

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

**IN THE MATTER OF THE APPLICATION FOR)
THE LOCATION OF THE CLINES CORNERS)
WIND FARM AND GEN-TIE SYSTEM IN)
TORRANCE AND GUADALUPE COUNTIES)
PURSUANT TO THE PUBLIC UTILITY ACT, NMSA)
1978, §§62-9-3 AND 62-9-3.2)**

Case No. 19 - _____

CLINES CORNERS WIND FARM, LLC)

APPLICANT.)

**DIRECT TESTIMONY
OF
JOHN TYSSELING**

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION FOR)
THE LOCATION OF THE CLINES CORNERS)
WIND FARM AND GEN-TIE SYSTEM IN)
TORRANCE AND GUADALUPE COUNTIES)
PURSUANT TO THE PUBLIC UTILITY ACT,)
NMSA 1978, §§ 62-9-3 AND 62-9-3.2)

Case No. 19-00139-UT

CLINES CORNERS WIND FARM LLC)

APPLICANT.)
_____)

FILED IN OFFICE OF

MAY 15 2019

NM PUBLIC REGULATION COMM
RECORDS MANAGEMENT BUREAU

DIRECT TESTIMONY OF

JOHN C. TYSSSELING, PH.D.

ON BEHALF OF CLINES CORNERS WIND FARM LLC

Case No. 19-_____-UT
Before for New Mexico Public Regulation Commission
Direct Testimony of John C. Tysseling, PH.D.
on Behalf of Clines Corners Wind Farm LLC

1 **Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

2 **A.** My name is John C. Tysseling, Ph.D. I am a Consulting Director with Moss Adams, LLP
3 (“Moss Adams”). My business address is Two Park Center, 6565 Americas Parkway NE,
4 Suite 600, Albuquerque, New Mexico, 87110.

5 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL**
6 **EXPERIENCE.**

7 **A.** My training and experience as an applied economist provides the professional
8 qualifications to offer the analyses and opinions expressed herein. I am trained in regional
9 economic analysis methods, and have conducted numerous wide-ranging economic and
10 fiscal impact analyses throughout my more than three decades of professional experience.
11 I have testified extensively on utility policy matters — relating to wholesale and retail rates,
12 rate design, resource planning, energy facility siting and public benefit assessments — in
13 both state and federal jurisdictions. A substantial focus of my professional career has been
14 analyses of energy market issues, including numerous professional engagements where I
15 have been qualified as an expert witness by state and federal courts and regulatory
16 authorities related to economic transactions common to energy utility services. See Exhibit
17 JCT-1 for a complete list testimony and statement of professional qualifications.

1 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS DOCKET?**

2 **A.** I am testifying on behalf of Clines Corners Wind Farm LLC (“Clines Corners” or
3 “Applicant”).

4 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

5 **A.** Yes. See Exhibit JCT-1 for a complete list.

6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

7 **A.** I will present testimony that discusses the economic and fiscal impacts that can be
8 anticipated from the development of the proposed Clines Corners Wind Farm and the
9 related transmission facilities (collectively referred to as the “Project”) which are the
10 subject of this Application. This testimony summarizes the analyses prepared by Moss
11 Adams contained in our report on the *Economic and Fiscal Impacts of the Clines Corners*
12 *Wind Farm Project* (“Clines Corners Wind Economic Report” or “Report”) See Exhibit
13 JCT-2. The Project, to be developed in Guadalupe and Torrance Counties, New Mexico,
14 is an integrated complex of wind generation resources up to a maximum of 600MW and
15 related transmission facilities required to connect to electricity markets. Although the
16 Project may ultimately be as large as 600 MW, the Clines Corners Wind Economic Report
17 assumes a Project of 440 MW, which I am informed is a realistic estimate at this time. The
18 impact of a larger Project will only enhance the net benefits identified in the Report.

19 I will also offer observations as to the larger economic and fiscal impacts on the regional
20 economy. However, the testimony will focus on impacts anticipated from the development
21 of the Project in the two-county siting area (“Study Area”) for the wind generation facilities
22 (“Clines Corners Wind Farm”) and the required transmission system (the “Gen-Tie

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System”), as these are the impacts which are germane to the Application pending before the Commission in this proceeding.

The analysis presented here will only *generally* address the broad “downstream” economic and fiscal impacts associated with the Project’s development, interconnection and service to the intrastate and interstate market electric transmission grid — that is, the “synergistic” impacts of the Project’s development with respect to other renewable energy projects or infrastructure in place or being developed in New Mexico.

My analysis, and the testimony I present here, addresses the specific economic and fiscal impacts of the Project up to the point of interconnection with the Western Spirit Transmission Line (“Western Spirit”), a 345 kilovolt (“kV”) transmission system which has recently been announced to become part of the Public Service Company of New Mexico’s high voltage transmission system in proximity to Clines Corners, New Mexico.¹

Q. PLEASE SUMMARIZE YOUR FINDINGS WITH RESPECT TO THE ECONOMIC IMPACTS ASSOCIATED WITH THE CLINES CORNERS WIND FARM PROJECT.

A. The economic impacts of the Clines Corners Wind Farm Project will make significant contributions to the economic base of Guadalupe and Torrance Counties with both short-

¹ A PNM Resources, Inc. subsidiary, announced on May 1st, 2019 an agreement with Pattern Energy Group to acquire the Western Spirit project. The project initially developed by Pattern Energy and the New Mexico Renewable Energy Transmission Authority (RETA) is expected to be completed by 2021, with capacity to transmit 800 MW of wind energy. Both Western Spirit and PNM’s 345kV transmission system are separate and distinct projects that are still subject to final design and construction. See PNM, “Application for Approval of a 345kV Transmission Line and Associated Facilities Pursuant to the Public Utilities Act,” Case No. 18-00243-UT; and New Mexico Renewable Energy Transmission Authority, “In the matter of the Request for Reliability Determination for Western Spirit Transmission Project” New Mexico Public Regulation Commission Case Nos. 17-00318-UT and 19-00110-UT. This testimony does not address the specific status of approval or development of these two infrastructure projects, and for the purposes of this analysis it is presumed these projects are timely completed with capability to serve the electric transmission requirements of the Clines Corners Wind Farm Project.

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term development activities, and long-term contributions to the regional economy. The comprehensive economic impacts over the thirty-year Study Period analyzed (related to the Project's financing)² are summarized in Table 1.

Table 1: Summary Economic Impacts of Clines Corners Wind Farm Project

**SUMMARY ECONOMIC IMPACTS OF CLINES CORNERS WIND FARM
PROJECT
(30-YEAR ANALYSIS)³**

	Local Construction Expenditures	Local Employment (jobs)	Local W&S Expenses	Landowner Payments	Other Operating Costs	GRT & PILOT Payments	Direct Economic Impacts	Direct & Indirect Economic Impacts	Direct, Indirect & Induced Economic Impacts
TOTAL ECONOMIC IMPACT	\$131	20	\$33	\$39	\$282	\$50	\$485	\$653	\$748
DISCOUNTED PRESENT VALUE (DPV) OF IMPACTS (@ 5%)	\$131	N/A	\$17	\$20	\$145	\$26	\$313	\$416	\$485

The Project will produce an estimated discounted present value of \$485 million in direct, indirect and induced economic impacts. Accounting for economic multiplier impacts, approximately \$748 million in direct, indirect, and induced economic benefit will be obtained by the local economy over thirty years of operations. Discounting this stream of benefits at a 5% annual rate (appropriate for public benefits analysis),⁴ the present value of the direct economic benefits from the Clines Corners Wind Farm Project are estimated to

² The thirty-year Study Period is defined based on the anticipated financing of the Project. However, the generation and transmission facilities are anticipated to have a significantly longer economic life. An additional justification for the less-than life-of-project analyses is that utilization of an economic discount rate to assess the present value of benefits results in *de minimis* additional net economic benefits.

³ The summary table values do not sum due to the exclusion of Payments-in-Lieu-of-Taxes ("PILOT") from the Direct and Indirect Economic Impact calculations. These are direct payments to government entities (i.e., fiscal impacts).

⁴ Undiscounted economic impacts are stated in terms of 2019 dollars (i.e., unadjusted for inflation).

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be approximately \$313 million, and the direct, indirect and induced economic benefits of the Project are estimated to produce a present value of \$485 million.

There are two primary programs in which fiscal impacts are estimated. New Mexico Gross Receipts Taxes (“GRT”) will accrue associated with taxable gross receipts relating to the generation Project’s economic activities. Additional fiscal impacts from Property Tax (based on taxable property value) and PILOT payments are discussed in greater detail below.

GRT liabilities are subject to numerous exemptions and deductions, and certain costs incurred with respect to the generation facilities’ acquisition may not be taxable as a result of the Industrial Revenue Bond (“IRB”) financing.⁵ As a result, Clines Corners prepared an estimate of the GRT obligations it believes are applicable to the construction activities (Table 2).

Table 2: Estimated Gross Receipts Tax Liability

Estimated NM Gross Receipts Tax Liability (\$millions)	
TOTAL Estimated Project Costs	\$589.9
Total Estimated NM GRT	\$1.3

⁵ The IRB financing treats the Project as owned by the government entity sponsoring the IRBs, but does not obligate those governments to repayment of the bonds (i.e., the repayment obligation remains with the developer). The IRB financing, thus, avoids GRT and Property Tax liability during the repayment period. The Applicant has estimated that most of the expenditures to develop the Clines Corners Wind Farm Project will avoid tax liability in this manner (i.e., the IRBs are still being negotiated), but some tax liability (primarily GRT) will still be paid with the Project’s development.

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1 Based on experience with previously developed projects, Clines Corners estimates there to
2 be a GRT liability of an estimated \$1.3 million⁶ in the construction-related activities. It is
3 noteworthy that a portion of the GRT will flow back to the county and municipal
4 governments, but it is extremely difficult (based on the information available at this time)
5 to allocate these GRT revenues to any of the affected communities as the tax liability relates
6 to the specific location of the taxable transactions. I will describe the Property Tax impacts
7 subsequently, as the details of these estimates do not lend themselves to simple
8 summarization.

9 **Q. PLEASE DISCUSS THE ANALYTIC FOUNDATIONS FOR YOUR OPINIONS**
10 **AND THE SPECIFIC ANALYSIS YOU PERFORMED.**

11 **A.** Regional economic impact analyses have been a component of my professional practice
12 for decades. Any significant regional economic development produces direct impacts in
13 the form of trade, income, employment and tax revenues within the specific communities
14 and regions affected, but also stimulates additional trade, income, employment and tax
15 revenues as the direct spending and employment *creates* additional economic activities.
16 Where these direct economic effects are the result of new business activities that are
17 external to the existing economic activities within a region, the analysis of these direct,
18 indirect, and induced impacts are the foundation for assessment of the specific economic
19 and fiscal benefits obtained by the economic development activities. This method can be
20 described as an “export-base” method, because it recognizes that these local expenditures

⁶ Due to the preliminary stage of engineering, procurement and construction (“EPC”) contracting that exists at the time this estimate is being prepared, this GRT impact is based on data from the Applicant, as discussed more fully in my Report.

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1 are supported by out-of-state revenues which have a tangible impact on the state's
2 economy. New Mexico in-state dollars would presumably flow to some other existing
3 activity and yield a similar economic impact if the Clines Corners Wind Farm Project did
4 not exist.

5 **Q. ARE THE ECONOMIC BENEFITS OF THE PROJECT GENERALLY**
6 **CONSISTENT WITH THE EXPRESSED PRIORITIES OF THE STATE OF NEW**
7 **MEXICO WITH RESPECT TO RENEWABLE ENERGY DEVELOPMENT?**

8 **A.** Yes. The Project embodies many robust economic opportunities for the state of New
9 Mexico and its citizens. Development of electric generation facilities comprising the
10 Project offers New Mexico highly desirable economic development investments.
11 Investments in these wind generation and transmission facilities stimulate substantial
12 growth in the renewable energy sector and foster an economic development climate that
13 broadens the state's long-standing role as a sustainable participant in the energy
14 marketplace. Aside from the technology, innovation, and private capital investments
15 developed in conjunction with the Project, this development creates new economic value
16 and opportunity within New Mexico, the product of which may be exported from the state.
17 This is a highly valuable attribute of the Project, as the Project's facilities will not displace
18 or capture existing commercial energy market activities. Nor are they dependent upon the
19 very modest energy consumption of New Mexico consumers relative to its energy
20 generation potential. Instead, these investments will create the most desirable form of new
21 economic development in its exportation of environmentally preferred New Mexico energy

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1 resources. In summary, the Project's facilities will create new economic value that is
2 obtained from economic activities that are expansions of the New Mexico economy.

3 New Mexico has a long-established priority for encouraging exactly the economic
4 development engendered by the Project; the state has expressly encouraged development
5 of renewable energy.⁷ Emphasis and priority has been placed on the robust development
6 and utilization of renewable energy resources in the 2019 session of the New Mexico
7 Legislature.

8 Further, in 2004 the state of New Mexico also enacted a groundbreaking economic
9 development initiative, prioritizing development of renewable energy resources in
10 conjunction with its recognition of the constraints relating to siting and funding of
11 renewable electric transmission facilities investments. In establishing the New Mexico
12 Renewable Energy Transmission Authority⁸ ("RETA") the state formally established its
13 goal to develop renewable energy for export and recognized the need to expressly facilitate
14 the siting of transmission facilities in the state for service to multi-state customers seeking
15 access to and development of renewable energy resources.

⁷ Most recently, the State enacted the Energy Transition Act ("ETA"), Chapter 65, which was signed into law on March 22, 2019, and established aggressive new goals for renewable energy in New Mexico. *See, also*, e.g., Section 7-2A-19 NMSA 1978, Laws 2002, Ch. 59, § 1; 2003, Ch. 419, § 1; 2005, Ch. 104, § 7; 2005, ch.181, § 1; 2007, Ch. 204, § 1. Although the ETA does not provide siting or facility development inducements, it does establish a mandated implementation of renewable portfolio standards which should also result in an emphasis on renewable resource development in New Mexico.

⁸ Section 62-16A-3 NMSA 1978; Laws 2007, Ch. 3, § 3; 2011, Ch. 51, § 4.

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Moreover, the Project, and the additional renewable generation and transmission facilities development discussed in this testimony and my Report align directly with the New Mexico State Energy Plan.⁹ In particular, that plan concludes:

Inadequate transmission access has long been cited as the primary hindrance to New Mexico renewable energy development, as some of the best wind resources, in particular, are located far away from electricity markets. (p. 12)

Q. ARE THERE OTHER ECONOMIC BENEFITS THAT SHOULD BE CONSIDERED IN THE CONTEXT OF THE PROJECT MORE GENERALLY?

A. Yes. It should be noted that once operational, the economic benefits and revenue streams will be extremely stable, and certainly not vacillate as significantly as is common to most energy resource developments found in the state of New Mexico. Unlike fuel-based sources of electricity, the Project's generation costs are not based on fluctuating commodity fuel prices. This stable foundation of economic activity, more fully detailed in the Clines Corners Wind Economic Report, can be anticipated for at least the thirty-year Study Period for the Project and will likely continue beyond that time. Additionally, the Project helps develop and establish new economic infrastructure that will likely foster further developments of a similar nature.

Q. WHAT IS THE ROLE OF THE PROJECT IN THE CONTEXT OF STATEWIDE ECONOMIC DEVELOPMENT?

A. The Project is anticipated to rely on the proposed expansive energy transport capabilities of Western Spirit, and taken as a whole these renewable energy developments provide

⁹ Energy, Minerals & Natural Resources Department, "Seizing Our Potential – the New Mexico State Energy Plan," State of New Mexico, Santa Fe, New Mexico (2015) ("New Mexico State Energy Plan").

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1 significant and expanding statewide economic development benefits. The Project also
2 creates additional development opportunities for renewable generation development, as
3 only a portion of the total Western Spirit capacity will be utilized by the Project's energy
4 generation. The economic and capital investment activities engendered in the development
5 of these new energy resources inure significant economic benefits to the citizens of New
6 Mexico, and significantly fulfill the stated social objectives for these economic
7 development initiatives.

8 These robust economic opportunities include development of electric generation and
9 transmission facilities that offer highly desirable private capital investments of \$590
10 million for the Project in rural New Mexico, in part spurred by the availability of New
11 Mexico's renewable energy resources. The long-term capital investments have direct,
12 indirect, and induced economic benefits for New Mexico. Moreover, these investments in
13 developing the Project's generation and transmission facilities will likely stimulate
14 substantial additional growth in the renewable energy sector and foster an economic
15 development climate that broadens the state's long-standing role as a sustainable
16 participant in the energy marketplace. In short, the wind energy facilities developed will
17 help mitigate the economic losses associated with closure of several of New Mexico's coal-
18 fired generation resources and provide an economic boost to the state's rural economy.

19 **Q. PLEASE DESCRIBE YOUR SPECIFIC FINDINGS WITH RESPECT TO THE**
20 **ECONOMIC AND FISCAL IMPACTS ASSOCIATED WITH THE PROJECT.**

21 **A.** The contributions of the Project to the economic base of Guadalupe and Torrance Counties
22 with both short-term development activities, and long-term contributions to the regional

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economy, will provide significant economic and fiscal impacts. The comprehensive economic impacts over the thirty-year Study Period analyzed (related to the Project's financing)¹⁰ are summarized in Table 3.

Table 3: Summary Economic Impacts of Clines Corners Wind Farm Project

**SUMMARY ECONOMIC IMPACTS OF PROJECT
(30-YEAR ANALYSIS)**

	Local Construction Expenditures	Local Employment (jobs)	Local W&S Expenses	Landowner Payments	Other Operating Costs	GRT & PILOT Payments	Direct Economic Impacts	Direct & Indirect Economic Impacts	Direct, Indirect & Induced Economic Impacts
TOTAL ECONOMIC IMPACT	\$131	20	\$33	\$39	\$282	\$50	\$485	\$653	\$748
DISCOUNTED PRESENT VALUE (DPV) OF IMPACTS (@ 5%)	\$131	N/A	\$17	\$20	\$145	\$26	\$313	\$416	\$485

Over thirty years of operations, the Project will produce an estimated discounted present value of \$485 million in direct, indirect and induced economic impacts, and taking account of economic multiplier impacts, approximately \$748 million in direct, indirect, and induced economic benefit to the local economy. This stream of benefits should be discounted at a 5% annual rate (appropriate for public benefits analysis) — noting that the undiscounted economic impacts are stated in terms of 2019 dollars (i.e., unadjusted for inflation) — providing the estimated present value of the direct economic benefits from the Project at

¹⁰ The thirty-year Study Period is defined based on the anticipated financing of the Project. However, the generation and transmission facilities are anticipated to have a significantly longer economic life. An additional justification for the less-than life-of-project analyses is that utilization of an economic discount rate to assess the present value of benefits results in *de minimis* net economic benefits.

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about \$313 million, and the direct, indirect and induced economic benefits of the Project are estimated to produce a present value of \$485 million.

Note (specifically) that the stated impacts for the Project do not include Western Spirit, and that the summary table values do not sum due to the exclusion of Payments-in-Lieu-of-Taxes (“PILOT”) from the Direct and Indirect Economic Impact calculations (i.e., these are direct payments to government entities).

Fiscal impacts occur as the result of three primary tax programs. Income Tax (both Personal and Corporate) will accrue to the state based on additional wage, salary and income earnings,¹¹ and Gross Receipts Tax will accrue associated with taxable gross receipts relating to the generation Project’s economic activities. Property Tax is the third fiscal impact, which is discussed in greater detail below.

Certain costs incurred with respect to the generation facilities’ acquisition may not be taxable as a result of the Industrial Revenue Bond (“IRB”) financing impacts GRT liabilities, and the exemptions and deductions provided under the GRT statutes. As a result, Clines Corners prepared an estimate of the GRT obligations it believes are applicable to the construction activities (

Table 4).

Table 4: Estimated Gross Receipts Tax Liability

Estimated NM Gross Receipts Tax Liability (\$millions)	
TOTAL Estimated Project Costs	\$589.9
Total Estimated NM GRT	\$1.3

¹¹ Although Income Taxes are acknowledged as Fiscal Impact, as described in the attached Economic Impact Report there is no ability to estimate these impacts quantitatively. Thus, Income Taxes are excluded from the Fiscal Impact analysis.

1 Based on the experience of previously developed projects, Clines Corners estimates there
2 to be a GRT liability of an estimated \$1.3 million¹² in the construction-related activities.
3 As I previously noted, a portion of the GRT will flow back to the county and municipal
4 governments, but it is not possible (based on the information available at this time) to
5 allocate these GRT revenues to any of the affected communities as the tax liability relates
6 to the specific location of the taxable transactions.

7 **SUMMARY OF PROJECT DEVELOPMENT**

8 **Q. PLEASE DESCRIBE THE RELATIONSHIP AMONG THE SPECIFIC**
9 **COMPONENTS OF THE PROJECT.**

10 **A.** The Project is a wind generation project and associated transmission and support facilities
11 located in Guadalupe and Torrance Counties. The specifics of the Project are more fully
12 discussed in the testimonies of other witnesses presented with this Application. In
13 summary, the Clines Corners Wind Farm is designed to have a nameplate capacity of
14 approximately 440 megawatts¹³ (“MW”) and will nominally occupy approximately 40,000
15 acres of private and state land. The Clines Corners Wind Farm will increase the total wind
16 generation capacity in New Mexico by more than 25%.¹⁴ The electric generation facilities
17 will be tied to the interstate transmission grid with development of the Gen-Tie System, its

¹² Due to the preliminary stage of engineering, procurement and construction (“EPC”) contracting that exists at the time this estimate is being prepared, this GRT impact is based on data from Clines Corners as discussed more fully in my Report.

¹³ At this stage in the development process, the Clines Corners Wind Farm Project configuration considered is the best available, currently planned configuration. Final specifications could range from 440 MW to 480 MW, using turbines ranging from 2 MW to 4.2 MW each. All further references will be to the current project configuration.

¹⁴ The current wind generation capacity of 1,732 MW only begins to tap the state’s wind resources potential. See American Wind Energy Association, “US Wind Industry Fourth Quarter 2018 Market Report”, January 30, 2019 (“American Wind Energy Association”).

1 connection to Western Spirit, and the western interstate transmission grid access provided
2 by the PNM transmission system. The total capital expenditure to develop the Project is
3 estimated to be \$590 million (excluding Western Spirit and PNM transmission facilities'
4 capital expenditures), and these facilities will create new economic value that is obtained
5 from economic activities that are *expansions of the New Mexico economy*.

6 **Q. WHAT IS YOUR UNDERSTANDING OF THE TIMING OF THIS PROJECT'S**
7 **DEVELOPMENT?**

8 **A.** I understand that the Project will be developed in the next two years, with expected
9 development schedules based on the current deadline of December 31, 2020.

10 **Q. DO THE ECONOMIC AND FISCAL IMPACTS ASSOCIATED WITH THE**
11 **PROJECT MESH WITH THE BROADER ENERGY DEVELOPMENT GOALS IN**
12 **NEW MEXICO?**

13 **A.** Yes, as previously mentioned, the Project aligns directly with several of the specific goals
14 of the *New Mexico State Energy Plan*. A significant attribute of the Project is the
15 simultaneous development of Western Spirit, which directly addresses the previously cited
16 transmission obstacle. Moreover, several other objectives of the *State Energy Plan* are
17 embraced by the Project and related developments, including:

- 18 • Supporting regional energy policy, infrastructure, and development pathways and
19 solutions;
- 20 • Ensuring that sound science and economics, as well as the availability energy
21 resources drive state energy policy decisions;
- 22 • Focus on economic growth, diversification, and private sector job creation;

- 1 • Consider appropriate incentives that would increase market potential and
- 2 competitiveness with other states in the West;
- 3 • Accelerate reduction of fresh water consumption (i.e., gallons per MWH generated)
- 4 in the energy sector; and
- 5 • Establish the energy foundation of new and improved infrastructure in electric
- 6 power transmission.

7 **PERSPECTIVES ON ECONOMIC AND FISCAL IMPACTS**

8 **Q. HOW DO THE ECONOMIC AND FISCAL IMPACTS YOU HAVE IDENTIFIED**
9 **AS ASSOCIATED WITH THE PROJECT AFFECT YOUR UNDERSTANDING**
10 **OF THE IMPACTS OF THE PROJECT'S DEVELOPMENT?**

11 **A.** If the definition of all impacts begins with maintaining the *status quo*, then virtually all
12 economic development has some undesirable impacts. However, the previously described
13 social and economic priorities which have been explicitly articulated through the actions
14 of New Mexico state government provide a substantial foundation for asserting an
15 economic conclusion and finding of no “undue impairment” associated with the proposed
16 siting of the Project’s facilities.
17 Specifically, there are certainly claims that can be asserted that the development of the
18 Project’s infrastructure and generation facilities will adversely impact other social values
19 (e.g., visual landscapes). Indeed, any economic development that alters the physical
20 environment (e.g., construction of a new hospital) may disrupt some members of society’s
21 preference for not changing the *status quo* physical environment. Economic literature has
22 devoted substantial discussion to these “externality” issues.

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1 The Project will compensate affected landowners who are and have been proponents of the
2 Project — who have contractually agreed to the siting development on their property —
3 and it is logically valid to assume that these landowners have no further claims related to
4 siting impairment issues.

5 The decisions taken by the state’s elected public officials — particularly the actions of the
6 legislature and Governor — form the basis for understanding the expressed preferences
7 and priorities related to competing social objectives (e.g., developing renewable energy
8 versus preservation of the *status quo* environment). These expressed social preferences
9 and priorities, combined with the multi-million dollar economic and fiscal benefits
10 associated with the Project, form the basis for my economic conclusion that no “undue
11 impairment” claims should preclude the Commission’s approval of the siting request
12 sought in these pending dockets.

13 **Q. PLEASE PROVIDE SOME GREATER DETAIL AS TO YOUR FINDINGS WITH**
14 **RESPECT TO THE ECONOMIC AND FISCAL IMPACTS ASSOCIATED WITH**
15 **THE PROJECT.**

16 **A.** These economic impacts come in the form of employment, income, construction activities
17 and additions to the tax base. The short-term impacts during the development period will
18 flow from the \$590 million capital investment for Project facilities. These developments
19 will occur over approximately 40 thousand acres of the two counties and will introduce
20 significant new economic activities for decades to come.

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1 The employment impacts are significant,¹⁵ with the Project creating some 214 full time
2 equivalent (“FTE”) jobs during peak construction, with an estimated 76 of those jobs
3 sourced from local labor resources.¹⁶ Payroll during the development phase can be
4 anticipated to add approximately \$3.85 million in income to the local labor force for the
5 Project construction alone. The bulk of these short-term impacts will occur in 2020.

6 Clines Corners estimates that of the total capital expenditures during construction of
7 Project, it is likely that \$131.2 million in contracts will flow to local construction service
8 providers.

9 Once construction is completed and operations commence, the Project is expected to create
10 approximately 20 permanent jobs with an annual payroll of approximately \$1.1 million and
11 total operating costs of approximately \$13.6 million per year.

12 The land lease and easement agreements with the private landowners on which the wind
13 generation facilities will be sited will provide direct new revenues to up to eight landowners
14 within the Project’s footprint. The Project’s landowners are expected to realize
15 approximately \$460 thousand of new revenues during the development period, and an
16 average of approximately \$1.3 million per year during the operations period.

¹⁵ Note that the development and operational information presented in the Report and this Testimony represents the best commercial information available based on contemporary markets, and was provided by the Applicant who developed the estimates on the basis of their own expertise as well as through the solicitation of this information during the bidding process for construction contractors.

¹⁶ Common to economic impact analyses are estimates of the “jobs” created by a development project. Direct jobs are relatively straight forward to estimate. Where development provides permanent jobs, economic multiplier models suggest indirect and induced job impacts may be forecast. However, I do not think it is appropriate in this particular setting and opt for presenting only direct employment (jobs) impacts. Thus, I have adopted a conservative approach, ignoring the creation of additional indirect/induced jobs. However, I do identify direct, indirect and induced economic activities (expenditures) associated with the operational expenditures and income/wages paid to these new employees (jobs).

1 GRT revenues will increase as a result of the construction activities by an estimated \$1.3
2 million for the Project's development. Fiscal impacts associated with property taxes are
3 muted as a result of the financing through IRBs, but provision is being made by the
4 developers to provide PILOTs to several of the municipal and school district beneficiaries
5 of these tax revenues in an amount estimated at approximately \$1.6 million per year.

6 In sum, the direct economic impacts of the Project during the development period are
7 anticipated to be \$131.2 million, with direct, indirect and induced (multiplier) impacts
8 suggesting a \$209.4 million impact from the development of the project. Once operational,
9 the Project should generate an annual direct economic impact of approximately \$10.7
10 million, and, when economic multipliers are considered, the annual impact from the Clines
11 Corners Wind operation can be estimated to be approximately \$16.3 million.

12 **REGIONAL ECONOMIC ANALYSIS**

13 **Q. DID YOU PREPARE A REGIONAL ECONOMIC ANALYSIS IN CONJUNCTION**
14 **WITH YOUR INVESTIGATIONS IN THIS MATTER?**

15 **A.** Yes. I prepared a survey of the economic and demographic data available for the two
16 county Study Area (i.e., Guadalupe and Torrance Counties), and present that data in
17 reference to the State of New Mexico as a whole. This detailed analysis is contained in my
18 Report which is attached as Exhibit JCT-2. Please note that for expositive ease, in the
19 following discussions of economic data I will *exclude* specific data source references, as
20 those detailed references for the data are presented and documented in the Report.

21 **Q. PLEASE PROVIDE A SHORT SUMMARY OF THE ECONOMIC AND**
22 **DEMOGRAPHIC PROFILE YOU DEVELOPED FOR THE STUDY AREA.**

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on Behalf of Clines Corners Wind Farm LLC

A. The Study Area is a largely a rural region of central New Mexico, dominated by high-desert range lands and forested mountain landforms on the western margins of the area. The largely rural area has significant access to major urban economic and cultural centers, with relatively close access to recreation and related mountain communities to the south and west, regional trade centers in Roswell and Alamogordo to the south, and the state's largest metropolitan area comprising the Albuquerque and middle Rio Grande suburban communities less than a two-hour drive from the Project area. These larger population centers, combined with the traditional ranching communities found within the Study Area, provide wide ranging economic and cultural resources which will provide support project activities.

An overview of the Study Area's population demographics is shown in Table 5.

Table 5: Study Area Population and Density

Study Area Counties (2017 Population Figures)			
County	Population	Geographic Area (Sq. Mi.)	Population Density (people/square mile)
Guadalupe	4,426	3,032	1.4
Torrance	15,534	3,346	4.6
Study Area Total	19,960	6,378	3.1

Q. PLEASE DESCRIBE THE STUDY AREA'S EMPLOYMENT AND THE LABOR MARKET CONDITIONS IN SOME GREATER DETAIL, PARTICULARLY AS RELATES TO THE POTENTIAL ECONOMIC AND FISCAL BENEFITS OF THE CLINES CORNERS WIND FARM PROJECT.

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1 **A.** As described in detail in my Report, with a labor force of about 7,120, the Study Area
2 makes up about 0.76% of the total statewide labor force of 936,237 in 2017.
3 Unemployment is higher than the statewide rate, at 8.1% compared to the 5.9% for New
4 Mexico. Average annual compensation is about \$33 thousand for the Study Area, versus
5 about \$44 thousand for the state. Retail Trade, Accommodation and Food Services, Public
6 Administration, Construction, and Health Care are the largest sectors in terms of non-
7 agricultural employment.

8 The Study Area Construction sector has a total employment of 248 people by the 55
9 establishments operating in 2018. Similarly, the Study Area's 32 establishments operating
10 in the Transportation sector employed 106 individuals in 2018. (See Exhibit JCT-2 for
11 additional detail)

12 **Q. PLEASE PROVIDE AN OVERVIEW OF THE ECONOMIC ACTIVITIES**
13 **REPORTED IN THE STUDY AREA.**

14 **A.** Excluding the agricultural sectors, the available data suggest that the Study Area's
15 economy is largely driven by Retail Trade; Accommodations and Food Services; Public
16 Administration; Construction; and Wholesale Trade. These five sectors alone comprise
17 around three-quarters of the Study Area's total annual employment by industry.

18 Agriculture, and ranching, in particular also play a significant role in the Study Area
19 economy. The 2012 Census of Agriculture indicates that there were 961 farms of an
20 average size of 3,792 acres in the Study Area. Agricultural land occupies approximately
21 83% of the Study Area, a total of 5,312 square miles. Most of the agricultural products that

1 are produced in the Study Area come from Torrance County, but given the rural character
2 of both counties, agricultural businesses still play a large role in both counties.

3 It is clear that agriculture is a significant foundation of the Study Area economy, but that
4 the previously identified non-agricultural sectors provide for the dominant employment
5 and income in the regional economy.

6 The Study Area had over \$22.8 million in GRT collections, providing 0.58% of the total
7 GRT collections in the State. The economic sector reporting the highest levels of GRT in
8 the Study Area is the Construction sector, with revenues from the sales in this sector
9 constituting 28% of the GRT collections. This is followed by the Retail Trade sector which
10 boasts 27% of the total GRT.

11 Property Taxes are a critical component of the fiscal impact analysis, as this is the primary
12 revenue source for county government operational budgets in the Study Area. Torrance
13 County accounts for about three-fourths of the total property tax receipts in the Study Area.
14 Statewide, property tax obligations for county operations and debt service within New
15 Mexico total over \$542 million, with the Study Area counties collecting 1.3% of that for
16 2018. As a whole, about 64% of Study Area property taxes are collected from
17 nonresidential property, and 36% from residential property.

18 **PROJECT DEVELOPMENT IMPACTS**

19 **Q. PLEASE DESCRIBE THE SPECIFIC IMPACTS THAT THE PROJECT'S**
20 **DEVELOPMENT WILL HAVE IN THE STUDY AREA'S ECONOMY.**

21 **A.** The development of wind generation facilities of the magnitude contemplated for the
22 Project involves significant land resources and several specialized construction

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capabilities. The wind turbines must be erected by specialized teams, and manufacturers' warranties obligate many construction activities to be performed directly by the manufacturer's construction teams. It is possible that some specialized wind turbine construction teams will consist of turbine manufacturer employees due to manufacturer warranty requirements. However, there are significant construction activities that require construction services obtained from local resources. Table 6 provides an estimated level of employment during the construction phase of the Project.

Table 6: Clines Corners Wind Farm Project Construction Employment

Estimated Construction Employment						
	Total FTE	Total W&S (\$MM)	Local %	Local FTE	Local W&S (\$MM)	
Construction and Interconnection Labor	191	\$9.87	35%	67	\$3.45	
Construction Related Services	23	\$1.00	40%	9	\$0.40	
Total	214	\$10.87	36%	76	\$3.85	

It would appear that significant portions of the local labor requirements may be sourced from the locally available labor force. Specialized trade skills (e.g., high voltage linemen) may not be available in the Study Area *per se*, but the proximity to Albuquerque and the associated bulk of the state's construction contracting firms increase the likelihood that the required skilled labor requirements may be met by in state resources.

Q. PLEASE DESCRIBE THE DIRECT EMPLOYMENT REQUIREMENTS FOR THE PROJECT OVER THE THIRTY (OR MORE) YEARS THEY ARE ANTICIPATED TO BE OPERATIONAL IN THE STUDY AREA.

A. The Applicant has estimated that during the anticipated thirty-year (or greater) operational phase of the Project there will be a number of full-time positions created, and has estimated

that 20 permanent full time personnel in order to operate and maintain the facilities. At a projected average wage of approximately \$55 thousand per person, these jobs are expected to pay well above the Study Area average compensation of \$32 thousand per year.

Q. PLEASE DESCRIBE THE TOTAL PROJECT COSTS FOR DEVELOPMENT OF THE PROJECT.

A. Based on the information that has been provided by the Clines Corners personnel in preparation of this analysis, I am able to summarize the wind generation facilities project costs in Table 7. It should be noted that these are estimated costs, as the actual costs will not be known until construction awards are made to the various entities who will be involved in the development activities.

Table 7: Estimated Clines Corners Wind Farm Project Costs

Estimated Project Costs		
	Estimated Cost	Local Component
Turbines & BOP	\$472.5	\$94.5
Developer / Finance / Contingency Expenses	\$85.2	\$13.5
Interconnection Costs	\$29.8	\$20.8
Roads	\$2.0	\$2.0
Land Owner Payments, Crop Damage	\$0.5	\$0.5
Total Project Costs	\$589.9	\$131.2

With total project costs projected to be \$590 million, the development of the Project is a major capital investment in the Study Area that is anticipated to have a useful life of at least thirty years.

Q. PLEASE DESCRIBE YOUR UNDERSTANDING OF THE SPECIFIC DIRECT IMPACT OF THE DEVELOPMENT OF THE PROJECT'S CONSTRUCTION ACTIVITIES IN NEW MEXICO AND THE STUDY AREA.

1 **A.** The Applicant has provided information to assess the specific local contracting activities
2 that are anticipated with the generation projects. The components of project costs that are
3 likely to be provided by local contractors and labor resources are in the balance-of-project
4 (“BOP”) category of Total Costs, shown in Table 7.

5 In summary, it is anticipated that the Project will provide about \$131.2 million in local
6 construction (and related) activities during its development. These EPC-related (i.e.,
7 engineering, procurement, and construction) costs are inclusive of labor costs in
8 performing these activities.

9 **ECONOMIC AND FISCAL IMPACTS ANALYSIS**

10 **Q. PLEASE DESCRIBE THE ECONOMIC AND FISCAL IMPACTS THAT YOU**
11 **HAVE ANALYZED.**

12 **A.** I have discussed the direct economic impacts of the Project in the proceeding as elements
13 of construction-related costs likely to be sourced from local resources, and local
14 employment during construction and operations.

15 There are additional direct economic impacts associated with the landowners’ benefits, and
16 the indirect and induced economic impacts that will occur with the new economic activities
17 brought to the Study Area (i.e., economic multipliers). The fiscal impacts relate to gross
18 receipts and income tax revenues generated by this new economic activity, and the
19 treatment given to the new assets in the context of property tax burdens in each of the two
20 counties.

21 **Q. ARE THERE ANY PROPERTY TAX ISSUES ASSOCIATED WITH THE**
22 **DEVELOPMENT OF THE CLINES CORNERS WIND FARM?**

1 **A.** Yes. As previously mentioned, IRBs are currently being negotiated for the Project in New
2 Mexico, but given the total estimated project costs of \$590 million, the total amount of IRB
3 financing can be expected to approach that amount. The specifics of the Property Tax
4 benefits flow from the statutory provisions relating to IRBs. The specific benefit is to treat
5 the tangible property acquired with the proceeds of the bonds as non-taxable property
6 assets. Without discussing the details of how IRBs create property tax benefits, it is
7 enough to say the tangible property assets that are purchased with the IRBs are exempted
8 from property tax liability for the thirty-year life of the bonds.

9 **Q. WHAT IS THE ECONOMIC ROLE OF PROPERTY TAX IN THE STUDY AREA**
10 **CURRENTLY?**

11 **A.** The Study Area 2018 Property Tax rates are established for each of two counties as a
12 whole, and the major communities and school districts based on an assessed taxable value
13 of about \$582 million, comprised of \$211 million in Residential and \$371 million in Non-
14 Residential assessed tangible property. 2018 property tax obligations totaled nearly \$6.7
15 million. Details of these Property Tax rates and revenues are provided in the Clines Corners
16 Wind Economic Report and its Technical Appendix.

17 **Q. WILL THE DEVELOPMENT OF THE PROJECT IMPACT CURRENT**
18 **PROPERTY TAX COLLECTIONS?**

19 **A.** No, at least not directly. The only specific impact will be to provide additional income that
20 potentially supports additional tangible property investments that could raise the total
21 assessed property value over time, and thereby indirectly increase Property Tax revenues.
22 However, the direct effect of the IRBs is to keep the tangible property values associated

1 with the nearly \$590 million capital project from being subject to Property Tax liability
2 during the term of the revenue bonds. This can be considered to be a fiscal opportunity
3 cost associated with the wind generation development.

4 **Q. HAS THE PROPERTY TAX OPPORTUNITY COST BEEN ADDRESSED IN THE**
5 **CONTEXT OF THE PROJECT PROPOSAL?**

6 **A.** Yes. The Project is or will be negotiating to provide annual PILOT compensation
7 agreements with several of the Study Area entities directly impacted by the potential
8 property tax abatements under the proposed project IRBs. Details as to the specific status
9 of these negotiated PILOTs are not final and must be kept confidential until completed.
10 However, these PILOTs may be thought to reduce or eliminate the fiscal impacts of the
11 Property Tax “opportunity costs” that result from the issuance of IRBs for the Project while
12 providing traditionally elusive long-term revenue for rural municipalities and counties.

13 **Q. YOU MENTIONED THAT THE DIRECT ECONOMIC IMPACTS WILL**
14 **PRODUCE INDIRECT AND INDUCED ECONOMIC IMPACTS. PLEASE**
15 **EXPLAIN THIS ECONOMIC IMPACT FURTHER.**

16 **A.** When economists discuss the benefits of the expansion of an economic activity, they also
17 recognize that direct economic benefits create an indirect benefit associated with the
18 additional economic activity from industries buying from other local business sectors. For
19 example, the direct construction activities associated with the project will result in
20 additional lodging and hospitality revenues for the local businesses hosting the out-of-area
21 workers, and other indirect retail trade purchases as a result of increased disposable income
22 in the economy. These are referred to as indirect impacts, or Type I economic multipliers.

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1 A further extension of the economic multiplier analysis takes account of the increased
2 economic activities on the social “institutions” (i.e., households, state and local
3 government, federal government, and capital) that first obtain direct and indirect benefits,
4 and then recognize that every dollar collected locally by that institution will be re-spent for
5 that local institution’s operations. Including the induced effects in the economic multiplier
6 analysis provides a “Type SAM” (Social Account Matrix) multiplier.

7 Without belaboring the derivation of these two multipliers, both the US Department of
8 Commerce and private firms provide information as to the economic multipliers for
9 specific states or local regions. With respect to a state with an economic “footprint” as
10 small as New Mexico, the statewide economic multipliers are generally a more accurate
11 depiction of the indirect and induced economic impacts from new economic activities.

12 **Q. WHAT ARE APPROPRIATE TYPE I AND TYPE SAM ECONOMIC**
13 **MULTIPLIERS FOR THE PROJECT’S DEVELOPMENT AND OPERATIONS?**

14 **A.** The Minnesota IMPLAN Group, Inc. provides a commonly utilized model, and I have
15 relied on multipliers from a 2017 version of this model for New Mexico. The specific
16 economic multipliers used in this analysis are provided in Table 8:

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Table 8: Economic Multipliers, by Sector

Economic Multipliers for Analysis of Project Impacts		
Sector Description	Indirect Impacts (Type I)	Indirect & Induced Impacts (Type SAM)
Construction of other new nonresidential structures (Development Phase)	1.270060	1.594823
Electric power generation - Wind (Operations Phase)	1.349076	1.490446
Beef cattle ranching and farming (Landowner Benefits)	1.580618	1.782938

During the Development Period for the Project, it is appropriate to utilize a set of multipliers for the sector defined as “construction of other new nonresidential structures.” During the Operational Periods of the Project, it is appropriate to use multipliers for the “Electric power generation - Wind” sector. Landowner payments pose a unique problem in the context of economic multiplier analysis. The payments to be received by the landowners are in addition to the normal income obtained from their agricultural operations. It is appropriate to presume that these landowners will continue their primary agriculturally-related economic activities, and to a certain extent the payments obtained are simply additional return to the land. As such, the most meaningful economic multipliers relate to the “Cattle ranching and farming (Beef cattle)” sector of the economy.

Q. PLEASE SUMMARIZE THE ECONOMIC IMPACTS OF THE PROJECT.

A. Error! Reference source not found. summarizes the economic impacts, including the Type I (Direct & Indirect) and Type SAM (Direct, Indirect & Induced) economic multiplier impacts of the Project as a whole (note: Operational Period Impacts are reported as annual impacts). It is anticipated that the Development Period is likely to be completed in 2020, and that the Operational Period will commence in the fourth quarter of 2020 and continue for

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Table 9: Summary of Economic Impacts

Summary of Economic Impacts (\$millions)			
	Direct Impact	Direct & Indirect Impact	Direct, Indirect, & Induced
Development Phase Impacts			
Local Construction Contracts	\$130.8	\$166.1	\$208.6
Land Owner Benefits	\$0.5	\$0.7	\$0.8
Total Development Phase Impacts	\$131.2	\$166.8	\$209.4
Operational Period Impacts (Annual Average)			
Operational Costs	\$9.4	\$12.70	\$14.03
Land Owner Benefits	\$1.3	\$2.03	\$2.29
Total Annual Operational Period	\$10.7	\$14.7	\$16.3

approximately thirty years. While the Project may well continue operations after thirty years — and it is reasonably likely that these projects or substantially similar wind generation and transmission projects will persist in the Study Area long-after this timeframe — we have limited our analysis to a thirty-year reasonable useful life timeframe.

Q. PLEASE SUMMARIZE THE FISCAL IMPACTS OF THE PROJECT.

A. As previously discussed, there are basically three programs in which fiscal impacts occur: Income Tax (personal and corporate) will accrue to the state based on additional wage, salary and income earnings; GRT will accrue associated with taxable gross receipts relating to the generation Project's economic activities; and Property Tax, which I have previously discussed.

With respect to Project, there is anticipated to be a GRT liability of approximately \$1.3 million in the construction-related activities. I previously mentioned that a portion of the GRT will flow back to the county and municipal governments.

It is useful to understand the specific economic benefit obtained by the county and local municipal entities from the distribution of GRT revenues. In the case of construction

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1 services, which will form the bulk of development phase taxable activities, the location of
2 the actual activity will determine the location of the tax revenue. The location of the activity
3 will also determine the GRT rate that is applied to the activity and how that revenue is
4 distributed. A brief discussion of the structure of the GRT in New Mexico will provide a
5 better understanding of how local governments stand to benefit from the Project.

6 Each local government is allowed to enact a certain amount of local GRT increments. The
7 State of New Mexico also imposes a 5.125% GRT rate. The GRT rate in a given location
8 is the combination of the state, county, and applicable city rates. To add a further
9 complication, the state shares 1.225% of its 5.125% with municipalities, but not with
10 counties. The rates imposed in each county and municipality in the Study Area are
11 discussed in greater detail in my Report (Exhibit JCT-2).

12 All of this is to illustrate how revenues from taxable activities associated with the Project
13 will flow to the various government entities. For example, every dollar of GRT generated
14 in unincorporated Guadalupe County — with a total gross receipts rate of 6.4375% — will
15 be shared between the state and Guadalupe County at about \$0.20 to the county and \$0.80
16 to the state. In the City of Santa Rosa, the situation would be slightly different: every dollar
17 of GRT generated there — at a total GRT rate of 8.0% — would be shared three ways; the
18 state would receive about \$0.49, Guadalupe County would receive about \$0.13, and the
19 City of Santa Rosa about \$0.38.

20 Similarly, New Mexico Income Tax liabilities have significant exemptions and deductions
21 that make estimates of the actual revenues collected nearly impossible with the information

1 available. It is not reasonable to speculate with respect to Income Tax liabilities related to
2 project activities (at this time).

3 **Q. DO THE GRT FISCAL IMPACTS INCLUDE TAX ON THE TRANSMISSION**
4 **REVENUES EARNED BY WESTERN SPIRIT FROM THE PROJECT**
5 **ACTIVITIES?**

6 **A.** No. Although there are significant transmission costs, previously discussed in relationship
7 to Western Spirit's transmission of the electricity generated by the Project, there are no
8 GRT implications for those transmission activities. In particular, the statute provides that:

9 Receipts from transporting . . . property from one point to another in this
10 state may be deducted from gross receipts when such . . . property,
11 including any special or extra service reasonably necessary in connection
12 therewith, is being transported in interstate . . . under a single contract. [§7-
13 9-56 (A) NMSA 1978]
14

15 Thus, the long-term direct sale Purchase Power Agreements that Clines Corners executes
16 with the out-of-state utilities (or other purchasers) are a single contract transaction of
17 property (i.e., electricity) in interstate commerce that is not subject to GRT.

18 **Q. DO THE STUDY AREA GOVERNMENTAL ENTITIES BENEFIT DIRECTLY**
19 **FROM THE GRT REVENUES COLLECTED BY THE STATE?**

20 **A.** Yes. The specific economic benefit obtained in the Study Area from Project is shared by
21 the counties and local municipal entities from the distribution of GRT revenues. In fiscal
22 year 2018 (July of 2017 through June of 2018) there was approximately \$8.3 million in
23 GRT distributions to the counties and municipalities in the Study Area, as shown detailed
24 in my Report.

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1 Thus, it can be seen that the estimated \$1.3 million in GRT liability associated with the
2 Project development will provide significant additional direct contributions to the
3 government operations in the Study Area during the Development Period.

4 However, discussion of the specific allocation of those tax revenues to the government
5 entities in the Study Area is not possible with the data available, as the location of the
6 business activities that produce GRT liabilities is dependent on the specific location of the
7 business entity engaged in those activities.

8 The direct fiscal impacts quantified here are tied to the developer's (and its contractors')
9 specific business activities that are not exempt from GRT pursuant to the financing of the
10 Project's development through IRBs.

11 Additional fiscal impacts will occur as a result of the effects of indirect and induced
12 "economic multiplier" impacts; however, these "multiplier-related" impacts are entirely
13 speculative. That is, there is no ability to identify where these indirect and induced
14 multiplier impacts will occur, and correspondingly the tax rates applicable to the additional
15 Taxable Gross Receipts generated by these additional economic activities. For the impact
16 estimates provided in this Report they are noted and summarily ignored, with the additional
17 note that this approach provides a conservative assumption related to fiscal impacts.

18 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

19 **A.** Yes.

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

**IN THE MATTER OF THE APPLICATION FOR)
THE LOCATION OF THE CLINES CORNERS)
WIND FARM AND GEN-TIE SYSTEM IN)
TORRANCE AND GUADALUPE COUNTIES)
PURSUANT TO THE PUBLIC UTILITY ACT, NMSA)
1978, §§62-9-3 AND 62-9-3.2)
)
CLINES CORNERS WIND FARM, LLC)
)
APPLICANT.)**

Case No. 19 - _____

EXHIBITS JCT-1

JOHN C. TYSELING, Ph.D.

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 Two Park Square, 6565 Americas Parkway NE, Suite 600 Albuquerque, New Mexico 87110

EMPLOYMENT HISTORY:

2013-present Consulting Director, Moss Adams LLP
 Albuquerque, New Mexico

Moss Adams offers diverse professional services, with the firm's practice comprising one of the nation's largest accounting and business consulting firms. Consulting services are focused on analysis of economic value, strategic capital investment, market regulation, tax policy, litigation strategies, regulated utility services and a variety of energy and natural resource issues. Offering expertise in broad array of economic market and natural resource analyses, including strategic planning analysis, economic performance assessment, transfer pricing, and market valuation with particular focus on electricity, natural gas, natural gas liquids, oil, coal, renewable energy, air quality emissions compliance strategies, and energy information systems. Extensive litigation support and analysis services are provided, including recognized expert witness testimony on issues relating to market competition, economic damages, economic valuation, natural gas and electric market regulation, utility rates, renewable energy resources, lease and sales contracts, water resource issues, and other natural resource policy issues. Acknowledged leadership in design and deploying information systems applications in natural resource management, market monitoring, royalty/tax systems, energy performance and management, and life-cycle analyses of capital investment and business planning to both public and private clients.

2012-2013 Chief Economist — Tax Analysis, Research and Statistics Division
 Office of the Secretary, Taxation and Revenue Department State of New Mexico,
 Santa Fe, New Mexico

Direction of research, forecasting, and analyses of New Mexico state government's revenues (nearly \$6.0 billion in FY2014), with responsibilities for analyses of all tax programs including gross receipts, compensating, corporate income, personal income, severance, motor vehicle, fuel and other taxes administered by the state. Leadership in multi-agency efforts providing consensus forecasting of state general fund and other revenue funds relying on comprehensive econometric modeling and complex statistical methodologies. Primary role in developing analyses of state tax expenditures, including estimation of tax base and economic impacts of various exemptions, credits and deductions allowed pursuant to statutory and agency regulatory policies. Mentoring, supervision and direction of staff economic analysts, with responsibility for coordination of state tax policy investigations across various revenue divisions of department and other state agencies. Duties include ad hoc investigations and analysis for Office of the Governor and other executive agencies, as well as coordination of executive agencies analyses of tax policy and revenue forecasting with legislative entities.

1992-2013 President, Energy, Economic and Environmental Consultants
(A Division of E3c, Inc.) Albuquerque, New Mexico

Association of consulting professionals focused on analysis of energy and environmental resource market issues. Expertise in broad array of economic market and natural resource analyses, including capital investment strategies, economic performance, and market valuation with particular focus on natural gas, natural gas liquids, oil, coal, renewable energy, air quality emissions compliance strategies, and energy information systems. Expert witness services provided on issues relating to market competition, economic damages, economic resource valuation, natural gas and electric market regulation, utility rates, renewable energy resources, lease and sales contracts, water resource issues, and other natural resource policy issues. Emphasis on integration of natural resource market information systems applications, and life-cycle analyses of capital investment and business planning.

1985-1992**Director, Economic, Statistical & Policy Analysis Division**

New Mexico State Land Office, State of New Mexico, Santa Fe, New Mexico

Direction of research, resource management and policy analyses pertaining to diverse economic values of the natural resource attributes of New Mexico state trust lands encompassing approximately nine million surface acres and thirteen million mineral rights acres. Supervisor of staff statistical and economic analysts engaged in natural resource management and leasing. Specific natural resource issues addressed:

Natural Gas — Interstate natural gas pipeline tariffs, international gas resource/transportation competition, competitive access to domestic natural gas markets, pipeline service comparability, natural gas transportation agreements, natural gas sales contracts, unconventional gas resource valuation/production incentives, natural gas processing plants and processing agreements, natural gas pricing issues, Clean Air Act and alternative fuel opportunities for natural gas resources.

Oil — Interstate oil pipeline regulations and tariffs, market pricing and valuation issues, secondary and tertiary recovery techniques and incentives, international and domestic oil pricing issues, and oil lease property reclamation.

Coal — Coal resource valuation, coal lease policy, coal market competition, transportation and lease development constraints.

Water — Regional water resource planning, water rights issues, resource development policy, competitive market valuation, water easement contract negotiations and export application litigation strategy.

Wilderness Land Policy — Inventory of wilderness land values and land exchange policy analysis.

Surface Resources — Establishment of grazing fees, exchange valuation, environmental damage remediation, and recreational/hunting access.

Responsibilities include various economic, administrative and management issues relating royalty valuation policy, mineral audit management and strategy, natural resource market evaluations, lease term extension policy, revenue, employment/wages and fiscal policy management. Procurement manager, lead negotiator, management team and contract administration responsibilities for multi-agency oil and natural gas database design and development project (\$13 million contract, thirty-month project).

1979-1985**Economist**, Bureau of Business and Economic Research, University of New Mexico, Albuquerque, New Mexico

Direction and participation in numerous multi-disciplinary and analytical research projects. Topics investigated included: water rights markets and water resources planning; coal resources; employment, wage, construction and mining forecasting (by sector); general economic activities and conditions in New Mexico. Responsibilities include: research design, supervision, scheduling, budgeting, field interviews, computer modeling, writing and editing final reports of all research activities. Several private consulting engagements also taken, and courses taught as guest lecturer in both Economics Department and Law School during this period.

1977-1979**Graduate Research Assistant**, Department of Economics, University of New Mexico, Albuquerque, New Mexico

Responsible for multi-disciplinary research activities, draft and final report preparation, coordination of research activities among differing groups of researchers, and substitute teaching of economics courses. Research topics included water resources, recreation demand analysis, and the wrecker industry in New Mexico.

EDUCATION:

Ph.D., University of New Mexico, Department of Economics, 1986. Major Fields: Applied Natural Resource Economics and Natural Resources Law.

M.A., University of New Mexico, Department of Economics, 1979.

B.A., University of New Mexico, 1978. Majors: Economics and Philosophy.

EXPERT TESTIMONY:

Recognized expert testimony and commentary before United States District Courts, New Mexico State District Courts, Texas State District Courts, Colorado State District Courts, Oklahoma State District Courts, Federal Energy Regulatory Commission, U.S. Department of Energy, California Public Utilities Commission, California Energy Commission, Colorado Public Utility Commission, Mississippi Public Service Commission, Public Utilities Commission of Nevada, New Mexico Public Regulation Commission, Nevada State Engineer, New Mexico State Engineer, and the New Mexico Legislature relating to market structure and competition issues, economic damages, energy commodities market valuation, public utility rate regulation, renewable energy resource development, energy contract issues, natural resource royalty valuation and taxation, natural gas gathering and processing facilities, natural gas pipeline capacity brokering, energy transportation and distribution services, mineral development, utility service comparability issues, regulated asset gain allocation and distribution, energy utility procurement and planning issues, water resource management policy and public welfare issues in water right applications.

RICHARD AND DENISE KUFFA

In the Matter of Richard & Denise Kuffa v. Statoil USA Onshore Properties Inc., AAA No. 01-17-0005-6012; Deposition, November 20, 2018; Expert Report, October 17, 2018.

MICHAEL NEWBERRY AND CAROL NEWBERRY, ET AL. (CLASS ACTION)

In the Matter of Rayanne Regmund, et al. v. Talisman Energy USA, Inc., et al., Case No. 4:16-cv-02960, United States District Court, Southern District of Texas, Houston Division: Testimony, August 24, 2018; Expert Report, August 16, 2018.

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"Optimizing Utility Infrastructure through Integrated Planning," presented at the Campus of the Future Meeting of the Minds, a first-of-its-kind joint conference of three leading associations that serve higher education The Association of Higher Education Facilities Officers: (APPA), the National Association of College and University Business Officers (NACUBO), and the Society for College and University (SCUP), Honolulu, Hawaii, July 6, 2006.

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PROFESSIONAL MEMBERSHIPS:

AMERICAN ECONOMIC ASSOCIATION
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ROCKY MOUNTAIN MINERAL LAW FOUNDATION
NEW MEXICO ASSOCIATION OF COMMERCE AND INDUSTRY
NEW MEXICO OIL AND GAS ASSOCIATION
APPA: LEADERSHIP IN EDUCATIONAL FACILITIES
NEW MEXICO WATER RESOURCES RESEARCH INSTITUTE, ANNUAL MEETING STEERING COMMITTEE

PROFESSIONAL AWARDS, RECOGNITION AND APPOINTMENTS:

CHAIRMAN, TAX POLICY COMMITTEE, New Mexico Association of Commerce and Industry, 2015-2017 and 2019.

MEMBER, United States Extractive Industries Transparency Initiative Advisory Committee, 2012-2013.

ALUMNUS OF THE YEAR, Department of Economics, University of New Mexico, May 2012.

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BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

**IN THE MATTER OF THE APPLICATION FOR)
THE LOCATION OF THE CLINES CORNERS)
WIND FARM AND GEN-TIE SYSTEM IN)
TORRANCE AND GUADALUPE COUNTIES)
PURSUANT TO THE PUBLIC UTILITY ACT, NMSA)
1978, §§62-9-3 AND 62-9-3.2)**

Case No. 19 - _____

**CLINES CORNERS WIND FARM, LLC)
)
)**

APPLICANT.)

EXHIBITS JCT-2



***REPORT ON THE ECONOMIC AND FISCAL IMPACTS OF
THE CLINES CORNERS WIND FARM PROJECT***

CLINES CORNERS WIND FARM LLC

May 8, 2019

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Introduction and Summary

INTRODUCTION AND PROJECT DESCRIPTION

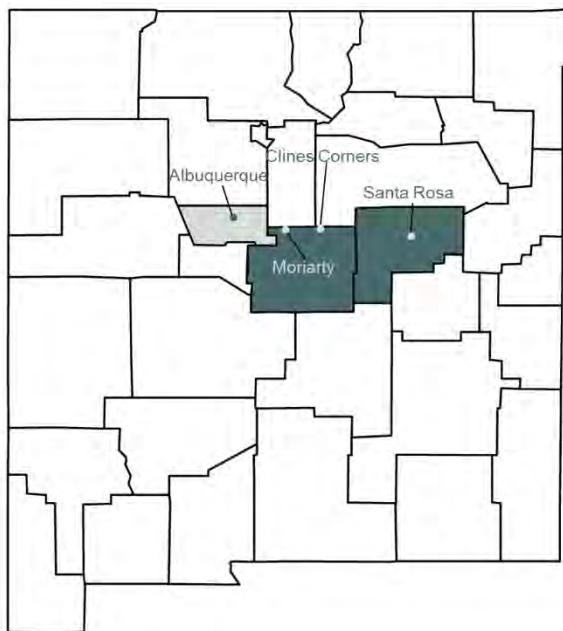


Figure 1: Study Area Map

Moss Adams LLP has been retained by Orion Wind Resources LLC (“Orion Wind Resources”) to provide an economic and fiscal impact analysis for Clines Corners Wind Farm LLC (“Clines Corners” or “Applicant”) and the Clines Corners Wind Farm Project (“Project”) in Guadalupe and Torrance Counties.

This report is prepared in support of the Application to the New Mexico Public Regulation Commission (“NMPRC” or “Commission”) for approval of the siting of the Project and is being prepared as Project plans are still being finalized.

The Project’s impacts are presented here recognizing that the NMPRC Application

requires presentation of project design elements which may change as the Clines Corners Wind Farm Project resolves various details. To the extent necessary, Moss Adams may supplement this Report with more precise estimates of the economic and fiscal impacts once the Project’s specifications are finalized.¹

Based on the current engineering estimates provided by the Applicant, the Project consists of 176 2.5 Megawatt (“MW”) wind turbines for a total generation capacity of 440 MW.² The final number of wind turbines will not be determined until later in the development process when a final model is selected. The Project will be located in parts of Guadalupe and Torrance Counties in the east central portion of New Mexico. The Project will be constructed along the Guadalupe – Torrance County border, south of Interstate 40. This

¹ To the extent any Project details change which would materially modify the estimated impacts discussed in this Report, Moss Adams may be required to subsequently supplement its opinions with more precise estimates of the economic and fiscal impacts prior to a hearing on Orion Wind Resources’ Application.

² At this stage in the development process, the Project configuration considered is the best available, currently planned configuration. Final project specifications could range from 440 MW to 480 MW, using turbines ranging from 2 MW to 4.2 MW each. All further references will be to the current project configuration.

central New Mexico region is located on the far western edge of the Great Plains, and is considered to be a prime wind power region recognized for its superior generation resource potential.³

The energy generated by the Project will connect to the Western Spirit Transmission Line (“Western Spirit”) via an approximately 18.72 mile 345 kV generation intertie system (“Gen-Tie System”). The point of interconnection will be at a new switchyard location in the vicinity of the El Cabo substation. The Gen-Tie System is the second major component of the Project. Western Spirit⁴ will interconnect with the interstate transmission grid at Public Service Company of New Mexico’s (“PNM’s”) 345 kV transmission facilities north of Clines Corners. Neither the Western Spirit nor the PNM transmission facilities are analyzed as components of this Report.

REGIONAL ECONOMIC IMPACTS: SUMMARY

The Report analyzes economic impacts including the construction and operation of the Clines Corners Wind Farm Project, and focuses on the employment, spending/income and base economic development impacts.⁵ The fiscal impact assessment will address taxation and government revenue impacts. This report presents the specific results of the impact analyses, as well as outlining the data and methods used to arrive at these results. Impacts will be grouped into two broad categories – impacts related to Project development and construction (“Development Phase”), and impacts related to ongoing operations and maintenance of the Project (“Operations Phase”). A summary of those results are presented in Table 1.

³ US Department of Energy, Office of Energy Efficiency & Renewable Energy, “New Mexico’s Clean Energy Resources and Economy”, 2013. Average wind speeds along the border between Torrance and Guadalupe Counties where the initial phase of the Project is to be sited are estimated between 8 and 9.5 meters per second. Wind resource estimates developed by AWS Truepower, LLC for windNavigator . Web: <http://www.windnavigator.com> | <http://www.awstruepower.com>. Spatial resolution of wind resource data: 2.5 km. Projection: UTM Zone 12 WGS84

⁴ Western Spirit Transmission Line (“WSTL”) is currently under joint development by the Renewable Energy Transmission Authority of New Mexico (“RETA”) and Pattern Development (“Pattern”). See <https://westernspirittransmission.com/project-overview/> for additional details. Once operational, RETA will own the WSTL.

⁵ This method can be described as an “export-base” method because it recognizes only those local expenditures that are supported by out-of-state revenues as having a tangible impact on the state economy. New Mexico in-state investment dollars would presumably flow to some other activity and yield a similar economic impact if the Clines Corners Wind Farm Project did not exist.

Table 1: Summary Economic Impacts

Summary Economic Impacts of The Clines Corners Project ⁶ (30-Year Analysis) (\$millions)									
	Local Construction Expenditures (Including W&S)	Local O&M Employment (FTE)	Local O&M Wage & Salary	Landowner Payments	Other Operating Costs	GRT & PILOT Payments	Direct Economic Impacts	Direct & Indirect Economic Impacts	Direct, Indirect & Induced Economic Impacts
Total Economic Impact	\$131	20	\$33	\$39	\$282	\$50	\$485	\$653	\$748
DPV of Impacts (@5%)	\$131	N/A	\$17	\$20	\$145	\$26	\$313	\$416	\$485

The bases for these estimated impacts are detailed in the following, as are the bases for projecting additional impacts from “indirect” and “induced” economic activity multipliers. Also stated in Table 1 are summary of the impacts over time when discounted to a present value (“DPV”) at a 5% discount rate.

A particular focus of this report is the role of the Project in the context of realizing the local and regional economic objectives with the development of these energy resources. Where meaningful measures quantifying these values are possible, we report the estimates of these measured benefits. Where the Project’s development addresses goals articulating general economic and energy policy objectives, we will express those principles and analyze benefits as unquantified components of the development’s impact assessment. It is anticipated that as Project-related approvals and development continues, the estimates of the impacts will be able to be refined and quantified with greater precision.

Additionally, although widely recognized as providing positive external economic benefits — such as providing additional electric generation with no carbon emissions, decreasing water use in electricity generation related to development of wind energy, relative compatibility with existing agricultural land uses, and public health benefits associated with avoidance of air quality degradation — the broader economic benefits associated with increased penetration of renewable energy generation in electricity markets are not quantified in the Report’s analysis.⁷ Commonly identified as “positive externalities” in the

⁶ The summary table values do not sum due to the exclusion of Payments-in-Lieu-of-Taxes (“PILOT”) from the Direct and Indirect Economic Impact calculations. These are direct payments to government entities (i.e., *fiscal* impacts) and are captured as Induced Benefits.

⁷ There are both directly measureable benefits (e.g., health-related hydrocarbon emissions reductions, reductions in water used in energy, etc.) and economic benefits that reflect social preferences that cannot be directly measured (e.g., reduction in the risk of environmental

economic literature, the valuation of such external benefits are difficult to quantify and require speculation as to future values provided by these social benefits from the wind turbine generation facilities. It is sufficient to simply mention these additional economic benefits from the Clines Corners Wind Farm Project's development.

POSITIVE EXTERNALITIES

Externalities generally are discussed as a form of market failure – that is, the transaction values that are observed to occur in a market process *fail to incorporate all the economic values that impact the people in the affected area*.

Where *benefits* are realized by third-parties (not directly involved in the economic activities) that are not incorporated in the transacted economic values, *positive externalities* are present.

Individuals who benefit from positive externalities (without paying) are considered to be free-riders, and it may be important in a society's decision process to acknowledge free-riders and expressly recognize any substantial external benefits.

[See Baumol, W. J. (1972). "On Taxation and the Control of Externalities". *American Economic Review*. 62 (3): 307–22; Pigou, A.C. (1920). *Economics of Welfare*. Macmillan and Co.]

contamination from petroleum production, transportation and storage; increased economic security associated with sustainable energy strategies, etc.).

Economic Foundations

DESCRIPTION AND OVERVIEW OF THE CLINES CORNERS WIND FARM PROJECT

New Mexico's potential for wind generation ranks as the third highest in the United States.⁸ Wind currents in combination with land availability make New Mexico an optimal location for wind energy developers. Orion Wind Resources LLC ("Orion Wind"), a joint venture between Orion Renewable Energy Group LLC and MAP® Renewable Energy, have identified this opportunity, launching the development of the Project.

The Clines Corners Wind Farm will be located on approximately 39,580 acres of private land in Torrance and Guadalupe counties in central New Mexico, with an additional 150 ft wide transmission easement for approximately 18.72 miles (Gen-Tie System). The Project will consist of wind turbines producing 2.5 Megawatts (MW) each, with the 176 turbines providing a nameplate capacity of 440 MW, and producing an estimated 2 million megawatt-hours (MWh) each year. In addition to the wind turbines, there will be one or more operations and maintenance buildings, underground power collection lines, up to three Project substations with electrical transforming capabilities, service access roads, and other facilities and equipment related to the operation of the Project.

The Project site is accessible from public roads for construction equipment and heavy machinery. In addition to the wind facilities, the Applicant is planning to construct and operate a new approximately 18.72 mile 345 kV Gen-Tie System to the proposed Western Spirit transmission line to the west of the site. Western Spirit will interconnect at PNM's recently constructed 345 kV Clines Corners substation, north of I-40.

The Project will also produce positive economic benefits in the region, primarily in the form of landowner income. It is estimated that the Project will bring approximately 214 peak construction jobs. Construction is anticipated to be completed within 12 to 18 months. After the Development Phase is completed, there will be approximately 20 new permanent jobs for the duration of the Operations Phase. The Applicant expects that the Development Phase may begin as early as the first quarter of 2020, with the Project entering commercial operation by the end of the year, depending on development factors.

The development of the Project aims to achieve the goal of providing energy from a sustainable source while retaining the rural residential character and culture of the counties. Use of the agricultural property in the vicinity will not be harmed. Cattle ranching

⁸ U.S. Installed and Potential Wind Power Capacity and Generation. (n.d.). Retrieved April 9, 2019, from <https://windexchange.energy.gov/maps-data/321>

and other agricultural activities will not be interfered with and wildlife will continue to run free.⁹

ECONOMIC DEVELOPMENT IMPACTS OF THE CLINES CORNERS WIND FARM PROJECT

Viewed from a broad statewide economic development perspective, the siting and development of renewable wind generation and related infrastructure of the scope contemplated by the Project creates many robust and long-term economic opportunities for the state of New Mexico.

Development of the electric generation and transmission facilities comprising the Project offers New Mexico highly desirable private economic development investments. Investments in these wind generation and transmission facilities stimulate substantial growth in the renewable energy sector, and foster an economic development climate that broadens the state's long-standing role as a sustainable participant and energy exporter in the energy marketplace. This Report also demonstrates that the economies of the two counties most directly impacted by the Project will obtain sorely needed injections of substantial new capital assets and related development benefits, both of which will stimulate broader economic growth in rural New Mexico for decades to come. In short, the renewable energy facilities developed will help mitigate the economic challenges facing the rural New Mexico economy, and the economic losses associated with the closure of several of New Mexico's coal-fired generation resources.

Importantly, the Clines Corners Wind Farm Project will help develop new and underdeveloped economic resources in the state of New Mexico — wind energy — that could potentially be utilized within the state, or exported to western electricity markets.¹⁰ Aside from the technology, innovation, and capital investments developed in conjunction with the Project, this development creates new economic value and opportunity within New Mexico, the product of which may either stay in New Mexico to serve PNMs local load or

⁹ Orion Renewable Energy. "Application for Torrance County Zoning Ordinance Amendment for Special Use District & Height Variance". Clines Corners Wind Farm Project. Prepared by: Souder Miller and Associates. February 28, 2019.

¹⁰ NOTE: Cline Corners Project generation capacity will be committed to long-term Power Purchase Agreements ("PPA's"), but these have not been fully executed at time of this Report's release. Although this contractual component is critical to the development of the Projects, it has little significance to the assessment of economic and fiscal impacts. That is, the out-of-state purchases of exported power are not subject to taxation pursuant to the interstate transaction restrictions under the Commerce Clause of the Constitution, and income earned is retained by the out-of-state Developer of the resources. On the other hand, some landowner compensation is tied to PPA revenue, requiring assumptions to be taken as to the impacts of these PPA's. The uniform nature of the terms of these landowner agreements allow for an aggregated assumption as to the impacts of these contract terms.

be exported to other electricity markets. In summary, the Project will create new economic value that is obtained from economic activities that are expansions of the New Mexico economy.

New Mexico has a long-established priority for encouraging exactly the economic development engendered by the Project; the state has expressly encouraged development of renewable energy.¹¹ Most recently, New Mexico adopted the Energy Transition Act¹² which establishes aggressive goals for development and utilization of New Mexico's renewable energy resources.

Further, in 2004, the state of New Mexico also enacted a groundbreaking economic development initiative, prioritizing development of renewable energy resources in conjunction with its recognition of the constraints relating to siting and funding of renewable electric transmission facilities investments. In establishing the New Mexico Renewable Energy Transmission Authority,¹³ the state formally established its goal to develop renewable energy for export, and recognized the need to expressly facilitate the siting of transmission facilities in the state for service to multi-state customers seeking access to and development of New Mexico renewable energy resources.¹⁴

¹¹ See, e.g., Section 7-2A-19 NMSA 1978, Laws 2002, Ch. 59, § 1; 2003, Ch. 419, § 1; 2005, Ch. 104, § 7; 2005, Ch. 181, § 1; 2007, Ch. 204, § 1.

¹² The State enacted the Energy Transition Act ("ETA"), Chapter 65, which was signed into law on March 22, 2019, and established aggressive new goals for renewable energy in New Mexico. See also, e.g., Section 7-2A-19 NMSA 1978, Laws 2002, Ch. 59, § 1; 2003, Ch. 104, § 7; 2005, Ch. 181, § 1; 2007, Ch. 204, § 1. Although the ETA does not provide siting or facility development inducements, it does establish a mandated implementation of renewable portfolio standards which should also result in an emphasis on renewable resource development in New Mexico.

¹³ Section 62-16A-3 NMSA 1978; Laws 2007, Ch. 3, § 3; 2011, Ch. 51, § 4.

¹⁴ Ashley C. Brown and Jim Rossi, MULTISTATE DECISION MAKING FOR RENEWABLE ENERGY AND TRANSMISSION: SPOTLIGHT ON COLORADO, NEW MEXICO, UTAH, AND WYOMING: Siting Transmission Lines in a Changed Milieu: Evolving Notions of the "Public Interest" in Balancing State and Regional Considerations, 81 U. Colo. L. Rev. 705, Summer 2010.

Economic and Demographic Profiles

The economic and demographic profiles were compiled using data from a variety of sources including:

- The Bureau of Labor Statistics
- The US Census Bureau
- The United States Department of Agriculture
- New Mexico Taxation and Revenue Department
- New Mexico Department of Finance and Administration
- New Mexico Office of the State Auditor

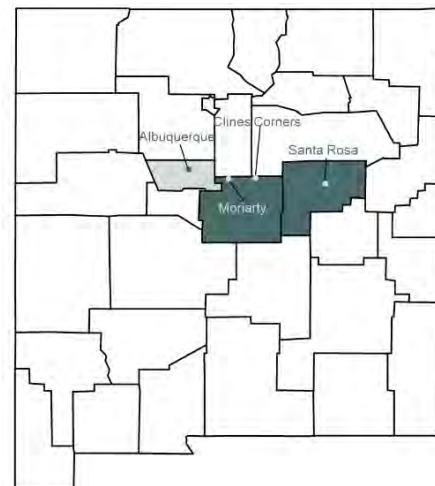


Figure 2: Map of Study Area and Surrounding Counties

The most recently available data is used throughout the profiles, ranging from 2012 for agricultural data, to 2018 for certain tax related information.

A map of the Study Area is shown in Figure 2. The two counties which will contain portions of the Project are shaded in dark green. Because of the proximity of the Project to the Albuquerque Metropolitan Statistical Area (“MSA”), it is expected that the MSA will contribute significant resources. For that reason, Bernalillo county is shaded in light green. Clines Corners, the Project’s namesake town, is marked on the map below, as well as other major nearby cities.

STUDY AREA – ECONOMIC AND DEMOGRAPHIC PROFILE

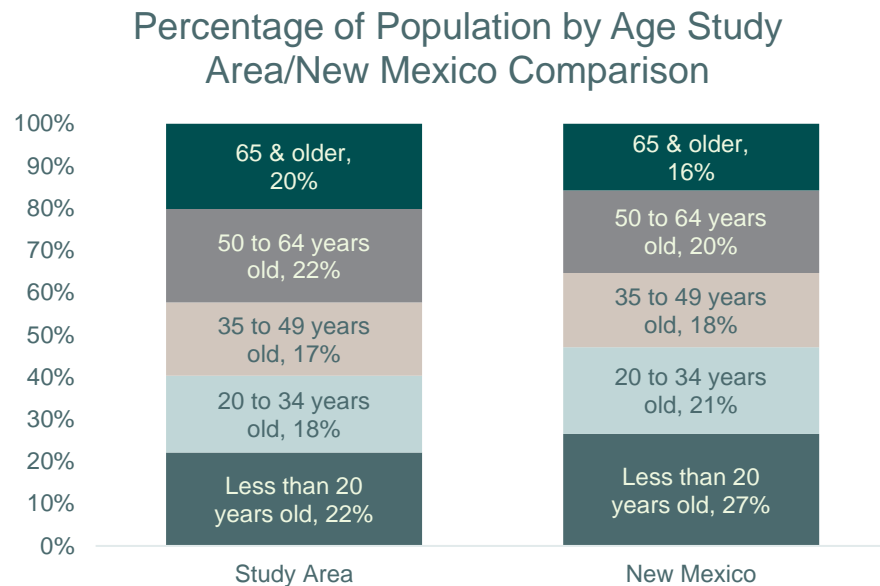
The Study Area is composed of two central New Mexico counties: Torrance and Guadalupe. It covers a diverse geographical area, ranging from high plains to tree covered mountains. Guadalupe County is the smaller of the two counties by geographical area, and also has roughly a quarter of the population of Torrance County. Torrance County has the larger population and geographic area (although only by approximately 300 square miles). Torrance County also has the greater population density of the two counties. An overview of the area’s population demographics is shown in Table 2.

Table 2 Study Area County Population

Study Area Counties (2017 Population Figures)			
County	Population	Geographic Area (Sq. Mi.)	Population Density (people/square mile)
Guadalupe	4,426	3,032	1.4
Torrance	15,534	3,346	4.6
Study Area Total	19,960	6,378	3.1

Generally stated, the Study Area has a higher concentration of its population which is fifty years old and older than is demonstrated in the age cohorts of New Mexico as a whole, and an aging workforce relative to the remainder of the State.

Figure 3: Comparison of Age Distribution by Cohort



The Study Area as a whole comprises 0.96% of New Mexico's population and has been experiencing a steady population decrease over the past seven years. Table 3 demonstrates additional population demographics of the Study Area and the State.

Table 3: Study Area Population and Growth

2017 Population and Growth for Study Area ¹⁵			
Study Area		State Total	
2017 Population	2010 – 2017 Population Growth Rate	2017 Population	2010 – 2017 Population Growth Rate
19,960	-0.77% per annum	2,084,828	+0.18% per annum

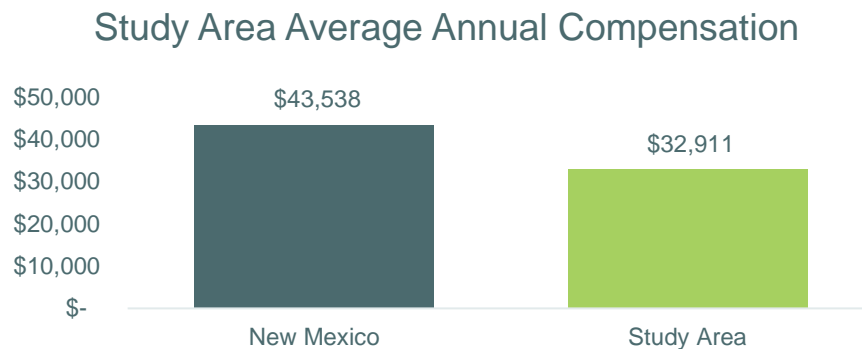
The Study Area had an unemployment rate of 8.1% in 2017, which is significantly higher than the unemployment rate in the State (5.9%). Table 4 shows a labor force and employment profile for the Study Area as compared to the State as a whole, reflecting that the Study Area comprised 0.76% of the total New Mexico labor force in 2017.

Table 4: State and Study Area Labor Force

2017 Labor Force and Employment Data ¹⁶					
Study Area			State Total		
Labor Force	Employment	Unemployment Rate	Labor Force	Employment	Unemployment Rate
7,120	6,541	8.1%	936,237	881,252	5.9%

The US Bureau of Labor Statistics 2017 total wages and salaries report for covered employment in the Study Area provides an estimated average annual compensation of \$32,911 per employee. The New Mexico statewide average compensation is \$43,538 per year, revealing that reported wages and salaries in the Study Area are approximately 76% of the State average (Figure 4).

Figure 4: Study Area Average Annual Compensation



¹⁵ US Census Bureau, American Community Survey 2017.

¹⁶ US Bureau of Labor Statistics, Quarterly Census of Employment and Wages 2017 Annual Averages (note: non-farm employment only).

Additionally, the US Census Bureau estimates a per capita income of \$16,862 for the Study Area, as compared with \$25,257 for the state of New Mexico.¹⁷

The largely rural, sparsely populated Study Area's dominant land use is focused on agricultural business enterprises (particularly ranching), but the dominant economic activities (measured by reported employment and output) are related to Retail Trade, Public Administration, and Construction.

Private firms comprise about 76% of the employment in the Study Area. However, this data excludes agricultural employment, which is recognized to be a significant component of the rural economy in the Study Area. Due to the population and predominantly rural nature of the counties' land area, most of the establishments in the Study Area are quite small, with a limited number of employees.

Focusing on employment, the top six business sector employers are reflected in Figure 5 and Table 5. Excluding the agricultural sectors, the statistics suggest that the Study Area's economy is largely driven by Retail; Accommodation and Food Services; Public Administration; and Construction. These four sectors comprise almost three-quarters of the Study Area's total annual employment by industry.

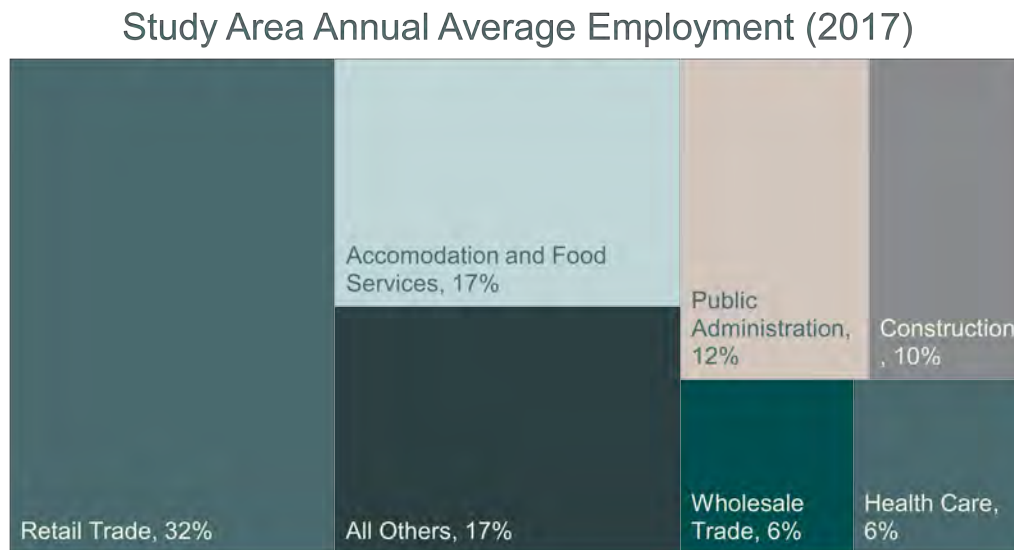
SURROUNDING AREA INPUTS

A distinguishing characteristic of the Clines Corners Wind Farm Project is that its location, covering parts of the two largely rural counties, is also in relatively close proximity to a large proportion of the specialty construction contracting capacity of the State. As reflected in Figure 1, the Project is approximately one hour away along Interstate 40 which provides a direct route to the Albuquerque Metropolitan Statistical Area ("MSA"). The MSA is expected to be competitive in contributing a large proportion of project labor. Over 47% of state-wide construction workers (who are employed by over 1,900 firms) reside in the Albuquerque MSA. Interstate 40 and a variety of secondary roads are available to reach the Project's location from the MSA. This provides a significant opportunity for BOP contracting and staging of Project labor and materials.

SOURCE: New Mexico Department of Workforce Solutions, Quarterly Census of Employment and Wages.

¹⁷ Bureau of Labor Statistics, Quarterly Census of Employment and Wages 2017 Annual Averages.

Figure 5: Study Area Average Annual Employment by Industry



The demographic data, combined with the analysis of employment and output by industry suggests that there is a valuable regional labor resource in the Study Area and surrounding communities available for the development, construction, and maintenance of the Project.

Table 5: Top Six Industry Sectors by Employment

2017 Data for Top Six Study Area Private Industries ¹⁸					
Sectors Ordered by Annual Employment					
Sector	Average Establishments Count	% of Private Establishments	Annual Average Employment Count	% of Private Employment	Annual Wages Per Employee
NAICS 44-45 Retail trade	63	20%	797	32%	\$25,492
NAICS 72 Accommodation and food services	23	7%	416	17%	\$15,181
NAICS 92 Public administration	46	15%	304	17%	\$46,611
NAICS 23 Construction	55	18%	248	10%	\$38,354
NAICS 62 Health care and social assistance	31	10%	152	6%	\$47,715
NAICS 42 Wholesale trade	11	4%	149	6%	\$65,015

¹⁸ Bureau of Labor Statistics, Quarterly Census of Employment and Wages 2017 Annual Averages.

Agriculture – ranching in particular – forms a significant component of the economy in the Study Area. Most of the agricultural products that are produced in the Study Area come from Torrance County, but given the rural character of the counties and the predominance of ranching activities throughout the Study Area, agricultural businesses still play a large role in both counties. Table 6 represents an agricultural profile for the Study Area; the table does not include forestry data, as this data was not included in the 2007 and 2012 censuses.

Table 6: Study Area Farm Demographics

2012 and 2007 Study Area Farm Demographics					
2012 and 2007 Farm Demographics					
Number of Farms	2012	2007	Average Farm Size (acres) ¹⁹	2012	2007
	961	819		3,792	4,324
2012 Market Value of Agricultural Products Sold (\$ millions)					
Crops		Livestock and Poultry		Total	
\$23.72		\$52.51		\$76.23	
31.12%		68.88%			
2012 Value of Sales by Commodity Group (\$ millions)					
Cattle & calves	Grains, oilseeds, dry beans, and dry peas	Other Crops	Vegetables, melons, potatoes, and sweet potatoes	Fruits, tree nuts, and berries	
\$41.85	\$9.99	\$0.25	\$0.07	\$0.05	

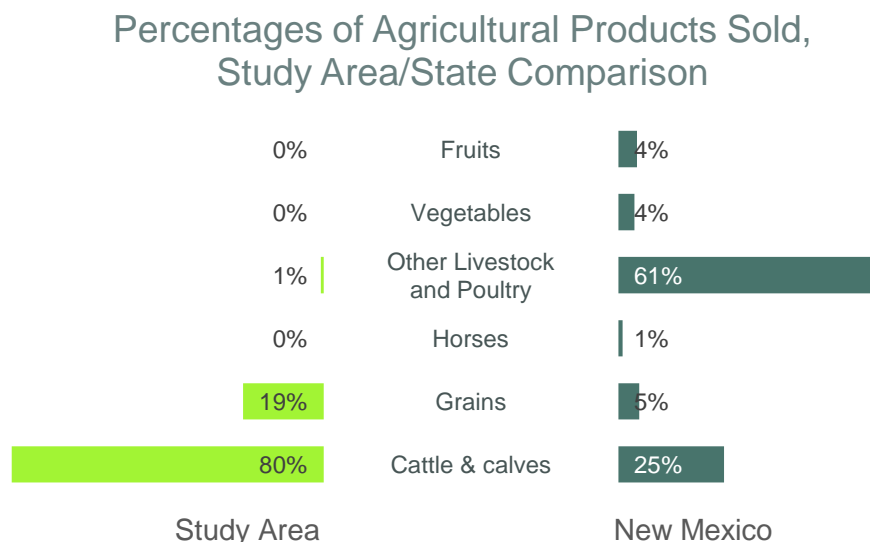
As noted in Table 6, the trend for the time period between 2007 and 2012 indicates an increase in the number of farms within the Study Area. Between 2007 and 2012, the number of farms increased 17%. Due to the sizable increase in the number of farms, combined with the decrease in the average farm size, it appears that a relatively small amount of additional acreage was brought into production and a number of the farms and ranches were divided up. In 2012, there was reported to be almost 3.4 million acres in agricultural production in the Study Area.²⁰

The mixture of agricultural products sold for the Study Area is reflected in Figure 6 and reveals a heavy concentration of cattle and calf production, followed by the production of grains, oilseeds, dry beans, and dry peas. The production of crops in the Study Area contributed nearly \$23.7 million to its economy, including vegetables, melons, potatoes, and sweet potatoes; horses, ponies, mules, burros and donkeys, and other crops.

¹⁹ Weighted average of farm size by number of farms.

²⁰ Approximately 5,312 square miles, representing 83% of the total Study Area.

Figure 6: Percentages of Agricultural Products Sold, Study Area & State



While New Mexico as a whole has a similar percentage of total crops sold to that of the Study Area, there is a stark difference when it comes to livestock production. The Study Area's agricultural sales are strongly focused in cattle and calves (80% of total agricultural sales). The state, on the other hand, focuses more heavily on other livestock and poultry, not just cattle and calves. The total share of livestock in agricultural production output is roughly similar.

The role of agriculture in the Study Area's economy is best reflected in comparing the reported \$76.2 million agricultural production to the \$311.5 million of reported Taxable Gross Receipts.²¹ It is clear that agriculture is a significant foundation of the Study Area economy, however, the previously identified non-agricultural sectors provide for the dominant employment and income in the regional economy.

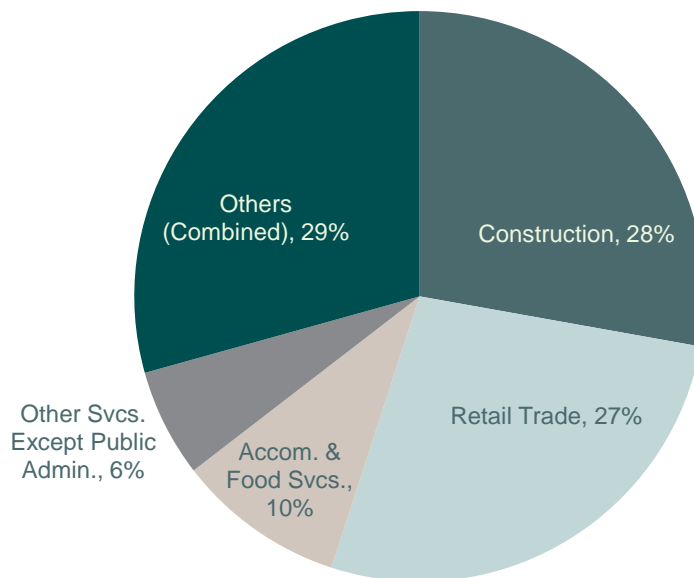
The Study Area had over \$22.8 million in Gross Receipts Tax ("GRT") collections in Fiscal Year 2018, providing 0.58% of the total GRT collections in the State. The economic sector reporting the highest levels of GRT in the Study Area is the Construction sector, with revenues from the sales in this sector constituting 28% of the GRT collections. This is followed by Retail Trade at 27% and the Other Industries which boast a combined 29% of the total GRT (Figure 7). Construction representing 28% of the GRT and 10% of the employment in the Study Area highlights the potential for growth in this industry during the development of the Clines Corners Wind Farm Project. Additional employment may be

²¹ New Mexico Taxation and Revenue Department RP-80 Monthly Report. Note also that agricultural production activities are largely excluded from GRT liability.

provided by the ready supply of construction firms and workers from the larger population centers surrounding the Study Area.²²

Figure 7: Study Area GRT by Sector

Study Area FY18 Industries by Gross Receipt Taxes



It is also important to note the significant footprint of the Retail Trade sector in both employment and gross receipts terms in the Study Area. This highlights the importance of spending at business entities located in the Study Area. The development of the Clines Corners Wind Farm Project will bring additional spending to the area as construction crews and other development related workers come to the area contributing in an additive manner to the local spending levels.

In sum, the economic data for the Study Area reflects overall modest business activities, and associated employment, as well as reliance on a couple of business sectors. The Clines Corners Wind Farm Project will make a positive contribution to the economic activities in the Study Area, with a reasonable expectation that the negative trends and conditions discussed in the preceding section will be substantially reversed by the

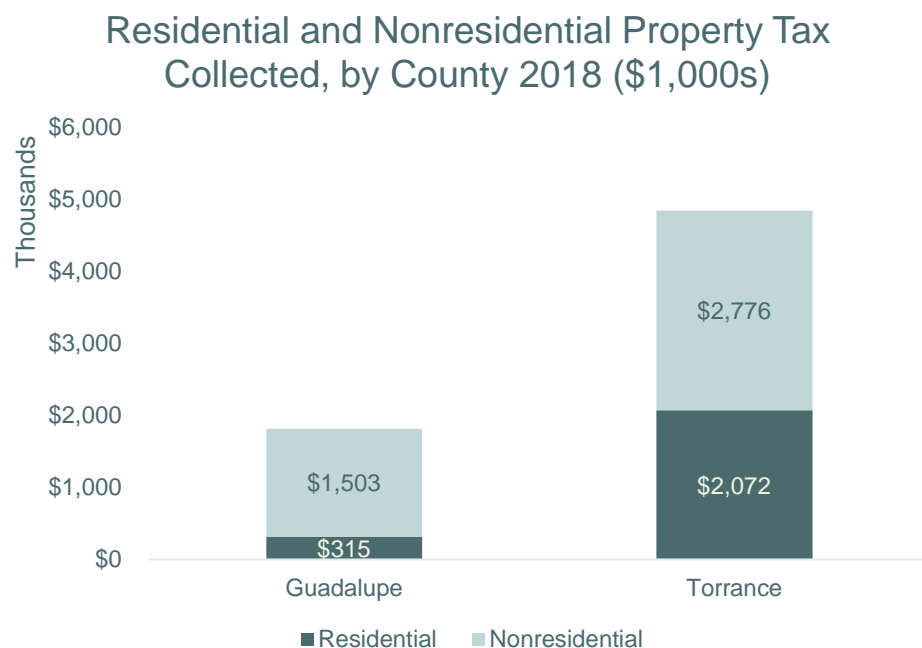
²² GRT is reported based on the location where the economic activities occur, and employment is reported based on place of residence.

development and operation of the Clines Corners Wind Farm Project (and related facilities).

Property Taxes are a critical component of the fiscal impact analysis, as this is the primary revenue source for county government operational budgets in the Study Area. A look at the property tax collections for the Study Area (Figure 8) shows that Torrance County accounts for about three-fourths of the total property tax receipts.

Statewide, property tax obligations for county operations and debt service within New Mexico total over \$542 million,²³ with the Study Area counties collecting 1.3% of that total in 2018. As a whole, about 64% of Study Area property taxes are collected from nonresidential property, and 36% from residential property. The mix of residential and nonresidential property taxes is not consistent between the two counties, as can be seen in Figure 9. It is important to note that in the Study Area, school districts receive about 44% of property tax revenues. Additional property tax details are available in Table TA-1 in the Technical Appendix.

Figure 8: Study Area Property Taxes Collected by County²⁴



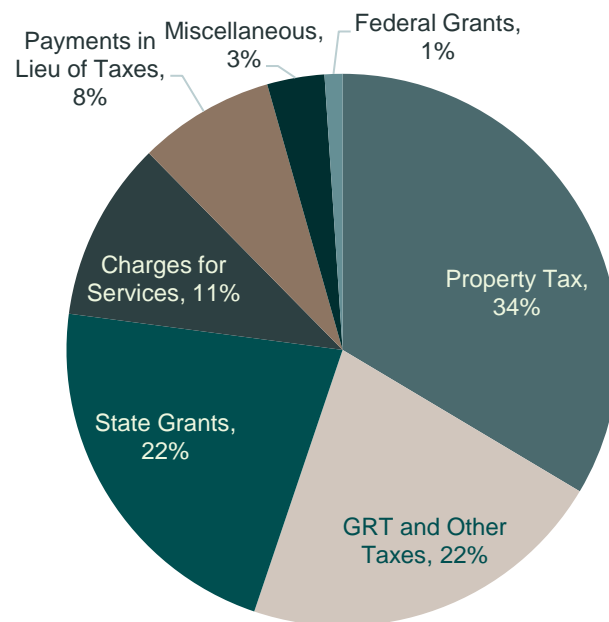
²³ Local Government Division, Budget and Finance Bureau, “Property Tax Facts for Tax Year 2018,” New Mexico Department of Finance and Administration, Santa Fe, NM (Table 3).

²⁴ Property tax obligations reflect property taxes due based on 2018 rate certificates filed with the New Mexico Department of Finance and Administration, for County Operations and Debt Service Purposes.

The role of taxes and other revenue sources in the county budgets for the two counties comprising the Study Area is revealed in the following graphic (Figure 9). It is apparent that property taxes are an important component of the revenues relied on in for the fiscal activities of the county governments, and that GRT and other taxes are a lesser source of revenues for the governments. Although the assets developed by the Clines Corners Wind Farm Project may be largely excluded from the Property Tax and GRT liabilities as a result of Industrial Revenue Bond (“IRB”) support for these investments, there will be significant additional economic activities created by the development of these generation assets as a result of the development activities. The terms and conditions of the IRB’s were unknown at the time this report was written as IRB negotiations were underway. However, it is likely that the outcome will be such that the Study Area will benefit from Payments in Lieu of Taxes if IRB’s are relied upon.

Figure 9: Study Area County Budget Revenue, by Source

Percent of Revenue by Source, Study Area Counties FY18



Analysis of Economic and Fiscal Impacts

DEVELOPMENT PHASE IMPACTS ON THE STUDY AREA

The development of a wind generation facility of the magnitude contemplated for the Clines Corners Wind Farm Project, and the associated Gen-Tie System involves significant land resources and several specialized construction capabilities. It is possible that some specialized wind turbine construction teams will consist of turbine manufacturer employees due to manufacturer warranty requirements. However, there are significant construction activities that require construction services obtained from local resources. Table 7 provides an estimate of peak employment during the Development Phase of the Project.

Table 7: Estimated Peak Construction Employment

Estimated Construction Employment					
	Total FTE	Total W&S (\$MM)	Local %	Local FTE	Local W&S (\$MM)
Construction and Interconnection Labor	191	\$9.87	35%	67	\$3.45
Construction Related Services	23	\$1.00	40%	9	\$0.40
Total	214	10.87	36%	76	\$3.85

The local labor requirements are significant. As previously shown, the Study Area Construction sector has a total employment of 248 people by the 55 establishments operating in 2017. Similarly, the Study Area's 32 establishments operating in the Transportation sector employed 106 individuals in 2017. These are two primary sectors that will be directly impacted by the Project's construction activities (with total local employment estimated to provide 214 Full Time Equivalent ("FTE") jobs²⁵), and it would appear that significant portions of the local labor requirements may be sourced from the locally available labor force. Specialized trade skills (e.g., high voltage linemen) may not be available in the Study Area *per se*, but the proximity to Albuquerque and the associated bulk of the state's construction contracting firms increase the likelihood that the required skilled labor requirements may be met by in-state resources.

Based on the information that has been provided by Applicant personnel in preparation of this analysis, it is possible to summarize the wind generation facilities project costs in Table 8. It should be noted that these are estimated costs, as the costs will not be

²⁵ Employment numbers estimated at one FTE per 2,080 person hours.

definitely known until construction awards are made to the various entities who will be involved in the development activities.

The Applicant has provided information to assess the specific local contracting activities that are anticipated with the Project. The components of project costs that are likely to be provided by local contractors and labor resources are also shown in Table 8.

Table 8: Estimated Project Costs

Estimated Project Costs		
	Estimated Cost	Local Component
Turbines & BOP	\$472.5	\$94.5
Developer / Finance / Contingency Expenses	\$85.2	\$13.5
Interconnection Costs	\$29.8	\$20.8
Roads	\$2.0	\$2.0
Land Owner Payments, Crop Damage	\$0.5	\$0.5
Total Project Costs	\$589.9	\$131.2

OPERATIONS PHASE IMPACTS ON THE STUDY AREA

Once the Project enters commercial operations, economic benefits will flow into the Study Area economy through direct employment, and other operational costs. The Project is expected to employ 20 permanent full time personnel in order to operate and maintain the facilities. At a projected average wage of approximately \$55 thousand per person, these jobs are expected to pay well above the Study Area average compensation of \$32 thousand discussed in the previous section. Annually, total wages and salary are expected to exceed \$1 million over the Operations Phase of the Project. (See Table 9)

Table 9: Estimated Direct Operations and Maintenance Employment

Estimated O&M Employment	
	FTE
Total FTE	20
Average Wages	\$54,700
Total Avg. Annual O&M Wages	\$1,094,000

The Project will also generate other impacts over the Operations Phase in addition to the employment related impacts. As with the construction related costs, a certain component of operations and maintenance expenditures will necessarily flow to specialized, out of state contractors, but the locally sourced employment component will be a much higher percentage in the operations and maintenance phase. Total O&M costs are projected to

average about \$13.6 million annually, of which about \$10.7 million will contribute to local economic impacts. Table 10 lists the estimated annual O&M costs.

Table 10: Estimated Annual O&M Costs

Estimated Annual O&M Costs		
	Estimated Cost	Local Component
Turbines & BOP O&M	\$10.5	\$9.0
Administrative, Insurance, Environmental, Etc.	\$1.8	\$0.5
Land Owner Royalties	\$1.3	\$1.3
Total Project Costs	\$13.6	\$10.7

LANDOWNER ECONOMIC BENEFITS

The Clines Corners Wind Farm Project will occupy approximately 39,580 thousand acres. There are eight landowners who will participate in the Clines Corners Wind Farm Project. The wind generation portion of the Project are located solely on private lands, while the Gen-Tie system may be located on a mixture of state and private land.²⁶

The specific lease terms provide for a variety of easements and access conditions, and several different provisions for compensation during both the Development and Operations Phases of the agreements. The Development Phase for the Project is scheduled to begin in the 1st quarter of 2020 and is anticipated to be completed by the end of that year.

Due to confidentiality considerations, this Report will only generally summarize the economic terms of the landowner leases and easements that have been executed to allow for the Project's development and operation. During the Development Phase, payments are made for easements and various facility installations, and to compensate for crop damages. During the Operations Phase, there are royalty payments related to turbine output and land rental payments per acre.

During the Development Phase, New Mexico landowners in the area are likely to realize a total of \$460 thousand in payments. During the Operations Phase, annual New Mexico land lease and royalty payments will average \$1.3 million per year in total for the Clines Corners Wind Farm Project.

Although there will be some limited encroachment on the landowners' ability to continue the current agricultural uses of the land, they will obtain significantly improved access to those lands as a result of the development of surface maintenance roads to support the Project facilities. It is reasonable to assume there will only be a *de minimis* reduction in the

²⁶ Negotiations are ongoing regarding the lease of state trust land for location of the Gen-Tie system.

agricultural productivity of the lands leased to the wind generation developments, and certainly the additional revenue associated with the wind generation developments will substantially increase the economic productivity of the land resources from its current opportunities.

INDIRECT AND INDUCED IMPACTS: ECONOMIC MULTIPLIERS

When economists discuss the benefits of the expansion of an economic activity, they also recognize that direct economic benefits create an indirect benefit associated with the additional economic activity from industries buying from other local business sectors. For example, the direct construction activities associated with the Project will result in additional lodging and hospitality revenues for the local businesses hosting the out-of-area workers, and other indirect retail trade purchases as a result of increased disposable income in the economy. These are referred to as indirect impacts, or Type I economic multipliers. A further extension of the economic multiplier analysis takes into account the increased economic activities on the social “institutions” (i.e., households; state and local government; federal government; and capital) that first obtain direct and indirect benefits, and then recognize that every dollar collected locally by that institution will be re-spent for that local institution’s operations. Including the induced effects in the economic multiplier analysis provides a “Type SAM” (Social Account Matrix) multiplier.

Regional economic impact analyses have for decades relied on input-output summaries of economic activities, with most of these modeling efforts providing adaptations of national business sector outputs and inter-sector transactions to characterize the interaction of economic agents. The national models are then regionalized based on a variety of analytical methods. Both the US Department of Commerce²⁷ and private firms provide information as to the economic multipliers for specific states or local regions. With respect to a state with an economic “footprint” as small as New Mexico, the statewide economic multipliers are generally a more accurate depiction of the indirect and induced economic impacts from new economic activities.

For the purposes of this analysis there is reliance on IMPLAN Group model,²⁸ a commonly utilized model, and on economic multipliers from a 2017 version of this model for New Mexico. Specific multipliers used depend on the character of the activity being performed. During the Development Phase, it is appropriate to utilize a set of multipliers for the sector defined as “construction of other new nonresidential structures”, which provides a Type I

²⁷ US Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II) [see <https://www.bea.gov/regional/rims/index.cfm>].

²⁸ Formerly MIG, Inc., since 2013 doing business as IMPLAN Group LLC [<http://www.implan.com/>].

(indirect) multiplier of 1.270060, and a Type SAM (indirect & induced) multiplier of 1.594823.

During the Operations Phase of the Project, it is appropriate to use multipliers for the “Electric Power Generation - Wind” sector, with a Type I multiplier of 1.349076 and a Type SAM multiplier of 1.490446.

Landowner payments pose a unique problem in the context of economic multiplier analysis. The payments to be received by the landowners are in addition to the normal income obtained from their agricultural operations. It is appropriate to presume that these landowners will continue their primary agriculturally-related employment, and to a certain extent, the payments obtained are simply an additional return to the land. As such, the most meaningful economic multiplier relates to the “cattle ranching and farming” sectors of the economy. A summary of relevant multipliers is provided in Table 11.

Table 11: Economic Multipliers

Economic Multipliers for Analysis of Project Impacts		
Sector Description	Indirect Impacts (Type I)	Indirect & Induced Impacts (Type SAM)
Construction of other new nonresidential structures (Development Phase)	1.270060	1.594823
Electric power generation - Wind (Operations Phase)	1.349076	1.490446
Beef cattle ranching and farming (Landowner Benefits)	1.580618	1.782938

For purposes of this impact analysis, it is anticipated that the Development Phase is likely to be completed at the end of 2020, and that the Operations Phase will also commence in 2020 and continue indefinitely. Impacts will be analyzed for approximately thirty years.

In Table 12 a summary of economic impacts is presented for the Development and Operations Phases of the Project. Direct economic impacts during the Development Phase are projected to total about \$131 million including landowner benefits. Including indirect and induced benefits raises the expected Development Phase impacts to about \$209 million. Direct Operations Phase impacts are estimated to total about \$11 million on average for each year of the Project’s operational life. The total direct, indirect, and induced impacts are expected to amount to an average of \$16 million per year.

Table 12: Summary of Economic Impacts

Summary of Economic Impacts (\$millions)			
	Direct Impact	Direct & Indirect Impact	Direct, Indirect, & Induced
Development Phase Impacts			
Local Construction Contracts	\$130.8	\$166.1	\$208.6
Land Owner Benefits	\$0.5	\$0.7	\$0.8
Total Development Phase Impacts	\$131.2	\$166.8	\$209.4
Operational Period Impacts (Annual Average)			
Operational Costs	\$9.4	\$12.70	\$14.03
Land Owner Benefits	\$1.3	\$2.03	\$2.29
Total Annual Operational Period	\$10.7	\$14.7	\$16.3

SUMMARY OF FISCAL IMPACTS

Fiscal impacts of the Project considered for this analysis consist of the direct revenues that will flow to state and local governments as a result of project activities. During the Development Phase of the Project, the fiscal impacts will come primarily in the form of Gross Receipts Taxes paid on construction activities. The Applicant has provided estimates of \$1.3 million in Gross Receipts Tax liabilities over the course of the Development Phase.

Table 13: Estimated Gross Receipts Tax Liability

Estimated NM Fiscal Impacts (\$millions)	
TOTAL Estimated Project Costs	\$589.9
Total Estimated NM GRT	\$1.3

Because Gross Receipts Tax on construction activities is paid based on the location of the activities, as opposed to the business location of the firm performing the services, the actual amount of taxes paid, as well as the recipients of the tax revenues will vary over the course of the Project. Counties and municipalities in New Mexico have the authority to impose a certain set of local option tax increments, and the Gross Receipts Tax rate varies significantly by location. Table 14 lists the Gross Receipts Tax rates for the counties involved, and all of the municipalities inside those counties. Though most, if not all, of the direct Project activities are likely to take place in unincorporated areas of Guadalupe and Torrance Counties, the municipalities may see some level of increased Gross Receipts Tax Revenues.

Table 14: Study Area Gross Receipts Tax Rates

Local Government Gross Receipts Tax Rates*					
	Total GRT Rate	County Imposed Rate	City Imposed Rate	Municipal Share of State GRT	Effective State Rate
Guadalupe County	6.44%	1.31%	0.00%	0.00%	5.13%
Santa Rosa	8.00%	1.06%	1.81%	1.23%	3.90%
Vaughn	8.25%	1.06%	2.06%	1.23%	3.90%
Torrance County	6.75%	1.63%	0.00%	0.00%	5.13%
Encino	7.31%	1.13%	1.06%	1.23%	3.90%
Estancia	8.19%	1.13%	1.94%	1.23%	3.90%
Moriarty	7.69%	1.13%	1.44%	1.23%	3.90%
Mountainair	7.94%	1.13%	1.69%	1.23%	3.90%
Willard	7.56%	1.13%	1.31%	1.23%	3.90%

*Gross Receipts Tax Rates in effect as of January 1, 2018.

In fiscal year 2018, the counties and municipalities collected a total of nearly \$8.3 million in gross receipts distributions. The projected \$1.3 million generated by the Project, would represent a significant increase in these distributions, even after consideration is given to the portion of the Gross Receipts Taxes that will flow to the state. Table 15 gives the fiscal year 2018 distributions for the counties and municipalities in the Study Area.

Table 15: Study Area Gross Receipts Tax Distributions

FY2018 Gross Receipts Tax Distributions			
	Total GRT Distribution	Percent of Total County GRT	Percent of Total Study Area GRT
Guadalupe County	\$1,135,055	37.45%	13.72%
Santa Rosa	\$1,664,090	54.90%	20.11%
Vaughn	\$231,937	7.65%	2.80%
Torrance County	\$2,508,097	47.82%	30.31%
Encino	\$112,447	2.14%	1.36%
Estancia	\$432,172	8.24%	5.22%
Moriarty	\$1,742,167	33.22%	21.05%
Mountainair	\$396,736	7.56%	4.79%
Willard	\$53,176	1.01%	0.64%
Total	\$8,275,877		

We also acknowledge that the Project will generate fiscal impacts in the form of income taxes arising from Project payroll. This additional revenue will certainly be generated by income from Project activities, but is impossible to quantify, and so we mention it here, but do not estimate an amount.

Property Tax Issues

Industrial Revenue Bonds (“IRB”) are being or may be negotiated for the Clines Corners Wind Farm Project in New Mexico. The total amount is unknown at this time, but can be expected to approach \$600 million. The specifics of the Property Tax benefits flow from the statutory provisions relating to IRBs.²⁹ The specific benefit is to treat the tangible property acquired with the proceeds of the bonds as non-taxable property assets. Without further belaboring the discussion, it is enough to say the tangible property assets of the Project that are purchased with the IRBs are exempted from property tax liability for the thirty-year life of the bonds.

The Study Area property tax rates and revenues have been previously discussed, and details of these property tax rates and revenues are provided in the Economic and Demographic Profiles provided.

The only specific property tax impact of the development of the Project³⁰ will be to provide additional income (in the Study Area) that potentially supports additional tangible property investments that could raise the total assessed property value over time, and thereby indirectly increase property tax revenues. However, the direct effect of the IRBs is to keep much of the tangible property values associated with the capital project (worth approximately \$589 million) from being subject to property tax liability during the term of the revenue bonds. This can be considered to be a fiscal opportunity cost associated with the wind generation development.

However, the developers have recognized these impacts, and may be entering into agreements (or have offered proposals) to provide annual payments in lieu of taxes (“PILOT”) agreements with the relevant local governments and school districts currently anticipated to amount to about \$1.6 million per year for thirty years. The PILOT payments may be thought to reduce or eliminate the fiscal impacts of the property tax “opportunity costs” that result from the issuance of IRBs for the Project.

²⁹ Section 7-36-3 NMSA 1978. Note that the foregone property tax revenues associated with the IRB financing vehicle is significantly less than the assets financed, and these are all new property asset values developed by the Clines Corners Wind Farm Projects’ investments. The specific impact, however, is dependent on the specific location of the property and cannot be readily assessed in the context of the Clines Corners Wind Farm Projects’ facilities at this time, and are in part offset by PILOT payments.

³⁰ It is anticipated that nearly all capital costs related to tangible property will be IRB financed, although some limited project facilities may be subject to property tax.

Summary of Economic and Fiscal Impacts & Conclusions

The development of the Clines Corners Wind Farm Project represents a significant commitment of resources in the New Mexico economy. While other, larger projects are also in development at the present, the addition of approximately 440 MW to 480 MW of wind generation is significant, compared to the current statewide total installed capacity of about 1,732 MW.³¹ Through the Project, The Applicant will invest a total of about \$590 million in clean, renewable energy generation in New Mexico.

Once operational, the Project will create stable, reliable employment and revenue streams for the local economies that will not suffer from the volatility associated with traditional energy resource developments in New Mexico. The Project will also directly benefit the land owners on the approximately 40 thousand acres that it covers, providing a reliable stream of revenue from the land. This additional revenue has the potential to create conditions that allow for land owners to remain in the ranching business, when in its absence, it might not remain profitable.

Table 16 presents a summary of the economic and fiscal impacts of the Clines Corners Wind Farm Project. Impacts are estimated over a thirty-year period, based on the financing period of the Project's IRBs, though there is certainly reason to believe that the impacts will have permanent beneficial consequences for the New Mexico economy.

Table 16: Summary Economic & Fiscal Impacts

Summary Economic Impacts of The Clines Corners Project (30-Year Analysis) (\$millions)									
	Local Construction Expenditures (Including W&S)	Local O&M Employment (FTE)	Local O&M Wage & Salary	Landowner Payments	Other Operating Costs	GRT & PILOT Payments	Direct Economic Impacts	Direct & Indirect Economic Impacts	Direct, Indirect & Induced Economic Impacts
Total Economic Impact	\$131	20	\$33	\$39	\$282	\$50	\$485	\$653	\$748
DPV of Impacts (@5%)	\$131	N/A	\$17	\$20	\$145	\$26	\$313	\$416	\$485

³¹ American Wind Energy Association, "U.S. Wind Industry Fourth Quarter 2018 Market Report."

The Clines Corners Wind Farm Project will produce a direct economic impact over thirty years of approximately \$485 million. When taking into consideration indirect and induced impacts, the regional economy can be expected to realize approximately \$748 million in increased economic activities associated with the Project's development. Viewed from the perspective of a present value return on the economic development activities, the capital investment in the Clines Corners Wind Farm Project facilities will generate nearly \$313 million in new direct economic benefits, and with consideration of the indirect and induced economic impacts these benefits have a present value of \$485 million in new economic activities.

It is important to understand that these economic benefits are earned to the regional economy — not the developers of the Project. The developers' return on investment is internal to the economics of the Project's operations, while the economic benefits reported here are external to the Project's owners.

The employment impacts are expected to be significant. The Clines Corners Wind Farm Project will create an estimated 214 peak FTE during its development, with an estimated 75 of those employing local resources providing additional payroll income of approximately \$59.9 million.

Of the total capital expenditures during the Development Phase of the Clines Corners Wind Farm Project, it is estimated that \$130 million in contracts will flow to local construction service providers. Once construction is completed and operations commence, the Project is expected to result in the employment of up to 20 full-time personnel with total operating costs of approximately \$10.5 million per year.

The land lease, easement, and royalty agreements with the private landowners for the Clines Corners Wind Farm Project will provide additional income between approximately \$500 thousand during the Development Period, and \$1.3 million per year on average during the Operational Period.

Gross Receipts Tax revenues will be increased as a result of the construction activities by \$1.3 million for the construction of the Project. Fiscal impacts associated with payments in lieu of property taxes will be made by the developers to several municipal and school district beneficiaries in an average amount of \$1.6 million annually.

In sum, the direct local economic impacts of the Clines Corners Wind Farm Project during the Development Period are anticipated to be approximately \$131 million, with direct, indirect and induced (multiplier) impacts suggesting a total impact of \$209 million from the development of the Project. Once operational, the Clines Corners Wind Farm Project should generate an annual direct economic impact of approximately \$11.8 million, and

when economic multipliers are considered, the annual impact from the Clines Corners Wind Farm Project operation can be estimated to be approximately \$18 million.

Study Area County Profiles

GUADALUPE COUNTY, NM – ECONOMIC AND DEMOGRAPHIC PROFILE

Guadalupe County, named after Our Lady of Guadalupe, is the fifth least-populous county in New Mexico. The county is located in east-central New Mexico and encompasses 3,032 square miles with a population density of 1.4 people per square mile. The City of Santa Rosa is the county seat and makes up over half of the county's total population. Other communities within the county include Vaughn and Anton Chico. A current demographic profile is provided in Table 17.

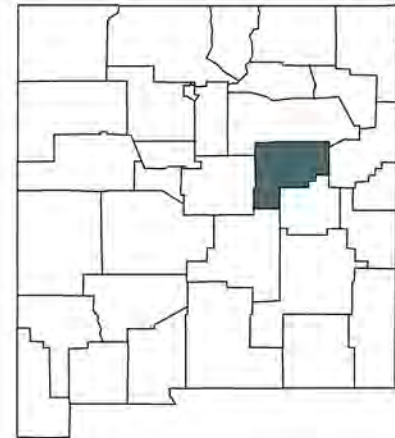


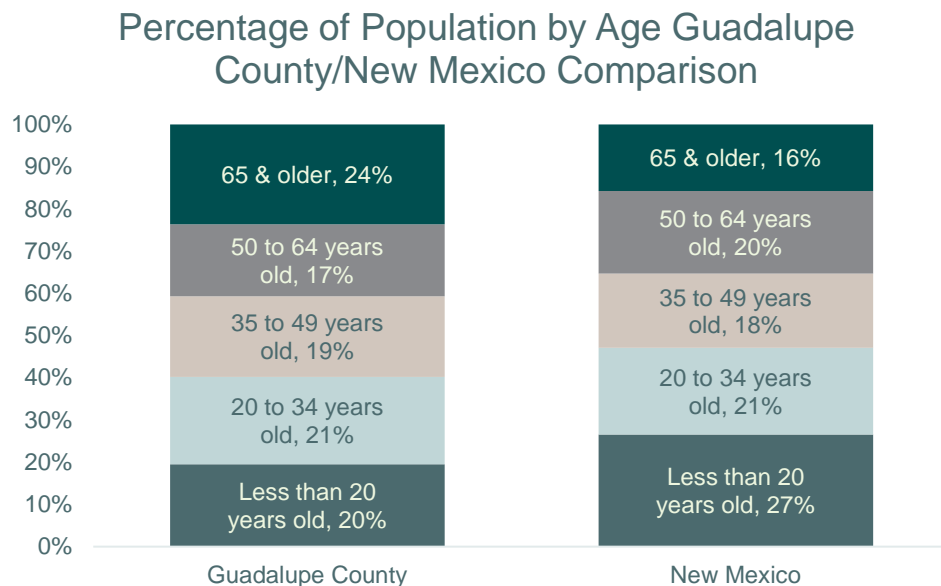
Table 17: Guadalupe County Population and Employment

Guadalupe County Population and Employment (w/ Selected Comparisons to New Mexico) ³²					
2017 Population est.			2010 – 2017 Population Growth Rate		
4,426 (0.2% of NM population)			-0.81% per annum		
2010 & 2017 Population by City/Village					
	2010	2017 (est.)		2010	2017 (est.)
Santa Rosa	2,848	3,135	Anton Chico	188	81
			Vaughn	446	310
2017 Labor Force and Employment Data – Socorro County					
Labor Force	Employment		Unemployment	NM Unemployment	
1,636	1,531		6.4	5.9	

As is true of the rest of the Study Area, Guadalupe County's population is generally older than that of New Mexico as a whole (Figure 10).

³² Based on 2017 US Census and 2017 US Dept. of Labor, Bureau of Labor Statistics data.

Figure 10: Guadalupe County Age Distribution by Cohort



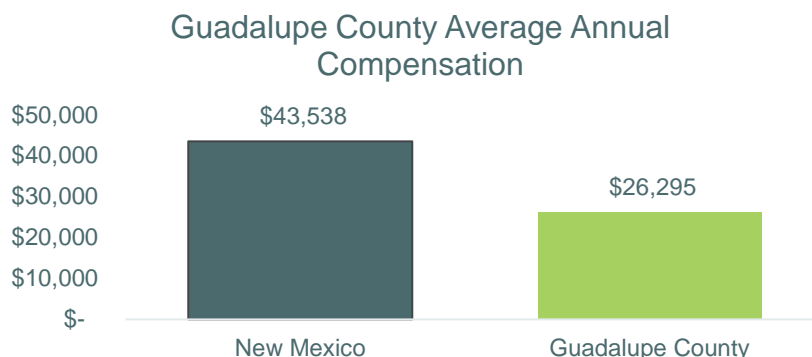
Agriculture is a significant economic sector which is dominated by cow/calf ranching activities. An agricultural profile is provided in Table 18.

Table 18: Guadalupe County Agriculture Profile

2012 and 2007 Guadalupe County Farm Demographics					
2012 and 2007 Farm Demographics					
Number of Farms	2012	2007	Average Farm Size (acres)	2012	2007
	372	258		4,417	5,446
2012 Market Value of Agricultural Products Sold (\$ millions)					
	Crops	Livestock and Poultry		Total	
	\$0.38	\$17.33		\$17.71	
	2.15%	97.85%			
2012 Value of Sales by Commodity Group (\$ millions)					
Cattle & calves	Vegetables, melons, potatoes, and sweet potatoes	Horses, ponies, mules, burros, and donkeys		Poultry and eggs	
\$16.35	\$0.07	\$0.01		\$0.001	

The US Bureau of Labor Statistics 2017 total wages and salaries report for covered employment³³ in Guadalupe County provides an estimated average annual pay of \$26,295 per employee. The New Mexico statewide average compensation is \$43,538 per year, reflecting that reported wages and salaries in Guadalupe County are approximately 60% of the state average (Figure 11).

Figure 11: Guadalupe County Average Annual Compensation



Additionally, the US Census Bureau estimates a per capita income of \$15,940 for Guadalupe County, as compared with \$25,257 for the state of New Mexico,³⁴ substantially consistent with the County's disparity in statewide wage and salary income levels.

Table 19: Guadalupe County Employment and Wages

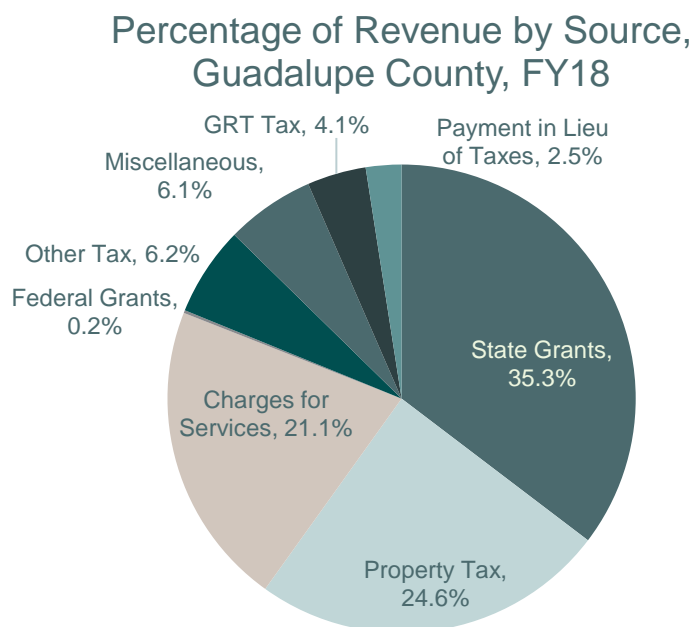
2017 Data for Top Six Guadalupe County Industries (private & government)					
Sector	Average Establishments		Annual Average Employment		Annual Wages Per Employee
	Count	% of Establishments	Count	% of Employment	
NAICS 72 Accommodation and food services	23	18%	416	38%	\$15,181
NAICS 44-45 Retail trade	20	16%	290	27%	\$25,388
NAICS 62 Health care and social assistance	31	25%	152	14%	\$47,715
NAICS 92 Public administration	22	18%	101	9%	\$47,595
NAICS 23 Construction	10	8%	57	5%	\$33,683
NAICS 48-49 Transportation and warehousing	9	7%	37	3%	\$31,237

³³ Non-farm wage and salary employment not covered by unemployment insurance.

³⁴ US Census Bureau, American Community Survey 2017

According to the Bureau of Labor Statistics annual data, there were an average of 122 establishments providing employment in Guadalupe County in 2017, with 89 (73%) of those private firms.

Figure 12: Percentage of Revenue by Source, Guadalupe County



A significant component of Guadalupe County revenues is derived from Property Tax receipts (Figure 11). With regard to property taxes, the Guadalupe County 2018 millage rates are established by various authorities (i.e. County, Municipal, and School District) to meet specific revenue goals. Total county operations and debt service Property Tax obligations totaled over \$1.8 million in Guadalupe County for 2018.³⁵ The total assessed Property Tax in Guadalupe County makes up 27% of the total Study Area Property Tax collections and its net taxable values is just 0.3% of the state wide net taxable value.

County operations and debt service represent 41% of property tax collected in the county. Other recipients of property tax revenue in Guadalupe County are school districts (25% of total), the state (5%), and municipalities (7%). Guadalupe Hospital (15%) and Luna Community College (7%) also benefit from property tax revenues in Guadalupe County.

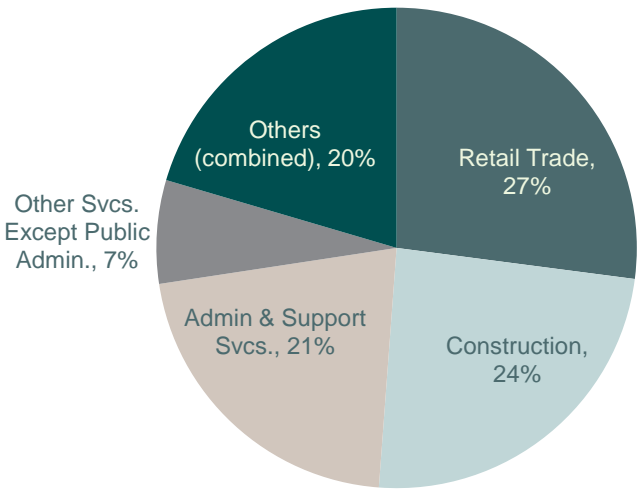
³⁵ Property Tax obligations for Fiscal Year 2018 were calculated using the New Mexico Department of Finance and Administration Property Tax Certificates. County Operations and Debt Service were estimated using the tax rates in mills and the net taxable values for incorporated locations and unincorporated areas in the county.

The economic sector reporting the highest levels of GRT is the Retail Trade sector, with GRT revenues from sales in this sector constituting 27% of total GRT, followed by Construction and Accommodation and Food Services with 24% and 21%, respectively (Figure 12). Guadalupe had over \$7.7 million in GRT, providing 34% of the total GRT collections in the Study Area.³⁶

The presence in GRT collections derived from the Retail Trade sector in Guadalupe County reveals the importance of the County’s economy on local spending. The footprint of this sector reveals the impacts that the development of the Clines Corners Wind Farm Project will bring in the form of spending by construction crews in local establishments. It is reasonable to expect that the Retail Trade sector, as well as the Construction sector, will increase in Gross Receipts, effectively increasing the amount of revenues available for local jurisdictions.

Figure 13: Guadalupe County GRT by Sector

Guadalupe County FY18 Industries by Gross Receipts Tax Paid



³⁶ New Mexico Taxation and Revenue Department RP80 Report.

TORRANCE COUNTY, NM – ECONOMIC AND DEMOGRAPHIC PROFILE

Torrance County has the 11th highest agricultural output in New Mexico. The county is located in the center of New Mexico atop the rolling grasslands and encompasses a total area of 3,346 square miles with a population density of 4.6 people per square mile, the more densely populated of the two Study Area counties. The County primarily produces pinto beans, corn, alfalfa, and pumpkins in its large agricultural sector and sits at an elevation above 6,000 feet. The Town of Estancia is the county seat. Other significant communities within the county include Mountainair and Moriarty, which is the county's most populated town. A current demographic profile is provided in Table 20.

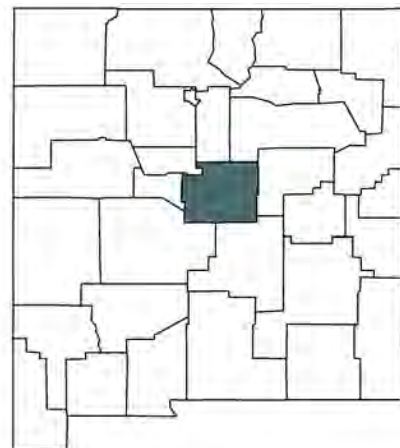


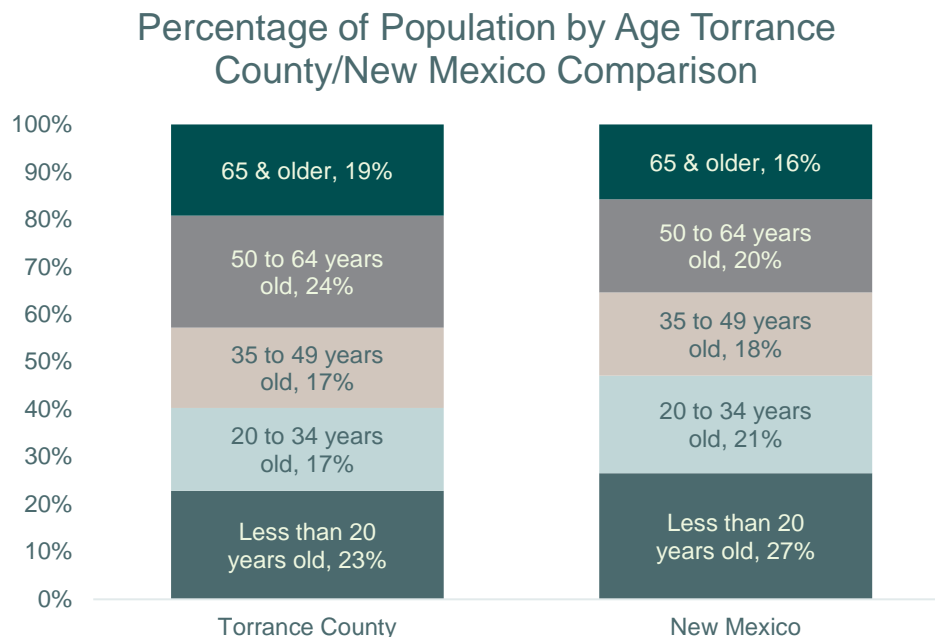
Table 20: Torrance County Population and Employment

Torrance County Population and Employment ³⁷					
2017 Population est.			2010 – 2017 Population Growth Rate		
15,534 (0.7% of NM population)			-0.76% per annum		
2010 & 2017 Population by City/Village					
	2010	2017		2010	2017
Moriarty	1,910	2,276	Willard	253	61
Estancia	1,655	1,657	Mountainair	928	1,128
Encino	82	61			
2017 Labor Force and Employment Data – Torrance County					
Labor Force	Employment	Unemployment		NM Unemployment	
5,484	5,010	8.6%		5.9%	

Generally stated, Torrance County has a slightly older population than New Mexico as a whole, as reflected in Figure 14.

³⁷ Based on 2017 US Census and 2017 US Dept. of Labor, Bureau of Labor Statistics data

Figure 14: Torrance County Age Distribution by Cohort



Agriculture is a significant economic sector and includes extensive fields of dry crops, corn, and pastureland. An agricultural profile is provided in Table 21

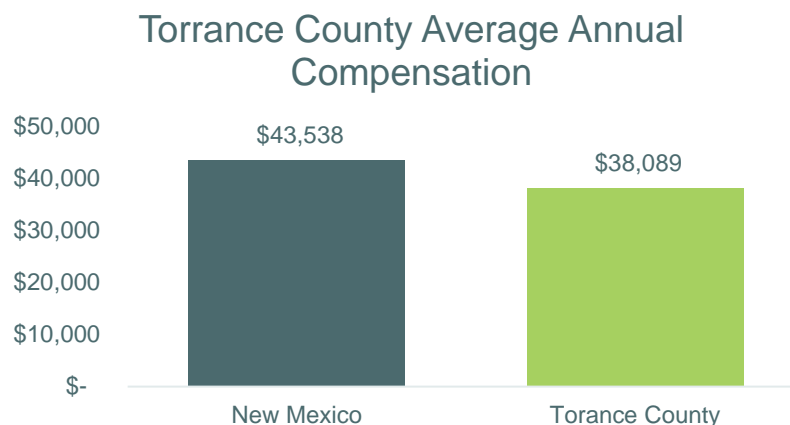
Table 21: Torrance County Agricultural Profile

2012 and 2007 Torrance County Farm Demographics						
2012 and 2007 Farm Demographics						
Number of Farms	2012	2007	Average Farm Size (acres)	2012	2007	
	589	561		3,166	3,202	
2012 Market Value of Agricultural Products Sold (\$ millions)						
Crops		Livestock and Poultry		Total		
\$23.34		\$35.18		\$58.52		
39.89%		60.11%				
2012 Value of Sales by Commodity Group (\$ millions)						
Cattle & calves	Grains, oilseeds, dry beans, and dry peas	Horses, ponies, mules, burros, and donkeys	Fruits, tree nuts, and berries	Hogs and pigs		
\$25.50	\$9.99	\$0.23	\$0.05	\$0.01		

The US Bureau of Labor Statistics 2017 total wages and salaries report for covered non-farm employment in Torrance County provides an estimated average annual compensation of \$38,089 per employee. The New Mexico statewide compensation is \$43,538 per year,

reflecting that reported wages and salaries in Torrance County are approximately 87% of the state average.

Figure 15: Torrance County Average Annual Compensation



Additionally, the US Census Bureau estimates a per capita income of \$17,323 for Torrance County, as compared with \$25,257 for the state of New Mexico,³⁸ reflecting a similar relationship to statewide compensation data.

The 2017 Bureau of Labor Statistics annual data indicates that there is an average of 187 establishments providing employment in Torrance County, with 145 (78%) of those being private firms.

Table 22: Torrance County Private Employment and Wages by Sector

2017 Data for Top Six Torrance County Industries (private & government)					
Sectors Ordered by Annual Employment					
Sector	Average Establishments		Annual Average Employment		Annual Wages Per Employee
	Count	% of private establishments	Count	% of private employment	
NAICS 44-45 Retail trade	43	23%	507	37%	\$25,596
NAICS 92 Public administration	24	13%	203	4%	\$90,268
NAICS 23 Construction	45	24%	191	4%	\$86,051
NAICS 42 Wholesale trade	11	6%	149	3%	\$65,015
NAICS 22 Utilities	9	5%	104	2%	\$92,589
NAICS 31-33 Manufacturing	15	8%	95	2%	\$44,783

³⁸ US Census Bureau, American Community Survey 2017

With regard to property taxes, the Torrance County 2018 millage rates are established by various authorities (i.e. County, Municipal, and School District) to meet specific revenue goals. Total County operations and debt service property tax obligations totaled over \$5.2 million in Torrance County for 2018. The total assessed property tax in Torrance County makes up 69% of the total Study Area property tax collections and its net taxable value is just 0.7% of the statewide net taxable value.

County operations and debt service represent 43.2% of property tax collected in the county. Other recipients of property tax revenue in Torrance County are school districts (50.6% of total), the state (4.6%), and municipalities (1.6%).

Figure 16: Percent of Revenue by Source, Torrance County FY18

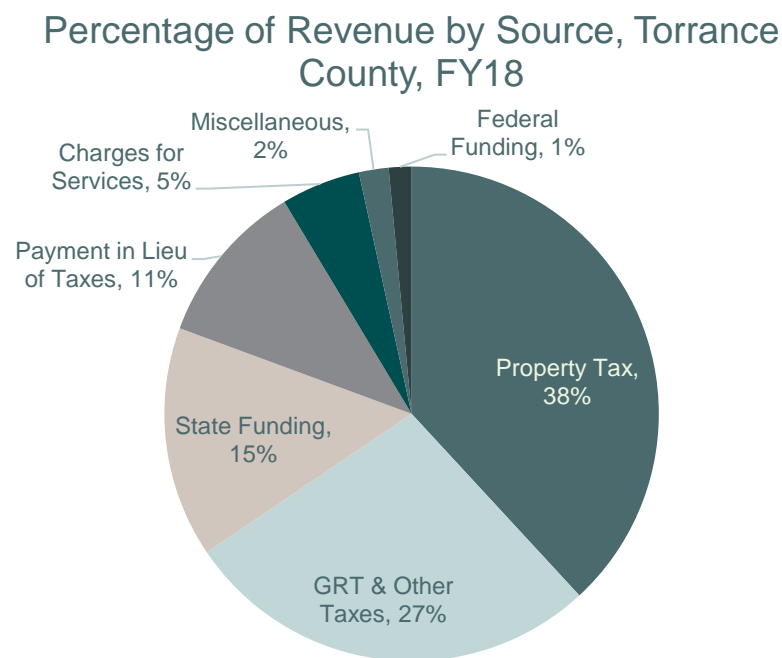
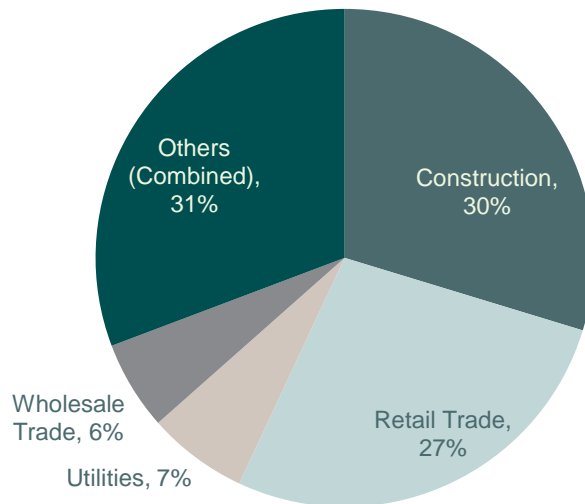


Figure 15 provides GRT data for FY18. The economic sector reporting the highest levels of economic activity is the Construction sector, with revenues from the sales in this sector constituting 30% of the total GRT followed by Retail Trade with 27% and Utilities with 7%. Torrance had over \$15.1 million in GRT, providing 66% of the total GRT collections in the Study Area.³⁹

³⁹ New Mexico Taxation and Revenue Department RP80 Report.

Figure 17: Torrance County GRT by Sector

Torrance County FY18 Industries by Gross Receipts Tax Paid



The prominence of the Retail Trade sector, being the second-most important industry in terms of gross receipts collections, reflects the importance of local consumption. Tax revenues that fund vital administrative functions rely on spending at local retail facilities. The development of the Clines Corners Wind Farm Project will contribute to an expansion of the Retail Trade sector via expenditures during the Construction Period. Additionally, Torrance County is expected to see an expansion of its Construction activities as wind turbines are installed in the region.

Technical Appendix

TA-1 2018 Study Area Property Tax Obligations, by Recipient

	Guadalupe		Torrance		Study Area Total	
	Property Tax Obligation	% of County Total	Property Tax Obligation	% of County Total	Property Tax Obligation	% of County Total
Total State	\$ 218,298	5%	\$ 558,682	4.6%	\$ 776,979.63	5%
County Operations and Debt Service	\$ 1,797,436	41%	\$ 5,226,852	43.2%	\$ 7,024,288.71	43%
Total Municipal	\$ 303,795	7%	\$ 190,709	2%	\$ 494,504.83	3%
Total School District	\$ 1,100,929	25%	\$ 6,124,416	50.6%	\$ 7,225,345.31	44%
Guadalupe County Hospital	\$ 682,180	15%	\$ -	0.0%	\$ 682,179.92	4%
Luna Community College	\$ 309,276	7%	\$ -	0%	\$ 309,275.84	2%
Total	\$ 4,411,914	100%	\$ 12,100,660	100%	\$ 16,512,574	100%

Source: 2018 Property Tax Certificates filed with New Mexico DFA

STATE OF NEW MEXICO

Guadalupe County

Statement of Revenues, Expenditures, and Changes in Fund Balances - Governmental Funds
For the Year Ended June 30, 2018

	General Fund	County Road Fund	Capital Projects	Nonmajor Governmental Funds	Total
Revenues					
Property Taxes	\$ 1,645,334	\$ -	\$ -	\$ -	\$ 1,645,334
Gross Receipts Taxes	-	-	125,761	147,085	272,846
Gas and Motor Vehicle	14,578	399,129	-	-	413,707
Federal Operating Grants	-	-	-	12,816	12,816
State Operating Grants	602,385	153,890	432,682	1,010,963	2,199,920
State Capital Grants	-	168,724	-	-	168,724
Payments in Lieu of Taxes	162,226	-	-	2,568	164,794
Charges for Services	260,425	-	778,436	373,343	1,412,204
Investment Income	7,139	-	-	-	7,139
Miscellaneous Revenue	149,690	37,809	34,849	181,719	404,067
Total Revenues	2,841,777	759,552	1,371,728	1,728,494	6,701,551
Expenditures					
Current:					
General Government	1,873,947	-	-	465,263	2,339,210
Public Safety	566,356	-	-	921,012	1,487,368
Public Works	-	719,752	501,272	-	1,221,024
Culture and Recreation	-	-	-	22,594	22,594
Health and Welfare	-	-	-	659,686	659,686
Capital Outlay	-	183,748	307,480	35,000	526,228
Debt Service Principal	-	-	111,727	95,376	207,103
Debt Service Interest	-	-	2,622	44,549	47,171
Total Expenditures	2,440,303	903,500	923,101	2,243,480	6,510,384
Excess (Deficiency) of Revenues Over Expenditures	401,474	(143,948)	448,627	(514,986)	191,167
Other Financing Sources (Uses)					
Transfers In	226,063	200,000	132,619	576,138	1,134,820
Transfers Out	(677,461)	(200,000)	(215,076)	(42,283)	(1,134,820)
Total Other Financing Sources (Uses)	(451,398)	-	(82,457)	533,855	-
Change in Fund Balance	(49,924)	(143,948)	366,170	18,869	191,167
Fund Balances - Beginning of Year	2,403,986	311,791	1,173,358	939,554	4,828,689
Fund Balances - End of Year	\$ 2,354,062	\$ 167,843	\$ 1,539,528	\$ 958,423	\$ 5,019,856

*Source: State of New Mexico. (Fiscal Year 2018). Financial Statements and Independent Auditor's Report - Bernalillo County.

STATE OF NEW MEXICO
Torrance County

Statement of Revenues, Expenditures, and Changes in Fund Balances - Governmental Funds
For the Year Ended June 30, 2018

	General Fund	Road	Corrections Fund	Debt Service Fund	Nonmajor Funds	Total
Revenues						
Taxes:						
Property	\$ 4,592,985	\$ -	\$ -	\$ 345,798	\$ 94,041	\$ 5,032,824
Local and State Shared Taxes	652,060	526,363	265,226	275,135	1,899,062	3,617,846
Intergovernmental:						
Intergovernmental Sources - Federal	-	110,212	-	-	85,735	195,947
Intergovernmental Sources - State	278,000	611,668	31,382	-	1,070,182	1,991,232
Payment in Lieu of Taxes	425,806	-	-	-	995,500	1,421,306
Charges for Services	167,617	3,409	80,275	-	432,100	683,401
Interest	1,033	174	-	-	79,091	80,298
Miscellaneous	34,709	16,073	2,247	-	123,243	176,272
Total Revenues	6,152,210	1,267,899	379,130	620,933	4,778,954	13,199,126
Expenditures						
Current:						
General Government	3,590,028	-	-	-	964,849	4,554,877
Public Safety	1,452,668	-	1,807,630	-	1,564,509	4,824,807
Highways and Streets	-	824,251	-	-	-	824,251
Health and Welfare	-	-	-	-	834,883	834,883
Culture and recreation	-	-	-	-	-	-
Capital Outlay	-	143,496	-	-	1,455,493	1,636,995
Debt Service:			38,006	-	-	-
Principal	-	-	-	560,882	-	560,882
Interest	-	-	-	86,944	3,244	90,188
Total Expenditures	5,042,696	967,747	1,845,636	647,826	4,822,978	13,326,883
Excess (Deficiency) of Revenues Over Ex-	1,109,514	300,152	(1,466,506)	(26,893)	(44,024)	(127,757)
Other Financing Sources (Uses)						
Proceeds from Loan Issuance	-	-	-	-	-	-
Transfers In	152,318	95,000	1,175,295	-	280,618	280,618
Transfers Out	(1,203,560)	-	-	(1,094,283)	1,969,523	3,392,136
Total Other Financing Sources (Uses)	(1,051,242)	95,000	1,175,295	(1,094,283)	1,155,848	280,618
Net Change in Fund Balances	58,272	395,152	(291,211)	(1,121,176)	1,111,824	152,861
Fund Balances - Beginning of Year	1,960,505	299,246	443,294	1,710,952	3,587,775	8,001,772
Fund Balances - End of Year	2,018,777	694,398	152,083	589,776	4,699,599	8,154,633

*Source: State of New Mexico, (Fiscal Year 2018). Financial Statements and Independent Auditor's Report - Torrance County.

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

**IN THE MATTER OF THE APPLICATION FOR)
THE LOCATION OF THE CLINES CORNERS)
WIND FARM AND GEN-TIE SYSTEM IN)
TORRANCE AND GUADALUPE COUNTIES)
PURSUANT TO THE PUBLIC UTILITY ACT, NMSA)
1978, §§62-9-3 AND 62-9-3.2)**

Case No. 19 - _____

CLINES CORNERS WIND FARM, LLC)

APPLICANT.)

AFFIDAVIT OF JOHN TYSELING

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

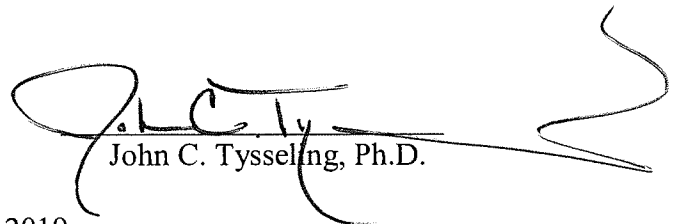
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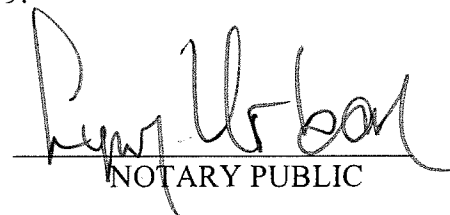
AFFIDAVIT OF JOHN C. TYSSELING, PH.D.

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss.

I have read the foregoing Direct Testimony, and it is true and accurate based on my own knowledge and belief.


John C. Tysseling, Ph.D.

SUBSCRIBED and sworn to me before this 8th of May 2019.


NOTARY PUBLIC

June 19, 2021
My Commission Expires.

