



OVERPRICED POWER: WHY BATAVIA IS PAYING SO MUCH FOR ELECTRICITY

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About the Author

David Schlissel has been a regulatory attorney and a consultant on electric utility rate and resource planning issues since 1974. He has testified as an expert witness before regulatory commissions in more than 35 states and before the U.S. Federal Energy Regulatory Commission and Nuclear Regulatory Commission. He also has testified as an expert witness in state and federal court proceedings concerning electric utilities. His clients have included state regulatory commissions in Arkansas, Kansas, Arizona and California, publicly owned utilities, state governments and attorneys general, state consumer advocates, city governments, and national and local environmental organizations.

Mr. Schlissel has undergraduate and graduate engineering degrees from the Massachusetts Institute of Technology and Stanford University. He also has a Juris Doctor degree from Stanford University School of Law.

Conclusions

The Institute for Energy Economics and Financial Analysis (IEEFA) has investigated why the price being paid by the City of Batavia for electric power is so high. The results of our investigation are as follows:

1. The price of the power generated at the Prairie State Energy Campus is, and in the future will continue to be, significantly more expensive than the developer, Peabody Energy or the consultant, the Indiana Municipal Power Agency (IMPA), claimed when enticing Batavia to enter into a long-term take-or-pay agreement to buy power. At the same time, the plant's operating performance has been significantly worse than Peabody or IMPA projected.
2. Batavia has paid, and for years to come will continue to pay, prices for the power from the Prairie State Energy Campus that are dramatically higher than current and projected prices for power in the PJM competitive wholesale markets.
3. Any strategy by Batavia to sell its excess power from Prairie State will be unsuccessful given that its costs are substantially above market prices. Ratepayers will continue to bear the costs of both the over-priced power from Prairie State and the losses on the sale of excess power either sold in the market or sold to larger use customers paying discounted prices.

Discussion

The City of Batavia and the communities of Rochelle and Geneva purchase electric power for their customers from the Northern Illinois Municipal Power Agency (NIMPA). This power comes from the Prairie State Energy Campus (Prairie State), a new 1600-megawatt (MW) coal-fired plant in Southern Illinois. NIMPA's undivided 7.6 percent interest in Prairie State entitles NIMPA to approximately 120 MW of the capacity and the output from the plant and a proportional share of Prairie State's coal reserves and mining facilities.¹

¹ Northern Illinois Municipal Power Agency, *Notes to Financial Statements as of and for the years ended December 31, 2012 and 2011*.

Inexplicably, and contrary to good utility practices, all of NIMPA’s power comes from just a single source -- Prairie State. Other utilities, including municipal power agencies, have more diverse sources of power, owning shares of several power plants and, perhaps, facilities using different fuels (e.g., natural gas, coal, renewable wind). When Prairie State is not operating as planned, NIMPA buys replacement power from the competitive Midwest wholesale energy market.

When seeking final approval to proceed with construction of Prairie State in 2007, NIMPA and its consultant, IMPA (the Indiana Municipal Power Agency) told the Batavia City Council that the cost of power from the plant would be approximately 4.6 cents per kilowatt-hour (or \$46 per megawatt-hour (MWh)). This price supported Peabody Energy’s claims that Prairie State would produce power that was affordable and below market price. Unfortunately for ratepayers in Batavia, Rochelle and Geneva, NIMPA’s actual cost of power from Prairie State has been significantly higher than the \$46 per MWh price projected by NIMPA in 2007. This can be seen in Figure 1, below:

Figure 1: NIMPA’s Cost of Power from Prairie State, January 2013 through November 2013.

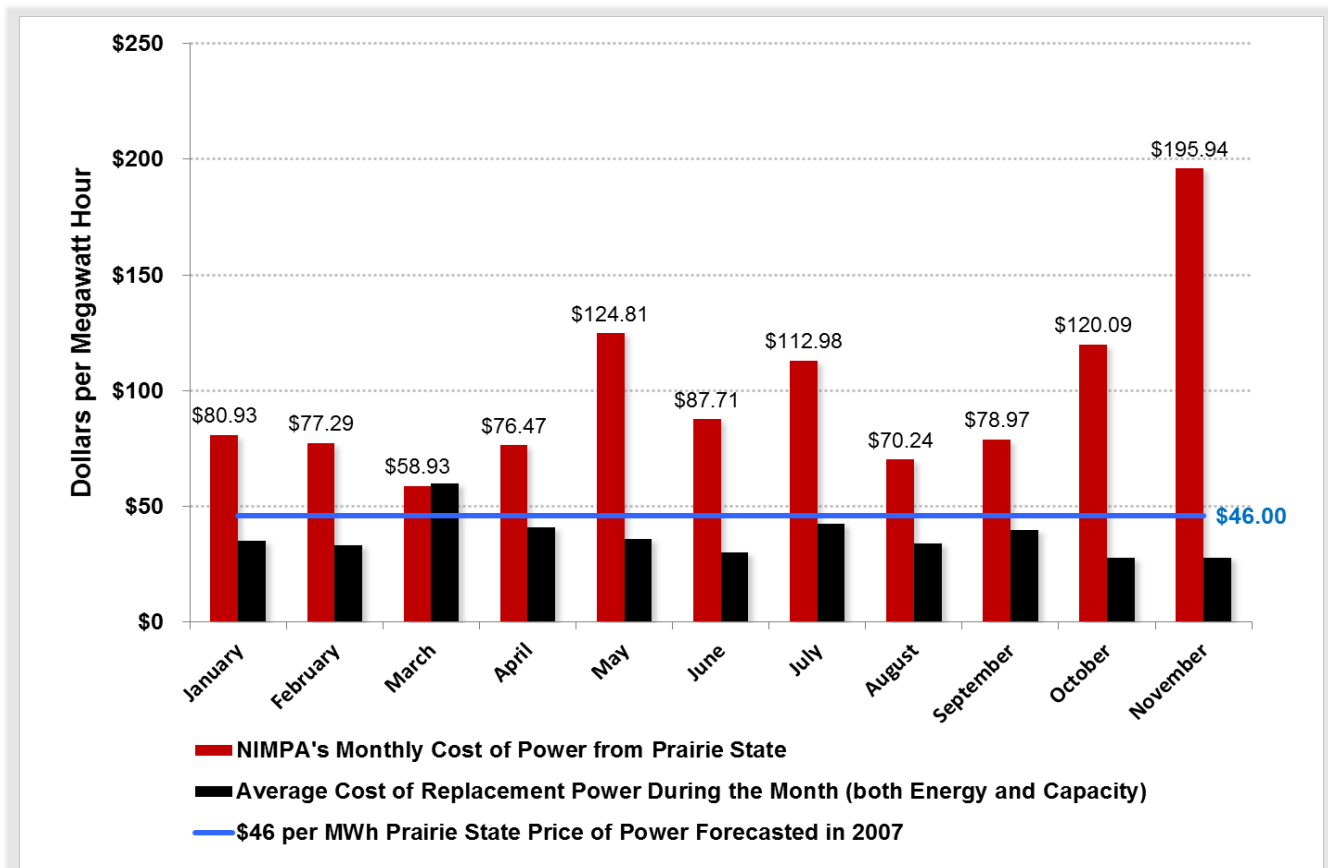
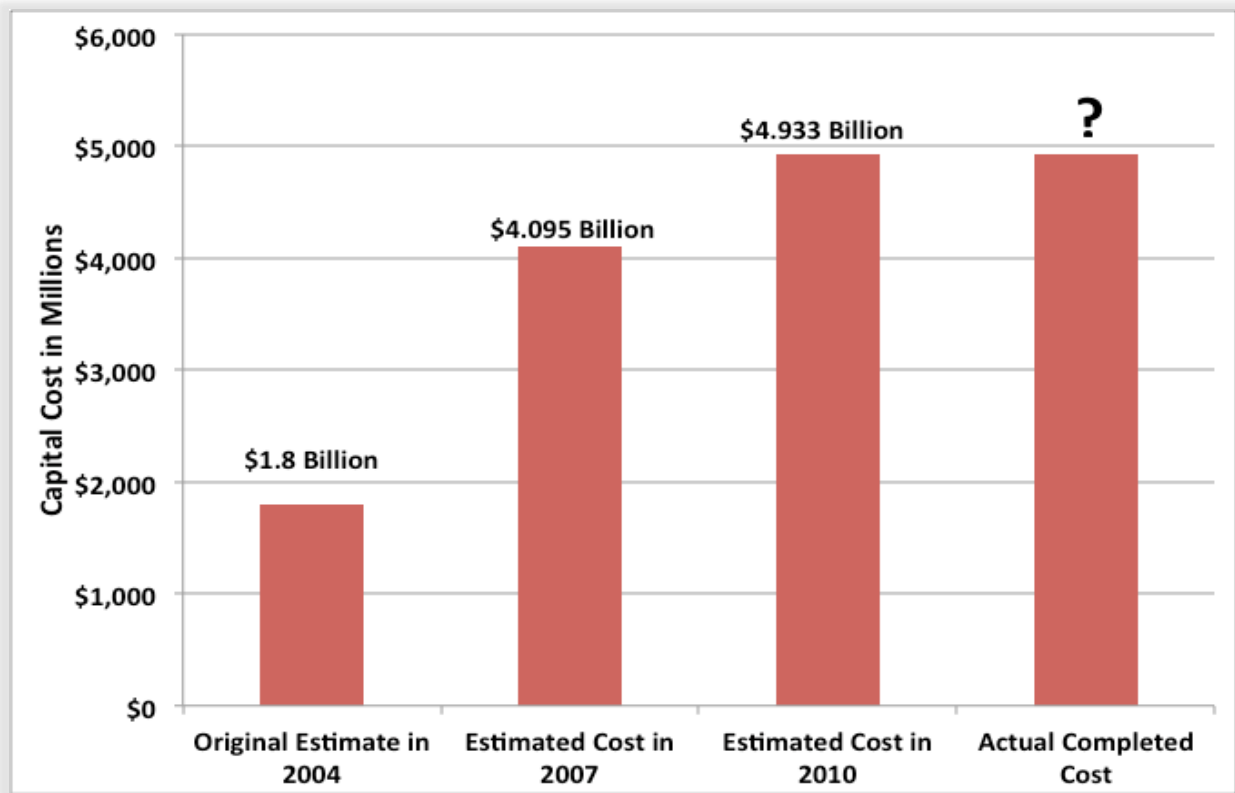


Figure 1 also shows that the actual cost of power from Prairie State has been dramatically higher than the cost of buying power from the competitive PJM wholesale market.

It is important to recognize, however, that Figure 1 only shows the price that NIMPA has been paying for the power from Prairie State. NIMPA actually has not been collecting the full monthly costs of this power from its members in Batavia, Geneva and Rochelle. Instead, NIMPA's decision to bill its members based on projected (not actual) Prairie State costs has meant the NIMPA has severely under-collected its total power costs. The most recent data available from NIMPA reveals that this under-collection of power costs was approximately \$5.99 million through the end of October 2013. Batavia's share of this \$5.99 million in under-collected costs is \$2.745 million. These are costs that it will recover from its member communities in the coming months. This means that although the electric rates paid by in Batavia, Geneva and Rochelle have been very high, they are going to be even higher in coming months as NIMPA will have to recover both the continuing high cost of power from Prairie State and the amounts it has under-collected in previous months.

The two major reasons why the price of power from Prairie State has skyrocketed above \$46 per MWh are (1) a more expensive construction price tag and (2) poorer-than-expected operating performance. Prairie State's increasing construction cost is shown in Figure 2, below.

Figure 2: Prairie State’s Increasing Construction Costs.



There is a question mark above the ‘Actual Completed Cost’ bar in Figure 2 because none of Prairie State’s owners have publicly announced the plant’s final construction cost. A presentation at the 2013 annual meeting of the Illinois Municipal Electric Agency, also an owner of Prairie State, suggested that the total project budget for building the plant was \$5.1 billion but this figure has not been publicly confirmed.

At the same time that the plant’s construction cost increased beyond what the owners were telling the communities entering into the long-term take-or-pay or take-and-pay contracts, Prairie State’s actual operating performance since Unit 1 went into service in June of 2012 has been significantly worse than the owners claimed it would be. This can be seen in Figure 3, below.

Figure 3: Prairie State’s Poor Operating Performance, June 2012 through January 2014.

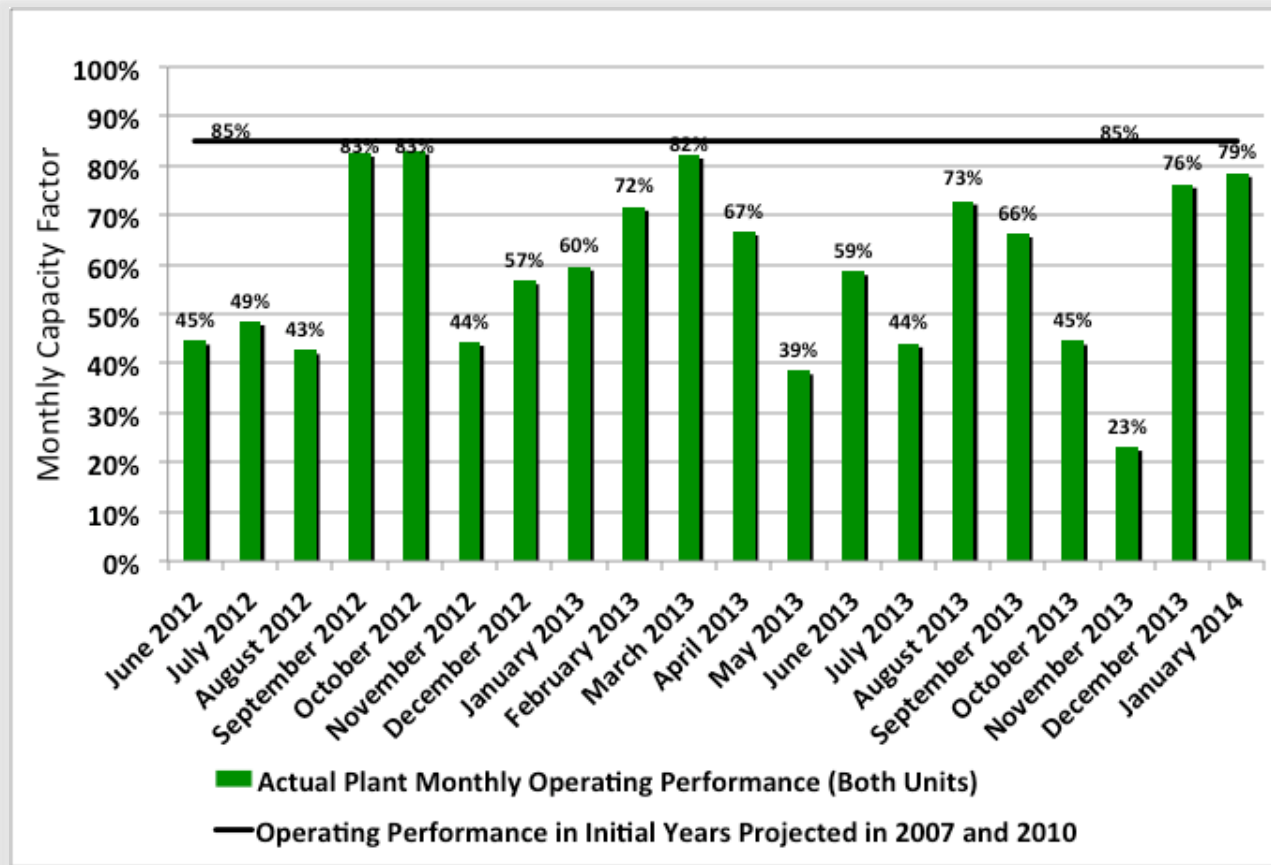


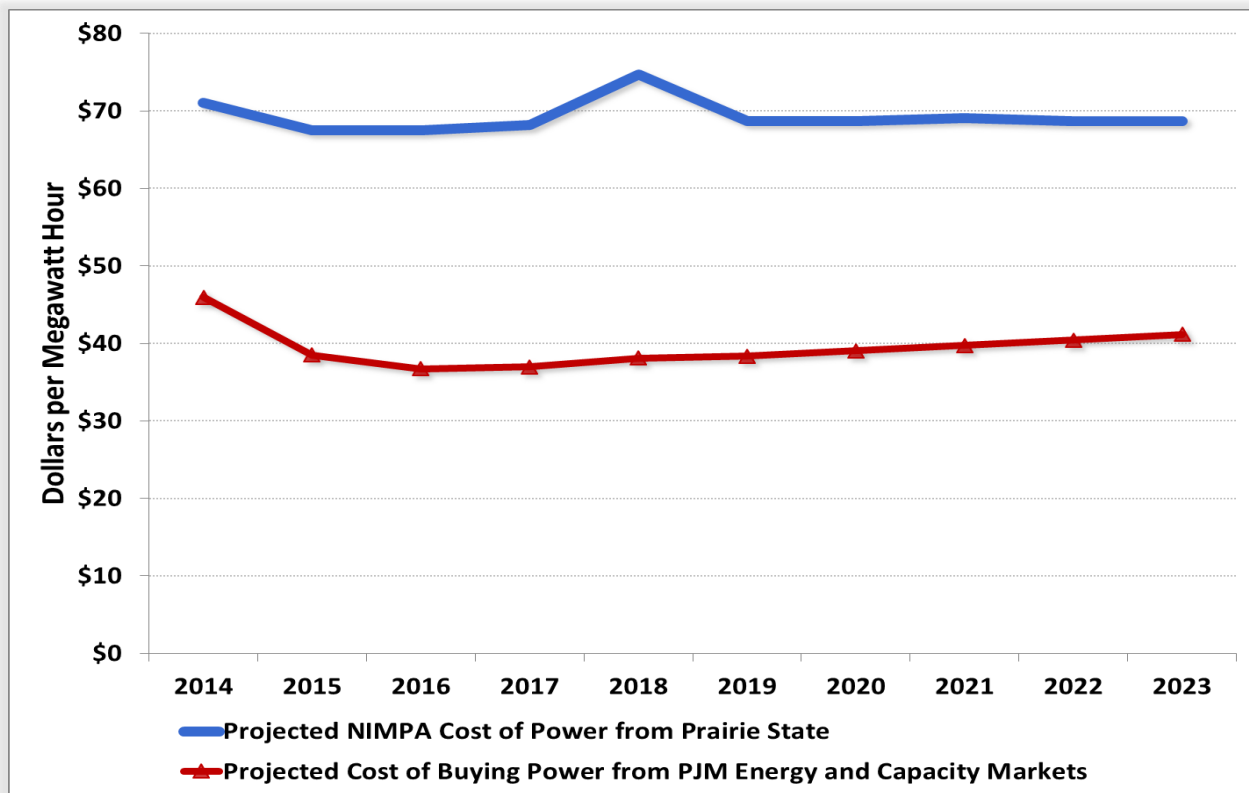
Figure 3 compares the plant’s projected and actual capacity factors. The capacity factor compares a power plant’s actual generation with how much it would have generated if it had operated at 100 percent power for all of the hours in the month. As can be seen in Figure 3, Prairie State did not achieve its projected 85 percent net capacity factor in any of its first 20 months of operation. The plant’s average capacity factor over that period was only 58.7 percent. This included only a 60 percent capacity factor during calendar year 2013.

The Prairie State Generating Company (PSGC) operates the plant for the owners. The company is assuring the plant’s owners and the participating communities that the problems that have reduced the plant’s operating performance to date are now being addressed and that it will generate much more power in the coming years. For example, a Prairie State Update presented at the October 2013 NIMPA Annual Conference confidently predicted that the plant will achieve a 77.6 percent capacity factor in 2014 and an average 83.2 percent capacity factor over the next ten years.

Although new plants generally have breaking-in problems which reduce their availability and generation during their initial operating years, any projection from the owners of Prairie State has to be taken with a grain of salt due to the many inaccurate projections and claims that have been made concerning the plant's operating performance and costs. Nevertheless, even if Prairie State does operate as the owners now claim it will and even if its operating costs are as low as the owners now claim, that will not mean that the plant will become a viable economic investment for the communities served by NIMPA at any time in the foreseeable future.

This can be seen from Figure 4, below, which compares the projected cost of power from Prairie State with the cost of purchasing power from the competitive PJM wholesale energy and capacity markets. It is important to note that this comparison reflects estimates of Prairie State's future costs and operating performance from NIMPA and the Prairie State Generating Company. It also reflects the current forward prices for power in the PJM wholesale energy market and the results of PJM capacity auctions.

Figure 4: Annual Prairie State Power Costs from NIMPA and Prairie State Generating Company vs. the Cost of Purchasing Power from the PJM Energy and Capacity Markets.



Consequently, there is no reason to expect that the price of buying power from Prairie State will be less than the cost of market power at any time in the coming years. Moreover, the annual costs of buying power from Prairie State could be significantly higher than shown in Figure 4 if the plant's actual operating costs are higher than now forecast or its operating performance is worse.

The disparity in costs shown in Figure 4 means that the total bills for power for Batavia, Geneva and Rochelle will be dramatically higher than they would be if these communities merely relied on the market for their capacity and energy. For example, our conservative analysis shows that Batavia will pay approximately \$118 million in excess power costs in the ten years 2014-2023.² And this figure does not reflect either (1) the amounts that Batavia will have to pay during these years as a result of the power costs that NIMPA did not collect in 2012 and 2013 or (2) Batavia's loss on the sale of its excess power. In fact, the excess power cost paid by Batavia could be even higher either if Prairie State's power costs are higher, as explained above.

The bottom line is that Prairie State is a significant economic loss for Batavia and the other participating communities. It will likely continue to be a loss until for the next decade, if not substantially longer.



More information about the Prairie State Energy Campus, the bills being paid by participating communities, and IEEFA's August 28, 2012 report titled, [*The Prairie State Coal Plant: The reality vs. the promise*](#), can be found at www.ieefa.org and <http://prairiestatecoalplant.org>

² This analysis used PSGC's current projections of future Prairie State operating performance and costs and NIMPA's current budget for plant-related non-operating costs. It also used the current forward prices for energy and capacity in the PJM wholesale markets.