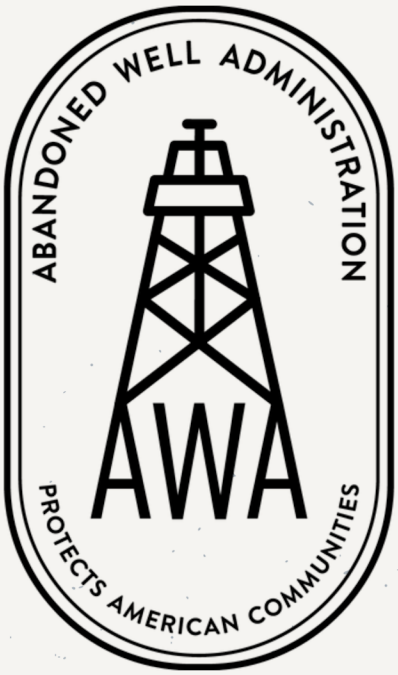


THE ABANDONED WELL ACT

THE TRANSITION HAS BEGUN

The oil and gas industry has fired 118,000 workers in the United States in 2020 alone. Globally, more than one million oilfield services workers are projected to lose their jobs by the end of 2020 . The dual trends of oil rig automation and precarious contracting practices ensure that any oil and gas industry rebound will not equate to a parallel job recovery. For oil and gas workers, the transition has already begun.



10 million

abandoned, orphaned, idled, marginal and legacy wells plague American communities from coast to coast.



118,000

oil and gas workers have been fired in the United States this year alone.

ORPHANED & ABANDONED

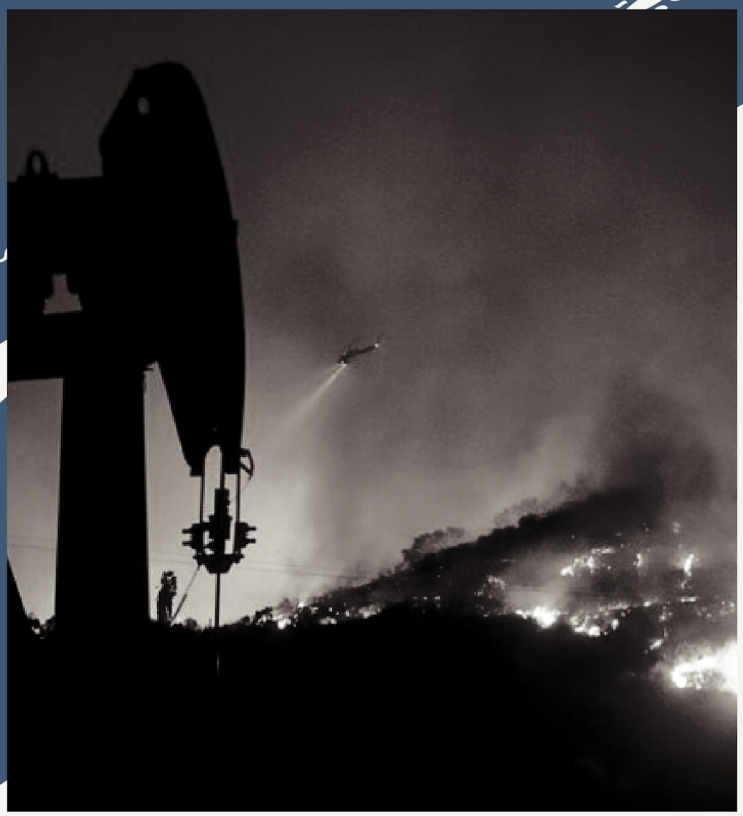
After 150 years of oil and gas production, an estimated, known 10 million wells of various status puncture the United States. (This figure does not include state or federal waters.) Of those, there has been much focus on orphan wells: those wells for which no responsible owner can be located, or where the owner is known but bankrupt. But "orphan well" is just a legal classification. There are wells with publicly-known and financially solvent owners that also spew methane into the atmosphere, contaminate groundwater, and poison nearby communities with little or no accountability.



OIL & GAS WELLS ARE FOREVER

Current law limits a private firm's responsibility to initial plugging and abandonment (P&A), or plugging a well and walking away. But even when all leaks are detected and sealed, there's still an expiration date. Cement can fail. Engineered solutions have an engineered life.

There is no legal requirement to monitor abandoned wells and no standardized approach to measuring methane emissions from abandoned wells. Studies by Kang et al. 2014, Kang et al 2016, Boothroyd et al 2016, and Townsend-Small et al. 2016 have all measured methane emissions from abandoned wells and have found that both properly plugged and improperly abandoned wells leak methane and other Volatile Organic Compounds (VOCs) to the atmosphere as well as into the surrounding groundwater, soil, and surface waters. In these studies, some leaks were shown to begin just 10 years after operators plugged them.



COMPOUNDING RISKS

Oil and gas wells add accelerant to catastrophic wildfires. Abandoned wells and the tangled nests of rusting pipelines and leaking wells undermine coastal restoration projects to protect our coasts from more violent tropical storms. Oil and gas well leaks threaten scant freshwater resources in drought prone regions.

There is no combined national inventory for the total number of legacy wells, orphaned wells, abandoned wells, inactive/idled wells, and producing wells.

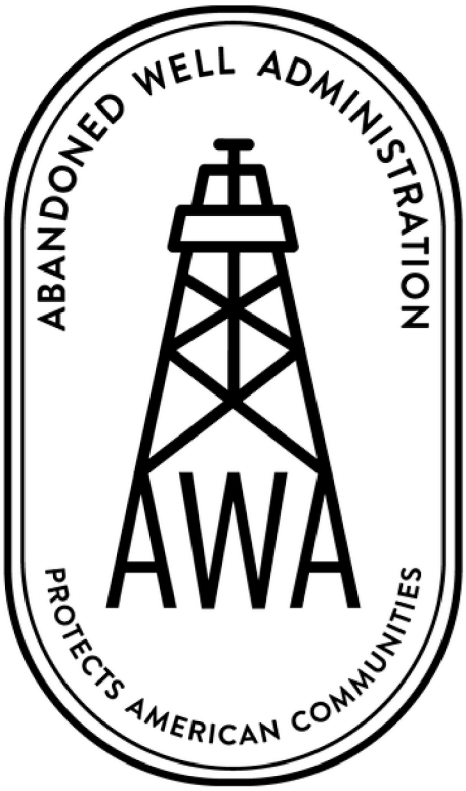
- There is no uniform nomenclature.
- There is no national or shared database.
- There is no monitoring system.
- We don’t know where every well is located, and it will only get worse.

These polluting wells are everywhere - in cities, in rural towns, on tribal and private land near homes, on public land near schools and hospitals, and on federal land and waters. These wells emit noxious fumes, threaten groundwater, depreciate property values, and threaten lives.



The **Abandoned Well Act of 2021** will meet “need with need” - pairing the thousands of displaced, skilled oil and gas workers to the massive undertaking of locating, decommissioning, and monitoring of the oil and gas industry’s discarded wreckage. This bill will establish the **Abandoned Well Administration** (**AWA**), a new executive-level agency that will recruit and directly employ a new federal workforce of displaced oil and gas workers. AWA civil servants will identify and safely decommission the millions of oil and gas wells and related infrastructure across our nation via 30 field offices and an arsenal of rigs and equipment, equipment owned and maintained by the United States of America. The AWA will oversee and manage a national monitoring and safety response program, which will include a citizen’s portal and hotline that allows frontline communities to directly alert the AWA of fugitive emissions, flaring, and other emergency situations.

The AWA will have multiple programmatic areas, but the guiding missions are:



1

Identify

catalogue and prioritize the safe decommissioning of former oil and gas wells and related infrastructure across the nation.

2

Coordinate

across Federal, State, Local and Tribal Governments to ensure yearly prioritized decommissioning schedules are met.

3

Oversee

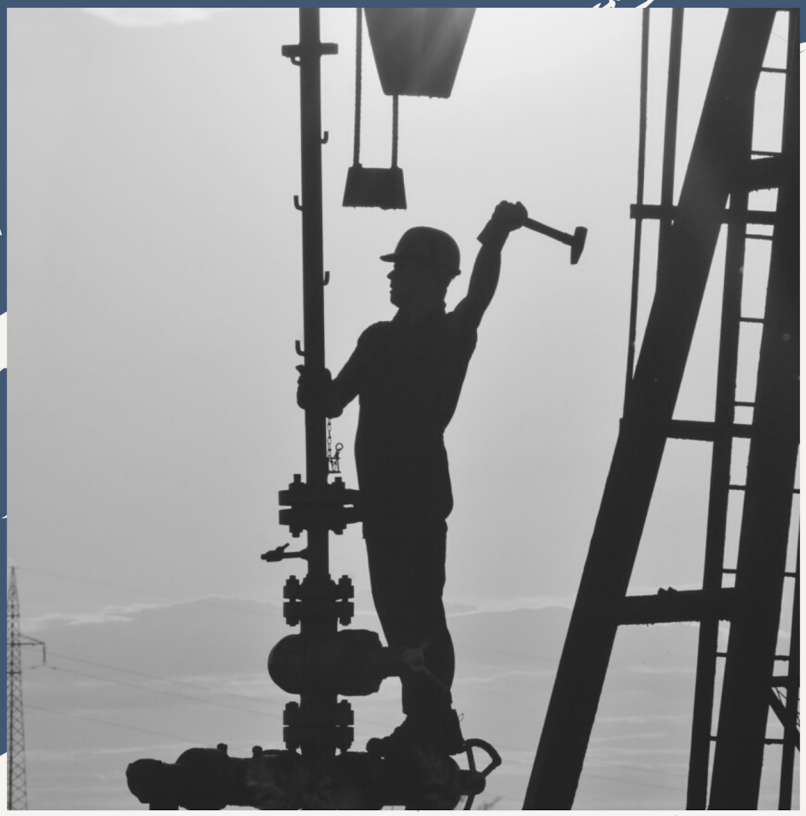
and manage a national abandoned oil and gas monitoring, safety, and response program.

THE ABANDONED WELL ACT

1. Support for Displaced Oil & Gas Workers
2. Structure of the Abandoned Well Administration
3. The Abandoned Well Administration Workforce
4. The Abandoned Well Advisory Committee
5. Geospatial Audit of Abandoned Infrastructure
6. Retired Well Monitoring, Response and Enforcement Program
7. The National Abandoned Well Laboratory and Training Center
8. National Setback Standards & Ban on Building on Former Oil & Gas Sites
9. Environmental Health and Disease Monitoring and Registry
10. The End of Federal Oil & Gas Leasing
11. The American Carbon Budget and Stranded Assets
12. Study Fiscal Reforms, Revenue, and Financial Contagion Measures
13. AWA Investigative and Enforcement Office
14. Community Outreach and Education

"...More important, however, than the material gains will be the moral and spiritual value of such work."

President Franklin D. Roosevelt remarking on the creation of the Civilian Conservation Corps - March 21, 1933



The oil and gas industry has fired 118,000 workers in the United States this year and more than one million oilfield services workers are set to lose their jobs by the end of 2020 globally. The single most important part of this bill is relief to oil and gas workers, their families, and their communities. This statute will first and foremost authorize an **immediate $/week unemployment insurance relief** and expansion of medicaid to displaced oil and gas workers and contractors and their families.

1. SUPPORT FOR DISPLACED OIL AND GAS WORKERS

This bill will **honor existing pensions** and authorizes a new "Just Transition" pension program for workers **who have worked for 30 years or are the age of 65**. Displaced workers are eligible to register their information for future employment with the Abandoned Well Administration or funding for training to transition to another industry.



The AWA will be lead by a Presidentially-appointed Administrator. AWA civil servants will identify and safely decommission the millions of oil and gas wells and related infrastructure across our nation via **30 field offices** (which includes three Outer Continental Shelf offices to coordinate with the Bureau of Safety and Environmental Enforcement) and an arsenal of rigs and equipment, equipment owned and maintained by the United States of America. Regional field offices will also perform emergency response activities and investigations in cases of suspected criminal negligence.



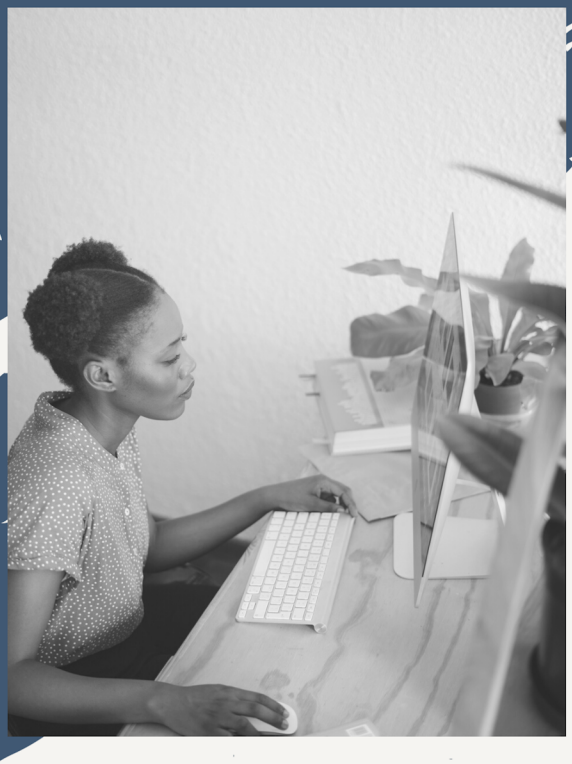


2. STRUCTURE OF THE AWA

The AWA will oversee and manage a national monitoring and safety response program, which will include a **citizen's portal and hotline** that allows frontline communities to directly alert the AWA of fugitive emissions, flaring, and other emergency situations.

The AWA Headquarters will house an **Office of Environmental Justice** and **Office of Tribal Affairs** to ensure that frontline communities are not merely a "check on a list", but at the very highest level of decision making.

The AWA Headquarters will also house an **Office of State Relations** to ensure appropriate coordination and collaboration between states' executives and the AWA.



We have a lot of work to do and for that **we need workers**. We need people working from home reconciling Bureau of Land Management spreadsheets with states' datasets. We need people walking fields with metal detectors. We have an opportunity to "**meet need with need**" and provide job and training opportunities to unemployed American residents at family-sustaining wages all in support of a true transition that makes our communities safer.

3. THE AWA WORKFORCE

1. **Paper Audit Staff:** There is no one single estimate or nomenclature shared between state and Federal agencies, let alone an accurate map or cataloging system. The AWA shall create a shared database and cataloging system. Paper audit staff shall populate that system.
2. **Field Audit and Geotag Staff**: Before the hazards of oil and gas wells can be addressed, data records will be confirmed and compared to physical location verifications, then incorporated into a cross-jurisdictional database. Staff will physically assess and geotag well-sites using a variety of technology and tools.
3. **Redevelopment Staff**: Staff will perform analysis on future beneficial use of land after reclamation, which will also include site-specific analysis for renewable energy production, sustainable agriculture, wildlife protection, ecosystem conservation, recreation, and reforestation.
4. **Plug & Abandonment Response Staff**: Recruit, directly employ, and train displaced oil and gas workers to perform leak detection & repair and plug & abandonment work. P&A staff will also install methane, air quality, and groundwater monitoring equipment which will be synced to the database.
5. **Remediation/Reclamation Staff**: Recruit, directly employ, and train displaced oil and gas workers to restore lands and habitat impacted by wells and their prior operation to near original land capacity or equivalent. Staff will also document the post-reclamation condition of the site and take various air quality and water quality (if applicable) measurements. Federal and state laboratories will process samples.

Oil and gas workers in the field possess expertise and a nuanced understanding of the conditions of the actual physical work. Administrative staff have grounding in the legal and procedural framework governing that work. Frontline communities have detailed surveillance histories and future hopes for the land these sites occupy. A critical feature of this program are mechanisms that guarantee continual and routine feedback loops between these spheres united in a common mission and accountability framework to safeguard human life and health.





4. THE ABANDONED WELL ADVISORY COMMITTEE

The Abandoned Well Advisory Committee will ensure that AWA decision-making is transparent, accountable, and democratic. The Committee will advise, assist, and support the Administrator in the approval of criteria for yearly prioritization for decommissioning of wells and associated infrastructure and rule-making consultation. The Advisory Committee shall be composed of members from the 30 known states with abandoned oil and gas wells and associated infrastructure appointed by those states' Governors. Affected Tribal communities shall also appoint Committee members. Committee members will also include technical and health experts, frontline workers, and frontline community members.



The AWA shall embark on a national investigation and audit of all wells. Each well will be identified and geotagged with a unique number. From this data, the AWA shall create a national, public, and “living” geospatial map of all operating and orphan wells and related infrastructure on state, federal, and private land. The database shall feature the status of wells. This database shall be kept up to date on a daily basis and available for public access.

5. GEOSPATIAL AUDIT OF ABANDONED INFRASTRUCTURE



The Administration shall design the map to be accessible to all American residents including multiple languages and compliant with the Americans with Disabilities Act. Congruent to the database, the AWA Administration will produce a yearly report cataloging plugging, monitoring, and emergency response activity, which describes best practices, trends, and cost data. The report shall also feature available data on orphan well owners and responsible parties. The AWA shall submit to Congress a yearly decommissioning schedule and year in review audit.

Oil and gas wells, of any condition, can leak dangerously for weeks without detection. The AWA's sensors, routine drone sweeps, and satellite surveillance shall notify AWA field office response teams of fugitive greenhouse gas and toxic emissions. The AWA shall also design and host a citizen's portal and mobile application that allows American residents to directly upload data, photos, video and information on wells and/or associated infrastructure for Administration staff to review and incorporate into the database.

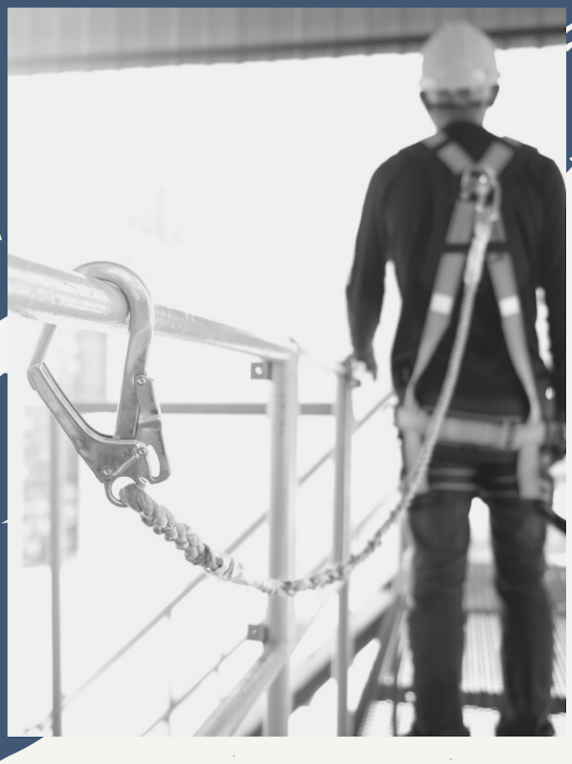




6. RETIRED WELL MONITORING, RESPONSE AND ENFORCEMENT PROGRAM

The AWA shall create a direct national response hotline that allows American residents to alert the AWA of fugitive emissions, flaring and potential emergency situations. The hotline shall be available in multiple languages, and American with Disabilities Act compliant. In emergency situations, AWA Regional Field Office response teams will be deployed.

The AWA will create a log of all calls and generate publicly available, monthly and yearly reports describing incident and accident trends .

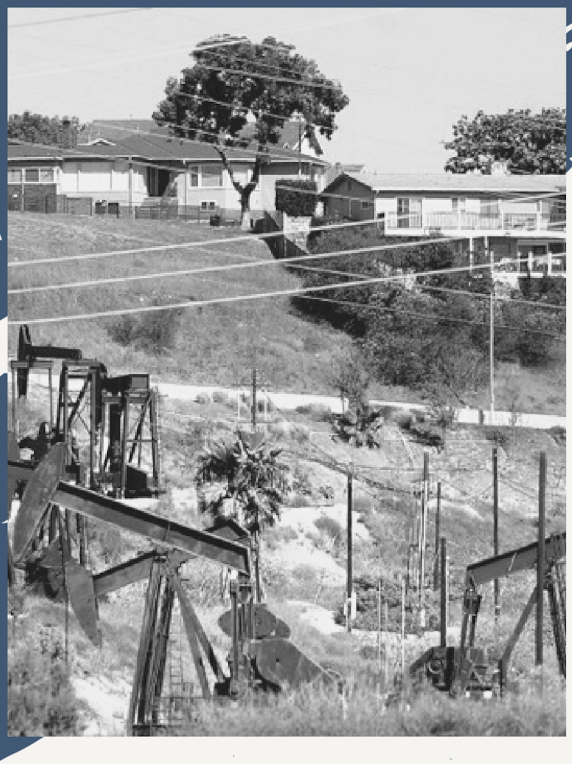


The United States can and should lead in oil and gas decommissioning and monitoring technological development. The National Abandoned Well Laboratory and Training Center will operate a national laboratory with the Department of Energy's National Energy Technology Laboratory to develop and test novel decommissioning techniques, well monitoring technology, and a training center for AWA decommissioning and emergency response workers.

7. THE NATIONAL ABANDONED WELL LABORATORY AND TRAINING CENTER

The lab will establish partnerships with the National Oil Spill Response Research & Renewable Energy Test Facility and National Institute for Environmental Health Services, Department of Energy National Training Center, Occupational Health & Safety Administration to develop curricula and certifications for AWA staff. AWA staff are required to undergo frequent, uniform and up-to-date training. The oil and gas industry fatality rate is 7.6 times higher than the all-industry rate. The AWA will protect its workers.

In consultation with the Abandoned Well Advisory Committee (and other agencies with subject matter expertise such as the Department of Energy's Office of Fossil Energy and the Occupational Safety and Health Administration) the lab shall review existing federal and state plug and abandonment regulations/best practices and establish national, uniform procedures and practices. There is a great deal of variance in terms of safety, site clearance sufficiency, environmental consideration, and what is deemed a 'finished' job across state and even federal jurisdictions. These policies must account for type of wells (fracked or conventional), age of wells, distance to people and infrastructure, and conform to rigorous safety guidelines.



Oil and gas production encroaches into American communities next to where people live, learn and heal. Most jurisdictions require plugging with cement of the production casing and some site remediation, but most jurisdictions do not have the resources or capacity to enforce these rules or investigate the condition of wells or the site to confirm whether all machinery has been removed and the land restored. As a result, these wells are lost to records and oversight. Even a well that is considered safe and plugged on paper may have an undetected leak with gas escaping above ground or building up below, until one day a house explodes or a school is evacuated.

8. NATIONAL SETBACK STANDARDS & BAN ON BUILDING ON FORMER OIL & GAS SITES

This statute will establish a national setback standard on all oil and gas activities (including existing production) This statute will also establish a national ban on new residential and commercial development near existing oil and gas activity. The Abandoned Well Advisory Committee shall develop national "**safe distance" standards** for residential and commercial use.

States participating in federal-backed loan programs including the Federal Housing Administration loan program shall incorporate the ban and setbacks into all statewide and local zoning ordinances and mortgage instruments and rental agreements. This statute will also mandate that all real estate title policies and rental agreements include maps and documentation disclosing nearby risks of oil and gas wells and associated infrastructure prior to sale.

Because there may be sites that are beyond remediation or the risks pose too great a risk to nearby residents, the AWA will also administer an **Abandoned Well Relocation and Buyout Program.** The AWA will have authority and a corresponding programmatic budget to provide funds for temporary housing and relocation compensation for residential and retail properties that are near wells and associated infrastructure that cannot be safely remediated and rehabilitated.



9. ENVIRONMENTAL HEALTH AND DISEASE REGISTRY

The adoption of advanced oil recovery and oil and gas practices expanded faster than evidence-based epidemiological research could respond.

There is no national registry of epidemiological research for the health impacts of abandoned oil and gas wells and related infrastructure. The AWA will augment and support current occupational monitoring, EPA Environmental Justice health monitoring, and CDC monitoring where gaps in surveillance and research are identified.

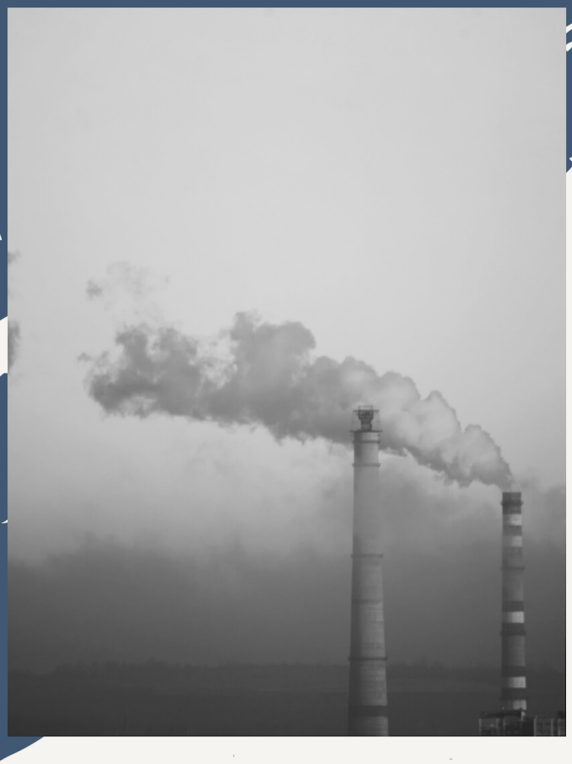
If you have a leaking bathtub, then the first step is to turn off the faucet. Overburdened federal agencies cannot manage their existing inventories of leased properties. Adding more to their regulatory plate only compounds the crisis.



10. THE END OF FEDERAL OIL & GAS LEASING

This statute will amend the Mineral Leasing Act and the Outer Continental Shelf Lands Act to end all oil and gas leasing on federal and Tribal lands and waters. This statute will also issue a **federal wide moratorium on new oil and gas related seismic, exploration, and production permits**. For oil and gas activity on state and private land, this statute shall establish national bonding requirements and proof of decommissioning insurance or financing for existing leases. The bill will give the AWA authority to garnish royalties and impose fines upon well owners who fail to provide new assurances within the legally mandated time period.

The AWA Office of State Relations and Abandoned Well Advisory Committee will also work with State Governments to reform existing programs and help manage a decline of state programs." This bill will seek a pause on firm dividends that trade within American stock exchanges until the AWA/DOE/GAO (Governmental Accountability Office) complete its' study on the "The American Carbon Budget and Stranded Assets."



The United States has no unified energy policy nor does it have a clear vision on how to manage the energy transition. This report will elucidate both discussions while providing necessary decommissioning cost data and risk clarity.

11. THE AMERICAN CARBON BUDGET AND STRANDED ASSETS STUDY

The AWA, the Department of Energy, and the Governmental Accountability Office shall undertake a study of the existing national carbon budget and using existing oil and gas production, forecast how much is permissible under current IPCC projections. The study will compare national “proven reserves” within that budget to existing federal and state financial assurance and bonding requirements. The AWA, DOE, and GAO shall evaluate these requirements in the context of "stranded assets" work, current price environments, and updated decommissioning costs and estimates.

Directs the Internal Revenue Service to create a guide of current Federal and state tax incentives, write-offs, and all tax practices that benefit the oil and gas exploration and production industries. This study will also evaluate the health of the bonding market and third party bonding companies. This study will compare the total spread of bonding and liabilities as well as the strength of decommissioning insurance markets. The AWA shall produce a report documenting their findings and a list of uniform recommendations that prioritizes protecting communities from the physical dangers of abandoned wells and American residents from the liabilities of their cleanup and remediation.



The Federal government cannot with one hand incentivize orphan wells with tax credits and subsidies, while assuming those liabilities with the other hand. These reforms will make the government act in coordination and in the interest of the general American public. This statute will revise the IRS tax code to tax oil and gas entities with **U.S. headquarters as consolidated entities** and eliminate transfer pricing and avoidance practices. It also modifies the IRS tax code to eliminate any and all preferential treatment of oil and gas activities, including depreciation of infrastructure. Establishes a new carbon capital gains tax on short-term and long-term gains from stocks and futures, dividends, royalties, royalty trusts and endowments on oil and gas activities.

12. FISCAL REFORMS, REVENUE, AND FINANCIAL CONTAGION MEASURES

The latest American fracking boom is not only an environmental liability, but mounting evidence suggests that it is also a financial contagion predicated on fraud. The inevitable demise of these firms can enrich their gambling owners while devastating American communities. By mid-summer 2020, 47 oil and gas related firms already declared bankruptcy, leaving $55.1 billion in financial debt. The **American government is likely the largest holder of corporate oil and gas environmental debt** than any other institutional body on the planet.

To prevent firms pulling a “dine and dash,” oil and gas corporate dissolution can no longer be automatic. All Federal and Tribal agencies managing oil and gas lessees shall send out a “**Notice to Lessees**" and amend planned lease sale contracts to include a requirement that companies must seek Federal approval prior to corporate dissolution. This statute will modify the Bankruptcy Code to assert environmental obligations and the United States government as the primary creditor, and extend joint & several liability for past, present, and future oil and gas well owners. The AWA Office of State Relations and the AWA Committee shall craft processes for oil and gas wells on state and private property.



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This legislation will establish an oversight office, the **Office of Well Thrift Supervision**, to function as a pass-through receivership in which all assets, and certain non-deposit liabilities of original oil and gas institutions are instantly "passed through the receiver" to a newly chartered federal mutual association, a 501(c)(1) organization - the **American Well Corporation**, which will take over and dispose of failed oil and gas firms and operate in the American public's interest.

Appointed AWA representatives will act as Conservators of failed companies, running them in the public's interest, winding down insolvent wells, and cleaning up inactive and depleted wells with the proceeds from remaining production. The AWA will identify the most profitable oil and gas remaining within the nation's carbon budget and **capture 100% of the resource rent for cleanup and transition.** The Federal government will also order courts to stop appointing receivers and trustees to liquidate on behalf of lenders that already profited from bad loans.

The "trigger" for winding down these companies is a well established industry forecasting method - oil and gas well production decline curves to determine **Economic Limit.** The Economic Limit of an oil or gas well is the minimum average daily-oil-production rate needed to break even on a before- and/or after-income-tax basis. **When a well has reached its Economic Limit, it cannot fund its own plugging and cleanup.** When a well has reached its Economic Limit, it is deemed too mature and can't secure third-party bonding.

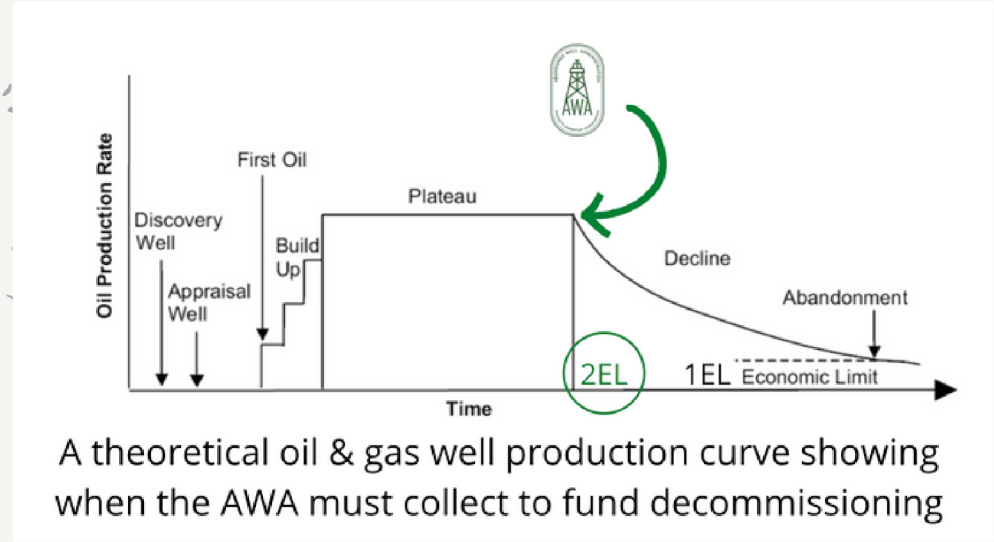
The well is insolvent - more liability than asset.

When you aggregate a company's whole inventory of wells and determine that collectively the wells are beyond their Economic Limit, the company is itself insolvent. Without appropriate bonding in place or additional secured collateral to pay for decommissioning, the company is a debtor to the United States federal government or relevant state government.

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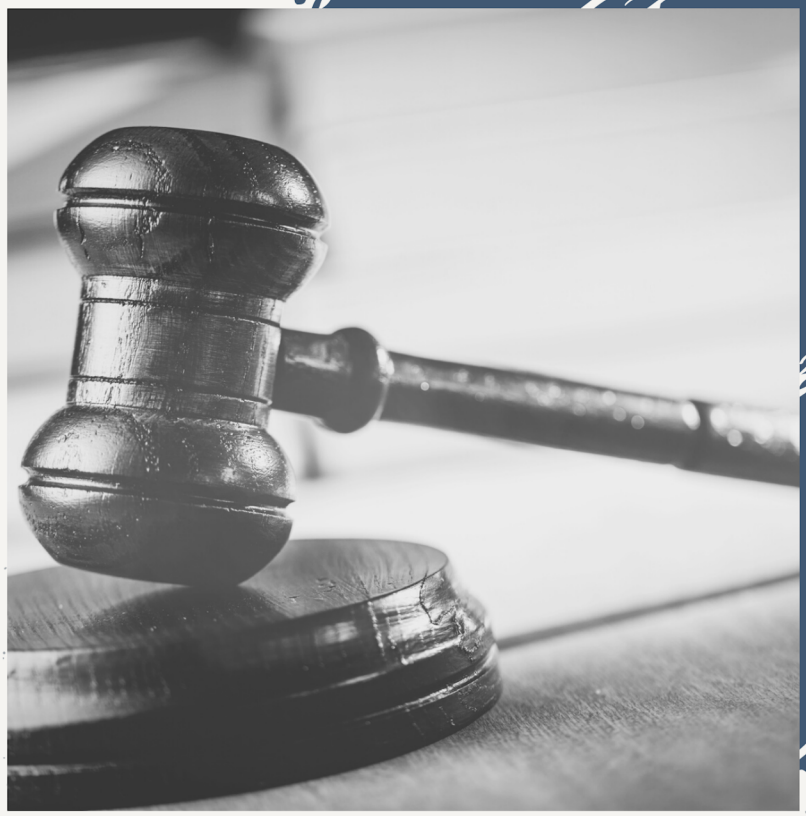
The United States government and state governments have access to **well production data** to determine royalty payments and other production-related revenue. Using this data, the AWA can determine the Economic Limit of a well, the Economic Limit of a field, and the Economic Limit of an entire company. **This is the bright, red line that regulators have had all along.**

As seen in the figure below, only wells with enough production left that is equivalent of 2EL are bondable at proper levels. Between 1EL and 2EL, a well only has enough oil or gas left in the tank for partial bonding. Any well below 1EL not bonded to proper levels would be deemed toxic to bonding companies. The timeline and "curve" for these decline rates are determined by technology and whether onshore or offshore. The AWA will employ the appropriate decline curve relative to whether the well is 1. Conventional, vertical well; 2. Horizontal fracked well; and a 3. Fracked vertical well. The most urgent task for regulators is to identify insolvent wells and shut them in as quickly and as orderly as possible; identify insolvent fields, and shut them in as quickly and as orderly as possible; identify insolvent producers and wind them down as quickly and as orderly as possible before they impose compounding costs onto the American public.



A theoretical oil & gas well production curve showing when the AWA must collect to fund decommissioning

The AWA will have a routine and expected level of activity each fiscal year (both remediation and emergency response). Therefore, funding should originate from the General Budget and routine budgetary processes. This bill will also modify the U.S. tax code to root out subsidies and implement new cross industry taxes/fees to recoup government expenditures directly from oil and gas firms and their shareholders. This statute shall establish a new **"Abandoned Well" tax on all oil and gas wells in the United States**, regardless of whether that well is located on Federal, State, Tribal, or private land. Revenues from the Abandoned Well Tax will be placed into the **Abandoned Well Fund**. This fund will augment and supplement funding from the General Fund. The Abandoned Well Administration shall have appropriate authority to withdraw funds (outside of the Congressional Appropriations process).



13. AWA INVESTIGATIVE AND ENFORCEMENT OFFICE

Decommissioning cost data will inform future AWA budgets and also provide the American public an accounting of the oil and gas industry's abandoned liabilities. Because the American Well Corporation will have access to oil and gas firm data, this presents an opportunity to understand operational organization and what led to losses. The oil and gas forensic accounting and title unit will collect decommissioning cost data and perform financial autopsies of insolvent oil and gas firms. The nature and organization of the oil and gas industry has precluded appropriate oversight and the creation of the AWA presents an opportunity to develop that expertise.

The oil and gas crimes investigative and enforcement unit will investigate and bring criminal or civil charges against oil and gas companies for environmental negligence or financial fraud.

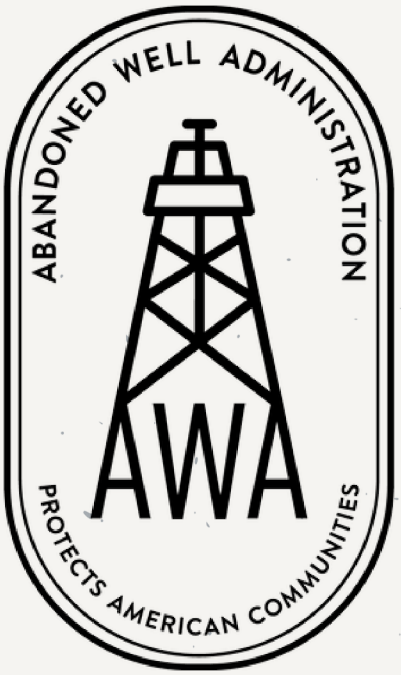


14. COMMUNITY OUTREACH AND EDUCATION

The office will help craft campaigns to educate the American public on the AWA's mission and progress. Regional AWA offices will send out mail quarterly to residents within the region describing AWA activities and information regarding the citizen's portal and hotline.

The AWA Office of Community Outreach and Education will develop K-12 education resources to be used both at home and in the classroom to be updated and expanded on a routine basis. The National Abandoned Well Laboratory and Training Center will also host a public visitor's center suitable for school field trips and general public visits. All Abandoned Well Administration field staff will be required to wear provided AWA-branded gear and uniforms during field work assignments and approved public appearances. This bill also authorizes the licensing of AWA merchandise to union-represented American manufacturers.

OUR COMMUNITIES. OUR FUTURE.



We the American public are being asked to make a false choice - sacrifice a livable planet or cast aside thousands of humans and their families and the local economies they support. That is not the choice we have in front of us. The oil and gas industry has already discarded those workers and abandoned those communities. The oil and gas industry can no longer hide behind the claim of job creation.

But we, the American public, can employ every single worker and rebuild every single community. From rig managers to drillers, and roughnecks and roustabouts - each possesses valuable and needed skills to make our communities safer and healthier. And those AWA paychecks will pay local mortgages, fund local governments and schools, and support real families.

We are no longer in opposing camps. Rural communities, cities, workers, all of us - we face a common threat. It is time we fought back.

Megan Milliken Biven