

# Tax and Jobs Analysis of San Juan Generating Station Closure

**Dr. Kelly O'Donnell**  
O'Donnell Economics and Strategy  
New Mexico

January 2019



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## **Executive Summary**

- The San Juan Generating Station (SJGS) in Waterflow, New Mexico, is slated for closure in 2022.
- Closure of the mine and plant will eliminate approximately 450 jobs at the mine/plant complex.
- Retirement of the plant will also remove two substantial assets from the San Juan County property tax rolls, decreasing revenue for local jurisdictions including the County, San Juan Community College, and the Central Consolidated School District.
- The transition away from coal will be difficult for area residents who depend on the mine/plant complex for their livelihoods, and for the local institutions that depend on property tax revenue from the sites. However, sensible redevelopment of the site can mitigate much of the economic damage and support a diverse and sustainable Four Corners economy.
- With its proximity to interstate transmission and extensive infrastructure, the SJGS site is an ideal location from which to generate both replacement power for current customers and clean power for export.
- Economic modeling indicates that a 450 megawatt solar photovoltaic plant at or near the site could replace all lost property tax revenue, support thousands of jobs over two or more years of construction, and generate more than \$67 million in additional tax revenue for state and local governments.
- A number of statutory and regulatory steps can be taken to help realize the myriad potential benefits of productive redevelopment at SJGS. These include: requiring renewable generation at the site as part of PNM's cost-recovery plan, increasing the New Mexico renewable portfolio standard (RPS), creating an RPS carve-out for brownfield solar, and extending the New Mexico Renewable Energy Production Tax Credit.

## Introduction

The San Juan Generating Station (SJGS) in Waterflow, New Mexico, is slated for closure in 2022. The coal-fired power plant is being retired well in advance of its original 2053 decommissioning date because coal is no longer cost effective when compared to other generating fuels and technologies. The plant's majority owner, Public Service Company of New Mexico (PNM), estimates that keeping the plant open past 2022 would cost the utility between \$80 million and \$400 million over 20 years, costs that would ultimately be borne by utility ratepayers. PNM plans to replace the electricity produced at SJGS with electricity from other energy sources, including natural gas and solar.<sup>1</sup>

The adjacent San Juan Coal Mine (SJCM) supplies the SJGS with coal. The plant and the mine combined currently employ roughly 450 people. Closure of the plant and the mine will eliminate these jobs and remove two substantial assets from the San Juan County property tax rolls, decreasing revenue for local jurisdictions including the County, San Juan Community College, and the Central Consolidated School District, by an average of 3 percent.

Fiscal impacts of the closures on local governments and communities can be mitigated by redeveloping the site for the large scale production of solar power. Current SJGS customers including PNM and the electric utilities of Farmington and Los Alamos will need replacement generation. Additional capacity at the site could be developed to meet the needs of utility customers in other western states. Economic modeling indicates that a 450 megawatt (MW) solar photovoltaic (PV) plant in Waterflow could replace all lost property tax revenue, support thousands of jobs during construction, and generate more than \$67 million in additional tax revenue for state and local governments.

Further, a utility scale PV installation would put the severely degraded SJCM and SJGS sites back into productive use and would support the Farmington area's Outdoor Recreation Industry Initiative by helping to meet the sustainability needs of outdoor recreation companies and fostering a green ethos valued by guides, outfitters and recreation gear manufacturers.

## Tax Implications of Abandonment

PNM intends to retire its 497 MW share of the 857 MW generating station by 2022. The mine-plant complex lies within the boundaries of three major property taxing jurisdictions – San Juan County, San Juan Community College, and the Central Consolidated School District. Closure of the plant and mine will remove two substantial assets from the San Juan County property tax rolls and decrease revenue for these beneficiaries.

Under New Mexico law, the taxable value of a property is equal to one-third of its assessed value.<sup>2</sup> Early in 2018, the San Juan County assessor estimated the taxable values of the generating station and mine at \$349.4 million and \$25.2 million respectively, for a combined taxable value of \$374.6 million.<sup>3</sup>

San Juan County's total combined property tax rate is \$24.28 per \$1,000 taxable value.<sup>4</sup> The jurisdictions impacted by the closure, their respective 2018 mil levies, and their approximate property tax revenue from the mine and plant are shown in Table 1.

San Juan County receives 4.1 percent of its property tax revenue and 3.2 percent of its total operating revenue from the coal mine and the power plant (Table 2). The CCSD receives \$3.5 million in annual revenue from property taxes on the mine/plant complex. The plant and mine contribute 49 percent of CCSD's total property tax revenue and 4.1 percent of its overall annual revenue. It is worth noting that only 5 percent

of CCSD property tax revenue is used for operational purposes. The remainder funds capital improvements and debt service. CCSD has roughly \$37 million in outstanding bonds and makes debt service payments totaling several million dollars annually.<sup>5</sup> The plant and mine account for 2.6 percent of San Juan College's revenue (Table 2).

**TABLE 1**  
**2018 Mil Levies and Property Tax Revenue from SJGS and SJCM**

	Mils*	Revenue
<b>State Debt Service</b>	<b>1.36</b>	<b>\$509,473</b>
County Operational	8	\$2,996,901
County Water Reserve Fund	0.5	\$187,306
<b>Total County</b>	<b>8.5</b>	<b>\$3,184,207</b>
Central Consolidated Schools (CCSD) Operational	0.5	\$187,306
CCSD Debt Service	6.816	\$2,553,360
CCSD Capital Improvement	2	\$749,225
<b>Total School District</b>	<b>9.316</b>	<b>\$3,489,891</b>
San Juan Community College	4.5	\$1,685,757
San Juan Community College Debt	0.6	\$224,768
<b>Total San Juan Community College</b>	<b>5.1</b>	<b>\$1,910,524</b>
<b>GRAND TOTAL</b>		
<b>GRAND TOTAL</b>	<b>24.276</b>	<b>\$9,094,096</b>

\*Dollars per thousand taxable value.

Source: 2018 San Juan County Property Tax Certificate and San Juan County Assessor

**TABLE 2**  
**Property Tax Revenue from San Juan Generating Station and Mine as a Percent of Annual Property Tax and Total Revenue by Jurisdiction**

Jurisdiction	PT Revenue from SJGS & SJCM	Total PT Revenue	SJGS & SJM % of Total PT Revenue	Total Revenue (all sources)	SJGS & SJM % Total Revenue
San Juan County	\$3,184,207	\$78,265,875	4.1%	\$100,059,388	3.2%
Central Consolidated School District	\$3,489,891	\$7,193,326	49%	\$85,838,167	4.1%
San Juan Community College	\$1,910,524	\$16,672,146	11%	\$72,405,837	2.6%

Sources: 2018 San Juan County Property Tax Certificate and 2017 Comprehensive Annual Financial Reports for SFY 2017 filed with the New Mexico State Auditor by San Juan County, San Juan Community College, and the Central Consolidated School District, all retrieved from [https://www.saonm.org/audit\\_reports/search](https://www.saonm.org/audit_reports/search)

## Redevelopment

San Juan Mine is located on almost 18,000 acres, a land area sufficient to support well over 2,000 MW of solar PV capacity.<sup>6</sup> Development of a 450 MW solar PV plant at the site would replace the property tax base lost due to closure of the plant-mine complex. Additionally, construction of the solar plant, which would likely take two or more years, would generate substantial gross receipts tax revenue and support over twice as many jobs as were lost at the plant and mine.

PNM is the majority owner and operator of SJGS. The generating station is the utility's single largest generation asset, providing electricity for 500,000 utility customers in New Mexico. The municipal utilities of Farmington and Los Alamos also have ownership shares of SJGS, as does Tri-State Generation and Transmission, which provides power to members of New Mexico's rural electric cooperatives. Replacement generation will be needed to serve these customers once SJGS is retired.

Power generated at SJGS is also exported. Prior to the 2015 state-mandated divestiture from coal, a number of California utilities had ownership stakes in SJGS. Arizona's Tucson Electric Power (TEP) currently owns 20.1 percent of SJGS.<sup>7</sup> With its proximity to interstate transmission and extensive infrastructure, the SJGS site is an ideal location to generate both replacement power for current customers and clean power for export.

Redevelopment of the site for solar power generation also furthers the region's long-term economic development strategy. Farmington's Outdoor Recreation Industry Initiative (ORII) was established to attract and foster outdoor industry businesses including guides, outfitters, and gear manufacturers. Outdoor recreation businesses tend to be environmentally conscious. Access to clean power may therefore be a valuable inducement for recreation companies to locate or expand in the Farmington area.

San Juan County's rivers are recreational and tourism assets key to the ORII. Generating electricity from coal (and other fossil fuels) is both water intensive and a threat to water quality. The San Juan Generating Station draws water from the nearby San Juan River and consumes several billion gallons of clean water annually. Solar PV, in contrast, uses only nominal amounts of water.

The plant and mine sites will require substantial remediation. Even with remediation, options for productive reuse of abandoned coal sites are extremely limited. Renewable power generation is one of the few beneficial uses for the severely degraded coal properties. Utilities in other states have successfully transformed decommissioned coal sites and other brownfields<sup>8</sup> into utility-scale solar PV plants.<sup>9</sup>

## Abandonment Legislation

Legislation proposed during the 2018 state legislative session and likely to be reconsidered in the 2019 session would establish a mechanism for PNM to recoup at least some of its stranded costs and help to mitigate the negative impact of SJGS abandonment on the Four Corners regional economy, property tax beneficiaries, and PNM ratepayers.<sup>10</sup> Under the terms of one proposal, PNM would develop replacement energy sources, subject to property tax, within the boundaries of

**"As a whole, renewable energy creates more jobs per unit of installed capacity, per unit of power produced, and per dollar invested than the fossil fuel energy sector."**

—Kammen, D.M., Kapadia, K., and Fripp, M (2004) *Putting Renewables to Work: How Many Jobs Can the Clean Energy Industry Generate?* Rael Report, University of California, Berkeley.

the CCSD. In addition, PNM would be required to obtain at least 40 percent of its power from renewable sources by 2025 and 50 percent by 2030. The plant/mine complex would be prioritized as a site for the renewable generation needed to comply with the enhanced renewable energy requirements.

PNM has indicated an interest in developing replacement natural gas powered generation at the SJGS site, but that generation is not likely to be on a scale sufficient to replace the more than \$1 billion in property tax base lost due to closure of the plant and mine. In order to replace the full \$375 million taxable value of the mine/plant complex with renewable generation it may be necessary to attract a developer interested in generating power for export to California and/or other western states.

### SOLAR JOBS FOR DISPLACED COAL WORKERS

PV generation at SJGS can create employment opportunities for laid off coal workers. A 2016 analysis found that a relatively small investment in retraining would allow the vast majority of U.S. coal workers to switch to PV-related positions. The study's authors identified significant overlap in the skill sets and salaries of various positions in the coal and PV industries. This overlap may make it possible to retrain coal workers for solar industry jobs quickly and efficiently.

Source: Louie, Edward & Pearce, Joshua. (2016). Retraining Investment for U.S. Transition from Coal to Solar Photovoltaic Employment. Energy Economics. 57. 10.1016/j.eneco.2016.05.016.

## Economic and Tax Impacts of Utility-Scale PV Redevelopment

Redevelopment of the plant and/or mine sites for energy generation would generate jobs, income, and tax revenue for the surrounding communities. Although generating power from solar PV is less labor intensive than producing power from coal, utility scale PV projects support thousands of jobs during their multi-year construction phases. Plant operations support an average of one full-time on-site job per 8 MW of installed generating capacity.<sup>11</sup>

## Methodology

The National Renewable Energy Laboratory's (NREL) Jobs and Economic Development Impact (JEDI) model was used to estimate the economic impacts of a 450 MW PV development in Waterflow.<sup>12</sup> JEDI is a set of input-output (I-O) models<sup>13</sup> that estimate the economic impact of different types of energy development based on specific sets of user-supplied project parameters and modeling inputs.<sup>14</sup> The PV JEDI model was updated for this analysis with cost data from the 2017 NREL U.S. Solar Photovoltaic System Cost Benchmark<sup>15</sup> and New Mexico cost share data. The impact estimate assumes that construction of the PV plant commences in 2022. Construction cost estimates are based on 2016 and 2017 actuals reported by the U.S. Energy Information Administration and the NREL respectively, adjusted downward to reflect recent dramatic declines in the global price of PV modules.<sup>16</sup>

Modules are the costliest components of PV installations. The prices of PV cells and modules have declined markedly in recent years, but their price in 2022 is highly uncertain. Global price competition, global demand, the 30 percent federal tariff on imported PV cells and modules implemented in February 2018, steel and aluminum import tariffs, the pace of efficiency gains, and inflation will all impact PV prices in ways that are difficult to predict. For purposes of this analysis we

therefore assume that construction costs (per MW nameplate capacity) for utility scale PV capacity remain fixed at their estimated 2018 levels.

Economic impacts are expressed in jobs and income created during the construction and operations phases of the project. They include direct, indirect, and induced impacts. In an I-O model, the initial economic change is called the “direct” effect. As the initial change travels outward through the regional economy it produces “indirect” and “induced” effects.

- **Direct effects** are the jobs, income, and economic activity directly related to project development and on-site labor. They include the purchase of materials and equipment to construct and operate the facility and the jobs created in project development, construction, operations, and maintenance.
- **Indirect (supply chain) effects** are the jobs, income, and output produced by supply chain businesses as a result of the energy project.
- **Induced effects** are created when employers and owners of the generation project and its

local suppliers spend their additional income in the local economy.

## Results

Solar has been shown to create more jobs per unit of power produced than any other electric generating technology.<sup>17</sup> JEDI modeling indicates that construction of a 450 MW one axis tracking PV plant would support 2,217 direct jobs and a total of 3,775 jobs throughout the regional economy. Direct construction-phase jobs include project development, on-site labor, and other installation-related on-site services. The construction phase would also support jobs in supply chain businesses and in local businesses that cater to construction and supply chain employees (Table 4).

Table 3 shows the 2017 entry and average wages for the types of jobs created during the construction of a utility scale solar PV project. Data are for San Juan County, unless otherwise noted.

**TABLE 3**  
**2017 Farmington MSA Construction-Phase Annual Average and Entry Wages**

Job	Entry Wages	Average Wages
Civil Engineers	\$45,600	\$95,450
Coating, painting, and spraying machine setters, operators, and tenders	\$21,760*	\$30,050*
Computer-controlled machine tool operators, metal and plastic	\$24,520*	\$35,750*
Construction laborers	\$24,170	\$30,680
Construction managers	\$71,170	\$102,820
Electrical and electronic equipment assemblers	\$22,040*	\$35,060*
Environmental scientists and specialists, including health	\$47,600	\$74,300
Glaziers	\$24,730*	\$37,200*
Industrial production managers	\$72,370	\$107,990
Operating engineers and other construction equipment operators	\$40,030	\$56,450
Real estate brokers	\$36,060*	\$75,170*
Structural iron and steel workers	\$35,330	\$44,050
Welders, cutters, solderers, and brazers	\$52,580	\$62,290

\*New Mexico statewide data

Source: New Mexico Department of Workforce Solutions. Retrieved from: <https://www.dws.state.nm.us/Labor-Market-Information/Data-Statistics-Dashboards/Occupations-Wages>

Fifty-seven permanent employees would be needed to operate and maintain the completed solar installation. Permanent operations-phase jobs at a PV plant include power plant operators, electricians, and maintenance workers. Businesses that supply goods and services to the plant would employ an additional 37 workers during the plant's operational phase. Spending by these workers and employees would stimulate the creation of 25 more jobs by local businesses. In all, the local economy would gain 119 jobs as a result of power plant operations (Table 4).

## Tax Impacts

Development of a 450 MW PV plant in Waterflow would generate more than \$68 million in non-recurring revenue and \$9 million in annual recurring revenue for state and local government. Direct tax revenue, which would total \$59.3 million for the construction phase and \$8.7 million annually thereafter, includes gross receipts and compensating taxes on construction of the plant and property taxes during plant operations. Indirect revenue includes gross receipts, personal income, and property taxes paid by plant employees, supply chain businesses, and supply chain employees. Local governments will receive 22 percent of construction phase revenue and 92 percent of operations phase revenue (Table 5).

**TABLE 4**  
**Regional Economic Impacts 450 MW PV Plant (2022)**

	Jobs	Earnings (\$ millions)
<b>Construction and Installation Period</b>		
Project Development and On-site Labor Impacts	2,217	\$140.0
Supply Chain Impacts	1,051	\$61.4
Induced Impacts	507	\$23.5
<b>Total Construction Phase Impacts</b>	<b>3,775</b>	<b>\$224.9</b>
<b>Operating Years</b>		
On-site Labor Impacts	57	\$4.0
Supply Chain Impacts	37	\$1.9
Induced Impacts	25	\$1.1
<b>Annual Operations Phase Impacts</b>	<b>119</b>	<b>\$7.1</b>

Source: National Renewable Energy Laboratory JEDI model <https://www.nrel.gov/analysis/jedi/models.html>

**TABLE 5**  
**PV Plant State and Local Fiscal Impacts (\$ millions)**

	State	Local	Total
Construction phase (non-recurring)	\$52.9	\$15.0	\$67.9
Direct	\$48.4	\$10.9	\$59.3
Indirect & Induced	\$4.5	\$4.1	\$8.7
Operations (recurring)	\$0.6	\$8.3	\$9.0
Direct	\$0.5	\$8.2	\$8.7
Indirect & Induced	\$0.2	\$0.1	\$0.3

Source: National Renewable Energy Laboratory JEDI model <https://www.nrel.gov/analysis/jedi/models.html>

## Direct Tax Impacts

Although the JEDI model includes a tax component, it does not contain enough New Mexico-specific detail to produce accurate fiscal impact estimates at the local level. Instead, estimates of direct gross receipts and property tax impacts were based on 2018 property and gross receipts tax rates for San Juan County and the affected sub-jurisdictions.

## Gross Receipts Taxes on Construction

New Mexico's gross receipts tax (GRT) is levied on the value of construction services. In addition to the state base of 5.125 percent, San Juan County levies a county local option of 1.4375 percent on transactions occurring in the unincorporated areas. Equipment imported from outside New Mexico is subject to the state compensating tax in lieu of the GRT. Local options are not applied to the compensating tax, therefore, all the revenue from taxation of equipment purchased outside New Mexico is assumed to accrue to the state (Table 6).

Mechanical equipment purchased out-of-state is assumed to account for 45 percent of base plant capital costs. Estimate assumes a cost of 3.2 million per MW capacity in 2022.

## Property Taxes on New Generation Assets

The value of the new generation facilities will be subject to property tax by San Juan County, the CCSD, and SJCC, among others. The generating facility modeled in this report would have an assessed value almost equivalent to that of the plant/mine complex and would thus generate nearly equivalent revenue for the various taxing jurisdictions (Table 7).

## Indirect and Induced Tax Impacts

Indirect and induced state and local tax impacts will total roughly \$8.7 million during the construction phase and \$300,000 annually thereafter. Indirect and induced taxes include gross receipts, personal income, and property taxes paid by supply chain businesses, construction-phase employees, operations-phase employees, and employees of supply chain businesses.

## Policy Implications

A large-scale PV installation at or near the mine/plant complex would soften the impact of SJGS retirement on surrounding communities. A number of statutory and regulatory steps can be taken to help realize the myriad potential benefits

**TABLE 6**  
**450 MW PV Plant Construction Phase Gross Receipts Tax Impacts**

Construction Cost	State GRT & Comp. Tax	County GRT
\$797.8 million	\$40.9 million	\$4.1 million

Source: 2018 San Juan County Gross Receipts Tax Enactment Table & Author Calculations

**TABLE 7**  
**450 MW PV Plant Property Tax Impacts**

Assessed Value	Taxable Value	Annual Property Tax Revenue		
		SJC	CCSD	SJCC
\$1.08 billion	\$356.4 million	\$3.03 million	\$3.32 million	\$1.82 million

Source: 2018 San Juan County Property Tax Certificate & Author Calculations

of productive redevelopment at SJGS. The strong revenue outlook for both the state general fund and the severance tax bonding fund makes 2019 a good time to fund incentives and/or capital projects that support redevelopment efforts.

## Incentives

Incentives can be a key determinant of PV project feasibility. New Mexico has a number of state tax incentives for renewable energy development. Most of these incentives, however, apply only to activities initiated before 2018, and some are subject to aggregate spending caps. In order for these incentives to support solar redevelopment at SJGS, state statute would have to be amended.

The New Mexico Renewable Energy Production Tax Credit (REPTC) (7-2-18.18 NMSA 1978) is a credit against New Mexico income tax that is available to companies that produce electricity from renewable resources for commercial sale. The credit, which is a function of the kWh of power produced, acts as a price subsidy during the first ten years of power plant operations. To qualify for the current New Mexico REPTC, electricity production must have begun before January 1, 2018. In addition, credit amounts are subject to an aggregate cap that may need to be adjusted in order for an SJGS redevelopment project to qualify.

One of the many advantages of redeveloping the SJGS site for solar An alternative to extending and expanding the current REPTC would be the establishment of a new production tax credit specifically targeting solar projects on former industrial sites.

The Advanced Energy Credit (7-2-18.18 NMSA 1978) provides owners of renewable generating facilities a credit against a number of state taxes, including GRT. The credit is equal to 6 percent of the costs of facility design and construction. To qualify for the credit under current law, the generating facility must have begun construction before December 31, 2015. A parallel incentive,

the Advanced Energy GRT And Compensating Tax Deduction (7-9-114 NMSA 1978), makes receipts from selling or leasing tangible personal property or services to the owners of renewable generating facilities deductible from GRT or comp tax if construction of the facility began before December 2015.

Tax incentives specifically targeting brownfield redevelopment could support productive reuse of the SJGS site. Colorado is one of a number of states that offer income tax credits for brownfield redevelopment.<sup>18</sup>

Creation of a tax increment district (TIDD) pursuant to New Mexico's Tax Increment for Development Act (5-15-1 NMSA 1978) would enable some of the property and gross receipts tax revenue generated by the redevelopment project to be directly re-invested in the project. Connecticut is a state using tax increment financing to incentivize renewable generation on brownfield sites.<sup>19</sup>

It is important to note that many commonly used incentives, including Industrial Revenue Bonds (IRBs) and some state-level solar tax breaks, may entail large tax abatements which could reduce gross receipts and/or property tax revenues to local government and jurisdictions. For example, reinstatement of New Mexico alternative energy credits would diminish GRT revenue from the project and IRBs could exempt the site from property tax entirely.

## Abandonment Legislation

Provisions of legislation governing the terms of SJGS abandonment by PNM could also facilitate solar redevelopment at the site. Requiring that PNM obtain part of the power needed to meet an enhanced RPS from solar produced at the site would encourage PNM to either develop solar PV capacity at the site or enter into an agreement to purchase the power from a third party developer.

The CCSD's debt service obligations are significant. It is recommended that provisions be made to offset property tax losses incurred during the development period of the new generation facilities if that development period extends beyond the closure date for SJGS.

## Renewable Portfolio Standard

Adoption of renewable portfolio standards (RPS) by states has been the major driver of solar capacity additions nationwide.<sup>20</sup> A RPS requires electric utilities to supply a specified minimum percentage of customer demand with electricity from renewable sources. New Mexico's current RPS (62-16-1 et seq. NMSA 1978), authorized in 2004, requires that investor owned utilities obtain 20 percent of their power from renewables by 2020. The New Mexico RPS further requires that solar constitute no less than 20 percent of a utility's renewable energy portfolio.<sup>21</sup> Some states, including Massachusetts and Illinois, have additional set asides within their RPS for utility-scale brownfield solar projects. Massachusetts' RPS, for example, values solar generation occurring on eligible brownfields more highly than output from greenfield or commercial rooftops.<sup>22</sup>

Increasing New Mexico's RPS and/or the percentage requirement for solar and/or establishing a brownfield solar set aside are always the RPS could be used to incentivize PV redevelopment at SJGS.

## Conclusion

Redevelopment of the SJGS and SJCM sites for large scale PV power generation would be a monumental step in San Juan County's just and orderly transition away from coal. Although the transition will not be easy for people who depend on the mine and plant for their livelihoods, or for the institutions that depend on tax revenue from the sites, sensible redevelopment of the mine-plant complex can mitigate much of the economic damage and support a diverse and sustainable Four Corners economy.

**"Combining energy incentives with contaminated land cleanup incentives can allow investors and communities to create economically viable, nonpolluting, renewable energy redevelopment projects on brownfields, particularly sites where local economic conditions prohibit more conventional reuse of the site."**

Source: [https://www.epa.gov/sites/production/files/2017-06/documents/final\\_2017\\_bf\\_fed\\_guide\\_5-8-17.pdf](https://www.epa.gov/sites/production/files/2017-06/documents/final_2017_bf_fed_guide_5-8-17.pdf)

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7. TEP has indicated that it will retire its share of SJGS in 2022 and site replacement generation closer to its load centers in Arizona.
8. The term "brownfield" refers to a previously developed site that is currently standing idle. Reasons for disuse of brownfields may include concerns about lasting pollution from previous industrial uses.
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13. I-O analysis is based on the premise that regional economies are composed of interconnected households, industries, and institutions. These sectors purchase output from each other and supply inputs to each other in a complex web of interdependencies. A significant change to one sector will therefore impact the many other sectors to which it is connected.
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## About

**Dr. Kelly O'Donnell** is an economist, senior research fellow, and research professor at the University of New Mexico School of Public Administration. She has more than 20 years of experience in New Mexico public policy and has consulted with a broad range of public and private sector clients on innovative approaches to sustainable economic development. Her research specialties include economic impact analyses, fiscal policy, and program evaluation. Prior to academia, Dr. O'Donnell held a series of leadership roles in New Mexico state government including Director of State Tax Policy, Deputy Cabinet Secretary for Economic Development, and Superintendent of the New Mexico Regulation and Licensing Department. She holds a PhD in Economics from the University of New Mexico.

**New Mexico Voices for Children** was founded in 1987 by pediatricians who wanted to address the social determinants of the health of their patients. To do that, they needed to change the state policies that allowed those conditions to exist and grow.

We are a nonpartisan, statewide advocacy organization working toward a future where all New Mexico children and families have equitable opportunities to thrive and achieve their full potential. We champion public policies that improve the status and well-being of New Mexico's children, families, and communities in the areas of health, education, and economic security.

Because we believe in evidence-based advocacy, we conduct rigorous research and data analysis. We use that information to educate policymakers and the public about the problems New Mexico's vulnerable children and families face, and the possible solutions. We often work in coalition with ally organizations that bring different strengths and strategies to the table. We also work with national partners, highlighting their data and research findings, and helping to make those findings relevant for New Mexicans.



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**New Mexico Voices for Children**  
625 Silver Ave. SW Suite 195  
Albuquerque NM 87102  
505-244-9505

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