



# **Economic & Fiscal Impact Study of the Lava Run Wind Project**

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## Executive Summary

### Project Overview

CG Apache County Wind LLC (“ConnectGen”), a wholly owned subsidiary of ConnectGen LLC, is proposing to construct and operate the Lava Run Wind Project (“Project”), a 500-megawatt (MW) wind energy project under development in Apache County, AZ. Once constructed, the Project would generate enough electricity to power over 90,000 Arizona homes.

The Project is located approximately 15 miles west of the Springerville Generating Station, 5 miles northwest of Springerville and Eager, 15 miles south of St. Johns, and immediately north and south of US Highway 60. Located entirely on State-owned land actively managed for cattle grazing, the Project is expected to have a permanent footprint of approximately 400 acres, or about 1 percent of the proposed Project area. Given its minimal footprint, the Project would allow existing grazing operations to continue.

The Project is expected to be constructed in two phases: a 300-MW Phase I and a 200-MW Phase II. Construction is expected to occur in back-to-back calendar years, lasting up to 24 months, and requiring 100 full-time equivalent workers on average and 190 workers during peak construction. Once operational, the Project would require up to 15 full-time employees throughout its minimum 35-year useful life. Once the project reaches the end of its operational life, the decommissioning of existing facilities would take up to approximately 18 to 24 months. All above ground Project infrastructure would be dismantled and removed while below ground infrastructure would be removed to a depth of three feet below grade. The site would be restored to be consistent with the area’s ecological setting and land use practices.

The Project represents a total capital expenditure (“CapEx”) of approximately \$970.5 million and is expected to bring substantial economic benefits to Apache County.

Table 1. Lava Run Wind Project Description

| Project Period              | Value         | Unit      |
|-----------------------------|---------------|-----------|
| Nameplate Capacity          | 500           | MW        |
| <u>Construction Period</u>  |               |           |
| Timeline                    | 24            | Months    |
| Total Direct Job Years      | 200           | Job Years |
| Average Annual Compensation | \$86,991      |           |
| Per Diem (80% of Employees) | \$200         |           |
| CapEx <sup>1</sup>          | \$970,475,208 |           |
| <u>Operations Period</u>    |               |           |
| Timeline                    | 35            | Years     |
| Total Direct Job Years      | 525           | Job Years |
| Average Annual Compensation | \$119,418     |           |

Table 1 shows general project information, including the nameplate capacity, the length and direct employment for the Construction and Operations Periods, and the estimated CapEx.

<sup>1</sup> The CapEx has been estimated by ConnectGen based on internal project assumptions and balance of plant estimates provided by third-party contractors.

## Key Findings

### 1. Substantial short- and long-term economic activity, jobs, and compensation in Apache County

Project construction is estimated to generate an average of 100 jobs for 24 months (or 200 job years) with a total compensation of nearly \$29 million. Project operations will generate 15 long-term, well-paying jobs (or 525 job years) with a total payroll of over \$62.6 million over 35 years.

Table 2. Direct Employment & Compensation

| Project Period        | Employment<br>(Job Years) | Employee<br>Compensation | Economic Output<br>(Rounded) |
|-----------------------|---------------------------|--------------------------|------------------------------|
| Construction          | 200                       | \$28,912,341             | \$29,004,709                 |
| Operations (Annual)   | 15                        | \$1,791,270              | \$1,930,034                  |
| Operations (Lifetime) | 525                       | \$62,694,450             | \$67,551,198                 |

*Direct employment and employee compensation estimates based on assumed project needs. Economic output estimates come from the JEDI model.*

### 2. Initial infusion of \$373,000 in sales tax revenue and ongoing contribution of \$30.9 million over 35 years in property tax revenue to fund Apache County schools and critical infrastructure

The Project is expected to generate over \$4.5 million in one-time sales tax revenue on construction materials and fixture purchases, approximately \$373,000 of which will be paid directly to Apache County during the construction period. In addition to this initial infusion, the Project is expected to pay the County an average of \$916,000 in property tax revenues for a total of approximately \$32 million over its 35-year life.

| County Revenues               | One-Time  | Ongoing Revenues |               | Lifetime            |
|-------------------------------|-----------|------------------|---------------|---------------------|
|                               |           | Annual Avg.      | Over 35 Years |                     |
| Local Sales Taxes             | \$373,176 | -                | -             | \$373,176           |
| Property Tax                  | -         | \$915,945        | \$32,058,092  | \$32,058,092        |
| <b>Total Lifetime Revenue</b> |           |                  |               | <b>\$32,431,268</b> |

*Tax revenue estimates based on the CapEx and a 2021 Arizona tax memorandum by Perkins Coie LLP.*

### 3. State land rent payments of \$75.2 million over 39 years to fund Arizona's schools

The Project will lease approximately 2,959 acres of ASLD land, paying approximately \$542,000 in rent throughout a 4-year development period and an additional \$74.3 million over a 35-year operations period. The estimated rent payments total \$75.2 million over 39 years and will fund public education in Arizona.

| Project Period             | Period Length<br>(Years) | Rent Payments |                     |
|----------------------------|--------------------------|---------------|---------------------|
|                            |                          | Annual Avg.   | Cumulative          |
| Development & Construction | 4                        | \$135,591     | \$542,365           |
| Operations                 | 35                       | \$2,147,309   | \$75,155,800        |
| <b>Total Lifetime Rent</b> | <b>39</b>                | <b>-</b>      | <b>\$75,698,165</b> |

*Rent payments estimates based on recent property transactions and preliminary conversations with the ASLD.*

## State and Local Context

The Lava Run Wind Project is located in Apache County, Arizona. An opportunity zone, the County consists of non-metropolitan, low-income communities and totals 65,432 in population,<sup>1</sup> including residents of four surrounding tribal nations: the Hopi Tribe, Navajo Nation, Zuni Pueblo, and the White Mountain Apache Tribe.<sup>2</sup>

Phoenix is the closest metropolitan statistical area, about 217 miles (3 hours and 45 minutes) away. This distance explains why the region is dependent upon the local rural economic base, heavily supported by the coal industry.



### Coal-Related Economic Impacts

For the past few decades, three coal-fired power plants within and near Apache County – the Cholla Power Plant (Navajo County), the Coronado Generating Station (Apache County), and the Springerville Generating Station (Apache County) – have driven much of the area’s economic activity. However, in recent years, these plants have either announced or begun their retirement. The Cholla plant will retire by 2025, the Coronado plant will begin seasonal operations in 2025 and retire by 2032, and the Springerville plant will retire its first unit in 2027. This trend follows the closure of the Navajo Generating Station (Coconino County) in 2019, which previously supported the Kayenta Mine on nearby Navajo and Hopi lands.<sup>3</sup>

In a 2022 study by the Seidman Research Institute, the Coronado and Springerville plants reported directly employing 183 and 380 workers, respectively, with approximately 58 and 76 percent of them residing in Apache County.<sup>4</sup> These numbers include both part- and full-time workers, earning an estimated average wage of \$70,062, almost twice the County’s median household income. The total employment supported by the local coal industry range between 2,200 and 4,300 jobs across all sectors, and the total income impacts range between \$215 and \$365 million.<sup>5</sup> Approximately 50 to 55 percent of these jobs and income impacts remain within Apache County and represent four to eight percent of the local economy.

The Coronado and Springerville plants paid an estimated \$8.4 million and \$14.8 million, respectively, in property taxes to Apache County in 2021.<sup>6</sup> Further, the Coronado plant will contribute on average \$8.7 million in state and local taxes annually from 2022 through its closure in 2032, and the Springerville plant will contribute on average \$15.2 million annually from 2022 through 2040 with a gradual decrease as the plant reduces its operations.

<sup>1</sup> American Community Survey 2022. “[DP05 - Census Bureau Tables](#).”

<sup>2</sup> Arizona State Museum. “[Federally Recognized Native Nations in Arizona](#).”

<sup>3</sup> L. William Seidman Research Institute. “[Estimating the Impacts of Reduced Operations at, and the closure of, Springerville and Coronado Generating Stations](#).” Arizona State University, June 30, 2022.

<sup>4</sup> Ibid.

<sup>5</sup> Highland Economics. “[Regional Economic Assessment & Strategy for Coal-Impacted Navajo and Apache Counties, Arizona](#).” Town of Springerville, Arizona, June 24, 2018.

<sup>6</sup> L. William Seidman Research Institute, “Estimating the Impacts.”

## Demographics

According to the 2022 American Community Survey (ACS), Apache County is the poorest county in Arizona and the among the poorest in the country with 28.1 percent of its residents living in poverty. The U.S. Census Bureau indicates the County's median household income ("MHHI") is \$37,663, which is half of Arizona's MHHI of \$74,568.<sup>7</sup>

## Existing Workforce

According to the 2022 ACS, the top industries in Apache County include (1) educational, healthcare, and social services at 35 percent; (2) construction at 12.2 percent, and (3) public administration at 12 percent.<sup>8</sup> One industry of particular cultural significance for the County is agriculture – including cattle production – standing at 3.2 percent compared to 1.4 percent statewide. Additionally, the transportation, warehousing, and utilities industry – including electric power generation from coal plants – comprised 10.8 percent of the jobs in the County in 2022 and 6.5 percent in 2022.<sup>9</sup> This drop that may be explained in part by the COVID-19 pandemic and by the partial closure of the Cholla plant in 2020.<sup>10</sup>

The County's unemployment rate during the pandemic ranged between 10.4 and 12.6 percent. As of July 2023, Apache County's unemployment rate was 9.5 percent, two-and-a-half times the state and national averages at 4.0 and 3.8 percent, respectively.<sup>11</sup>

## Educational Attainment

Only 14 percent of Apache County residents earn a bachelor's degree or higher compared to the state educational attainment rate of 33 percent.<sup>12</sup> Eager-Springerville reported the highest rate in the County at 24.1 percent with St. Johns following at 17.5 percent; all other County subdivisions reported rates between 4.8 and 11.3 percent.<sup>13</sup>

## Employment & Workforce History

Arizona's workforce development programs are coordinated through the state and local Workforce Investment Boards. This resource network conducts outreach to cities and towns through local county governments or collective groups, such as the Northern Arizona Council of Governments, who represents Northeastern Arizona. This approach enables small rural communities like Apache County to participate in and develop quality workforce development systems not otherwise available due to a lack of resources and funding.

Further, the statewide workforce development network Arizona @ Work promotes business retention and expansion in rural communities by partnering with education organizations, service agencies, and the business community to teach individuals self-sufficiency skills. The

<sup>7</sup> US Census Bureau. "2022 American Community Survey 1-Year Estimates Subject Tables: [S1901 Income in the Past 12 Months \(in 2022 Inflation-Adjusted Dollars\)](#)."

<sup>8</sup> ---. "[Apache County, Arizona - Census Bureau Profile](#)." Accessed October 21, 2023.

<sup>9</sup> Ibid.

<sup>10</sup> Randazzo, Ryan. "[Arizona coal generator to close in 2020, while another given lifeline as decline of plants across West continues](#)." *AZ Central*, January 7, 2023.

<sup>11</sup> US Bureau of Labor Statistics. "[Local Area Unemployment Statistics](#)." Accessed October 26, 2023; "[State Employment and Unemployment Summary](#)." Accessed October 26, 2023.

<sup>12</sup> US Census Bureau. "[Apache County, Arizona - Census Bureau Profile](#)." Accessed October 21, 2023.

<sup>13</sup> ---. "[2021 American Community Survey 5-Year Estimates Subject Tables: S1501 Educational Attainment](#)."

federal grant Workforce Innovation Opportunity Act Grants (formula funds) are administered through these agencies in rural communities, including Apache and Navajo Counties.

Once the Lava Run Wind Project enters the construction period, the County would be able to utilize this existing workforce development infrastructure to ensure many of the construction jobs and all the operations positions created by the Project remain local.

## Economic Impact Analysis

### Methodology

Regional economic impact analysis and Input-Output (“I/O”) models provide a means to estimate total effects stemming from a particular industry or activity, and yield estimates of the number and types of jobs created, the wages associated with those jobs, and the total economic output of “final sales” generated within various industries. I/O models rely on economic “multipliers” that mathematically represent the relationship between the initial change in one sector of the economy and the effect of that change on other interdependent industry sectors, corresponding changes in demand for inputs to those sectors, and so on. These effects are commonly described as “direct,” indirect,” or “induced” and are generally defined as follows:

- The “direct” effect is the initial change in economic activity in a specific industry or sector. For example, economic activities (business revenues, jobs, employee earnings) occurring at the Lava Run Wind Project site would represent the direct impact on the Apache County economy.
- The “indirect” effect results from industry-to-industry transactions required to support the direct activity. This effect is a measure of the change in the output of suppliers linked to the industry that is being evaluated. For example, construction of the new wind project will cause an increase in sales of construction materials, engineering services, and other goods from “business-to-business” suppliers in Apache County and elsewhere. For this analysis, only indirect effects within Apache County are estimated.
- The “induced” effect consists of impacts from employee spending in the regional economy. Specifically, the employees of directly and indirectly affected businesses generate this effect by purchasing goods and services in the regional economy (e.g., food, clothing, automobiles, health care, etc.). For this analysis, only induced effects within Apache County are estimated.
- “Leakages” are dollars associated with the modeled Event that do not continue to circulate through the region’s economy generating additional effects.

The total economic impact is the sum of the direct, indirect, and induced effects, and measures the impact of an activity as it “ripples” through the economy.

### JEDI Wind Model Analysis

This economic impact analysis utilized the U.S. Department of Energy’s Jobs and Economic Development Impact (JEDI) I/O model.<sup>14</sup> Based on the model’s default inputs and project-

<sup>14</sup> NREL. “[JEDI Land Based Wind Model Beta rel. W10.30.20.](#)” Accessed August 2023.

specific inputs, the JEDI model estimates the number of jobs and economic impacts to a local area (state, region, or county) that a power generation project could reasonably support.

First developed by the U.S. Department of Energy, National Renewable Energy Laboratory's (NREL) Wind Powering America initiative to capture wind energy jobs and impacts, the JEDI model has been expanded to biofuels, coal, natural gas, and solar energy. JEDI model defaults are based on interviews with industry experts and project developers. Economic multipliers contained within the model are derived from IMPLAN software and state data files.<sup>15</sup>

Using model defaults, results are reported on a statewide scale for Arizona. However, the JEDI model can be refined on a county, regional, or national basis by incorporating additional data (not included in the base model). Because Apache County's economy has different features than the national and state economies – such as suppliers of different types of Project inputs – and because the interest of this study is to understand the Project's local rather than statewide impacts, Yelton & Associates has incorporated county-specific data for Apache County from IMPLAN to modify statewide JEDI results and generate results applicable specifically to the County's economy. For this wind project analysis, the model has produced quantitative estimates of the magnitude of regional activity resulting from the development and operation of a wind energy project in Apache County and has estimated those impacts within the County.

### Adjustments to JEDI Results

The JEDI model includes several industry standard assumptions that enable users to achieve a rough order-of-magnitude estimate when only a few project parameters are known.

ConnectGen provided Yelton & Associates with project-specific values pertaining to total development costs, number of workers required, and worker compensation. Because Yelton & Associates had access to these project-specific values, these JEDI-provided default values were overwritten with more accurate inputs to generate results that are more tailored to the specifics of the Project. For example, the initial results of the JEDI modeling underestimated the total number of workers during the construction phase and overestimated the total number of workers required for the ongoing operations phase of the Project; these values have been adjusted to present a more accurate estimation of impacts.

### Caveats to Input-Output Modeling

The I/O methodology assumes that demand for goods and services by industries or households increases in direct relation to the increase in income, and that an increase in demand results in a proportional increase in local supply and employment. This implies fixed linear relationships between input (resource) use and output and between income and consumption. However, these relationships tend to vary with the income level and responses to final demand changes are not always likely to occur in direct linear proportions.

Second, I/O models assume that local suppliers have sufficient capacity to respond to changes in final demand by increasing their output and hiring additional workers without shifting any production resources (inputs) from other competing needs. This assumption may not hold in areas with tight labor or capital markets since suppliers may find it difficult to obtain these labor

<sup>15</sup> IMPLAN is an I/O modeling system (software and data) widely used in the U.S. for estimating economic impacts across an array of industries and economic settings. Yelton & Associates used IMPLAN data from 2021, as it was the most up-to-date available.

or material inputs or other resources necessary to expand production. However, a relatively large geographic area with an unemployment rate of approximately 9.5 percent, Apache County does not appear to be constrained by a tight labor market. As such, the model's assumption is not expected to affect the accuracy of the results.

### Economic Impact Results

The Lava Run Wind Project is expected to have significant positive impacts on Apache County's and Arizona's economies. Project benefits include short- and long-term employment opportunities, sales and property tax revenues, state land rent payments, and other indirect and induced benefits. These benefits are quantified below using Project assumptions, including an estimated CapEx prepared by ConnectGen.

### Construction & Operations Employment Opportunities

The Project is expected to have a 24-month construction period and an operations period of at least 35 years. During both periods, the Project will create short- and long-term, well-paying employment opportunities as outlined below.

#### Construction Jobs

**Table 5** summarizes the estimated direct impacts during the Project's construction period. Over a 24-month construction period, onsite activities will support on average 100 full-time equivalent employees across a range of trades, including the following: Site Managers, Heavy Equipment Operators, Crane Operators, Riggers, Ironworkers, Concreter, Linemen, Electricians, HVAC, Wind Turbine Technicians, Truck Drivers, and Laborers. It is important to note that the number of people working on-site will vary throughout the 24 months, peaking at approximately 190.

These workers will earn approximately \$87,000 in annual wages and benefits, totaling approximately \$17.3 million for all employees throughout the construction period. Additionally, construction employees will receive a \$200 per diem, totaling another \$11.6 million. Therefore, total compensation (wages, benefits, and per diem) throughout this period is estimated at \$28.9 million.

Table 5. Total Economic Impacts of Project Construction

| Type of Impact             | Employment<br>(Job Years) | Total Employee<br>Compensation | Value Added         | Economic<br>Output   |
|----------------------------|---------------------------|--------------------------------|---------------------|----------------------|
| <u>Construction Period</u> |                           |                                |                     |                      |
| Direct Impacts             | 200                       | \$28,912,341                   | \$18,675,303        | \$29,004,709         |
| Indirect Impacts           | 1,241                     | \$26,298,122                   | \$54,724,404        | \$159,238,877        |
| Induced Impacts            | 75                        | \$2,459,620                    | \$5,822,449         | \$10,486,601         |
| <b>Total Impacts</b>       | <b>1,517</b>              | <b>\$57,670,083</b>            | <b>\$79,222,155</b> | <b>\$198,730,187</b> |

*Direct value added and economic output, indirect impacts, and induced impacts come from the JEDI model.*

#### Operations Jobs

**Table 6** summarizes the estimated direct impacts during the Project's operations period. Project operations will involve monitoring system status, performance, diagnostics, and planning, as well as preventative and periodic corrective maintenance activities. ConnectGen anticipates that the Project will require 15 full-time employees to manage its ongoing operations, each

earning approximately \$119,000 in annual wages and benefits, resulting in a total annual payroll of approximately \$1.8 million and a total annual economic output of \$1.9 million.

Table 6. Total Economic Impacts of Project Operations

| Type of Impact                      | Employment<br>(Job Years) | Total Employee<br>Compensation | Value Added          | Economic<br>Output   |
|-------------------------------------|---------------------------|--------------------------------|----------------------|----------------------|
| <u>Operations Period (Annual)</u>   |                           |                                |                      |                      |
| Direct Impacts                      | 15                        | \$1,791,270                    | \$1,740,055          | \$1,930,034          |
| Indirect Impacts                    | 23                        | \$995,692                      | \$6,259,002          | \$4,984,548          |
| Induced Impacts                     | 4                         | \$151,993                      | \$622,922            | \$374,334            |
| <b>Total Impacts</b>                | <b>42</b>                 | <b>\$2,938,955</b>             | <b>\$8,621,979</b>   | <b>\$7,288,916</b>   |
| <u>Operations Period (Lifetime)</u> |                           |                                |                      |                      |
| Direct Impacts                      | 525                       | \$62,694,450                   | \$60,901,921         | \$67,551,198         |
| Indirect Impacts                    | 797                       | \$34,849,235                   | \$219,065,083        | \$174,459,184        |
| Induced Impacts                     | 151                       | \$5,319,743                    | \$21,802,283         | \$13,101,686         |
| <b>Total Impacts</b>                | <b>948</b>                | <b>\$102,863,428</b>           | <b>\$301,769,287</b> | <b>\$255,112,069</b> |

*Direct value added and economic output, indirect impacts, and induced impacts come from the JEDI model.*

### *Economic Impacts from Multiplier Effects*

Based on the projected direct spending on labor, materials, and services, the Project is expected to have a ripple effect on the economic activity in the County by triggering additional rounds of spending. Businesses in the supply chain will respond to meet the Project's demand and constitute the Project's "indirect" effects. Employees' spending on goods and services for their households – groceries, housing, healthcare, education – are also expected in the County, and constitute the Project's "induced" effects. In both cases, additional rounds of spending are captured in the impact estimates, such as, for example, the spending of an equipment rental company owner on maintenance services for her equipment and on groceries for her family. Together, the indirect and induced effects are known as multiplier effects.

### *Indirect Economic Impact*

For both the construction and operations phases, estimated local spending is based on cost estimates for goods and services that are anticipated to be sourced from vendors locally via Apache-specific industry multiplier effects obtained from IMPLAN modeling. Exemplary purchases would include industrial supplies, business and professional services, labor and materials for periodic improvements (e.g., access road maintenance and weed abatement), and similar costs of doing business. Providers of these goods and services are expected to be available in the County and most convenient and cost-effective to serve the Project.

To estimate these indirect economic impacts, Yelton & Associates used an Apache-specific IMPLAN model based on supply chain impacts during the construction period and based on local revenue and supply chain impacts during the operations period. **Table 5** indicates an estimated 1,241 indirect "job years" and an additional \$159.2 million in indirect "supply chain" output during the construction phase. **Table 6** indicates an estimated 23 indirect "job years" and

an additional \$5 million in indirect economic output to occur annually during the operations phase, totaling approximately \$174.5 million over the Project's lifetime.

#### Induced Economic Impact

Induced impacts are based on the conversion of estimated labor incomes into household spending, or the "third round" of economic activity created by the direct impacts and subsequent indirect impacts. Employees of the Project and employees at local businesses indirectly affected by the Project will spend their wages on a variety of goods and services. For example, if an employee at the Project spends her wages on food for her family, part of that spending goes to the retail worker who sells the food, another part goes to the trucker who delivers the food, another to the farmer who grows the food, and another to various intermediaries (processors, wholesalers, transportation companies, etc.). Thus, in aggregate, the spending associated with direct and indirect employees' purchases creates demand for other businesses and helps support other jobs in the County economy.

Using an Apache-specific IMPLAN model, Yelton & Associates estimated the additional economic impacts that generated through the Project's induced effects in the rest of the County. **Tables 5 and 6** show these induced impacts on employment, employee compensation, and economic output during construction and operations, respectively. The induced effects during construction are estimated at 75 "job years" and over \$10.5 million in economic output. Operations are estimated to generate induced impacts of four "job years" and \$374,000 in economic output annually, totaling approximately \$13.1 million over the Project's lifetime.

#### Public Revenue Impact Analysis

In addition to the employment opportunities described above, the Project will benefit Apache County through the generation of new sales and property tax revenues, beginning in 2026, around the same time that the regional coal plants will begin retirement.

#### Sales Tax Revenue

The Project is expected to generate over \$4.5 million in one-time transaction privilege tax (i.e., sales tax) revenues on approximately \$74.6 million of taxable materials and fixture purchases. Of these \$4.5 million, about \$373,000 will be paid directly to Apache County during the construction period, and the rest to Arizona state. These allocations are based on the Arizona and Apache County sales tax rates of 5.6 and 0.5 percent, respectively, for a combined rate of 6.1 percent.

Table 7. Sales Tax: Model Assumptions & Results

| Project Assumptions        |             | Taxable Capital Expenditure |
|----------------------------|-------------|-----------------------------|
| Total CapEx                |             | \$970,475,208               |
| Taxable CapEx <sup>1</sup> |             | \$74,635,191                |
| Sales Tax Assumptions      | Rate        | Revenue                     |
| Arizona                    | 5.6%        | \$4,179,571                 |
| Apache County              | 0.5%        | \$373,176                   |
| <b>Total Sales Tax</b>     | <b>6.1%</b> | <b>\$4,552,747</b>          |

<sup>1</sup> Taxable CapEx excludes certain construction costs per 2021 Arizona tax memorandum by Perkins Coie LLP.

Apache County uses sales taxes to fund several initiatives: general County government operations (e.g., property assessments, tax collection, elections), public safety (jail operations, Sheriff's office services, Flood Control District operations), maintenance of County-jurisdictional roads, and public health needs.

### *Property Tax Revenue*

In addition to this initial infusion of sales tax revenues, the Project will pay the County an average of \$916,000 in property tax revenues for a total of approximately \$30.9 million over its 35-year life. This estimate is based on the specific tax rate for Apache County and for the Round Valley School District 10 at 2.3259 and 3.1542 percent, respectively, for a combined rate of 5.4801 percent. Additional resources used to create the property tax model include an Arizona state tax memorandum prepared by Perkins Coie and the CapEx prepared by ConnectGen. The variables and values included in this model are outlined in **Table 7** below.

**Table 8. Property Tax Model Assumptions**

| Assumptions                           | Value               | Units  |
|---------------------------------------|---------------------|--------|
| <u>Project Assumptions</u>            |                     |        |
| Taxable CapEx <sup>1</sup>            | \$968,548,208       |        |
| <u>Production Tax Credit ("PTC")</u>  |                     |        |
| PTC Period                            | 40                  | Years  |
| Base Price (\$/MWh)                   | 5.28                | \$/MWh |
| Base Year                             | 2022                |        |
| Escalation Rate                       | 2                   | %      |
| Bonus                                 | 5                   | #      |
| <u>Property Tax Assumptions</u>       |                     |        |
| Renewable Energy Adjustment Rate      | 20                  | %      |
| Renewable Energy Adjustment End Year  | 2040                |        |
| Assessment Ratio                      | 16                  | %      |
| Depreciable Life                      | 25                  | Years  |
| Depreciable Floor                     | 10                  | %      |
| <u>Property Tax Rates<sup>2</sup></u> |                     |        |
| Apache County                         | 2.3259              | %      |
| Round Valley School District 10       | 3.1542              | %      |
| <b>Property Tax Estimate</b>          | <b>\$32,058,092</b> |        |

*Tax credit and property tax assumptions based on 2021 Arizona tax memorandum by Perkins Coie LLP.*

<sup>1</sup> Taxable CapEx excludes about \$3.6 million in network upgrades, considered property of the transmission provider.

<sup>2</sup> Taxing authorities to which the Project is expected to pay property taxes are based on Apache County Assessor's [EagleWeb](#) tool, and the rates for each are based on Resolution No. 2022-06 Setting FY2022-2023 Tax Levies & Rates.

Despite being sited entirely on state land, the Apache County Assessor's Office will add the value of the installed renewable energy equipment to the local tax roll under a special account number. Once on the tax roll, the property tax dollars generated by the wind facilities will be collected by the County Treasurer's Office and dispersed to the local taxing authorities, as was confirmed by the Arizona Department of Revenue.

Based on the Apache County Resolution No. 2022-06 Setting FY2022-2023 Tax Levies & Rates, this revenue will be used to fund schools, public health and safety, and other critical infrastructure and services within Apache County. **Figure 1** provides an overview of how the estimated \$32 million in property tax revenue may be distributed across these broad categories, later broken down into each individual taxing authority in **Table 9**.

Figure 1. Project Property Taxes Over 35 Years, Allocated Within Apache County (Simplified)

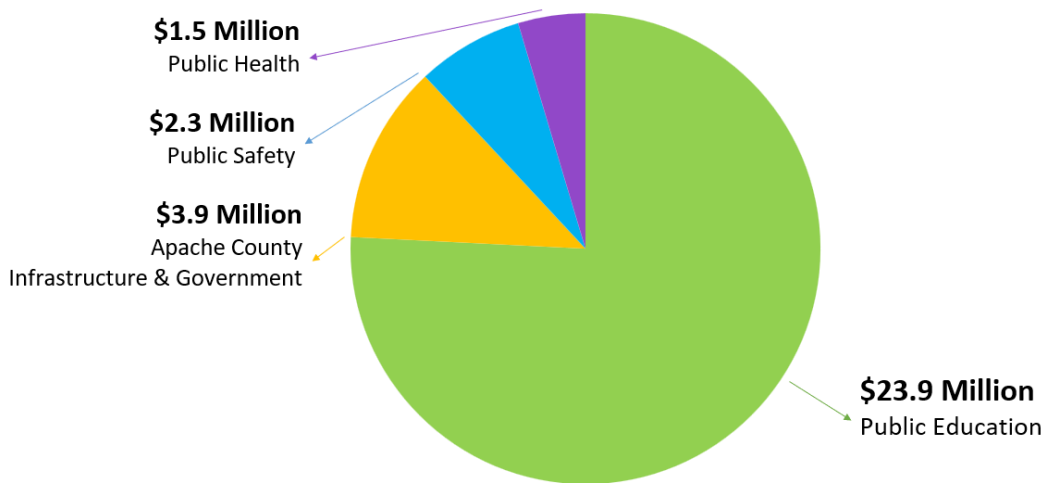


Table 9. Project Property Taxes Over 35 Years, Allocated Within Apache County (Detailed)

| Local Taxing Authority                     | Tax Rate<br>(2023 Fiscal Year) | Dollar Amount       |
|--|--------------------------------|---------------------|
| <u>Apache County</u>                       |                                |                     |
| Primary                                    |                                |                     |
| County                                     | 0.6614%                        | \$3,869,130         |
| State School Equalization (State Mandated) | -                              | -                   |
| Secondary                                  |                                |                     |
| General Fund Override                      | -                              | -                   |
| Library District                           | 0.3096%                        | \$1,811,132         |
| Public Health District                     | 0.2500%                        | \$1,462,478         |
| Jail District                              | 0.2000%                        | \$1,169,982         |
| Juvenile Jail District                     | 0.1000%                        | \$584,991           |
| Jr. College Tuition                        | 0.4750%                        | \$2,778,707         |
| Post Secondary Education                   | 0.1500%                        | \$877,487           |
| Flood Control                              | 0.0850%                        | \$497,242           |
| Fire District Assistance                   | 0.0949%                        | \$555,156           |
| <u>Round Valley School District 10</u>     |                                |                     |
| Primary                                    | 2.6014%                        | \$15,217,956        |
| Secondary                                  | 0.3534%                        | \$2,067,358         |
| Class A Bonds                              | -                              | -                   |
| Class B Bonds                              | 0.1994%                        | \$1,166,472         |
| Adjacent Ways                              | -                              | -                   |
| Minimum School Tax                         | -                              | -                   |
|  | <b>5.4801%</b>                 | <b>\$32,058,092</b> |

### Arizona State Land Department Rent Payments

The Project will lease almost 3,000 acres of Arizona State Land Department lands currently managed for cattle grazing. It is estimated to pay \$542,000 throughout its 4-year development period and an additional \$74.6 million over its 35-year operational life. These rent payments will be used to fund K-12 public education and Arizona's three state universities, along with six other beneficiaries related to education, State government, public health, and public safety.<sup>16</sup>

Table 10. Project Land Rent Economic Impact

| Assumptions                | Acreage                  | Land Value<br>(Dollar / acre) | Total Land Value    |
|----------------------------|--------------------------|-------------------------------|---------------------|
| State Land Area            | 2,959                    | \$500                         | \$1,479,505         |
| Project Period             | Period Length<br>(Years) | Rent Payments                 |                     |
|                            |                          | Annual Avg.                   | Cumulative          |
| Development & Construction | 4                        | \$135,591                     | \$542,365           |
| Operations                 | 35                       | \$2,147,309                   | \$75,155,800        |
| <b>Total Lifetime Rent</b> | <b>39</b>                | <b>-</b>                      | <b>\$75,698,165</b> |

*Rent payments estimates based on recent property transactions and preliminary conversations with the ASLD.*

### Additional Industry Impacts

In addition to the direct impacts outlined above, Project construction and operations are expected to have additional impacts across numerous industries, including materials supply, truck transportation, and the purchase of durable goods.

Table 11. Relevant Industry Impacts in Apache County

| Industry  | Impact Output       |                    | Total               |
|---|---------------------|--------------------|---------------------|
|   | Indirect            | Induced            |                     |
| Retail - Building material and supplies stores            | \$25,641,538        | \$435,488          | \$26,077,026        |
| Wholesale - Other durable goods merchant wholesalers      | \$15,188,263        | \$272,536          | \$15,460,799        |
| Truck transportation                                      | \$9,941,961         | \$431,777          | \$10,373,738        |
| Ready-mix concrete manufacturing                          | \$9,420,216         | \$10,737           | \$9,430,953         |
| Wholesale - Machinery, equipment, and supplies            | \$8,576,563         | \$69,514           | \$8,646,077         |
| Commercial and industrial machinery and equipment rentals | \$4,992,513         | \$21,271           | \$5,013,784         |
| Full-service restaurants                                  | \$1,450,325         | \$724,760          | \$2,175,085         |
| Retail - Food and beverage stores                         | \$311,658           | \$1,862,892        | \$2,174,550         |
| Tenant-occupied housing                                   | -                   | \$1,910,587        | \$1,910,587         |
| Retail - General merchandise stores                       | \$420,627           | \$447,443          | \$868,070           |
| <b>Total</b>  | <b>\$75,943,664</b> | <b>\$6,187,005</b> | <b>\$82,130,669</b> |

*IMPLAN calculates these indirect and induced impacts on relevant industries based on the CapEx.*

<sup>16</sup> Arizona State Land Department. "[State Trust Land Beneficiaries](#)." Accessed October 13, 2023.

## Conclusion

This analysis was prepared with careful consideration to measure the direct (e.g., jobs created), indirect (e.g., supply chain purchases), and induced (e.g., employees spending their wages locally) effects to arrive at the total economic impact of the Lava Run Wind Project.

Representing a \$970.5 million capital investment, the Project will have positive impacts on the Apache County economy by expanding job opportunities, broadening the sales and property tax bases in Apache County, and funding Arizona's public education system through state land rent payments.

In addition to these direct impacts and the associated indirect and induced effects, the Project has the ability to come online just in time to mitigate some of the economic losses from the two retiring coal-fired power plants in Apache County. The looming closures of the Coronado and Springerville plants – which are currently major contributors to County revenues – threaten a significant loss of jobs, income, and tax revenue that will only exacerbate an already challenged region. The introduction of alternative energy technologies like the Lava Run Wind Project is critical and timely to sustain Apache County through this transition.