

BEFORE THE  
PUBLIC SERVICE COMMISSION OF WISCONSIN

Joint Application of Wisconsin Electric Power Company, Wisconsin Public Service Corporation, and Madison Gas and Electric for Approval to Acquire Ownership Interests in the Saratoga Solar Electric Generation and BESS Facility in the Town of Saratoga, Wood County, Wisconsin and the Ursa Solar Electric Generation Facility in the Towns of Courtland and Springvale, Columbia County, Wisconsin

Docket: 5-BS-280

**I. INTRODUCTION**

Wisconsin Electric Power Company (“Wisconsin Electric”), Wisconsin Public Service Corporation (“WPSC”), and Madison Gas and Electric Company (“MGE”) (collectively, the “Joint Applicants”) apply for approval under Wis. Stat. § 196.49 to acquire the Saratoga Solar Electric Generation and BESS Facility (referred to as “Saratoga”) and Ursa Solar Electric Generation Facility (referred to as “Ursa”), (Collectively the “Solar Projects”), which are two utility-scale solar-powered electric generating facilities. Saratoga is being developed and built by Invenergy, LLC. (“Invenergy”), an experienced, U.S.-based solar farm developer and Ursa is being developed and built by Qcells USA (“Qcells”), also an experienced, U.S.-based solar farm developer. In total, Joint Applicants propose to acquire and construct 400 MW of solar generating and BESS nameplate capacity – the ownership of which will be shared among the Joint Applicants as shown in the table below:

	WEPCO (80%)	WPS (10 %)	MGE (10%)	Total
Saratoga Solar (MW)	120	15	15	150
Saratoga Storage (MW)	40	5	5	50
Ursa Solar (MW)	160	20	20	200

Joint Applicants seek approval of the Solar Projects as part of a larger effort to transition their respective generation fleets.

WEC Energy Group (“WEC”), the parent company of Wisconsin Electric and WPSC, has announced its plan to lower its carbon emissions by 80% from 2005 levels by 2030 and for its generation fleet to be net carbon zero by 2050. Based on the most recent data, Wisconsin Electric and WPSC have already been able to reduce carbon dioxide emissions by greater than 50% below 2005 levels.

The Saratoga and Ursa Solar Electric Generation and Saratoga BESS Facility represents another concrete example of WEC’s commitment to building a bright, sustainable future for its customers. The Solar Projects will help maintain world-class reliability, deliver savings to customers and help achieve the company’s carbon reduction goals.

Wisconsin Electric and WPS seek approval of the Solar Projects as part of a larger, multi-year effort to transition their combined generation fleet. The companies plan to retire older, less efficient fossil fuel plants, and invest more than \$8 billion in low-cost, highly efficient natural gas generation, renewable generation and storage resources in Wisconsin. Building these facilities in Wisconsin will create green jobs and help drive the state’s economy.

WEC’s longer range plan is expected to save utility customers more than \$2 billion over the next 20 years. Appendix A outlines how the Solar Projects provide customer value in much more detail. Customers have also expressed a strong desire for adding renewable, zero-emission generation resources, particularly when such resources are economic<sup>1</sup> – as is the case here. In addition, the proposed US Environmental Protection Agency (“USEPA”) greenhouse gas standards for fossil-based electric generating units will require Wisconsin Electric and WPSC to construct or acquire additional renewable

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<sup>1</sup> Tr. 40 -210 Public and Party Hearing Sessions, Dkt. 5-BS-228 (Jan. 18, 2019) (PSC REF# 358912) at 96:21-97:6 (WPSC expert Jeff Knitter describing newspaper and trade press coverage of these customer preferences and protests outside of WEC offices making similar demands).

assets in order to comply with these rules and provide reliable service to customers, including expected load growth in Southeastern Wisconsin.

Likewise, MGE also plans to retire older, less efficient fossil fuel plants, transition their combined generation fleet, and build a more sustainable future with lower carbon dioxide emissions. In addition, generation resources are needed by MGE due to previously announced retirements of legacy assets and expiration of existing PPAs. The acquisition of a portion of the Solar Projects represents another step in MGE's ongoing transition toward greater use of cleaner energy sources and deep carbon reductions. To meet its customer's future energy and capacity needs, MGE is looking forward to not only adding a portion of the Solar Projects to its generation portfolio, but also additional investments in cost-effective, clean energy projects to maintain its top-ranked electric reliability and to achieve its carbon reduction goals.

On May 22, 2023 the PSCW approved the CPCN application for Saratoga and the equipment to interconnect Saratoga with the transmission system in Docket 9816-CE-100. Joint Applicants' acquisition will include, upon approval, the transfer of the CPCN rights and obligations authorized in Docket 9816-CE-100. On November 8, 2023 the PSCW approved the CPCN application for Ursa and the equipment to interconnect Ursa with the transmission system in Docket 9818-CE-100. Joint Applicants' acquisition will include, upon approval, the transfer of the CPCN rights and obligations authorized in Docket 9818-CE-100. Joint Applicants propose to acquire and construct Saratoga at a total cost of approximately \$451.5 million, which is comprised of approximately \$348.9 million or \$2,326/kW for the solar facilities and approximately \$102.6 million or \$2,052/kW for the BESS. Joint Applicants propose to acquire and construct Ursa at a total cost of approximately \$450.5 million or \$2,253/kW for the solar facilities.

The price for Saratoga includes the capital cost of the solar facilities, BESS system, transmission interconnection costs and owners' costs but excludes Affected System costs that may be assessed by MISO or PJM. The capital costs for the BESS system includes Wisconsin state sales taxes on the BESS system components and associated

labor to install those components.<sup>2</sup> The price for Ursa includes the capital cost of the solar facilities, transmission interconnection costs and owners' costs but excludes Affected System costs that may be assessed by MISO or PJM.

Joint Applicants believe the acquisition of Saratoga and Ursa will benefit customers of all three utilities over the life of the Solar Projects due to several cost advantages associated with them, including zero fuel costs.

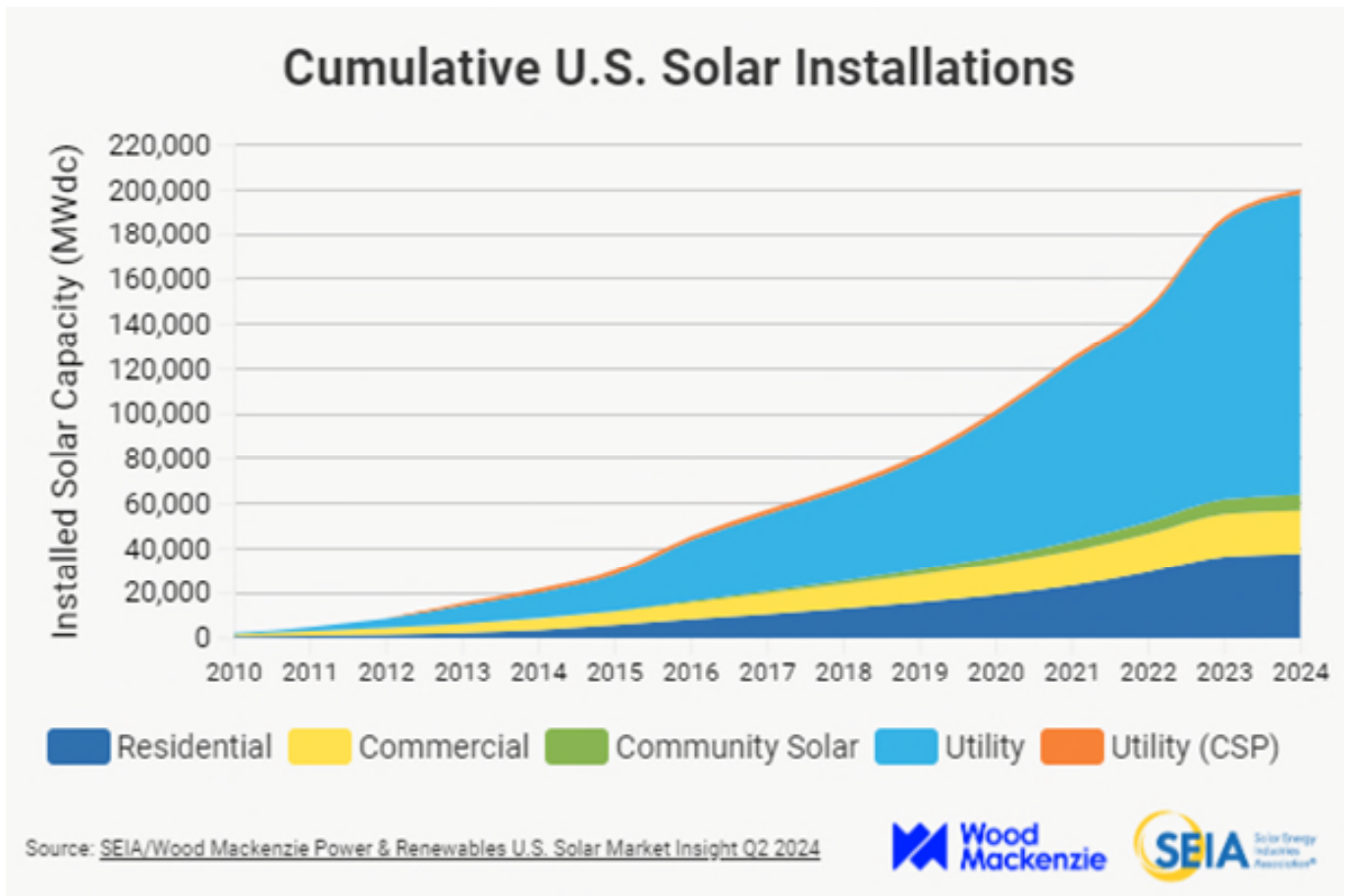
While installed costs for solar PV and BESS systems increased immediately after the COVID-19 pandemic due to the supply chain challenges, solar PV module tariffs, and additional demand due to Inflation Reduction Act ("IRA") incentives, these costs are expected to begin to level off as supply chains begin to return to normal operations after the COVID-19 pandemic and solar PV manufacturers change operations and source materials from locations not impacted – directly or indirectly – by trade tariffs.

This plateauing of installed cost, paired with the choice to elect either investment tax credits ("ITC") or production tax credits ("PTC") under the IRA, allows utility-scale PV paired with BESS to be competitive with fossil-fueled electric generation. This pricing dynamic has led to a continued increase in the amount of solar PV generation being installed in the United States, much of it being utility-scale installations. One side effect of this increase in installed capacity is that labor costs have increased. That dynamic is expected to continue, which has the potential to increase the installed cost of solar PV and BESS in the future.

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<sup>2</sup> Wis. Stats. § 77.54(6)(am) provides a sales tax exemption for machinery and processing equipment used exclusively and directly in manufacturing electricity. Energy storage systems, including BESS, do not currently meet this exemption.

**Figure 1: Cumulative U.S. Solar Installations: 2010 to 2024**



Acquiring and constructing the Solar Projects will allow Joint Applicants and their customers to take advantage of solar PV and BESS technology as the price curves are flattening, while also taking advantage of federal tax credits (PTCs and ITCs) available under the IRA. The Solar Projects will provide cost effective capacity and energy, with zero fuel cost and zero air emissions, for Joint Applicants' customers for decades to come.

The opportunity to acquire these new solar and BESS facilities in Wisconsin will deliver value for Joint Applicants' customers beyond these cost advantages. There are a number of qualitative and quantitative benefits to be gained from adding the Solar Projects to Joint Applicants' respective generation fleets, including:

- Compliance with the USEPA Clean Air Act proposed greenhouse gas performance standards.
- Providing needed energy and capacity to meet expected load growth.
- Further diversifying Joint Applicants' fuel and technology portfolios and serving as a price hedge against future fossil fuel costs.
- Mitigating the risk of costs imposed by future, but currently unknown, carbon and other emissions restrictions for electric generators.
- Delivering additional benefits that would not be available under a Power Purchase Agreement (“PPA”). Examples of additional benefits Joint Applicants’ customers could realize through utility ownership include, but are not limited to:
  - An option to repower the sites when the equipment reaches the end of its useful life by leveraging the existing Generation Interconnection Agreement (“GIA”), substation equipment, roads and buildings, leasing arrangements and siting studies, all of which will have already been fully paid for.
  - An option to take advantage of lower cost capacity and energy by continuing to operate the Solar Projects after they have been fully depreciated.
  - The opportunity to take advantage of future technological developments and cost reductions expected during the life of the facilities.
  - Avoidance of additional financing costs to utility customers due to the effect of debt-like PPAs on Joint Applicants’ balance sheets and capital structures.

## II. BACKGROUND

### A. Developer

Invenergy LLC, recently purchased development rights for Saratoga from Savion LLC, a subsidiary of Shell New Energies US, which is owned by Royal Dutch Shell, the international petroleum corporation. Saratoga will be developed by Invenergy, North America's largest independent, privately-held renewable energy provider. Headquartered in Chicago, with regional development offices in the United States, Canada, Latin America, Japan and Europe, Invenergy develops, builds, owns and operates large-scale energy facilities across four core technologies: wind (117 projects; 18,676 MW), natural gas (13 project, 6,041 MW), solar (53 projects, 6,693 MW), and battery storage (19 projects; 1,871 MWh). Invenergy's projects are mainly located in the United States, with other projects located in Canada, Japan, Spain, Poland, Scotland and Uruguay.

Invenergy has extensive experience in the development of renewable energy projects, including experience with utility-scale solar PV generation incorporating BESS in particular. Invenergy has prior experience developing, constructing and operating generation projects in Wisconsin and has well-developed operations and maintenance ("O&M") functions, including the ability to remotely monitor renewable assets from a central location. Invenergy is also well capitalized and has a proven development record, which provides a measure of assurance that it will deliver a quality project within the required timeline and budget.

Ursa Solar LLC, is a subsidiary of Qcells USA. Qcells USA Corp. is headquartered in Irvine, CA. Qcells USA provides utility-scale modules, project development, and EPC solutions for solar (PV) and energy storage systems. It is an affiliate of Hanwha Q CELLS Co., Ltd., one of the world's largest and most recognized photovoltaic manufacturers for its high-performance, high-quality solar cells and modules, headquartered in Seoul, South Korea and Thalheim, Germany.

Qcells USA has extensive experience in the development of renewable energy projects, including experience with utility-scale solar PV generation. Qcells USA has prior

experience developing, constructing and operating generation projects in Wisconsin and has well-developed operations and maintenance (“O&M”) functions, including the ability to remotely monitor renewable assets from a central location. Qcells USA is also well capitalized and has a proven development record, which provides a measure of assurance that it will deliver a quality project within the required timeline and budget.

## **B. Description of Facilities**

Saratoga will be located within Wood County in central Wisconsin. Invenergy has control over 1,953 acres located in the town of Saratoga in Wood County. In total, Saratoga will generate up to 150 MW of Solar and include 50 MW of 4-hour storage using between approximately 250,000 and 330,000 silicon PV modules fixed to horizontal single-axis solar trackers. Ursa will be located within Columbia County in south central Wisconsin. Qcells has control of 2,040 acres located in the towns of Courtland and Springvale in Columbia County. In total, Ursa will generate up to 200 MW using between approximately 325,000 and 450,000 silicon PV modules fixed to horizontal single-axis solar trackers.

The major components of Saratoga include the PV panels, BESS facilities, inverters, collector circuits, and a collector substation. Construction of Saratoga is scheduled to begin in September 2025 and is expected to be completed and achieve an in-service date by May 31, 2028. Construction of Ursa is scheduled to begin in September 2025 and is expected to be completed and achieve an in-service date by December 31, 2026. This will allow Joint Applicants to use the capacity from the Solar Projects to meet their obligation in full MISO Planning Year 2028 / 2029 for Saratoga and for the second half of MISO Planning Year 2026 / 2027 for Ursa, as discussed further in confidential Appendix A for Wisconsin Electric and WPSC and confidential Appendix B for MGE. Appendix B will be provided as a supplement to this application.

Joint Applicants acknowledge that the Final Order in Dockets 9816-CE-100 and 9818-CE-100 contains conditions, requirements, and reporting obligations that are materially



similar to conditions ordered in other recent utility-scale CPCN dockets and Joint Applicants accept them.

### **C. Facility Operations**

Under Operation and Maintenance Agreements with Joint Applicants, Saratoga will be operated by Invenergy Services, LLC (“Invenergy Services”). Invenergy Services is staffed with experienced industry personnel and combines asset management, operations, maintenance and commercial execution functions to provide a single, comprehensive solution to asset management.

Invenergy Services’ experienced and highly-skilled personnel operate more than 21,000 MW of wind, solar, natural gas and battery storage projects, including over 8,000 MW owned by third parties. Additionally, Invenergy Services is committed to developing positive relationships with communities where projects are located by hiring approximately 70% of O&M personnel locally as well as giving back to the community through contributions of volunteer time and charitable donations to local organizations and events. Invenergy’s fleet-wide resource availability was more than 97% since 2016 – among the best in the industry in North America.

Under Operation and Maintenance Agreements with Joint Applicants, Ursa will be operated by Qcells USA (“Qcells USA”). Qcells USA is staffed with experienced industry personnel and combines asset management, operations, maintenance and commercial execution functions to provide a single, comprehensive solution to asset management.

### **III. REQUESTED AUTHORIZATION**

Saratoga Solar Project, LLC filed a CPCN application on May 11, 2022 seeking permission to construct Saratoga which was approved by the Commission on May 22, 2023, Joint Applicants seek Commission approval to acquire Saratoga, including its CPCN, and to construct the Saratoga Solar Project, LLC.

Ursa Solar, LLC filed a CPCN application on October 19, 2022 seeking permission to construct Ursa which was approved by the Commission on November 8, 2023. Joint Applicants seek Commission approval to acquire Ursa, including its CPCN, and to construct the Ursa Solar Project, LLC.

Because each Joint Applicant is a “public utility” as defined in Wis. Stat. § 196.01(5), the proposed acquisition may not take place without the Commission’s approval. In particular, Wis. Stat. § 196.49(3)(b) provides that the Commission “may require that no project may proceed until the Commission has certified that public convenience and necessity require the project.”

Because Saratoga and Ursa each filed CPCN applications to construct the Solar Projects, this Applications for Certificate of Authority focuses on Joint Applicants’ needs for the capacity and energy that will be produced by the Solar Projects, as well as the economic justification for acquiring and constructing the Solar Projects. Wisconsin Stat. § 196.49(3)(b) states that the Commission may refuse to certify a project only if it appears that the project will do any of the following:

1. Substantially impair the efficiency of the service of the public utility.
2. Provide facilities unreasonably in excess of the probable future requirements.
3. When placed in operation, add to the cost of service without proportionately increasing the value or available quantity of service.

Joint Applicants' acquisition and subsequent construction of the Solar Projects will have none of these consequences. The acquisition and subsequent construction of the Solar Projects will not impair the efficiency of the utilities’ service. In fact, the Solar Projects will enhance efficiency by providing a highly-reliable renewable resources, significantly improving Joint Applicants’ resource diversity.

The acquisition and subsequent construction will not provide facilities unreasonably in excess of probable future requirements. Joint Applicants need both capacity and energy

to meet current and anticipated future customer requirements. These needs are addressed in confidential Appendices A (for Wisconsin Electric and WPSC) and B (for MGE).

Further, the Solar Projects will provide energy at no additional incremental cost (*i.e.*, no fuel cost). Though energy is currently available in the market at relatively low cost, the Solar Projects will provide a valuable hedge against the potential for higher energy costs in the future – particularly during the peak summer hours when Saratoga and Ursa are expected to be generating energy at or near its stated nameplate capacity. This hedging capability is enhanced by the inclusion of BESS at Saratoga and is fully discussed in the appendices to this application.

Joint Applicants' acquisition and subsequent construction of the Solar Projects will not add to the cost of service without proportionately increasing the value or available quantity of service. Joint Applicants independently evaluated the expected costs of acquiring and constructing the Solar Projects relative to the alternatives of meeting energy and capacity needs with other resources. These economic analyses are discussed in greater detail in confidential Appendices A (for Wisconsin Electric and WPSC) and B (for MGE).

Moreover, in conjunction with the retirement of older generating assets and the expiration of PPAs, Joint Applicants can accomplish the acquisitions with minimal rate impact in the first year of project operation. Each Joint Applicant will reflect its portion of the \$902 million acquisitions and subsequent construction costs in its rate base<sup>3</sup>. Joint Applicants seek approval to acquire and construct the Solar Projects at a cost of up to 110% of this amount. To the extent the cost of the Solar Projects exceeds this threshold, Joint Applicants propose that they be required to promptly notify the Commission and seek further Commission review and approval.

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<sup>3</sup> Joint Applicants' request also includes earning AFUDC on 100% of the CWIP balance during construction of Saratoga and Ursa. The estimated AFUDC for Saratoga it will be \$28.8 million for Wisconsin Electric, \$3.2 million for WPSC and \$3.3 million for MGE and for Ursa it will be \$27.6 million for Wisconsin Electric, \$3.0 million for WPSC and \$3.2 million for MGE

Each of the Joint Applicants' acquisition have two principal components, which are embodied in an asset purchase agreement ("APA") and an engineering, procurement and construction ("EPC") agreement. The APA establishes a fixed price that Joint Applicants will pay for a defined set of assets, including land agreements, transmission interconnection rights, and permits. The EPC is a "turnkey" contract that sets a price for a defined scope of work; however, changes in scope due to conditions that cannot be known until construction starts may result in increases to the EPC contract price.

Despite Joint Applicants' performing significant due diligence when negotiating the purchase price, as engineering, design, and construction get underway there could be unanticipated scope changes or *force majeure* events through no fault of Joint Applicants that increase the cost to complete the Project. Therefore, Joint Applicants believe that it is reasonable for the Commission to authorize the 110% allowance.

In the recent solar project acquisition and construction projects authorized by the Commission, including Badger Hollow I and Two Creeks (Docket 5-BS-228), Badger Hollow II (Docket 5-BS-234), Paris (Docket 5-BS-254), Darien (Docket 5-BS-255), and Koshkonong (Docket 5-BS-258) the Commission addressed the legal question of whether Joint Applicants would need to seek a CPCN under Wis. Stat. § 196.491, in addition to a CA, to acquire projects for which a CPCN has been granted to Invenergy. The Commission stated the following:

*[U]nder the specific circumstances presented here, the proposed acquisition was appropriately considered under the CA standard... [T]he Commission's review of the proposed Solar Facilities in the CPCN dockets assessed all relevant site-specific factors required for approving construction of the Solar Facilities, and the CA process used here assessed all the relevant need, alternatives, and ratepayer impacts that would otherwise have been assessed in the CPCN dockets if the applicants had not been wholesale merchants.. . .<sup>4</sup>*

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<sup>4</sup> Final Decision, Dkt. 5-BS-228 (Apr. 18, 2019) (PSC REF# 364436) at 8.

Therefore, Joint Applicants are not requesting authorization under Wis. Stat. § 196.491 because the Commission has already granted the CPCN application for Saratoga and Ursa.<sup>5</sup> In this docket, Joint Applicants are seeking to acquire that CPCN as was issued. Joint Applicants recognize that they will be bound by the provisions of the Commission's Final Decision in Docket 9816-CE-100 and 9818-CE-100 as well as limitations on the developers' authority. Joint Applicants also agree to adopt, in these dockets, the reporting and disclosure requirements set forth in conditions 1 through 6 and condition 8 of this Commission's Final Decision in 5-BS-228<sup>6</sup> and other similar, recent dockets.

Finally, Joint Applicants submit that the proposed transactions are consistent with the public interest and should be approved. Joint Applicants ask the Commission to provide a written Order approving this request by September 1, 2025, which will allow Joint Applicants to acquire and construct the Solar Projects and secure its benefits for their customers.

#### **IV. JUSTIFICATION FOR TRANSACTION**

Each of Joint Applicants have a need for long-term capacity and energy. Due to the complementary timing of Joint Applicants' needs, they were able to take advantage of the scale and scope of the Solar Projects to achieve cost-saving efficiencies for the benefit of their respective customers. Each Joint Applicant evaluated the potential options for filling their needs independently as noted in confidential Appendices A (for Wisconsin Electric and WPSC) and B (for MGE).

For Wisconsin Electric and WPSC, the acquisition and construction of the Solar Projects is an important step to ensure compliance with pending EPA rules, meet load growth needs, and to continue their respective efforts to transition their combined generation fleet to support a clean, reliable future by investing nearly \$8 billion in low-cost and highly efficient and state-of-the-art natural gas generation, renewable generation and

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<sup>5</sup> See Final Decision, Dkt 9816-CE-100 (May 22, 2023) (PSC REF: 468825) and Final Decision, Dkt 9818-CE-100 (November 8, 2023) (PSC REF: 484867).

<sup>6</sup> Final Decision, Dkt. 5-BS-228 (Apr. 18, 2019) (PSC REF# 364436) at 21-22.

storage resources in Wisconsin. Overall, these clean energy investments will not only transition the combined Wisconsin Electric and WPSC generating fleet, and assist in reducing CO<sub>2</sub> emissions by 80% from 2005 levels by 2030, they are also expected to save customers over \$2 billion over the 20 years as compared to the available alternative. Saratoga specifically is expected to provide customers with net benefits of approximately \$37 million and Ursa with net benefits of approximately \$40 million, on a net present value basis.

For MGE, the Solar Projects represents further steps in its ongoing transition toward greater use of cleaner energy sources and deep carbon reductions. MGE expects to achieve carbon reductions of 80% by 2030, and the acquisition of Saratoga and Ursa will help the company achieve this goal in a cost-effective manner.

#### **A. Economic Analysis and Justification**

Joint Applicants recognize there are inherent risks and uncertainties that all utilities face when making long-term electric resource planning decisions in an environment that involves considerable change and uncertainty related to forecasting fuel costs, capital costs, technology advancements, environmental regulations, etc. However, based on each of the utilities' needs analysis, and the relative size of the Solar Projects for each of the Joint Applicants, they are confident that purchasing and constructing the Solar Projects is a prudent step to meeting each of the utilities' needs in a cost-effective manner.

In the near to medium term, the cost-effectiveness of the Solar Projects specifically, and utility-scale renewable energy resources more generally, are expected to be driven by reductions in the installed costs of solar PV and BESS systems; improvements in renewable technology performance in the form of increased capacity factors for wind and solar; and production and investment tax credits that are available now but will be gradually phased out in the coming years.

At the same time, renewable resources provide a hedge against uncertainty in future delivered fossil fuel costs while also serving to mitigate the potential risks and costs attributable to possible future regulation of CO<sub>2</sub> emissions as well as expected Environmental Protection Agency rules that are expected to further limit emissions from fossil-fueled electric generation facilities.

## **B. Utility Ownership Versus PPA**

One option to secure capacity would be to enter into a PPA with a developer. However, doing so would deprive customers of several important benefits of utility ownership. Acquiring and constructing the Solar Projects would permit customers to benefit from Joint Applicants' ability to: (1) avoid future site development costs; (2) hedge energy costs; and (3) avoid negative implications of a debt-structured PPA on Joint Applicants' balance sheets, and ultimately customer rates.

First, if Joint Applicants are permitted to own the Solar Projects, they will provide a continuous source of renewable energy and BESS capacity at least 30 years. This is optimal considering the challenges that utilities face in locating viable integrated solar and BESS sites and obtaining necessary land-use permits. Invenergy and Qcells have already located a site, obtained necessary permits, entered into interconnection agreements, and developed a plan to build the required infrastructure. Upon acquisition of the Solar Projects, all permits will be transferred to Joint Applicants. In the future, the facility could be reutilized to provide extended service without requiring an outlay of development costs, such as the costs incurred in obtaining Commission and transmission-provider approval for the site. Thus, the facility is preferable to a potential greenfield project that would require Joint Applicants to incur such development costs.

Second, permitting Joint Applicants to proceed with the Solar Projects would provide a hedge against an uncertain energy future. At the end of the solar panels' and/or BESS components' useful economic life, Joint Applicants could determine whether it would be more beneficial to install new solar panels, BESS components and inverters or take advantage of exceptionally inexpensive energy from the existing technology, albeit at a

lower output. By owning the facility, Joint Applicants would be able to control these decisions and customers would reap the economic benefits of any future redevelopment.

Finally, utility ownership would allow customers to avoid additional financing costs related to offsetting the negative impacts of the debt-like PPAs on Joint Applicants' balance sheets.

### **C. Choice of Project**

Because Joint Applicants' analysis identified integrated solar PV and BESS as the appropriate technology to meet the next tranche of their energy and capacity needs, Joint Applicants next sought to identify the appropriate integrated solar PV and BESS projects in which to invest. Joint Applicants are regularly approached by local, regional and national developers seeking to build utility-scale solar PV and BESS facilities. Joint Applicants focused on finding cost-competitive projects, at premier sites, offered by highly-experienced developers with track records of success in such projects. Saratoga and Ursa were identified as such projects, and Invenergy and Qcells were determined to be an appropriate partner based on their:

- Significant solar development experience;
- Effective land owner/public relations functions;
- Wisconsin permitting experience;
- Large utility-scale solar experience, including Joint Applicants' experience pursuing similar projects with Invenergy in the past;
- Identification of high quality Wisconsin site(s);
- Ability to obtain timely site control;
- Ability to proceed on schedule to achieve full PTC or ITC benefit;



- Ability to qualify for federal tax credits by meeting prevailing wage and apprenticeship requirements of the IRA;
- MISO queue position;
- Company longevity;
- O&M capabilities and experience;
- Remote monitoring capabilities;
- BESS experience; and,
- Lack of third party financing or foreign ownership.

#### **D. The Price of the Facility Is Competitive in the Market**

There is an active market for integrated solar PV and BESS projects and Joint Applicants evaluated Saratoga and Ursa, concluding that it is not only competitive within the market, but offers favorable economics based on Joint Applicants' evaluation of projects of comparable size available in the MISO Zone 2.

#### **E. The Acquisition Will Deliver Important Qualitative Benefits**

In addition to the Solar Projects quantifiable economic benefits, it will provide other benefits to customers by enhancing the technological and fuel diversity of Joint Applicants' electric generation resource portfolios. The addition of this no-fuel and zero emission resource will serve as a price hedge against future increases in fossil fuel costs and the cost of complying with future environmental regulations. Additionally, acquiring the Solar Projects will allow Joint Applicants and their customers to mitigate the risk of any future potential and currently unknown costs associated with fossil fueled electric generation facilities, including avoiding future costs that could be imposed due to carbon emission legislation on the dispatch of generation resources, taxes or other regulation over the life of the facility. In addition to the obvious economic and environmental benefits, the battery and solar combination also provide reliability

benefits. BESS provides frequency response and voltage support. In addition, BESS captures excess energy for discharge at a later point when the sun is not shining, thereby minimizing the need for additional transmission resources while also providing capacity, ramping capability, and voltage support during non-solar production.

## **V. RATE ANALYSIS**

As discussed above, using reasonable assumptions (described in confidential Appendices A - for Wisconsin Electric and WPSC - and B - for MGE), Joint Applicants forecast that acquiring and constructing Saratoga and Ursa as part of their long-term strategies to transition their generating fleets will result in customer savings over the life of these investments.

For Wisconsin Electric and WPSC, the Generation Reshaping Plan of which the Solar Projects are an important element, will not only aid in the continued transition of their combined generating fleet, but also meet growing energy and capacity needs while providing customers over \$2 billion of savings over the 20 years as compared to available alternatives. Furthermore, Saratoga specifically is expected to provide customers with net benefits of \$37 million and Ursa with net benefits of \$40 million, on a net present value basis.

## **VI. SIGNIFICANT CONTRACTS**

Joint Applicants have negotiated several of commercial contracts with Invenergy and Qcells that will allow them to acquire Saratoga's solar generating capacity and BESS and Ursa's Solar generating capacity respectively, as well as agreements among themselves that will govern their joint ownership of Saratoga and Ursa. Each of these agreements will be substantially similar to the agreements governing the arrangements for ownership and operation of the Badger Hollow solar, Two Creeks, as well as Paris, Darien, Koshkonong, and High Noon solar and BESS facilities.

Under the Saratoga APA, Joint Applicants will acquire project development rights for 150 MW of solar generating capacity and 50 MW of BESS capacity. The acquired assets will include transmission interconnection rights; the real property rights necessary to site Saratoga; all permits including the CPCN—as issued to Invenergy—and other federal, state and local permits; contracts relating to the ownership, leasing, licensing, construction, operation and maintenance of Saratoga; books and records; and any causes of action relating to Saratoga. Joint Applicants will acquire interests in Saratoga’s common facilities and other assets proportional to Joint Applicants’ shares of Saratoga’s total generating capacity.

Under the Ursa APA, Joint Applicants will acquire project development rights for 200 MW of solar generating capacity. The acquired assets will include transmission interconnection rights; the real property rights necessary to site Ursa; all permits including the CPCN—as issued to Qcells USA—and other federal, state and local permits; contracts relating to the ownership, leasing, licensing, construction, operation and maintenance of Ursa; books and records; and any causes of action relating to Ursa. Joint Applicants will acquire interests in Ursa’s common facilities and other assets proportional to Joint Applicants’ shares of the Ursa’s total generating capacity.

Receipt of Commission approval of this application, including Joint Applicants’ acquisition of the CPCNs and other necessary governmental approvals, will be a precondition to closing on the acquisition of Saratoga and Ursa.

To address construction of Saratoga and Ursa, Joint Applicants are negotiating EPC agreements with Invenergy and Qcells, respectively. Under these contracts, Invenergy will construct Saratoga and Qcells will construct Ursa, respectively, according to specifications approved by Joint Applicants.

Joint Applicants are also negotiating Operations and Maintenance (“O&M”) Agreements with Invenergy Services for Saratoga and Qcells for Ursa, respectively. Under these

agreements, Invenergy Services and Qcells will provide the vast majority of day-to-day O&M services for the facility.

The EPC and O&M Agreements will be between Invenergy or Qcells and Wisconsin Electric, and Wisconsin Electric will act as the agent for Wisconsin Electric, WPSC and MGE under these agreements.

Finally, Joint Applicants will jointly own and operate Saratoga and Ursa under a Joint Ownership Agreement.

Joint Applicants expect to close on the APA (*i.e.* purchase the Project development rights) and execute the EPC and Operations and Maintenance agreements upon receiving Commission approval.

## **VII. OTHER CONSIDERATIONS**

### **A. Benefits to the Local Community**

Local communities will benefit from Wisconsin shared revenue payments received by the towns and county where Saratoga and Ursa are located. Further, the Solar Projects will boost employment, both during and after construction.

### **B. Wisconsin Environmental Policy Act**

This action is subject to the terms of the Wisconsin Environmental Policy Act, Chapter 274, section 1, laws of 1971 and Wis. Stats. § 1.11. The proposed acquisition is categorized as a Type III action under § PSC 4.10(3), Wis. Admin. Code. Type III actions are proposed actions that do not have the potential to significantly affect the quality of the human environment within the meaning of Wis. Stat. § 1.11 (2)(c). As such, Type III actions do not normally require the preparation of an Environmental Assessment or Environmental Impact Statement by Commission staff. See Wis. Admin. Code, Ch. 4, Table 3 (listing "Purchase, sell or transfer utility property" as a Type III Action). Therefore, environmental screening information is not included with this application. In any event, the Project developer has already received the required CPCN, which included a full consideration of environmental issues.

### **C. Energy Priorities Law**

Wis. Stat. § 196.025(1)(ar) states:

"to the extent cost-effective, technically feasible and environmentally sound, the Commission shall implement the priorities under § 1.12 (4) in making all energy-related decisions and orders." Wis. Stat. § 1.12 (4) establishes the following priorities:

- (4) PRIORITIES. In meeting energy demands, the policy of the state is that, to the extent cost-effective and technically feasible,

options be considered based on the following priorities, in the order listed:

- (a) Energy conservation and efficiency.
- (b) Noncombustible renewable resources.
- (c) Combustible renewable energy resources.
- (cm) Advanced nuclear energy using a reactor design or amended reactor design approved after December 31, 2020, by the U.S. Nuclear Regulatory Commission.
- (d) Nonrenewable combustible energy resources in the order listed:
  - 1. Natural gas.
  - 2. Oil or coal with sulfur content of less than 1 percent.
  - 3. All other carbon-based fuels.”

Wis. Stat. § 196.025(1)(b)1. further provides: “In a proceeding in which an investor-owned electric public utility is a party, the commission shall not order or otherwise impose energy conservation or efficiency requirements on the investor-owned electric public utility if the commission has fulfilled all of its duties under § 196.374 and the investor-owned electric public utility has satisfied the requirements of § 196.374 for the year prior to the commencement of the proceeding, as specified in § 196.374(8).”

Joint Applicants have satisfied all the requirements of Wis. Stat. § 196.374(8). Therefore, the Commission may not require energy efficiency or conservation in connection with the Solar Projects. Saratoga and Ursa are noncombustible renewable

resources, which is the second-highest energy priority, and energy conservation and efficiency would be insufficient to offset the need for capacity demonstrated in Appendices A and B. Thus, Joint Applicants' acquisition and construction of Saratoga and Ursa satisfies Wisconsin's Energy Priorities Law.

#### **D. Brownfield Site Consideration**

Joint Applicants are not aware of any Wisconsin brownfield sites that would be of sufficient size and would meet the siting criteria for land and electric infrastructure for this Project.

#### **E. Affiliated Interest Issues**

The Solar Projects will require a GIA with American Transmission Company, LLC ("ATC"). While the GIA will be a jointly-owned asset, a GIA with ATC can only have one counterparty, which will be Wisconsin Electric as project manager. Because ATC is an affiliate of Wisconsin Electric, under Wis. Stat. § 196.52(3), this arrangement will require Commission approval as an affiliate transaction, which will be requested in a separate application.

The Solar Projects will also require Joint Ownership Agreements between Joint Applicants. Because Wisconsin Electric and WPSC are affiliates, under Wis. Stat. § 196.52(3), these arrangements will require Commission approval as an affiliate transaction, which will be requested in a separate application.

#### **F. Effect on Wholesale Energy Competition**

Construction of the Solar Projects will have no effect on wholesale market competition. The Solar Projects are located in the MISO energy market, which includes over 130,000 MW of generation. Saratoga consists of 150 MW of solar generation and 50 MW of BESS capacity and Ursa consists of 200 MW of solar generation. The amount of generation owned by Joint Applicants will actually be reduced in coming years because Wisconsin Electric has announced the retirement of [REDACTED] MW<sup>7</sup> of capacity at

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<sup>7</sup> Measured on an ICAP basis, the UCAP value is [REDACTED] MW

the Oak Creek Power Plant units, WPSC has an ownership interest in the Columbia Power Plant, and Wisconsin Power and Light as the principal owner, has announced the expected retirement of this facility in mid-2026, which will eliminate [REDACTED] MW<sup>8</sup> of capacity for WPSC. Likewise MGE plans to retire over 250 MW of capacity through a combination of expiring PPAs and retirements of older, legacy assets.

### **G. Decommissioning and Restoration**

As required under the CPCNs, decommissioning will include removal of posts and foundations to four feet below grade. Underground cables will likely be left in place because removing them would cause more disruption to the land than abandoning them in place. The land used for the solar PV, BESS and associated equipment will be restored to its original condition. Roads may be left intact at the landowner's request, or they may be removed.

Restoration typically includes grading and replanting areas where foundations, roads and buildings were located after they have been removed. If a secondary market for the used equipment is not available, it would be typical for the equipment to be sold as scrap where possible.

Joint Applicants estimate the cost of decommissioning the solar PV and BESS equipment will be negligible, net of scrap value. Joint Applicants will perform and submit to the Commission a decommissioning study within one year of construction being completed.

### **H. Method of Financing**

The cost of the Solar Projects will be met from internal sources or the issuance or sale of securities by each of Joint Applicants.

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<sup>8</sup> Measured on an ICAP basis, the UCAP value is [REDACTED] MW.



**VIII. SCHEDULE**

September 30, 2024

- File Application with Commission

September 1, 2025:

- Receive Commission authorization and written Order

September 30, 2025:

- Close on acquisition of the Solar Projects and execute Engineering, Procurement and Construction and Operations and Maintenance Agreements
- Commence construction.

December 31, 2026:

- Ursa begins Commercial Operation

May 31, 2028:

- Saratoga begins Commercial Operation

**IX. CONCLUSION**

As explained in this Application, the Solar Projects will provide a zero-fuel-cost, zero-emission capacity and energy resources for Joint Applicants' customers for many years to come. The Solar Projects represents the most cost-effective means of meeting Joint Applicants' long-term capacity needs, and utility ownership of Saratoga and Ursa that will deliver value to customers.

As such, Joint Applicants request that the Commission grant the necessary approvals under Wis. Stat. § 196.49(3)(b) and any other necessary consents and approvals, including:

- 1) Authorizing Joint Applicants to acquire Saratoga and Ursa and include the acquisition and construction costs, inclusive of AFUDC on 100% of the CWIP balance, in rate base;
- 2) Authorizing the affiliate transactions between Wisconsin Electric and ATC for interconnecting Saratoga and Ursa to the transmission system; and.

- 3) Authorizing the affiliate transactions between Wisconsin Electric and WPSC for Joint Ownership and Operating Agreements.

Joint Applicants request a written Order including these requested approvals by no later than September 1, 2025 in order to allow commercial operation to be achieved for Saratoga by the end of May 2028 and Ursa by the end of December 2026 so that the facilities can be used to meet Joint Applicants' need requirements for starting with the second half of the MISO 2026 / 2027 Capacity Planning Year. Applicants further note that the developers would only guarantee its pricing and other terms within each APA and EPC agreement until September 30, 2025. If a written order allowing the acquisition is not issued by September 1, 2025, there is a significant risk that construction costs will increase, causing the costs for this project borne by ratepayers (if the acquisition is approved) to be increased.