



Abandoned and Marginal Well Plugging

**Environmental Justice Advisory Board –
Citizens Advisory Council
Joint Meeting
November 14, 2023**

Josh Shapiro, Governor

Jessica Shirley, Interim Acting
Secretary

Federal Funding Opportunities

- **The Federal Infrastructure Investment and Jobs Act (IIJA)**
 - Signed into law on November 15, 2021
 - Orphan Well Plugging Grant Program (acronym???)

- **The Inflation Reduction Act (IRA)**
 - Signed into law on August 16, 2022
 - Methane Emissions Reduction Program (MERP)

IIJA

IIJA (aka Bipartisan Infrastructure Law) - Section 40601

- November 15, 2021
- Section 40601 creates an orphaned well site plugging, remediation, and reclamation program within the Department of the Interior (DOI) to address “orphan” wells and well sites on Federal, tribal, state and private lands.

IJA

- PA indentified 27,393 wells to Interior as “documented orphan wells.”
- 6,846 Orphan Wells
 - Orphan Well - Abandoned prior to April 18, 1985
- 20,547 Abandoned wells
 - Abandoned Well - Well that has not been used within the preceding 12 months, or any well for which the equipment necessary for production, extraction or injection has been removed, or any well, considered dry, not equipped for production within 60 days after drilling, redrilling or deepening
- NWDO: ~70%; SWDO: ~20%; EDO: ~10%
- DEP has plugged 3,439 wells since 1989.
- **DEP Orphan and Abandoned Wells qualify as Orphan Wells under IJA**

IJA

IJA has the potential to provide approximately \$400 million to Pennsylvania to plug abandoned and orphan oil and gas wells across the Commonwealth through 3 programs until September 30, 2030:

- Initial Grant (\$25 million)
- Formula Grant (~\$305 million)
- Performance Grants (\$70 million)

Initial Grant

- August 25, 2022 – DOI awarded an Initial Grant to the Commonwealth totaling \$25 million for “well plugging, remediation, and reclamation work.”
- Funds obligated by September 30, 2023
 - 90% of funds into contracts within 90 days (12/31/22)
- 13 “Request for Bid” Plugging Contracts - \$24.8M obligated via low bid winners
- 227 abandoned wells under contract
- Notices to Proceed began to be issued January 2023
- 103 (and counting) of 227 wells plugged as of November 9, 2023

Initial Grant

- Highest Priority Wells
 - Public Health and Safety
 - Environmental Impact
 - Proximity to sensitive receptors
- Close Proximity Wells added to maximize per-well cost efficiency
- Projects in all 3 Oil and Gas Districts
- 45% in Justice40 Tracts
- DEP IJA Dashboard - <https://dep.pa.gov/IJAOilGas>

IIJA DASHBOARD

Oil & Gas Infrastructure Investment and Jobs Act (IIJA) Project Tracker

IIJA Contracts Overview

IIJA Plugging Impacts

IIJA Contracts - Propose...



Dashboard Overview of IIJA-Funded Well P... PA DEP Cont...

County(ies)

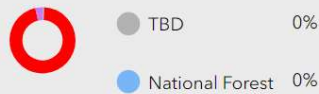
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- Allegheny Co. 003-00891
- Allegheny Co. 003-01085
- Allegheny Co. 003-01086
- Allegheny Co. 003-01098
- Allegheny Co. 003-01198
- Allegheny Co. 003-22594
- Allegheny Co. 003-22595

Total IIJA Wells by Land Type



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IIJA Wells with Environmental



IIJA Wells with Human Impacts



Wells Plugged

90

Wells In Progress

135

Wells in Environmental Justice Areas

96

IIJA Plugging Wells



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Formula Grant

- Notice of Intent to the Department of the Interior submitted December 30, 2021
- DOI Guidance released July 2023
- PADEP eligible for \$76,406,474 during Phase 1 of 4
- Total Eligibility - \$305,625,896 (all 4 Phases)
- 5-year obligation per phase
- Application due to DOI no later than December 31, 2023
- 10% to cover administrative costs (primarily staff)
- 20% to the Orphan Well Plugging Grant Program

Formula Grant

- Administrative/Personnel Fees
- Direct Well Plugging Project Fees
- Orphan Well Plugging Grant Program
- Surface and Subsurface Remediation
- Methane Monitoring/Quantification
- Well Location/Due Diligence
- Other Approved Work
 - Community Outreach
 - Workforce Development (Executive Order 2023-17)

Orphan Well Plugging Grant Program

Orphan Well Plugging Grant Program (Acts 96/136 of 2022)

- **§ 2822. Grant Availability**
- A Qualified Well Plugger that plugs an eligible well shall be eligible for a grant
- **Qualified Well Plugger** - A person who demonstrates access to the equipment, materials, resources and services to plug wells in accordance with section 3220 (relating to plugging requirements)
- **Eligible Wells** - Orphan Well a well abandoned prior to April 18, 1985, that has not been affected or operated by the present owner or operator and from which the present owner, operation or lessee has received no economic benefit other than as a landowner or recipient of a royalty interest from the well
- DEP-Provided Orphan Well List
- Orphan Well Classification Requests

Well Plugging Grant Program

Orphan Well Plugging Grant Program

§ 2811 Requirements

- No less than 20% of the federal money shall be made available for grants
- If any amount remaining uncommitted six months prior to any date of recapture by the Federal Government, the PA DEP may use the amount in any other manner in accordance with Federal law and guidance

§ 2823(c) and 2825(a) Timeline

- The Grant Program must be in place within 60 days after the award of federal funds under IIJA or the appropriation of plugging funds by the General Assembly, whichever is EARLIER
- Grant Program Active ~ March 2024 (pending award)



Orphan Well Plugging Grant Program

- \$40,000 for every eligible well plugged that is an orphan well of a depth of 3,000 feet or less or the actual cost of the qualified well plugger to plug the well, whichever is less
- \$70,000 for every eligible well plugged that is an orphan well of a depth greater than 3,000 feet or the actual cost of the qualified well plugger to plug the well, whichever is less
- If the PA DEP finds that it is not receiving an adequate number of applications for grants under this section, the PA DEP may increase the amounts under subsection (b) at its discretion by posting the increased amounts on its publicly accessible Internet website
- The PA DEP may not decrease the amounts specified in this subsection

Performance Improvement Grants

- \$30 million for Matching Grants
 - 2024 Interior Guidance and application
 - Every ***state*** dollar spent for plugging above the annual average from 2010-2019
- Two \$20 million Regulatory Improvement Grants
 - Plugging: Strengthened plugging standards and procedures designed to ensure that wells located in the State are plugged in an effective manner that protects groundwater and other natural resources, public health and safety, and the environment
 - Future Burden Reduction: Improvements to State programs designed to reduce future orphaned well burdens, such as financial assurance reform, alternative funding mechanisms for orphaned well programs, and reforms to programs relating to well transfer or temporary abandonment
 - October 20, 2023: Request for Information from Interior (88 FR 72528); comments submitted by December 19, 2023

Developing Solutions

- Work with our contractors to identify pinch points in our processes. Consider options for waiving performance bonds and allow wells to be added to contracts through change orders
- Assess feasibility of new, expedited contract model similar to HSCA/pre-approved contractors
- Assess the potential for use of the “Invitation to Qualify” contracting process
- Continue registering all available and interested contactors

Developing Solutions

- Update Pennsylvania's prioritization rankings to account for high-emitter abandoned wells and disadvantaged communities
- Work with sister agencies to identify and address abandoned wells on state-owned or managed lands
- Engage Appalachian Basin state partners for planning purposes
- Engage U.S. Forest Service for potential plugging in ANF
 - Identification of additional orphan wells in ANF
 - Good Neighbor agreement as model for possible pass-through of federal plugging money to DEP
- Engage national and state partners to determine the most efficient and effective methodology for methane emission quantification – carbon credits?

Developing Solutions

- Continue field verifying potential project wells and characterize accessibility, well conditions, and emission rates for leaking wells, i.e., prep “shovel-ready” projects
- Continue building “projects” for additional well plugging contracts to maintain momentum once Formula Grant funds are awarded
- Continue gathering information on equipment availability and coverage are as well as job creation/retention potential
- Consider internal resources available for well ownership due diligence investigations or consider contracting that work out

Developing Solutions

- Work with US DOE, particularly NETL in Pittsburgh, to determine best approach/methodology to area wide surveys to find abandoned wells
- Capital investments in equipment (electronics, vehicles, meters, downhole cameras, methane emission quantification, etc.)
- Development of Legislation
 - “Abandoned well” definition and production reporting
 - Resolving conflicting requirements in coal areas
 - Increased state funding to qualify for the Matching Grant
 - Other items?

Inflation Reduction Act

Methane Emissions Reduction Program (MERP)

- Section 60113 of the Inflation Reduction Act signed August 16, 2022 amend the Clean Air Act (CAA) by adding section 136, "Methane Emissions and Waste Reduction Incentive Program for Petroleum and Natural Gas Systems"
- \$350 Million in Grants to States to Cut Methane Emissions from the Oil and Gas Sector
- Submission Deadline: October 10, 2023
- Expected Timeframe for Award: December 2023
- PADEP Submitted Grant Application October 7, 2010

Inflation Reduction Act

ADMINISTRATIVE AND LEGAL REQUIREMENTS DOCUMENT (ALRD)

- Issued August 30, 2023
- Administered by DOE, NETL, FECM and EPA
- Section 60113 of the Inflation Reduction Act (Methane Emissions Reduction Program (MERP)) amended the Clean Air Act (CAA) by adding section 136, “Methane Emissions and Waste Reduction Incentive Program for Petroleum and Natural Gas Systems” (also referred to as the “Methane Emissions Reduction Program”) (codified at 42 U.S.C. 7436).
- CAA section 136 appropriates funds to the U.S. Environmental Protection Agency (EPA) to provide financial and technical assistance (i.e., grants, rebates, contracts, loans, and other activities). CAA section 136(b) allocates up to \$700 million for financial and technical assistance activities at marginal conventional wells (MCWs), of which up to \$350 million is being made available for activities under this ALRD.

MERP

- DOE Definition of a Marginal Conventional Wells MCW = <15bbl oil or 90,000 mcf gas/d
- DOE Estimated that Pennsylvania has approximately 57,908 (MCWs)
- PA Allocated \$33,675,097
- Actual MCW's in Pennsylvania:

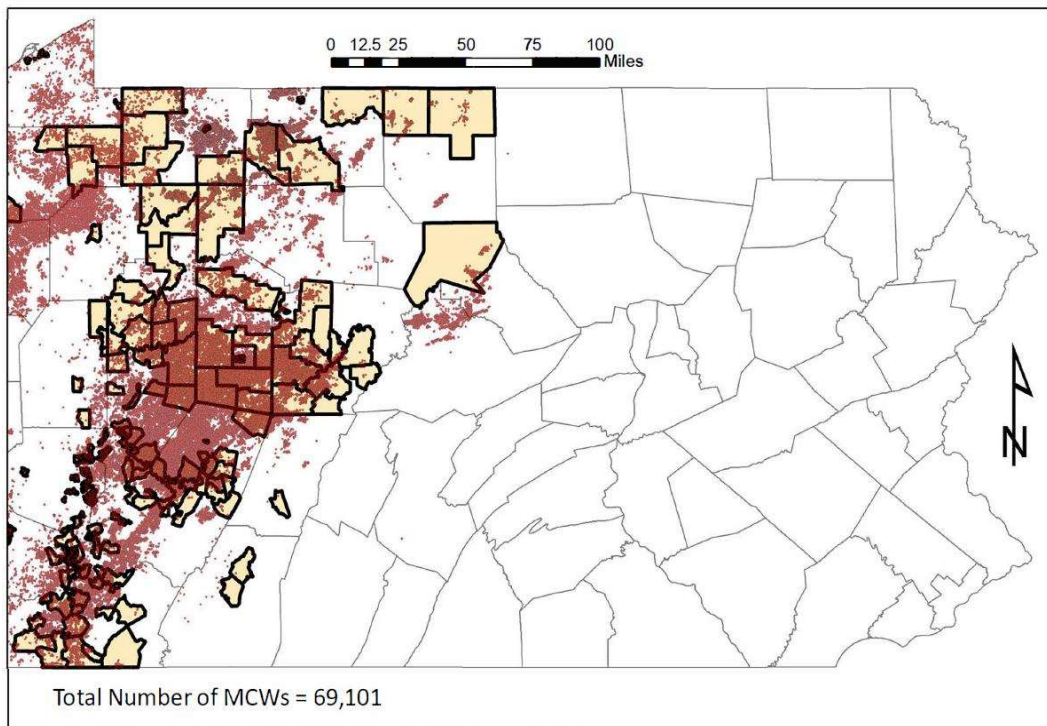
Operator Reporting	Gas	Oil	Total
Reported 365 days of production data.	53,649	14,902	68,551
Reported daily average	66,392	21,158	87,550

MERP

MERP Program Purpose

- Mitigating Emissions from MCWs by providing financial assistance to operators/well owners to voluntarily and permanently plug and abandon MCWs
- Requires measurements and quantification and methane emissions before and after plugging
- Requires State to develop a Community Benefits Plans
 - Job Quality and Equity
 - Workforce Development
- Include elements of environmental restoration required to comply with applicable State or Federal plugging and abandonment standards.

Total MCW Distribution



- Marginal Conventional Wells with Avg Daily Production of <90MCF/day or <15BBL/day
- PA Counties
- PESCEJSTCombine

MERP

Methane Emissions Reduction Program (MERP) Requirements

- Public Website
- Prioritize MCWs
- Document Existing Data
- Pre-plug Methane Emissions
- Plug and abandon MCW
- Post-plug Methane Emissions
- Remediation/Restoration
- Davis Bacon Act Wages

MERP REQUIREMENTS

Methane Emissions Reduction Program (MERP)

- The DEP will allocate funds to operators/well owners through a DEP administered grant program, for the purpose of permanently plugging MCWs on non-Federal land, utilizing the prioritization of MCWs.
- Operators/well owners of prioritized wells who have completed the application process and are eligible to voluntarily participate in the plugging program.
- A final determination on how the DEP will allocate funds to operators/owners will be determined during the Project Management Plan task within 90 days following receipt of the grant award.

MERP

Methane Emissions Reduction Program (MERP)

- Pennsylvania has a significant number of operators that do not report production and are not in compliance with reporting requirements.
- The DEP plans to leverage this funding to encourage these operators to provide production information to be eligible for potential inclusion in the program.
- The web page will be designed for electronic submission of an application, aggregate tracking of applicants and wells, the annual list of prioritized wells, and the status of accepted applications.



Oil and Gas Management

Thanks! Questions?

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[Rewriting Pennsylvania's Legacy \(dep.pa.gov/legacywells\)](http://dep.pa.gov/legacywells)