

Renewable Power: How Colorado Can Reap A Texas-sized Benefit

An Analysis Prepared by

The Land and Water Fund of the Rockies

Fourteen states currently have some form of renewable energy standard (RES) in place, and Colorado's legislature is deliberating one. An RES specifies that a certain amount of a state's future electricity needs will come from renewable sources. For example, Texas, which established its RES in 1999, will produce 2000 megawatts per year from renewable sources by 2009. By that year, nearly a million Texas homes will be powered mostly by wind. Solar, biomass, and geothermal also qualify. The state is already on track to meet its target well before 2009. Colorado is considering a standard that would ensure that between 400 and 500 megawatts of new electric power will come from renewables by 2010 (enough renewable power is already installed to ensure that the overall standard of 800 megawatts by 2010 will be met with these additions).

Texas is the outstanding example of a successful RES policy. Because of the way the Texas RES was designed, the state has leap-frogged others with older renewable standards. Just three years after passing its RES, Texas is enjoying the benefits of 2500 new wind-related jobs, \$2.5 million in landowner royalty income—a true boon in rural economies suffering from drought—and \$11.6 million in property tax payments to local school districts.

In addition to highlighting the benefits of an RES, the Texas example illustrates how a well-crafted program can ensure a successful RES. Like Texas, Colorado has outstanding renewable resources, especially wind. It also has broad support for renewables among consumers, and it has a population of landowners educated about the value of wind-farming in rural communities. The Colorado RES proposal has been based directly on the Texas legislation, signed into law by then-governor George W. Bush.

Benefits of an RES

Studies of the Texas program show us what an RES can offer to energy consumers:

- Insulation from fluctuations in natural gas pricing.
- Protection from the boom and bust cycles that have plagued western energy development. Renewable fuels don't run out or vary widely in price.
- Significant revenues in economically depressed rural areas.
- Long-term, specialized job opportunities—again, often in depressed rural areas.
- Increased water availability. Fossil fuels plants use more water than we can afford with rising population pressures and ongoing drought. Wind and solar use no water.
- Cleaner air and water, and better views.
- Increased tax revenues.
- Cheaper energy of all types—large-scale wind-production drives down costs. Cheap wind drives down the costs for fossil fuels as well, as fossils struggle to compete.
- Increased self-sufficiency and reduced dependence on resources from out-of-state or overseas.

Colorado's eastern plains can produce enough wind power to generate 16 times the state's current electricity needs. Even better, the areas with the best wind are located close to "the grid," the network of transmission lines that brings energy from generation centers to "load centers" that distribute the power back along the grid to customers. As with Texas, this makes Colorado ideally suited to develop this clean, smart source of power. And because energy markets are strictly regulated and don't operate according to free-market principles, tapping into the vast power of wind means a state policy is necessary to establish the economies of scale that make this energy source cost-effective—so cost-effective that even the utilities agree that wind can be cheaper than natural gas.

Elements of a successful RES program

In addition to showing us what's to be gained from an RES, the Texas experience provides an excellent model for designing an RES guaranteed to get results. An ideal design will provide strong, cost-effective support for building a vibrant renewables market while minimizing government involvement. Key characteristics of the Texas RES include:

- Early-on involvement by stakeholders, such as utilities, rural landowners, county governments, environmental advocates, power-plant builders.
- Strong public support.
- Solid, realistic targets and timelines for renewables development.
- Reliance on market forces through bidding for new renewables contracts, keeping prices low.
- A certificate trading program that allows utilities to sell renewable energy credits when they develop more renewable power than is required by the standard. Utilities can also buy to comply with the standard. This is desirable when another developer can provide renewables at a lower cost, and it helps keep overall prices down. Such a program provides a true economic incentive for utility participation, and reduces the need for government involvement.

With appropriate adjustments for population and resources, the proposed Colorado standard was inspired by the proven Texas model. Designed by a coalition of energy experts, renewables developers, environmental advocates, agricultural community leaders, local and state government officials and staff, and utilities, the standard takes into account the interests of its many stakeholders. The standard sets attainable targets for renewables development—for example, one estimate suggests that Xcel can comply with the 2010 standard by adding two more wind farms on the scale of the plant currently planned near Lamar.

Getting more energy from renewable resources is wildly popular with residents across the state. According to a 2003 survey conducted by the University of Colorado at Denver, over 80 percent of Coloradans want to see more renewables developed and believe that utilities could do a lot more to take advantage of renewable resources. The Governor's Office has endorsed the RES and stands behind an overall program to make new energy supplies for Colorado more accessible and reliable.

In short, all the elements are in place for Colorado to mirror the Texas success story.

Wind rush

The Texas experience shows that even modest megawatt targets for renewables can trigger a rush to develop the resources. No Texas utility was required to begin meeting the RES requirements until 2002. But when the legislation was finalized in 1999, Texas energy developers got right to work. In 2001, 915 megawatts of wind were installed in the state—more than double the targets for 2003, and even ahead of the target for 2005. In other words, by 2001—before the standard was even in effect—Texas was halfway to its 2009 target. Even more encouraging, utilities have signed long-term contracts with renewables developers—the companies that build the new power plants—which provides this industry with the guarantees it needs to keep producing wind and other renewables economically. Now Texas utilities are committing the capital necessary to add transmission to enable more development of West Texas wind resources.

The Texas level of success may seem astonishing, but in fact, since new wind plants are now economically competitive with new natural gas plants, it makes perfect sense. In fact, it shows how desperately the monopolized energy markets in states like Colorado and Texas need the balancing influence of an RES to kick market forces into play. The gate needs only to be opened.

Colorado, too, could be poised for its own wind rush. Because the state is so richly endowed with accessible wind, it could easily develop into one of the strongest renewables markets in the country. Unlike the previous rushes the state has experienced—gold, silver, copper, oil, natural gas, and coalbed methane—the wind resource will never be depleted. In this state, the wind could power homes and businesses, supplying jobs, royalties, and tax revenues, for generations without end.

About the Land and Water Fund

The Land and Water Fund of the Rockies is a regional environmental law and policy center serving the Interior West. It uses law, economics, and policy analysis to protect land, air and water resources and assure that energy demands are met in an economically and environmentally sound manner. For more information, contact Claudia Putnam, 303 444 1188 x227.

www.lawfund.org

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