

DOCKETED	
Docket Number:	23-OPT-01
Project Title:	Fountain Wind Project
TN #:	248292-2
Document Title:	Economics Memo
Description:	N/A
Filer:	Caitlin Barns
Organization:	Stantec Consulting Services, Inc.
Submitter Role:	Applicant Consultant
Submission Date:	1/3/2023 1:06:40 PM
Docketed Date:	1/3/2023

TECHNICAL MEMORANDUM

To: Henry Woltag, ConnectGen
From: Teifion Rice-Evans and Luke Foelsch
Subject: Fountain Wind Project Economic and Public Revenue Impact Study; EPS #201094
Date: March 25, 2021

The Economics of Land Use



Fountain Wind, LLC (Applicant) is proposing to construct and operate the Fountain Wind Project (Project), a utility scale wind turbine project with a generating capacity of up to 216 megawatts (MW). The Project is being developed near the existing Hatchet Ridge wind farm in northeastern Shasta County. The Project is designed to have a useful life of up to 35 years. CG Fountain Wind LLC (CG) has retained Economic & Planning Systems, Inc. (EPS) to estimate the potential economic and public impacts of the Fountain Wind Project in Shasta County.

The primary driver of the cost to construct the Project, and therefore the associated potential economic and public impacts, is the number of turbines that would be constructed. While the proposed Project may consist of up to 72 wind turbines, CG is in the process of assessing different turbine technologies which range from 3 to 6.2 MW each and has not made a final turbine selection. Given the range of potential turbine sizes and the overall Project size of 216 MW, the Project could ultimately consist of between 34 and 72 wind turbines. For the purposes of this memorandum a conservative 45-turbine scenario was chosen.

This memorandum is divided into four parts, including a Summary of Key Findings, an Introduction, an explanation of the Economic Impact Analysis Methodology, Economic Impact Analysis and Results, and Public Revenue Impact Analysis and Results.

*Economic & Planning Systems, Inc.
1330 Broadway
Suite 450
Oakland, CA 94612
510 841 9190 tel*

*Oakland
Sacramento
Denver
Los Angeles*

www.epsys.com

Summary of Key Findings

1. The Project is expected to generate substantial one-time construction and ongoing economic activity and associated jobs and worker compensation in Shasta County.

As shown in **Table 1**, in aggregate, Project construction is estimated to generate 450 job-years,¹ about \$27 million in employee compensation, and about \$60 million in total economic output/ sales in Shasta County. Project operation will provide 42 ongoing jobs, about \$2.5 million in employee compensation, and just over \$6 million in economic output/ sales activity each year during its 35-year lifetime. Cumulatively over the 35-year period, Project Operations will provide 1,456 job-years, \$90.4 million in employee compensation, and \$210.3 million in economic output/ sales activity in the County. The total economic impact values described here and displayed in **Table 1** include direct and multiplier (indirect and induced) effects, which are described in more detail in the body of the memorandum.

Table 1. Total Employment, Employee Compensation, and Economic Output Impacts in Shasta County

Project Phase	Employment	Employee Compensation	Economic Output (Rounded)
Construction	450 ¹	\$27,615,632	\$59,605,000
Operations (Annual)	42	\$2,581,811	\$6,009,000
Operations (Lifetime)	1,456 ¹	\$90,363,375	\$210,325,000

*All values shown represent combined Direct, Indirect, and Induced effects.

[1] Job years.

Source: Economic & Planning Systems

¹ A job-year is defined as one year of work for one person. For example, one person holding a job for 12 months equals one job-year, and two people each holding a job for six months would also equal one job-year.

2. The Project could generate substantial tax revenues, including one-time and ongoing tax revenues.

The Project is estimated to generate almost \$65 million in new property tax and local sales tax revenues over the life-time of the Project (2021-dollar terms). As shown in **Table 2**, the County could receive about \$4 million in one-time County sales and use tax revenues from the construction phase. The Project could also generate about \$60 million in property tax revenues over the life of the Project, an average of about \$1.7M annually.

Table 2. Summary of Local Sales Tax Revenues

County Revenues	One-Time ¹	Ongoing Revenues		Lifetime Total (Rounded)
		Annual Avg.	Over 35 Years	
General Property Tax ²	\$0	\$1,719,240	\$60,173,387	\$60,173,387
Local Sales Taxes ³	<u>\$3,900,761</u>	=	=	<u>\$3,900,761</u>
Total Revenue	\$3,900,761	\$1,719,240	\$60,173,387	\$64,074,148

[1] Revenues generated prior to and during the construction period.

[2] Represents total property tax revenues over the life of the project as shown in **Table A-2**. Annual value is average over project lifetime.

[3] Includes one-time sales tax on construction material & fixture purchases.

Source: Economic & Planning Systems

3. \$60M in property tax revenue is estimated to be generated over the lifetime of the Project, accruing to Shasta County, Cities, Special Districts, Redevelopment Property Tax Agencies, the Educational Revenue Augmentation Fund, and Schools.

The Project is expected to generate an average of about \$1.7 million in property taxes each year and a total of \$60.2 million in total over the 35-year period. Under current tax allocation factors, of this total, about \$7.5 million would accrue to the County, \$4 million to Cities, \$3.6M to Special Districts, \$8M to Redevelopment Property Tax, \$9M to the Educational Revenue Augmentation Fund, and \$28 million to Schools.

Introduction

The Fountain Wind Project is a proposed 216-megawatt wind farm in northeastern Shasta County, California. **Table 3** below shows the project parameters relevant to this analysis. For the purposes of this analysis, the project is split into two distinct phases, construction and ongoing operations. The construction phase is anticipated to last 24 months and employ almost 200 individuals on-site during peak construction months. Over the 2-year construction phase the direct on-site employment averages out to 71 full time equivalent (FTE) positions each year, resulting in 142 total “Job Years” over the 2-year construction phase. The operations phase, or total project lifetime, is expected to have a timeline of 35 years. For a 45-turbine project, CG would anticipate direct employment of eight full time employees throughout the project lifetime. The jobs noted here include only the direct, on-site jobs created; the additional Project-related jobs are described further below.

Table 3. Fountain Wind Project Description

Project Phase	Value	Unit	Source
<u>Construction</u>			
Timeline		24 Months	ConnectGen
Total Direct Job Years		142 Job Years	ConnectGen
Average Annual Compensation	\$83,200		CA DIR ¹
Turbines		45	ConnectGen
Nameplate Capacity		216 MW	ConnectGen
Estimated Project Assessed Value	\$362,490,282		ConnectGen ²
<u>Operations</u>			
Timeline		35 Years	ConnectGen
Total Direct Job Years		280 Job Years	ConnectGen
Average Annual Compensation	\$128,000		ConnectGen

[1] Blended prevailing wage rate for applicable occupations per California Department of Industrial Relations 2020 Prevailing Wage Rates for Shasta County.

[2] Value calculated utilizing Cost Approach.

Source: Economic & Planning Systems

Economic Impact Analysis Methodology

Regional economic impact analysis and Input-Output (I/O) models in particular 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 or “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 Fountain Wind Project site would represent the direct impact on the Shasta 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 Shasta County and elsewhere. For this analysis, only indirect effects within Shasta 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 Shasta County are estimated.

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.

Initial JEDI Modeling

This economic impact analysis utilized the US Department of Energy’s Jobs and Economic Development Impact (JEDI) input-output (I/O) model.² Based on the model’s default inputs and project-specific inputs, the JEDI model estimates the number of jobs and economic impacts to a local area (state, region, or county) that could reasonably be supported by a power generation project.

First developed by the U.S. Department of Energy, National Renewable Energy Laboratory’s (NREL) Wind Powering America program to model wind energy jobs and impacts, the JEDI model has been expanded to biofuels, coal, natural gas and solar power plants. 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.³ Using model defaults, results are reported on a statewide scale for California. 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 Shasta County’s economy may have different features than the national or state economy – 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, EPS has incorporated county-specific data for Shasta County from IMPLAN to modify statewide JEDI results in order to generate results applicable specifically to the County’s economy. For this Fountain Wind Project analysis, the model has produced quantitative estimates of the magnitude

² NREL “Jobs and Economic Development Impact (JEDI) Model R: W9.14.19” downloaded in November 2020.

³ IMPLAN is an Input-Output modeling system (software and data) developed by the Minnesota IMPLAN Group, and is widely used in the U.S. for estimating economic impacts across a wide array of industries and economic settings. IMPLAN data from 2019 was used, as it was the most up-to-date data available.

of regional economic activity resulting from the development and operation of a wind farm in Shasta County, and has estimated those impacts within the County.

Adjustments to JEDI Results

The JEDI model includes a number of industry standard assumptions that enable users to achieve a rough order-of-magnitude estimate when only a few project parameters are known. CG provided EPS with project-specific values pertaining to total development costs, number of workers required, and worker compensation. Because EPS had access to project-specific values provided by CG, 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 were adjusted in order to present a more accurate estimation of impacts.

Caveats to Input-Output Modeling

The input-output 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 or material inputs or other resources necessary to expand production. However, with an unemployment rate of approximately eight percent,⁴ and a relatively large geographic area, Shasta 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 at this time.

Economic Impact Analysis and Results

EPS has estimated the economic impacts during the construction phase and operations phase of the Project as summarized in **Table 4**, **Table 5**, and the Appendix. All monetary estimates are in constant 2021 dollars. As shown, the construction phase results in a total economic output of \$59.6 million and the operations phase results in a total economic output of \$6 million annually, which sums to \$210 million when considered over the Project's 35-year lifetime.

⁴ County unemployment rate in December 2020 per the January 22, 2021 California Employment Development Department press release.

Table 4. Total Economic Impacts of Project Construction

Type of Impact	Employment (Job Yrs.)	Employee Compensation	Value Added	Economic Output
<u>Construction Phase</u>				
Direct Impacts	142	\$11,814,400	\$10,751,823	\$12,225,676
Indirect Impacts	199	\$9,856,169	\$16,329,826	\$29,654,201
Induced Impacts	<u>109</u>	<u>\$5,945,062</u>	<u>\$10,829,043</u>	<u>\$17,725,195</u>
Total Impacts	450	\$27,615,632	\$37,910,692	\$59,605,072

Source: NREL Jobs and Economic Development Impact (JEDI) Model R: W9.14.18; IMPLAN; Economic & Planning Systems

Table 5. Total Economic Impacts of Project Operations

Type of Impact	Jobs	Employee Compensation	Value Added	Economic Output
<u>Operations Phase (Annual)</u>				
Direct Impacts	8	\$1,024,000	\$1,059,300	\$1,166,312
Indirect Impacts	25	\$1,093,815	\$2,216,629	\$3,490,763
Induced Impacts	<u>9</u>	<u>\$463,996</u>	<u>\$816,014</u>	<u>\$1,352,200</u>
Total Impacts	42	\$2,581,811	\$4,091,943	\$6,009,276
<u>Operations Phase (Lifetime)¹</u>				
Direct Impacts	280 ²	\$35,840,000	\$37,075,496	\$40,820,928
Indirect Impacts	871 ²	\$38,283,508	\$77,582,011	\$122,176,699
Induced Impacts	<u>305 ²</u>	<u>\$16,239,868</u>	<u>\$28,560,499</u>	<u>\$47,327,016</u>
Total Impacts	1,456	\$90,363,375	\$143,218,006	\$210,324,644

[1] Multiplies annual impacts by the 35-year project lifetime.

[2] Values represent job-years.

Source: NREL Jobs and Economic Development Impact (JEDI) Model R: W9.14.18; IMPLAN; Economic & Planning Systems

Direct Economic Impacts

Direct Economic Impacts during the Construction Phase

Table 4 includes a summary of the Project's estimated direct impacts on employment, employee compensation, and economic output in the County. Onsite construction activities will support employment for a total of about 142 FTEs over the 24-month construction period. These jobs will include electricians, ironmen, and other skilled labor in addition to general laborers.

Direct Economic Impacts during the Operations Phase

Table 5 displays the estimated direct impacts of during the Project's operation phase. Project operations will involve monitoring system status, performance, diagnostics, and planning, as well as preventive maintenance activities, and periodic corrective maintenance activities. The developer anticipates that eight full-time employees will be required to manage the Project's ongoing operations, each earning \$124,000 in annual compensation including benefits, resulting

in an annual employee compensation of over \$1 million and a total economic output of \$1.2 million.

Economic Impacts from Multiplier Effects

Based on the Project's direct spending on labor as well as required materials and services, additional rounds of spending will occur in the County. Businesses in the supply chain (providing materials, equipment, and services) 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, etc.—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

The Project's indirect impacts were estimated using the JEDI model based on turbine and supply chain impacts during the construction phase and local revenue and supply chain impacts during the operations phase. These initial JEDI outputs were refined using Shasta-specific IMPLAN data and Project-specific data provided by CG.

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 Shasta-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, and providers of these goods and services are expected to be available in the County and most convenient and cost-effective to serve the Project. As shown in **Table 4**, the modeling estimates an additional \$29.7 million in indirect "supply chain" output during the construction phase and almost 200 "job years" generated. **Table 5** indicates an estimated \$3.5 million in indirect economic output to occur annually during the operations phase, totaling over \$122 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, part goes to the trucker who delivers the food, part goes to the farmer who grows the food, and part goes 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 to support other jobs in the County economy. Using Shasta-specific IMPLAN ratios to tailor the JEDI model ratios of induced jobs and spending, EPS estimated the additional economic impacts that would be generated through the Project's induced effects in the rest of the County.

Table 4 and **Table 5** show these induced impacts on employment, employee compensation, and economic output during construction and operation of the Project respectively. To summarize, the induced effects from the construction phase are estimated at 109 "job years" and over \$17 million in economic output. The operations phase is estimated to generate induced impacts of

nine jobs and \$1.4 million in economic output annually, totaling \$47.3 million over the Project's lifetime.

Public Revenue Impact Analysis and Results

In addition to the broader economic impacts described in the preceding sections, the Project will also benefit the County through the generation of new tax revenues summarized in **Table 2**. EPS estimates that the Project will generate approximately \$3.9 million in local sales and use tax from Project construction and over \$60 million in property tax revenues over the Project's lifetime. Based on input from Price Waterhouse Cooper (PWC), the construction sales and use tax estimate assumes the Project will "localize" (i.e., capture) the maximum sales and use taxes on all purchases by establishing a "job site" address for all materials and equipment purchases.

Local Sales and Use Tax

The total estimated taxable sales generated as a result of Project development is calculated in **Table A-1**. Direct taxable sales are based on the Project's projected taxable purchases, which include materials and fixtures but exclude costs for labor and overhead. The developer can ask Project suppliers and contractors to establish a billing and delivery address at the jobsite in unincorporated Shasta County for sales tax payment on all purchases of equipment and materials for the Project's construction. Without such a "job site" address for the jobsite, only those purchases made at locations in Unincorporated Shasta County would generate sales and use taxes for the County. Per direction from the developer and PWC, EPS has assumed that all such purchases will have the necessary billing and delivery address established and as such the sales tax revenue estimate reflects a situation wherein Shasta County accrues the entirety of sales and use tax revenues applicable to Project construction costs.

The taxable base of the Project's construction cost (materials and fixtures only) is estimated at just over \$312 million. Again, regardless of whether the component materials are purchased in-County, in-State but out of County, or internationally, PWC indicates that these sales should be taxed at the point of use (i.e., at the project site in unincorporated Shasta County) and therefore the total 1.25 percent sales and use tax rate is estimated to accrue to the County, resulting in the \$3.9 million revenue figure shown in **Table A-1**.

Property Tax Impacts

The California State Board of Equalization publishes guidelines for the assessment of wind energy properties to aid assessors in determining taxable value.⁵ The three potential valuation methodologies are the sales comparison approach, the cost approach, and the income approach. As the sales comparison approach is only reliable when comparable sales data exist along with details regarding those sales, this method is not considered for the Fountain Wind project. The cost approach arrives at a value by summing the cost of the land and the construction cost of the improvements, less depreciation, and the income approach arrives at a value through capitalization of the projected income stream of the property. Since it is unclear which method the Shasta County Assessor's Office will utilize for the Fountain Wind project, this analysis uses the cost approach as it requires the fewest additional assumptions.

⁵ *Guidelines for the Assessment of Wind Energy Properties*; CA State Board of Equalization, Property Tax Department; June 27, 2017

Table A-2 estimates the assessed value of the project over the 35 years of its anticipated lifetime and the additional property tax revenues that will be generated by the Project. CG provided an initial total Project taxable valuation of \$362 million based on Project cost estimates and adjusted the Project's taxable value through time due to depreciation. The analysis utilizes a straight-line depreciation method, assuming a 25-year economic life of the Project with a residual value of 20 percent.

This depreciated assessed value will be taxed at the County's general property tax rate of 1 percent, resulting in \$3.5 million in total property tax collected in the first year of operations, gradually falling to \$725,000 by Year 25 and beyond. Cumulatively, this results in aggregate estimated property tax payments of \$60.2M over the Project's lifetime (2021 constant dollars). This full amount is allocated to a range of different taxing entities.

Based on current tax allocation factors from the Shasta County Auditor-Controller Office: 12.5 percent of the aggregate property tax revenues will flow to the County for a total of \$7.5M over the life of the Project. Six and a half percent is allocated to Cities (\$3.9M over the life of the project), 5.6 percent to Special Districts (\$3.4M lifetime), 13.3 percent to "Redevelopment Property Tax" (\$8.0M lifetime), 15.1 percent to the Educational Revenue Augmentation Fund (\$9.1M lifetime), and the remaining 47 percent is allocated to Schools (\$28.3M lifetime).

Retail Sales Impacts

As discussed above, the "induced" impacts of the Project are generated as employees of the Project (during construction and operations) and employees of the affected supply chain vendors spend their wages in the local economy. These employees will purchase many things for their households, including typical retail expenditures (clothing, groceries, etc.) as well as housing, healthcare, education, and other goods and services. The distribution of household spending by category tends to vary by income level, so **Table A-3** estimates the average wage of the Project's direct, indirect, and induced employees during the construction and operations periods in order to determine the correct spending distribution to apply. Note these figures differ from the direct compensation values on **Table 3** because they include only the value of actual wages that generate discretionary income and therefore exclude employee benefits, and they are also a weighted average of direct, indirect, and induced wages. **Table A-4** applies typical consumer expenditure pattern data from the United States Bureau of Labor Statistics and illustrates the likely expenditures associated with employees supported directly or indirectly by the Project. As shown, the construction period is estimated to generate \$9.9 million in retail sales and the operations period may generate another \$860,000 in annual retail sales. Note that not all of these expenditures would be expected to occur within Unincorporated Shasta County.

About Economic & Planning Systems



The Firm Economic & Planning Systems, Inc. (EPS) is a land economics consulting firm experienced in the full spectrum of services related to real estate development, the financing of public infrastructure and government services, land use and conservation planning, and government organization.

Guiding Principle EPS was founded on the principle that real estate development and land use-related public policy should be built on realistic assessment of market forces and economic trends, feasible implementation measures, and recognition of public policy objectives, including provisions for required public facilities and services.

Areas of Expertise

- Real Estate Economics
- Public Finance
- Land Use and Transportation
- Economic Development and Revitalization
- Fiscal and Economic Impact Analysis
- Housing Policy
- Public-Private Partnership (P3)
- Parks and Open Space Economics

Clients Served Since 1983 EPS has provided consulting services to hundreds of public- and private-sector clients in Colorado and throughout the United States. Clients include cities, counties, special districts, multi-jurisdictional authorities, property owners, developers, financial institutions, and land use attorneys.

Selected examples of Northern California clients include the cities of Yuba, Fort Bragg, Sacramento, Roseville, Truckee, the counties of Humboldt and Butte, the Winters Chamber of Commerce, and the community of Olivehurst.

EPS Locations Oakland, Los Angeles, and Sacramento, California
Denver, Colorado

EPS Web Site www.epsys.com



APPENDIX TABLES

Table A-1
Construction Sales Tax Calculator
Fountain Wind Project Economic and Public Revenue Impact; EPS #201094

Item	<u>Tax Base / Rates</u>	Total
Construction Costs¹	\$362,490,282	
Labor / Overhead (Not Taxable) ²	\$50,429,384	
Materials & Fixtures (Taxable) ²	\$312,060,898	
Taxable Sales Base		
Total Taxable Sales Base (Materials & Fixtures)		\$312,060,898
Sales and Use Tax to Shasta County		
Total Special Sales and Use Tax	1.00%	\$3,120,609
Total County Sales Tax	0.25%	\$780,152
Total Sales and Use Tax to County³		\$3,900,761
Tax to County as % of Total		1.25%

[1] Information provided by ConnectGen.

[2] Breakdown of contract value between Labor / Overhead and Materials & Fixtures based on ConnectGen CAPEX estimations.

[3] Potential taxable sales allocation to Shasta County based on information provided by Price Waterhouse Cooper. All taxable purchases regardless of sourcing origin are assumed to be taxed at point-of-use and therefore the revenues are shown as localized to the County.

Source: ConnectGen; Price Waterhouse Cooper; Economic & Planning Systems

Table A-2
Assessed Value and Property Tax Estimation
Fountain Wind Project Economic and Public Revenue Impact; EPS #201094

Item	Tax Rates	Annual Average	Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Cost-Basis Method																	
Wind Property Value			362,490	362,490	362,490	362,490	362,490	362,490	362,490	362,490	362,490	362,490	362,490	362,490	362,490	362,490	362,490
Less: Depreciation ¹			289,992	(11,600)	(23,199)	(34,799)	(46,399)	(57,998)	(69,598)	(81,198)	(92,798)	(104,397)	(115,997)	(127,597)	(139,196)	(150,796)	(162,396)
Wind Depreciated Value				350,891	339,291	327,691	316,092	304,492	292,892	281,292	269,693	258,093	246,493	234,894	223,294	211,694	200,095
Countywide General Property Tax	1.00%	1,719	60,173	3,509	3,393	3,277	3,161	3,045	2,929	2,813	2,697	2,581	2,465	2,349	2,233	2,117	2,001
Allocation²																	
County of Shasta	12.5%	214	7,498	437	423	408	394	379	365	350	336	322	307	293	278	264	249
Cities	6.6%	113	3,947	230	223	215	207	200	192	185	177	169	162	154	146	139	131
Special Districts	5.6%	96	3,358	196	189	183	176	170	163	157	150	144	138	131	125	118	112
Redevelopment Property Tax	13.3%	229	8,015	467	452	436	421	406	390	375	359	344	328	313	297	282	267
Educational Revenue Augmentation Fund (ERAF)	15.1%	259	9,080	529	512	494	477	459	442	424	407	389	372	354	337	319	302
Schools	<u>47.0%</u>	<u>808</u>	<u>28,275</u>	<u>1,649</u>	<u>1,594</u>	<u>1,540</u>	<u>1,485</u>	<u>1,431</u>	<u>1,376</u>	<u>1,322</u>	<u>1,267</u>	<u>1,213</u>	<u>1,158</u>	<u>1,104</u>	<u>1,049</u>	<u>995</u>	<u>940</u>
Total	100.0%	1,719	60,173	3,509	3,393	3,277	3,161	3,045	2,929	2,813	2,697	2,581	2,465	2,349	2,233	2,117	2,001

*All values shown in \$000s.

[1] Depreciation calculated using a straight-line method with an economic life of 25 years and a residual value of 20 percent.

[2] Per "Property Tax Revenue Allocation Breakdown 2020" from Shasta County Auditor-Controller Office.

Source: Economic & Planning Systems

Table A-3
Estimation of Wages Excluding Benefits
Fountain Wind Project Economic and Public Revenue Impact; EPS #201094

Project Phase	Economic Activity	Type of Impact	Employment (Job Yrs.)	Employee Compensation (w/ Benefits)	Employee Compensation (w/o Benefits) ¹	Weighted Average Salary
Construction (24 months)	Project Development	Direct Impacts	142	\$11,814,400	\$9,506,900	\$66,950
	Turbine and Supply Chain Impacts	Indirect Impacts	199	\$9,856,169	\$7,931,136	\$39,786
	Employee Spending	Induced Impacts	<u>109</u>	<u>\$5,945,062</u>	<u>\$4,783,917</u>	<u>\$43,892</u>
		Total Impacts	450	\$27,615,632	\$22,221,954	\$49,345
Operations (35 years)	Project Development	Direct Impacts	280	\$35,840,000	\$23,800,000	\$85,000
	Local Revenue and Supply Chain Impacts	Indirect Impacts	871	\$38,283,508	\$30,806,260	\$35,367
	Employee Spending	Induced Impacts	<u>305</u>	<u>\$16,239,868</u>	<u>\$13,068,018</u>	<u>\$42,824</u>
		Total Impacts	1,456	\$90,363,375	\$67,674,278	\$46,473

[1] Assumes benefits constitute 20 percent of total employee compensation. For Operations employees, an additional 14 percent is assumed to go toward trucks/tooling/etc. and is therefore withheld from the Employee Compensation (w/o Benefits) values.

Source: Economic & Planning Systems

Table A-4
Estimation of Annual Retail Sales
Fountain Wind Project Economic and Public Revenue Impact; EPS #201094

Retail Categories	Construction		Operations (Annual)		Operations (Lifetime)	
	% of Income ¹	\$	% of Income ¹	\$	% of Income ¹	\$
Average Annual Compensation²		\$49,345		\$46,473		\$46,473
Total Aggregate Compensation³		\$22,221,954		\$1,933,551		\$67,674,278
Apparel	3.1%	\$693,956	3.1%	\$60,382	3.1%	\$2,113,359
General Merchandise	4.2%	\$941,797	4.2%	\$81,947	4.2%	\$2,868,130
Personal Care Products	1.4%	\$320,707	1.4%	\$27,905	1.4%	\$976,674
Reading	0.2%	\$47,586	0.2%	\$4,140	0.2%	\$144,916
Tobacco	0.8%	\$170,515	0.8%	\$14,837	0.8%	\$519,282
Miscellaneous	1.8%	\$402,990	1.8%	\$35,065	1.8%	\$1,227,258
Food and Beverage	17.0%	\$3,769,172	17.0%	\$327,959	17.0%	\$11,478,558
Food at Home	9.7%	\$2,145,811	9.7%	\$186,709	9.7%	\$6,534,807
Food away from Home	6.4%	\$1,420,131	6.4%	\$123,567	6.4%	\$4,324,838
Alcoholic Beverages	0.9%	\$203,230	0.9%	\$17,683	0.9%	\$618,912
Housing & Building Related Merchandise	4.8%	\$1,057,787	4.8%	\$92,039	4.8%	\$3,221,363
Housekeeping Supplies	1.5%	\$340,534	1.5%	\$29,630	1.5%	\$1,037,055
Household Furnishings and Equipment	3.2%	\$717,253	3.2%	\$62,409	3.2%	\$2,184,307
Automobiles	11.0%	\$2,454,621	11.0%	\$213,579	11.0%	\$7,475,252
Vehicle Purchases	6.9%	\$1,530,668	6.9%	\$133,185	6.9%	\$4,661,466
Gasoline and Motor Oil	4.2%	\$923,953	4.2%	\$80,394	4.2%	\$2,813,786
Entertainment	4.3%	\$964,103	4.3%	\$83,887	4.3%	\$2,936,059
Total Retail Expenditures	44.5%	\$9,881,436	44.5%	\$859,792	44.5%	\$30,092,720

[1] Percent of income spent on various retail categories is based on Bureau of Labor Statistics data regarding typical consumer expenditures for households earning the average compensation calculated for this project.

[2] Values represent weighted average employee compensation less benefits for all direct, indirect, and induced workers per **Table A-3**.

[3] Values represent sum total employee compensation less benefits for all direct, indirect, and induced workers per **Table A-3**.