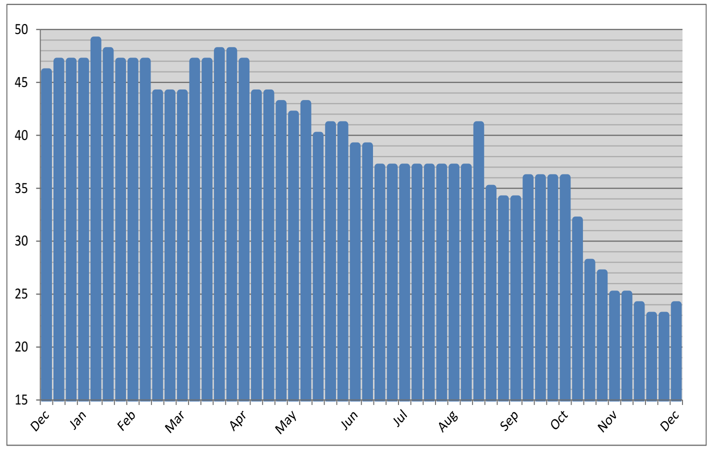
• Your submission may be a maximum of 400-450 words and should be provided as a Word document. Use minimal formatting—bold and italic fonts are OK, as are bulleted or numbered lists. Your submission is subject to editing for length, clarity and appropriateness.

• Include your company logo or a photo. Images must be high-resolution (300 dots/pixels per inch or higher) and in any common graphics format. Please include identifications for any people or products in a photo. Send image files separately, not embedded in your document.

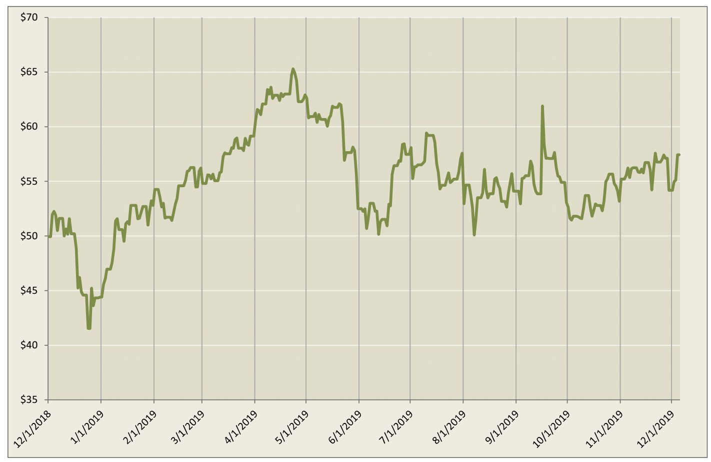
Email material to Matt Benson at matt@pioga.org. This is a free service to our member companies and publishing dates are at the discretion of PIOGA. If you have questions, email Matt or call 814-778-2291.

Oil & Gas Dashboard

Pennsylvania Rig Count



Penn Grade Crude Oil Prices



Natural Gas Futures Closing Prices

Month	Price
January 2020	$2.253
February	2.258
March	2.208
April	2.149
May	2.165
June	2.209
July	2.265
August	2.227
September	2.271
October	2.297
November	2.379
December	2.555

Prices as of December 9

Sources

American Refining Group: www.amref.com/Crude-Prices-New.aspx
Ergon Oil Purchasing: www.ergon.com/prices.php
Gas futures: quotes.ino.com/exchanges/?r=NYMEX_NG
Baker Hughes rig count: phx.corporate-ir.net/phoenix.zhtml?c=79687&p=irol-reportsother
NYMEX strip chart: Nucomer Energy, LLC, emkeyenergy.com

Northeast Pricing Report — December 2019

Transportation Value Market Indicator

Provided by Bertison-George, LLC
www.bertison-george.com

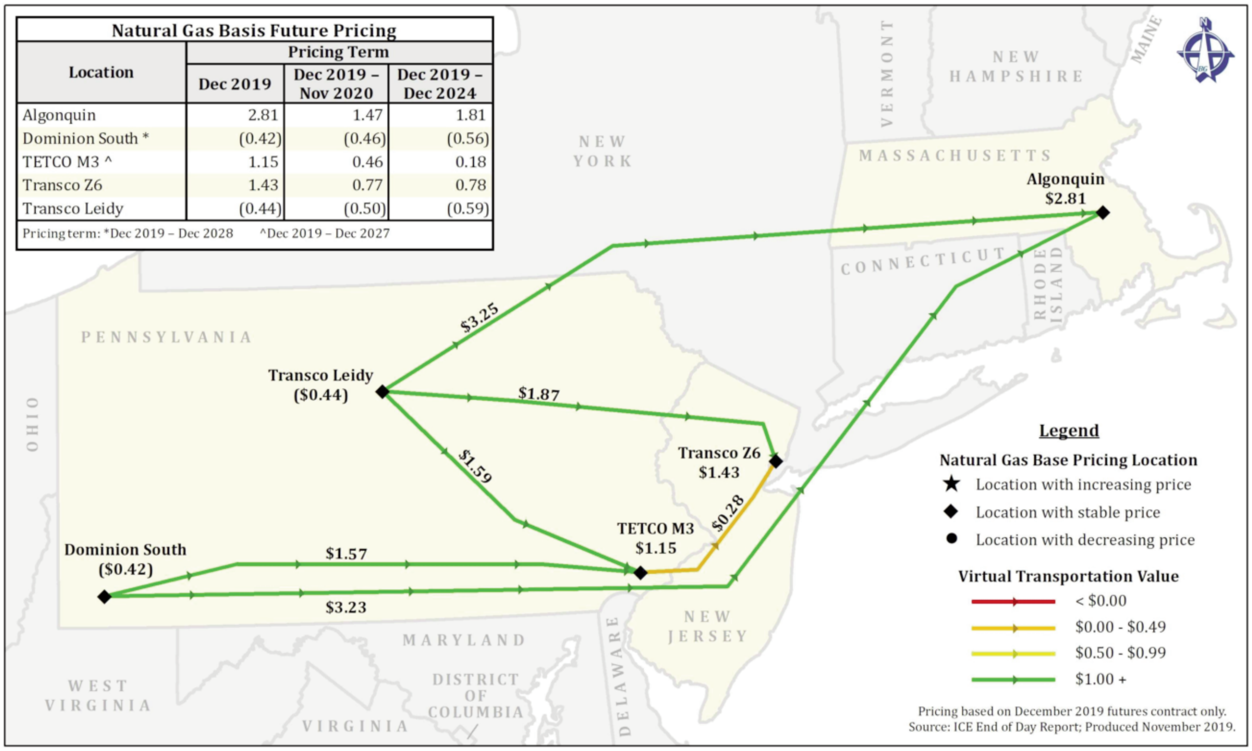
Winter has increased its influence on pricing. Front month trading has significantly increased pricing across the region. Algonquin and Transco Z6 raised the most by $1.51 and $1.46 per MMBtu. TETCO M3 shot up as well at $1.17 per MMBtu. Dominion South and Transco Leidy increased by the small margins of $0.15 and $0.13 per MMBtu. Clearly a result of short-term demand needs due to the cold weather pattern. Every trading point for both one-year and long-term trading periods decreased. Transco Z6, Algonquin, and TETCO M3 decreased $0.32, $0.29, and $0.26 per MMBtu respectively for the one-year term. All are sizable amounts for being in the winter period. For the full-term trading period, Transco Z6 and Algonquin decreased the most at $0.08 and $0.06 per MMBtu.

Transportation values swelled pointedly for December. Every transportation route increased by over a dollar per MMBtu except TETCO M3 to Transco Z6. Transco Leidy and Dominion South to Algonquin increased the most or $1.38 and $1.36 per MMBtu respectively. Transco Leidy to Transco Z6 was close behind at $1.33 per MMBtu.

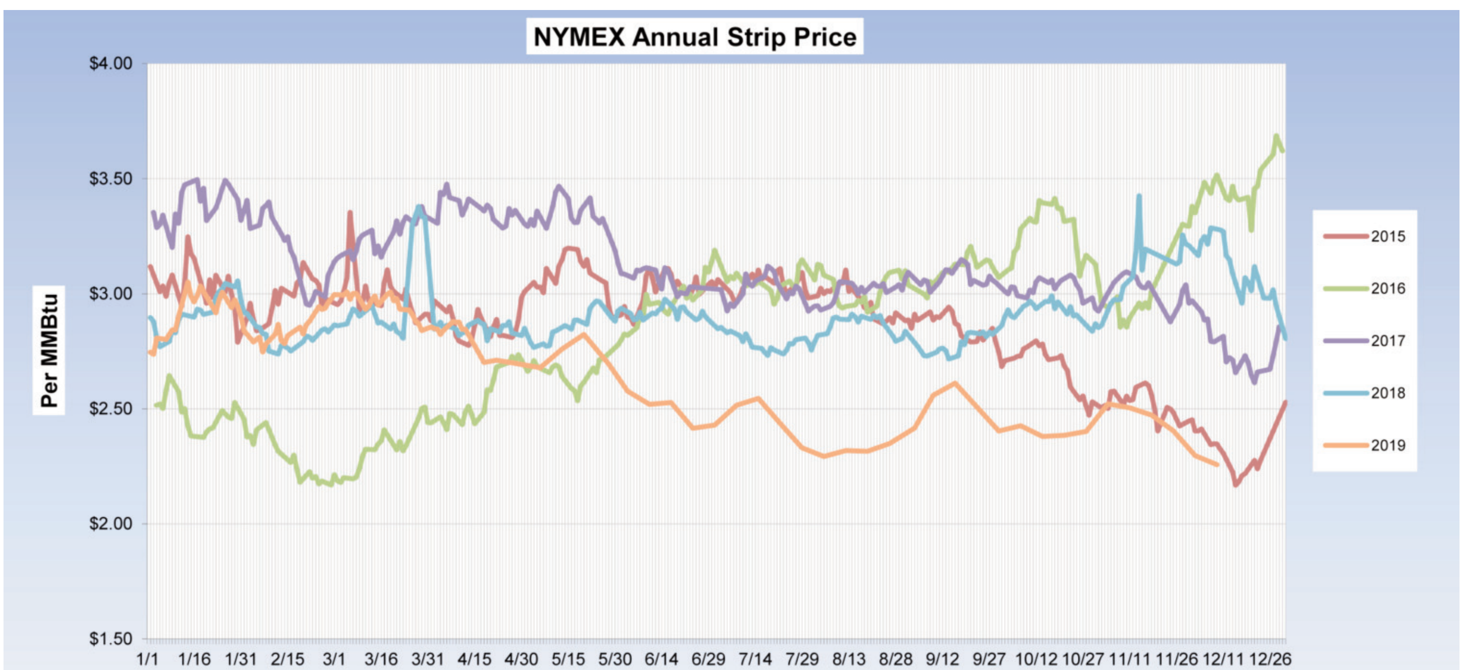
Natural Gas Basis Future Pricing

Location	Pricing Term: Dec 2019	Dec 2019 – Nov 2020	Dec 2019 – Dec 2024
Algonquin	2.81	1.47	1.81
Dominion South *	(0.42)	(0.46)	(0.56)
TETCO M3 ^	1.15	0.46	0.18
Transco Z6	1.43	0.77	0.78
Transco Leidy	(0.44)	(0.50)	(0.59)

Pricing term: *Dec 2019 – Dec 2028 ^Dec 2019 – Dec 2027



All values are per MMBtu



Spud Report: November 2019

The data show below comes from the Department of Environmental Protection. A variety of interactive reports are available at www.dep.pa.gov/DataandTools/Reports/Oil and Gas Reports.

The table is sorted by operator and lists the total wells reported as drilled last month. **Spud** is the date drilling began at a well site. The **API number** is the drilling permit number issued to the well operator. An asterisk (*) after the API number indicates a conventional well.

OPERATOR	WELLS	SPUD	API #	COUNTY	MUNICIPALITY
Cameron Energy Co	3	11/4/19	053-30902*	Forest	Howe Twp
		11/11/19	053-30901*	Forest	Howe Twp
		11/22/19	053-30900*	Forest	Howe Twp
Chesapeake Appalachia LLC	1	11/6/19	113-20430	Sullivan	Cherry Twp
CNX Gas Co LLC	4	11/25/19	059-27777	Greene	Richhill Twp
		11/25/19	059-27753	Greene	Richhill Twp
		11/25/19	059-27728	Greene	Richhill Twp
		11/25/19	059-27754	Greene	Richhill Twp
MSL Oil & Gas Corp	3	11/1/19	083-57152*	McKean	Lafayette Twp
		11/6/19	083-57155*	McKean	Lafayette Twp
		11/14/19	083-57157*	McKean	Lafayette Twp
PennEnergy Resources LLC	7	11/13/19	019-22837	Butler	Center Twp
		11/13/19	019-22836	Butler	Center Twp
		11/14/19	019-22834	Butler	Center Twp
		11/14/19	019-22838	Butler	Center Twp
		11/15/19	019-22833	Butler	Center Twp
		11/15/19	019-22835	Butler	Center Twp
		11/16/19	019-22839	Butler	Center Twp
Range Resources Appalachia	10	11/14/19	125-28704	Washington	Chartiers Twp
		11/14/19	125-28723	Washington	Chartiers Twp
		11/15/19	125-28722	Washington	Chartiers Twp
		11/14/19	125-28758	Washington	Morris Twp
		11/14/19	125-28756	Washington	Morris Twp
		11/14/19	125-28759	Washington	Morris Twp
		11/14/19	125-28757	Washington	Morris Twp
		11/24/19	125-28444	Washington	Smith Twp
		11/24/19	125-28445	Washington	Smith Twp
		11/24/19	125-28446	Washington	Smith Twp
Sammy-Mar LLC	1	11/29/19	033-27257	Clearfield	Huston Twp
SWN Prod Co LLC	1	11/9/19	115-22688	Susquehanna	Franklin Twp

	November	October	September	August	July	June
Total wells	**30**	**57**	**77**	**42**	**96**	**64**
Unconventional Gas	23	43	46	21	73	45
Conventional Gas	0	1	0	0	0	0
Oil	6	13	29	20	22	19
Combination Oil/Gas	0	0	2	1	0	0
Waste Disposal	1	0	0	0	0	0

New PIOGA members — *welcome!*

D&B Gas Production, LLC
104 Spring Drive, Apollo, PA 15613
724-478-1590 • brian.bittinger1@gmail.com
Producer

Insurance Management Company
123 West 9th Street, Erie, PA 16501
814-452-3200 • www.imcerie.com
Professional Firm—Insurance

Calendar of Events

PIOGA events

PIOGATech: Air Quality Compliance / Mix, Mingle & Jingle Holiday Mixer
December 17, The Chadwick, Wexford

Pins & Pints Networking Event
January 23, Main Event, Pittsburgh

Cigar Dinner Networking Event
February 20, TBA

PIOGATech: Environmental Topic
February 27, TBA

Axes & Ales Networking Event
March 11, TBA

PIOGATech: Safety Topic
March 17, TBA

2020 Spring Meeting
April 1, Rivers Casino, Pittsburgh

PIOGA PAC Pittsburgh Pirates Home Opener
April 2, PNC Park, Pittsburgh

PIOGATech: Environmental Topic
April 23, TBA

Networking Event
May 7, TBA

Ted Cranmer Memorial Golf Outing & Steak Fry
June 1, Wanango Country Club, Reno

Networking Event
July 10, TBA

23rd Annual Divot Diggers Golf Outing & Steak Fry
August 20, Tam O'Shanter Golf Course, Hermitage

PIOGATech: Environmental Topic
August 25, TBA

Fall Conference
September 22, Seven Springs Mountain Resort, Champion

Fall Golf Outing and Sporting Clays Shoot
September 23, Seven Springs Mountain Resort, Champion

PIOGATech: Safety Topic
October 22, TBA

Annual Oil & Gas Tax and Accounting Seminar
November 18, Holiday Inn Express, Canonsburg/Southpointe

Marcellus to Manufacturing Conference
November TBA

PIOGATech: Environmental Topic / Holiday Membership Mixer
December 15, TBA

Other association & industry events

IOGAWV Winter Meeting
January 22-23, Charleston, WV
iogawv.com

OOGA 2020 Annual Meeting
March 4, Columbus, OH
www.ooga.org/events

Pennsylvania Independent Oil & Gas Association

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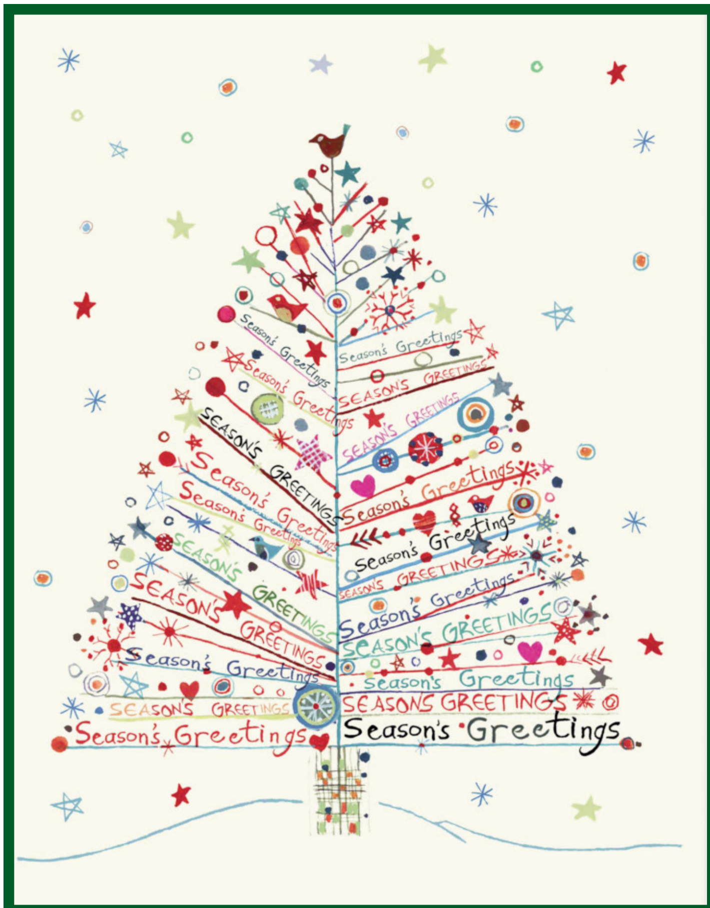

Wishing you the best in this holiday season and throughout the new year.

—The staff of the Pennsylvania Independent Oil & Gas Association