Accountability for a Clean Energy Future

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Market Failure, Environmental Debt, and the Power to Hold the Oil and Gas Industry Accountable

As the climate crisis grows more severe, so too does the consensus that dramatic action must be taken to decarbonize our society. The meteoric rise of renewable energy technologies, like wind, solar, and battery storage as the world's cheapest sources of new energy, shows us clearly that the transition is underway. Given the scale of the climate crisis, however, and the historical success of the oil and gas industry to misinform and prevent meaningful action on climate change, our time is running out. But the transition has started, and the fossil fuel industry knows it. They also know that their legacy of exploitation will cost *trillions* of dollars to clean up — which, remarkably, does not even account for the massive additional costs associated with climate breakdown.

Industry's Debt to Society

The oil and gas industry is required by law to plug and dismantle their wells at the end of the wells' useful life, and to restore the American landscape to its pre-drilled state. It's pretty simple: you drill a hole to get the oil out, you make your money, and you close the hole up when you're done so it does not pose a risk to the public or leak dangerous hydrocarbons into the groundwater or air. While this makes intuitive sense to most people as a matter of responsible business practice, as it turns out, there are *millions* of wells across America that have been left orphaned and unplugged, leaking toxins and fracking chemicals into water supplies and spewing explosive, heat-trapping methane into the atmosphere, sometimes with tragic consequences.

As a condition of obtaining a permit to drill, fossil fuel companies agree to plug their wells when they are done with drilling operations. This includes the dismantling of the wellhead, tanks, pipelines, and other equipment installed at the surface — none of which is needed after the well stops flowing, and which poses a toxic hazard to wildlife, livestock, hikers, and children who might wander by. Companies are required to clean up any spilled oil, chemicals, and contaminated soil, remove the well-pad and roads, and if development required them to bulldoze forests, pave over grasslands, or excavate a hillside to retrieve the oil, they agree to restore the landscape and plant back native vegetation. These private companies have made tens of trillions of dollars over the last century, and we have only asked of them what we ask of kindergarteners: keep your word, and if you make a mess, clean it up.

It's a Big Mess

The last hundred and fifty years has seen nearly continuous, exponential growth of extractive activity. Growth in population and the global economy has precipitated ever increasing oil and gas production. Every decade since 1850, the footprint of the fossil fuel industry has expanded. Hop on google maps and do a satellite flyover of Carlsbad, New Mexico — the heart of the Permian basin and an industrialized spiderweb of wells and roads — and you'll begin to get a sense for how dramatically this industry has transformed the face of the planet. As a result of this incomprehensibly vast footprint, the fossil fuel industry owes obligations to restore *millions* of acres of land across the country, and the cost will be staggering.

But the industry is acting as if it's not their problem. Rather than act as responsible stewards, they are betting that taxpayers will swoop in and foot the bill to clean up their mess — just as communities are breaking their budgets to deal with increasing climate-related catastrophes. How do I know? Because they do not have any money saved to deal with the waves of well closures that they know are coming. Rather, they have been paying their executives big bonuses, buying back stock, paying interest on loans to expand their operations into money-losing projects, and issuing hefty dividends to shareholders. In short, they are pocketing profits and externalizing the cost of doing business, all while leaving puncture wounds in the earth that are spilling toxic oil into the waterways in Pennsylvania, spewing explosive gas into homes in Colorado, and poisoning precious groundwater in New Mexico.

Unlike the emerging concept of climate damages, these environmental obligations are already written into the law. Publicly traded fossil fuel companies are even required to report their estimated decommissioning costs — known as Asset Retirement Obligations (AROs) — as contributions to corporate debt. For those of you with finance or accounting backgrounds, AROs are balance sheet liabilities that have bearing on corporate solvency. And though they have remained obscure provisions on corporate financial statements for decades, our campaign is going to bring these obligations to center stage and use the leverage they represent for the American people to hold industry accountable and accelerate the energy transition.

How are we going to do it? In our plan, we use a variety of mechanisms to ensure that the fossil fuel industry pays its debts up front or at the point of asset transfer, securing funding to plug wells and decommission toxic infrastructure while keeping oilfield workers employed for as long as there are wells left to plug. Considering there are millions of wells in the U.S., there is absolutely no reason for workers to lose their livelihoods while we make the transition to the clean energy economy. In our plan, a *Restoration Jobs Program* funded by industry is paired with job training to steadily transition oilfield workers into new jobs as environmental restoration professionals, wind turbine technicians, solar panel installers, and numerous other well-paying jobs needed to make the transition happen. And we will structure our policies to ensure that every worker gets family-supporting wages and access to union representation.

Oil and Gas on the Brink

Critically, the oil and gas era has not been financed by the oil and gas industry. New wells are not being paid for out of company profits, but rather from borrowing of vast sums of money. In fact, the American shale boom of the last decade was financed by cheap capital and low interest rates coming out of the global housing market crash. But the bill is coming due.

Despite 60 percent growth in American oil production since 2013, even the largest oil and gas companies have not gained value. While the S&P 500 has more than doubled over this time, the value of U.S. oil and gas companies have declined 43 percent. Tens of thousands of shale wells drilled in the last five years are producing less oil and gas than industry predicted — some by as much as 50 percent. Even for the largest producing areas, such as the Permian basin, overall production estimates have dropped. And because shale well production rapidly declines after only a few years, an increasing numbers of wells need to be drilled just to keep pace. Analysis of 29 major oil and gas companies shows that these companies spent $112 billion *more*than they earned in the last decade. In fact, in the last four years, over 175 North American oil and gas companies, with debts of over $100 billion, have filed for bankruptcy. In the next two years, over $137 billion in shale oil bonds will come due.

The assumption of the oil and gas industry, and investors, has been that fossil fuel reserves would perpetually increase in value over time. But global oil demand has begun to slow, with some predicting peak demand in the next few years. Even the most optimistic predictions believe peak demand will occur between 2030 and 2040.

In short, the oil and gas industry is in deep financial trouble, even before its environmental debt is considered.

Our Tools

***Full-Cost Bonding*:**

We will update existing regulations to require oil and gas companies to fully cover the cost of their cleanup obligations for all new wells, or at the point of transfer for existing wells, in the event they go bankrupt. We will ensure bonding amounts cover the full expected cost for plugging and reclamation, and not a tiny fraction of those costs as current rules provide.

***Retroactive Joint and Several Liability*:**

Under the doctrine of joint and several liability, anyone that has owned, operated, or played a significant role in managing a well, field, or pipeline, will ultimately be held responsible for cleaning up the site — even if they are not the one who abandons the site in bankruptcy. The federal government already uses this doctrine for offshore oil platforms, and we will expand it to cover all onshore wells, pipelines, and oilfield infrastructure. This rule ensures that companies are not able to skip on decommissioning costs by selling off their older, marginal wells at a discount to financially risky companies — a common practice across North America.

***Restoration Trust Fund*:**

We will increase the severance tax (tax on the oil and gas pulled out of the ground) to ensure that the cost borne by society is reflected in the price companies pay to operate their wells. This increased fee will go into a trust fund to ensure that no matter what happens with the oil and gas industry as we move through the energy transition, money will be available to keep workers employed and in the field to plug wells and restore the land to health.

***Bankruptcy Reform*:**

Plugging and reclamation obligations are a high priority in bankruptcy proceedings, but not quite the top of the heap. We will work to reform bankruptcy rules to ensure companies are held accountable for their environmental and worker obligations, which will become the top priority in bankruptcy. Recent coal bankruptcies have demonstrated that workers who have sacrificed their health and longevity for corporate profit have essentially no protection, and that their hard-earned pensions and healthcare benefits can be wiped away in the swipe of a pen. Reforms will ensure that executives no longer take home multi-million-dollar bankruptcy-bonuses while workers, like coal country retirees suffering from black lung, lose their retirement and healthcare benefits.

Reforming Financial Reporting Rules: Protecting the Public and the Economy

Asset Retirement Obligations (AROs), including well plugging and environmental cleanup, make up half the reported debt for the oil and gas industry, but are virtually unknown even among financial professionals. How is it possible that fossil fuel companies have been able to hide a trillion-dollar debt owed to the American public, and why isn't anyone talking about it? Current reporting rules help facilitate this financial sleight of hand. Oil and gas companies are required to disclose their environmental debt — the costs they expect to pay to plug, decommission, and restore the lands they disturb in oil and gas extraction — but existing rules enable companies to downplay their decommissioning obligations:

Credit-adjusted discounting: For one, companies are allowed to heavily discount the number they report for those future costs. In essence, this lets companies publicly report their environmental debt at a far lower amount than what they estimate cleanup will actually cost.

While adjusting future costs to account for inflation makes sense for AROs, companies routinely use discount rates that are much larger than the rate of inflation. The exponential effect of this discount formula can result in reported numbers that are less than 10% of the real expected cost.

There should be no confusion that industry, not the taxpayers, should be held responsible for cleaning up America's oilfields. We will initiate federal rulemaking to end credit adjusted discounting in the financial reporting of AROs to make clear to the public and investors the true cost of the oil and gas industry's environmental debt to the public.

No transparency for cost estimation: Oil and gas companies are underestimating the cost to decommission their wells, which is evident simply by looking at the amount companies revise their reported AROs from year to year. Revision rates for the largest integrated oil companies have trended upwards since the institution of the current reporting rules over 15 years ago, meaning that the cost estimates these companies report is consistently less than the amount they are actually spending. Simply put, companies are reporting the highly discounted cost for only a fraction of the real cost to fulfill their environmental obligations.

At the very least, this practice confounds investors' ability to determine how companies are managing operations, introducing a hidden investment risk. However, this accounting mechanism also raises the potentially disastrous public risk that companies are digging themselves into a deep hole of environmental debt from which they may not realistically emerge. Time is of the essence to correct this problem. If this situation is not dealt with early in the energy transition, exploited communities and states, who have long shouldered the burdens of American prosperity, will be left with a toxic mess to clean up after their main industry and source of revenue has collapsed — a full-scale catastrophe.

Nobody is paying attention: Experts on this issue — of which there are very few — note with dismay that AROs are virtually unknown among investors, including the managers of pension or retirement funds. And the Securities and Exchange Commission (SEC), which is charged with regulating financial reporting of public companies, is under-resourced and unable to meaningfully enforce existing accounting regulations. Despite the current rules being in place for more than 15 years, reporting practices vary so dramatically from one company to the next that it is impossible to compare individual company's management of AROs.

Implications for Corporate Governance

Reported Asset Retirement Obligations (AROs) amount to a fraction of the real cost to clean up oilfields. In many cases, the full cost of environmental debt is so great, it could tip corporate balance sheets into the zone of insolvency. In this event, legal rules for corporate boards and executives change, delegitimizing non-core payouts like executive bonuses and stock buybacks. In short, if companies were reporting the real cost of their debt to society, executives wouldn't be allowed to loot insolvent corporations to the detriment of the American taxpayer.

AROs: Environmental Debt Used as a Tool for Transition

Why is this so important anyways? This issue is wonky, it's complicated, it's boring, but the implications for society are potentially enormous. According to industry estimates, oil and gas companies expect to continue plugging wells and restoring fields for *at least the next 60-80 years*. Because of the oil and gas industry's exponential growth, and because extraction has naturally moved from the easiest to access fields to increasingly more complex and expensive reserves, oil and gas companies can expect annual decommissioning costs to continue for 80+ years, even if they stop drilling new wells tomorrow. Each new well drilled adds to this legacy of debt.

Despite the severity of the climate-related disasters we are already experiencing and the dire predictions of what we can expect in the near future, the oil industry is still seeking to *expand* production, justifying their efforts by glibly stating that the world demands oil — even as their own economists warn that action to dramatically reduce emissions is needed to meet the goals of the Paris Agreement. To be clear, there is no credible scenario under which emissions are dramatically curtailed without the imminent decline of global fossil fuel consumption.

Given the urgency of the climate crisis, rising sense of global alarm, and ongoing clean energy revolution, it is simply not possible that oil and gas companies will grow revenues for the next 80+ years. This, and any number of other scenarios, will function to accelerate the need for plugging and reclamation, causing environmental debts to mature far sooner than expected — say over the next 20–30 years, rather than over the next century. The resulting explosion of annual costs could be enough to doom even the largest and most powerful oil companies in the world. ExxonMobil, Chevron, ConocoPhillips, Shell, BP — they simply cannot stay competitive if they are required to decommission their fields according to any rational climate action scenario, which must occur if we are to avert catastrophic warming.

But this still doesn't quite paint the whole picture. Even under a business as usual scenario, it is widely recognized that global demand for oil will peak within the next 5–15 years, after which the price of oil will fall and stay indefinitely low. Therefore, current business and investment expectations premised on *increasing* oil and gas revenues for 80+ years — which would be necessary to manage existing environmental debt — are dangerously shortsighted. A permanently low oil price environment that is increasingly hostile to carbon-based fuel consumption — including but not limited to a price on carbon — is far more likely.

The oil industry has not been saving for retirement, and retirement is coming much sooner than many people expect. There is a clear and urgent need to reform financial reporting rules to reflect the systemic risks imposed by the oil and gas industry. This reform is critical for the public, who are already paying the financial, emotional, and health related costs of increasing climate-related catastrophes. It is also imperative for the health of our financial institutions and economy, currently blind to the risks of environmental debts.

To frame it as simply as I can, either the oil industry and hedge funds make their desired return on investment and the world warms beyond habitability, or we avoid catastrophic climate change. Not both.

Holding Industry Accountable and Saving the Future

There is one point the industry has right. The world still needs oil, though not for nearly as long as they are hoping. Decades of political manipulation and well-funded climate misinformation campaigns have effectively delayed meaningful action towards the transition to clean energy. Although current reliance on fossil fuel dependent infrastructure means we cannot turn off the tap tomorrow, to avoid catastrophic warming, we must invest in a clean energy transformation. But as long as the oil and gas industry is making a profit, our plan will ensure that fossil fuel companies pay their debts to society, keep workers employed, and help to fund the energy transition.

Asset Retirement Obligations and associated environmental debts are truly staggering. Critically, unlike other debts, they do not help companies expand operations or produce future profits. Instead, they are a trillion-dollar albatross, and they represent enormous leverage against the industry. Our campaign has developed a suite of policy tools designed to maximize value of existing oil and gas production for public benefit, while rapidly accelerating the energy transition and managing the industry decline. And we will do this by using well-defined legal and regulatory authority.

Our Tools

***Full-cost reporting of Asset Retirement Obligations*:**

We will require companies to report the undiscounted expected value of AROs using best practices to estimate costs. This includes annual ARO reconciliation identifying how many wells were closed, of what type, and in what fields, the average actual plugging costs per well as compared to prior estimates, as well as an explanation of outlier costs.

Enforce existing reporting regulations to ensure companies are following standardized guidelines and providing useful information to investors and regulators, and prosecute companies that violate reporting requirements.

***Mandatory reporting of climate-related financial risks*:**

Implement new financial reporting requirements, in line with the guidelines set out by the Task Force on Climate-related Financial Disclosures — a G20 finance initiative to expand and harmonize climate-related financial risk disclosures by companies, banks, insurers, and investors.

Require companies to report performance against science-based emission targets and to perform scenario analysis and climate scenario stress-tests, including asset impairment testing that integrates the effect of accelerated asset retirement on balance sheets and asset portfolios.

***Industry-wide asset retirement cost assessment*:**

Using full-cost reporting data, aggregate company ARO reporting to determine the total cost of oil and gas industry environmental debt nationwide, allocated by formation, and then compared against relative production estimates and values.

***Federal receiver for environmentally insolvent companies*:**

Companies for whom environmental debt is greater than the value of their reserves are insolvent, and should no longer be permitted to drill new wells. Every interest payment, every executive bonus, every dividend, is money rightfully owed to the American public. Absent a plan to fully satisfy plugging and restoration obligations, remaining corporate assets should be transferred into the Restoration Trust Fund, from which decommissioning and existing worker benefit obligations would be paid, and oil and gas field workers employed by plugging wells.

***Managed decline action plan*:**

Chart ARO reporting, financial risk, and cost assessment to develop an action plan that manages the decline of oil and gas production. Analysis will create rational criteria to focus on the timing and costs of asset retirement, while creating a clear framework to engineer our energy transition, ensuring resources are in the right place at the right time, and that no community is left behind.

Climate Accountability: Today and Tomorrow

The fossil fuel industry must be held accountable for its environmental debt and the climate damage to our planet. The evidence is clear — they have long understood to impacts of greenhouse gas emissions. Instead of taking responsibility, they put profit over people and our planet, and fought the transition to clean energy tooth and nail. We are now in the midst of climate breakdown, with ever rising environmental disasters, species extinction, and human dislocation. It will continue to worsen even under the best-case scenario. Those who put financial gain over the future of humanity should be held accountable, and I will fight to make sure that happens.

The American people have the tools and ability to fight back, and to lead the global transition away from fossil fuels and to the clean energy economy of tomorrow. This transformation is not only fundamental to maintaining a livable planet, but it provides the opportunity to grow our economy, restore our landscapes, and ensure a just and equitable future that is shared by all.