A sunset over a road with solar panels overlaid on the sky. The sun is low on the horizon, casting a warm glow over the clouds. The road is paved and leads into the distance. On the right side, there is a field of corn and a wind turbine. The sky is filled with a grid of solar panels.

A TALE OF TWO COUNTIES:

THE FISCAL IMPACTS OF PRO-GROWTH RENEWABLE ENERGY POLICIES AT THE LOCAL LEVEL



THE WESTERN WAY



KEY FINDINGS

- Pro-growth policies with regard to renewable energy infrastructure have **MAJOR ECONOMIC BENEFITS**, including more reliable funding for critical services in rural communities.
- A case study of two neighboring Colorado counties – one with more than \$100 million in renewable energy investment since 2011 and the other with almost no renewable energy investment during the same time period – **REVEALED MAJOR DIFFERENCES IN LOCAL ECONOMIC PERFORMANCE**.
- Using property values as a proxy for economic growth, the economy of Kit Carson County, which is open for renewable energy investment, **GREW BY 63%** between 2011 and 2021.
- Next door in Washington County, where almost no renewable energy investment has taken place over the past decade thanks in part to a rolling series of permitting bans, the local economy **GREW AT A SIGNIFICANTLY SLOWER RATE** – 36% – between 2011 and 2021.
- For Kit Carson County, faster growth has boosted funding for local services by \$6.8 million since 2011. That is more than twice the rate of growth in neighboring Washington County, effectively giving the residents of Kit Carson County an **EXTRA \$3.3 MILLION** to spend on K-12 education, road maintenance and other essential services compared to their neighbors.
- By 2024, renewable energy infrastructure is projected to generate at least \$3.7 million in funding for local services in Kit Carson County. By comparison, the corresponding projection for Washington County is \$296,500 – or **92% LESS** than neighboring Kit Carson County.
- Wind energy development has supported almost **150 HIGH-PAYING JOBS** in Kit Carson County, and for the individual landowner, payments for hosting wind turbines can total millions of dollars over the long-term depending on the number of turbines and their nameplate capacity.
- Local officials describe renewable energy investment as “a tremendous shot in the arm” economically which “boosts the Main Street economy” and **PROVIDES MUCH NEEDED REVENUE** for “school districts, fire districts, county government, city government and other local services in our community.”

BY THE NUMBERS



Established	1889	1887
Population	6,950	4,861
County Area	2,162 mi ²	2,524 mi ²
Population per square mile	3.3	1.9
Total Employer Establishments	265	110
Households	3,020	2,081
Median Household Income	\$50,411	\$51,181

Source: US Census, 2021

FULL ANALYSIS

While energy policy is primarily debated at the federal and state level, local communities are pivotal in determining when, where and how new energy infrastructure is built.

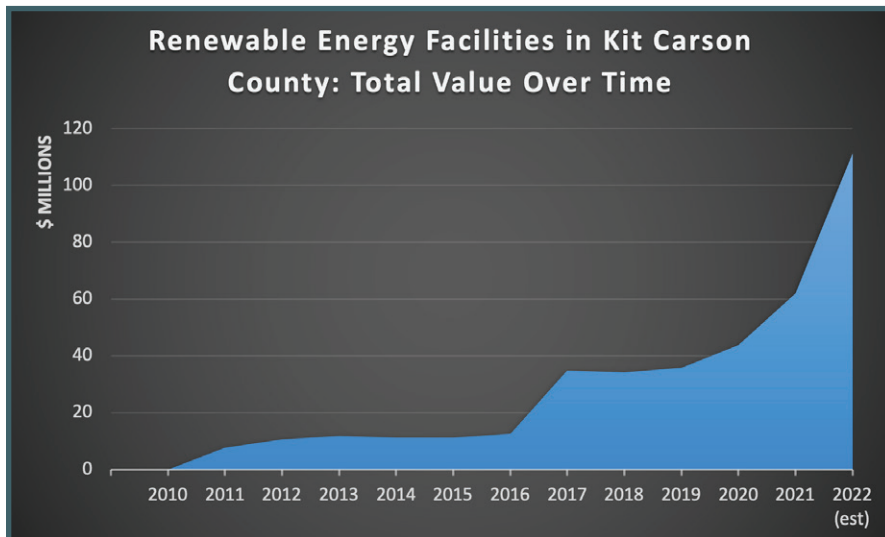
In fact, local permitting, zoning and other regulatory approvals can often make the difference between an energy project being built, postponed or permanently shelved.

The impacts of these decisions on energy producers, energy consumers and the overall economy are well understood. Less well understood, however, are the local economic impacts, including tax revenues that fund K-12 education, public safety and other essential services.

This analysis compares two neighboring counties in Eastern Colorado: Kit Carson County, where investment in wind farms and other renewable energy infrastructure is surging, and Washington County, where almost no renewable energy investment is taking place.

Starting a decade ago, Kit Carson County adopted pro-growth policies with regard to wind energy and other renewable sources. On the other hand, neighboring Washington County has experienced very limited investment in renewable energy infrastructure, thanks in part to a series of permitting moratoria at the local level.

For more than a decade, Kit Carson County has experienced a major expansion of investment in renewable energy facilities, primarily wind farms. Starting at \$7 million in 2011, the value of wind energy facilities and other renewables is set to climb above \$110 million this year, according to local estimates.

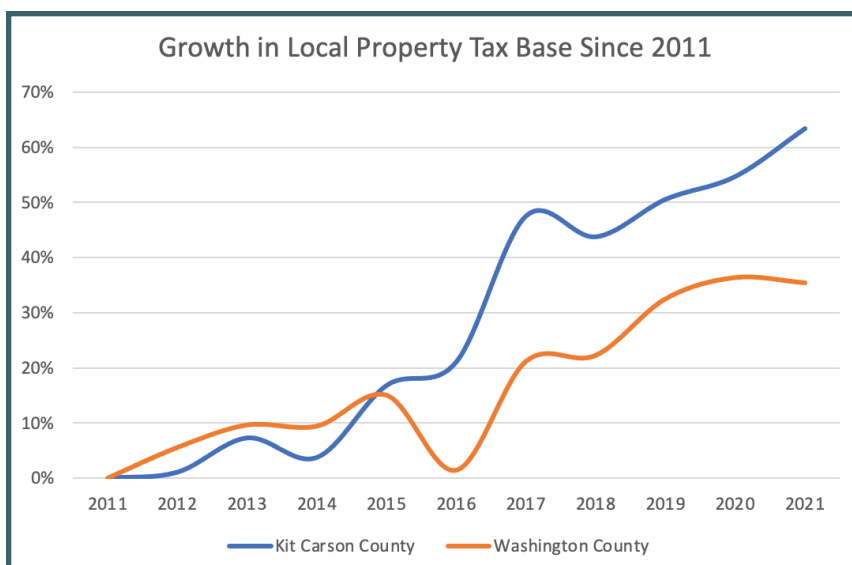


Sources: The Western Way analysis of Kit Carson County tax records and 2022 estimates

The influx of capital investment and jobs tied to renewable energy development has given Kit Carson County a major competitive advantage over areas with little to no renewable energy development.

For example: Property tax data compiled by the State of Colorado show that Kit Carson County and neighboring Washington County have fared very differently since a major expansion of renewable energy investment began in Eastern Colorado.

Between 2011 and 2021, Kit Carson County’s property tax base grew by 63%. By comparison, the property tax base of Washington County – which saw little to no investment in renewable energy investment – has lagged behind, growing 36% over the same period.



Source: Colorado Department of Local Affairs

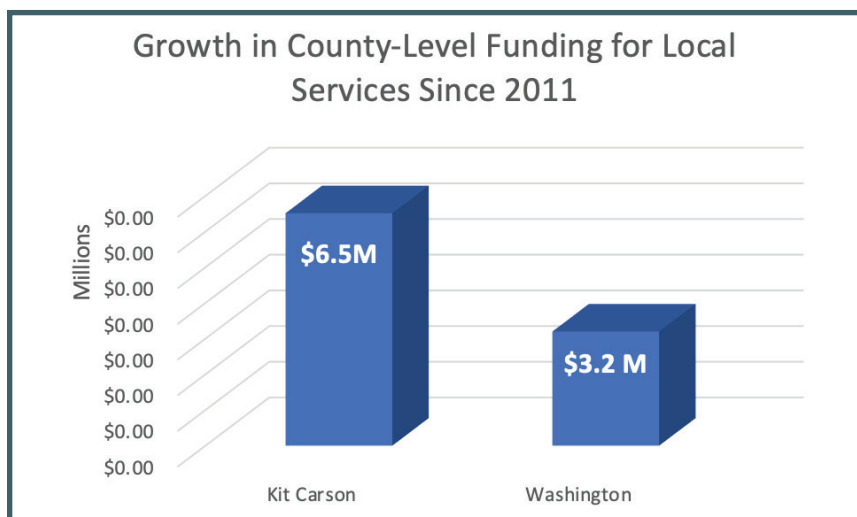
Effectively, Kit Carson County's economy – as measured by the value of property – grew at almost twice the rate of Washington County's economy.

Direct investment in renewable energy infrastructure was a major contributor to this trend. Between 2011 and 2021, more than 21% of the growth in Kit Carson County's property tax base was the result of renewable energy projects, including:

- **Kit Carson Wind Power Project**
- **Carousel Wind Farm**
- **Rush Creek Wind Farm**
- **Bronco Plains Wind Farm**
- **Cheyenne Ridge Wind Farm**
- **Crossing Trails Wind Farm**

One of the principal benefits of faster growth in Kit Carson County is the amount of funding it makes available for essential local services, including public schools, law enforcement, road and bridge maintenance, hospital facilities and fire departments.

Since 2011, property tax-based funding for these local services in Kit Carson County has increased by 63% even though the overall property tax rate in the county fell slightly during that period. By comparison, Washington County's funding for these same local services increased by 41% over the same period.



Source: Colorado Department of Local Affairs

Dave Hornung, Kit Carson County Commissioner:

"It's been very beneficial for landowners. They receive income for leasing ground to wind farm developers and there are additional payments when the towers are built and start sending electricity to the grid. And this is extra income: The wind towers take up very little land, so the landowner can continue to farm around them.

But these wind farms also benefit the whole county. The construction phase boosts the Main Street economy and wind farms generate a lot of property tax revenue, which helps school districts, fire districts, county government, city government and other local services in our community.

We have six companies that are operating right now and two more that are expected to start in the next year or two. And there are another eight or nine companies looking to build even more wind and solar facilities in this county, because there are two transmission lines in the works right now."

In absolute terms, this means funding for local services has grown by \$6.5 million in Kit Carson County since 2011 – or more than double Washington County’s revenue growth of \$3.2 million.

Effectively, this means residents of Kit Carson County have an additional \$3.3 million in annual property tax revenues to support local services compared to their neighbors. Overall, this indicates that Kit Carson County’s pro-growth energy policies have helped create a broader and more stable funding stream for K-12 education, roads and other critical local services.

Looking ahead, by 2024, existing wind farms in Kit Carson County are expected to generate at least \$3.7 million of annual property tax revenue to support critical local services. The funding will primarily support the operations of local governments, school districts and health districts, based on a recent analysis commissioned by Eastern Colorado economic development groups Pro 15 and Action 22 in partnership with The Western Way.¹

Projected 2024 Property Tax Revenue From Existing Wind Farms: Kit Carson County

County Services	\$1,965,800
Health Districts	\$155,300
School Districts	\$1,483,500
Other Special Districts	\$158,700
Total	\$3,763,300

Source: Development Research Partners analysis of Kit Carson County and Colorado Department of Local Affairs property tax data (July 2020)

Projected 2024 Property Tax Revenue From Existing Wind Farms: Facility-By-Facility Breakdown for Kit Carson County

Kit Carson Wind Power Project	\$256,200
Carousel Wind Farm	\$447,200
Rush Creek Wind Farm	\$241,700
Bronco Plains Wind Farm	\$1,584,200
Cheyenne Ridge Wind Farm	\$869,500
Crossing Trails Wind Farm	\$364,500
Total	\$3,763,300

Source: Development Research Partners analysis of Kit Carson County and Colorado Department of Local Affairs property tax data (July 2020)

The same analysis projected that local revenue tied to renewable energy investment in Washington County would be **\$296,500 by 2024** – or **92% less** than the amount predicted for Kit Carson County.

1. The Economic Benefits of Colorado’s Eastern Plains Renewable Energy Industry (July 2020): CO Eastern Plains Economic Impact Report – TWW (thewesternway.org)

This snapshot of local property tax revenues was part of a much wider study of the economic impact of renewable energy development across Colorado's Eastern Plains. The Pro 15-Action 22-Western Way analysis, prepared by economists with Development Research Partners, including the following big-picture economic benefits to the region:

- **\$9.4** billion in construction and investment activity (2000-2024)
- **12,819** direct and indirect jobs created (2000-2024)
- **\$706.9** million in salaries and other wages (2000-2024)
- **\$15.2** million in annual lease payments to farmers, ranchers and other landowners by 2024, more than double the level reported in 2016

At the local level, the same report found major disparities between Kit Carson County and Washington County in terms of renewable energy jobs:



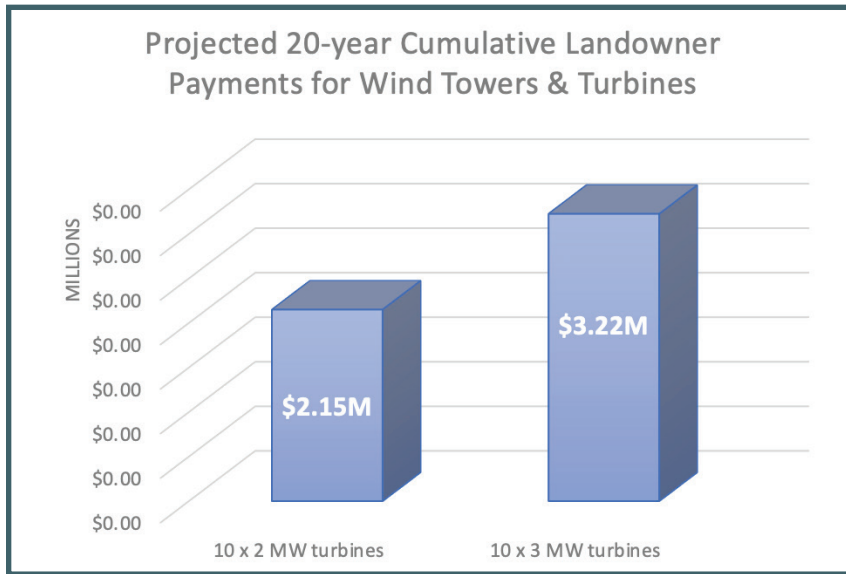
Source: Development Research Partners, D&B Hoovers

This disparity has significant economic consequences, because wind turbine service technicians in Colorado earn an average of \$69,380 per year, according to the U.S. Bureau of Labor Statistics. This potentially equates to a direct economic boost of roughly \$10 million per year for Kit Carson County compared to its neighbor.

Lease and royalty payments can also provide a critical boost to farmers, ranchers and other landowners. In 2019, these payments averaged \$3,795 per megawatt (MW) of installed wind capacity. After a review of industry trends and local estimates, average payments to landowners have climbed to \$4,425 per MW of installed capacity.

In practice, this means a single wind tower and turbine with a capacity of 2 MW could earn a landowner approximately \$8,850 per year, and a larger 3 MW tower and turbine could yield around \$13,270 per year.

To illustrate the economic significance at the individual level, the Western Way developed two income projections for a hypothetical landowner hosting 10 wind towers and turbines on their property. At lower end, it was assumed that wind developers installed 2 MW turbines, and at the higher end, 3 MW turbines were assumed.

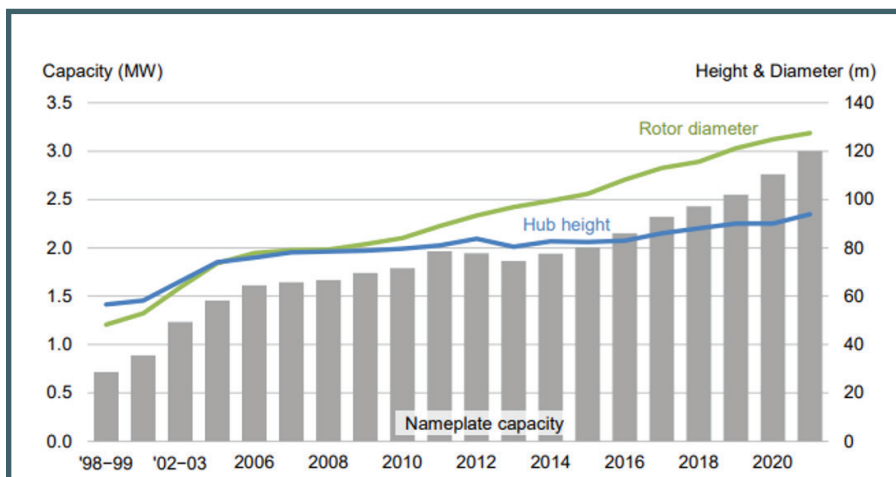


Source: Western Way analysis of data from Development Research Partners and U.S. Department of Energy. Assumes annual escalation of 2% per year.

Over 20 years, the cumulative income to the landowner would range between \$2.15 million and \$3.22 million – a significant and stable source of revenue that is consistent with continued farming, ranching, energy development and other land uses over the long term.

Looking ahead, this trend may turn even more favorable for landowners due to increased efficiency and larger nameplate capacities for new wind towers and turbines.

Average capacity, hub height and rotor diameter for land-based wind projects



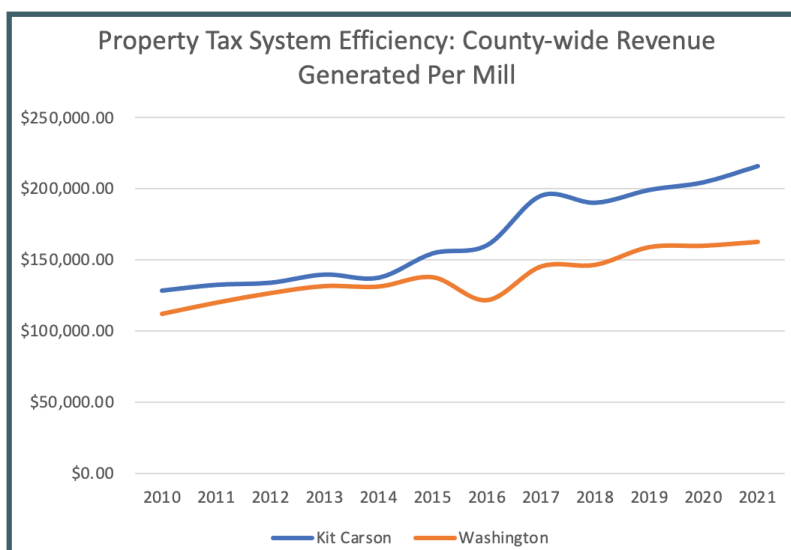
Source: U.S. Department of Energy Land-Based Wind Market Report: 2022 Edition



According to the U.S. Department of Energy, the average nameplate capacity of newly installed wind turbines in 2021 was 3 MW, compared to 2 MW in 2015. Put another way, the average capacity of new wind turbines to generate electricity jumped by 50% in just six years.

Actively engaging in this larger economic trend across the Eastern Plains of Colorado has delivered another benefit to Kit Carson County: A more efficient property tax system.

Before the significant expansion of wind energy investment in the region, Kit Carson County generated just over \$128,000 in funding for local services for every 1 mill of property tax. This was comparable to neighboring Washington County, where every 1 mill generated just over \$112,000 of funding.



Source: Colorado Department of Local Affairs

Starting around 2015, as the expansion of wind energy investment kicked into a higher gear, the experience of the two counties started to diverge. By 2021, for every 1 mill of property tax levied, Kit Carson County generated more than \$216,000 for local services. Washington County, on the other hand, generated just under \$163,000 in local funding per mill.

CONCLUSION

Overall, during the course of the past decade, Kit Carson County has pulled ahead of neighboring Washington County in terms of economic growth, funding for local services and the overall efficiency of the tax system that generates this funding.

It is also clear that being open for business when it comes to renewable energy infrastructure investment is a major factor behind these trends – just as pro-growth policies towards other energy sources and other industries can also make a big difference in the vitality of local economies.

Pro-growth policies that welcome energy sector investment add value to the local economy and increase the size of the property tax base. In turn, this generates more reliable revenues for school districts, law enforcement departments, fire districts and other services that are funded through property taxes.

While the local economic contributions of other energy sources – such as oil and natural gas – are well understood by local policymakers, the same is not always true for renewable energy sources and transmission infrastructure.

Failing to factor in these economic contributions can deny rural communities an important source of stable funding for critical services, such as K-12 education and the construction and maintenance of local roads.

Consistent with an “all of the above” approach to energy policy, the fiscal impacts of renewable energy development should play a role in local regulatory decisions, alongside other considerations that must be weighed by county and municipal governments across the country.

Rol Hudler, Economic Development Director, City of Burlington:

“We’ve had construction crews in here consistently for the last eight or nine years. Those people spend a lot of money. That alone has been a huge economic boost to the City of Burlington – a tremendous shot in the arm.

Sales tax revenues to the city have also increased every year for the past 11 years. That’s a big help for a small municipal government, because money is always tight and the cost of providing many services, especially road maintenance, just keeps going up.”

