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**BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN**

Application of Madison Gas and Electric
Company for Authority to Adjust
Electric and Natural Gas Rates

Docket 3270-UR-125

**DIRECT TESTIMONY OF BRIAN E. PENINGTON
ON BEHALF OF APPLICANT**

Q. Please state your name, title, and business address.

A. My name is Brian E. Penington. My job title is Director Rates at Madison Gas and Electric Company, and my business address is 623 Railroad Street, Madison, Wisconsin 53703.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of Madison Gas and Electric Company (MGE or the Company).

Q. Please describe your educational and professional background as it relates to this proceeding.

A. I have 27 years of utility experience. I became the Director Rates at MGE in March 2022. In this role, I advise senior leadership on regulatory strategy and policies and collaborate with customers, regulatory staff, and related stakeholders to address evolving industry initiatives. I have extensive experience managing electric and gas rate-making functions in retail and wholesale jurisdictions. I was previously employed by Alliant Energy or its WPL subsidiary for 22 years in regulatory relations and pricing roles. Prior to this, I was employed for three years by Wisconsin Public Service Corporation as a market-side forecaster. I received a Bachelor of Science degree in Economics from Northern Illinois University.

1 **Q. Have you testified in previous cases before the Public Service Commission of Wisconsin**
2 **(Commission)?**

3 A. Yes.

4 **Q. What is the purpose of your direct testimony and the associated exhibits that you are**
5 **sponsoring?**

6 A. My testimony will introduce new offerings, program alternatives, and pricing updates for
7 Commission consideration. My testimony will include exhibits I prepared for each of the
8 following topics, including:

9 1. Energy Customer Assistance Program - A new energy customer assistance program
10 to assist with energy burden and energy efficiency opportunities for qualified customers. Ex.-
11 MGE-Penington-1 provides additional information associated with this topic.

12 2. Rate Schedule Pg-2 Update - A plan to align the energy purchase price for future
13 interconnected generation that would otherwise take service under Rate Schedule Pg-2 with
14 the Commission decision issued in Docket No. 3270-TE-114 in 2022. As a part of this plan,
15 MGE proposes the Commission approve a supplemental Solar Incentive Provision to assist
16 with a smooth transition for future parallel generation adopters. Ex.-MGE-Penington-2
17 provides additional information associated with this topic.

18 3. A new voluntary Renewable Natural Gas service option for customers seeking to
19 decrease their carbon footprint. Ex.-MGE-Penington-3 provides additional information
20 associated with this topic.

21 4. Adjustments to the MGE Connect[®] program to realign availability and incentive
22 payments, expand availability to Cg-5 customers, and identify additional options for income-
23 qualified customers. The proposed update also introduces a rate structure for a controlled
24 water-heating option. Ex.-MGE-Penington-4 provides additional information associated with

1 this topic.

2 5. Increase the availability of MGE's Renewable Flat Rate Bill. Ex.-MGE-Penington-5
3 provides additional information associated with this topic.

4 6. An update to the Streetlighting tariff to reflect MGE's transition to LED-only lighting
5 as the Company standard. Ex.-MGE-Penington-6 provides additional information associated
6 with this topic.

7 7. An update to the Backup Generation Service Rider (Schedule BGS) to reflect current
8 program costs. Ex.-MGE-Penington-7 provides additional information associated with this
9 topic.

10 8. An update to the Green Power Tomorrow program to reflect the embedded
11 renewable generation in MGE's energy resource mix. Ex.-MGE-Penington-8 provides
12 additional information associated with this topic.

13 9. Electric vehicle charging updates. For the public charging tariff (Rate Schedule
14 EV-2), MGE proposes to shift from a time-based rate to a per-kilowatt-hour rate structure.
15 The update also proposes administrative adjustments in Rate Schedule EV-3. Ex.-MGE-
16 Penington-9 provides additional information associated with this topic.

17 Energy Customer Assistance Program

18 **Q. Please outline MGE's current energy customer assistance programs.**

19 A. MGE supports a wide range of energy assistance programs to help customers with their
20 energy costs. These resources are targeted toward low-income customers who are unable to
21 cover basic living needs to protect their well-being during cold winters and hot summers. In
22 recent years, the energy assistance programs have provided approximately \$7.6 million in
23 assistance for approximately 24,000 MGE households annually. MGE's customers receive
24 payment assistance through the following programs: the Wisconsin Home Energy Assistance

1 Program, the Keep Wisconsin Warm/Cool Fund, the Low-Income Case Management
2 Arrearage Reduction Program and Customer Services Plus Program (LIMARP CS+),
3 community partnerships and one-time funding, and customer payment programs.

4 The Wisconsin Home Energy Assistance Program (WHEAP) is funded through both the
5 federal Low-Income Home Energy Assistance Program (LIHEAP) and Wisconsin's Public
6 Benefits Energy Assistance program. WHEAP represents the majority of customer assistance
7 at approximately \$4 million annually. Regular benefits can be received for electric bill
8 assistance as a one-time annual payment intended to pay a portion of a household's
9 electricity cost or heating assistance as a one-time annual payment intended to pay a portion
10 of a household's heating costs. WHEAP also includes crisis assistance that is usually for those
11 customers who have already received regular benefits but are facing disconnection or are
12 currently disconnected. These crisis dollars only apply to the non-heating electric usage.

13 The Keep Wisconsin Warm/Cool Fund (KWWCF) is a statewide non-profit charitable
14 organization that was established in 1996 to keep the heat and power on for thousands of
15 Wisconsinites most vulnerable in crisis. Ninety-five percent (95%) of those helped by the
16 fund are veterans, elderly, disabled, or working families with young children. This program
17 provides a safety survival net, offering grants and services where government funds are not
18 available or fall short in meeting the needs of those most vulnerable in crisis. In recent years,
19 the KWWCF has provided approximately \$500,000 in annual assistance to MGE customers.

20 **Q. Are there other MGE-specific programs that provide customer assistance?**

21 A. Yes. MGE has several specific programs that are designed to provide supplemental assistance
22 to its customers and to help customers avoid falling behind on bills. The LIMARP CS+ is a
23 collaborative agreement between MGE and Energy Services, Inc. (ESI), to provide energy
24 assistance to low-income customers. The LIMARP CS+ program focuses on improving overall

1 household financial management and mitigating recurring bill payment problems; it is a
2 preventative and proactive approach to identify customers in need prior to their arrears
3 becoming insurmountable. ESI reports a high success rate (60% to 70%) for completion of the
4 program. In 2022, there were only 15 defaults out of the 746 people who completed the
5 program. LIMARP CS+ serves as a multiplier as well as an opportunistic connection to
6 supplemental assistance. In the last two years, LIMARP CS+ has connected MGE customers to
7 over \$1.5 million in assistance annually.

8 Community partnerships and opportunistic one-time funding provide additional
9 openings for assistance. For example, in the 2020-2021 period, an additional \$1.5 million
10 federal lump-sum assistance payment was received as additional assistance during the
11 pandemic. Furthermore, assistance is received through Housing and Urban Development
12 (HUD, approximately \$100,000; CDA, approximately \$500,000). At the local level, MGE also
13 works with United Way, St. Vincent de Paul, Joining Forces for Families, Catholic Charities,
14 Jewish Social Services, Porchlight, Middleton Outreach Ministry, and other charitable
15 entities. In addition to this, the MGE Energy Fund was established in 1985 to help support
16 individuals and families experiencing financial hardship who are unable to cover their basic
17 living needs. Approximately 300 families are helped every year by this fund, with donations
18 coming directly from fellow MGE customers, shareholders, and employees.

19 MGE also provides customer payment programs to assist with energy costs. Deferred
20 payment agreements can be made that allow a customer to pay his or her outstanding bills
21 over time to avoid disconnection. Customers can also enroll in budget billing to pay a
22 consistent energy bill amount each month based on historical consumption.

23 **Q. Please summarize eligibility for current energy assistance funds.**

24 A. ESI assists MGE's customers with the initial application process, reviews potential eligibility

1 for programs, and ultimately helps to administer the process for customers (from application
2 to assistance payments posting to their accounts.) Most programs associate assistance
3 eligibility with LIHEAP income guidelines, meaning that most energy assistance programs are
4 generally available to households with income less than 60% of the state median income
5 guidelines.

6 An exception is KWWCF, which provides expanded availability for a higher threshold of
7 up to 80% of state median income guidelines. Notably, MGE load research finds that the
8 energy burden (a ratio of income to MGE billings) for KWWCF recipients continues to be over
9 double that of the average MGE customer, even after utilizing current assistance funds.
10 KWWCF participation is a reoccurring cycle. ESI has indicated that approximately 40% of
11 KWWCF recipients have received assistance on more than one occasion in the 2019-2023
12 time period.

13 **Q. Please describe MGE's proposed Energy Customer Assistance Program.**

14 A. MGE is proposing a pilot Energy Customer Assistance Program (ECAP) for qualified residential
15 customers. ECAP will also connect participants with energy efficiency program opportunities.
16 MGE proposes to initially make the ECAP available to MGE electric and natural gas customers
17 that receive benefits through the KWWCF program. Participants will receive an incentive and
18 will be informed of opportunities to participate in energy efficiency programs.

19 Customer engagement will be initiated through MGE's partnership with ESI. ESI
20 validates applicant eligibility requirements associated with KWWCF assistance. This uniquely
21 helps identify assistance opportunities above LIHEAP thresholds and addresses supplemental
22 assistance for customers experiencing a higher energy burden. ESI will notify MGE when
23 customers are receiving KWWCF benefits, and the same customers will then be enrolled into
24 the ECAP. Once enrolled in the ECAP, MGE will contact participating customers about energy

1 efficiency opportunities, including but not limited to:

- 2 • Focus on Energy (FOE) SEE kit: The kits are free and ordered online. The kits contain
3 energy-saving products, including LED light bulbs, pipe insulation, low-flow
4 showerhead, sink aerators, smart power strip, etc. Customers are eligible to receive
5 one per household per calendar year.
- 6 • Customers can receive free LED light bulbs from MGE and installation: An ECAP
7 customer with incandescent light bulbs can replace all lighting with free bulbs from
8 MGE. MGE can order bulbs through FOE.
- 9 • Joining MGE Connect: An ECAP customer with a Wi-Fi-connected smart thermostat can
10 enroll in MGE connect and receive an initial \$25 enrollment incentive. The customer
11 would be eligible for up to an additional \$25 annual incentive as discussed in greater
12 detail later in my testimony.
- 13 • Energy audit through weatherization: Some ECAP participants may be able to have an
14 energy audit through Project Home, resulting in possible energy improvements.
- 15 • Emergency furnace or air-conditioning program: Energy assistance recipients are
16 eligible for the emergency furnace or air-conditioning program. Should the customer's
17 furnace or air conditioner need repair or replacement, the customer can get the repair
18 work done or the new equipment through this program. This may provide another
19 opportunity to interact with the MGE Connect smart thermostat option.
- 20 • Dane County Minor or Major repair program (funded by the Dane County Community
21 Development Block Grant Program) and City of Madison Minor or Major repair program
22 (funded by the City of Madison Community Development): MGE currently has a
23 number of smart thermostats that could be provided to participating homeowners for

1 free.

- 2 • The Major repair program: Both the Dane County Rehabilitation Program (DCRP) and
3 the City of Madison Rehabilitation Program provide a 0% interest, deferred-payment
4 loan program available through Project Home that can assist with certain efficiency
5 projects.

6 **Q. How long is MGE seeking authorization to run the ECAP pilot program?**

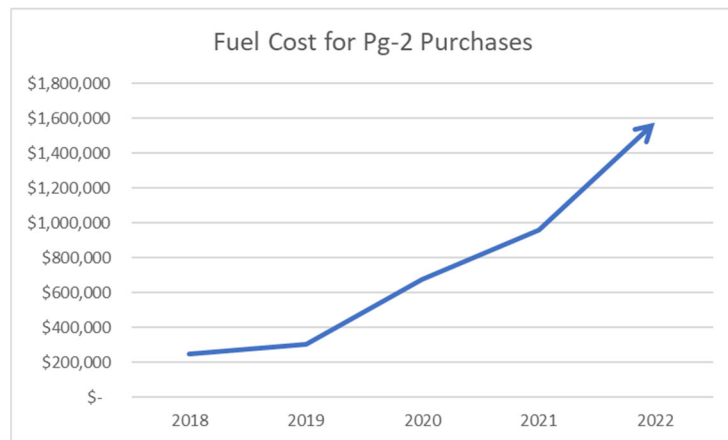
7 A. MGE is requesting an initial four-year pilot period. The timeline allows for an initial period to
8 get the program established and subsequently study the net impact on arrears management,
9 uncollectibles, efficiency program participation, and customer savings. Individual customer
10 participation would end after a year, and each customer can be re-enrolled should they
11 qualify through the ESI application process for future KWWCF eligibility. The program
12 availability will be limited to 2,000 new ECAP enrollments in any single calendar year. MGE is
13 not requesting escrow accounting and is not aware of KWWCF participation historically
14 exceeding 1,800 customers. Credits under the program will be equivalent to \$6 each month,
15 or \$72 annually, for each household. The annual incentive costs based on estimates for 1,500
16 enrolled participants is \$108,000. Ex.-MGE-Penington-1, Schedules 2 and 3, contain proposed
17 tariff language that addresses additional administrative details associated with the program.

18 MGE is only requesting recovery for estimated ECAP incentive credits paid under this
19 pilot program. MGE believes that by leveraging existing ESI, energy efficiency organization
20 partnerships, and the Company's billing system capabilities, MGE can manage the
21 incremental program administrative costs to result in a minimal impact to other customers.
22 Thus, MGE is not requesting recovery of other supplemental administrative costs.

1 Rate Schedule Pg-2 Update

2 **Q. Please provide a summary of Rate Schedule Pg-2 purchase power expenses.**

3 A. Rate Schedule Pg-2 is a net-metering tariff option available to MGE customers with
4 interconnected generation sized up to 100 kW-AC. This is the current service option typically
5 used for residential and small business customers that have interconnected a solar array
6 behind the utility meter. The customer experience with this Rate Schedule Pg-2 service
7 option is generally that all generation and consumption nets for the billing month at the
8 same per-kilowatt-hour (kWh) rate, utilizing the MGE system as a virtual bank or battery.
9 From a cost-accounting perspective, MGE records the excess energy out-flowing from the
10 customer as a kWh sale, and that sale is recorded as a purchase power energy fuel cost for all
11 other MGE customers to pay. As more customers have installed solar systems in recent
12 years, this fuel expense for MGE's customers has been growing rapidly. In 2022, the cost was
13 \$1,576,156 at an effective purchase power expense of \$148/Mwh from approximately 2,100
14 customers. These costs for the excess energy sold to MGE is modestly forecasted to be \$2.1
15 million in Test Year 2024.



16 **Q. How does Rate Schedule Pg-2 compare to the cost treatment under MGE Rate**
17 **Schedule Pg-1?**

18 A. It is more expensive for MGE's customers to purchase excess energy from a solar array under

1 Rate Schedule Pg-2 as compared to purchasing excess energy from a solar array under Rate
2 Schedule Pg-1. In Docket No. 05-EI-157, the Commission undertook an extensive policy
3 review of how the Wisconsin investor-owned utilities should value energy purchases from
4 customer generation. Then, in Docket No. 3270-TE-114, the Commission applied the
5 principles learned in Docket No. 05-EI-157 to MGE's tariffs. As a result, the excess solar
6 energy under Rate Schedule Pg-1 is compensated at approximately \$75/Mwh, which is
7 significantly lower than the \$148/Mwh average compensation paid under Rate Schedule
8 Pg-2. In other words, other MGE customers are paying twice as much, or close to a \$1 million
9 premium for this energy, and the premium cost to MGE's other customers is growing rapidly.

10 **Q. Does MGE believe the costs paid by MGE's non-solar array customers will increase?**

11 A. Yes. There are several reasons to believe that the pace of the costs will continue to increase
12 in the coming years. First, the average size of systems is increasing. The average size of all
13 installed residential systems at the end of 2018 was 4.7 kW; by the end of 2022, the average
14 size of all installed residential systems had increased to 6.0 kW. Second, the number of
15 participating customers is increasing. By the end of 2022, there were a total of approximately
16 2,100 customers taking service under Rate Schedule Pg-2. MGE anticipates 350 to 400 new
17 participants each year moving forward. Third, incentives for customer-owned resources have
18 recently increased as the Inflation Reduction Act expanded solar investment tax credit
19 opportunities through 2032 and at a higher 30% tax credit rate. Additional analysis can be
20 found in Ex.-MGE-Penington-2, Schedule 1.

21 Thus, it is reasonable to align payment for future sales from customer-owned
22 generation facilities in a way that is consistent with the Commission's decision on solar buy-
23 back valuation in Docket No. 3270-TE-114. This will ensure that excess solar energy produced
24 by MGE's customers and sold to MGE will be compensated at the same level when purchased

1 by the Company on behalf of all customers.

2 **Q. Does MGE propose to change Rate Schedule Pg-2?**

3 A. Yes. MGE is proposing, over a period of time, to transition the availability of Rate
4 Schedule Pg-2 to new customer interconnections and to standardize new customer
5 interconnections for net metering under the recently Commission-approved Rate
6 Schedule Pg-1. Existing Pg-1 customers are not impacted by this proposal.

7 MGE proposes a few administrative changes to accommodate the proposed transition
8 period. This transition would include three milestones: (1) Interconnection applications
9 received on or before March 31, 2024, will continue to qualify for service under the
10 appropriate Rate Schedule Pg-2; (2) For applications received on or before March 31, 2024,
11 the installation and interconnection must be completed on or before December 31, 2024, to
12 qualify for service under Rate Schedule Pg-2; and (3) Interconnection applications not
13 meeting the milestones in Steps 1 and 2 will not be eligible for service under Rate Schedule
14 Pg-2 and will take service under Rate Schedule Pg-1.

15 The extended transition period intends to balance the anticipated schedule for this rate
16 proceeding. MGE believes that by proposing this clarity on the Company's recommendation
17 now, it can remove uncertainty for 2023 solar interconnections and allows for a balanced
18 window of transition in 2024 once the Commission's decision is made later this year.

19 Proposed language for the revised Rate Schedule Pg-2 can be found in Ex.-MGE-Penington-2,
20 Schedule 2.

21 **Q. As part of this transition, is MGE proposing to grandfather existing Pg-2 customers?**

22 A. Yes. MGE has not proposed adjustments impacting MGE customers that are currently taking
23 service under Rate Schedule Pg-2. Under MGE's proposal, it is estimated that close to 2,600
24 customers will be taking service under Rate Schedule Pg-2 before it would become standard

1 practice to take service under Rate Schedule Pg-1.

2 **Q. Does MGE have any additional concepts for Commission consideration as a part of this**
3 **transition plan?**

4 A. Yes. As an additional part of this transition, MGE asks that the Commission consider a Solar
5 Incentive Provision (SIP) for new installations under Rate Schedule Pg-1 that would have
6 otherwise qualified for the unavailable Rate Schedule Pg-2 tariff. Under this SIP structure,
7 MGE would provide a \$200 credit per kW-AC for a customer solar installation upon
8 completion of the interconnect process. The credit would be capped at a maximum 5 kW-AC
9 for an individual customer and with a maximum of 400 customers per year. This credit would
10 be booked as a customer assistance expense for other MGE customers. The credit would
11 assist at the time a customer is incurring solar installation costs and improve the customer's
12 perceived break-even for a rooftop solar investment. This would also allow future rate
13 decisions to more nimbly navigate intergenerational grandfathering transitions, all while
14 enabling simplicity, transparency, and greater consistency with cost treatment under Rate
15 Schedule Pg-1.

16 For example, with 400 new customer installations at 5 kW each, MGE would generally
17 estimate more than \$100,000 in annual fuel savings by transitioning to Rate Schedule Pg-1,
18 offset by \$400,000 in installation incentives expense. Over time, this net difference between
19 the SIP and purchasing generation under Rate Schedule Pg-1 would generally place MGE
20 customers in a more favorable cost position in less than five years in comparison to Rate
21 Schedule Pg-2.

22 This proposed tariff language for the SIP is available in Ex.-MGE-Penington-2,
23 Schedule 3.

1 Renewable Natural Gas Service Option

2 **Q. Please describe MGE's proposed Renewable Natural Gas option.**

3 A. MGE is proposing to offer a new voluntary Renewable Natural Gas service option for
4 customers who wish to support the procurement of renewable natural gas (RNG). An
5 increasing number of MGE natural gas customers have expressed an interest in procuring
6 natural gas that is derived from organic waste streams. This offering is proposed as a natural
7 gas service rider and will not otherwise impact the costs for service under any other natural
8 gas tariff.

9 To initiate this RNG program, MGE will procure renewable thermal certificates via a
10 market transaction. The renewable thermal certificates will likely not be associated with the
11 purchasing of natural gas commodity itself. The renewable thermal certificates will be
12 directly associated with a biogas resource; for example, source types could include but are
13 not limited to landfill, livestock operation, or wastewater treatment facilities. The renewable
14 thermal certificates will be retired on behalf of the participating customer and verified by a
15 third party. The service pricing will also incorporate modest administrative cost recovery as
16 shown in greater detail in Ex.-Penington-3, Schedule 2. This service is very similar to the
17 renewable energy programs available to electric customers under Rate Schedules RWE-1 and
18 BWE-1. A proposed tariff can be found in Ex.-MGE-Penington-3, Schedule 1.

19 As a part of initiating this program, MGE will not procure the renewable thermal
20 certificates until the program has been approved by the Commission. MGE will file an
21 updated tariff, likely in the first quarter of 2024, to update for final tariff pricing prior to
22 opening the availability of service to customers.

1 MGE Connect Update

2 **Q. Please describe the program updates for the Bring Your Own Device rate schedule.**

3 A. MGE markets the Bring Your Own Device Service Rider (Rate Schedule BYOD-1) to customers
4 as the MGE Connect program. The tariff initially became available at the beginning of 2021.
5 The program focuses on thermostat control opportunities to manage costs, demands, and
6 shifting energy use by controlling smart thermostats. MGE expects the program to grow to
7 approximately 6,000 customer devices by the end of 2023 and is planning for at least 1,000
8 customers annually following that. MGE continues to explore additional controlling
9 opportunities for behind-the-meter devices, such as connected water heaters, smart
10 inverters, consumer-scale battery storage, and other nascent technologies. The concepts and
11 technology of demand flexibility and grid orchestration continue to mature each year, and
12 MGE wishes to stay on the forefront to provide its customers the best possible customer
13 experience.

14 **Q. Please describe the program updates for the Bring Your Own Device rate schedule.**

15 A. MGE is proposing five updates to Rate Schedule BYOD-1. The proposed tariff updates are
16 shown in Ex.-MGE-Pennington-4, Schedule 1. The updates are summarized as follows:

17 1. MGE proposes to expand availability of the program to Rate Schedule Cg-5, thus
18 enabling an opportunity for small commercial customers to participate in the program.

19 2. The current tariff emphasizes the summer period as a time for typical program
20 enrollment and when controlling events would occur. MGE has proposed several edits to
21 broaden that language, with the possibility of extracting more value from non-summer
22 events.

23 3. MGE proposes language that will enable future flexibility for MGE to leverage the
24 billing system for processing the incentive payments.

1 4. The revised incentive language also provides opportunities to work with customers
2 on alternative means for receiving the incentive. For example, MGE is already working to use
3 program incentives to buy down the initial costs for a smart thermostat and make the Bring
4 Your Own Device long-term incentives more accessible to income-qualified customers.

5 5. MGE proposes to add two additional options for device control; e.g., for electric
6 resistance and heat pump water heaters. The options present the similar control, crediting,
7 and operating limitations as the current controlled smart thermostat option. The water-
8 heating options have a higher number of hours in anticipation of more frequent intraday
9 cycling events. The option associated with heat pump technology has a lower credit due to
10 lower controllable demand. At this time, the options are being introduced with a waiting list
11 option only until certain technical hurdles for implementation can be addressed. MGE will
12 use this standby list as one point of information to further develop the program option. MGE
13 will also continue to work on developing an appropriate controlling interface and anticipates
14 more articulated plans for this aspect of the service in 2023.

15 Renewable Flat Rate Bill

16 **Q. Does MGE propose changes for the Renewable Flat Rate Bill pilot program?**

17 A. Yes. The program was originally approved to be available to 30 customers. MGE made a very
18 modest initial marketing effort and achieved 18 participants, and initial customer satisfaction
19 surveys and re-enrollment suggest a positive customer reception and experience. However,
20 it is impractical to develop marketing for such a small pool of customers and expect to have
21 statistically sound results for further program development. MGE requests that the pilot
22 availability be expanded to 200 customers. The proposed tariff changes can be found in Ex.-
23 MGE-Pennington-5, Schedule 1.

1 LED Streetlighting Standard

2 **Q. Does MGE propose changes for General Streetlighting Service, Rate Schedule GSL-1?**

3 A. Yes. MGE proposes to update the rate schedule so that light-emitting diode (LED)
4 technologies are the only options available for future installation and to close the availability
5 of the non-LED technologies to new installations and replacement of fixtures at existing
6 installations. Customers will continue to have options to own and maintain their own
7 fixtures, although MGE is not aware of any requests for non-LED lighting from the
8 municipalities it serves. The change is being made in part for practical reasons, as it becomes
9 increasingly difficult to procure non-LED technologies, and streamlining the number of
10 lighting options can bring greater efficiencies to operations. In practice, MGE will plan to
11 replace on failure strategy, including for bulb replacement. MGE would also make
12 replacement decisions to manage consistent lighting quality with nearby fixtures (e.g.,
13 replacing the last non-LED fixture on a street prior to the fixture's failure.) This would set a
14 general expectation that MGE will have the vast majority of fixtures converted to LED in the
15 next five to ten years. The proposed tariff changes can be found in Ex.-MGE-Penington-6,
16 Schedule 1.

17 Backup Generation Service Rider Update

18 **Q. Does MGE propose changes to its Backup Generation Service Rider (Schedule BGS)?**

19 A. Yes. MGE proposes a 3.2% increase to the current firm demand rate for Schedule BGS.
20 Specifically, the current rate of \$0.09863 per kW per day will increase to \$0.10179 per kW
21 per day for all new contracts and any renewals of existing contracts. This change is primarily
22 due to an increase in total capital and operating and maintenance costs offset by an increase
23 in the value MISO assigned to the generation capacity in the Schedule BGS program.
24 Additional support for this adjustment can be found in Ex.-MGE-Penington-7, Schedule 1.

1 Green Power for Tomorrow Updates

2 **Q. Does MGE propose updates for the Green Power Tomorrow program?**

3 A. Yes. MGE offers two tariffs (Rate Schedule RWE-1, Residential Renewable Energy Program,
4 and Rate Schedule BWE-1, Business Renewable Energy Program) that are marketed as the
5 Green Power Tomorrow (GPT) program. The GPT program is as an easy step for customers to
6 advance renewable energy and tailor program participation to their individual carbon
7 reduction goals. Customers have two GPT service options: (1) pay for a fixed kWh amount or
8 (2) pay based on a fixed percentage of their kWh usage.

9 MGE proposes to add a third customer option. This new option would automatically
10 tailor a customer's percentage participation to account for the percentage of MGE's energy
11 portfolio that is served by renewable resources. For example, a participant under the option
12 could have 25% of their usage served by renewable resources in MGE's "standard resource
13 portfolio" and then the customer would have 75% of their energy use subject to the
14 \$0.01/kWh incremental energy charge under the GPT program. The portion served by the
15 standard resource portfolio will be displayed on the customer's bill, and MGE will retire
16 renewable energy credits associated with this amount. In subsequent years, as the
17 percentage of renewables in the standard portfolio increases, the percentage of GPT
18 program purchased will decrease. Notably, the new option only contemplates full GPT
19 program participation. MGE's current program participants at the 100% level will be
20 transitioned to this new option. For administrative efficiency, the percentage of usage served
21 by renewable resources in MGE's standard resource portfolio will be a prospective estimate
22 to be updated in the tariff by MGE and will not be trued-up to actual values. Proposed Rate
23 Schedule RWE-1 and Rate Schedule BWE-1 updates associated with this program can be
24 found in Ex.-MGE-Pennington-8, Schedules 1 and 2, respectively.

1 Electric Vehicle Charging Tariffs Updates

2 **Q. Does MGE propose any updates to its Electric Vehicle (EV) tariff offerings?**

3 A. Yes. MGE is proposing updates for its Electric Vehicle Public Charging Experimental Pilot
4 Tariff (Rate Schedule EV-2). MGE is also proposing administrative updates to Rate
5 Schedule EV-3.

6 **Q. Please describe MGE's current Rate Schedule EV-2.**

7 A. MGE's public charging tariff was approved in Docket No. 3270-UR-121. Prior to that, the
8 service had modest piloting activity beginning in 2017. The primary purpose of the tariff is to
9 collect charging behavior data from EV drivers. The tariff rates are structured similar to
10 hourly parking fees and based on the amount of time a driver spends connected to a
11 charging unit; i.e., the dwell time, as opposed to the energy delivered. For DC fast chargers,
12 the rate is set at \$5.00 per hour, and for Level 2 chargers, the rate is \$2.00 per hour.
13 Customers that agree to allow MGE to collect data on their charging behavior receive a
14 discount of 50% to use MGE's public chargers.

15 **Q. Why is MGE proposing to update Rate Schedule EV-2?**

16 A. The current time-based rate structure has not kept up with technological advancements.
17 Charging technology has improved dramatically in the years since this service was initiated.
18 In 2017, most fast chargers could deliver 50 KW. Now, there are fast chargers readily
19 available that can offer up to 350 KW. This is a seven-fold increase in power. Likewise, auto
20 manufacturers are increasingly rolling out EV models capable of charging at these higher DC
21 currents. This equates to much more energy being transferred from the grid to the EV's
22 battery than was possible in previous EV models. Because the MGE public charging tariff has
23 been based on the time spent charging instead of the energy delivered, newer and often
24 more expensive models are able to take advantage of the existing billing structure. The

1 updated energy-based EV-2 rate will better reflect the costs and benefits of the energy being
2 delivered from the charger to the EV and thereby reduce cost inequities among customers.

3 **Q. What changes is MGE proposing?**

4 A. MGE is proposing to move from time-based rates to energy-based rates. The proposed rate
5 for L2 chargers is based on MGE's Current Residential Service (Rg-1) rate. The rate for MGE's
6 DCFC chargers is based on the C&I Lighting and Power Time-of-Use (Cg-2) rate. While Cg-2 is
7 a TOU rate, MGE is proposing to apply time-based weighting based on charging behavior
8 data collected from MGE's public chargers to arrive at a standard kWh rate for all time
9 periods. The proposed updated tariff sheets for Rate Schedule EV-2 and supporting analysis
10 can be found in Ex.-MGE-Penington-9, Schedules 1 and 2.

11 **Q. Why is MGE proposing different methodologies to calculate rates for DCFC and L2**
12 **chargers?**

13 A. L2 and DCFC charging are used differently and have different impacts on the distribution
14 grid. L2 chargers require around four to six hours to fully charge a depleted battery and are
15 best suited for times when the driver expects to be parked for a longer period, such as work,
16 home, or near commercial centers. DCFC chargers can replenish a battery in under an hour
17 and sometimes as quickly as 15 minutes, depending on the charger speed and the car. DCFC
18 chargers are ideal along highway corridors where drivers need to charge quickly to continue
19 to their destination.

20 **Q. Why is MGE proposing to use the Rg-1 rate as the basis for L2 chargers?**

21 A. There are several reasons for this. First, around 40% of MGE's customers live in multi-unit
22 dwellings and are unable to install a Level 2 charger on the property where they live and,
23 therefore, rely more heavily on publicly available chargers. Under the current tariff design,
24 publicly available Level 2 charging costs more per kWh than charging at a Level 2 charger

1 installed in a single-family home. Second, MGE does not believe a time-of-use rate should
2 apply to these chargers because they are shared and drivers may not have the flexibility to
3 shift their charging if the charger is being used by someone else at that time.

4 **Q. Why is MGE proposing a flat kilowatt-hour rate for DCFC charging?**

5 A. There are several reasons MGE is proposing a flat, per-kWh rate for public charging. First, flat
6 rates are easy for customers to understand leading to more transparent charging
7 transactions. Second, public charging behavior is less "shapable" than charging at home. For
8 example, drivers using a DC fast charger along a highway corridor need to stop when their
9 battery is depleted and may not be able to delay charging until a lower rate is available.
10 MGE's flat kWh rate, based on data collected through its public charging network, considers
11 the times of day when charging is most likely to happen and has weighted the kWh rate
12 accordingly.

13 **Q. Please describe other changes in Rate Schedule EV-2.**

14 A. MGE is proposing to add an extended parking charge that could be applied if a customer
15 remains parked at a charger for more than 30 minutes after their car has completed
16 charging. This is intended to ensure drivers do not occupy a charger when they are not
17 actively charging so that the charger can be made available to other drivers.

18 Also, MGE is proposing to offer MGE customers, who agree to certain terms, an
19 approximately \$.05/kWh discount for using MGE's public charging network. The previous
20 tariff offered these customers a 50% discount. This discount is intended to compensate
21 drivers for the value they provide by self-identifying as owning EVs. EV ownership data is
22 helpful for MGE's distribution planning efforts, and it is not otherwise generally available to
23 utilities.

1 **Q. Does MGE propose other administrative changes for the EV charging tariffs?**

2 A. Yes. MGE would propose to make administrative updates to Rate Schedule EV-3, Electric
3 Vehicle Managed Charging Rewards (Charge Ahead) Rider. The proposed redline tariff can be
4 found in Ex.-MGE-Penington-9, Schedule 3. MGE is proposing the following changes:

5 1. Several specific EV manufacturers and other brand references are listed, which are
6 extraneous details unrelated to the program that can be removed.

7 2. Under the Rates section of the tariff, MGE proposes modifications to enable greater
8 flexibility with incentives paid under the program. More specifically, the suggested edits
9 remove Venmo and Paypal so as to offer greater flexibility for payment methods.

10 3. The tariff language also enables MGE to transition to a daily incentive (such as a bill
11 credit) which would otherwise be difficult to support when transitioning from the current
12 seasonal crediting.

13 **Q. Does this conclude your pre-filed direct testimony?**

14 A. Yes, it does.