

**STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION**

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**In the Matter of Great River Energy’s
2014 Integrated Resource Plan**

MPUC Docket No. ET2/RP-14-813

**ENVIRONMENTAL INTERVENORS’ REPLY COMMENTS ON GREAT RIVER
ENERGY’S COOPERATIVE’S INTEGRATED RESOURCE PLAN**

I. INTRODUCTION

The Environmental Intervenors submit these Reply Comments to supplement our Initial Comments to Great River Energy’s 2014 Integrated Resource Plan (“IRP”) and to respond to comments submitted by other parties to this proceeding. We appreciate the opportunity to provide these comments and continue to advocate for an IRP that adequately plans for a clean energy future.

**II. GRE’S RISKY INVESTMENTS SHOULD LEAD TO COST-EFFECTIVE
RETIREMENT OF EXCESS CAPACITY**

As we noted in our Initial Comments, GRE’s modeling demonstrates that retirement of Stanton Station is cost effective when the most likely parameters are put in place. (EI Initial Comments at 17-18.) Our Initial Comments highlighted the fact that retiring Stanton would protect GRE and its customers from unnecessary risk by eliminating GRE’s reliance on market sales for a significant source of revenue and because a plan that includes retiring Stanton is significantly less risky than a plan that includes its continued operation as we head into the carbon-regulated world of the near future.

Retirement of Stanton should also be included in GRE's IRP because GRE's operation of Spiritwood appears to be a significant drain on the company's resources. (*See also* Al-Corn and Heartland Corn Products' Initial Comments.) Given the fact that Spiritwood is not profitable, retiring excess capacity on GRE's system, such as Stanton Station, should be a priority to reign in these risky business practices.

The Environmental Intervenors attempted to better understand GRE's operation of Spiritwood through information requests, but GRE refused to provide the information despite follow-up discussions.¹ Specifically, the Environmental Intervenors sought information from GRE about the revenue it receives from its sales of steam to Dakota Spirit AgEnergy and Cargill from its Spiritwood plant. (*See* Information Requests ("IRs") Nos. 36 & 37 filed March 16, 2105.) But despite this lack of information, we were able to make some preliminary calculations that cast serious doubt on the profitability of Spiritwood.

Using MISO's locational marginal price ("LMP") data for the Spiritwood Station and current MISO capacity prices, we calculate that GRE will receive between \$7.8 and \$9.2 million in energy and capacity revenue from MISO, which falls dramatically short of covering its total cost of operation, [NON-PUBLIC BEGINS ... ██████████ ... NON-PUBLIC ENDS] in 2015. In order for Spiritwood to break even in its operations, therefore, it would need

¹ Environmental Intervenors note that GRE has designated a great deal of information as "trade secret" or "non-public" in this docket that other utilities voluntarily disclose in IRP proceedings or are required to disclose to the Federal Energy Regulatory Commission ("FERC"). Compare, *e.g.*, GRE's Response to EI IR No. 2 designating peak and non-peak market price forecasts used in the System Optimizer modeling, coal price forecasts, and ICAP values as trade secret to the public information available on pages 15-16 of Appendix J of Xcel Energy's IRP (MPUC Docket No. 15-21). In addition, all investor-owned utilities are required to report operation and maintenance expenses to the FERC, but GRE has designated that information as non-public in this docket. This disparity in information that is designated as non-public appears to have no basis in what information actually creates a competitive disadvantage. Rather, it appears to be based primarily on GRE's unwillingness to candidly engage in the resource planning process.

to be selling its steam for approximately [NON-PUBLIC BEGINS ... █████ ... NON-PUBLIC ENDS] per pound.² We believe this is unrealistic because it implies that the value of the electricity that would otherwise be generated by Spiritwood is over [NON-PUBLIC BEGINS ... █████ ... NON-PUBLIC ENDS] per MWh. Given that the MISO Day-Ahead LMP at Spiritwood averaged \$32 per MWh in 2014, we know GRE would be highly unlikely to bring in [NON-PUBLIC BEGINS ... █████ ... NON-PUBLIC ENDS] per MWh for Spiritwood electricity. If instead, GRE charged Dakota Spirit and Cargill the equivalent of \$32 per MWh plus a 10% margin for steam, the price of steam would be \$0.01 per pound, only [NON-PUBLIC BEGINS ... █████ ... NON-PUBLIC ENDS] that necessary to cover Spiritwood's remaining operating costs.

In its April 1, 2015 Notice of Changed Circumstance, GRE notified the Commission that it had entered into an agreement to sell Missouri River Energy Services (“MRES”) 85 MW of capacity during the 2015/2016 MISO planning year and 100 MWs of capacity for three years thereafter—through the 2018/2019 Planning Year (“PY”). We do not know the price of this contract, but data from MISO reasonably bounds the revenue that GRE might receive. Starting with its 2013/14 Planning Year, MISO has conducted a capacity auction across each of its zones (now nine in total). The Planning Resource Auction (“PRA”) balances projected demand with offers from generators, behind-the-meter generation, demand response and external resources

² If Spiritwood operated in a similar fashion as other, relatively new coal-fired power plants it would have an electric efficiency closer to 32% rather than the 15% (according to data from the Energy Information Administration) it currently experiences. As GRE describes in its response to EI IR 24, part of the steam produced by the plant is extracted and sent to the ethanol and malt plants *before* electricity is produced rather than afterwards. If Spiritwood is a profitable plant to operate, this steam would produce enough revenue to cover the balance of Spiritwood's operating costs. That figure can also be translated into the revenue required if electricity had been produced rather than steam, *i.e.*, over [NON-PUBLIC BEGINS ... █████ ... NON-PUBLIC ENDS] per MWh.

(i.e., non-MISO resources) to meet load. Most of Minnesota, parts of Wisconsin, and all of North Dakota are in Zone 1. Zone 1 Auction Capacity Prices (“ACPs”) so far are as follows:

	PY 2013/14	PY 2014/15	PY 2015/16
Zone 1 ACP (\$ per MW-day)	\$1.05	\$3.29	\$3.48

The most recent PRA was conducted after the agreement with MRES was signed, so \$3.29 per MW-day can probably be thought of as a floor on the capacity price in the MRES/GRE contract. The Auction Capacity Prices are capped at the Cost of New Entry for Zone 1. For Planning Year 2015/16, that value was \$246.61 per MW-day. Given the current surplus situation in Zone 1 as well as planned capacity additions for the region, we think it is very unlikely that MRES paid anywhere close to \$246.61 per MW-day for GRE’s capacity. Nevertheless, even under the very optimistic assumptions that GRE would receive \$0.01 per lb of steam, \$32 per MWh of electricity, and \$246.61 per MW-day for Spiritwood’s capacity, GRE would still be losing [NON-PUBLIC BEGINS ... ██████████ ... NON-PUBLIC ENDS]. And indeed, it could lose as much as [NON-PUBLIC BEGINS ... ██████████ ... NON-PUBLIC ENDS] a year on the operation of Spiritwood.

The Spiritwood specific options available to GRE to rectify this problem are neither perfect nor many. Whether GRE could mothball Spiritwood again would seem to depend on the obligations GRE has to provide steam to Dakota Spirit and Cargill and now capacity to MRES. But even if the plant were mothballed again, that does nothing to resolve the almost half a billion dollars it cost customers to build Spiritwood. In fact, we should be clear that our calculations above completely ignore the capital investment in the plant and the carrying costs of the debt on that investment. That is one way that this analysis differs from the RES rate impact contained in GRE’s IRP. GRE claims that its members “experienced a rate impact of more than \$32 million

just in 2013. This is because MISO market prices were below the cost of our renewable energy resources.”³ GRE was comparing the all-in cost of those resources, which includes their capital investment, against MISO revenue and charges. Our calculations here demonstrate that Spiritwood alone could lose as much as [NON-PUBLIC BEGINS ... ██████████ ... NON-PUBLIC ENDS] in 2015 even before consideration of the capital investment in that unit.

It is also worth noting GRE’s relative expenditures on supply versus demand-side resources. GRE says that it will have to spend \$13 million in 2016⁴ to save approximately 1% of sales, much less than the [NON-PUBLIC BEGINS ... ██████████ ... NON-PUBLIC ENDS] it will spend on Spiritwood this year.

Going forward, GRE should stop trying to generate revenue in risky and unpredictable ways, such as selling its excess power into the MISO market, and instead should focus on reducing costs through the retirement of old plants such as Stanton Station—a step that GRE’s own modeling shows is cost-effective.

III. ENVIRONMENTAL INTERVENORS’ RESPONSE TO DEPARTMENT OF COMMERCE DIVISION OF ENERGY RESOURCES

As an initial matter, we would note that although the Department of Commerce Division of Energy Resources (“DOC-DER”) conducted a thorough review of GRE’s IRP to determine if it is technically compliant with the statute and administrative rules, it did not critically assess the fundamental soundness of the “plan.” For example, DOC-DER concluded that it may be premature to decide to retire Stanton in this proceeding based on the fact that results were mixed as to whether retiring Stanton was cost-effective in every scenario. (DOC-DER’s Initial

³ See GRE IRP at 135.

⁴ See GRE IRP App. D at 7.

Comments at 23-24.) But this conclusion does not account for the fact that the cases that did not choose to retire Stanton are not realistic. After eliminating cases that:

- Do not comply with Minnesota’s RES;
- Do not include externalities and/or CO₂ regulatory values;
- Have no wholesale market representation; and/or
- Have unexpectedly high or low fuel and market prices,

only one case in which Stanton is NOT retired remains. That case assumes low externality/regulatory values as well as significant, positive wholesale revenue from the continued operation of Stanton. If one looks past the absolute number of cases in which the model did not choose to retire Stanton, and assesses instead the merits of each of those cases, it is easy to conclude that retirement of Stanton makes sense—that is, we support using the model results as one tool in determining the outcome of the IRP rather than “the answer.”

We agree with DOC-DER that GRE should include higher energy savings in its plan because those savings were cost effective even with GRE’s inflated budget for achieving the savings. (DOC-DER Initial Comments at 16-17.) Higher energy savings is especially important because GRE has not clearly stated how it intends to achieve additional savings through utility infrastructure improvements to meet its Conservation Improvement Program Goals. A higher level of savings than GRE’s preferred plan is also necessary to help put GRE on a path to achieving Minnesota’s greenhouse gas emissions reduction goals and comply with the forthcoming state implementation of the EPA’s Clean Power Plan. We also agree that GRE should use its capacity expansion model to conduct scenario analysis of its four different demand side management levels to evaluate the impact of each scenario on its system costs. (DOC-DER Initial Comments at 16.)

We disagree with DOC-DER, however, on a couple of key points. On page 19 of its Initial Comments, DOC-DER concludes that allowing market sales “does not appear to have had

a significant impact on its modeling results. Thus, the Department concludes that GRE's treatment of market access in this IRP is reasonable" While we understand that GRE's excess capacity means that allowing market sales does not necessary affect the choice of an expansion plan (excluding retirements), GRE's use of market sales extends beyond this narrow implication. As noted in our Initial Comments, GRE's reliance on market sales distorted its alleged reductions in CO₂ emissions making its plan look much more effective at reducing emissions than it actually is as well as making the retirement of existing units look less economic. GRE should not be allowed to use market sales to distort its modeling results in this way. The Commission requires that utilities discuss compliance with Minnesota's greenhouse gas emissions reduction goals in IRPs and the IRP needs to minimize adverse effects on the environment. It is difficult to adequately assess GRE's compliance with these requirements when its CO₂ emissions projection is so distorted by market sales.

Lastly, while DOC-DER noted that GRE is not on track to meet its greenhouse gas emissions reduction goal contained in Minnesota statutes, DOC-DER made no recommendation to alter the IRP in a way that would put GRE on track. The Commission should require GRE to not only report its progress toward meeting the state goals, but should not approve a plan unless it shows a path towards compliance.

IV. CONCLUSION

GRE is required to put forth a plan that will "minimize adverse socioeconomic effects and adverse effects upon the environment" and will "limit the risk" to customers. Minn. R. 7843.0500, subp. 3(C), (E). The plan in its current state does not effectively protect GRE's customers from unnecessary risks and does not adequately protect the environment from adverse

effects from continued emissions from unnecessary coal plants. For these reasons, the Environmental Intervenors respectfully request that the Commission reject GRE's IRP.

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Respectfully submitted,

/s/ Leigh Currie

Leigh Currie
Minnesota Center for
Environmental Advocacy
26 E. Exchange St., Suite 206
St. Paul, MN 55101
lcurrie@mncenter.org
(651) 287- 4873

Attorney for Environmental Intervenors