BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Investigation on the Commission's Own Motion to Review Resource Adequacy Standards and Requirements	Docket No. 5-EI-161

SUPPLEMENTAL COMMENTS OF THE INDUSTRIAL CUSTOMER GROUPS REGARDING THE COMMISSION'S INVESTIGATION INTO RESOURCE ADEQUACY STANDARDS AND REQUIREMENTS

The Wisconsin Industrial Energy Group (WIEG), Midwest Food Products Association (MWFPA), Wisconsin Cast Metals Association (WCMA), and Wisconsin Paper Council (WPC) (collectively, the Industrial Customer Groups or ICG) supplement their January 19, 2024, Comments[1] in the above-captioned investigation to share with the Public Service Commission of Wisconsin (Commission) their growing concern that Wisconsin soon will have insufficient capacity to meet electricity demand. At the same time that we are watching electricity demand increase, Wisconsin utilities are dramatically reducing electricity capacity through the voluntary, premature retirement of baseload generation. It appears that Wisconsin—or at least certain of its utilities—will have insufficient capacity to meet demand as early as 2025, the capacity remaining insufficient for many following years. While Wisconsin's energy supply currently meets the Midwest Independent System Operator (MISO) planning reserve margin (PRM) requirement, the Commission opened this investigation, in part, because the distance between available capacity and the reserve margin requirement has significantly narrowed.[2]

ICG agrees with the Commission that current resource adequacy standards and requirements need to be reviewed, and they strongly support the Commission's efforts to do so. The speed with which this investigation will proceed, though, is uncertain. The uncertainty is complicated by MISO's own on-going capacity-related developments that, although necessarily affecting all of Wisconsin, are themselves not final. As a result, it is not clear when the Commission may adopt new resource adequacy standards, much less when the standards could be properly implemented to secure more certain reliability. The ICG fears that the security we all seek may come too late to ensure reliability in the near term. This in itself suggests that the PSCW now needs to put forth even some type of interim guidance.

[1] The Industrial Customer Group's (ICG) initial Comments can be found at PSC REF#: 489254.
[2] *See* December 20, 2023, Request for Comments in the above-captioned docket, at 2 (PSC REF#: 487306).

The ICG has a concern closely related to its concern regarding reliability: the very high cost of replacement generation. Not only is much of the new generation that is replacing baseload generation not dispatchable (contributing to ICG's resource adequacy/reliability concerns),[3] it has shown itself to be much more costly than utilities had expected when seeking the Commission's approval to acquire; and much more costly than the Commission had approved for the acquisition.[4] Wisconsin's electric rates have for years been too high for all customer classes; and for manufacturers, not only too high but, relative to neighboring states, not competitive. In the near-term in particular, the utilities' voluntary retirement of existing generation coupled with new generation costs that are substantially greater than the amounts the Commission approved are certain to increase electric rates and contribute to a still greater competitive disadvantage for Wisconsin manufacturers. These concerning increases could be managed in part with Commission action now, as described below.

ICG's comments here express two related concerns and, to address those concerns, propose potential Commission actions: 1) The premature, voluntary closing of the state's baseload power plants put reliability at risk and unreasonably increase electricity rates as utilities replace those baseload plants with generation that has shown itself to be much more costly than originally believed when the Commission first approved of the projects; and, 2) the Commission can begin to remedy these two concerns by establishing clear reliability requirements that, in addition to updating the reserve requirement, expressly requires that before prematurely retiring generation a utility study how such retirement affects reliability, creates a need for new generation that the utility otherwise would not have, and increases utility costs and resulting electricity rates. That is, the Commission must establish reliability guidelines that codify what we know is this close relationship between reliability and cost. And the guidelines could expressly recognize that in some circumstances, replacement generation may be too costly to allow, at least temporarily, premature retirements of baseload generation. If done properly and efficiently, potential adverse cost effects could be reduced, or even eliminated. If not done properly and efficiently, electricity rates will continue to escalate, becoming unaffordable for many ratepayers and contributing further to rates that are for manufacturers already uncompetitive. The intertwined nature of reliability and cost is unmistakable.

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[3] Many new generation projects also are delayed well beyond their initially expected in-service date, further reducing already compromised capacity reserves.

[4] For example, in May 2022 the Public Service Commission of Wisconsin approved the joint request of Wisconsin Electric Power Company (WEPCO), Wisconsin Public Service Corporation (WPSC), and Madison Gas and Electric (MGE) to acquire, own, and operate a 200 megawatt (MW) solar generating facility and a 110 MW Battery Energy Storage System (BESS) (Paris Solar and BESS) for $433 million. *See* Final Decision, Joint Application of Wisconsin Electric Power Company, Wisconsin Public Service Corporation, and Madison Gas and Electric Company for Approval to Acquire Ownership Interests in the Paris Solar Generating and Battery Energy Storage System (Paris Project), 5-BS-254 (PSC REF#: 438529). On April 24, 2024, the three utilities wrote the Commission and, among other things, updated the estimated cost of the project at completion: $601.6 million, very nearly a 40% increase over the amount approved. S*ee* April 2024 Quarterly Progress Report, 5-BS-254), at 3 (PSC REF#: 499020). Of course, with an expected in-service date still more than one year away, the cost of the project at completion could be greater still.

ICG's Present Concern is Utilities' Purposeful Reduction of Capacity Despite Already Limited Reserves.

Wisconsin utilities' intentions to prematurely retire critical baseload generation is reducing the state's supply resources to a level dangerously near MISO's PRM requirement. System resource adequacy and reliability are eroding quickly with plant closings; the Commission must act promptly to protect all electric customers from blackouts, and interruptible load customers from increased interruptions.

Starting May 2024, Wisconsin utilities will begin a significant, rapid reduction of supply resources when WEPCO shutters Oak Creek Power Plant Units 5 & 6 (525 MW).[5] In 2025, WEPCO closes Oak Creek Power Plant Units 7 & 8 (610 MW).[6] In 2026, Wisconsin Power and Light Company (WPL) closes the co-owned (with Wisconsin Public Service Corporation (WPSC) and Madison Gas and Electric Company (MGE)) Columbia Power Plant (1091 MW). In just over two and a half years from today, then, WEPCO, WPL, WPSC, and MGE are voluntarily reducing Wisconsin's generation capacity by more than 2,200 MWs. This reduction is 20% of Wisconsin's High Certainty Resources[7]. These large power plants are scheduled to be retired at least ten years before the end of their respective useful lives.

Despite these same utilities' recent aggressive and costly expansion plans to replace their baseload generation with solar, wind, and battery resources, it is likely that the resource gap between supply and demand will continue to narrow to worrisome levels. The electric supply and demand data Wisconsin utilities file with the Commission for inclusion in the Strategic Energy Assessment (SEA) will likely show that, state-wide, Wisconsin will not have sufficient capacity to meet the Commission's 14.5 percent reserve margin on an installed capacity basis beginning in 2026[8], potentially jeopardizing meeting MISO's 1:10 Loss of Load Expectation requirement.[9] The picture is grimmer still when one recognizes that demand will be greater than

[5] Over the past six years, Wisconsin already has seen the premature retirement of more than 1,200 MW of baseload generation.

[6] Wisconsin Power and Light Company (WPL) had long-held plans to retire Edgewater 5 (413 MW) when, in late May 2024, it announced that Edgewater 5 would remain operational until 2028, at which time it would be converted to natural gas.

[7] See Final Strategic Energy Assessment 2028-2034, Appendix A, Table A-2 Wisconsin Aggregated Supply and Demand (November 7, 2022) (PSC REF#: 451939).

[8] Calculation assumes 1% load growth from 2023 historical summer peak values, the listed resource supply disposition as of 2023, and subtracting off total capacity associated with announced electric generation unit retirements. The view described here as well was recently shown in a filing by WEPCO in May 2024 in Docket 05-ER-12. Furthermore, it's prescience likely underlies the recent WPL announcement to extend the operation of the Edgewater generating station.

[9] This concern is not academic. In 2022, degradation below 1:10 LOLE occurred in MISO north and central regions, reaching a dangerous LOLE of just 1:5.6. With current trends, this could occur again. (*See*: "MISO Update to Resource Adequacy," Presented to Missouri Public Service Commission, August 17, 2022, at page 4.)

that reported in the SEA. Substantial new load growth in Southeastern Wisconsin, which has not been included in the SEA, narrows the demand-supply gap much further still.

It is worrying that the tightening of capacity in Wisconsin arrives just as capacity in MISO is tightening as well: the demand-supply gap is narrowing not only for Wisconsin, but for other MISO states as well, increasing our risk. Results from MISO's Planning Reserve Auction (PRA) held this past April not surprisingly tie the tightening of resource supply in MISO's north and central regions increasingly to the retirement of baseload generation. It is worth noting that MISO has just indicated that surplus capacity in the northern and central regions—those most directly affecting Wisconsin—fell to around 2,900 MWs, a 40% decline between the 2023 PRA and the 2024 PRA.

With the impending retirements of Oak Creek and Columbia, the little surplus that now exists seems destined to disappear altogether. The recent PRA had residual summer capacity prices clearing at $30 MW/day. While this is not the maximum price of the cost of new entry, it does represent a move upwards that is ominous given the pending retirements. Results of this April 2024 PRA auction and the dynamics underpinning it are additional reasons that the PSCW must establish clear resource supply guidelines sooner than later. In fact, it is likely that the Wisconsin plant retirements may be an important cause for increasing PRA capacity prices and should any of the state's utilities be counting on using that PRA to meet planning reserve requirements, that strategic resource choice is fraught with peril for the state's consumers both in terms of reliability and cost pressure.

The Commission Can Best Address ICG Concerns By Providing Retirement Guidance.

Before more generation is retired, the Commission should provide retirement guidance to protect customers from increased costs that arise from the retirement. It should require in advance of retirement that utilities make publicly available both 1) the variable energy and requisite O&M costs of such actions, as well as 2) the all-in cost per MWh of the retiring units with due consideration of any potential stranded costs. These cost metrics can then be used as a benchmark against which replacement supply needs are measured. If a utility must obtain new supply resources to replace the capacity from generation it is turning off, it should be allowed to recover from customers only costs up to these two properly crafted benchmarks. The utility's shareholders should bear the burden of the increased costs.

Given what appears to be an increasingly short capacity supply throughout the MISO region,[10] any underlying strategy of simply relying on MISO's capacity market may also be an expensive proposition that ratepayers cannot afford.

At a minimum, the Commission must establish properly crafted benchmarks soon, to account for and/or provide some protection from industry developments occurring at management's discretion, policy changes at the state and federal level, as well as operational characteristic requirements as set by MISO.

Particularly when combined, these elements support the Commission acting now: utilities' voluntary, premature retirement of baseload generation; increased investment in new generation, and an expanded transmission system; recent load and energy growth between 0.5 and 1.0 percent per year with new "lumpy" large load additions; MISO dispatch protocol changes arising from its use of reliability based demand curve construct in the planning reserves auction; and the precipitous upcoming decline for solar resource capacity accreditation. Notably, these developments are occurring against a backdrop that has MISO using a seasonal construct for planning reserve requirements. These are significant changes, and ratepayers and the utilities need important Commission reliability guidance sooner than later.

In addition to that reliability guidance which inherently includes important cost considerations, ICG continues to be concerned that electric rates are growing less affordable, making Wisconsin manufacturers less competitive than their counterparts in those other states with less costly electric rates. The Commission could foster more affordable rates for all customers and help manufacturers more fairly compete with those in other states by requiring that the state's utilities take much more care in capital projects. At a minimum, the Commission should require that utilities employ multi-source competitive RFPs for electric generation resources. Congress recognized that such competitive bidding of electric generation would help contain utility costs when it passed Public Utility Regulatory Policies Act of 1978 (PURPA) nearly fifty years ago. Congress has subsequently shown its continued support for competitive bidding with passage of the Energy Policy Act (EPAct) of 1992 and, yet again, the passage of EPAct of 2005. Competitive bidding is a helpful tool for managing the extraordinary cost of generation. And it is a tool with which Wisconsin is not unfamiliar. This Commission, for several years in the 1990s, had required competitive bidding of large generation projects, and it is time that the Commission revisit its cancelation of such requirements.[11] Competition works for reducing costs in generation, and the FERC has just issued two Orders—1920 and 1977—in May 2024 that importantly leave in place competitive procurement for new transmission multi-value projects using new right-of-way.

[10] This reliability gap between increasingly uncertain generation supply and new changes in demand growth due to electrification trends was the focus of the just completed Organization of MISO States Resource Adequacy Spring Seminar at Iowa State University May 14-15, 2024.

[11] See Dockets 05-EI-112 and 05-BE-103, "Amended Order to Rescind," September 13, 2000.

Moreover, the Commission also could require utilities to include in their generation portfolios a mix of build-to-own projects and purchase power arrangements, with a goal to reduce and potentially eliminate further stranded costs. WIEG advanced this strategy when the Commission began its first construction authorizations for battery storage systems[12], and ICG believes the approach still has merit.

These are but two approaches to constraining capital costs. There may well be other creative approaches that have yet to be explored, or even identified. But whether known now or not, it is critical that we—the utilities, their customers, the Commission…. all of us—find some means by which, as compared to present levels, capital costs tied to the retirement of existing capacity and the acquisition of new capacity can be even somewhat constrained.

ICG would like to thank the Commission for its efforts addressing the important supply and demand balance of electric resources in Wisconsin. ICG looks forward to assisting the Commission in that regard. If the Commission would like to discuss this matter more completely, ICG stands ready to help advance the cause of maintaining electric system reliability and cost affordability.

Dated this 31[s] day of May 2024

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[12] *See*, *e.g,* Wisconsin Industrial Energy Group's Initial Brief, at 7-9 (PSC Ref #: 429279) (January 19, 2022) in connection with WEPCO, WPSC, and MGE's Paris Project.

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