Pennsylvania Independent Oil & Gas Association

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July 30, 2025

Via DEP eComment System Only
Policy Office
Department of Environmental Protection
Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063

In re: Comment in Opposition to the Proposed OOOOc State Plan

Dear Sir/Madam:

Enclosed, please find a Comment in Opposition to the Proposed Subpart OOOOc State Plan on behalf of the Pennsylvania Independent Oil & Gas Association (PIOGA). PIOGA reserves the right to submit any revisions or changes to this Comment should circumstances arise or the Department provides an opportunity for comment revision or resubmission.

Thank you for your kind attention to this matter.

Very truly yours,

Todd M. Pappasergi, Esq.
General Counsel and Vice President
Governmental Affairs

cc: Daniel J. Weaver, President and Executive Director
PIOGA Board of Directors

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1. Introduction / Summary of Opposition

The Pennsylvania Independent Oil & Gas Association (PIOGA), joined by the Pennsylvania Grade Crude Oil Coalition and the Pennsylvania Independent Petroleum Producers, submits this comment in strong opposition to the Department of Environmental Protection's ("DEP") *Preliminary State Plan for implementation of 40 CFR Part 60, Subpart OOOOc – Emissions Guidelines for Greenhouse Gas Emissions from Existing Crude Oil and Natural Gas Facilities* (the "Plan").[1] As written, the Plan will severely disrupt Pennsylvania's energy industry, place an unsustainable economic burden on many Pennsylvania operators (especially those running small business oil and gas operations), and result in significant public safety, economic, and energy supply consequences.

PIOGA represents approximately 300 members across Pennsylvania's oil and gas ecosystem, including producers of conventional and unconventional natural gas and petroleum oil, pipeline operators, royalty owners, and affiliated businesses. These members are not only significant contributors to Pennsylvania's economy, but also represent the historic backbone of energy development across the Commonwealth.

The Preliminary State Plan imposes monitoring mandates, specifically, the use of Optical Gas Imaging ("OGI") or EPA Method 21, that are prohibitively expensive, technologically unnecessary for low-production sites, and redundant with existing monitoring practices. It further requires extensive retrofitting of facilities, many of which are over a hundred years old, despite those facilities still operating within industry accepted norms. For conventional operators already operating on razor-thin margins, the proposed regulatory framework will render a majority of Pennsylvania's legacy wells economically unviable, leading to widespread abandonment, job losses, heating insecurity, and the cessation of production necessary to hold unconventional leasehold interests and development.

As further detailed in this comment, we urge DEP to:

- Conduct a class-of-facility-based Remaining Useful Life and Other Factors (RULOF) analysis;

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1 This comment is supplementary to the oral testimony delivered by Daniel J. Weaver, President and Executive Director of PIOGA, to DEP at the hearing held on July 7, 2025. That testimony is incorporated by reference as if fully set forth herein.

- Develop tailored, cost-effective solutions for low-production and conventional wells that reflect Pennsylvania-specific economic and production realities.
- Pause the current Plan's implementation process given EPA's promulgation of a final interim rule that extends the deadline for submission of a final state plan to early 2027;
- Take advantage of the extension given by EPA to engage in formal rulemaking through the Environmental Quality Board (EQB), with oversight from the Independent Regulatory Review Commission (IRRC) and the Pennsylvania General Assembly; and
- Closely evaluate and consider adoption of any future EPA modifications to Subpart OOOOc that occur during the extension period.

Below, Sections 2 and 3 will outline the current, and factual, state of play of the energy industry in Pennsylvania, and how the Plan will not just cripple the oil and gas sector in the Commonwealth, but also demonstrate the greater harm that it will have on Pennsylvania as a whole. Sections 4 through 6 will then detail PIOGA's proposals for revisions to the Plan.

2. Current State of the Pennsylvania Oil and Gas Industry

2a. Estimated Economic Impact of the Oil and Gas Industry

The Pennsylvania oil and gas industry remains a cornerstone not just of the Commonwealth's economy, but of the nation's status of energy global leadership and independence. According to an analysis by PriceWaterhouse Cooper in 2023, the natural gas and oil industry contributes more than $75 billion towards Pennsylvania's gross domestic product, almost nine percent of the total GDP. The industry supports over 93,000 direct jobs and 330,000 indirect jobs. Much of this economic boon is attributable to the discovery of shale gas twenty years ago. However, for over 150 years, the conventional oil and natural gas industries have also provided a lifeline to other industries throughout the world, such as refined oils, waxes, and lubricants, while also delivering sustaining jobs and reliable energy to rural and small-town Pennsylvania.

The conventional oil and gas sector supports an estimated 5,600 jobs statewide, generating $241 million in earnings annually. The refining of Pennsylvania Grade Crude Oil alone contributes over $6 billion annually to the Commonwealth's Gross Domestic Product. The ARG Refinery in Bradford, McKean County (which will be discussed in further detail below) supports around 450 direct and indirect jobs and contributes approximately $173 million to the state economy.

2b. Jobs Directly Impacted

The conventional sector supports thousands of jobs across upstream (extraction), midstream (gathering/processing), and downstream (refining) segments.

Energy Sector Jobs Generally

According to a recent Pennsylvania conventional oil and gas economic impact study, conventional operations in the 19-county western region support approximately 4,700 full-time equivalent jobs, with an additional 900 jobs supported indirectly across the rest of the state—totaling 5,600 jobs statewide, alongside $241 million in annual earnings. On a wider scale, industry-wide analysis estimates that the natural gas and oil sector supports over 423,000 jobs in Pennsylvania, including both direct and indirect impacts, and contributes more than $40 billion in labor income.

These figures demonstrate how conventional and unconventional sectors act in tandem. While unconventional drilling dominates headlines do to the sheer breadth of the production and worldwide impact, conventional operations form the economic backbone in rural communities, supplying high-wage extraction, refining, transportation, and support roles. Every direct conventional job flows into additional employment across services, construction, and retail, which reinforces local economies. Disruptions to these operations would therefore resonate beyond direct employees, undermining regional employment stability across multiple industries and deepening economic vulnerability in areas already fragile from low population density and limited diversification.

ARG Refinery – Bradford, PA

The American Refining Group (ARG) refinery in Bradford is the oldest continuously operating refinery in the U.S. and is uniquely configured to process Pennsylvania Grade Crude Oil. Without this specific feedstock, the refinery would likely be forced to shut down or reconfigure at immense cost. This would eliminate hundreds of high-paying union and trades jobs and devastate the surrounding economy in McKean County.

The ARG facility refines 11,000 barrels of Pennsylvania Grade Crude Oil per day, which allows over 120 products from paraffin waxes to necessary lubricants to be produced. Pennsylvania Grade Crude Oil is prized throughout the world for its particular lubricating and viscosity qualities. Without Pennsylvania Grade Crude, and therefore without the ARG refinery, oils for passenger vehicles (including electric vehicles), various industrial oils, and transmission fluids, just to name a few refined oil products, would need to be sourced from areas outside of Pennsylvania, if they are able to be sourced at all. Simply put, the ARG refinery is a critical piece not just to Pennsylvania's economic and energy infrastructure, but to the country as a whole.

Field Operations

Conventional operators like Delmont-based Penneco Oil Company have already been forced to reduce staff and consolidate operations, despite having an environmentally conscious business model. Indeed, Penneco already plugs more wells on an annual basis than it drills, showing its commitment to keeping Pennsylvania a producer of reliable and sensible energy. Nevertheless, as Penneco noted in testimony already given at a hearing, field staff are now stretched thin and wells are visited less frequently than would otherwise be liked. If OGI or EPA Method 21 mandates require further redistribution of capital and personnel toward monitoring, the result will be the loss of field workers, foremen, mechanics, and technicians—jobs unlikely to be replaced. This is a scenario that will play out across the Commonwealth's conventional industry.

3. Adverse Consequences of the Preliminary State Plan

3a. Economic Impacts of the Preliminary State Plan

Monitoring costs alone with mandated OGI will impose up to $325 million in annual costs on conventional operators. For example, operators in McKean County (home of the ARG refinery), with 9,331 active conventional wells, could face $37.3 million in annual OGI-related costs. Operators in rural counties like Indiana and Warren could incur over $40 million each. These figures represent a catastrophic misalignment between regulatory compliance costs and operator revenues.

Indeed, the average annual gross revenue per well in Pennsylvania is $4,200 for a conventional natural gas well and $5,200 for a conventional oil well. However, the average OGI cost per well will be $4,000 annually. EPA Method 21 provides no meaningful alternative relief, as the intensive labor costs and manhours associated with Method 21 will be just as significant. In other words, either monitoring method will cause operators to essentially reach their breakeven point on a conventional facility even before any other operational costs are considered or incurred. Attached to this Comment as Annex A is an estimate of the potential monitoring cost for the conventional natural gas industry by county.

These monitoring costs by themselves will render the conventional natural gas and oil industry completely unviable, from the single farm tap that heats a rural home that has no other heating source to the businesses that help support the energy infrastructure in western Pennsylvania.

Retrofitting existing sources, some of which are over one hundred years old, will also cost the industry – be it conventional gas, unconventional gas, or petroleum oil, upwards of $3 billion in the next four years. One PIOGA member has stated recently that, as a sole proprietor small business, he operates approximately two dozen wells in northwest Armstrong County on fifteen different properties across over thirty acres. Many of these wells were drilled in the 19th century, but are still producing. There is no cost-effective way for him to manifold any of the wells into a central location to attempt to collect any methane emissions that may be improperly occurring, if any are occurring at all. The inability to retrofit his wells to comply with the Plan will result in him having to abandon these wells and going into economic ruin to cover the cost of plugging.

The data on this is indisputable: the Plan, as written, will render the conventional energy industry nonexistent by 2030. This will lead to three destructive consequences for Pennsylvania.

3b. Impact that the Loss of Conventional Oil and Gas Will Have on Energy Distribution and Generation

The loss of Pennsylvania's conventional oil and gas industry threatens significant disruption to the state's energy distribution networks and power generation infrastructure. Conventional gas provides essential, localized energy for thousands of Pennsylvanians, especially in rural and mountainous regions where pipeline or utility expansions are uneconomical or nonexistent. Over 100,000 Pennsylvanians rely on low-pressure, local distribution networks fed directly by nearby conventional gas wells. If operators are forced to abandon wells due to unaffordable compliance costs, entire geographic areas could lose access to affordable heating.

The General Assembly has been attempting to take steps to stabilize Pennsylvania's energy grid, such as with the proposed Grid Stabilization and Security Act (SB 704), introduced in 2025. Bills such as SB 704 not only support natural gas-powered electricity generation near local gas production zones, but would facilitate an all-encompassing energy portfolio for the Commonwealth. However, without conventional oil and gas, many of these targeted sites will become infeasible for development. This would undermine energy security and emissions goals, leading to greater energy instability which will harm production and distribution from all energy sources, while at the same time increasing the number of abandoned wells in the Commonwealth, actually increasing methane emissions.

3c. The State Plan's Acceleration of Grid Destabilization and Public Safety Harms

The Plan as written, by cinching the demise of Pennsylvania's conventional oil and gas sector, risks compounding an already growing energy and grid reliability crisis. Across the PJM Interconnection region, grid operators have warned of diminishing reserve margins, increasing peak demands, and delays in the deployment of sufficient generation to replace retiring baseload power sources. As noted in the *PJM Grid in Peril* report (August 2024), PJM has warned that a combination of growing electricity demand, premature fossil fuel plant retirements, and lagging replacement capacity will result in an 80,000 MW gap in the coming decade. With natural gas providing approximately 60% of Pennsylvania's electricity, and less than 5% of generation coming from renewable sources, the loss of in-state gas production from conventional wells would significantly exacerbate this looming crisis, especially during events placing mounting stress on the grid, particularly low and high temperature events.

By imposing unsustainable compliance costs on low-production wells and local gas infrastructure, and as noted above, the Plan will force the premature abandonment of thousands of wells that currently feed small-scale power generators and regional distribution systems. In doing so, DEP risks removing a crucial, in-state fuel source at precisely the moment grid operators are calling for additional firm generation capacity powered by natural gas. The loss of this flexible and reliable supply undermines not only local dependability but also Pennsylvania's broader role as an energy exporter within the PJM footprint.

Furthermore, the plan disincentivizes future development of distributed gas generation projects in rural Pennsylvania. These projects are central to grid resilience and frequently cited in legislative efforts like SB 704. By failing to account for these dynamics, the Plan effectively accelerates fuel insecurity and forces greater reliance on imported electricity, eroding grid self-sufficiency, and raising long-term costs for consumers.

This, in turn, would also lead to dangerous public safety concerns. All of the above, and now the Plan included, are converging to create a dangerous shortfall in energy production and reliable heat. As seen with recent PJM auctions, regional energy capacity costs are skyrocketing out of control, in large part because of unsustainable regulatory programs and barriers to increased production from all energy sources, not just oil and gas. These increased auction prices will flow downstream to consumers, with estimated double-digit percentage rate increases predicted for the foreseeable future.

These price shocks disproportionately affect vulnerable populations, particularly low-income, elderly, and rural populations, who already spend a high share of household income on energy. As more Pennsylvanians face energy shutoffs, blackouts, and brownouts, the resulting loss of winter heating or reliable summer cooling poses serious risks to health, especially during extreme weather. The health impacts of energy poverty, such as increased incidence of respiratory and cardiac emergencies, hospitalizations, and deaths, are well documented. By accelerating the shutdown of conventional wells that support localized energy supply, the Plan may exacerbate these hazards well beyond any environmental concerns that Subpart OOOOc and the Plan aim to reduce, triggering avoidable public health crises in pursuit of negligible incremental methane reductions.

3d. Risk to Unconventional Leaseholds "Held by Production"

In Pennsylvania, many unconventional leaseholds (i.e., Marcellus/Utica shale leases) rely on nearby conventional wells to maintain the lease under the legal doctrine of held by production ("HBP"). If conventional wells are shut-in or plugged due to unaffordable compliance costs, expansive unconventional tracts may terminate, exposing operators or landowners to potential loss of hundreds of thousands of acres of unconventional leaseholds.

While specific statewide acreage data on HBP provisions remains limited, Pennsylvania law clearly supports that:

- Production from conventional wells during the primary term triggers secondary term continuation; and
- If production ceases, the lease may expire and revert—even if unconventional acreage is involved.

Thus, the state plan's economic impact extends beyond conventional operators. It threatens investor confidence, lease inventories, and long-term unconventional development plans, which will unquestionably cause further catastrophic harm to the energy sources and independence not just for Pennsylvania but the entire country.

Sections 2 and 3 of this Comment outline just a few of the crippling economic and energy security issues that will be created by the Plan. What follows are modest proposals to help level set the Plan to better comport with Pennsylvania's position as an energy powerhouse and global leader.

4. DEP Should Take Advantage of the Implementation Extension from DEP and Adopt Revisions Made by EPA to Subpart OOOOc During the Extension

On July 28, 2025, EPA announced that an interim final rule had been executed by Administrator Lee Zeldin that will extend the deadline for states to submit final plans by 18 months from the date the interim final rule is published in the Federal Register. While the interim final rule has not been published as of the submission of this Comment, the new final plan deadline is anticipated to be set for early February, 2027.[2] EPA's announcement of an interim final rule also comes with further anticipation that EPA will also be undertaking reconsideration rulemaking or other regulatory revision process to make changes to Subpart OOOOc.

PIOGA urges DEP to take advantage of the extension and to further align implementation of the Plan with any EPA revisions. While strict incorporation by reference may not be necessary or appropriate for Pennsylvania (especially given that much of the data used to draft Subpart OOOOc came from states other than Pennsylvania), the anticipated level-setting of Subpart OOOOc into a more balanced regulatory framework that provides benefits to both the environment and industry will undoubtedly lessen the draconian and crippling economic and public safety impacts outlined above.

Moreover, ensuring that the Plan ultimately comports with a more durable and balanced federal regulation, indeed a federal regulation that will have more likelihood of spanning multiple federal executive administrations, will ensure consistency and prevent Pennsylvania from enforcing outdated, superseded, or more severe standards. Such assurance would align Pennsylvania with federal law, protect in-state operators from regulatory uncertainty, and promote out-of-state investment into the Commonwealth.

Put simply: DEP should not move forward with a plan that may soon be outdated. Proceeding now would impose dual-track compliance burdens and undermine public confidence. DEP should pause the process of state implementation and, should federal revisions follow, integrate those revisions into the final plan.

[2] For example, should the interim final rule be published on August 1, 2025, the new deadline would be February 1, 2027.

5. Request that DEP Engage in RULOF Analysis for Classes of Facilities

The new interim final rule extending the deadline for submission of a final plan will certainly allow DEP to undertake and analysis of, and ultimately invoke, the Remaining Useful Life and Other Factors (RULOF) provision under 40 CFR 60.24a(e). This will permit DEP to tailor standards for classes of facilities that cannot reasonably meet EPA's default limitations due to technical infeasibility, excessive cost, or minimal emissions impact.

5a. Why RULOF Matters

The RULOF process allows DEP to tailor emissions standards for classes of facilities that cannot reasonably meet EPA's default limitations due to:

- Age, location, or process design;
- Technical infeasibility of retrofitting; and
- Excessive costs for compliance.

By aggregating conventional wells into subcategories such as marginal wells, low-production sites, small tank batteries, DEP can offer alternative standards or delayed compliance without compromising overall emissions goals. Many of these categories are already detailed in EPA's Subpart OOOOc guidance and proposed revisions

5b. Suggested Regulatory Basis and Language

PIOGA would propose a modest inclusion into the Plan to authorize DEP to conduct RULOF analyses across classes of facilities, as explicitly permitted by the final Subpart OOOOc rule. PIOGA suggests language in the Plan as follows: "The DEP Bureau of Air Quality shall, to the extent permitted by federal regulation, conduct an analysis of any designated class of facilities to determine if such class cannot reasonably achieve the required emission limitations." Suggested facility classes for RULOF consideration would include:

- Producing marginal gas wells;
- Conventional oil wells with low associated gas output;
- Storage vessels at low-production sites;
- Small compressors <120 mcfd; and
- Facilities with fugitive emissions components only.

The benefit of class-based RULOF is both economic and administrative, as class-based RULOF considerations would provide clarity, consistency, and opportunity for cost-effective methane reduction from the facilities most at risk under the Plan as currently written to lessen the harmful burdens that will be placed on, ultimately, all Pennsylvanians.

Moreover, as already demonstrated above, the cost of removing a ton of methane from a conventional oil or gas site within the Commonwealth likely already comports with the federal standard for RULOF considerations to be applicable. If a facility incurs more than approximately $1,800 in costs to remove a ton of methane, then it is likely economically and/or technologically infeasible to comply with Subpart OOOOc. This same analysis should be undertaken in a Pennsylvania-centric manner given the Commonwealth's unique status in energy production.

DEP must document the rationale, provide enforceable conditions, and ensure that alternatives are no more lenient than necessary. This ensures both regulatory compliance and economic feasibility for legacy operators.

6. Request that DEP Engage in Full and Formal Rulemaking

Since DEP began the Subpart OOOOc state plan process, it has consistently stated to all stakeholders that enforcing the Plan through a general permitting process as opposed to formal rulemaking has been necessary because of the short timeline provided by Subpart OOOOc. The new interim rule and extension for submission to EPA removes that burden.

Given the scope and impact of the Plan, DEP must pursue formal rulemaking via the Environmental Quality Board, with oversight from IRRC and the General Assembly. This ensures transparency, economic analysis, and public engagement.[3] A general permit approach bypasses key oversight and provides no meaningful opportunity for legislative review. Formal rulemaking is supported by both industry and environmental stakeholders and is necessary for regulatory legitimacy.

DEP has recently been criticized by the courts for failing to engage the General Assembly in large policy and budgetary decisions in implementing the Regional Greenhouse Gas Initiative ("RGGI"). As PIOGA and others (including some Justices) observed during the RGGI litigation currently pending in the Supreme Court, DEP failed to meaningfully assess market dynamics and energy affordability in its carbon trading regulations. To avoid repeating such oversight, the Plan must go through formal rulemaking with transparent modeling, cost-benefit evaluation, and legislative oversight. Better yet, DEP should work with the state legislature to develop meaningful, policy driven, and budgetary-conscious legislation to bring Subpart OOOOc into the Commonwealth.

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[3] To this end, PIOGA joins in full the comment submitted by the Pennsylvania Grade Crude Oil Coalition regarding the following points: (1) regardless of whether DEP is undertaking a formal rulemaking process, the breadth and clear policy and budgetary implications of the Plan render the Plan itself a formal rule, for which formal rulemaking is required; (2) that the Plan is a regulation that implicates oil and gas operations, for which separate considerations are required for the conventional and unconventional industries; and (3) pursuant to the settlement reached in *PIOGA, et al. v. DEP, et al.,* No. 574 M.D. 2022 (Cmwlth. Ct. 2025), the Plan constitutes air quality rulemaking, for which again conventional/unconventional bifurcation is required ("The Department and the [Environmental Quality] Board agree that for a period of ten (10) years, rulemakings under the Air Pollution Control Act, Act of January 8, 1960, P.L. (1959) 2119, as amended, 35 P.S. §§ 4001- 4106, concerning conventional oil and gas well operations shall be undertaken separately and independently from unconventional wells or other subjects and shall include a regulatory analysis form, as provided under the Regulatory Review Act, Act of June 25, 1982, P.L. 633, as amended, 71 P.S. §§ 745.1-745.15, submitted to the Independent Regulatory Review Commission that is restricted to the subject of conventional oil and gas wells.").

7. Conclusion

For decades, Pennsylvania's conventional oil and gas industry has provided critical economic, energy, and environmental value to the Commonwealth, supporting thousands of jobs, contributing billions to GDP, powering and heating rural homes, and holding together the legal infrastructure that sustains unconventional shale development. The Department's Preliminary State Plan, if implemented without substantial revision, would decimate this sector through the imposition of one-size-fits-all monitoring standards and unsustainable compliance burdens based on data from outside of Pennsylvania.

The Pennsylvania oil and gas industry fully appreciates the need for continued environmental consciousness in the production of energy sources. However, as demonstrated herein, a balance can and must be achieved, else the consequences that are certain to occur should the Plan be implemented without any revisions will be much more dire than any theoretical environmental issues currently ongoing without Subpart OOOOc.

PIOGA therefore respectfully urges DEP to withdraw or substantially revise the Preliminary State Plan by conducting a formal rulemaking process, applying a class-based Remaining Useful Life and Other Factors (RULOF) analysis, aligning implementation timelines with the new EPA interim final rule and submission extension, and/or ensuring that any future EPA modifications to Subpart OOOOc are integrated into the final plan. A balanced and Pennsylvania-centric approach that is rooted in economic reality, legal flexibility, and procedural fairness can preserve environmental integrity while protecting a foundational state industry.