

2025

JUST TRANSITION  
A REPORT BY DINÉ C.A.R.E.



**DINÉ C.A.R.E.**  
**CITIZENS AGAINST RUINING  
OUR ENVIRONMENT**

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## Table of Contents

<b>Introduction.....</b>	<b>2</b>
<b>Community Engagement Process.....</b>	<b>3</b>
Community Survey.....	3
Community Town Hall Forum.....	4
Integration of Community Input.....	4
<b>Current Status of Four Corners Power Plant.....</b>	<b>4</b>
<b>Environmental Impact and Health Concerns.....</b>	<b>6</b>
<b>Just Transition Funding Mechanisms.....</b>	<b>7</b>
<b>Analysis of NTEC’s NAV Energy Hub.....</b>	<b>8</b>
<b>Financial Feasibility and Technical Risks of Carbon Capture.....</b>	<b>10</b>
Technical Performance Limitations.....	10
Financial Risks and Cost Escalation.....	10
<b>Economic Implications for the Navajo Nation.....</b>	<b>11</b>
<b>Community-Based Alternatives.....</b>	<b>12</b>
<b>Navajo Power and Sovereign Energy’s Initiatives.....</b>	<b>13</b>
Navajo Power.....	13
Sovereign Energy.....	14
<b>Recommendations for Effective Transition.....</b>	<b>15</b>
<b>Conclusion.....</b>	<b>16</b>
<b>References.....</b>	<b>18</b>

## Introduction

The concept of Just Transition has changed in recent years. Just Transition represents a framework for ensuring that the shift away from fossil fuels happens in a way that addresses historical injustices while creating pathways of success that align with community values and needs. The framework encompasses three fundamental aspects: distributive justice (fair distribution of benefits and burdens), procedural justice (inclusive decision-making), and restorative justice (addressing historical inequities and environmental damage). These frameworks of transition resonate deeply with Diné traditional teachings that have guided relationships with the land and community for generations. Hózhó provides a natural foundation for Just Transition work, as it recognizes the interconnectedness of environmental, economic, and social well-being. Hózhó manifests through several key attributes: spirituality (connection with the sacred elements), respect (reverence for nature and community), reciprocity (balanced give-and-take relationships), and relationships (interconnectedness with all living beings). These teachings align with the principles of Just Transition, which gives a culturally grounded approach to navigating complex economic and environmental changes.

The principle of K'é provides another powerful framework for understanding Just Transition. K'é extends beyond human relationships to encompass responsibilities to the land, water, air, and all living beings. This value supports the Just Transition emphasis on community-centered development and collective well-being rather than individualistic or extractive approaches. A true Just Transition requires not only job preservation but transformation of economic relationships to prioritize environmental restoration and community well-being.

The 2002 Diné Fundamental Laws represent an integration of these traditional values into modern legal frameworks. These laws were among the first to codify nature's inherent rights, formally recognize sacred obligations to protect natural elements, and emphasize intergenerational responsibility. This demonstrates how traditional knowledge can inform and strengthen modern governance approaches to environmental and economic challenges. As the Navajo Nation navigates the transition away from coal facilities, such as the Four Corners Power Plant, these traditional teachings provide not only cultural continuity but practical guidance for creating truly sustainable and just solutions. By centering Hózhó and K'é in transition planning, decision-makers can ensure that new economic pathways honor relationships with the land, sustain community well-being, and fulfill responsibilities to future generations. This integration of traditional wisdom with modern frameworks creates the possibility for transitions that heal rather than continue historical patterns of extraction and exploitation.

Community voices reinforce these values, emphasizing the need for a transition that respects Diné teachings and centers Indigenous leadership. One community member stated in the survey, *“Letting Indigenous people lead and make decisions based on their own knowledge of the land, animals, and people... transitioning so that we can have clean air, water, land, and that those who suffered from past energy transitions get justice.”* Others highlighted the importance of intergenerational responsibility and the protection of sacred sites, underscoring that the transition must honor past, present, and future generations.

## Community Engagement Process

This Just Transition Report was developed through a broad community engagement process designed to center Diné voices and ensure that community perspectives directly shaped the analysis and recommendations. We recognize that effective transition planning must be grounded in the lived experiences and knowledge of those most affected by coal operations, so we implemented two primary engagement mechanisms: a community-wide survey and a community town hall forum.

### Community Survey

The community survey on Just Transition for the Navajo Nation was designed to gather input from community members across the Navajo Nation on their perspectives, concerns, and aspirations regarding the transition away from coal. The survey consisted of 20 questions organized across seven sections:

- **Section 1: About You** - Collected demographic information including community/chapter affiliation, occupation, and employment connection to Four Corners Power Plant, Navajo Mine, or related industries.
- **Section 2: Understanding and Values** - Assessed familiarity with the concept of Just Transition and identified which Diné values (Hózhó, K'é, respect for land and water, community well-being, and intergenerational responsibility) respondents considered most important to guide the transition.
- **Section 3: Economic Concerns and Opportunities** - Explored concerns about job losses from coal operations and solicited input on desired economic opportunities including renewable energy jobs, agriculture and food sovereignty, ecological restoration, tourism and cultural education, healthcare and social services, and small business development.
- **Section 4: Environmental and Health Impacts** - Documented how community members and their families have been affected by environmental issues related to Four Corners Power Plant and coal mining, and identified priority environmental concerns including air pollution, water scarcity, coal ash contamination, land disturbance, and preservation of sacred sites.
- **Section 5: Perspectives on Energy Transition Approaches** - Gathered community opinions on carbon capture technology and assessed support for community-owned renewable energy projects such as solar farms and microgrids.
- **Section 6: Governance and Community Engagement** - Evaluated how well community voices are currently represented in transition planning and identified preferred methods of community engagement including town hall meetings, small group discussions, surveys, and online forums.
- **Section 7: Additional Comments** - Provided space for respondents to share additional thoughts, concerns, and ideas about the Just Transition process and the draft report.

The survey was designed to be accessible and inclusive, with an estimated completion time of 15-20 minutes and assurances of confidentiality for all respondents. The survey responses provided important data that informed the analysis throughout this report and ensured that community perspectives were integrated into every section.

### **Community Town Hall Forum**

- In addition to the written survey, Diné C.A.R.E. hosted a community town hall forum to facilitate in-depth discussion and gather qualitative feedback on the Just Transition Report. The town hall was designed as an interactive engagement event with the following characteristics:
- **Format:** In-depth discussion and review of the report with dedicated time for section-by-section comments and community feedback
- **Target Audience:** Community members from the Northern Agency, with a goal of engaging approximately 20 participants
- **Purpose:** To gather community feedback on the draft report, incorporate community voices and stories, and ensure that community perspectives were valued and meaningfully integrated into the final document

The town hall provided an opportunity for community members to engage in dialogue about the transition, ask questions, share personal stories and experiences, and provide input on the report.

### **Integration of Community Input**

The survey responses and town hall feedback were reviewed and integrated throughout this report. Community quotes, concerns, and recommendations appear throughout the report, showing how community voices directly shaped the analysis. Key themes that appeared from community engagement include:

- Strong concern about job losses and the need for economic diversification that provides comparable wages and benefits
- Deep commitment to environmental remediation and full cleanup rather than containment of contamination
- Skepticism about carbon capture technology and concerns about its feasibility, cost, and environmental risks
- Strong support for community-owned renewable energy projects and Indigenous-led energy development
- Emphasis on the importance of transparency, accountability, and meaningful community participation in decision-making
- Recognition that Just Transition must address historical injustices and honor Diné values and traditional knowledge

This community engagement process reflects Diné C.A.R.E.'s commitment to ensuring that transition planning is truly community-centered, that diverse voices are heard and valued, and that the transition away from coal is guided by the priorities and wisdom of impacted communities themselves.

### **Current Status of Four Corners Power Plant**

The Four Corners Power Plant (FCPP) currently approaches its 2031 closure date, with a recent proposition to extend to 2038. Located near Farmington, New Mexico, in Upper Fruitland, on the Navajo Nation. In recent years, the facility has undergone significant operational changes, including the implementation of seasonal operations starting in fall 2023 to reduce emissions. This shift to seasonal operations represents an acknowledgment of the plant's declining

economic viability in the face of competition from cheaper renewable energy sources, while creating challenges for workers who must adapt to inconsistent employment schedules and for tribal revenue that fluctuates with plant operations.

The ownership structure of the Four Corners Power Plant reflects a complex web of interests that sometimes work at cross-purposes. Arizona Public Service (APS) maintains 63% ownership and serves as the plant operator, while the [Navajo Transitional Energy Company \(NTEC\)](#) holds 7% ownership, with other utility partners holding the remaining shares. NTEC's position is important, as it also owns the Navajo Mine, which supplies coal to the plant, creating a situation in which the company has financial interests on both sides of the coal supply chain. This dual position creates potential conflicts of interest that may influence NTEC's approach to transition planning, as the company benefits financially from extending coal operations as long as possible.

In September 2024, [NTEC received \\$6.5 million from the U.S. Department of Energy](#) to conduct a Front-End Engineering Design (FEED) study to determine the feasibility of adding carbon capture to the plant. According to NTEC, this technology would remove “95% of carbon emissions” and make FCPP “one of the cleanest plants in the U.S.” However, these claims deserve critical examination given real-world experience with carbon capture technology, which has consistently fallen short of capturing at the rates promised while significantly increasing both capital and operating costs. The experience at the nearby San Juan Generating Station showed that carbon capture implementation would require approximately 29% of the plant's generated power just to operate the technology, substantially reducing net output and increasing water consumption by 50-60% in an already water-stressed region.

Community perspectives reveal uncertainty about carbon capture technology. One survey respondent expressed, *“Carbon capture is a very misleading technology... There is not enough evidence to convince me that the method even actually works, and I very much feel it is a distraction that allows the energy companies to continue to profit.”* Another respondent noted concerns about the high costs, safety, and environmental risks, questioning, *“Does the high cost it will take to run (money, water, and energy) outweigh underperformance? What about safety with leakage and monitoring? What independent third-party verification?”* A town hall participant shared deep concerns about the environmental risks: *“NTEC has said that they want to buy Four Corners Power Plant in 2038, they want to perpetuate coal burning with carbon capture sequestration, which is basically capturing the carbon, putting it underground which will pose threats to our aquifers underground, to contaminate it. It will pose threats for leakage.”* These views highlight the need for transparent, community-informed decision-making regarding carbon capture proposals.

In October 2025, a number of Department of Energy (DOE) applications were removed, including NTEC's FEED Study for Carbon Capture Sequestration (CCS). This cancellation marks a critical moment in the Navajo Nation's energy transition planning. This federal funding cancellation has paused NTEC's ability to move forward with the studies necessary to pursue CCS implementation. Rather than investing billions into extending coal operations through carbon capture, the Navajo Nation can now focus on a true transition. This calls for the Navajo Nation to assert its sovereignty over energy decisions and to focus on prioritizing community well-being and environmental healing.

The economic impact of the Four Corners Power Plant remains significant despite its reduced operations. The facility employs Navajo Nation residents directly and contributes millions annually to the Navajo Nation economy through wages, taxes, and royalties. These direct benefits support hundreds of additional indirect jobs through the supply chain and provide a significant source of Tribal government revenue. However, this economic dependency creates vulnerability for the Navajo Nation, as demonstrated by the challenges faced following the closure of the Navajo Generating Station in 2019. [That closure resulted in approximately \\$40 million in lost annual revenue](#) for the Navajo Nation and the loss of approximately 1,000 jobs, highlighting the urgent need for economic diversification and transition planning that addresses not only direct job losses but broader impacts on tribal revenue and regional economic activity.

Community members voiced deep concern about job losses and economic stability. One survey participant stated, “*None of these opportunities offer the number of good paying jobs as opportunities at the mine sites. Not even close.*” Another emphasized the critical need for infrastructure and education to support economic diversification, noting, “*Lack of infrastructure to support entrepreneurship on our reservations... The Federal Government did not intend for us to prosper or have access to the ‘American Dream’, so those Federal laws need to change.*” A town hall participant highlighted the urgency of action and the need for comprehensive planning: “*We’re wanting to transition and our tribe, you know like NTEC, they want to buy Four Corners Power Plant to perpetuate coal, but if that doesn’t happen, which is hopefully a good possibility, then that will not happen in 2038. APS would have to come up with this package, and I think we have to start planning now and have plans in place.*” These comments underscore the importance of addressing systemic barriers to economic opportunity in transition planning.

## **Environmental Impact and Health Concerns**

Despite emissions control upgrades implemented in recent years, the Four Corners Power Plant continues to have substantial environmental impacts that disproportionately affect Navajo communities. The plant remains one of the largest sources of air pollution in the region, emitting significant quantities of carbon dioxide, nitrogen oxides, sulfur dioxide, and particulate matter. These pollutants contribute to regional air quality issues, climate change, and various health problems in surrounding communities. These health burdens fall excessively on exposed populations, including children, elders, and those with pre-existing conditions.

Water usage represents another significant environmental impact of the Four Corners Power Plant, which is concerning given the nation’s increasing water scarcity. The plant consumes large quantities of clean water for cooling and other operational needs, which is depleting precious resources in an area already experiencing drought conditions. This water usage occurs in a context where many Navajo families lack reliable access to clean water for basic household needs, highlighting the profound inequities embedded in the region’s energy system. A town hall participant emphasized the severity of this crisis: “*The state of New Mexico has done all these studies, convened all kinds of scientists, but basically are admitting that, because things have not changed with regards to carbon emissions, New Mexico is probably going to have 25% less water over the next 50 years if we don’t change our behavior.*”



The environmental impacts extend beyond operational emissions to include the legacy of coal ash disposal, land disturbance from mining, and potential groundwater contamination. These impacts will persist long after the plant ceases operations, necessitating comprehensive remediation efforts that address all aspects of environmental damage. The experiences with [uranium mine cleanup on the Navajo Nation](#) offer important lessons about the challenges of effective remediation, particularly the inadequacy of approaches that simply “cap in place” contaminated materials. More comprehensive approaches such as the removal of contaminated materials to secure disposal facilities with appropriate containment systems have proven more effective but also more costly. These considerations must inform remediation planning for the Four Corners site to ensure that cleanup efforts truly address the full scope of environmental damage rather than leaving lasting contamination for future generations.

Survey responses reflect strong community concern about environmental and health impacts. Many respondents highlighted air pollution, water scarcity, and contamination as top priorities. One shared, *“My husband was diagnosed with severe COPD and he has never smoked, although he worked at FCPP... We have family members who suffer from chronic asthma, and we have lost numerous family members to cancer.”* Others emphasized the importance of fully cleaning up environmental damage rather than merely containing it, with a respondent stating, *“It is very important that remediation efforts fully clean up environmental damage rather than just contain it.”* These voices call for thorough, transparent, and culturally sensitive remediation efforts.

## **Just Transition Funding Mechanisms**

Significant funding mechanisms have been established to support the transition away from coal in the Four Corners region, though implementation has faced various challenges. In 2020, APS and the Navajo Nation negotiated a historic \$144.45 million package to support Just Transition for communities affected by the early closures of coal plants co-owned by APS including the Navajo Generating Station, Cholla Generating Station, and Four Corners Power Plant. [This package included \\$100 million in transition funding](#) at \$10 million a year over 10 years, 600 megawatts of renewable energy projects on the Navajo Nation and in the Four Corners, transmission revenue sharing, service extensions to unelectrified households, and economic development funding. The agreement represented an acknowledgment by APS of its responsibility to communities that have suffered the environmental and health burdens of power generation while providing electricity primarily to urban areas.

Despite this agreement, the Arizona Corporation Commission (ACC) has only partially endorsed the transition package to approve just a fraction of the negotiated funding. In November 2021, the ACC approved only \$10 million for the Navajo Nation, \$500,000 for Navajo County communities, \$1 million for the Hopi Tribe, and \$2.5 million to electrify buildings in tribal communities. In February 2024, [the ACC rejected additional proposed assistance](#) while simultaneously approving significant rate hikes for APS customers. These regulatory decisions highlight the challenges of securing adequate transition funding through utility commitments, mainly when regulatory bodies prioritize short-term rate impacts over addressing the long-term costs tolerated by communities affected by energy production.



New Mexico's Energy Transition Act (2019) provides a comprehensive framework for supporting communities affected by coal plant closures, even though implementation has also faced challenges. The law includes mandates for electricity providers to achieve 80% renewable energy by 2040 and 100% carbon-free electricity by 2045, along with energy transition bonds to cover costs associated with coal plant abandonment, up to \$30 million for coal mine reclamation, and up to \$40 million to help displaced workers and affected communities. While this legislation establishes clear funding mechanisms and specific targets for both environmental and social objectives, disputes over fund distribution, project eligibility, and decision-making authority have delayed some disbursements.

Community members expressed frustration with funding delays and regulatory barriers. One survey comment noted, *"There is no discussion on job replacements and how the Navajo Nation will make up the money from fossil fuels. Power demand is increasing... The only transition that should be required is a transition to the most modern technology that maximizes environmental stewardship and resources."* Another highlighted the need for transparency and accountability in funding decisions, stating, *"Transparency & accountability are very important."* A town hall participant emphasized the inadequacy of current funding: *"It's kind of depressing that we only get \$10 million a year. That's not a lot of money... I don't think \$10 million a year is even going to change 100 Navajo families' electricity problems a year, but those are things I always think about before we start talking about building all these things on the reservation when there's still families out there that still don't have basic necessities."* These perspectives underscore the necessity of clear, equitable, and community-driven funding strategies.

### **Analysis of NTEC's NAV Energy Hub**

NTEC has proposed the "NAV Energy Hub" as its vision for the future of energy production on the Navajo Nation. According to [NTEC's website](#), the NavEnergy Hub includes four main components: carbon capture implementation at Four Corners Power Plant, solar energy development on reclaimed mine lands, natural gas-fired generation facilities, and utilization of existing transmission infrastructure. NTEC presents this approach as a way to maintain jobs and revenue while transitioning to cleaner energy production, emphasizing that the "existing energy infrastructure on the Navajo Nation offers a tremendous advantage in the clean energy economy." However, this vision deserves critical examination, particularly regarding its reliance on carbon capture technology, continued fossil fuel dependency, and governance implications.

The carbon capture component of NTEC's plan deserves analysis because it is the centerpiece of their strategy to extend the life of coal operations. NTEC has stated that the proposed carbon capture technology would eliminate the majority of the plant's carbon dioxide output, making FCPP among the nation's lowest-emitting facilities. These claims, evaluated against other experience with carbon capture technology, have consistently fallen short of capturing at the rates promised. The Boundary Dam carbon capture project in Canada captures only about 57% of carbon emissions, far short of the promised rate. Furthermore, carbon capture significantly increases both capital and operating costs for power plants. The experience at the nearby San Juan Generating Station showed that carbon capture implementation would require

approximately 29% of the plant's generated power just to operate the technology, substantially reducing net output and increasing the cost of electricity produced.

Water consumption represents another significant concern with the carbon capture approach, as the technology would increase water usage by 50-60% in an already water-stressed region. Given existing water scarcity issues on the Navajo Nation and the Tribal government's recent declaration of a drought emergency, this increased consumption raises serious sustainability concerns. The trade-off between extending coal operations through carbon capture and protecting precious water resources must be carefully evaluated, particularly considering climate projections that indicate increasing water stress throughout the Southwest in the coming decades. Furthermore, by focusing on extending coal operations, the carbon capture approach delays necessary economic diversification and prolongs pollution impacts on local communities, potentially leaving the Navajo Nation less prepared for the inevitable transition away from coal.

NTEC's dual role as both coal supplier and power plant owner creates problematic incentives that may compromise decision-making in the best interests of the Navajo Nation as a whole. As owner of Navajo Mine, which supplies the Four Corners Power Plant, NTEC has inherent financial incentives to keep the plant running as long as possible, regardless of broader economic or environmental considerations. This self-dealing concern is exacerbated by NTEC's governance structure, which operates with limited transparency and accountability to Navajo communities most affected by its decisions. A town hall participant raised critical concerns about NTEC's lack of oversight: *"NTEC really does need to transition rather than perpetuate fossil fuel burning... Nothing oversees any of their policies. They can do and make decisions, whenever they want. That's scary. And since RDC now is proposing an energy department, we need to get involved there too, to make sure that we want checks and balances on this organization."*

Beyond the carbon capture component, the broader NavEnergy Hub vision has several limitations that deserve critical examination. The heavy reliance on natural gas perpetuates dependency on fossil fuels and exposure to price volatility in gas markets at a time when [new renewable energy is now cheaper than new natural gas generation](#) in many contexts. The centralized control model maintains concentrated decision-making power over energy resources rather than empowering communities to develop and own their own energy resources. While the plan emphasizes job preservation, it provides limited attention to addressing historical environmental injustices or creating pathways for community ownership and wealth-building. Furthermore, the plan includes minimal attention to comprehensive remediation of environmental damage from decades of coal mining and power generation, focusing instead on technical fixes that allow continued extraction rather than healing the land and communities.

Community survey responses reflect these concerns. One participant stated, *"The science on this technology is not clear... Carbon is dangerous and the longevity of its life span is unknown."* Another remarked, *"The only transition that should be required is a transition to the most modern technology that maximizes environmental stewardship and the resources readily available on the Navajo Nation to provide the Navajo people with great paying jobs."* There is also a call for Indigenous leadership and governance, with a respondent emphasizing, *"Hold on to the power. Local voices should make resource allocation decisions."*

## Financial Feasibility and Technical Risks of Carbon Capture

The financial feasibility and technical viability of carbon capture and storage (CCS) technology at Four Corners Power Plant raise significant concerns that merit careful examination. Independent analysis of existing CCS projects worldwide reveals substantial gaps between industry promises and actual performance outcomes.

### Technical Performance Limitations

Despite industry claims that CCS retrofitting at Four Corners could reduce dioxide emissions, evidence from operational facilities demonstrates consistent underperformance. Of approximately 30-35 existing carbon capture projects globally, only two are implemented at coal plants, and neither has achieved capture rates approaching 95%. The Petra Nova facility in Texas and Boundary Dam in Canada have consistently fallen short of their targeted capture rates.

The age of Four Corners Power Plant further complicates technical feasibility. Units 4 and 5 are approximately 55-56 years old, and historical data shows declining operational performance over time. Since 2010, the plant's capacity factor has decreased from approximately 80% to 61-62% in recent years. This declining performance trajectory contradicts NTEC's assumptions that the plant would operate at higher capacity factors after CCS retrofitting. Only six coal units in the United States have operated beyond 70 years, raising serious questions about the viability of extending Four Corners' operational life for the 20-30 additional years required to make CCS financially viable. This would necessitate running the plant until it is 80-90 years old, unprecedented for facilities of comparable size. Among coal units larger than 200 megawatts, none aged 60 years or older have achieved capacity factors above 58% in recent years.

### Financial Risks and Cost Escalation

Carbon capture retrofitting projects consistently demonstrate significant cost escalation between initial estimates and final implementation. Project Tundra, a proposed retrofit at a North Dakota coal plant, saw costs nearly double from approximately \$1 billion to almost \$2 billion after completing front-end engineering design (FEED) studies. The Kemper County carbon capture project in Mississippi experienced even more dramatic cost increases, escalating from an initially estimated \$3 billion to approximately \$7.5 billion and ultimately never captured any carbon dioxide due to technical failures.

These examples illustrate the substantial financial risk associated with NTEC's \$6.5 million FEED study for Four Corners Power Plant. Historical evidence suggests that actual implementation costs would likely far exceed initial projections, creating significant financial exposure for the Navajo Nation. A town hall participant emphasized the economic logic of carbon capture: *"If you're just messing with the economics of this, carbon sequestration does not make sense. And so, I think like, and the thing is, it's not really cleaning and doing any sort of remediation for the land."*

The parasitic power requirements of CCS technology present another major financial challenge. Carbon capture systems typically consume 25-30% of a plant's generated electricity,

substantially reducing net output and revenue potential. For a 1,540-megawatt facility like Four Corners, this parasitic load would require approximately 2,000-megawatt capacity which makes it potentially the most expensive coal plant in the country to operate.

An independent technical review conducted by the Western Clean Energy Campaign (WCEC) provides validation of these financial and technical concerns. The WCEC review analyzed NTEC's proposed CCS system at Four Corners Power Plant Units 4 and 5 concluding that "there are many unknowns about the potential for successful operation of CCS at FCPP Units 4 and 5 and continuously achieving 95% CO<sub>2</sub> capture, but it is clear that the project will be a very expensive venture." (pg. 25). The WCEC analysis estimated total project capital costs for the CCS system at approximately \$1.55 to \$1.6 billion per FCPP unit, with operational costs estimated at roughly \$200 million per year per unit. (pg. 23) This represents a \$3.1+ billion investment that contradicts the principles of Just Transition and Dine values of stewardship and community benefit. This massive financial commitment to extend coal operations does not address historical inequities and environmental damage. Rather than investing in healing the land and communities harmed by coal extraction, the CCS approach asks the Navajo Nation to invest billions to perpetuate the system that has caused this harm.

Community feedback reflects these financial and technical concerns. One survey participant noted, "*Carbon capture technology has mixed success... It will contaminate our Mother Earth underground, our aquifers, and pose dangerous leakage threats.*" Another expressed **skepticism about the economic viability, stating, "It has shown that it will not work as advertised."**

### **Economic Implications for the Navajo Nation**

The economic case for CCS at Four Corners relies heavily on federal tax incentives which is currently \$85 per metric ton of captured carbon dioxide. This creates an incentive to maximize plant operation and CO<sub>2</sub> production to capture more carbon and receive more tax credits. This approach misaligns with the principles of energy transition and environmental stewardship central to Diné traditional teachings.

Furthermore, Four Corners Power Plant's operating and maintenance costs have shown a steady increase over time. This upward cost trajectory, combined with the substantial capital investment required for CCS implementation and the plant's declining performance, raises fundamental questions about the long-term economic viability of this approach for the Navajo Nation. When evaluating NTEC's carbon capture proposals against other economic pathways for the Navajo Nation, these technical limitations, financial risks, and cost uncertainties must be thoroughly considered to ensure decisions align with the long-term interests of Diné communities.

### **Community-Based Alternatives**

In contrast to NTEC's centralized approach, various community-based alternatives offer pathways that more fully embody just transition principles and create opportunities for distributed benefits and community ownership. The National Renewable Energy Laboratory

(NREL) has established significant achievements in tribal energy development, partnering with over 300 high-impact tribal energy projects. NREL's Tribal Energy Program provides technical assistance for community-centered approaches to energy development, including community solar projects that provide local power generation and ownership, microgrid development that creates resilient local energy systems, household-scale solutions addressing the 14,000+ Navajo homes without electricity, and workforce development programs that train community members for installation and maintenance roles. These approaches prioritize local control and keep energy dollars within the community, creating a virtuous economic cycle rather than extracting wealth.

Community solar represents a particularly promising approach for the Navajo Nation, offering a way to develop renewable energy resources while ensuring that benefits flow directly to community members. [Community solar models](#) allow multiple participants to benefit from a single solar installation, creating opportunities for those who cannot install solar on their own properties. Implementation involves identifying suitable locations on reclaimed mine land or other disturbed areas, developing community solar projects with Navajo ownership, creating subscription models that prioritize low-income households, and integrating with workforce development programs. These projects can be developed at various scales, from small installations serving a single chapter to larger facilities that provide power to multiple communities while generating revenue through power purchase agreements with utilities.

Microgrids offer another promising approach for creating energy sovereignty on the Navajo Nation. Microgrid systems combine generation, storage, and smart controls to create resilient local energy systems that can operate independently from the main grid when necessary. This resilience is valuable in remote areas that have historically experienced frequent power outages. Components include solar PV as primary generation, battery storage for load balancing and resilience, backup generation for emergency power, and advanced control systems to optimize performance. Implementation steps include conducting community energy needs assessments, prioritizing critical facilities like and chapter houses.

Addressing the Navajo homes that remain without electricity requires a comprehensive approach that combines multiple strategies. This approach should include geospatial mapping of unelectrified homes to identify clusters for mini-grid development, standalone systems (solar + storage) for remote households, leveraging the APS commitment for line extensions where economically feasible, and implementing super-efficient appliance programs to reduce system costs. [Native Renewables](#) has developed innovative models for addressing this challenge, providing solar and battery systems to homes that have never had electricity while training local community members to install and maintain these systems. This approach not only addresses immediate energy access needs but also builds local capacity and creates meaningful employment opportunities.

Beyond energy production, successful transition planning must include economic diversification strategies that create opportunities across multiple sectors. [The First Nations Development Institute](#) has supported numerous successful food sovereignty initiatives that simultaneously address economic, health, and cultural needs in Indigenous communities transitioning away from extractive industries. These initiatives build on traditional farming practices while incorporating modern techniques for water conservation, soil regeneration, value-added processing, and direct



marketing. The Navajo Nation has significant potential for expanding agricultural production, particularly through models that link agricultural production to value-added processing and direct marketing. A town hall participant highlighted the potential of agriculture and farming: *“I think one of the areas that we have completely forgotten about is farming funding to revitalize farms. Right now, we’re using only about a quarter of the water that was allocated to Navajo farms.”*

Other promising diversification strategies include sustainable tourism development centered on cultural exchange and environmental education, value-added wool and textile production supporting traditional shepherding, ecological restoration enterprises creating jobs while healing the land, and healthcare and social services expansion addressing long-standing community needs. A town hall participant emphasized tourism opportunities: *“I think that the Navajo Nation has the most land bases and we have beautiful places on our reservation. Every year we have tourists that flock from not only within the United States, but all over the world. But we don’t have the infrastructure, the businesses to support tourism. We need to develop those.”*

Community members strongly support these community-driven alternatives. One respondent said, *“Very supportive of community-owned renewable energy projects like solar farms or microgrids.”* Another emphasized, *“Community solar and microgrids for remote areas are critical to energy sovereignty.”* There is also recognition of the need for economic diversification beyond energy, with calls for agriculture, ecological restoration, and cultural education as vital opportunities.

## **Navajo Power and Sovereign Energy’s Initiatives**

In contrast to fossil fuel models, Indigenous-led renewable energy companies like Navajo Power and Sovereign Energy offer promising alternatives that more closely align with Diné values and Just Transition principles.

### **Navajo Power**

Navajo Power represents an innovative approach to community-centered renewable energy development on tribal lands. Founded as a Public Benefit Corporation, the company operates with a distinctive business model that combines commercial viability with community benefit. Unlike traditional energy developers, Navajo Power reserves 80% of project profits for Navajo communities and maintains a specific focus on projects that support tribal energy sovereignty.

Navajo Power’s approach includes several distinctive elements:

- **Community Co-Development Model:** Rather than simply leasing land from chapters, Navajo Power implements a co-development framework where communities participate as meaningful stakeholders in project governance, planning, and benefit distribution.
- **Local Workforce Development:** The company prioritizes training and employing local community members throughout project development and operations phases, creating sustainable career pathways in renewable energy.
- **Canté Solar Project:** This successfully implemented 55-megawatt solar facility demonstrates the viability of Navajo-led renewable energy development. The project

generates clean energy while providing stable revenue to the Navajo Nation and local communities without the environmental impacts associated with fossil fuel generation.

- Integrated Land Restoration: Navajo Power integrates environmental remediation into project planning, prioritizing previously disturbed lands for development and incorporating restoration elements into solar installations.
- Technical Assistance Programs: The company provides capacity-building support to help chapters navigate renewable energy opportunities, including guidance on project feasibility assessment, funding mechanisms, and governance structures.

Navajo Power's development model offers a practical pathway for implementing Just Transition principles by ensuring communities maintain decision-making authority and receive direct economic benefits from renewable energy projects.

### **Sovereign Energy**

Sovereign Energy provides another example of Indigenous-led energy development that prioritizes community benefit and cultural alignment. The company focuses on smaller-scale distributed generation projects that can directly serve Navajo households and businesses.

Key initiatives include:

- Microgrid Development: Sovereign Energy has built microgrid systems that combine solar generation with battery storage to create resilient energy networks for remote communities. These systems provide energy independence and can operate autonomously during grid disruptions.
- Off-Grid Household Systems: The company has implemented innovative programs to provide standalone solar and storage systems for households without grid connection. These systems provide reliable electricity access while building local capacity through installation and maintenance training.
- Energy Efficiency Integration: Sovereign Energy builds super-efficient appliance programs into its residential energy systems, reducing overall system costs while providing essential services.
- Energy Sovereignty Training: The company conducts workshops and skills training programs that empower community members to participate in renewable energy system installation, maintenance, and management.
- Traditional Knowledge Integration: Sovereign Energy incorporates Diné values and traditional knowledge into project planning, including consideration of sacred sites, cultural resources, and intergenerational sustainability principles.

Both Navajo Power and Sovereign Energy demonstrate how renewable energy development can be structured to create distributed benefits, build local capacity, and align with cultural values. These Indigenous-led initiatives offer proven alternatives to the centralized fossil fuel model represented by NTEC's NAV Energy Hub proposal and illustrate practical applications of Just Transition principles in action.



The success of these organizations highlights the viability of community-centered energy development that builds economic resilience while respecting traditional relationships with land and resources. Their models deserve expanded support and replication as the Navajo Nation navigates the transition away from coal at facilities like the Four Corners Power Plant. Community members expressed strong support for Indigenous-led renewable initiatives. One survey comment stated, “*Community clean energy by chapter would be incredible, or some form of a community choice aggregator.*” Another emphasized, “*Navajo Power and Sovereign Energy’s models are practical pathways for Just Transition.*”

## **Recommendations for Effective Transition**

Effective transition planning requires better governance structures and community engagement processes that ensure diverse perspectives are represented in decision-making. Chapter-level transition planning processes should include community visioning sessions in all affected chapters, development of chapter-specific transition plans that reflect local priorities, creation of ongoing monitoring and feedback mechanisms, and representation of diverse perspectives, including youth, elders, and traditional practitioners. Transparent decision-making frameworks should clearly define roles and responsibilities across entities, create public dashboards for tracking transition progress, implement regular reporting on financial management of transition funds, and develop conflict resolution mechanisms for addressing competing priorities.

Integrating traditional knowledge and values into transition planning represents a critical dimension of just transition work on the Navajo Nation. This integration includes working with traditional practitioners to identify guiding principles for transition, documenting and incorporating traditional ecological knowledge in remediation planning, ensuring preservation of sacred sites and cultural resources, and aligning economic development with cultural values and practices. [Indigenous Climate Action](#) has developed frameworks for ensuring that transition planning centers Indigenous values and decision-making processes, emphasizing formal protection mechanisms for Indigenous rights and interests, protocols for incorporating traditional knowledge, structured consultation processes that go beyond mere information sharing, and governance models that ensure Indigenous leadership in decision-making.

Comprehensive remediation of the Four Corners Power Plant site will require a multi-stakeholder approach that ensures cleanup efforts truly address the full scope of environmental damage. A remediation oversight committee should include representatives from Navajo EPA, U.S. EPA, affected chapters, traditional practitioners, and technical experts, with authority to review and approve remediation plans, monitor implementation, and ensure compliance with standards. The remediation process should follow a phased approach that includes comprehensive assessment of soil and groundwater contamination, removal of structures and containment of immediate hazards, in-depth remediation of soil and water resources, and long-term monitoring to ensure recovery. Clear remediation standards should be established for soil, groundwater, air quality, and cultural resources, with performance metrics that ensure accountability for cleanup outcomes rather than merely following prescribed processes.

Maximizing available funding for transition activities requires strategic coordination across diverse funding sources. A Just Transition Funding Coordination Office should be established with staff expertise in grants management, project development, and financial planning to identify funding opportunities, prepare applications, monitor compliance, and report on outcomes. Priority funding sources include the Economic Development Administration, and DOE Office of Indian Energy, along with state-level funding through the New Mexico Energy Transition Act. Given the challenges with securing full regulatory approval for the APS transition package, continued advocacy is important through direct engagement with the Arizona Corporation Commission and coalition-building with other affected communities.

Building local capacity for implementation represents a critical dimension of effective transition planning. [Solar workforce development programs](#) can create sustainable employment pathways through partnerships with Navajo Technical University to develop certificate and degree programs, apprenticeship programs with solar installation companies, business incubation services for Navajo-owned renewable energy businesses, and policies that prioritize Navajo-owned businesses. These workforce development initiatives should be designed to create career pathways rather than merely short-term jobs, with clear connections to emerging economic opportunities in renewable energy, environmental remediation, and sustainable development.

Community feedback strongly supports these recommendations. One participant noted, *“The people need to be more educated about the issues of energy and how it affects them.”* Another stressed the importance of transparency and inclusivity: *“There is a growing gap between elected leaders of the NN and the grassroots of our people... NN must have a smart energy efficient plan and not one that is based on colonial and economic models.”* Preferences for community engagement include town hall meetings, small group discussions, surveys, and door-to-door outreach to ensure broad participation.

## Conclusion

The transition away from coal at the Four Corners Power Plant represents both a significant challenge and a historic opportunity for the Navajo Nation. While NTEC’s NAV Energy Hub proposal offers one vision for this transition, community-based alternatives that prioritize distributed benefits, environmental restoration, and cultural values provide more promising pathways to a just and sustainable future. By implementing comprehensive remediation, developing community-owned renewable energy, diversifying the economy beyond energy production, maximizing available funding, and ensuring community engagement, the Navajo Nation can transform this transition.

The current political context creates both challenges and opportunities for this transition work. However, by developing diverse funding sources and maintaining clear communication about the benefits of just transition for Navajo communities these challenges can be addressed. Despite these challenges, the transition away from coal offers profound opportunities to address historical injustices and create new pathways to prosperity that align with Diné values and traditions.

Centering the needs and perspectives of those most affected by coal operations, transition planning can transform an extractive economy that has benefited primarily outside interests into a regenerative economy that creates widespread benefits for Navajo communities.

Community voices echo this vision, with one respondent supporting, “*We are all in this together and if we all put our collective minds, ideas, and efforts together, we can make the changes we envision to protect our Mother Earth, ourselves, and our future generations.*” Another emphasized healing, stating, “*Just Transition is also about healing communities, land, water, air.*” These perspectives highlight the importance of unity, cultural respect, and sustainable development in shaping the Navajo Nation’s energy future.

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