



# The Coal **TRUTH** report

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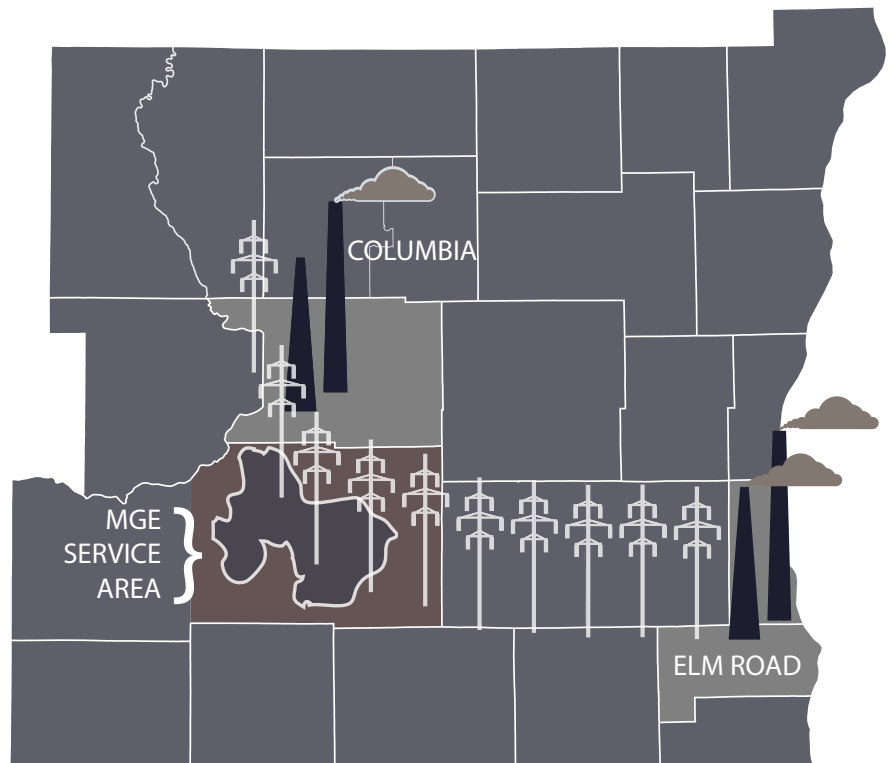
Over the past 15 years, Madison Gas & Electric (MGE) has quietly committed the greater Madison area to rely on two dirty coal plants — Columbia and Elm Road — **at ratepayers' expense.**

The hundreds of millions of dollars MGE committed in recent years to the Columbia and Elm Road coal plants has resulted in the highest electricity rates and the largest long-term carbon footprint of any utility in Wisconsin. A review of hundreds of pages of legal documents reveals the incredible expense involved in operating and maintaining the Columbia and Elm Road coal plants and calls into question the process by which these expenses were approved. As a result of MGE's decisions, the Madison area will be saddled with rising costs and long-term financial liability for decades to come unless MGE reverses course.

But the location of the plants well outside of Madison, as well as the plants' co-ownership with other utilities, has hidden the true magnitude of MGE's coal problem from ratepayers. **It's time we uncover MGE's coal truth.**

Because of attention garnered by MGE's over-reach in a recent rate scheme and the emerging recognition that climate change is the defining threat of our generation, the truth about the Madison area's coal problem is beginning to emerge. MGE's coal dependency needs to be acknowledged before we can find solutions.

More than  
**70%**  
of the area's electricity  
comes from MGE's two  
dirty coal plants<sup>1</sup>



MGE has been hiding the truth about its coal addiction.

# COLUMBIA

Since 2005, MGE and other utilities have pushed for upgrades, retrofits, and repairs to extend Columbia's life to 2038. Once the dust settles, some projects will actually lower the plant's efficiency and the rate of carbon pollution coming from Columbia will be the same as it was during the 1970s.

## FACT

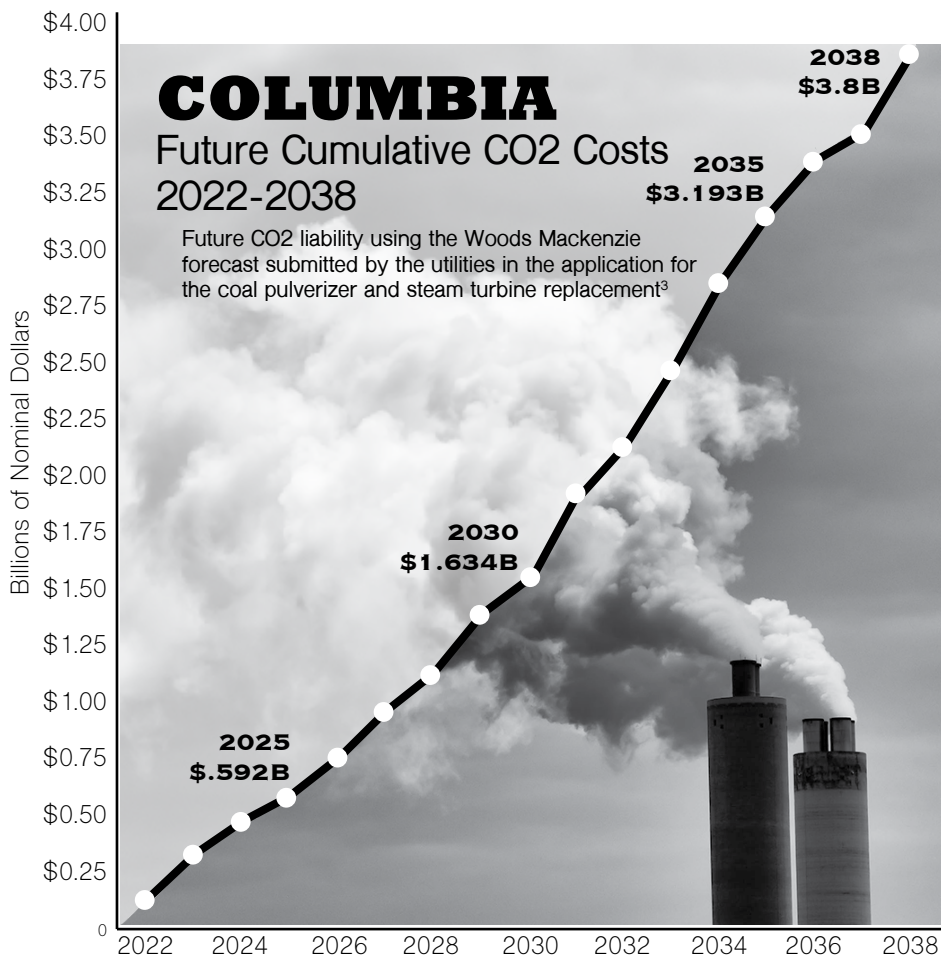
To date, Public Service Commission of Wisconsin (PSCW) has approved nearly \$1 billion in retrofits and repairs at Columbia, to be paid by utility customers, with the utilities earning a rate of return of over 12%.

The Columbia Coal Plant is the poster child for the risks of investing in coal.

*Just as a worker celebrating their 65th birthday can settle into a more sedate lifestyle while they look back on past achievements, we argue that thermal coal has reached its retirement age.*

—Analysts at Goldman Sachs<sup>2</sup>

Columbia is a **\$4 billion risk!**



## SNAPSHOT

**1975**

operation began

Source of **47%**  
MGE's electricity

**1,023 MW**

**7.9-8.2 million**  
tons of CO2 emissions per  
year, equivalent to the  
emissions of 1.5 million  
cars<sup>4</sup>

**2038**

lifecycle thanks to nearly  
\$1 billion in recent up-  
grades, repairs & retrofits<sup>1</sup>

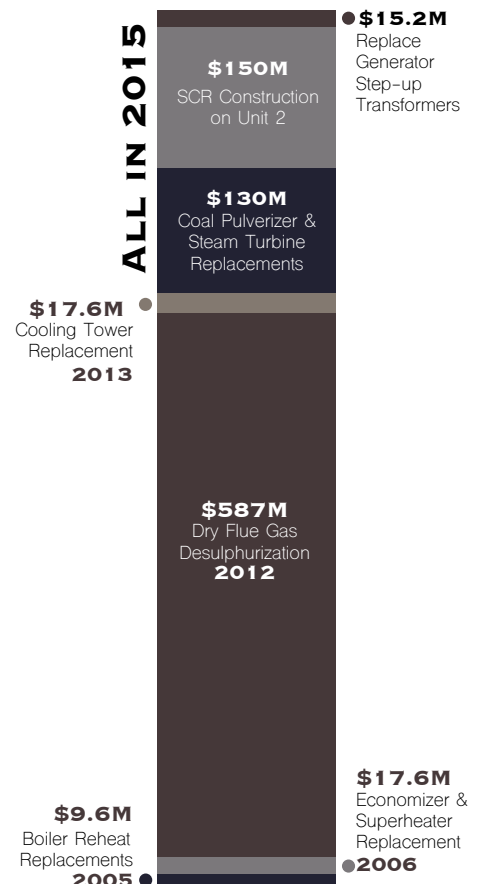
Owned by Alliant Energy, MGE & WPS

## COLUMBIA'S Construction Costs

2005-'15

**\$927 Million**

**TOTAL**



# ELM ROAD GENERATING STATION (ERGS)

MGE committed the Madison area to this brand-new coal plant, which has been fraught with ballooning costs and reliability problems. The Elm Road coal plant is a case study in MGE's long-running disconnect with its environmentally conscious customers in the Madison area, a major miscalculation by MGE's leadership of the electricity, transmission and fuel markets, and how costly missteps actually increased profits for the utilities.

## FACT

At an initial cost estimate of \$2.2 billion, ERGS is the most expensive construction project in state history. In addition, it ran \$191 million over budget and resulted in millions more in lawsuits and settlements.

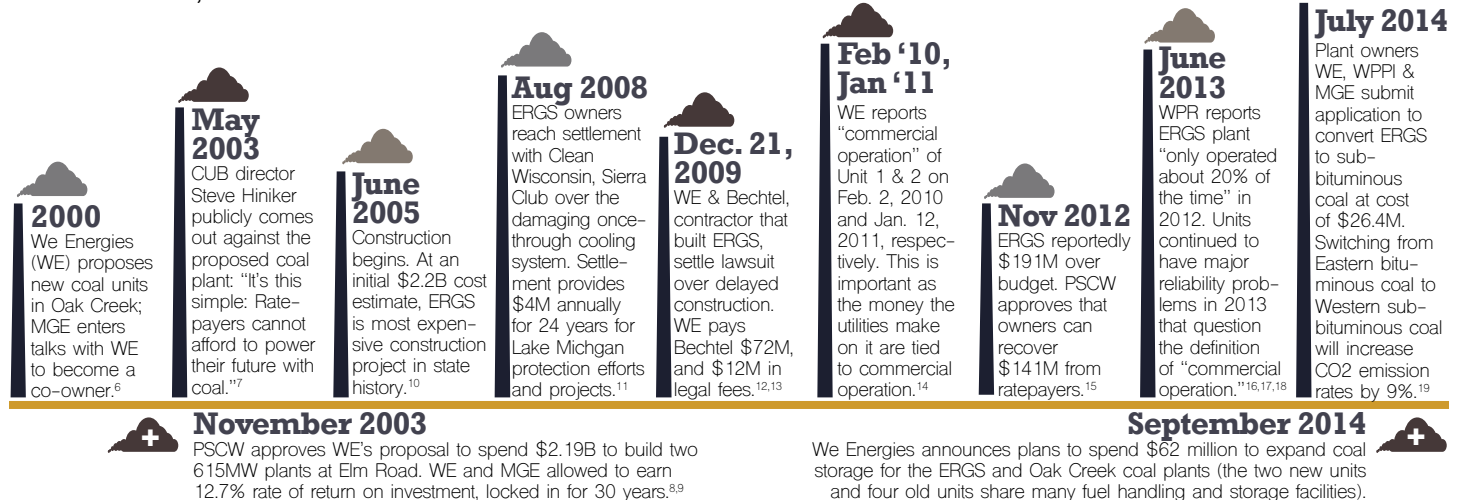
## Elm Road has been a costly disaster for the utility's ratepayers.

An expert witness for Charter Steel, Steven Vock of Titus Energy, described how We Energies (the parent company of WEPCO) and MGE, with a guaranteed 12.7% rate of return, used rosy predictions to justify the plant and continue to profit from ongoing cost-overruns and under-performance:

*In my view, the "full story" should include disclosure of how WEPCO used a perceived need for additional reliability as a vehicle to massively increase their profits... This plant turned out to be extremely expensive and underutilized. According to WEPCO's 2013 PSCW annual report, ERGS ran at an overall capacity factor of 25%, producing electricity at an "all-in" cost of 14.76 cents per kWh, which exceeds WEPCO's average retail price of electricity. Yet, ratepayers were obligated for lease payments ... delivering a 12.7% rate of return to WEPCO...*

—Steven Vock of Titus Energy, in testimony, Sept. 12, 2014<sup>5</sup>

## TIMELINE OF ELM ROAD'S TROUBLE, OVERRUNS & COSTLY MISTAKES



**2010**  
operation began

Source of **24%**  
MGE's electricity<sup>1</sup>

**1,268 MW**

**2050+**  
expected lifetime

**+9%**  
CO2 emission rate increase with potential switch to dirtier coal

Owned by We Energies (WE),  
MGE & WPPI Energy

**SNAPSHOT**

# MGE NEEDS TO COME CLEAN ABOUT DIRTY COAL

The Columbia and Elm Road coal plants are costly and dirty sources of electricity for the Madison area and cast a cloud over the cleaner energy future that is increasingly sought by the community.

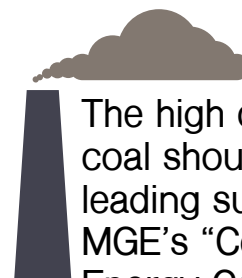
In early 2015, MGE announced it would engage in “Community Energy Conversations,” but the website, [www.mge.com/community-conversations](http://www.mge.com/community-conversations), never mentions Columbia, Elm Road or even the word “coal.” In fact, the first sentence states that “Our energy world is changing rapidly with new technologies such as solar power and smart thermostats.” The fact is fewer than 200 MGE customers generate their own electricity, supplying less than 1% of MGE’s electrical supply. But, as shown in this report, over 70% of MGE’s electricity is committed to the Columbia and Elm Road coal plants, and MGE is planning to run these plants until 2038 and at least 2050, respectively.

An effective community energy conversation starts with the coal truth, as MGE’s two coal plants are not only its biggest source of electricity, but driving higher rates. Buried among the hundreds of pages of regulatory filings in MGE’s 2014 rate proposal, the utility admitted to regulators that coal is a primary factor in its request for higher rates:

*“The primary factors contributing to the electric rate increase are:*

- 1. Environmental upgrades at Columbia... MGE has invested \$135 million into the Columbia scrubber and bag house project....*
- 2. Increases in American Transmission Company (ATC) network service charges and MidContinent Independent System Operator (MISO) costs and charges.*
- 3. A number of factors that have combined to drive up the Company’s projected fuel costs... projected to be an increase of about \$8 million... new railroad contracts for the transport of coal... that will further increase MGE’s fuel costs by more than \$4 million.”<sup>20</sup>*

These factors are directly related to MGE’s over-dependence on old-technology coal plants like Columbia and Elm Road, and the high-voltage ATC transmission lines and MISO grid needed to carry that power across the state. Furthermore, all three factors are reduced when electricity is produced from distributed resources like solar power that produce electricity directly in the area it is used. The high cost of dirty coal should be a leading subject for MGE’s “Community Energy Conversations,” and MGE needs to explain to the public how the Columbia and Elm Road coal plants can be unchained from Madison’s energy future.



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## CREDITS



Expanding Clean Energy  
Options In Our Community

This report was supported with funds from the Four Lakes Group of the Sierra Club. We thank them for their involvement.

[www.repowermadison.org](http://www.repowermadison.org)

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2. [http://share.thomsonreuters.com/assets/newsletters/Inside\\_Dry\\_Freight/IDF\\_Jan\\_26\\_2015.pdf](http://share.thomsonreuters.com/assets/newsletters/Inside_Dry_Freight/IDF_Jan_26_2015.pdf)
3. In the steam turbine application the utility owners of Columbia “recognized the potential for monetization of CO2 emissions, and have evaluated the potential economic impact” using the Woods Mackenzie forecast that they found to be a “reasonable CO2 price forecast” [http://psc.wi.gov/apps35/ERF\\_view/viewdoc.aspx?docid=188238](http://psc.wi.gov/apps35/ERF_view/viewdoc.aspx?docid=188238), pages 38 and 39
4. Projected CO2 emissions are from the Environmental Assessment for the Coal Pulverizer and Turbine Replacement Project [http://psc.wi.gov/apps35/ERF\\_view/viewdoc.aspx?docid=194557](http://psc.wi.gov/apps35/ERF_view/viewdoc.aspx?docid=194557) page 14. The EPA assumes an average vehicle emits 10,484 pounds of CO2 per year, <http://www3.epa.gov/carbon-footprint-calculator/>
5. [http://psc.wi.gov/apps35/ERF\\_view/viewdoc.aspx?docid=218673](http://psc.wi.gov/apps35/ERF_view/viewdoc.aspx?docid=218673), Pages 5 and 6
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