The Economic and Fiscal Impacts of Southern Colorado Transmission Improvements

In Alamosa, Costilla, Huerfano, and Pueblo Counties

Prepared for:

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

Tri-State Generation and Transmission Association, Inc. and Xcel Energy are proposing a new joint project in southern Colorado that would improve the way electric power is delivered to Tri-State's member utilities and Xcel's customers.

The existing electrical system in southern Colorado is beginning to reach its limit due primarily to continued growth. Colorado Senate Bill 07-100 established requirements for utilities to continually evaluate and, if necessary, improve electric transmission facilities to meet the state's existing and future energy needs. With the increasing use of southern Colorado's abundant wind and solar energy resources, many current and proposed wind and solar farms are in need of transmission lines to bring this clean, renewable energy source to customers.

The Southern Colorado Transmission Improvement Project will help meet the needs of the current and future electricity customers while providing important infrastructure to this burgeoning wind and solar energy industry. It will enable efforts for the potential development of 1,000 megawatts or more of renewable energy and provide for better electric reliability on both Tri State's and Xcel's systems.

The project involves the construction of three new transmission lines, consisting of a new double-circuit 230-kilovolt transmission line between electrical substations near the towns of Walsenburg and Mosca, a new double-circuit 345-kilovolt transmission line between Walsenburg and Pueblo, and a new 230-kilovolt circuit between the proposed new Calumet Substation north of Walsenburg and an existing substation just outside the town of Walsenburg. These projects and improvements to three existing substations will provide the power delivery infrastructure to increase the reliability and capacity of the existing transmission system and support proposed and future renewable energy development in the area.

This report details the economic and fiscal impacts in the southern Colorado communities from the construction and operation of these lines and substations. The impacts are estimated for each of the four counties in which the project is located (Alamosa, Costilla, Huerfano, and Pueblo Counties) and the region as a whole.

Construction

The transmission improvement project will cost approximately $179.7 million with about $147.5 million for construction of nearly 150 miles of transmission lines and $32.2 million for the construction and refitting of four substations. These values are estimates as transmission line routes have yet to be finalized.

The transmission improvement project significantly impacts the region's economy through local spending on construction materials and worker spending. ***The direct economic impact from the construction of the transmission improvement project in the region is $5.8 million over the two- to three-year development and construction period.***

These spending patterns also have multiplicative impacts as the money from construction activity works its way through the regional economy. The direct impact of $5.8 million generates $3.7 million in indirect and induced spending. Therefore, ***the transmission improvement project generates a total direct and indirect economic impact of $9.5 million in the region's economy during the two- to three-year development and construction period.*** This includes $3 million in payroll for 84 direct and indirect local workers in existing and/or new jobs.

As construction progresses, each of the four counties experiences significant direct and indirect economic benefits from the transmission improvement project.

Total Construction Economic Impacts (Direct and Indirect) - Regional Summary

	Alamosa	Costilla	Huerfano	Pueblo	Region
Value of Activity	$2,014,000	$1,797,000	$3,814,000	$1,860,000	**$9,490,000**
Payroll	$634,000	$566,000	$1,200,000	$587,000	**$2,985,000**
Employment	18	16	35	16	**84**

Numbers may not add due to rounding.

EXECUTIVE SUMMARY

The direct impact to Alamosa County totals $1.2 million over the construction period with $81,000 for the substations and $1.2 million for the transmission lines. As these dollars are spent with local suppliers and workers spend money throughout the county, the transmission improvement project generates a total direct and indirect economic impact of $2 million on Alamosa County's economy. This includes $634,000 in payroll for 12 direct and six indirect workers.

The direct impact to Costilla County totals $1.1 million over the construction period. Including multiplier effects, the transmission improvement project generates a total direct and indirect economic impact of $1.8 million in Costilla County. This includes $566,000 in payroll for 10 direct and six indirect workers.

The direct impact to Huerfano County totals $2.3 million over the construction period with $539,000 for the substations and $1.8 million for the transmission lines. Including multiplier effects, the transmission improvement project generates a total direct and indirect economic impact of $3.8 million in Huerfano County. This includes $1.2 million in payroll for 22 direct and 13 indirect workers.

The direct impact to Pueblo County totals $1.1 million over the construction period with $150,000 for the substation improvement and $992,000 for the transmission lines. Including multiplier effects, the transmission improvement project generates a total direct and indirect economic impact of $1.9 million in Pueblo County. This includes $587,000 in payroll for 10 direct and six indirect workers.

The region will receive sales tax revenue from materials and equipment purchased locally and on worker spending in the region. Fiscal impacts during the construction of the transmission improvement project total $51,000, ranging from $8,000 in Pueblo County to $18,000 in Alamosa County.

Ongoing Operations

Local governmental units assess property taxes to fund public school operations and local government services. These local governmental units include counties, cities, school districts, and special districts ranging from library districts to recreational districts to water districts.

Potential annual property tax revenue is calculated based on the total assessed value of the transmission improvement project. The assessed value is determined using the three approaches to value: cost, income, and market. That value is then apportioned to the taxing districts based on the portion of company assets in each district.

The estimated total value of the transmission improvement project of $179.7 million generates $2.5 million in annual property tax revenue to taxing entities in the region, including:

- County tax revenue of $829,000
- Average school district tax revenue of $1.1 million
- Average special district tax revenue of $424,000
- Average municipality tax revenue of $165,000

This fiscal impact will begin the year after the project is placed in service and will occur annually during the active life of the transmission lines and substations.

The economic impacts of the transmission improvement project during construction and the ongoing tax revenues generated from operations will benefit the region and its residents. Not only will the project provide much needed electricity transmission lines but it will also provide a portion of the infrastructure needed for growing renewable energy resources in the region, allowing this new energy source to benefit customers throughout the region.

Annual Property Tax Revenue - Regional Summary

	Alamosa	Costilla	Huerfano	Pueblo	Region
County Tax Revenue	$180,000	$120,000	$336,000	$192,000	**$829,000**
Average School District Tax Revenue	$241,000	$187,000	$443,000	$241,000	**$1,112,000**
Average Special District Tax Revenue	$88,000	$37,000	$217,000	$82,000	**$424,000**
Average Municipality Tax Revenue	$25,000	$30,000	$54,000	$57,000	**$165,000**
Total Property Tax Revenue	**$533,000**	**$374,000**	**$1,051,000**	**$572,000**	**$2,530,000**

INTRODUCTION

Tri-State Generation and Transmission Association, Inc. (Tri-State) and Xcel Energy (Xcel) are proposing a new joint project in southern Colorado that would improve the way electric power is delivered to Tri-State's member utilities and Xcel's customers.

The existing electrical system in southern Colorado is beginning to reach its limit due primarily to continued growth. Tri-State's member system, San Luis Valley Rural Electric Cooperative, approached the power supplier about construction of a new line into the San Luis Valley due to increased electric loads and concerns of a drop in voltage, known as voltage collapse, which can occur when the demand for energy is high. Tri-State also had a separate reliability project that would help support southern Colorado member San Isabel Electric Association in addition to New Mexico members Southwestern Electric Cooperative and Springer Electric Cooperative.

The electric cooperatives also recognized that additional transmission is required to help facilitate renewable energy opportunities in their communities. With the increasing use of southern Colorado's abundant wind and solar energy resources, many current and proposed wind and solar farms are in need of transmission lines to bring this clean, renewable energy source to customers.

Colorado Senate Bill 07-100 (Senate Bill 100) established requirements for utilities to continually evaluate and, if necessary, improve electric transmission facilities to meet the state's existing and future energy needs. Senate Bill 100 calls for the creation of Energy Resource Zones (ERZ), defined as geographic areas in which transmission constraints hinder the delivery of electricity to Colorado consumers, the development of new electric generation facilities to serve Colorado consumers, or both. The Southern Colorado Transmission Improvement Project, discussed in this report, is located in ERZ 4 and ERZ 5.

The Southern Colorado Transmission Improvement Project (the project) will help meet the needs of the current and future electricity customers while providing important infrastructure to this burgeoning wind and solar energy industry. It will enable efforts for the potential development of 1,000 megawatts or more of renewable energy and provide for better electric reliability on both Tri State's and Xcel's systems.

The project involves the construction of three new transmission lines and a new substation:

- Approximately 95 miles of new, double-circuit 230-kilovolt (kV) transmission line from the existing San Luis Valley Substation, north of Alamosa, to a new Calumet Substation near Walsenburg.
- A new 230/345-kV Calumet Substation on property currently owned by Tri-State located six miles north of Walsenburg and expansion of three existing substations.
- Approximately 45 miles of new, double-circuit 345-kV transmission line between the proposed Calumet Substation and the existing Comanche Substation near Pueblo.
- Approximately six miles of new 230-kV transmission line between the proposed Calumet Substation and the existing Walsenburg Substation.

In addition to the new Calumet Substation, improvements and expansions will be required to the existing San Luis Valley, Walsenburg, and Comanche Substations to accommodate the new lines. These lines will provide the power delivery infrastructure to increase the reliability and capacity of the existing transmission system and support proposed renewable energy development in the area.

This report details the economic and fiscal impacts in the southern Colorado communities from the construction and operation of these lines and substations. This report does not include the economic and fiscal impacts from solar and wind energy development, but it is important to note that several hundred megawatts of renewable generation are currently under development in these

INTRODUCTION

communities. The southern Colorado transmission improvements will provide a vital link for delivering this renewable energy to the grid.

Intent of the Study

The intent of this study is to estimate the economic and fiscal impacts of the transmission improvement project. The economic and fiscal impacts are estimated for each of the four counties in which the project is located (Alamosa, Costilla, Huerfano, and Pueblo Counties) and the region as a whole.

The information in this report is presented in 2009 dollars. Please note that impact figures may not add exactly due to rounding.

Economic and Fiscal Impacts Defined

Economic Impacts

Economic impact analysis is the analytical approach used to assess the measurable direct and indirect benefits resulting from a project over a specific time period. Only those benefits that can be measured or quantified are included. Intangible benefits, such as enhancement of community character or diversification of the job base, are not included.

The economic impacts include only that spending which occurs in the local area. That is, this analysis includes only that spending directly related to the transmission improvement project and transacted with businesses located in the four-county region.

The spending patterns associated with the economic impacts have multiplicative impacts on the communities. Therefore, multiplier analysis is used to trace the impacts on businesses, organizations, and individuals affected by the direct spending as the impacts work their way through the economy. Multiplier analysis recognizes the interdependence of various sectors of the economy as activities in one sector spill over into other sectors, stimulating business activity.

The multiplicative impacts are discussed in terms of "indirect" and "induced" economic impacts. When Tri-State and Xcel purchase supplies from a local vendor, that local vendor in turn provides payroll to its employees and makes purchases from other vendors. These other vendors in turn provide payroll to their employees, and so on, providing the indirect impact of the project. On a separate but similar spending track, when an employee associated with the project spends their paycheck at local businesses, these local businesses provide payroll to their employees, make purchases from other vendors, and so on, creating the induced impact of the project. In other words, the initial dollars spent by Tri-State and Xcel on either purchases or payroll are circulated throughout the economy a number of times. The number of times that the initial dollars are circulated throughout the economy may be estimated using economic multipliers.

The indirect and induced jobs and income flows (collectively referred to as indirect impacts) generated by the direct spending patterns are estimated using the Regional Input-Output Modeling System II (RIMS II) multipliers developed by the U.S. Department of Commerce, Bureau of Economic Analysis. RIMS II multipliers are based on an accounting framework (Input-Output table) that details the industrial distribution of inputs purchased and outputs sold for each industry at a regional level. This analysis uses the industry-specific RIMS II multipliers for the four-county region including Alamosa, Costilla, Huerfano, and Pueblo Counties.

Fiscal Impacts

Fiscal impact analysis estimates the direct public revenues and public costs resulting from a project over a specific period. A project may generate a broad array of public revenues ranging from sales and property tax to other charges for services. In turn, the local government provides a variety of public services. This report includes a limited fiscal impact analysis, including estimates of direct sales tax and property tax revenue only for each of the four project counties and the region as a whole.

CONSTRUCTION IMPACTS

The Southern Colorado Transmission Improvement Project is designed to meet the energy needs of a growing population, update an outdated transmission system, and provide infrastructure for growing renewable energy generation in southern Colorado.

This section describes the discrete, one-time economic impact of the project during the construction of three new transmission lines, one new substation, and three substation expansions. Development and construction of the project is expected to take two to three years. Permitting, land acquisition, engineering activities, and equipment procurement will take place in the years preceding the start of construction.

The economic impact of the project includes the value of construction materials purchased in the region and the value of the construction worker spending in the region during building. ***The direct economic impact from the construction of the transmission improvement project in the region is approximately $5.8 million over a two- to three-year development and construction period, as detailed in Table 1.***

These spending patterns also have multiplicative impacts on the regional economy. Based on the RIMS II multipliers for the construction industry, ***the construction of the transmission improvement project generates a total direct and indirect economic impact of approximately $9.5 million in the region's economy during the two- to three-year development and construction period (Table 2).***

Regional Economic and Fiscal Impacts

Direct Economic Impacts

- The transmission improvement project will cost approximately $179.7 million with $147.5 million for construction of nearly 150 miles of transmission lines and $32.2 million for the construction and refitting of four substations. These estimates were developed in late 2008 with applicable escalations included. The estimates are consistent with projects similar in nature.
- Project costs are highly variable due to fluctuations in costs of materials (steel, aluminum, etc.), fluctuations in labor costs, and determination of a line route. The cost estimates used are scoping level cost estimates with a +/- 30 percent accuracy with Allowance for Funds Used During Construction (AFUDC) excluded.
- Total construction costs are divided into four broad categories including the cost of materials and equipment; the value of construction contracts, excluding labor; wages, benefits, and per diem to workers; and soft costs such as engineering, planning, and the like.
- The total cost of materials and equipment of the transmission improvement project is estimated to be about $87.5 million, including the transformers and control building for the Calumet Substation. Due to the highly specialized nature of electricity transmission construction, it is estimated that about four percent of the substation materials (excluding the transformers) and the transmission line materials will be purchased from within the region. The quantity of locally purchased materials will be limited to concrete for foundations, possibly reinforcing steel, culverts, fencing, gravel or other coarse aggregate for access roads, fuel, and other miscellaneous items. The Calumet Substation transformers and control building will be purchased outside of the region. This translates into more than $3 million of materials and equipment purchased from suppliers in the four-county region, including $2.7 million for transmission line materials and $300,000 for substation construction materials (Table 1).
- The value of construction contracts (excluding labor) includes costs such as equipment rental, maintenance, profit, costs of performance bonds, miscellaneous permit costs, rental property, salaries of administrative and office personnel,

markups on purchased materials, and insurance. These costs total an estimated $41.8 million. Assuming that about four percent of this spending is also conducted with local businesses, this spending represents about $1.7 million in revenue for suppliers in the region.

- Almost 30,000 worker-days[1] will be spent in the region during the construction of the transmission improvement project resulting in wages and benefits of $17 million and per diem of $1.9 million, based on a $63 per worker per workday per diem during a typical six-day workweek.
- Due to the specialized nature of this type of construction, the labor will be imported from outside the region. These workers temporarily reside in the community in which they are working and generally send most of the money earned back to their home residence. Still, workers do generate economic impacts to the community in which they are working as they spend money locally on food, lodging, and entertainment. This analysis assumes that the local spending totals slightly more than half of the total per diem earned by the workers, or $1.1 million during the construction period (Table 1).

Table 1: Construction Direct Economic Impact - Regional Summary

Materials & Equipment	$3,050,000
Construction Contracts	$1,672,000
Worker Spending	$1,122,000
Total Construction Impacts	**$5,844,000**

- The final component of the total cost of construction of the transmission improvement project includes various professional services such as project administration, planning, engineering, surveying, easements, and other soft costs. This analysis assumes that all of the project's total soft costs of $31.5 million will be spent outside of the region. This is a conservative approach as preliminary estimates suggest that the project soft costs include about $16 million for right of way acquisition costs, most of which is likely to be paid to local landowners. However, there is no way to estimate how much of these funds the local landowners will spend locally versus outside of the region.
- The construction impacts, including the local employment and local spending patterns, are temporary impacts that occur only during the construction period.

Indirect and Induced Economic Impacts

- The construction and employee spending patterns have multiplicative impacts on the region's economy. This analysis uses the RIMS II multipliers for the construction industry to estimate the impacts of construction material purchases and the multipliers for the retail trade industry for worker spending impacts.
- The $4.7 million in materials, equipment, and construction contracts purchased in the region generate direct supplier payroll of $1.6 million for 38 employees during the construction period. In turn, this revenue to the suppliers and payroll to the employees creates indirect and induced impacts throughout the region. Based on the RIMS II multipliers, the $4.7 million in direct spending generates an additional $3.1 million in indirect and induced spending, including $838,000 in payroll for 26 workers supported by the indirect spending. Therefore, the direct and indirect impacts of the materials, equipment, and construction contract purchases total $7.8 million, including $2.5 million in payroll for the 38 direct and 26 indirect employees (Table 2).

[1] A worker-day is one person working ten hours for one day. The 30,000 construction worker-days noted above equals an average of 32 full-time construction workers each year of a three-year project.

CONSTRUCTION IMPACTS

Table 2: Total Economic Impacts - Regional Summary

	Direct Impact	Multiplier	Indirect & Induced Impact	Total Impact
Construction Contracts & Materials				
Value of Activity	$4,722,000	1.6554	$3,095,000	$7,817,000
Payroll	$1,643,000	1.5102	$838,000	$2,481,000
Employment	38	1.6829	26	64
Worker Spending				
Value of Activity	$1,122,000	1.4907	$551,000	$1,673,000
Payroll	$357,000	1.4129	$147,000	$504,000
Employment	15	1.2948	5	20
Total Impact				
Value of Activity	$5,844,000		$3,646,000	$9,490,000
Payroll	$2,000,000		$985,000	$2,985,000
Employment	53		31	84

Calculation Notes: Direct Impact x Multiplier = Total Impact

Total Impact - Direct Impact = Indirect & Induced Impact

- Similarly, the $1.1 million in worker spending in the region on food, lodging, entertainment, and other purchases supports the employment of 15 people earning a total of $357,000. This direct spending generates indirect and induced impacts of $551,000, including $147,000 in income for five employees. The direct and indirect impacts of the worker spending total $1.7 million in the region, including $504,000 in payroll for 15 direct and five indirect workers (Table 2).
- Combining the impacts for the two categories of construction-related spending reveals that the direct and indirect impacts of the construction of the transmission improvement project total $9.5 million in the regional economy. This value includes $3 million in total payroll for 53 direct and 31 indirect workers (Table 2). The payroll may go toward supporting existing jobs, creation of new jobs, or a combination of both.
- The construction impacts, including the local employment and local spending patterns, are temporary impacts that occur only during the construction period.

Fiscal Impacts

- The region will receive sales tax revenue from materials and equipment purchased within each county and on worker spending in the region. Fiscal impacts during the construction of the transmission improvement project total $51,000. Based on the current sales tax rate of two percent in Alamosa County and one percent in each of the other counties, revenue from sales tax on materials and equipment totals $37,000 and sales tax on worker spending totals $14,000 (Table 3).

County-Level Impacts

Alamosa County

Direct Economic Impacts

- Construction of the portion of the transmission improvement project located in Alamosa County will cost an estimated $36.9 million with $34.5 million for construction of nearly 37 miles of transmission lines and $2.4 million for the expansion of the San Luis Valley Substation. These are estimated values as transmission line routes have yet to be finalized.
- The materials and equipment costs for this portion of the project total about $16.1 million. Based on supplier estimates from Tri-State and Xcel, about four percent or $644,000 in

Table 3: Construction Fiscal Impact - Regional Summary

	Alamosa	Costilla	Huerfano	Pueblo	Region
Sales Tax: Materials & Equipment	$13,000	$6,000	$12,000	$6,000	**$37,000**
Sales Tax: Worker Spending	$5,000	$2,000	$5,000	$2,000	**$14,000**
Total Sales Tax Revenue	**$18,000**	**$8,000**	**$17,000**	**$8,000**	**$51,000**

materials and equipment will be purchased from Alamosa County suppliers. (Table 4)

Table 4: Construction Direct Economic Impact- Alamosa County

Materials & Equipment	$644,000
Construction Contracts	$336,000
Worker Spending	$263,000
Total Construction Impacts	**$1,243,000**

- The value of construction contracts (excluding labor) totals an estimated $8.4 million for this portion of the project. Assuming that about four percent of this spending is conducted with local businesses, this spending represents about $336,000 in revenue for suppliers in the region.
- The construction workforce for the transmission improvement project will be imported from outside of the region, but workers temporarily living in the county will spend money on food, lodging, and entertainment. In addition to the wages that construction workers generally send back to their permanent place of residence, workers earn a per diem for each working day of $63. Assuming that over half of the per diem will be spent locally and based on the number of worker days spent in Alamosa County, the direct economic impact of worker spending will be $263,000 during the construction period (Table 4).
- The direct impact to the county totals $1.2 million over the construction period with $81,000 for the substation expansion and $1.2 million for the transmission lines (Table 4). This direct economic impact includes materials, equipment, and construction contracts purchased within the county and construction worker spending in Alamosa County.

Indirect and Induced Economic Impacts

- The construction and employee spending patterns also have multiplicative impacts on the county's economy. Based on the RIMS II multipliers for the relevant industries, the transmission improvement project generates a total direct and indirect economic impact of $2 million on Alamosa County's economy. This includes $634,000 in payroll for 12 direct and six indirect workers (Table 5). The payroll may go toward supporting existing jobs, creation of new jobs, or a combination of both.
- The construction impacts, including the local employment and local spending patterns, are temporary impacts that occur only during the construction period.

Fiscal Impacts

- Alamosa County will receive sales tax revenue from materials and equipment purchased within the county and worker spending in the county. The fiscal impact during construction of the transmission improvement project totals $18,000. Based on the current sales tax rate of

Table 5: Total Economic Impacts - Alamosa County

	Direct Impact	Multiplier	Indirect & Induced Impact	Total Impact
Construction Contracts & Materials				
Value of Activity	$980,000	1.6554	$642,000	$1,622,000
Payroll	$341,000	1.5102	$174,000	$515,000
Employment	8	1.6829	5	13
Worker Spending				
Value of Activity	$263,000	1.4907	$129,000	$392,000
Payroll	$84,000	1.4129	$35,000	$119,000
Employment	4	1.2948	1	5
Total Impact				
Value of Activity	$1,243,000		$771,000	$2,014,000
Payroll	$425,000		$209,000	$634,000
Employment	12		6	18

Calculation Notes: Direct Impact x Multiplier = Total Impact

Total Impact - Direct Impact = Indirect & Induced Impact

two percent, revenue from the sales tax on materials and equipment totals $13,000 and sales tax on worker spending totals $5,000 (Table 3).

Costilla County

Direct Economic Impacts

- Construction of the 35 miles of transmission lines in Costilla County as part of the transmission improvement project will cost nearly $32.9 million. These are estimated values as transmission line routes have yet to be finalized. There will be no substation construction or expansion in Costilla County.

Table 6: Construction Direct Economic Impact - Costilla County

Materials & Equipment	$588,000
Construction Contracts	$295,000
Worker Spending	$226,000
Total Construction Impacts	**$1,109,000**

- The materials and equipment costs for this portion of the project total $14.7 million. Based on supplier estimates from Tri-State and Xcel, about four percent or $588,000 in materials and equipment will be purchased from Costilla County suppliers (Table 6).
- The value of construction contracts (excluding labor) totals an estimated $7.4 million for this portion of the project. Assuming that about four percent of this spending is conducted with local businesses, this spending represents about $295,000 in revenue for suppliers in the region.
- The construction workforce for the transmission improvement project will be imported from outside of the region, but workers temporarily living in the county will spend money on food, lodging, and entertainment. In addition to the wages that construction workers generally send back to their permanent place of residence, workers earn a per diem for each working day of $63. Assuming that over half of the per diem will be spent locally and based on the number of worker days spent in Costilla County, the direct economic impact of worker spending will be $226,000 during the construction period (Table 6).
- The direct impact to the county totals $1.1 million over the construction period (Table 6). This direct economic impact includes materials, equipment, and construction contracts purchased within the county and construction worker spending in Costilla County.

Indirect and Induced Economic Impacts

- The construction and employee spending patterns have multiplicative impacts on the county's economy. Based on the RIMS II multipliers for the relevant industries, the transmission improvement project generates a

Table 7: Total Economic Impacts - Costilla County

	Direct Impact	Multiplier	Indirect & Induced Impact	Total Impact
Construction Contracts & Materials				
Value of Activity	$882,000	1.6554	$578,000	$1,460,000
Payroll	$307,000	1.5102	$157,000	$464,000
Employment	7	1.6829	5	12
Worker Spending				
Value of Activity	$226,000	1.4907	$111,000	$337,000
Payroll	$72,000	1.4129	$30,000	$102,000
Employment	3	1.2948	1	4
Total Impact				
Value of Activity	$1,108,000		$689,000	$1,797,000
Payroll	$379,000		$187,000	$566,000
Employment	10		6	16

Calculation Notes: Direct Impact x Multiplier = Total Impact

Total Impact - Direct Impact = Indirect & Induced Impact

total direct and indirect economic impact of $1.8 million in Costilla County. This includes $566,000 in payroll for 10 direct and six indirect workers (Table 7). The payroll may go toward supporting existing jobs, creation of new jobs, or a combination of both.

- The construction impacts, including the local employment and local spending patterns, are temporary impacts that occur only during the construction period.

Fiscal Impacts

- Costilla County will receive sales tax revenue from materials and equipment purchased within the county and worker spending in the county. The fiscal impact during construction of the transmission improvement project totals $8,000. Based on the current sales tax rate of one percent, revenue from the sales tax on construction materials totals $6,000 and sales tax on worker spending totals $2,000 (Table 3).

Huerfano County

Direct Economic Impacts

- Huerfano County contains the largest share of transmission line construction in the transmission improvement project. In addition, the only new substation constructed as a part of this project will be located in Huerfano County. Construction costs will total an estimated $78 million, including $52.2 million for the construction of approximately 51 miles of transmission lines, $1.1 million for improving the Walsenburg Substation, and $24.8 million for constructing the new Calumet Substation. These are estimated values as transmission line routes have yet to be finalized.
- The materials and equipment costs for this portion of the project total $41.3 million. An estimated $11.2 million is for transformers not purchased locally. Of the remaining $30.1 million, about four percent or $1.2 million in materials and equipment will be purchased from Huerfano County suppliers (Table 8).
- The value of construction contracts (excluding labor) totals an estimated $17.3 million for this portion of the project. Assuming that about four percent of this spending is conducted with local businesses, this spending represents about $694,000 in revenue for suppliers in the region.
- The construction workforce for the transmission improvement project will be imported from outside of the region, but workers temporarily living in the county will spend money on food, lodging, and entertainment. In addition to the wages that construction workers generally send back to their permanent place of residence, workers earn a per diem for each working day of $63. Assuming that over half of the per diem will be spent locally and based on the number of worker days spent in Huerfano County, the direct economic impact of worker spending will be $452,000 during the construction period (Table 8).

Table 8: Construction Direct Economic Impact - Huerfano County

Materials & Equipment	$1,203,000
Construction Contracts	$694,000
Worker Spending	$452,000
Total Construction Impacts	**$2,349,000**

- The direct impact to the county totals over $2.3 million over the construction period with $539,000 for the substations and $1.8 million for the transmission lines (Table 8). This direct economic impact includes materials, equipment, and construction contracts purchased within the county and construction worker spending in Huerfano County.

Indirect and Induced Economic Impacts

- The construction and employee spending patterns have multiplicative impacts on the

county's economy. Based on the RIMS II multipliers for the relevant industries, the transmission improvement project generates a total direct and indirect economic impact of nearly $3.8 million in Huerfano County. This includes $1.2 million in payroll for 22 direct and 13 indirect workers (Table 9). The payroll may go toward supporting existing jobs, creation of new jobs, or a combination of both.

Table 9: Total Economic Impacts - Huerfano County

	Direct Impact	Multiplier	Indirect & Induced Impact	Total Impact
Construction Contracts & Materials				
Value of Activity	$1,897,000	1.6554	$1,243,000	$3,140,000
Payroll	$660,000	1.5102	$337,000	$997,000
Employment	16	1.6829	11	27
Worker Spending				
Value of Activity	$452,000	1.4907	$222,000	$674,000
Payroll	$144,000	1.4129	$59,000	$203,000
Employment	6	1.2948	2	8
Total Impact				
Value of Activity	$2,349,000		$1,465,000	$3,814,000
Payroll	$804,000		$396,000	$1,200,000
Employment	22		13	35

Calculation Notes: Direct Impact x Multiplier = Total Impact

Total Impact - Direct Impact = Indirect & Induced Impact

- The construction impacts, including the local employment and local spending patterns, are temporary impacts that occur only during the construction period.

Fiscal Impacts

- Huerfano County will receive sales tax revenue on materials and equipment purchased within the county and worker spending in the county. The fiscal impact during construction of the transmission improvement project totals $17,000. Based on the current sales tax rate of one percent, revenue from the sales tax on materials and equipment totals $12,000 and sales tax on worker spending totals $5,000 (Table 3).

Pueblo County

Direct Economic Impacts

- Construction of the portion of the transmission improvement project located in Pueblo County will cost an estimated $31.9 million with $27.9 million for construction of approximately 25 miles of transmission lines and $4 million for the improvement of the Comanche Substation. These are estimated values as transmission line routes have yet to be finalized.
- The materials and equipment costs for this portion of the project total $15.4 million. Based on supplier estimates from Tri-State and Xcel, about four percent or $615,000 in materials and equipment will be purchased from Pueblo County suppliers (Table 10).
- The value of construction contracts (excluding labor) totals an estimated $8.7 million for this portion of the project. Assuming that about four percent of this spending is conducted with local businesses, this spending represents about $347,000 in revenue for suppliers in the region.
- The construction workforce for the transmission improvement project will be imported from outside of the region, but workers temporarily living in the county will spend money on food,

Table 10: Construction Direct Economic Impact - Pueblo County

Materials & Equipment	$615,000
Construction Contracts	$347,000
Worker Spending	$180,000
Total Construction Impacts	**$1,142,000**

lodging, and entertainment. In addition to the wages that construction workers generally send back to their permanent place of residence, workers earn a per diem for each working day of $63. Assuming that over half of the per diem will be spent locally and based on the number of worker days spent in Pueblo County, the direct economic impact of worker spending will be $180,000 during the construction period (Table 10).

- The direct impact to the county totals $1.1 million over the construction period with $150,000 for the substation improvement and $992,000 for the transmission lines (Table 10). This direct economic impact includes materials, equipment, and construction contracts purchased within the county and construction worker spending in Pueblo County.

Table 11: Total Economic Impacts - Pueblo County

	Direct Impact	Multiplier	Indirect & Induced Impact	Total Impact
Construction Contracts & Materials				
Value of Activity	$962,000	1.6554	$630,000	$1,592,000
Payroll	$335,000	1.5102	$171,000	$506,000
Employment	8	1.6829	5	13
Worker Spending				
Value of Activity	$180,000	1.4907	$88,000	$268,000
Payroll	$57,000	1.4129	$24,000	$81,000
Employment	2	1.2948	1	3
Total Impact				
Value of Activity	$1,142,000		$718,000	$1,860,000
Payroll	$392,000		$195,000	$587,000
Employment	10		6	16

Calculation Notes: Direct Impact x Multiplier = Total Impact

Total Impact - Direct Impact = Indirect & Induced Impact

Indirect and Induced Economic Impacts

- The construction and employee spending patterns have multiplicative impacts on the county's economy. Based on the RIMS II multipliers for the relevant industries, the transmission improvement project generates a total direct and indirect economic impact of $1.9 million in Pueblo County. This includes $587,000 in payroll for 10 direct and six indirect workers (Table 11). The payroll may go toward supporting existing jobs, creation of new jobs, or a combination of both.
- The construction impacts, including the local employment and local spending patterns, are temporary impacts that occur only during the construction period.

Fiscal Impacts

- Pueblo County will receive sales tax revenue from materials and equipment purchased within the county and worker spending in the county. The fiscal impact during construction of the transmission improvement project totals $8,000. Based on the current sales tax rate of one percent, revenue from the sales tax on materials and equipment totals $6,000 and sales tax on worker spending totals $2,000 (Table 3).

IMPACTS OF ONGOING OPERATIONS

Following the construction of the transmission improvement project, the four counties in which the project is located will experience significant annual fiscal impacts from property taxes collected on transmission lines and substations.

The annual operating costs of the transmission improvement project are negligible. While there may be some spending in the region for maintenance of the lines and substations, the economic impacts of annual operations is minimal and not included in this study.

This section describes the fiscal impacts of the transmission improvement project during a typical year of transmission operations once construction is complete and the lines energized. The transmission lines and substations are taxable in the year following the first year of operations.

Regional Fiscal Impacts

Local governmental units assess property taxes primarily to fund public school operations and local government services. These local governmental units include counties, cities, school districts, and special districts ranging from library districts to recreational districts to water districts.

Potential annual property tax revenue is calculated based on the total assessed value of the transmission improvement project. The project is a joint effort between Tri-State and Xcel and each will have individual ownership rights in and responsibilities for the components of the project. Pursuant to a Memorandum of Understanding between the two parties, Xcel will have approximately 60 percent ownership and Tri-State will have approximately 40 percent ownership for all components of the project except the Calumet-Walsenburg line and the Walsenburg Substation. Tri-State will have 80 percent ownership of these components and Xcel will have 20 percent ownership. These ownership percentages are used in calculating the property tax revenue associated with the project.

The property of both of these companies is state assessed. The assessed value is determined using the three approaches to value: cost, income, and market. That value is then apportioned to the taxing districts based on the portion of company assets in each district.

This analysis assumes that the entire value of the two companies will increase by the total value of their share in the transmission improvement project, with the value of the project in each county based on the cost estimates. The assessed value of each company's share in the project is calculated in slightly different manners. For Tri-State's share of the project, a historical "property assessment percentage" for a ten-year period from 1999-2008 is multiplied by the value of the project in each county to estimate the assessed value of Tri-State's property in each county.

For Xcel's share of the project, the commercial assessment ratio of 29 percent is multiplied by the 20-year average value of the project in each county to estimate the assessed value of Xcel's property in each county. The average assessed value over the 20 years reflects a smoothed value as opposed to any single-year estimate.

The assessed value of the property within a county was then multiplied by the mill levy to estimate the annual property tax revenue generated for the taxing entities. Since the exact locations of the transmission lines are not yet finalized, averages were used for mill levies where transmission lines may cross over multiple local governmental boundaries. The current county mill levy and average school district, special district, and municipal mill levies in each county were used to calculate property tax revenue. Average mill levies for each taxing district category were calculated as the sum of weighted mill levies, which were calculated as the current tax rate in each taxing district multiplied by the percentage of the value of the county's property found in that taxing district.

Mill levies fluctuate based upon the revenue needs of the taxing entities, the value of the property located within the district boundaries, and the

current legislative requirements. As it is virtually impossible to forecast these variables with any degree of reliability, mill levy forecasts were not used in this analysis. Instead, the 2009 mill levies were used for all taxing districts.

- The transmission improvement project will cost an estimated $179.7 million with $147.5 million for the transmission lines and $32.2 million for the four substations. This value generates approximately $2.5 million in annual property tax revenue to the taxing entities in the region (Table 12), including:
  - County tax revenue of $829,000
  - Average school district tax revenue of $1.1 million
  - Average special district tax revenue of $424,000
  - Average municipality tax revenue of $165,000
- This fiscal impact will begin the year after the project is placed in service and will occur annually during the active life of the transmission lines and substations.

County-Level Fiscal Impacts

Alamosa County

- Upon completion, the total value of the transmission improvement project will be an estimated $36.9 million in Alamosa County. Based on the property assessment procedures for Xcel and Tri-State, the assessed value of the project in the county will be $7.1 million. This assessed value translates into annual property tax revenue to the taxing entities in Alamosa County of $533,000 (Table 12), including:
  - County tax revenue of $180,000
  - Average school district tax revenue of $241,000
  - Average special district tax revenue of $88,000
  - Average municipality tax revenue of $25,000
- This fiscal impact will begin the year after the project is placed in service and will occur annually during the active life of the transmission lines and substation.

Costilla County

- Upon completion, the total value of the transmission improvement project will be an estimated $32.9 million in Costilla County. Based on the property assessment procedures for Xcel and Tri-State, the assessed value of the project in the county will be $6.4 million. This assessed value translates into annual property tax revenue to the taxing entities in Costilla County of $374,000 (Table 12), including:
  - County tax revenue of $120,000
  - Average school district tax revenue of $187,000
  - Average special district tax revenue of $37,000
  - Average municipality tax revenue of $30,000
- This fiscal impact will begin the year after the project is placed in service and will occur annually during the active life of the transmission lines.

Huerfano County

- Upon completion, the total value of the transmission improvement project will be an estimated $78 million in Huerfano County. Based on the property assessment procedures for Xcel and Tri-State, the assessed value of the project in the county will be $14.6 million. This assessed value translates into annual property

Table 12: Annual Property Tax Revenue - Regional Summary

	Alamosa	Costilla	Huerfano	Pueblo	Region
County Tax Revenue	$180,000	$120,000	$336,000	$192,000	**$829,000**
Average School District Tax Revenue	$241,000	$187,000	$443,000	$241,000	**$1,112,000**
Average Special District Tax Revenue	$88,000	$37,000	$217,000	$82,000	**$424,000**
Average Municipality Tax Revenue	$25,000	$30,000	$54,000	$57,000	**$165,000**
Total Property Tax Revenue	**$533,000**	**$374,000**	**$1,051,000**	**$572,000**	**$2,530,000**

tax revenue to the taxing entities in Huerfano County of $1.1 million (Table 12), including:

- County tax revenue of $336,000
- Average school district tax revenue of $443,000
- Average special district tax revenue of $217,000
- Average municipality tax revenue of $54,000

- This fiscal impact will begin the year after the project is placed in service and will occur annually during the active life of the transmission lines and substations.

Pueblo County

- Upon completion, the total value of the transmission improvement project will be an estimated $31.9 million in Pueblo County.

Based on the property assessment procedures for Xcel and Tri-State, the assessed value of the project in the county will be $6.2 million. This assessed value translates into annual property tax revenue to the taxing entities in Pueblo County of $572,000 (Table 12), including:

- County tax revenue of $192,000
- Average school district tax revenue of $241,000
- Average special district tax revenue of $82,000
- Average municipality tax revenue of $57,000

- This fiscal impact will begin the year after the project is placed in service and will occur annually during the active life of the transmission lines and substation.

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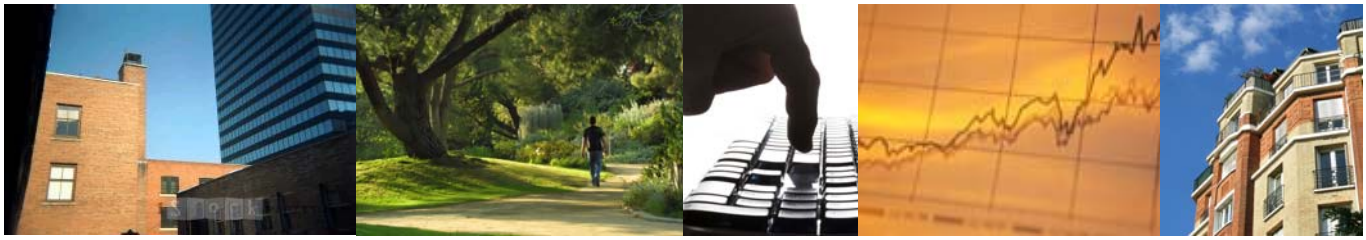

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