



2012 Cost Analysis of the New Energy Economy \$484 Million for Unneeded Energy

By William Yeatman*

From January 2007 to January 2011, Colorado Governor Bill Ritter (D) pushed through the General Assembly a legislative package of 57 bills known collectively as the New Energy Economy. In practice, the purpose of the New Energy Economy was to promote “clean energy” sources—primarily renewables and natural gas—through subsidies and mandates. By directing ratepayer money into these industries, Governor Ritter believed the New Energy Economy would boost Colorado’s competitiveness in the global market.

Currently the Director for the Center of New Energy Economy (CNEE) at Colorado State University, Governor Ritter explains his marquee policy agenda:

In four years as Governor of Colorado, I have made it a top priority to position Colorado as an economic and energy leader by creating sustainable jobs for our residents, encouraging economic growth for our businesses, and fostering new innovations and new technologies from our public, non-profit and private institutions. We call it the New Energy Economy, and it is built on the recognition that the world is changing the way it produces and consumes energy.ⁱ

To date, there has been limited examination of how the New Energy Economy has measured up to its intended purpose of stimulating the Colorado economy. This report is the first independent calculation of the program’s annual costs and benefits. It focuses on the four largest cost driving pieces of legislation and their impact on the 1.4 million ratepayers served by Colorado’s largest investor owned utility Xcel Energy. It reaches two conclusions:

- **In 2012, the New Energy Economy cost Xcel ratepayers \$484 million—more than 18 percent of Xcel’s total electricity sales. Based on 1.4 million ratepayers, the New Energy Economy cost \$345 per ratepayer in 2012.**
- **Due to a depressed economy, there is an oversupply of electricity generation on Xcel’s system, which means Xcel ratepayers spent \$484 million on the New Energy Economy in 2012 in order to obtain electricity that they did not need.**

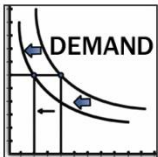
* William Yeatman is Assistant Director of the Center for Energy and Environment at the Competitive Enterprise Institute and a policy analyst for the Independence Institute.

New Energy Economy at a Glance

Key Legislation:



SB 100 (2007) authorizes state regulators to create incentives for investor-owned utilities to plan and build transmission to accommodate renewable energy.



HB 1037 (2007) directs the PUC to implement so-called Demand Side Management policies that incent energy efficiency.



HB 1001 (2010) establishes a renewable energy quota for all investor-owned utilities of 30 percent of electricity retail sales by 2020.

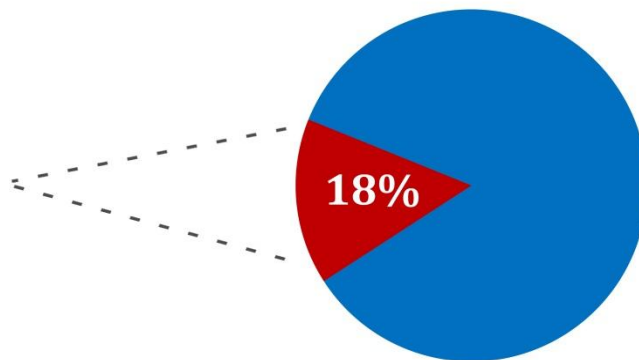


HB 1365 (2010) mandates that Xcel fuel switch 1,000 megawatts of coal-fired electricity generation to natural gas fired generation.

2012 Line Item Cost of New Energy Economy

Policy	Cost (\$)
SB 100	10,400,000 ⁱⁱ
HB 1037	77,284,877 ⁱⁱⁱ
HB 1001	343,087,872 ^{iv}
HB 1365	53,042,098 ^v
TOTAL	483,814,847

Total Electricity Sales: \$2.65 billion



2012 New Energy Economy spending is 18% of total electricity sales

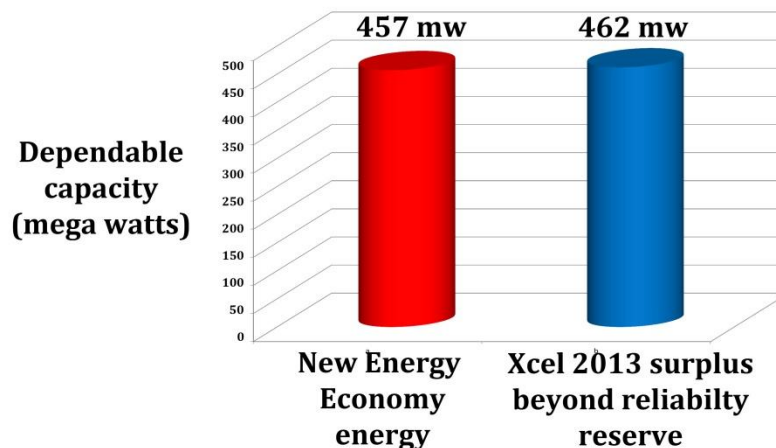
Unneeded Energy

Using regulatory findings, we calculate New Energy Economy costs for 2012 of almost \$484 million. That is more than 18 percent of Xcel's total 2012 retail electricity sales.

Now, consider what Xcel ratepayers receive in return for spending almost half a billion dollars on Governor Ritter's energy agenda.

Due to New Energy Economy policies, Xcel has added almost 2,100 megawatts of wind energy capacity. However, wind is intermittent and electricity cannot be stored, so Xcel only considers 264 megawatts of wind energy as "dependable capacity" that counts toward the company's reliability standards.^{vi} For 2013, Xcel projects to have 105 megawatts of "dependable capacity" from solar power.^{vii} Xcel's 2013 Demand Side Management target is an 88 megawatt decrease in peak demand.^{viii} The sum of these three factors (wind dependable capacity + solar dependable capacity + Demand Side Management) is 457 megawatts; in terms of electricity capacity, this is what Xcel ratepayers bought for the \$484 million they spent on the New Energy Economy.

New Energy Economy: Unneeded Energy



Xcel surplus greater than New Energy Economy contribution

In 2013, Xcel projects a 462 megawatt surplus in capacity, beyond the reserves needed to ensure compliance with reliability standards.^{ix} **This surplus is 5 megawatts greater than the entire dependable capacity resulting from New Energy Economy expenditures.** To put it another way, from a power market perspective there was no need for the New Energy Economy, as the energy it yielded was superfluous.

Conclusions

Before Bill Ritter became Governor of Colorado, state regulators required utilities to deliver power to ratepayers at the least possible cost. Ritter's New Energy Economy changed the rules so that

clean energy took priority above affordable energy. In fact, it seemed not to matter whether the electricity generated by these “new energy technologies” was even needed.

The bill is now coming due, and it is not pretty. In 2012 alone, Colorado ratepayers spent almost half a billion dollars on New Energy Economy policies, in return for unneeded electricity.

Notes

ⁱ [A Blueprint for a New Energy Economy](#), page 3. “A Letter from Governor Ritter”

ⁱⁱ This is a simple and conservative estimate. According to [Xcel’s December 2010 transmission assessment](#) (p 2), there are 4 SB-100 projects underway: Pawnee-Smokey Hill 345 kV line, Missile Site 230 kV switching station, Midway-Waterton 345 kV line, and the Missile Site 345 kV switching station. As of January 15, 2013, these remain the only four SB-100 projects to have obtained a Certificate of Public Convenience and Necessity (See the [SB 100 monitoring website](#).) The combined projected cost of these projects is \$208.8 million. I amortized those costs over 20 years, without accounting for interest or inflation to obtain a 2012 cost-estimate.

ⁱⁱⁱ See [Recommended Decision of Administrative Law Judge G. Harris Adams Accepting Stipulation and Granting Application](#), p 14, paragraph 9. This was the decision in the proceeding adjudicating Xcel’s 2012 Demand Side Management program.

^{iv} See [Answer Testimony of William J. Dalton, Staff of the Public Utilities Commission, In the Matter of the Application of Public Service Company of Colorado Approving Its 2012 Renewable Energy Standard Compliance Plan](#), page 20.

^v In its 2011 [10 K filing](#) before the Securities and Exchange Commission (page 16), Xcel Energy states, “The [Clean Air Clean Jobs Act] required [Xcel] to file a comprehensive plan to reduce annual emissions of NOx by at least 70 to 80 percent or greater from 2008 levels by 2017 from the coal-fired generation identified in the plan. The plan allows [Xcel] to propose emissions controls, plant refueling, or plant retirement of at least 900 MW of coal-fired generating units in Colorado by 2017. The total investment associated with the adopted plan is approximately \$1.0 billion through 2017 and the rate impact is expected to increase future bills on average by 2 percent annually.” Two percent of Xcel’s 2012 projected sales are \$53,042,098. See Column Z, Table 7-5, Volume 2, [Xcel Energy 2012 Renewable Electricity Standard Application](#).

^{vi} See. Section 2.11 of the [Technical Appendix to Xcel Energy’s 2011 Electric Resource Plan](#), PSCo Loads & Resources Balance Summer 2011-2022, Row 59, Column D.

^{vii} Ibid, Row 67, Column D.

^{viii} See [Recommended Decision of Administrative Law Judge G. Harris Adams Accepting Stipulation and Granting Application](#), p 14, paragraph 9. This was the decision in the proceeding adjudicating Xcel’s 2012 Demand Side Management program.

^{ix} See. Section 2.11 of the [Technical Appendix to Xcel Energy’s 2011 Electric Resource Plan](#), PSCo Loads & Resources Balance Summer 2011-2022, Row 84, Column D. To be clear, the 462 megawatt surplus is capacity in excess of the 16% reserve margin Xcel maintains for reliability purposes.