July 8, 2016

VIA ERFS

Ms. Sandra Paske
Secretary to the Public Service Commission
610 N. Whitney Way
Madison, WI 53705

RE: Docket 5-ES-108 - Citizens Utility Board's Comments on the Draft Strategic Energy Assessment for the Years January 1, 2016 Through December 31, 2022

Dear Ms. Paske:

Please find enclosed the Citizens Utility Board's comments on the Draft Strategic Energy Assessment in the above referenced docket. CUB appreciates the opportunity to provide these comments.

Please contact me with any questions.

Sincerely,

Kurt Runzler
Acting Executive Director

Enclosure

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BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Strategic Energy Assessment for the Years January 1, 2016, Through December 31, 2022 — Docket No. 5-ES-108

COMMENTS OF THE CITIZENS UTILITY BOARD OF WISCONSIN

July 8, 2016

I. INTRODUCTION

The Citizens Utility Board (CUB) appreciates the opportunity to provide comments on the draft Strategic Energy Assessment (Draft SEA) for the years 2016 through 2022, and thanks Public Service Commission (PSC or Commission) staff for the work done to compile the document. CUB supports efforts to make information regarding energy issues and regulation accessible to Wisconsin's residents and businesses, and the Draft SEA is one way for the PSC to share this important information with the public. Over the years, there has been discussion regarding "who" is the audience or audiences for the SEA. Being that the SEA is required by statute and much of the information in it is already known by individual utilities, CUB submits that a primary audience for the document is the people of Wisconsin. The essential purpose of the SEA is to evaluate the adequacy and reliability of Wisconsin's current and future electrical capacity and supply. (Draft SEA, p. 1) With that in mind, CUB offers the following comments, providing some observations on the "adequacy and reliability" of the system based on the data and conclusions contained in the draft, and proposing refinements, clarifications, and improvements to the information presented in the Draft SEA. Specifically, CUB's comments focus on the following topics:

- Electric capacity in Wisconsin

- Retail electric rates in Wisconsin
- Information regarding the electric rate impacts of consent decrees and federal regulations
- The need to collect data on the cost-effectiveness of interruptible tariffs
- Data on the deployment of distributed energy resources in Wisconsin

II. COMMENTS

A. Wisconsin has adequate generation capacity to meet forecast loads.

- *In an era of over-abundant generation, low wholesale market prices, and flat loads, all as documented in the Draft SEA, there must be an especially high bar to clear for regulated electric utilities to demonstrate the need for, and cost-effectiveness of, any proposed new construction project or resource acquisitions.*

The Draft SEA shows that Wisconsin has a robust planning resource reserve margin (PRM) for the seven year period covered by this Draft SEA. The PRM exceeds, on average, Wisconsin's PRM benchmark (14.5 percent) through the year 2022. (*See* Draft SEA Table 1, p. 7) This margin takes into account the forecast summer peak demand growth in Wisconsin over the study period (Draft SEA p. 7), although Table 2 in the Draft SEA also shows that Wisconsin's non-coincident peak load declined over the past several years. (Draft SEA p. 11) The Draft SEA shows that the highest forecast monthly non-coincident peak demand in the study period, 15,220 MWs in July 2022 (Draft SEA Table 4, p. 13), may be met with forecast unforced (net) capacity capability in that year. (Draft SEA Table 3, p. 12) The Draft SEA notes that the excess capacity position in Wisconsin is the result of a number of factors, including a two-decades long generation and transmission construction program that began in the late 1990s, effective energy efficiency and conservation, and moderate demand growth.

The Draft SEA shows Wisconsin's robust capacity position is augmented by existing and forecast abundant capacity and "competitive pricing" in wholesale energy markets operated by MISO. (Draft SEA p. 9) Figure 2 shows that MISO system-wide average monthly, day-ahead,

and real-time market prices have been trending steeply downward for several years, and are at or near their lowest levels since the earliest days of the MISO wholesale power market in 2006. (Draft SEA Figure 2, p. 8) According to the Draft SEA, the MISO system-wide planning year capacity reserve cushions, on an installed capacity basis, are between 10.9 and 16.3 percent for the years in the study period. (Draft SEA Table 7, p. 26) While the Draft SEA concludes that "capacity and energy will continue to be available at reasonable prices" to utilities over the study period, there is insufficient information in the Draft SEA regarding potential price and resource impacts associated with new environmental regulations (e.g., the Clean Power Plan) as discussed later in these comments. (Draft SEA p. 9)

The Draft SEA concludes that Wisconsin is "experiencing a surplus of capacity" and has an adequate and reliable electric supply with "an acceptable PRM" through 2022, as measured against both the Wisconsin and MISO planning reserve benchmarks. (Draft SEA pp. 6-7) Given this surplus position, and the generally flat, or in some cases declining, electricity sales experienced by Wisconsin's major utilities in recent years, there should be little or no need for any new generating resource construction or acquisitions by Wisconsin's electric utilities for the foreseeable future, with the possible exception of projects contemplated by the Draft SEA and included in its capacity and energy forecasts.[1] In an era of over-abundant generation, low wholesale market prices, and flat loads, all as documented in the Draft SEA, there must be an especially high bar to clear for regulated electric utilities to demonstrate the need for, and cost-effectiveness of, any proposed new construction project or resource acquisitions. In the event that a proposal is made for new construction or acquisitions, the Commission should require that

[1] With respect to flat or declining electricity sales in Wisconsin, see e.g., 6690-UR-123 (WPSC TY 2014 Rate Case), Direct-WPSC-Clabots-6 (PSC REF#: 201309); 5-UR-107 (WEPCO TY 2014 Rate Case), Direct-WEPCO/WG-Gaughan-6-7 (PSC Ref#: 205478); 3270-UR-121 (MGE TY 2017 Rate Case), Initial Data Request 20 (PSC REF#: 284600).

the applicant in its proposal evaluate the availability and cost-effectiveness of surplus capacity and energy in Wisconsin that could be used to meet some or all of the stated need.

B. Despite the capacity position, Wisconsin's retail electric rates remain among the highest in the Midwest.

- *Wisconsin's average residential utility rates were lower than the Midwest average from the year 1990 through approximately 2000, but have been significantly above the Midwest average since then.*
- *Wisconsin's electric ratepayers have made a significant financial investment in the state's electric distribution, generation, and transmission infrastructure over the past two decades.*
- *For ratepayers to receive value from their investment the Commission must prioritize decreasing retail rates in rate cases and through other measures, and utilities with existing and forecast excess capacity and energy must work to monetize this surplus through market sales, and to redouble their efforts to control costs.*

The Draft SEA shows that, as of the end of 2015, Wisconsin had the highest residential, commercial, and industrial electric rates among Midwest states.[2] Specifically, compared to the Midwest average, Wisconsin's average residential rates were approximately 18 percent higher, its commercial rates were approximately 14 percent higher, and its industrial rates were about 10 percent higher. The Draft SEA does not compare the rate levels of individual Wisconsin utilities to one another, or to the Midwest averages, and it does not specifically state whether monthly fixed charge amounts are factored into the average residential rates. The Draft SEA should be updated to provide this information.

The Draft SEA notes that direct rate comparisons among states and regions can be challenging due to diverse regulatory and market environments. (Draft SEA p. 28) This diversity

[2] The Draft SEA uses the U.S. Census Bureau definition of Midwest states, which consists of twelve states: Wisconsin, Minnesota, North Dakota, South Dakota, Iowa, Kansas, Nebraska, Missouri, Illinois, Indiana, Michigan and Ohio. These twelve states comprise the "East North Central" (Wisconsin, Illinois, Indiana, Michigan, Ohio) and "West North Central" (Iowa, Kansas, Missouri, Nebraska, South Dakota, North Dakota, and Minnesota) categories used by the U.S. Department of Energy, Energy Information Administration. However, Tables 8 through 12 in the Draft SEA show only eight of these twelve states, and exclude Nebraska, Kansas, South Dakota, and North Dakota. If the Midwest average reported in these tables represents the average of the rates in the preceding twelve states then Footnote 13 in the Draft SEA should clearly state just that.

should be accounted for in the Draft SEA where the impact of unique circumstances on rate levels can be readily identified. Ultimately, however, since the product being compared – retail electric service – is essentially identical across all jurisdictions, the drivers of rate disparities between states does not lessen the relevance or appropriateness of the comparisons themselves. The reasons why Hawaii, for example, has the highest electric rates in the nation are readily apparent, but a small business owner looking to expand operations will focus ultimately on the rates themselves, and less on why some states or individual utilities have higher rates and others lower.

Wisconsin's average residential electric utility rates were lower than the Midwest average from the year 1990 through approximately 2000, but have been significantly above the Midwest average since then as depicted in Figure 14. (Draft SEA Figure 14, p. 29) The Draft SEA notes that notwithstanding Wisconsin's relatively high average rates, that residential ratepayers have the fourth lowest monthly electric bills compared to seven other Midwestern states, and that these monthly bill amounts have been at or below the Midwest average since at least 1990. (Figure 15, p. 34) However, this should not be interpreted to mean that Wisconsin ratepayers are better off than residential ratepayers in other Midwestern states. In fact, Figure 15 shows that from 1990 to 2001 Wisconsin's average monthly electric bills were significantly lower than the Midwest average, but since then the gap has narrowed considerably, despite monthly usage in the Midwest increasing while usage in Wisconsin has held flat. This begs the question, to what extent do the electric rates themselves affect customers' monthly usage? In 2015 Missouri had the lowest average residential rates (26 percent lower than Wisconsin) among the states included in Table 8, but the highest average monthly bills (22 percent higher than Wisconsin). Are

homeowners and business using less electricity in Wisconsin by choice, as a result of energy efficiency improvements, because it is too expensive, or some combination of the foregoing?

The Draft SEA states that energy efficiency and conservation programs have helped keep Wisconsin residential usage flat over the last two decades, but it is not clear that this explains the difference between usage in Wisconsin and elsewhere, and there is no reason to believe that efficiency and conservation efforts are not pursued in other Midwest states either voluntarily or by statute. (*See* Draft SEA p.33) If monthly electricity usage levels in Wisconsin are relatively low due to price, and if residential and business ratepayers would productively use more energy if it was less expensive, then rate levels may be having an adverse and undesirable impact on Wisconsin's citizens, economy, and job creation. For example, lower rates could lead to similar usage but at lower overall costs to customers, freeing up money for increased production at businesses and leaving more money in consumers' wallets. The Commission should consider evaluating in this or future SEAs whether Wisconsin's relatively high average electricity rates are having an adverse effect on the state's economy and job creation.

The Draft SEA implies that the predominant cause behind Wisconsin's comparatively high average retail electric rates in relation to other Midwest states is the period of "significant investment in electric generation and transmission facilities" that began in the late 1990s, and that lasted over 20 years, including approximately $3 billion spent on emission control upgrades. (Draft SEA pp. 28-29) This makes sense given that Wisconsin is a regulated state and therefore electric utilities recover the costs of prudent infrastructure investments in authorized retail rates charged to customers. This reality should temper any notions that Wisconsin as a whole will achieve lower electricity rates, particularly in the short or medium term, simply by continuing buildout of electric utility infrastructure.

Wisconsin's electric ratepayers have made a significant financial investment in the state's electric distribution, generation, and transmission infrastructure over the past two decades. Ratepayers continue to underwrite this investment through the rates that they pay. As the Draft SEA establishes, Wisconsin currently has a substantial amount of surplus generating capacity, and is forecast to have surplus capacity and energy at least through the study period. For ratepayers to receive value from their investment the Commission and utilities must prioritize decreasing retail rates through cost-control in rate cases and other measures, and utilities with existing and forecast excess capacity and energy must work to monetize this surplus through market sales, the revenues of which are returned to ratepayers through the ratemaking process. (*See* Draft SEA p. 28) The Draft SEA states that the Commission will continue to "evaluate and promote the potential" for selling excess capacity and energy into the MISO markets. (Draft SEA p. 28) CUB supports the Commission in this effort as it is necessary to help ratepayers gain value from their investments over the last two decades, and would suggest that utilities have an affirmative obligation to demonstrate to the Commission that they are seeking to maximize revenues on all existing surplus capacity and energy, consistent with sound business principles and prudent utility practices.

C. Information regarding the known and potential rate impacts of consent decrees and federal regulations should be further incorporated into the Draft SEA.

- *Wisconsin utilities may have "spent" more than $3 billion on emission control upgrades at their power plants, but Wisconsin's ratepayers are the ones that are paying the costs of those upgrades.*
- *The SEA should address the costs of consent decrees in more detail and identify whether there is potential for future consent decrees.*
- *The SEA should address the costs, occurring and potential, of the environmental regulations identified in the SEA.*

Since the year 2000, Wisconsin utilities spent approximately $3 billion on emission control upgrades at power plants. (Draft SEA pp. 19, 29) Including increases in the estimated costs of Wisconsin Public Service Corporation's Weston 3 ReAct project and Dairyland Power Cooperative's John P. Madget SCR project since the last SEA, the dollar amount for emission control upgrades now exceeds $3.3 billion. As explained in the Draft SEA, many of the projects were the result of Consent Decrees that utilities entered into with the federal government. (Draft SEA p. 29)

Wisconsin utilities may have "spent" more than $3 billion on emission control upgrades at their power plants, but Wisconsin's ratepayers are the ones that are *paying* the costs of those upgrades, including those projects that were proposed as the result of consent decrees. To better document this, the Draft SEA and future SEAs should return to presenting known completed, pending, and under construction emission control projects as was done is Table 5 of SEAs 2018 (PSC REF#: 176432) and 2020 (PSC REF#: 220557). Table 6 in the Draft SEA appears to show only those emission control projects currently under construction. (*See* Draft SEA Table 6, p. 20) The updated Table 6 should also include the year in which the Commission approved each emission control project, and the year in which each project went into service, so that readers may have a better understanding of the significant dollar amounts for these projects that are likely to be included in retail electric rates for years to come. Importantly, those emission control upgrades that were proposed as the result of consent decrees should be clearly identified as such in the updated Table 6 in order to show what portion of the $3.3 billion in spending is tied to consent decrees.[3] Finally, though projects under the $25 million are not identified in

[3] For example, consent decrees preceded both the $415 million (and counting) Weston 3 ReAct project, and the $150 million Columbia Unit 2 SCR project approved by the Commission in Docket Nos. 6690-CE-197 and 5-CE-143, respectively. (Final Decision, Application of WPSC for Authority to Construct and Place in Operation a New Multi-Pollutant Control Technology System for Unit 3 of the Weston Generating Station, Marathon County,

Table 6, the total dollar amount spent on these lower cost projects, particularly over the last five years, should be documented in the SEA since ratepayers are still expected to pay for these costs and in aggregate they are likely a significant sum.

In the consent decree process, utilities generally agree to conditions that require them to make a choice: install emission controls by a certain date to meet emissions requirements or retire generation assets. As a result of these settlements with the federal government and non-governmental organizations, ratepayers are paying for hundreds of millions of dollars of pollution control costs at Wisconsin utility power plant sites, including capital costs, return, and operations and maintenance costs. Meanwhile utilities and shareholders continue to earn a hefty return on the capital investment and avoid the risks of further litigation over potential violations of federal environmental regulations. The total costs to ratepayers of capital expenditures related to the consent decrees should be documented in the SEA.

The costs of these types of settlements have a significant impact on utilities revenue requirements and, in turn customers' electric bills, yet certainly most Wisconsin ratepayers are unaware of these costs, and why they are responsible for paying them. The SEA is a document that educates the public and decision makers regarding issues that affect Wisconsin's energy supply and rates. (Draft SEA p. 1) Therefore, how consent decrees and/or settlements entered into by regulated utilities affect Wisconsin's energy supply and rates should be described and examined in the SEA beginning with the additions to Table 6 as detailed above.

The Draft SEA should also be updated with information regarding any pending litigation between Wisconsin's regulated energy utilities and federal and state agencies, and non-governmental organizations, that may lead to additional costly pollution control equipment or

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Wisconsin, docket 6690-CE-197 (Wis. PSC Apr. 12, 2013) at 1 (PSC REF#: 183440); Final Decision, Joint Application for a Certificate of Authority to Install a Selective Catalytic Reduction System at Columbia Energy Center Unit 2, docket 5-CE-143 (Wis. PSC Jan. 30, 2015) at 4 (PSC REF#: 230775))

other capital intensive modifications, being installed on existing generating units in Wisconsin during the period covered by this SEA.[4] If there is no pending litigation that could lead to a consent decree or settlement requiring the installation of more expensive pollution control equipment or other capital intensive modification, then the SEA should say so.

Beyond knowing the cause of these costs, Wisconsin ratepayers should be informed of the Commission's policies regarding how it determines whether the costs for investments due to settlements or consent decrees should be included in customers' rates. The Commission should provide as much information as possible regarding the nature, cause, and potential costs of the settlement discussions, as well as what actions the Commission is taking to ensure that utilities are abiding by federal and state regulations in order to avoid the potential for litigation and thereby consent decrees, and what actions the Commission will take to ensure that a consent decree or settlement agreement is in the best interests of Wisconsin ratepayers. This information should also be included in future SEA dockets.

Another area of the Draft SEA that can be improved upon is discussion of the potential impacts of federal environmental regulations on retail rates. The retail electric rate trends illustrated in Tables 8 through 11 show that rates in the U.S., the Midwest, and Wisconsin for the residential, commercial, and industrial customer classes increased between 2005 and 2015. Each customer class in Wisconsin has seen its rates increase to a higher level in 2015 than any other state in the Midwest. (Draft SEA pp. 32-33) The costs of complying with environmental regulations can have a significant impact on electric rates. As stated in the Draft SEA, the federal government has promulgated several rules that regulate emissions, cooling water intake, and the discharge of pollutants. These regulations may have already put upward pressure on

[4] The Commission should request this information from the utilities that file SEA data. This information could be requested pursuant to PSC 111.07, Supplemental Data Requests for SEA.

retail electric rates, and may continue to do so as they affect Wisconsin's generation resource mix. The Draft SEA can be improved upon by clearly stating within its text whether the regulations listed on pages 29 through 31 have already contributed to rate increases, have the potential to contribute to future increases, and the magnitude of those increases if known.

The Draft SEA should be updated with at least information regarding the potential rate impacts associated with the proposed federal Clean Power Plan.[5] Even though the United States Supreme Court issued a stay on February 9, 2016 temporarily blocking the Clean Power Plan, the rule could be upheld by the courts during the 2016-2022 time period that this SEA covers and before the next draft SEA issues in 2018. The potential rate impacts of this proposed federal rule on Wisconsin ratepayers, its impact on Wisconsin's current generation fleet, and its impact on decisions regarding new generation in Wisconsin may be so profound that readers of the final SEA need to be informed of the rule's potential effects.

Though information regarding this regulation's potential impact on Wisconsin can be found in various filings on behalf of the state before the federal government and the courts, condensing this data within a single source like the SEA will improve accessibility to this information. For instance, the final SEA should describe the Commission's modeling that estimates that the costs to comply with the proposed Clean Power Plan range from $3.3 to $13.4 billion.[6] An appendix to the SEA should be included that provides the assumptions used in modeling, and the results of the different scenarios tested in the modeling. This information should include estimates of any costs to upgrade gas and electric transmission infrastructure that may be a necessary component of complying with the rule. Estimates should also be made regarding any costs of stranded

[5] U.S. Environmental Protection Agency (EPA), *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (Clean Power Plan)*, Final Rule 80 Fed. Reg. 64,661 (Oct. 23, 2015) (to be codified at 40 CFR pt. 60).

[6] Written testimony of Chairperson Ellen Nowak, Wisconsin Public Service Commission before the Committee on Environment and Public Works, U.S. Senate, March 11, 2015.

generation that may be caused by the proposed Clean Power Plan. It is important to note that this is not a request to use the SEA to develop or promote the development of a state plan in response to the finalization of the Clean Power Plan, which is prohibited by executive order. [7] Instead, the proposal to include this information in the SEA is meant to provide readers with a thorough description of the possible impacts of the proposed federal Clean Power Plan so that the public and decision makers can be informed of the potential ramifications of the regulation on Wisconsin's energy supply and rates.

D. Data regarding the cost-effectiveness of interruptible tariffs should be collected and presented.

- *Lack of data in the SEA makes it impossible to verify that interruptible tariffs can cost-effectively provide over 95 percent of the load available for curtailment in Wisconsin over the study period.*

The Draft SEA addresses programs to control peak electric demand. (Draft SEA pp. 13, et seq.) As noted in the document, peak load management involves removing load at peak usage times when the ability of existing generation to meet peak load is threatened. The mechanisms used to control the peaks are generally referred to as "direct load control" and "interruptible tariffs." (Draft SEA p. 14) The former allows utilities to directly control electrical equipment, such as residential air conditioners, to shed load if necessary and as needed to protect the electrical system from being over-stressed at peak times. In the latter, utilities provide electric service to larger users of electricity, typically larger commercial and industrial customers, pursuant to so-called interruptible tariffs. In exchange for the mere possibility of having its load curtailed at times, for durations, and in amounts of load governed by the tariff, the customer receives a lower electric energy rate on its total electricity use. Table 5 in the Draft SEA implies

[7] State of Wisconsin, Office of the Governor, Executive Order #186, Relating to a Prohibition on Implementing EPA Regulations Pending Completion of Federal Judicial Review.

shows that interruptible tariffs with industrial customers are forecast to provide over 95 percent of the load available for curtailment in Wisconsin over the study period. (Draft SEA Table 5, p. 15)

Payments to industrial customers in the form of a lower rate for electricity, in exchange for the right to interrupt their loads if necessary, is akin to insurance to protect the electrical system and other users of electricity during peak load events. These tariffs can be a cost-effective alternative to building additional peaking generation resources, purchasing equivalent energy or reserve products (if applicable) in the wholesale market, or other alternatives.[8] Nevertheless, as the Draft SEA notes, the amount of industrial load interrupted in any given year in Wisconsin has historically been "much less" than the available load covered by the programs. (Draft SEA p. 14) In fact, the Draft SEA acknowledges that no data is available on the amount, and presumably the frequency, of load actually curtailed under the interruptible tariffs. In addition, the forecast cost in terms of lower industrial rates paid for by the utilities' *other* ratepayers for these interruption rights is not quantified in the draft.

This lack of data makes it impossible to evaluate whether the interruptible tariffs will be the most cost-effective means of meeting system-stressing peak loads over the study period. Load curtailment using interruptible tariffs is just one way a utility can meet these peak loads. Cost-effective, and equivalent or better quality (i.e., more readily available) energy and/or operating reserve products may be available for this purpose, through MISO.

[8] Purchasing energy in day-ahead or real-time markets, and load curtailment rights are two ways of meeting the same problem of too few native generating resources to meet a peak load; in the first way additional energy is purchased in anticipation of (day-ahead) or in response to (real-time) peak load in excess of native resources, in the second way load is cut. To the extent that utilities are using interruptible tariffs to meet any regulatory operating reserve requirements, these requirements possibly could be met more cost-effectively in the MISO day-ahead and real-time operating reserves markets.

Since there is no data on the amount of industrial load that has been curtailed under the interruptible tariffs to date, it is unknown whether existing interruptible tariffs, and any associated implementing agreements, are structured in a way that they can cost-effectively be called upon by utilities to meet peak loads. If implementing a curtailment under the tariffs is overly restrictive or too expensive, they will not be used. This could leave utilities paying for potentially expensive, but useless, interruptible tariffs, and still needing to buy energy or reserves as needed in the market, or making other provision for meeting peak loads. Inasmuch as there is no data on the interruptible tariff program, the conclusion in the Draft SEA that the interruptible tariffs reduce peak demand may lack support.

If an evaluation of the cost-effectiveness of the interruptible tariffs is beyond the scope of this or future SEAs (although the Draft SEA does discuss these tariffs in the context of its conclusion that loads can be met over the study period at reasonable prices), CUB suggests that the Commission collect data for a comprehensive evaluation of interruptible tariffs, with the goal of evaluating the cost-effectiveness of interruptible tariffs compared to other alternative sources of market energy or reserves to meet peak loads. At a minimum, future SEAs should provide historical data covering the five years prior to the SEA showing, on an annual basis, how often each utility interrupted customers on interruptible tariffs and how much load was curtailed as a result of the interruptions.

E. The inclusion of data regarding distributed energy resources in Wisconsin is a useful aspect of the Draft SEA and should be updated in future SEAs.

- *Including and updating this data in SEAs going forward will help readers monitor trends in the deployment of DER.*
- *The vast majority of customer-owned DER installed in Wisconsin is associated with commercial and industrial facilities.*

As with the rest of the information presented in the Draft SEA, CUB appreciates the work done by Commission staff in collecting and presenting data on distributed energy resources (DER) in Wisconsin. Including and updating this data in SEAs going forward will help readers monitor trends in the deployment of DER in the context of the other energy and regulatory issues covered in the SEA.

The level of detail regarding DER included in the Draft SEA, and the breakdown of the data in the appendix tables, is appropriate and will be useful in on-going evaluations of DER trends, and will be critical to informing discussions about the timing and nature of any needed regulatory, rate, or utility business model changes in connection with DER.[9]

Interestingly, the data presented in the Draft SEA shows that while growing by approximately 100 percent since 2008, DER is still a very small part of the overall generation mix in Wisconsin, totaling approximately 375 MW of installed capacity, and less than one percent of "total electricity provider requirements." (Draft SEA Table A-4, Appendix p. 4; Figure 16, p. 36) In other words, DER is currently displacing less than one percent of utilities' sales. Of the 375 MW of installed capacity, only 10 MW represents residential owned DER, or 2.5 percent of the total installed DER. This means the vast majority of customer-owned DER installed in Wisconsin is associated with commercial and industrial facilities.

III. CONCLUSION

Wisconsin currently has relatively high average residential, commercial, and industrial electric rates compared to other Midwest states. A critical element in realizing the full economic benefit of the billions of dollars invested by ratepayers in utility generation, transmission, and distribution projects will be making Wisconsin's electric rates competitive with other Midwest

[9] While the Draft SEA discusses retail rates and DER separately, future SEAs should examine whether Wisconsin's high retail electric rates incent increased customer-owned DER deployment over time.

states. Wisconsin's ability to fully leverage its utility infrastructure into a better economy, more jobs, and more affordable energy rates for Wisconsin residents will likely remain diminished until rate increases stop. If rates continue to increase the prospects for Wisconsin's rates falling in line with those in other Midwest states, or those other states "catching up" to Wisconsin, seem slim.

Inasmuch as the state has in place the energy infrastructure it needs for the foreseeable future, CUB believes that the number one priority of utilities and the Commission over the study period must be on utility cost-control, and that the over-arching goal of the Commission over the study period can be, and should be, on decreasing rate levels whenever possible.

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