



# **New Mexico at a Crossroads: False Solutions or Just Transition?**

**Report by Ennedith Lopez,  
Basav Sen, Emily Li,  
Taneya Garcia,  
& Alyssa Garza**

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**January 2023**

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## Acknowledgements

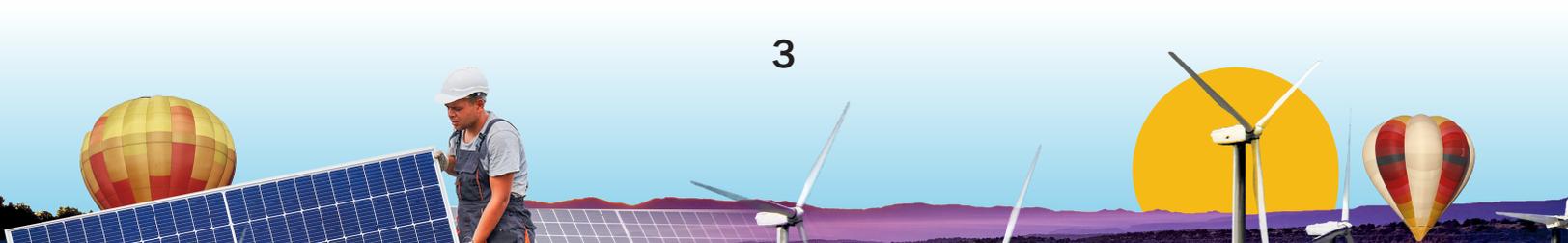
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## Executive Summary

As the climate crisis continues to intensify, accelerating the threats to our communities and environment, it is critical now more than ever to center community-led solutions. This report draws upon publicly available information as well as interviews with community organizers and researchers in New Mexico and elsewhere to make the case for centering community-led solutions in New Mexico.

New Mexico is particularly vulnerable to the impacts of climate change, and has long been used by government and industry as a sacrifice zone for dirty energy. In particular:

- New Mexico has experienced the two largest wildfires in its history over the past year.
- The average number of days in a year with temperatures over 90° F in New Mexico is currently 20. This number is expected to double by 2050.
- New Mexico is affected by a “resource curse.” The state is over-dependent on the oil and gas industry, it is the second highest state for oil and gas production. Oil and gas is the third largest industry in the state by output, contributing about 17 percent to the state’s public revenues. However, New Mexico is also the third poorest state in the country, and the industry’s share of jobs in the state is only about two percent.
- Oil and gas and uranium mining (for the military as well as for nuclear energy) have wreaked havoc on the state’s ecology, with disproportionate impact on Indigenous peoples.
  - The oil and gas industry is the largest contributor to the state’s greenhouse gas emissions, and pollutes the water in an already water-scarce state with toxic and radioactive chemicals.
  - The uranium mining industry exposed its workers to hazardous levels of radioactivity without their knowledge. It was also responsible for a serious mine tailings dam disaster in 1979, and even today, has left a toxic legacy of 500 severely contaminated abandoned mines.
- The oil and gas industry perpetuates its stranglehold on state policy through large campaign contributions to New Mexico politicians.
- Monopoly investor-owned electric utilities are also an obstacle to a just energy transition. They often charge high rates that impose a burden on low-wealth communities, and they exert an undue amount of political influence at the state level, including in New Mexico.

The fossil fuel industry seeks to prolong its economic viability, and delay or altogether avoid a transition to a future in which its products are no longer needed, by pushing technological solutions that purportedly allow the continued use of fossil energy without the greenhouse gas emissions. However, these solutions are unproven and speculative, and inordinately expensive. They perpetuate the environmental justice hazards of fossil fuels, and create new hazards as well. Consistent with the terminology of the environmental justice movement, we term these “false solutions.”



Two of the most common false solutions proposed by the industry are carbon capture and storage (CCS) and hydrogen fuel. Another false solution that is particularly significant in New Mexico is nuclear energy, which does not emit greenhouse gasses, but has other serious environmental justice impacts.

False solutions such as carbon capture and hydrogen have been proposed in state legislation in New Mexico over the last few years, and a nuclear waste storage facility has been proposed in the state as well. These represent a corporate-backed, top-down model of addressing climate change.

There are, however, other frameworks for addressing the climate crisis with justice and equity, centering communities who are most impacted. We examine the vision for a just transition as articulated by the Just Transition Alliance, Climate Justice Alliance, and Indigenous Environmental Network, and outline principles and case studies of real solutions to the climate crisis, rooted in the concept of energy democracy. Finally, we highlight Indigenous and frontlines-led efforts towards a just transition in New Mexico, through insights gathered from interviews with grassroots organizers at the Southwest Organizing Project (SWOP), the Semilla Project, and Pueblo Action Alliance (PAA).

**The recommendations from our study, and from the insights of organizers on the ground in New Mexico, are:**

- Follow the leadership of communities in New Mexico who have been treated as sacrificial for a long time.
- Address climate change as a complex ecological and social crisis, instead of reducing it to solely a problem of carbon emissions.
- Phase out unjust, polluting industries such as fossil fuels and nuclear energy.
- Repair the historical harm that oil, gas, and nuclear energy have caused on BIPOC and low-wealth communities.
- Incorporate principles of a Just Transition and Energy Democracy into climate change policy.
- Expand real community ownership of renewable energy.
- Explore the possibility of public ownership of the electric grid, instead of relying on self-serving for-profit Investor Owned Utilities.

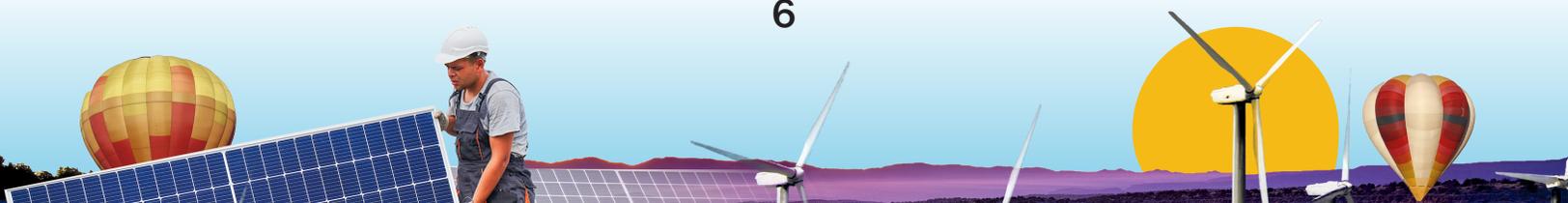


## Introduction

This report draws upon publicly available information and interviews with people and organizations currently involved in on-the-ground efforts towards a Just Energy Transition in New Mexico. New Mexico has long been a site for oil, gas, and uranium extraction, this report includes information on how an extractive economy is actively harming New Mexico and provides an introduction to what a regenerative economy in New Mexico would look like.

Centering the leadership and voices of Indigenous and frontline community members, state, and local climate justice organizations, this report is intended to be used as a tool for movement organizations in New Mexico to urge the state to reject false solutions.

We conducted interviews with grassroots organizers at the Southwest Organizing Project (SWOP), the Semilla Project, and Pueblo Action Alliance (PAA) regarding their efforts against the fossil fuel industry and for a Just Transition. Utilizing these interviews and publicly available information, this report addresses how false solutions proposed by the state continue to treat New Mexico as a sacrifice zone for extractive industries, and debunks the misconceptions of fossil fuel and false solutions creating more job opportunities for New Mexico. By offering examples of false solutions and pitfalls to avoid and highlighting current efforts on the ground that support a regenerative economy, this report urges the New Mexico state government to follow the lead of Indigenous, and frontline communities in a transition to a regenerative economy while funding and supporting these communities by promoting real solutions that are rooted in just transition principles that will ultimately benefit New Mexico residents and the environment.



## Section 1: The Climate Crisis & Its Impact in New Mexico

The UN's Intergovernmental Panel on Climate Change (IPCC), Sixth Assessment reports focus on the impact of the climate crisis on a global and regional scale. According to their [Climate Change 2021: The Physical Science Basis](#) report, there are “observed changes in extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones.” Human-induced climate change affects weather and climate extremes in every region of the world.<sup>1</sup> In order to ensure adaptability of human social systems, physical infrastructure, and protection of the environment, global temperatures must remain below 1.5 degrees Celsius or 2.7 degrees Fahrenheit by 2100. The [IPCC](#) calls for “substantial reduction in fossil fuel use” to reduce 43 percent of GHG emissions by 2030 and a complete phase-out of fossil fuel infrastructure by 2050. The report recommends solutions including powering the energy grid with renewable energy to better improve adaptability and mitigate any climate catastrophes.

Climate crisis impacts follow existing political, social, and economic structures, thus disproportionately affecting marginalized communities on a global scale. According to the [IPCC's Climate Change 2022: Impacts, Adaptation and Vulnerability](#) report, “vulnerability... driven by patterns of intersecting socio-economic development, unsustainable ocean and land use, inequity, marginalization, historical and ongoing patterns of inequity such as colonialism and governance...” leaves 3.3 to 3.6 billion people vulnerable to climate change.<sup>2</sup> Climate vulnerability is not a new phenomenon, but can exacerbate even more inequities. Furthermore, the United Nations Secretary General states countries a part of the [Organization for Economic Co-Operation and Development \(OECD\)](#) “...need to [dismantle] their own coal infrastructure, with full phase-out by 2030...and 2040 for all [other countries].” all [other countries] The founders of OECD comprises of western and wealthy countries. It further spotlights the importance of countries in the Global North phasing out fossil fuels since they have a larger carbon footprint, which impacts the Global South, islands, and other frontline communities. On a [global scale](#), nations with the smallest carbon footprint disproportionately bear the impacts from climate change. In the United States, [people of color](#) have been vulnerable to a series of environmental injustices from pollution, contaminated water resources, increased health risks, and displacement.

Just this past year, New Mexico experienced the two largest wildfires in state history. The [Calf Canyon and Hermits Peak](#) fires just north of Santa Fe have burned an estimated 341,735 acres of land since early April 2022. The [Black Forest Fire](#) began in early May and has burned approximately 325,136 acres of land. The fire at Calf Canyon Hermit's Peak was the result of a prescribed fire, ordered by the [Forest Service](#), spurred out of control due to the dry climate and intense winds. Meanwhile, the origins of the second largest wildfire remain unknown. New Mexico will continue to experience [extreme heat temperatures](#),

1 Intergovernmental Panel on Climate Change (IPCC), Sixth Assessment Report, Working Group I, “Climate Change 2021: The Physical Science Basis,” August 2021, Summary for Policymakers, Page 8, A.3, available at: [https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC\\_AR6\\_WGI\\_SPM.pdf](https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf)

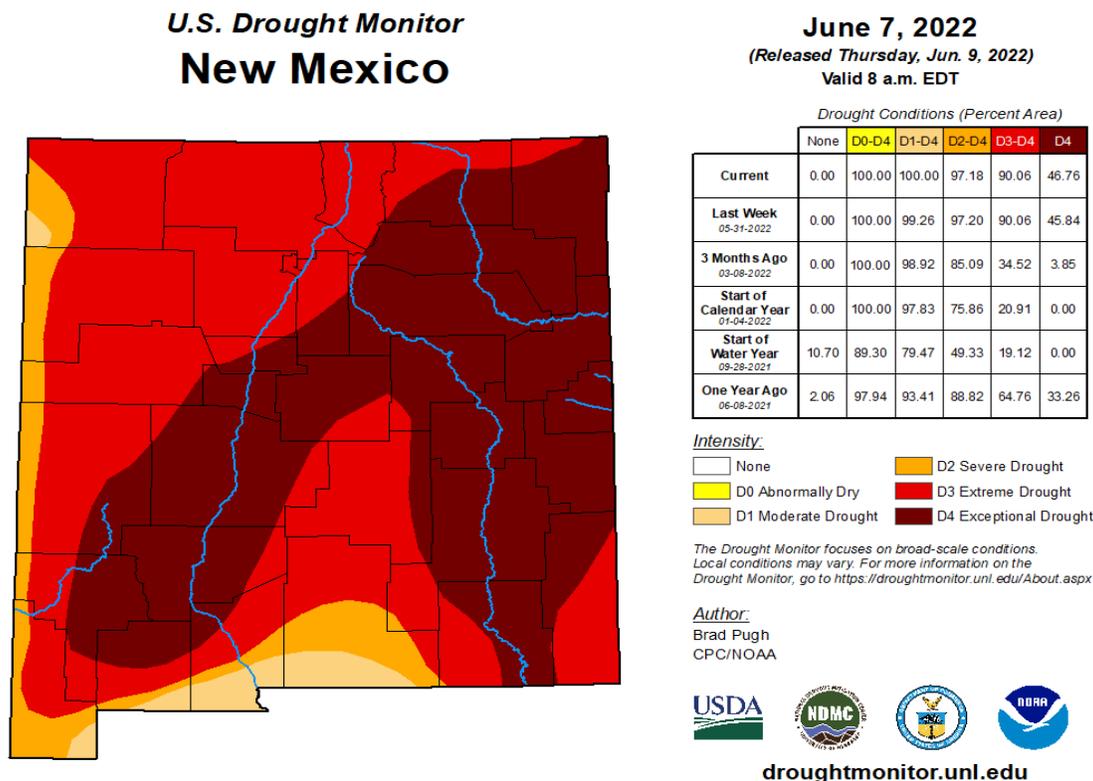
2 Ibid., Working Group II, “Climate Change 2022: Impacts, Adaptation and Vulnerability,” February 2022, Summary for Policymakers, Page 12, B.2., available at: [https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC\\_AR6\\_WGII\\_SummaryForPolicymakers.pdf](https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf)



more wildfires, [prolonged drought](#), and inland flooding with the accelerating rate of the climate crisis. The state of New Mexico must act on Just and immediate action now in order to ensure a viable future for the environment and its communities.

Since the beginning of the 20<sup>th</sup> century, New Mexico has seen a [2 degree Fahrenheit increase](#) in average temperature. The state averages to approximately 20 days of extremely dangerous heat, meaning temperatures are over 90°F leaving people vulnerable to heat illnesses. Unfortunately, that number is projected to grow up to [40 days](#) in the near future.

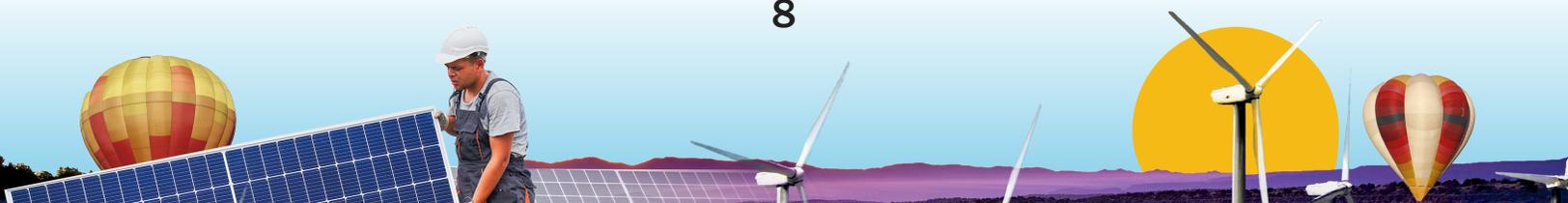
Figure 1.<sup>3</sup>



Additionally, the Sacramento-San Joaquin River system, the Colorado River, the Rio Grande, and rivers on the Great Basin saw a [5 to 37 percent](#) lower flow of water over the course of the 20th century, lowering the amount of viable drinking and irrigation water gathered throughout the year.<sup>4</sup> New Mexican rivers typically rely on snowpacks gradually releasing water into tributaries. Water sources are transitioning to increased rainfall, resulting in severe flash floods and runoff, issuing less water resources for irrigation and soil absorption.

3 Figure A was intentionally chosen to depict the extreme weather that will be normalized due to the climate crisis. June 7th, 2022 was during the height of the Calf Canyon and Hermit’s Peak wildfires.

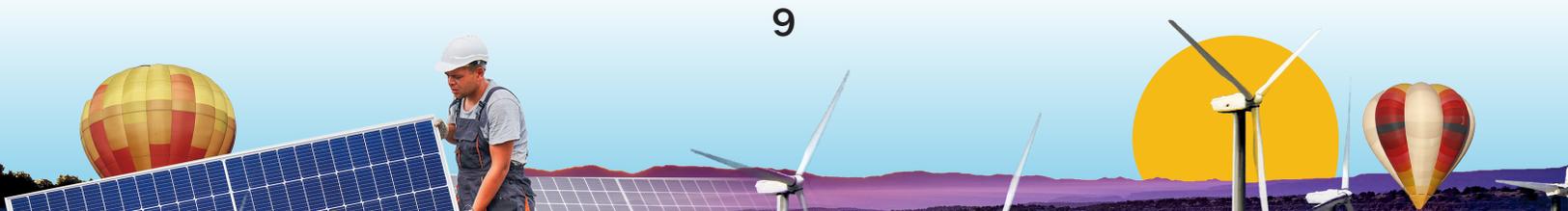
4 Union of Concerned Scientists (UCS), “Confronting Climate Change in New Mexico: Action needed today to prepare the state for a hotter, drier future,” May 2016, page 3, available at: <https://www.ucsusa.org/resources/confronting-climate-change-new-mexico>



Drought heightens New Mexico's risk of wildfires. According to the [U.S. Drought Monitor \(USDM\)](#), 1.9 million people are affected, 33 counties are USDA disaster designations, and 2022 alone is the 44th driest year in the past 128 years.<sup>5</sup> Environmental protection and well-being, which are integral to New Mexico's cultural heritage, especially for traditional and Indigenous communities, are under severe threat because of climate change impacts.

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5 <https://www.drought.gov/states/New-Mexico>, accessed 08/30/2022



## Section 2: New Mexico as an Extractive Industry Sacrifice Zone

### History & Context

Regions in New Mexico along the Permian Basin, San Juan Basin, Raton Basin, and Bravo Dome have been treated as a “sacrifice zone.” The term originates from environmental justice spaces describing how sacrifice zones are “...places where residents- usually low-income and people of color-live in proximity to polluting industries or military bases that expose them to all kinds of dangerous chemical and other environmental threats,” underscoring the unequal impact the climate crisis poses on marginalized communities.

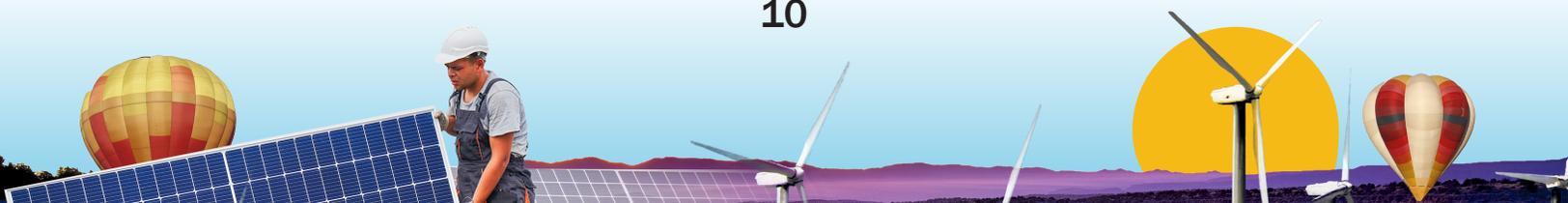
**“Here in New Mexico, we really are ground zero for energy investments and extractivism.” – Julia Bernal, Pueblo Action Alliance**

### 2.1 The Fossil Fuel Industry in New Mexico

New Mexico is one of the top natural gas and oil producing states since its discovery of the San Juan Basin in the 1920s. The first natural gas producing well was drilled in 1921, about a mile away from Aztec, New Mexico. To expand their profits, oil companies negotiated with the Navajo government for oil leases leading to [hydraulic fracturing](#). The improvement of technology, such as drilling horizontally, allowed the basin to experience massive growth in production, along with booms and declines that are typical of a commodity with price volatility. The New Mexico Economic Development Department, recognizes “...New Mexico’s lack of industrial diversification has resulted in volatile economic cycles in which employment and the state’s ability to fund public services are highly dependent on oil and gas prices as well as federal policy decisions.”<sup>6</sup> Between [1967 and 2021](#), natural gas production has doubled, from 1.0 million cubic feet to 2.3 million cubic feet. Oil companies initiated their colonial, extractive, and exploitative system on Indigenous lands for decades now. The discovery of the [Permian Basin](#) in southeastern New Mexico would only further make New Mexico a high producing oil and natural gas hotspot.

New Mexico’s current economy consists of natural resources, tourism, retail trade, and federal government spending. Yet, the state’s third largest industry (measured by economic output) is the [oil and gas sector](#). Although many states, institutions, and organizations such as the IPCC are recommending to phase out the use of fossil fuels, the oil and gas industry sustains a hold over the state as New Mexican communities are made to believe that they must depend on oil and gas to fund various public services. While individuals are barely earning enough to feed themselves and their families, the fossil fuel industry is exploiting

<sup>6</sup> New Mexico Economic Development Department (EDD), “The Statewide Strategic Plan,” October 2021, available at: <http://www.eddstateplan.com/>

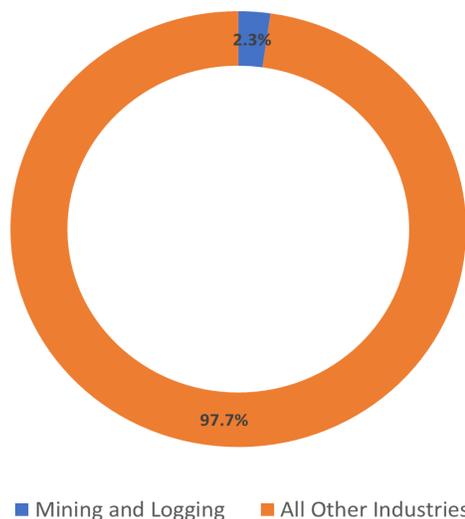


land for profit, especially in frontline, Black, Indigenous, People of Color (BIPOC), and low income communities without any return investment into the ecosystems, environments, and communities they extract from.

In the 2020 fiscal year, mineral severance taxes (of which oil and gas is a subset) composed [17 percent or \\$1.2 billion of the state revenue](#). In the prior year (2019), which is the latest year of data available, corporate income taxes from the oil and gas industry totaled only [\\$4.8 million](#), making it the 8th largest industry in terms of corporate income tax contributions, even though it is the third largest industry by economic output. While these numbers are from different years, given that the corporate income taxes are smaller by two orders of magnitude than the severance taxes, we can safely assume that the combined state revenue from the oil and gas industry in 2020 was not much greater than \$1.2 billion. A share of 17 percent of state revenues is not negligible, but must be seen in the context of how effective the industry is at creating jobs and shared prosperity, and what damage it does to the environment.

New Mexico continues to rank as the [second highest](#) state in oil and gas production, yet it also remains as the third poorest state in the country with a poverty rate of [16.8 percent with a child poverty rate of 21.6 percent](#). The state's economic dependence on oil and gas generates revenue, but does not translate to benefiting the lived conditions and circumstances of already marginalized and working class communities. According to the U.S. Bureau of Labor Statistics, the mining and logging industry (which oil and gas is a subset of) only employs barely 2 percent of the overall workforce in the state (see Figure 2 below).<sup>7</sup>

Figure 2. Mining and Logging Industry Employment in New Mexico as a Share of Total Nonfarm Employment, 2021



<sup>7</sup> Bureau of Labor Statistics (BLS), State and Area Employment (SAE) Database, Mining and Logging industry employment as a ratio of Total Nonfarm employment, annual average, 2021, not seasonally adjusted information, available using interactive data search at: <https://www.bls.gov/sae/data/> (accessed July 2022).



Locally, economic dependence on oil and gas can be more significant. In 2019, two New Mexico counties were among the top 10 counties with the highest numbers of oil and gas jobs, where these jobs account for about [22 percent](#) of private sector employment.

**“The state needs to create more training programs available for not just people of color, but specifically for the communities who are completely dependent on the oil and gas industry in the four corners and in the Permian basin in the Southeast corner of New Mexico. But there isn’t a clear state supported pipeline that provides money or creates training programs for someone who works in oil and gas and needs to get trained for clean energy and be employed in the clean energy industry.” – Josue De Luna Navarro**

During 2020, the oil industry fired workers and cited falling gas prices and COVID-19. The pandemic impacted thousands of workers and communities who depend on the oil industry for their livelihoods. Between March to August 2020, over [100,000](#) gas and oil positions were lost due to the pandemic. While companies pay taxes in the states, they receive different tax breaks and subsidies which causes top producing oil states to lose [millions](#) in revenue. The booms and busts in New Mexico demonstrate how unreliable the oil and gas industry is, and how the government will bail out industries rather than aid communities.

**“They’ve created this market that really does isolate the working class from [energy]. And so regardless of whatever initiative it is, if it’s oil and gas, they’re creating jobs. If it’s hydrogen, they say they’re creating jobs. If they’re keeping the coal fired plant open, it’s still keeping jobs.” – Julia Bernal, Pueblo Action Alliance**

The tight-knit relationships between extractive industries and government officials is strongly shown through lobbying efforts made by out-of-state oil and gas companies and in-state stakeholders. According to a report by the [New Mexico Ethics Watch](#), oil and gas was the highest-ranked industry in terms of political contributions, giving \$3 million to political causes during the 2020 election cycle. During that same year, oil companies such as Chevron gave a total of \$1.76 million in contributions to both political candidates and committees.<sup>8</sup> During the 2022 state legislative session, [Chevron](#) donated a total of more than \$1 million dollars. The oil and gas sector positions itself as a champion for New Mexico’s economy, but has a strong influence in state politics largely advocating for their own interest, rather than the public’s well-being.

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8 Hutchison, Lauren, Tony Ortiz, Kathleen Sabo, Steve Terrell, and Collin Troy, “The Continuing Influence of the Oil and Gas Industry in New Mexico in 2020; New Mexico’s Long-Standing Resource Curse,” New Mexico Ethics Watch, 2021, p. 12, available at: <https://www.nmethicswatch.org/uploads/1/3/6/2/136215453/nmew-oil-and-gas-follow-up-report-updated-02122021.pdf>



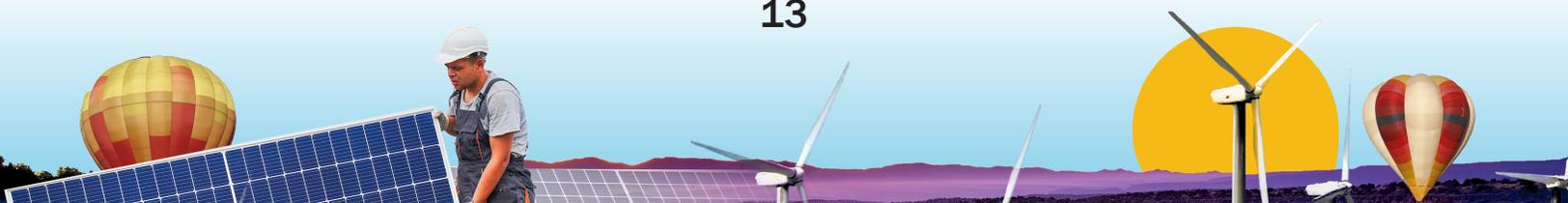
Table 1. [Fossil Fuel & Utility Industry Contributions above \\$100,000 during the 2022 NM Legislative Session](#)

Contributor	Type of Contributor	Total \$
Chevron Corp	Non-Individual	\$1,194,300
Occidental	Non-Individual	\$377,250
Devon Energy	Non-Individual	\$342,150
PNM Resources	Non-Individual	\$322,825
ConocoPhillips	Non-Individual	\$241,797
Exxon Mobil	Non-Individual	\$213,050
Concho Resources	Non-Individual	\$159,800
Marathon Petroleum	Non-Individual	\$153,650
New Mexico Gas Co	Non-Individual	\$142,775

The oil and gas industry is a prime driver of land and community exploitation. Since the production from natural gas wells declines [50 percent](#) every five years, new wells must be drilled to continue production, leaving wells idle and abandoned. If wells are not properly plugged and cleaned, it runs the chance of leaking methane and contaminating groundwater. An unplugged well can release [5,000 times](#) more methane compared to a plugged well. Natural gas production continues to harm the environment by extracting from the land while the state prioritizes the industry and its infrastructure.

According to an [Oil and Gas ThreatMap](#) developed by Earthworks and Fracktrucker Alliance, approximately 144,377 New Mexican residents live within the proximity of 62,492 oil and gas facilities throughout the state; 27,975 students and 119 schools and daycare also reside within a threat radius meaning they are exposed to a high degree of health risk from the pollution emitted by these facilities. In 2018, the fossil fuel industry was responsible for [53 percent of greenhouse gas emissions in the state](#), the sector that emitted most GHG. In 2019, [14.5 billion gallons](#) of water was used for oil and gas production. The industry itself is contaminating scarce water resources available to the state as the “toxic wastewater [from oil and gas production] is extremely saline and contains known and unknown chemicals, heavy metals, and radioactive metals.”<sup>9</sup> Between 2010 to 2019, around [96 percent](#) of oil and gas wastewater was from the Permian Basin.

9 Troutman, Melissa, and Amy Mall, “New Mexico Oil & Gas Waste Report: The failure to safely manage oil and gas waste,” Earthworks, October 2020, p. 4, available at: <https://earthworks.org/wp-content/uploads/2021/09/NM-Waste-Report-2020-final2.pdf>



## 2.2 Uranium Mining and Nuclear Energy in New Mexico

The Navajo Nation has been living alongside radioactive waste produced by one of the largest radioactive spills in US history. Mining was booming between the early [1940s to the mid-1980s](#) to build domestic nuclear power and nuclear weapons; it also presented an opportunity to strengthen local economies in which most of the industry workers were Navajo residents. Workers themselves were not made aware of the [hazardous dangers](#) from the mines such as ingesting and inhaling radioactive pollutants along with contaminating their clothing. But, the severe impact of mining on the Navajo Nation worsened on July 16, 1979 near Church Rock, NM. A dam containing [94 million gallons](#) of uranium tailings and wastewater broke, spilling into the Rio Puerco River. This poisoned the drinking water, the soil, and the crops for the communities along the river. Individuals themselves did not have other alternatives but to live alongside this radioactive waste. Even now, 43 years later, [approximately 500](#) abandoned uranium mines await to be cleaned up by the federal government in the Navajo Nation alone.

**“The basic problem with the large spills is the question of where can most of this stuff be safely moved, where it will pose less harm over very long periods?”**

**– Bob Alvarez, Associate Fellow, Institute for Policy Studies**

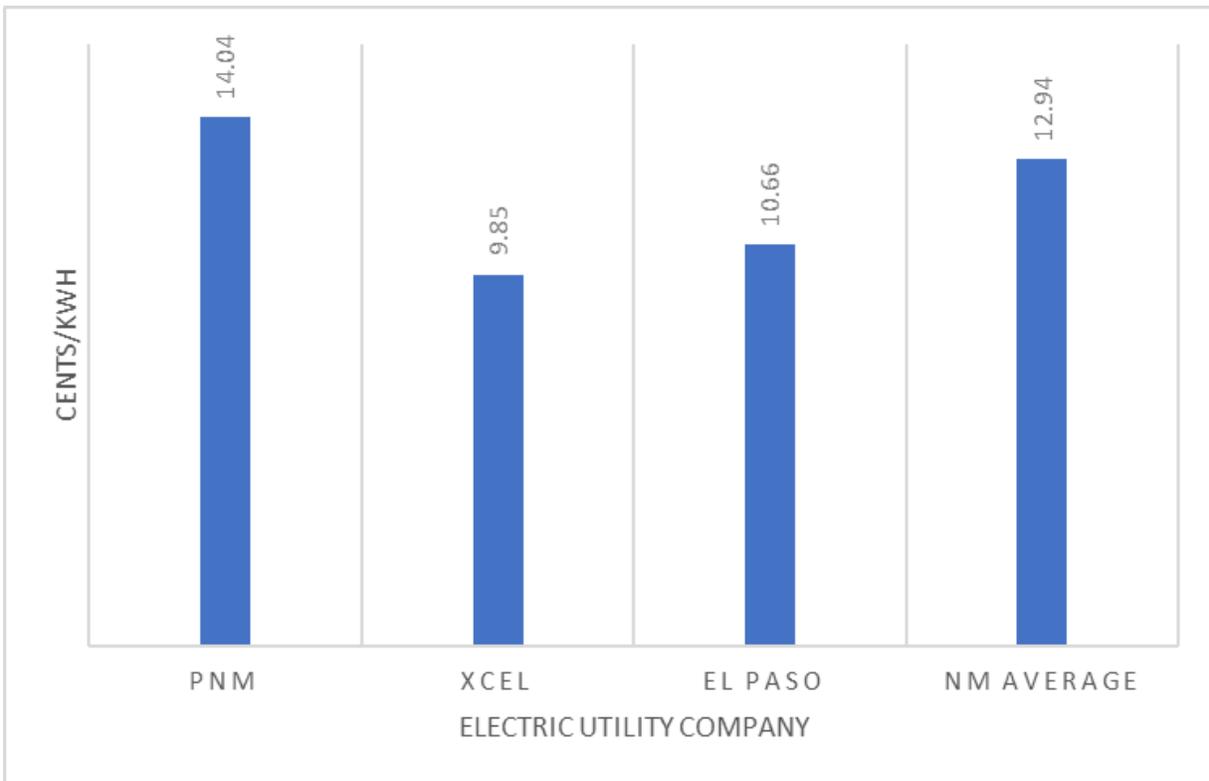
The tragedy of the radioactive spill in 1979, specifically on the Navajo nation, depicts the severity of communities and peoples being sacrificed for industry profit. This region was used to extract its natural resources, exploit the Indigenous Peoples living there for cheap labor under hazardous working conditions. The deterioration of this sacred land, is a continued practice by extractive industries, which continues to worsen the climate crisis.



### Section 3: The Structure of Electric Utilities in New Mexico

In New Mexico, ultimate users of electricity (homes and businesses) are supplied by three Investor Owned Utilities (for-profit private utilities) and a number of Rural Electricity Cooperatives. The main three IOUs are Public Service Company of New Mexico (PNM), Xcel Energy (known as Southwestern Public Service Co in NM), and El Paso Electric. They derive their [energy](#) through coal, natural gas, solar, wind, and nuclear.

Figure 3<sup>10</sup>. Average Price per kWh Paid by Residential Customers of New Mexico Electric Utilities, 2020.



10 Energy Information Administration (EIA), U.S. Department of Energy, Electricity Sales (consumption), revenue, prices, and customers data, Table 6, 2020 Utility Bundled Sales to Ultimate Customers- Residential, available at: <https://www.eia.gov/electricity/data.php#revenue>

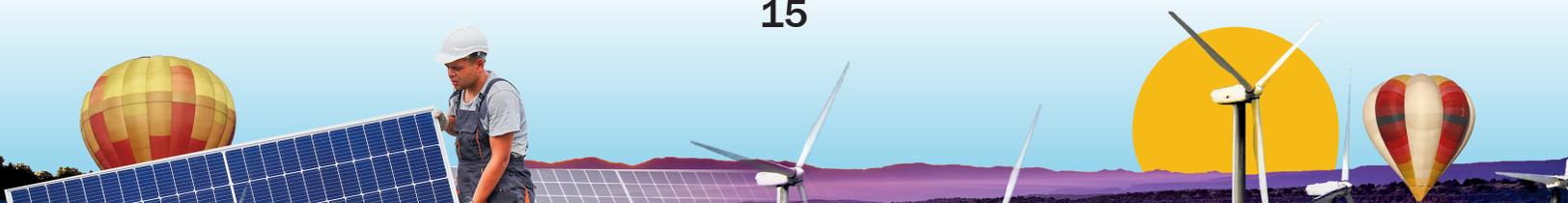
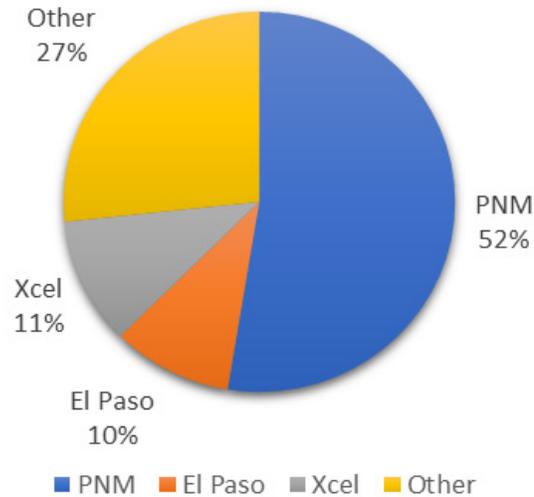


Figure 4.<sup>11</sup> Share of New Mexico Customers Served, by Utility, 2020.

## Customer Utility Distribution



**“I realized that the reason why nothing has really changed in New Mexico is because of the power that public utility companies have over politicians, regardless if it’s oil and gas or not, regardless if it’s like clean energy or wind energy, but the people that have a lot of say and a lot of control in energy politics and therefore wealth in New Mexico is public utilities.” – Josue De Luna Navarro**

### PNM

PNM holds the rights to most transmission lines and serves the most people (Figure 4), and their energy rates are the highest in New Mexico (Figure 3). With their business model at risk in energy transition measures, the company has been lobbying the state government for a variety of policy proposals to ensure high profits. As shown in Table 1, PNM contributed \$322,825 to the 2022 New Mexico Legislative session. The following are a few products of their involvement in state government.

### Energy Transition Act (ETA)

The Energy Transition Act passed in 2019 set statewide renewable energy standards and established a low-carbon transition away from coal paired with workforce and community transition resources. On the surface, ETA is a landmark legislation, setting the tone for energy transition in NM for the next few decades. In reality, [PNM is using the financial tools](#)

11 Ibid., Table 5A, 2020 Average Monthly Bill- Residential



outlined by ETA to assist with closing coal plants to instead transfer their shares to the Navajo Transitional Energy Company who plans to run the Four Corners plant as long as possible. In addition, despite highly publicized community and activist engagement on this bill, the funds set aside for community based work is miniscule.

**“A lot of the debate that was happening with the energy transition act was that there was a small appropriation that was going to go to communities and then eventually the community was just fighting over scraps, fighting over where the school’s gonna get this much” – Julia Bernal, Pueblo Action Alliance**

**“PNM used the ETA to really just kind of bail out from an already failing coal station up in the four corners and how they just managed to basically make us pay for it.” – Josue De Luna Navaro**

### **Community Solar Act**

The Community Solar Act of 2021 initiated a three-year pilot program modernizing New Mexico’s energy grid to renewable energy, joining 21 other states in adopting this new model. However, many of the projects and organizations utilizing the state’s assistance are existing energy utilities rather than neighborhoods and communities. Although [30 percent](#) of electricity produced from CS projects are set aside for low-income neighborhoods, New Mexico’s interpretation of this model is still stuck in an extractive economy mindset rather than using community solar as an opportunity to transition to a restorative model.

**“The whole barrier to create a community solar program [is] you gotta have capital... it was just another way to keep everything under [public utilities’] power”. CS projects under this Act can only be initiated by those with the resources to start one. “Even if a community did organize and fundraise and had the resources to create their own community solar program; ... the way in which the ownership of those distribution lines work is that PNM still wins, right?”**  
– Josue De Luna Navaro

The CSA is supporting the resource switch from fossil fuel to solar, but is not providing resources for neighborhoods and communities to generate their own energy. See Section 6, Real Solution to the Climate Crisis, for more information on community solar projects.



## Climate Task Force

New Mexico's Interagency Climate Change Task Force was [established](#) in 2019 by Governor Michelle Lujan Grisham via Executive Order 2019-003 to incorporate adaptation and mitigation strategies into policies and operations. Every year, they release a Climate Strategy report outlining progress thus far in climate-related projects and recommendations for future actions. [This group](#) consists of nine different teams each covering a sector such as transportation, decarbonization, cultural heritage, natural and working lands, and state leadership. However, it is unclear as to who the members of the task force are, and what the membership criteria and the appointment processes.



## Section 4: The Just Transition Framework

Considering the current conditions of New Mexico as a result of the fossil fuel economy and impending climate doom, it is easy to disengage and feel hopeless. However, movements led by the most impacted people are bringing many emerging real solutions into practice in the US and across the globe providing not only green alternative solutions, but also powerful shifts in the very foundation of our economic, political, social, and environmental structures. In this chapter, we review key theoretical concepts such as an extractive economy, a regenerative economy, and a just transition paired with existing on-the-ground case studies bringing these models to reality.

### Transitioning from an Extractive to Regenerative Economic Model

In the United States, the economy currently functions on a capitalist extractive model irreversibly harming our communities, ecosystem and environments, and further intensifying the drastic impact of climate change. The extractive economy is based on extracting finite material resources, as well as human labor and creativity, for profit, generating waste, and causing social and environmental harm at every step.<sup>12</sup> New Mexico has a legacy of being treated as a sacrifice zone as we have seen throughout history, but to ensure a viable future and a better relationship with our environment, the region can no longer depend on the extractive economy.

A transformation of the current extractive economic model includes a series of transformative efforts economically, socially, and morally. [Global solidarity](#) efforts while continuing to support localized initiatives to the climate crisis can offer a viable solution to the climate crisis. Climate Justice groups holistically aim to center impacted frontline and Indigenous communities in their call for a “Just Transition,” with an overall objective of shifting our current extractive economy to a [regenerative economy](#): a model prioritizing community governance and ownership of work and resources. They utilize guiding tools such as the [Jemez Principles for Democratic Organizing](#) to inform their work. In order to truly practice a just transition it is critical for the core to include a “...deep democracy in which workers and communities have control over the decisions that affect their daily lives,” meaning we must shift from an extractive economy dependent on concentrated wealth and exploitation, into a regenerative economy of communal leadership, care, and support.

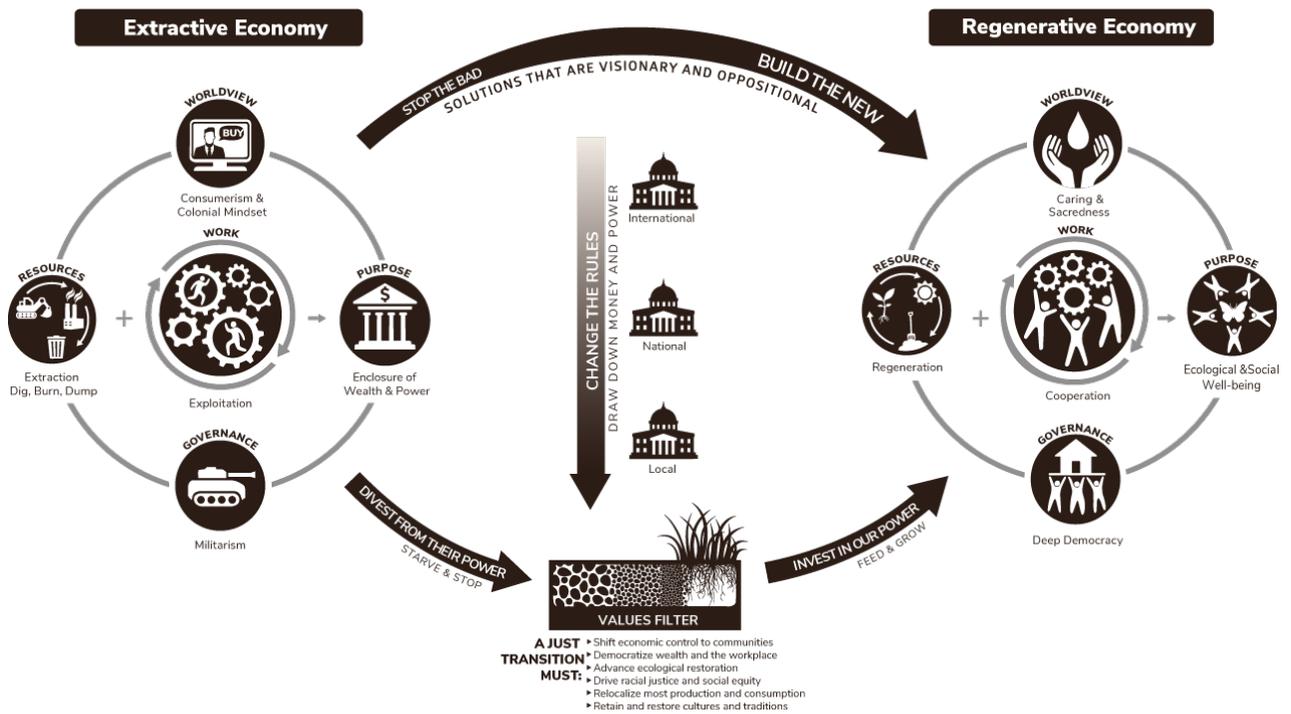
**“Just transition is not solely about clean energy jobs, but rather about creating a new local regenerative economy that works for our people. Working with youth and rural New Mexicans I have come to realize that, for example, there can be a new economy in land restoration here in New Mexico.” – Josue de Luna Navarro**

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12 For a clear explanation of the term “extractive economy,” see this July 2020 interview with Miya Yoshitani of the Asian Pacific Environmental Network (APEN) in *The Forge*: <https://forgeorganizing.org/article/just-transition-moving-extractive-regenerative-economy>



Figure 5. Graphical Representation of a Just Transition (from Climate Justice Alliance)

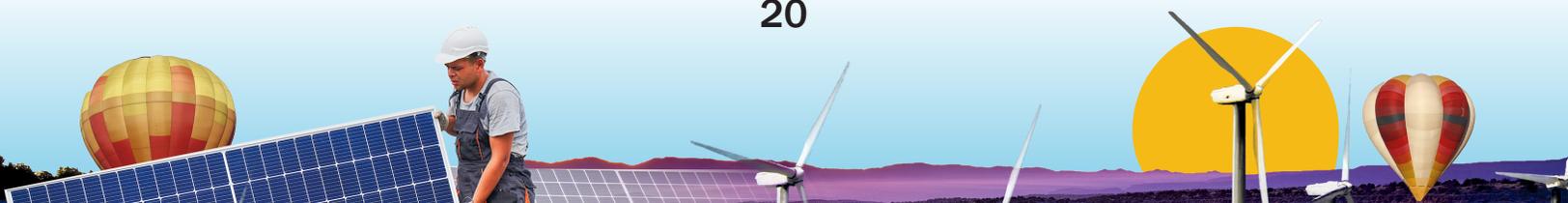


“To liberate the soil and to liberate our souls we must decolonize our imaginations, remember our way forward and divorce ourselves from the comforts of empire. We must trust that deep in our cultures and ancestries is the diverse wisdom we need to navigate our way towards a world where we live in just relationships with each other and with the earth.” – Climate Justice Alliance Just Transition Framework

### Just Transition History:

The brutal impact of the Cold War and arms race gave rise to the peace movement which essentially developed a framework for economic conversion. Prior to the rise of the peace movement, various communities throughout the country became dependent on the military industry during and after World War II; this included manufacturing weapons, including nuclear weapons, to meet the objectives of the arms race. A militarized economy, which also forms a part of the extractive economy, guaranteed jobs and labor for communities, but limited the options for economic diversity. Defense dependent communities have been compelled to depend on harmful systems. 13 As argued by [Seymour Melman](#), an industrial

13 Pemberton, Miriam, “Six Stops on the National Security Tour: Rethinking Warfare Economies,” Routledge, 2022: <https://www.routledge.com/Six-Stops-on-the-National-Security-Tour-Rethinking-Warfare-Economies/Pemberton/p/book/9780367257675>



engineer and peace activist, an overall goal of the economic conversion movement was aiming to shift federal funding from the “permanent war economy,” into a peace economy. Under their Jobs with Peace campaign, peace movement activists would reach out to labor unions to bridge the impact a peace economy could have on their industries.

Later on in the 1970s, Tony Mazzocchi, a leader of the Oil, Chemical, and Atomic Workers (OCAW) union was aware that disarmament could cost workers, including himself, their jobs. Mazzocchi was a World War II veteran that received support from the GI Bill and believed fossil fuel workers should receive similar support during any economic transition. Scientific research confirmed the fossil fuel industry was [increasing](#) climate change. In the 1980s, environmental justice groups began to rise, bridging alliances with labor organizers. In the early 1990s, Mazzocchi coined the term [“Superfund for workers”](#). As a federal Superfund was established for toxic waste cleanup of industry working sites, Mazzocchi’s Superfund for Workers could provide financial support and higher education opportunities to industry workers.

Yet, the fossil fuel industry pitted industry union workers against other working class folks, most commonly, communities of color defending their land. The extractive economy largely depends on the labor of working class people and communities of color, the toxic system sustains itself by preying on the economic vulnerabilities of whole communities. It divides the working class and positions itself as the only means of economic opportunity, making itself indispensable and being the only means of survival.

**“Conservative groups in New Mexico have done a really good job creating this narrative that the rural New Mexican identity is oil and gas. We need to shift the narrative in rural New Mexico to realize that we’ve been in a toxic relationship all this time.” – Josue de Luna Navarro**

Challenging the narrative of OCAWU being the only contributor to the formation of a Just Transition, it is critical to note, in the 1960s, ‘70s, and ‘80s, communities of color and poor communities were having similar discussions regarding the impact of the extractive industry on worker’s health, local ecological environments, and indigenous land defense.

In the 1980s, [environmental justice](#) groups became active, organizing with the leadership from communities of color and low-income communities who were experiencing forms of environmental racism through pollution and toxic industrial practices. Due to common struggle, collaborative initiatives were built between labor organizers and environmental justice groups on the frontlines in the early 1990s. In 1995, organizers who believed the term “Superfund for workers,” carried negative connotations changed the concept and term changed to a [“Just Transition,”](#) as it was born “...at the intersection of workers rights, occupational health and safety, environmental, economic and racial justice, with a universal vision of systemic change.”



Environmental Justice [movement leaders](#) who also built the foundation for a Just Transition, include: Tom Goldtooth, Executive Director at the Indigenous Environmental Network (IEN); Pam Tau Lee, Co-Founder of the Asian Pacific Environmental Network, Chinese Progressive Association, and Just Transition Alliance; Jose Bravo, Executive Director of Just Transition Alliance; Connie Tucker, former coordinator at the Southern Organizing Committee for Economic and Social Justice; and Richard Moore, Senior Advisor at the Southwest Network for Environmental and Economic Justice and Co-Coordinator at Los Jardines Institute.

Just transitions should be led by local alternatives. Considering how expansive the concept is, it can be applied to a multitude of circumstances, sectors, and systems. It is critical to note, the foundations of the Just Transition concept, emphasizes bottom-up organizing, shared community leadership, and centering the voices of those most impacted by the fossil fuel industry and racist environmental policies.

## ***Climate and Environmental Justice***

There is no fixed definition of a Just Transition as it varies between different entities and is applicable to various living circumstances and conditions. Yet, we will only focus on the concept of Just Transition within climate justice and environmental justice spaces given that the extractive economy continues to be the leading cause in polluting our environment, threatening the well-being of our communities, and sacrificing a viable future for profit. Throughout this section, we will look at the visionary frameworks developed by a Just Transition Alliance and the Climate Justice Alliance.

### **Just Transition Alliance**

The Just Transition Alliance (founded 1997) defines a [Just Transition](#) as a “...principle, a process, and a practice,” inherently, the concept aims to develop a society where both a healthy economy and a clean environment can co-exist. The Alliance seeks alternative solutions for “communities and workers from unsafe workplaces and environments to healthy, viable communities with a sustainable economy.”

The Just Transition Alliance outlines six principles to their definition of the concept, as seen on their website:

1. Workers, community residents, and Indigenous Peoples around the world have a fundamental human right to clean air, water, land, and food in their workplaces, homes and environment.
2. There is no contradiction among simultaneously creating sustainable development, having a healthy economy and maintaining a clean and safe environment.
3. Liberalization of environmental, health and labor laws and corporate globalization— know no borders. Therefore, solutions call for local, regional, national and global solidarity.



4. The development of fair economic, trade, health and safety and environmental policies must include both the frontline workers and fence-line communities most affected by pollution, ecological damage and economic restructuring.

5. The costs of achieving sustainable development, a healthy economy and clean environment should not be borne by current or future victims of environmental and economic injustices and unfair free trade policies.

**“We were able to uplift the voices of youth who are going to inherit this crisis and Indigenous communities that have been saying this for time on memoriam that we cannot continue to invest in these systems of harm, but rather transition to ones that center our communities at the beginning” – Alejandría Lyons, SouthWest Organizing Project**

6. Workers and community residents have the right to challenge any entity that commits economic and/or environmental injustices. These entities include governments, the military, corporations, international bodies, and mechanisms for securing corporate accountability.

**“Since New Mexico has a really large oil and gas lobby, we knew that we had to come together because alone, we just are kind of off on the side, educating our different bases, but that when coming together, people saw, Hey, there’s all these people of these that represent these different communities in New Mexico that are speaking against this.” – Alejandría Lyons, SouthWest Organizing Project**

## Climate Justice Alliance

[The Climate Justice Alliance \(CJA\)](#) was formed in 2013 in efforts of centering and unifying the climate movement across frontline communities and organizations. Currently the collective holds a membership of 82 urban and rural frontline communities, organizations, and supporting networks. Based on a translocal model, organizations consist of leadership from Indigenous Peoples, Black, Latinx, Asian Pacific Islander, and poor white communities who have been disproportionately impacted by colonial practices of racial and economic oppression.

The Just Transition Principles outlined by the Climate Justice Alliance consolidates the various principles from its members and allies. The shared principles allow for a collective agreement between various organizations aiming for similar goals, as mentioned, a Just Transition does not have a fixed definition and will vary between groups. Below are CJA’s Just Transition Principles:



1. A Just Transition moves us toward Buen Vivir: Buen Vivir means that we can live well without living at the expense of others. Workers, community residents, women and Indigenous Peoples around the world have a fundamental human right to clean, healthy and adequate air, water, land, food, education and shelter. We must have just relationships with each other and with the natural world, of which we are a part. The rights of peoples, communities and nature must supersede the rights of the individual.

2. A Just Transition creates Meaningful Work: A Just Transition centers on the development of human potential, creating opportunities for people to learn, grow, and develop to their full capacities and interests. We are all born leaders, and a regenerative economy supports and nurtures that leadership. In the process, we are transforming ourselves, each other, our communities, and our society as a whole. Meaningful work is life-affirming.

3. A Just Transition upholds Self Determination: All peoples have the right to participate in decisions that impact their lives. This requires democratic governance in our communities, including our workplaces. Communities must have the power to shape their economies, as producers, as consumers, and in our relationships with each other. Not only do we have the right to self-determination, but self-determination is one of our greatest tools to realize the world we need. The people most affected by the extractive economy—the frontline workers and the fenceline communities—have the resilience and expertise to be in the leadership of crafting solutions.

4. A Just Transition equitably redistributes Resources and Power: We must work to build new systems that are good for all people, and just a few. Just Transition must actively work against and transform current and historic social inequities based on race, class, gender, immigration status and other forms of oppression. Just Transition fights to reclaim capital and resources for the regeneration of geographies and sectors of the economy where these inequities are most pervasive.

5. A Just Transition requires Regenerative Ecological Economics: Just Transition must advance ecological resilience, reduce resource consumption, restore biodiversity and traditional ways of life, and undermine extractive economies, including capitalism, that erode the ecological basis of our collective well-being. This requires a relocalization and democratization of primary production and consumption by building up local food systems, local clean energy, and small-scale production that are sustainable economically and ecologically. This also means producing to live well without living better at the expense of others.

6. A Just Transition retains Culture and Tradition: Capitalism has forced many communities to sacrifice culture and tradition for economic survival. It has also defaced and destroyed land held as sacred. Just Transition must create inclusionary spaces for all traditions and cultures, recognizing them as integral to a healthy and vibrant economy. It should also make reparations for land that has been stolen and/or destroyed by capitalism, colonialism, patriarchy, genocide, and slavery.



**“The policies that are passed here in the so-called US, what type of ripple effect are they going to have on a global scale?” Julia Bernal, Pueblo Action Alliance**

7. A Just Transition embodies Local, Regional, National, and International Solidarity: A Just Transition must be liberatory and transformative. The impacts of the extractive economy knows no borders. We must recognize the interconnectedness of our communities as well as our issues. Therefore, our solutions call for local, regional, national and global solidarity that confronts imperialism and militarism.

8. A Just Transition builds What We Need Now: We must build the world we need now. This may begin at a local small scale, and must expand to begin to displace extractive practices. We must build and flex the muscles needed to meet our communities’ needs.

**“We don’t have much choice, especially for profoundly contaminated areas, but to take action to protect our environment, such as major rivers and groundwater systems – especially given the problem of ensuring safety for time frames that exceed the time defining the presence of humans. A just transition begins with addressing the need to transition the workforces and providing compensation for health impacts.” – Bob Alvarez, Associate Fellow, Institute for Policy Studies**

This holistic approach not only challenges the extractive industry but the way we function as a society, the manner in which we interact with each other, and the way we interact with Mother Earth. Ultimately, a Just Transition liberates whole communities from exploitative systems and practices of harm to democratic regenerative practices of support and care.

### **Indigenous Environmental Network**

The Indigenous Environmental Network was established in 1990 by grassroots Indigenous peoples and individuals to address environmental and economic concerns through capacity building and mechanisms development. IEN maintains an informational clearinghouse, organizing campaigns, direct actions and public awareness to address environmental justice issues, developing initiatives to influence policy and build alliances across movements.

**“Ultimately I think that as long as we’re continuing to engage in the settler legal regime, it’s only gonna get us so far, it’s only gonna get us to halfway point and then there’s going to have to be some more ways in which for us to exercise their sovereignty.” – Julia Bernal, Pueblo Action Alliance**

Their Just Transition falls under three pillars: Responsibility & Relationship, Sovereignty, and Transformation for Action. All follow the [Indigenous Principles of a Just Transition](#), guiding localized, living economies for the next seven generations and beyond. The principles aim to



break the cycle of exploitation, ecocide, and environmental, energy, climate, and economic injustice in the US and Canada.

**“For us a just transition means putting the environment first, thinking about the things that cannot speak for themselves and then also us as people protecting it.” – Alejandría Lyons, SouthWest Organizing Project**



## Section 5: False Solutions & the Resistance in New Mexico

The climate crisis is reaching a point of no return, where effective action must be taken in order to mitigate climate disasters. New Mexico stands in position to transition to the use of [renewable energy](#) due to its “...abundance of wind, solar, and geothermal resources... [ranking] second in the nation for potential solar energy production and tenth in wind energy potential,” but in order to effectively transition into the use of the state’s available resources, a just transition must be prioritized.

### What are False Solutions?

[False solutions](#) can be defined as “...technological or market based schemes promoted by fossil fuel companies and their political allies to give the appearance of meaningful climate action while actually functioning to delay effective policies that might challenge their power, control, and/or profits,” meaning not all proposed climate solutions are as positive as they seem. [Hoodwinked in the Hothouse: Resist False Solutions to Climate Change \(HITH\)](#) debunks ineffective climate responses heavily promoted by the fossil fuel industry and all levels of government, categorized as “false solutions” and highlights overlooked but more impactful “real solutions” that take into account social, cultural, economic, and other relevant factors. Given the socioeconomic impact of the climate crisis, false solutions are proposed in the interest of sustaining our current extractive economic model. False solutions to the climate crisis include a variety of proposals prominent in mainstream spaces, namely carbon capture, hydrogen fuels, and nuclear energy.

Evidently, fossil fuel industries, along with other harmful sectors, are largely responsible for the severity of climate catastrophes. There are various solutions being proposed in New Mexico, but this section will predominantly focus on Carbon Capture, Hydrogen Hubs, and Nuclear Energy as these false solutions have been proposed during the New Mexico legislative session, in mainstream media, or by corporations.

Given the urgency to act on the climate crisis, governments are beginning to understand the need to phase out fossil fuels, yet their slow response has given industries an opportunity to seek out allegedly renewable alternatives. These alternatives, through greenwashing marketing tactics, can be deceiving as they further continue to position profit over people.

### Carbon Capture and Storage (CCS)

Carbon Capture and Storage (CCS) and Carbon Capture, Utilization and Storage (CCUS) are two common variants of a technology that claims to address climate change by removing carbon dioxide from the smokestacks of fossil fuel burning facilities, and storing the captured carbon dioxide in the ground. Yet, it is only a ploy to continue the economic dependence on the fossil fuel industry. The funding for research on CCS and investment in CCS projects are predominantly led by the fossil fuel corporations such as Exxon, Shell, and Chevron. According to [EarthJustice](#), as of September 2022, there are approximately



12 operating CCS projects in the U.S., but only one captures the carbon and injects it into the ground, meanwhile the remaining 11 projects use CO2 for enhanced oil recovery (EOR). In addition, the [Infrastructure Investment and Jobs Act](#) (IIJA) and the [Inflation Reduction Act](#) (IRA) expanded taxpayer subsidies to incentivize the boom of CCS and CCUS projects. Issues regarding Carbon Capture technology include:

- [CCS](#) requires energy intensive technologies that expand oil production, sustain the declining coal industry and require continued use of coal-fired power plants; it plans on “capturing” the CO2 generated by coal-or-gas fired power production or plastics manufacturing instead of phasing out these polluting industries and replacing them with better alternatives.
- [CCS infrastructure](#) presents a risk to health, safety, and environmental aspects of already marginalized communities. Carbon dioxide pipelines pose the risk of leaking or rupturing contaminating the air, drinking water, and stimulating seismic activity.
- CCS paired with natural gas combustion does nothing to address [emissions of methane](#) from fracking and drilling for gas. Methane is a [very powerful greenhouse gas](#), so even if CCS were to successfully remove CO2 from the combustion exhaust, it would not solve the problem of greenhouse gas emissions from gas.
- Even if CCS were to successfully capture the carbon dioxide from burning fossil fuels, other forms of pollution from the production and use of fossil fuels, such as [water contamination](#) from fracking, and [nitrogen oxides](#) from fossil fuel combustion, will continue.
- CCS serves the purpose of enhanced oil recovery ([EOR](#)), a process of extracting new oil from depleted wells; injecting pressured CO2 and water into the depleted wells forcing the remaining oil to the surface for extraction, sale, and use.<sup>14</sup>
- CCS is inordinately expensive. Even CCS proponents [acknowledge this fact](#), and argue for [public subsidies for CCS](#) on the basis that it’s too expensive and risky for private investment.
- Finally, CCS hasn’t even been proven to work. The only power plant in the U.S. with CCS captured only [7 percent](#) of its emissions while operational; since then, it has shut down its CCS operation. [CCS facilities](#) in [Canada](#) and [Australia](#) have also faced serious challenges, consistently failing to meet promised targets for capturing carbon emissions. Relying on an unproven experimental technology with an empirical record of failure to address the climate crisis is reckless.

In New Mexico, [House Bill \(HB\) 205, Geologic Carbon Dioxide Sequestration Act](#) was proposed during the 2022 legislative session. The bill would have “[provided] for the utilization of formations for subsurface sequestration of carbon dioxide; limiting liability of owners of sequestration facilities following transfer to state ownership; establishing fees; [and] declaring emergency.” Given the advancement of CCS, HB205 would have set the groundwork to establish CCS technology in New Mexico, such as the San Juan Generating

14 Center for International Environmental Law (CIEL), “Confronting the Myth of Carbon-Free Fossil Fuels; Why Carbon Capture Is Not a Climate Solution,” July 2021, p. 8, available at: <https://www.ciel.org/wp-content/uploads/2021/07/Confronting-the-Myth-of-Carbon-Free-Fossil-Fuels.pdf>



Station, described in some detail below. Although the bill died as it never made it to the floor, the threat of subsequent legislation to enable CCS remained.

The San Juan Generating Power Plant, a coal-burning power plant, was opened in the summer of 1969 by PNM and Tucson Gas and Electric. The power plant consisted of four units providing [1,600 megawatts](#) of energy throughout the southwest.

On [September 29th, 2022](#), the San Juan Generating Power plant was officially shut down, but was seen as a potential [candidate](#) for federally funded CCS projects, and would have received assistance from HB205, had it passed. Despite the closure of the plant, the City of Farmington and Enchant Energy Corporation had expressed the intention of buying it to establish the largest CCS power plant in the world. Yet, they had failed to secure the anticipated \$1.5 billion for the project, which could be invested with lower risk and higher returns in renewable energy projects. Enchant's financial plans posed large uncertainties. The power plant would have needed to sell energy at a higher price than produced in order to be profitable, but its anticipated cost of generation per MWh of output was significantly higher than competing renewable power.<sup>15</sup> Further, the plant would have likely needed to capture about 90 percent of CO2 to receive enough federal tax credits for it to be financially viable, and faced serious technical challenges to meeting this threshold.<sup>16</sup> As noted earlier, CCS technology has an empirical record of unreliability and failure. Yet, as of last year, both the City of Farmington and Enchant Energy Corporation were projecting that the plant would not be operational until 2027, and for its lifetime to be [prolonged until at least 2037](#).

In [September of 2022](#), the City of Farmington sued to stop the auctions of key parts of the facility and force PNM and the other plant owners to acquire full ownership of the San Juan Generating Station. On [December 20th, 2022](#), the City of Farmington announced it would no longer pursue the CCS project after a three-member arbitration panel refused to block PNM and other utilities from moving forward with the demolition of the plant. In addition, Mike Eisenfeld, energy and climate program manager with the San Juan Citizens Alliance, told the Albuquerque Journal that "The city needs to reevaluate its perspective on energy development and focus on renewable energy to create jobs and improve the environment."

Organizations such as [San Juan Citizens Alliance](#), [Diné C.A.R.E](#), [WildEarth Guardians](#), [Carson Forest Watch](#), [Sierra Club](#) and [New Energy Economy](#) had been a part of the decades-long fight to protect their community's health, especially given the amount of pollution generated by the plant. Since 1969, there has been opposition to the plant because of concerns about air pollution, acid rain, and community health, and the eventual shutdown of the plant is a [significant milestone](#) in the needed transition from the extractive economy. Now, organizations such as [New Energy Economy](#) have started campaigns calling on the New Mexico Environment Department (NMED) to clean up the site and continue monitoring it, since it remains contaminated.

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15 Schlüssel, David, "Where's the Beef? Enchant's San Juan Generating Station CCS Retrofit Remains Behind Schedule, Financially Unviable," Institute for Energy Economics and Financial Analysis (IEEFA), May 2021, Fig. 1, p. 12, available at: [https://ieefa.org/wp-content/uploads/2021/05/Enchant-Energys-Proposed-San-Juan-Carbon-Capture-Project\\_May-2021.pdf](https://ieefa.org/wp-content/uploads/2021/05/Enchant-Energys-Proposed-San-Juan-Carbon-Capture-Project_May-2021.pdf)

16 Ibid., p. 3.



## Hydrogen Hubs

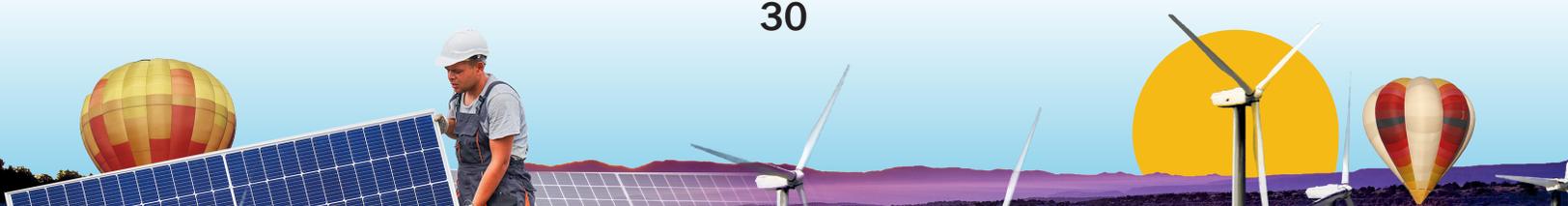
Hydrogen is one of the most industry and government-backed alternative energy sources, with “Green Hydrogen” seen as the most environmentally friendly alternative. Hydrogen is highly volatile, requiring new pipelines and storage infrastructure, thus adding barriers to entry and more [risks](#). Despite its risks, many legislators are still pushing forth hydrogen as a feasible alternative to fossil fuels.

The production and use of hydrogen as an energy source or energy storage medium has a range of serious issues. Space does not permit a complete discussion, but interested readers can consult the sources cited for more information.

Hydrogen can be produced in two fundamental ways: through conversion of methane (fracked gas) to hydrogen through [chemical reactions](#) with carbon dioxide as a byproduct, and through [electrolysis](#) of water. (There are some other processes as well, such as from [biomass](#), that are also problematic, but they are not being heavily promoted by the government or industry). Likewise, hydrogen can be converted to energy in two fundamental ways: by burning it as a fuel, or by converting it to electricity in an electrochemical device called a [fuel cell](#).

The first production process (hydrogen from fracked gas) paired with CCS is called “blue hydrogen” in industry terminology, and hydrogen from electrolysis of water (using electricity from renewable sources, or otherwise) is called “green hydrogen.” Both of these processes for producing hydrogen are being promoted as climate solutions, but have serious problems:

- Hydrogen production from fracked gas continues fracking, instead of phasing it out. [Emissions](#) of methane from fracking will continue, which is very concerning, since methane is [several times](#) more potent as a greenhouse gas than carbon dioxide. Removing the carbon emissions from the production process through CCS does not address this problem. A 2021 study showed that lifecycle greenhouse gas emissions from “blue hydrogen” are [worse than coal](#).
- Other serious problems with fracking, such as water [overuse](#) and [contamination](#), air [pollution](#), and resulting [public health](#) impacts, are likewise not addressed by hydrogen from fracked gas, with or without CCS.
- CCS has its own problems, as discussed in the prior section.
- Green hydrogen production does not have the methane emissions and air and water pollution problems of blue hydrogen, but it uses enormous quantities of water. While [studies have shown](#) that overall water consumption from green hydrogen production for a given energy output is [less than water consumption from fossil energy](#) for the same energy output, it is important to keep in mind that these studies are based on the global water cycle, not on much more local impacts of hydrogen production in regions such as New Mexico which are already suffering serious water scarcity (Chapter I). Whether or not green hydrogen production makes sense somewhere else, it is a bad idea in New Mexico.



Burning hydrogen as a fuel (blended with natural gas, or otherwise) is also an environmental justice problem, because it worsens emissions of [nitrogen oxides](#), which are serious air pollutants.

During the 2022 New Mexico Legislative session, several legislative bills were presented seeking to promote the “...development of hydrogen production in New Mexico by authorizing the state and its local subdivisions (“public partners”) to enter into public-private partnership, agreements, establishing grant and loan programs to help finance hydrogen hub projects under such agreements, and creating tax deductions and credits to incentivize the development of hydrogen facilities.”<sup>17</sup> According to local New Mexican grassroots organizations, eight different variations of the original [House Bill 4, the Hydrogen Hub Development Act](#) (HB4) have been introduced.

HB4 was set in motion by Governor Michelle Lujan Grisham, and was promoted heavily throughout the legislative session. The proposal came after the Department of Energy announced approximately [\\$8 Billion](#) allocated for the development of four regional hydrogen hubs through the Bipartisan Infrastructure Law.

Given the hydrogen bills were tabled during the legislative session, the Governor issued an executive order announcing a [Memorandum of Understanding \(MOU\)](#) between a hydrogen hub development coalition with Colorado, New Mexico, Utah, and Wyoming. Yet, hydrogen hubs continue to be met with community resistance.

## Nuclear Energy

Nuclear energy is a common power source with a history of catastrophic disasters, from Chernobyl in Ukraine to Three Mile Island in Pennsylvania or mill tailings in the Navajo Nation. However, it is still championed by many as a low pollution alternative to generating clean energy. In reality, [nuclear energy](#) creates radioactive waste, uses fossil fuels in mining processes, and pollutes local waterways.

**“The first thing is to make sure the public understands that if these plans are realized, WIPP<sup>18</sup> and the nearby area will have become the recipients of an enormous, decades-long, radioactive-waste-transport funnel directing the bulk of the nation’s commercial and military radioactive detritus to New Mexico. This could have a profound impact on the State’s ability to keep and attract a diverse economy. In effect, NM could become America’s nuclear dump colony. For the past several years the nuclear weapons labs have dominated the economy of NM.” – Bob Alvarez, Associate Fellow, Institute for Policy Studies**

New Mexico’s history with nuclear colonialism includes uranium mines, extensive harmful research conducted in the state, and more. Although as an energy source it is no longer

17 Hydrogen Hub Development Act, HB4, Fiscal Impact Report, pg. 2, Oct. 2022, available at: <https://www.nmlegis.gov/Sessions/22%20Regular/firs/HB0004.PDF>,

18 Waste Isolation Pilot Plant: <https://wipp.energy.gov/wipp-site.asp>



used, the legacy is still impacting present and future generations. As mentioned in Section 2.2, the Navajo Nation and other areas across the state are treated as sacrifice zones: areas in proximity to polluting industries and facilities that expose residents to noxious fumes, harmful chemicals, and other environmental threats. Abandoned uranium mines litter the New Mexico landscape, contaminating groundwater and soil for the past few decades (see Sec. 6.4, discussion of uranium mine cleanup, for more details). Only in recent years has the state begun to take action to address the toxic waste poisoning generations of Indigenous communities. Although nuclear energy has long been discredited as a viable alternative energy source, its colonial legacy still impacts low income BIPOC communities to this day.

Despite New Mexico's efforts to clean up post-nuclear sites, they have yet to prohibit nuclear energy use entirely. PNM currently sources part of New Mexico's energy from the Palo Verde nuclear plant in Arizona, but [earlier this year](#), regulators voted to replace nuclear energy with solar energy after PNM's two leases with Palo Verde expire in 2023 and 2024.

During July of 2022, the [Nuclear Regulatory Commission \(NRC\)](#) issued a Final Environmental Impact Statement in support of issuing Holtec International a license to construct an interim nuclear waste storage facility in Lea County, New Mexico. The facility's first phase would store 500 canisters of approximately 8,680 metric tons of nuclear waste for [80 nuclear reactor sites](#) around the country; over the course of time, around 10,000 canisters would be added. Yet, proposals for a nuclear storage facility have been met with opposition from the Governor, congressional representatives, senators, and community members resulting in a [lawsuit](#). Overall, there are large concerns regarding the transparency and responsibility of Holtec's plans given their past environmental and protocol violations. In addition, nuclear colonialism continues in New Mexico as the responsibility of cleaning up contaminated uranium sites is still unclear.



## Section 6: Real Solutions to the Climate Crisis

Real solutions is a term utilized to directly contrast false solutions to the climate crisis, highlighting localized projects and concepts that incorporate both sustainable and equitable principles for a just transition. In the context of New Mexico, energy sources are one of the main drivers of environmental injustice. Setting long term goals towards energy democracy to ensure an equitable implementation of renewable energies is an evolving concept in the US, and has great potential to transform existing harmful systems. With the following section, we aim to provide guiding principles and case studies for real solutions to provide a foundation for energy democracy that can serve New Mexico.. In addition, we discuss an example of current efforts in New Mexico to try and clean up radioactive waste that has plagued local communities for decades and how this could be incorporated into the vision of a just transition.

### 6.1 Hoodwinked in the Hothouse

The third edition of HITH is a publicly available resource to provide guidance in the fight for climate justice, including a list of what real solutions can consist of. The work, research, and knowledge of various grassroots, climate justice, and BIPOC organizations and leaders are compiled to encourage local community members to reject corporations' greenwashing narratives to tackle the climate crisis and adopt an ecological system of consciousness.<sup>19</sup> According to HITH, the intersectional nature of climate change requires real solutions to address and change root systemic drivers. In tackling root causes, we must "first 'scale deep,' prioritizing locally-led, locally-designed initiatives; and then 'scale out' to facilitate translocal networks of co-liberation, before we can consider 'scaling up' in a truly democratic and impactful fashion," ultimately strategizing to truly transform our societies and daily functions.

Real solutions must:

1. **Be guided by principled practice**, incorporating the principles of environmental justice, just transition, democratic organizing, and energy democracy.
2. **Be guided by Indigenous Traditional Knowledge, place-based experience and public-interest science** allowing us to look at the historic knowledge of Indigenous communities learning to balance, harmonize, and reciprocate a healthy relationship between the earth and ourselves.
3. **Be holistic in tackling all intertwined ecological and social harm** where efforts in reducing greenhouse gas emissions will also aim to reduce toxic co-pollutants, waste and biodiversity destruction, along with addressing the disproportionate pollution and poverty affecting Black, Brown, Indigenous, and migrant communities around the world.

19 "Ecological system of consciousness" is defined in the booklet, see pages 5-6, and glossary



**4. Replace economies of greed with economies serving ecological and human need** by incorporating just transition strategies moving towards local, regenerative economies guided by caring, sharing, solidarity, and mutual aid.

**5. Advance deep, direct and participatory democracy, rooted in local self-determination** meaning they are democratically determined through local governance centering a collective sense of leadership including communities of workers and those most harmed by the extractive economy.

**6. Center the leadership and needs of those presently and historically most harmed** including the harm set forth by the intersections of climate change and economic systems; this takes into consideration the genocide of Indigenous peoples, the impact of the Trans-Atlantic slave trade, the femicide of women leaders, those exploited by harmful labor systems, and taking into consideration the historical impact on our current societies and communities.

The following case studies and concepts embody the aforementioned principles, focusing on dismantling the existing harmful energy landscape.

## **6.2 Energy Democracy**

As many countries shift to renewable energy in response to the climate crisis, an often overlooked factor is the equitable distribution and implementation of these new systems. Energy democracy (EnDem) is a concept utilizing the shift to clean energy as an opportunity to make energy an economic resource for communities, especially those who are systemically marginalized. EnDem serves as one component in the Just Transitions movement, bringing about the shift from extractive to regenerative economies and restorative justice. Many neighborhoods, municipalities, and even states in the U.S. are beginning this shift through policy changes, community-led initiatives, and other initiatives prioritizing renewable energy and/or frontline communities. However, not all projects prioritize equity and some projects are met with resistance. In this section, we aim to outline useful guiding principles for EnDem coupled with case studies of plans and policies to provide an illustration of a regenerative economy, and the process of transformation to a regenerative economy.

**“Seeing what was happening on the ground made me realize, does it really matter if we decarbonize our energy system when the reality for our people is the same reality they have experienced for the longest time” – Josue de Luna Navarro**



## Energy Democracy Principles - CJA

The Climate Justice Alliance’s Energy Democracy Principles aim to guide the societal transition towards a sustainable and regenerative economy rooted in social, economic, and environmental justice.<sup>20</sup> Their principles are as follows:

- Shift the narrative of climate change solution efforts from a carbon-centric, carbon reductionist focus to one that is people and community-based, and rooted in principles of justice
- Guide new solutions and anchor our collective efforts in the areas of planning, advocacy, organizing, and legislative action
- Identifying key local and/or regional victories that prevent development of extractive energy infrastructure.
- Promote a vision for an energy system that addresses climate change while challenging national and global inequality

Other cohorts such as the [Energy Democracy Project](#) aim to promote and institutionalize energy democracy across the US through a variety of unique initiatives adapted to each community’s situation.

## Frameworks for Implementation of Energy Democracy

Josue De Luna Navaro, the 2019-2020 New Mexico Fellow at the Institute for Policy Studies and Center for Civic Policy authored a report titled [“People-Powered: The Case for Renewable Energy Democracy in New Mexico”](#) outlining the context of energy in New Mexico and solutions to combat both climate and social justice issues. The report provides recommendations for short-term and long-term solutions for a more democratic energy system in New Mexico.

The short term solutions include: enacting a Community Solar Act and creating a New Mexican Community Ownership of Power Administration (COPA) to kickstart the shift towards EnDem.

To complement these initiatives, the long term solutions recommended are as follows: facilitating Power Purchase Agreements (PPAs) between state agencies and community-owned renewable projects, creating a public bank to support community-owned renewables in frontline and disadvantaged communities, opening a state Energy Democracy office, and implementing a New Mexico Public Utility Holding Company Act. By building on and improving the recently passed [Energy Transition Act \(2018\)](#), these recommendations could restructure New Mexico’s energy grid to benefit local communities and promote reinvestment and diversification of local economies.

Another useful tool to transition towards energy democracy is found in Teron & Ekoh’s (2017)

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20 <https://climatejusticealliance.org/workgroup/energy-democracy/>



[Energy Democracy & the City: Evaluating the Practice & Potential of Municipal Sustainability Planning](#). Table 2 below, from Teron and Ekoh, outlines ED indicators for municipal energy grids, serving as a guide for just transitions.

Table 2. *Energy Democracy Indicators for Municipal Energy Grids (from Teron & Ekoh, Energy Democracy and the City, 2017, Table 1).*<sup>21</sup>

**TABLE 1** | Suggested energy democracy indicators for municipal energy regimes including equity, environmental, and economic categories.

Category	Principle stakeholders	Sample indicators
Equity	Marginalized communities Future generations	<ul style="list-style-type: none"> <li>• Energy/weatherization programs with targets/outreach for low-income households</li> <li>• EJ language used in programming materials</li> <li>• Public transportation/non-auto centrality as conspicuous part of energy planning/programming</li> <li>• Translation tools/document interpretation for limited English proficiency communities</li> </ul>
Environment	Local ecologies Resource extraction communities Global ecology	<ul style="list-style-type: none"> <li>• Residential energy auditing/weatherization program (commercial or residential)</li> <li>• GHG emissions accounting (municipal fleet and community-wide accounting)</li> <li>• Renewable energy production (MW installed capacity)</li> <li>• Residential electricity use/capita</li> </ul>
Economic	Energy entrepreneurs Energy cooperative shareholders	<ul style="list-style-type: none"> <li>• Share of household income spent directly on energy (home and transportation)</li> <li>• Jobs directly created for city residents via energy programs</li> <li>• Solvency: financial capacity to take on energy projects</li> <li>• Residency preference hiring programs for energy programming</li> </ul>
Energy Democracy	Residents	<ul style="list-style-type: none"> <li>• Energy planning/utility board composition representative of diverse community interests</li> <li>• Voter participation in state/local elections</li> <li>• Training programs targeted toward municipal residents</li> <li>• Prosumers influence on social life-cycle analysis concerns</li> </ul>

### 6.3 Case Studies of Energy Democracy in Practice

#### Portland Clean Energy Fund (PCEF)

The Portland Clean Energy Fund is the first ever municipal climate justice fund providing green jobs and healthy homes, especially for populations most vulnerable to the climate crisis. A coalition of BIPOC representing organizations founded and led this effort, with historically white-led environmental organizations subsequently joining the effort to add to the power and reach of the coalition. This ballot initiative victory levies a tax of 1% of annual gross revenue from large corporations generating more than \$1 billion/year in revenue overall, and more than \$500,000 in Portland. The significant contribution these corporations make to carbon emissions serves as the policy justification for why these corporations are required to pay this tax (7.07.010). Nine local experts and community leaders appointed by city commissioners distribute the \$50 million/year in revenues generated to support local clean energy, energy efficiency and climate justice grants and projects, prioritizing ones that serve low-income and BIPOC folks.

The PCEF Coalition has documented best practices and lessons learned from their successful [campaign to assist other organizations who want to launch similar efforts elsewhere](#).

21 A “prosumer” as used in this table is an energy user that both produces and consumes energy.



[Some components they highlight](#) are having focused solutions providing direct community economic benefits, mutual trust especially amongst frontline leadership, rotating meeting locations and fostering space to share individual stories and experiences. PCEF successfully accrued over 200 endorsements from organizations, businesses, politicians, and faith leaders through a series of conversations with each group. A particularly unusual ally that sparked a network of endorsements was the Building Trades Council. Although they've supported refineries and export terminals greatly impacting frontline communities, through a series of meetings with union leaders pre-apprenticeship and workforce standards were incorporated into PCEF. In addition to working with BTC, the Fund coordinated with similar canvassing efforts to efficiently reach out to overlooked voting populations and discuss the synergies between related issues such as immigration policy and the climate crisis. As a result of their cumulative effort, PCEF continues to fund emerging climate justice projects to this day.

**“Leaders met for years before getting anywhere close to developing a public campaign. We had to build trust across green groups and frontline groups. Once the trust was built, we were then able to leap forward with a very aggressive timeline and take really big risks together.” – Laura Stevens, PCEF Field Volunteer Organizer**

### Community-Led Solar

Community-Led Solar (CLS) addresses [three shortcomings](#) in rooftop solar: unsuitable homes for onsite systems, the need for home/building ownership, and a large upfront cost. In addition, the distinction between CS and CLS brings to light how many dominant organizations have co-opted the term to maintain an extractive economy. CLS distributes local, affordable, and community-owned energy through a shared ownership model where solar energy is generated off-site and distributed to renters, local households, and small businesses who register. This model provides a sustainable, hyper-local source of energy while building community wealth and economic power. On the other hand, many CS projects are still owned by preexisting public utilities that transition to clean energy who retain the benefits of solar farms. CLS is community or municipal based, leading to various models across the US with some accounting for equity more than others.

[Sunset Park Solar](#), a cooperative owned and operated CS project made for local residents and businesses in the neighborhood. Sunset Park is a predominantly immigrant neighborhood with large Chinese and Latinx American populations facing development projects triggering gentrification and displacement. The project is managed by Co-op Power's [New York City Community Energy Cooperative \(CEC\)](#) in partnership with [UPROSE](#), a Sunset Park-based environmental justice organization and member of CJA, creating local jobs and a reduced electricity bill to almost 200 residents and businesses. [Co-op Power](#) has already established CECs across the northeast, owning and operating clean energy projects using a cooperative ownership model. Their model collects votes from subscriber-members to determine how



resources are invested. They also conduct meetings to discuss and vote on current and future projects.

Many other states and municipalities, as well as community organizations, are using community solar models to assist in clean energy transitions. Minnesota's [Cooperative Energy Futures](#) established community solar gardens and supports community-based energy efforts nationwide. Their member-owned business model focuses their benefits towards low income and people of color communities, ensuring profits are circulated amongst subscribers and decisions are made democratically.

## 6.4 Uranium Mine Cleanup

The [Uranium Mine Cleanup](#) bill (HB164) signed by Governor Michelle Lujan Grisham on March 1, 2022, is a legislative initiative to address a decades long environmental injustice. The bill [establishes a statewide program](#) to clean up and reclaim abandoned mines and mills. There are [approximately 1,100 uranium mines](#) in New Mexico, and [around 500](#) are on or near the Navajo Nation. The state's Department of Environment will be responsible to coordinate, organize, and plan with other federal, state, local, and tribal agencies to best address the toxic waste left over from the abandoned mines and mills. The state's Energy, Minerals, and Natural Resources Department is responsible for establishing reclamation and a revolving fund consisting of a mix between federal funding, appropriations, gifts, donations, and grants. For the first year, the state budget will allocate \$350,000 to begin its coordination between the various state agencies and tribal governments. Although HB164 is a bill crafted by state lawmakers and not by grassroots community organizations, it provides the groundwork for what could be a real solution.

**“There are cleanup initiatives happening, but that doesn't mean that they're not going to continue mining in this area. So this legacy is really a continuation of that race for uranium.” – Julia Bernal, Pueblo Action Alliance**

The remnants of the abandoned uranium and mill sites have contaminated the groundwater and soil for the Navajo Nation, other Indigenous communities, and other local residents near these sites. For generations, communities have had their resources polluted by this radioactive waste resulting in health hazards and extreme systemic poverty. This new bill presents the opportunity to establish and develop jobs that will benefit local residents and invest into the local economies that have been sacrificed for centuries. In the past, the Environmental Protection Agency (EPA) has given clean up contracts to non-Indigenous and out-of-state contractors.

According to [Source NM](#), for every \$1 billion dollars spent on clean up, local communities can have 1,000 jobs available with an average annual salary of \$55,000 dollars over the next decade. Moving forward, it is critical for the New Mexico Department of Environment and the Energy, Minerals, and Natural Resources Department to center the voices and perspectives of those who have been deeply affected.



New Mexico state agencies should incorporate an Indigenous perspective into these cleanup initiatives, which would prioritize ecological restoration and Native ecological knowledge.

Yet, there are a [series of concerns](#) moving forward. One of them is the allocation of responsibility between overlapping jurisdictions such as tribal lands, private property, and federal lands. The cleanup efforts should prioritize the Free, Prior, and Informed Consent (FPIC) of the Navajo nation and other Indigenous communities along with effective communication between involved government agencies, workers, and any other entities.

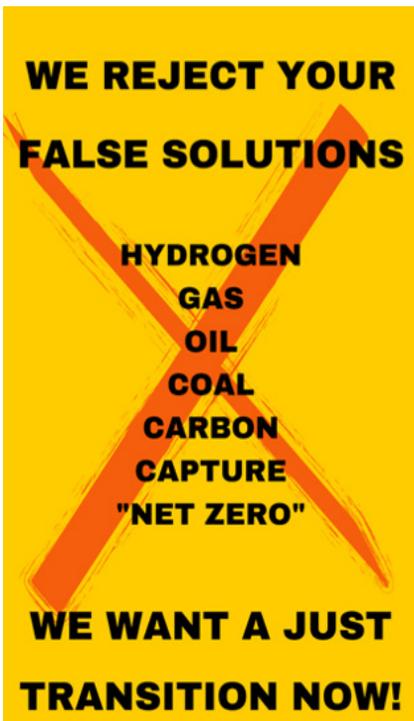
Additionally, there is no clear ownership of approximately 247 abandoned mines, leaving no one with clear responsibility to remediate and restore damaged lands and waters, until a responsible party is found—even though the federal government largely benefitted from the uranium ores and should bear most responsibility to right these injustices.

Lastly, there is concern for the timing regarding the clean up as any liability lawsuits can slow down the process and the federal government's lack of timely response can prolong the efforts to clean up the remnants of the toxic waste. If these concerns are addressed, if the implementation is carried out responsibly, and if the state agencies in charge of implementation are committed to incorporating the knowledge and contributions of the affected communities,, this legislation can be transformative.



## Section 7: Movements for a Just Transition in New Mexico

Real solutions addressing extractive fossil fuel dependent economies already exist across the US in a variety of landscapes. Addressing harmful systems requires changes in policy and infrastructure that not only address existing injustices but also build on a Just Transition.



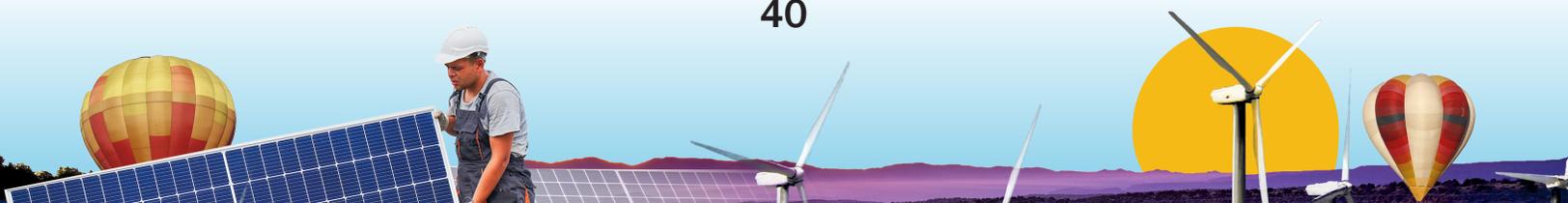
Many climate groups are working to raise awareness on false solutions that leverage greenwashing tactics and perpetuate the fossil fuel economy. The New Mexico No False Solutions Coalition consists of organizations such as [Pueblo Action Alliance \(PAA\)](#), [Southwest Organizing Project \(SWOP\)](#), [Youth United 4 Climate Crisis Action \(YUCCA\)](#), [Los Jardines Institute](#), [Earthcare](#), [Indigenous Lifeways](#), and [New Energy Economy](#) which are proactively working in resistance to false solutions and towards a Just Transition.

[PAA](#) has been a key contributor to bringing education and awareness to false solutions in New Mexico. PAA created the New Mexico No False Solutions Coalition which has provided training to communities all over New Mexico to assist them in how to educate communities on the narrative of false solutions and understand how they can create their own organizing efforts. As a result of these training sessions, the coalition has been able to educate communities about what the actual transitions that the federal government is really pushing down through the [Justice40](#) initiatives and how they will affect New Mexico.<sup>22</sup>

In addition, many of these organizations, along with other Indigenous, youth, and frontline grassroots organizations gathered to show opposition towards the reintroduction of [Hydrogen Hubs](#) in legislation without public awareness, and called for an end to false solutions. Environmental activists who oppose Gov. Michelle Lujan-Grisham's plans to make New Mexico a hydrogen hub argue that it will increase emissions, use scarce water resources, and prolong the livelihood of the fossil fuel industry amid a global climate crisis. As a result of successful popular education and organizing by the New Mexico No False Solutions Coalition, [78 percent](#) of the public testimony in the House Energy, Environment and Natural Resources Committee hearing on the bill in late January was in opposition to HB4. The bill was tabled without coming up for a vote.

There have also been decades-long fights by communities who have faced the brunt of nuclear colonialism. Most importantly, [Nuclear Watch New Mexico](#), the [Multicultural Alliance for a](#)

22 Image from Press Release and Campaigns led by No False Solutions Coalition: <https://www.swop.net/press-releases>



[Safe Environment \(MASE\)](#) consisting of groups such as the Bluewater Valley Downstream Alliance (BVDA), the Eastern Navajo Diné Against Uranium Mining (ENDAUM), Laguna-Acoma Coalition for a Safe Environment (LACSE), Post-71 Uranium Workers Committee (Post '71), and Red Water Pond Road Community Association (RWPRCA) are grassroots organizations seeking to restore the natural and cultural environment of uranium-impacted communities. Very recently, ENDAUM, with legal representation by the [New Mexico Environmental Law Center](#) (NMELC), filed a historic lawsuit against the United States government to be heard by the Inter-American Commission on Human Rights (IACHR). The plaintiffs want IACHR to hold a hearing on their complaints against the US NRC for issuing a license for a uranium mine even though they were aware of the serious risk of groundwater contamination. ENDAUM intends to hold the US legally accountable.



## Section 8: Conclusion

As we begin to seek solutions to the climate crisis, business interests will inevitably push for initiatives that serve their own needs. Yet, as communities face historical and ongoing environmental injustice and bear the brunt of the climate crisis, they continue to organize and resist. Real solutions to the climate crisis stem from the imperative of meeting community needs, not from the imperative of maximizing corporate profit. There is a need for systemic economic change in order to ensure the protection of our communities, culture, and environment. Shifting from a harmful extractive economy to a regenerative economy calls for people-centered policies, sustainable infrastructure, and a Just Transition. By incorporating the aforementioned guiding principles of energy democracy and real solutions, New Mexicans can reclaim their land, health, and rights for a brighter future.

The following are some key high-level recommendations for a Just Transition of New Mexico's energy system. They are based on insights from the movement leaders in New Mexico we have spoken with for this report, the broad Just Transition principles from frontlines-led organizations, and the contrasting visions and consequences of corporate-led false solutions and community-led real solutions in New Mexico and elsewhere. They are intended more as broad guidelines for policy, rather than specific policy recommendations.

- ***Follow the leadership of communities in New Mexico who have been treated as sacrificial for a long time.*** They are the people closest to the problem, and they have developed visionary, creative solutions. Incorporating this principle into policymaking would require a fundamental redesign of the policymaking process in New Mexico. Communities who have faced the worst impacts of the oil and gas and uranium mining industries should at a minimum be the first to be consulted about legislative and policy proposals. Better yet, policy proposals that emerge from the communities themselves should be taken up by the legislature. This would require legislators to stand up to pressure from the fossil fuel and utility corporations who have funded political campaigns, and proactively seeking input from their constituents, particularly
- ***Address climate change as a complex ecological and social crisis, instead of reducing it solely to a problem of carbon emissions.*** As an example, nuclear energy is in principle free of carbon emissions. (There could be carbon emissions from the nuclear energy supply chain, but these emissions are not an essential feature - they can be eliminated by replacing fossil fuel use in the supply chain with 100% renewable energy.) However, as we have documented in this report, the nuclear energy industry has had a horrific environmental impact in New Mexico, especially on Indigenous peoples. A holistic, rather than reductionist, approach to tackling the climate crisis would preclude viewing nuclear energy as a solution.
- ***Phase out unjust, polluting industries such as fossil fuels and nuclear energy.*** Instead of trying to prolong the life of the oil and gas industry through techno-fixes such as carbon capture and hydrogen, New Mexico legislators need to start envisioning a



future without oil and gas, and how to get there on a just pathway that serves the needs of communities. An essential component of this, which the state Economic Development Department already recognizes, is to diversify the state's economy and phase out the reliance on oil and gas revenues to fund the government.

- ***Repair the historical harm that oil, gas, and nuclear energy have caused in BIPOC and low-wealth communities.*** We have documented the toxic legacies of these industries in New Mexico in some detail in this report. Cleaning up legacy pollution is an essential first step towards justice for communities who have been turned into sacrifice zones. The Uranium Mine Cleanup bill is a small step in this direction. There should be similar initiatives to repair the harm to communities from abandoned oil and gas wells, even as existing oil and gas production is phased out. These initiatives should be developed in close partnership with impacted communities, and should provide livelihoods for community members. Every effort should be made to ensure that the companies responsible for the pollution bear the costs of the cleanup instead of being able to pass the costs on to the public.

**“It is not a coincidence that most of the abandoned wells from oil and gas are on Native land. And there is no coincidence that when we think of a new economy, it could mean creating jobs and sustaining people’s lives by restoring that land that was abused for extraction.” – Josue De Luna Navarro**

- ***Incorporate principles of a Just Transition and Energy Democracy into climate change policy.*** Every policy proposal should be analyzed to ensure that it is consistent with these principles. Likewise, the process for creating policy proposals should also be consistent with these principles. For example, a key Just Transition principle of the Climate Justice Alliance is the imperative of shifting resources and power. A proposed climate solution that shifts economic and political power from corporations responsible for climate change to impacted communities is consistent with this principle, while a proposed solution that allows these corporations to keep profiting while cutting emissions (or pretending to) is not consistent with these principles.
- ***Expand real community ownership of renewable energy.*** Policymakers should consider creating public funding mechanisms to expand community-owned renewable energy. As Josue de Luna Navarro notes, it is not sufficient to create mechanisms for communities to start and own renewable energy projects, if it is not accompanied with access to public funding and low-cost finance for communities who lack capital and cannot access credit (or can do so only on predatory terms).
- ***Explore the possibility of public ownership of the electric grid, instead of relying on self-serving for-profit Investor Owned Utilities.*** Even a major expansion of community-



owned renewable energy does not fully shift the power away from historic polluters to impacted communities, as long as for-profit Investor Owned Utilities control the transmission and distribution network. Josue de Luna Navarro makes the case for public ownership of utilities in New Mexico in a [2021 report](#).



## Appendix A: Interviewee Profiles

### Julia Bernal (Pueblo Action Alliance)

Julia Bernal is an enrolled tribal member of the Sandia Pueblo and is also from the Taos Pueblo and Yuchi- Creek Nations of Oklahoma. Julia is the director of Pueblo Action Alliance. She has her BA in English and Literature from the University of Redlands. Currently, she is working towards her MA in Water Resources Policy Management and a MA in Community Regional Planning at the University of New Mexico. In 2014 she obtained a Water Resources Technician Certification from the Bureau of Indian Affairs through environmental issues in New Mexico with her expertise in New Mexico water and environmental policies and organization. Her focus has remained on the oil and gas industry and how its adverse impacts affect the environment, the water and the people. She advocates for the decolonization of water policy and stolen water resources.

### [Pueblo Action Alliance](#)

Pueblo Action Alliance is a community based grassroots organization based in Albuquerque, New Mexico, unceded Tiwa Territory. Pueblo Action Alliance is invested in Pueblo cultural sustainability and community defense. They address environmental and social impacts on Indigenous lands and their communities. The organization aims to accomplish unifying and mobilizing Pueblo people utilizing the values that Pueblo people have protected since first colonial contact. Pueblo Action Alliance organizes and creates spaces based on the teachings of Pueblo traditional core-values which include respect, consent, protection of sacred entities, cultural sustainability, Indigenous self-determination and sovereignty, traditional and popular education, storytelling and oral tradition. The organization is Indigenous women led in grassroots organizing efforts and public education for Pueblo communities.

### Alejandría Lyons (SouthWest Organizing Project)

Alejandría Lyons is a Xicana organizer from Los Lunas, New Mexico. She is the former Environmental Justice Organizer for the Southwest Organizing Project (SWOP) and the current Coalition Coordinator at the New Mexico No False Solutions Coalition located in Albuquerque, New Mexico. Alejandría has worked on environmental justice related topics through her position, working alongside food sovereignty activists across New Mexico and later water rights activists who aim to protect historic acequias<sup>23</sup>. She received her Masters in Community and Regional Planning from the University of New Mexico, where she focused on environmental and Indigenous planning issues. Alejandría has also worked with multiple agencies to help launch the Bosque Cultural Healing Initiative, a restoration project located near Barelás and South Valley, which aims to restore both the bosque and the connection native burqueños have to this natural landscape. Being from New Mexico Alejandría understands the importance of protecting land-based cultures while standing up against and opposing industry.

23 Acequias are irrigation canals designed to sustainably share water for agriculture in dry land. They have been used successfully for centuries by farming communities in New Mexico.



## SouthWest Organizing Project

The SouthWest Organizing Project was founded in 1980 by young activists of color to empower communities in the southwest to realize racial and gender equality and social and economic justice. They seek to redefine power relationships by bringing together the collective action, talents and resources of the people within their communities. SWOP works with primarily low income communities of color to help communities gain control of their land and resources. The organization's work takes various forms: direct grassroots organizing campaigns to make social and political change, education and skill building to develop leadership within communities and mass-based civic engagement strategies to build and demonstrate collective power through voting. SWOP acts as a vehicle for those greatly affected by the decisions of governments to have a greater voice in the process.

### **Josue De Luna Navarro**

Josue de Luna Navarro is a former New Mexico Fellow at the Institute for Policy Studies. Currently Josue is the Climate Policy Innovator with The Semilla Project. He is the founder of the National UndocuHealth program for United We Dream. His work with United We Dream emphasized the importance of community health within the immigrant justice movement. In New Mexico, Josue is the co-founder of the New Mexico Dream Team (NMDT), the largest statewide undocumented-led organization in NM. With the NMDT, he directed a research study with collaboration with UNM's TREE Center for Advancing Behavioral Health regarding the health impact of anti-immigrant and racist policies on undocumented youth. Josue is currently working on his Masters of Public Policy from the University of New Mexico. His interest is in researching and developing solutions on issues regarding the climate crisis, immigration and public health. He also provides climate policy support for the Center for Civic Policy and the coalition of Power4NM.

### **Miriam Pemberton**

Miriam Pemberton is a Research Fellow at the Institute for Policy Studies. She directs its Peace Economy Transitions Project which focuses on helping to build the foundations of a postwar economy at the federal, state and local levels. She co-chairs the Budget Priorities Working Group, the principal information-sharing collaboration of U.S. NGOs working on reducing Pentagon spending.

In addition to articles and op-eds, her publications include two report series. "Military vs. Climate Security" compares federal spending on the two security domains, and argues for a shift of security resources toward mitigating climate change. "A Unified Security Budget for the United States" 'examines the balance of spending on military forces, homeland security and non-military foreign engagement and argues for a rebalanced security budget. With William Hartung of the New America Foundation, she is co-editor of the book *Lessons from Iraq: Avoiding the Next War* (Paradigm Publishers, 2008). Formerly she was editor, researcher and finally director of the National Commission for Economic Conversion and Disarmament. She holds a Ph.D. from the University of Michigan.



## Robert Alvarez

Robert Alvarez is a Senior Scholar at IPS, where he is currently focused on nuclear disarmament, environmental, and energy policies.

Between 1993 and 1999, Mr. Alvarez served as a Senior Policy Advisor to the Secretary and Deputy Assistant Secretary for National Security and the Environment. While at DOE, he coordinated the effort to enact nuclear worker compensation legislation. He coordinated nuclear material strategic planning for the department and established the department's first asset management program. Bob was awarded two Secretarial Gold Medals, the highest awards given by the department.

Prior to joining the DOE, Mr. Alvarez served for five years as a Senior Investigator for the U. S. Senate Committee on Governmental Affairs, chaired by Senator John Glenn, and as one of the Senate's primary staff experts on the U.S. nuclear weapons program. While serving for Senator Glenn, Bob worked to help establish the environmental cleanup program in the Department of Energy, strengthened the Clean Air Act, uncovered several serious nuclear safety and health problems, improved medical radiation regulations, and created a transition program for communities and workers affected by the closure of nuclear weapons facilities. In 1975 Bob helped found and direct the Environmental Policy Institute (EPI), a respected national public interest organization. He helped enact several federal environmental laws, wrote several influential studies and organized successful political coalitions. Bob Alvarez is an award winning author and has published articles in prominent publications such as Science Magazine, the Bulletin of Atomic Scientists, Technology Review and The Washington Post. He has been featured in television programs such as NOVA and 60 Minutes.

