PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Northern States Power Company-Wisconsin, as an Electric Public Utility, for Approval of a Resiliency Service Pilot	4220-TE-106

FINAL DECISION

This is the Final Decision in the investigation conducted by the Public Service Commission of Wisconsin (Commission) to consider the request of Northern States Power Company-Wisconsin (applicant) for approval of a resiliency service pilot program. The application is APPROVED as conditioned by this Final Decision.

Introduction

On December 9, 2020, the applicant filed an application with the Commission for approval of a resiliency service pilot program. (PSC REF#: 401403.) The Commission issued a Notice of Investigation on January 14, 2021. (PSC REF#: 402897.) Wisconsin Industrial Energy Group (WIEG) requested to intervene and was granted intervenor status. (PSC REF#: 404663.) None of the parties requested a hearing, and no hearing was required or held.

A memorandum and letter requesting comments on the applicant's request for approval of the pilot program was served on April 15, 2021. (PSC REF#: 409304.) The Commission received comments from the applicant and WIEG. (PSC REF#: 410679, PSC REF#: 410646.) The Commission also received public comments from RENEW Wisconsin (RENEW) and the University of Wisconsin-Eau Claire Foundation, both of which expressed support for the applicant's proposal. (PSC REF#: 410489, PSC REF#: 410704.) The Commission discussed this matter at its open meeting of May 13, 2021.

Findings of Fact

1. The applicant filed an application with the Commission for approval of a resiliency service pilot program on December 9, 2020.

2. It is reasonable to authorize the applicant to implement the proposed resiliency service pilot program, as modified and conditioned by this Final Decision.

3. It is reasonable to approve the program charges as filed so long as the applicant evaluates whether more detailed program charges should be developed in future electric rate cases.

4. It is reasonable to require the applicant to work with Commission staff to include non-routine operations and maintenance (O&M) "insurance" options as part of the resiliency charge shown in RS-1 tariff Sheet 62.53, to require the applicant to submit a revised tariff Sheet 62.53 to the Division Administrator within two years of pilot approval, and to delegate approval of the revised tariff Sheet to the Administrator of the Division of Energy Regulation and Analysis.

5. It is reasonable for participating customers to receive a separate invoice for all non-routine O&M costs associated with resiliency service assets during the 10-year customer service agreement term.

6. It is reasonable to approve the applicant's RS-1 tariff terms and conditions as filed.

7. It is reasonable to approve the applicant's proposed accounting treatment of RS-1 without modification or conditions.

8. It is reasonable to require the applicant to provide an annual report to the Commission that includes the number of customers participating in the resiliency service pilot along with each customer's contribution in aid of construction (CIAC) and any received

construction allowances, as well as a list of projects in development with estimated costs, and to require capital and O&M actual costs to be provided during future rate case proceedings.

9. It is reasonable to require the applicant to submit a Pilot Review Report in 2025 with the following information:

a. Frequency and duration of electric service interruptions before/after completion of each resiliency service project;

b. Performance of resiliency service projects during grid outages/island mode;

c. Interval load and resiliency service asset generation data to identify peak load reduction and ability to achieve demand response to load shifting goals (if applicable and available);

d. Number of residents served and critical services provided during emergency events (if applicable for community resiliency projects);

e. Power quality measurements before/after completion of each resiliency service project (if applicable and measureable);

f. Wholesale market data for any resiliency service assets that participate in ancillary services, capacity, day-ahead, or real-time energy markets;

g. Description of any safety issues or grid operation difficulties and applied solutions;

h. Description of any applicable findings used or incorporated into distribution system planning or distribution system operations; and

i. Customers' resiliency and operational objectives (if not confidential).

Conclusions of Law

1. The applicant is an electric public utility under Wis. Stat. § 196.01(5).

2. The Commission has authority under Wis. Stat. §§ 196.02, 196.025, 196.03, 196.19, 196.20, and 196.37 to authorize the applicant to implement the resiliency service pilot program, and to determine that the rates and rules in the tariffs are reasonable and just as a matter of law.

3. The Commission may impose any term, condition, or requirement necessary to protect the public interest pursuant to Wis. Stat. §§ 196.02 and 196.395.

4. The Commission has the authority, pursuant to Wis. Stat. § 15.02(4), to delegate its functions to members of Commission staff, including the Administrator of the Division of Energy Regulation and Analysis.

5. No hearing under Wis. Stat. §§ 196.20(1) or (2m) was required in this matter as the resiliency service pilot program, as conditioned by this Final Decision, does not curtail the obligation or undertaking of the applicant, or constitute an increase in rates to consumers.

Opinion

The applicant's proposed resiliency service pilot program (and associated RS-1 tariff rider) is available for commercial and industrial customers served under rate schedules Cg-7, Cp-3, Cg-9, Cp-1, RTP-1, and Mp-1 who take service from a single metering point. The pilot allows participating customers to enter into a 10-year customer service agreement with the applicant, who would own and operate resiliency service assets on the customers' behalf. The pilot is designed to support customers who need higher than standard service reliability to maintain business continuity, minimize production losses, improve power quality for sensitive equipment, or to achieve other

resiliency-related objectives. The applicant's pilot would effectively offer "resiliency-as-a-service" to participating customers who wish to avoid developing such projects on their own. Participating customers would pay for the installation, operation, and maintenance of resiliency service assets over the course of the 10-year customer service agreement through a minimum upfront payment, and monthly fixed charges determined by the capital cost of the assets installed for any given project. Resiliency service assets is a blanket term used to describe distributed energy resources such as solar photovoltaic (PV) arrays, diesel or gas-fired back-up generators, combined heat and power units, battery energy storage systems (BESS), and system controls.

Several of the applicant's customers expressed interest in working with the applicant to develop resiliency projects, including Gundersen Health, the City of Eau Claire, and the City of La Crosse. The University of Wisconsin-Eau Claire Foundation also submitted comments in support of the applicant's proposal as it seeks to develop a resiliency-focused replacement for the Zorn Arena, which could serve as a community shelter during emergency events. (PSC REF#: 410704.)

The applicant's pilot is designed to help mitigate the high upfront costs that often present a significant barrier to commercial and industrial customers seeking to install their own resiliency assets. Participation in the pilot program will provide an alternative option for customers who would otherwise pay out-of-pocket to develop, build, own, operate, and maintain their own resiliency assets. The pilot will allow the applicant to own and maintain resiliency assets under a 10-year customer service agreement, in which the payment structure is designed to cover all costs associated with project development to ensure non-participating customers do not subsidize the program. Customers taking service under the RS-1 tariff rider will also have the

option to have the applicant own the distribution infrastructure behind the single point of connection, rather than requiring the customer to purchase these assets from the applicant.

The applicant's resiliency service pilot is the first of its kind proposed in Wisconsin. However, the applicant's proposal shares a number of similarities with other utility programs that have received Commission approval, such as renewable energy rider (RER) programs, and electric vehicle (EV) programs, in which participating customers cover the total cost of their project through monthly fees in addition to their standard tariff rates. Participating customers in the resiliency service pilot program will pay monthly program administration fees, and resiliency service fees determined by the total capital cost of each project. In developing the resiliency service pilot, the applicant utilized previously approved program design components from the RER and EV pilot programs to offer interested customers a simplified approach for addressing their resiliency, reliability, and energy management needs. The RER and EV programs were both developed to address increased customer demand for this type of service. The applicant's application includes several letters of support that indicate growing demand for resiliency-as-a-service product. The resiliency service pilot also includes a 30-megawatt program capacity limit to safeguard against unforeseen consequences stemming from unfettered project development.

Legal Definitions, Statutory Requirements, and Other Issues

Commission staff reviewed the applicant's resiliency service pilot program application to identify legal and statutory compliance issues. This analysis was presented in Commission staff's memorandum, which was issued for public comment on April 15, 2021. (PSC REF#: 409304.) Commission staff focused on the definition of "customer premise" as it relates to joining multiple premises behind a single metering point, as well as the definition of said

single metering point. Compliance with interconnection and electrical/safety code requirements was also evaluated. These three subjects are discussed in greater detail below.

Commission staff did not raise concerns regarding the definitions and tariff provisions, particularly given the applicant's experience operating behind-the-meter distribution equipment serving multiple customer premises for military and mining customers described in response to staff data request BK-1.15. (PSC REF#: 406866.) Comments filed in response to Commission staff's memorandum also did not raise concerns with the single metering provisions.

The single metering point is defined on tariff Sheet 62.55 of the proposed RS-1 tariff as "the point of metering for the purposes of the applicable parallel generation tariff." The applicant explained in its application that the requirement for participating customers to be served behind a single meter was driven by the current language in the applicant's parallel generation tariff. In addition to the single metering point used for customer billing purposes, each resiliency service asset will be separately metered to ensure accurate billing under the applicable parallel generation tariff. In response to Commission staff data request BK-1.22, the applicant stated that it intends to follow the applicable interconnection procedures set forth in Wis. Admin. Code ch. PSC 119 (Rules for Interconnecting Distributed Generation Facilities) for all utility-owned resiliency service assets in the same manner as other customer-owned or privately owned distributed generation (DG) projects. (PSC REF#: 406866.)

The applicant will be responsible for all interconnection, permitting, and compliance activities associated with resiliency service assets, but costs associated with these activities will be paid for by the customer as part of the project-specific resiliency charge. Terms and conditions described on tariff Sheet 62.57 of the proposed RS-1 tariff require all resiliency

service assets to meet the applicant's existing safety, power quality, and electrical standards. The terms and conditions also require all participating customers to grant the applicant "all rights necessary" to control any generation assets installed behind the single metering point. Commission staff did not have concerns with the provisions set forth in the proposed RS-1 tariff, with respect to the applicant's ability to remain compliant with Wisconsin codes and statutes to protect electric power system equipment and public safety.

The Commission commends the applicant for working with stakeholders before filing its application, and for designing the resiliency service pilot program to meet the unique needs of certain commercial and industrial customers without harming non-participating customers. The Commission approves the applicant's resiliency service pilot program with the modifications described in the following sections of this Final Decision.

Development and Utility Ownership of Resiliency Service Assets

The resiliency service pilot is designed to support customer projects and new technology deployment using a utility ownership and operation model. Each resiliency project will be customized to meet the specific needs and objectives of each participating customer through a collaborative design process involving the customer, the applicant, and a third-party vendor. The project development cycle begins with customer contact and an initial project scoping meeting involving the participating customer and the applicant's staff. Customers seeking to develop projects that are more complicated than installing a standalone back-up generator unit(s) will be required to pay a fee of $500 to complete the preliminary scoping phase. This step will also include a preliminary interconnection screening. Following the initial scoping phase, the applicant will work with the customer to develop a request for proposal (RFP), solicit vendors to

develop bids for the project, and evaluate and select the winning vendor bid. The applicant has stated that the RFP will be issued directly to a list of pre-approved vendors under a master service agreement. The pre-approved list of vendors will be identified through a public Request for Qualifications process that will allow for periodic additions of other qualified vendors. If none of the pre-approved vendors can meet a customer's resiliency needs, a separate RFP process will be conducted by the applicant outside of the pre-approved vendor list. The applicant has committed to provide updates on the vendor pre-approval process for inclusion in the record of docket 4220-TE-106. (PSC REF#: 406866.)

Participating customers will be required to sign a design and engineering agreement once the applicant and the customer have selected a vendor from the RFP process. This phase of project development will require the customer to pay 10 percent of the estimated project cost, which will be treated as CIAC if the project proceeds to construction. Design and engineering work will be performed by the vendor, and all costs associated with this work will be the responsibility of the customer if they decide not to proceed with construction. Work during this phase will evaluate the optimal suite of resiliency service assets to be included in the project, as well as interoperability and interconnection issues. The customer will be responsible for any interconnection application fees, engineering review fees, and engineering study fees. The customer must sign a customer service agreement with the applicant that details pricing, construction drawings and schedule, ownership and transfer conditions, and O&M terms prior to the start of construction activities. The customer service agreement will serve as an asset ownership and transfer agreement between the applicant and the customer. The Commission

finds the proposed project development process to be reasonable, and directs the applicant to file subsequent updates regarding the pre-approval process to docket 4220-TE-106.

Participating customers will be required to pay the applicant for any undepreciated value for resiliency service assets due to termination of the customer service agreement prior to the end of its 10-year term. Once the customer has paid for any undepreciated value, the applicant would then transfer ownership of resiliency service assets to the customer. If the customer would like the applicant to remove, retire, or decommission any resiliency service assets at the end of the customer service agreement term, the customer will also be responsible for all costs of removal net of salvage, retirement, and decommissioning cost as proposed in the applicant's application. The customer may have the option to continue the applicant's operation of resiliency service assets by signing a new customer service agreement after the initial 10-year contract reaches maturity.

Commission staff noted that under these terms, the customer bears the financial risk for non-routine O&M costs or early failure of resiliency service assets outside of the vendor's warranty. The applicant's response to staff data request BK-1.10 states that warranties "exceeding three years are not typically available" for assets envisioned for use in the resiliency service pilot. If an asset fails, the customer could either: (1) continue to pay the monthly charges associated with the failed asset, or (2) sever the contract for the failed asset early and pay the undepreciated value of the failed asset. The applicant explained that requiring participating customers to bear the financial risk of unexpected costs associated with their resiliency service assets ensures that the program will not be subsidized by non-participating customers. Commission staff's memorandum suggested that the Commission could consider

conditioning approval of the RS-1 tariff contingent on the applicant evaluating alternatives for sharing the cost of failed assets between the customer and the utility. The applicant's comments in response to Commission staff's memorandum reiterated its position that the tariff as filed need not be modified, and concluded that the proposed RS-1 tariff "balances risks appropriately" to protect non-participating customers. (PSC REF#: 410679.) WIEG's comments suggested an alternative whereby the applicant would work with resiliency project developers to offer extended warranties for an additional premium paid by participating customers as part of the monthly resiliency charge. (PSC REF#: 410646.) Comments submitted by RENEW also supported requiring the applicant to include provisions that mitigate participants' risk of high, unexpected costs related to equipment failures or non-routine O&M. (PSC REF#: 410489.)

The Commission considered the concerns relating to the failed asset provisions in the RS-1 tariff, including the possible modifications and alternatives suggested by Commission staff, WIEG, and RENEW, but also recognizes the concerns raised by the applicant. The Commission notes that the applicant was transparent about the potential risks a customer may be taking, and that the failed asset provisions of the tariff were structured as filed with an intent to prevent non-participating customers from subsidizing the program. The Commission finds it reasonable to approve the applicant's RS-1 tariff Sheet 62.54 as filed.

Program Administration and Resiliency Charges

Participating customers will be responsible for covering the full cost of their project(s) through four main billing mechanisms: (1) a minimum upfront payment of 10 percent of total capital costs (10 percent at design and engineering phase that may be applied toward the 10 percent minimum payment required to initiate construction); (2) a monthly program charge to

cover administrative labor; (3) a monthly resiliency charge that covers remaining capital costs and routine O&M costs; and (4) a 100 percent upfront payment for distribution system upgrades and modifications (if applicable). Together, these billing mechanisms are designed to cover the full cost of each participating customer's resiliency project to ensure that non-participating customers do not subsidize the program. The CIAC and resiliency charge would be determined on a project-by-project basis, while the program charges would be set at the same level for all participating customers. The applicant suggested that program charges (currently set at $80 per month for back-up generator projects and $450 per month for more complex projects) might be updated in future rate cases to more accurately reflect actual administration costs.

Analysis presented in Commission staff's memorandum did not identify major concerns with the applicant's approach for developing the monthly program charges, and supported the potential to update these charges in future rate cases after actual program cost data has been collected. WIEG's comments supported staff's recommendation that the applicant evaluate whether the program charges could be further stratified based on project size, number of assets, and single versus multiple premises. (PSC REF#: 410646.) The applicant also supported future evaluation of modifications to the program charges and noted that the proposed charges represent the applicant's best effort to forecast and assign administrative costs to participating customers. (PSC REF#: 410679.)

The Commission recognizes that additional categories of resiliency projects and associated program charges may be warranted in the future as pilot data is collected. The Commission finds it reasonable to approve the resiliency service pilot program charges as filed in RS-1 Sheet 62.53, but requires that the applicant work with Commission staff to evaluate

whether more detailed program charges should be developed in future rate cases, after actual program cost data has been collected. Participating customers should also be made aware that the program charges may be subject to change during the RFP process, design and engineering phase, and in the customer service agreement contract.

In addition to the program administration charges describe above, participating customers will also be required to pay a monthly resiliency charge that is designed to recover the remaining capital costs (less any CIAC paid upfront) and routine O&M costs for resiliency service assets specified in the customer service agreement. The capital cost for each resiliency service asset will be determined through the RFP and project design process. The capital portion of the resiliency charge is calculated by subtracting any CIAC paid upfront from the total capital cost and multiplying the remaining amount by a carrying charge factor for that asset type. The carrying charge factors on Sheet 62.53 of the applicant's proposed RS-1 tariff Sheet reflect the levelized annual revenue requirement for the capital portion for three asset types (BESS, generation assets, and switching and control equipment). The carrying cost factors for each asset are bounded within a narrow range that may vary depending on the asset's average service life, tax credits, depreciation schedule, and net salvage value. All projects developed under the resiliency service pilot will have a customer service agreement term of 10 years; therefore the annual average carrying charges for each asset type use a 10-year average useful life to determine the levelized annual revenue requirement, carrying charge factor, and resiliency charges for each project. The applicant proposed that in each future rate case it will include in rate base the value of its capital investments associated with resiliency service assets, net of CIAC payments and depreciation. In addition to recovery of upfront capital costs, the

calculations provide for a rate of return equal to that authorized in the applicant's most recent rate case settlement, in docket 4220-UR-124. The approach used to calculate levelized annual revenue requirement and the resulting resiliency charge should, in theory, treat all asset types equally from an accounting perspective over a normalized 10-year depreciation period despite having different useful lives in reality.

Commission staff's analysis was generally supportive of the applicant's proposed methodology for calculating levelized annual revenue requirement and carrying cost factors given the data available at this time. WIEG expressed concern in its comments about the potential for future changes to the applicant's capital structure and/or rate of return to cause harm to non-participating customers by allowing the fixed resiliency charges to collect a higher (or lower) return, and recommended that the RS-1 tariff language state that resiliency charges may be subject to change based on the results of future rate cases. The applicant's comments acknowledged WIEG's concern, but take the position that it is premature to require changes to the fixed-pricing approach, which is a core component of the pilot program structure aimed at delivering price certainty over the 10-year customer service agreement. The applicant also stated that the impact of future capital structure changes over time will not be material, but acknowledged that it "may be appropriate" to evaluate such impacts in future rate cases. (PSC REF#: 410679.)

The Commission finds it reasonable to approve the resiliency charge calculation methodology as filed, but encourages the applicant to evaluate more detailed resiliency charges based on actual pilot data in future rate cases. Analysis of data collected from the pilot program

may support development of more specific carrying cost factors for unique asset types beyond those included in the proposed RS-1 tariff.

Routine O&M costs included in a participating customer's resiliency charge will be determined separately for each project to reflect any fixed O&M agreements with the vendor(s) providing resiliency service assets for the customer. Routine O&M costs and warranty coverage will be identified for each resiliency service asset within the customer service agreement. Participating customers will receive a separate invoice for all non-routine O&M costs associated with resiliency service assets during the 10-year customer service agreement term, although the applicant retains ownership of those assets. The applicant's response to staff data request BK-1.9 stated that participating customers must bear the responsibility of non-routine O&M costs to ensure that non-participating customers are not impacted by unforeseen expenses. Program and resiliency charges are set to cover capital costs and routine O&M only. WIEG's comments stated that Commission staff's recommendation that the applicant include insurance premiums to help participating customers reduce the risk of non-routine O&M costs was reasonable. (PSC REF#: 410646.) The applicant's comments stated that risk reduction approaches may be available from or negotiable with vendors during the RFP process and that any costs of insurance, extended warranties, or other risk mitigation products would be borne by the participating customer.

The Commission finds it reasonable to approve the applicant's proposed treatment of routine O&M costs and non-routine O&M costs, which will be the sole responsibility of the customer. However, the Commission directs the applicant to work with Commission staff to revise the RS-1 tariff Sheet 62.53 to include optional non-routine O&M "insurance" options as

part of the resiliency charge, to help mitigate the risk of potential non-routine O&M costs for equipment no longer under warranty. The Commission has the authority, pursuant to Wis. Stat. § 15.02, to delegate its functions to members of Commission staff, and finds it reasonable and appropriate to delegate approval of the revised tariff Sheet 62.53 to the Division Administrator. A revised Sheet 62.53 should be submitted to the Administrator of the Division of Energy Regulation and Analysis within two years of the pilot project approval. The full suite of warranty coverage, insurance and other risk management options should be clearly explained to the customer during RFP process, the design and engineering phase, and at customer service agreement signing.

Upfront Payments, CIAC, and Optional Customer Distribution Service

Customers participating in the resiliency service pilot will be required to contribute 10 percent of the total project cost when a design and engineering agreement is signed. The 10 percent payment will be considered a CIAC for projects that proceed to the construction phase. Participating customers will be required to pay a minimum CIAC of 10 percent of the total cost of each resiliency service asset up front, and may contribute up to 100 percent of the total project cost if they choose to do so. Customers who pay the full cost of one or multiple resiliency service assets will only pay the O&M portion of the monthly resiliency charge for those assets during the 10-year customer service agreement term. However, even if the customer pays 100 percent of the capital costs for one or multiple resiliency service assets, the applicant would retain ownership of the asset(s) for the 10-year customer service agreement term in order to meet the tariff definition. This provision ensures that the resiliency service assets will be installed in accordance with the applicant's safety and system reliability standards mentioned

previously. The applicant's comments on staff's memorandum noted that the pilot does not limit the ability of participating customers to construct, own, and operate assets themselves without their involvement. (PSC REF#: 410679.)

Participating customers may also request optional distribution service under the conditions set forth on Sheet 62.55 of the proposed RS-1 tariff. This provision allows the applicant to install, operate, and maintain distribution infrastructure on the customer side of the single metering point (at either primary or secondary voltage levels), instead of requiring the customer to own and maintain that equipment themselves. However, the customer must make a 100 percent upfront payment to cover the costs associated with any distribution system upgrades and modifications associated with this service. The applicant's response to data request BK-1.20 states that these costs could not be incorporated into the monthly resiliency charges because it would cause depreciation-related accounting difficulty, and it would not be consistent with current provisions for non-participating customers. Customer contributions made toward distribution infrastructure expenses will be governed by the applicant's electric service extension rules where the total cost may be offset by a standard customer allowance. The allowance is based on the estimated load at the single metering point under the rate at which the single metering point is billed. Customers will be billed as a secondary voltage Cg-7, Cp-3, Cg-9, Cp-1, RTP-1, or Mp-1 customer at the single metering point regardless of the actual voltage of the single meter. Commission staff did not raise concerns with the upfront payment and the optional distribution service provisions, and no concerns were raised in public comments.

RS-1 Tariff Rider Terms and Conditions

In addition to the billing mechanisms described above, the applicant included several terms and conditions in the proposed RS-1 tariff rider. Participating customers will collaborate with the applicant to develop an operational plan in the customer service agreement that is consistent with the RS-1 tariff terms and meets the customer's objectives. Customers may choose to take ownership of resiliency service assets after the 10-year customer service agreement term expires. The customer may choose to sign a new customer service agreement that extends the applicant's ownership, operation, and maintenance of existing resiliency service assets, as well as the addition of new resiliency service assets. All resiliency service assets are required to participate in a parallel generation tariff and have non-revenue dedicated meters installed to monitor electricity generation at a cost of $5.00 per meter per month. The applicant's response to data request BK-1.19 states that the $5.00 per month metering charge is identical to the metering charge included in the Cg-6 tariff for optional off-peak service.

Sheet 62.56 of the proposed RS-1 tariff states that the applicant will manage all permitting and compliance costs associated with utility-owned resiliency service assets. These permitting and compliance costs will be paid for by the customer as part of the monthly fixed resiliency charge described previously. If an easement over the customer's property is required, the customer will be required to provide the applicant with an easement at no expense. Participating customers will also be required to pay for interconnection-related costs incurred under Wis. Admin. Code ch. PSC 119, wiring, and equipment that is furnished, installed, and maintained on the customer's side of the single metering point. Wiring and equipment on the customer's side of the single metering point must be installed and operated in compliance with

the applicant's safety and operational requirements. Finally, participating customers must grant the applicant the right to control any customer-owned resiliency service asset behind the single point of connection to maintain safe and effective operation during normal or emergency conditions. The applicant may require installation of additional protective equipment at the customer's expense to integrate customer-owned assets with utility-owned assets. Commission staff did not identify any major concerns with the proposed RS-1 tariff terms and conditions and none were raised in public comments. The Commission finds it reasonable to approve the RS-1 tariff terms and conditions as filed.

Engineering Analysis

The applicant's pilot proposal would be subject to several engineering and administrative code requirements, including those from Wis. Admin. Code chs. PSC 113, 114, and 119. Chapter PSC 114 is the Wisconsin State Electrical Code, which should be followed to comply with all safety provisions associated with electric distribution facilities. Further discussion on service rules as they apply through ch. PSC 113, interconnection rules as they apply through ch. PSC 119, and other impacts to the distribution system is continued below.

Joining Multiple Premises Behind a Single Point of Connection

The applicant proposes that a customer may participate in the pilot as long as the customer premise(s) is behind a single metering point. The applicant states that this is necessary to comply with the company's parallel generation tariff. The proposed pilot offers the option for the applicant to install, own, operate, and maintain distribution facilities on the customer side of primary or secondary metering, such that customers may have resiliency service assets connected behind a single metering point. It also contemplates, in its multiple premise provision, that a

customer might join multiple premises behind a single metering point, all of which would be billed to that single customer.

Wisconsin Admin. Code ch. PSC 113 provides the service rules for electrical utilities. Commission staff reviewed whether the proposed single metering point, or utility ownership of distribution facilities behind the customer metering point, might conflict with ch. PSC 113, with particular attention to the provisions in Subchapter VIII – General Customer Metering and Metering Accuracy, or Subchapter X – Electric Service Extension. In reviewing ch. PSC 113, Commission staff noted that (with some exceptions) Section PSC 113.0803 requires individual metering for each dwelling unit in a multi-dwelling unit residential building or mobile home park, and for each tenant space in a commercial office building. The code includes a definition of "dwelling unit" which applies to a structure or part of a structure used or intended to be used as a home, residence or sleeping place by one or more persons maintaining a common household, but excludes transient multi-dwelling buildings and mobile home parks. *Id.* The administrative code provides, however, that for reasonable cause shown, the Commission may grant waivers of the individual metering rules on a case-by-case basis. Applications for a waiver must be submitted to the Commission in writing, and set forth the facts or reasons the applicant believes justify a waiver. Wis. Admin. Code. § PSC 113.0803(5).[1] In addition to the waiver language provided in Section 113.0803(5), the Commission also has some inherent authority to grant a waiver of the code provisions in ch. PSC 113. Section PSC 113.01(2) states: "[n]othing in this chapter of the Wisconsin Administrative Code shall preclude special and individual

[1] The Code states that in cases involving multi-dwelling unit residential buildings, the applicant must show that the electric equipment under tenant control is substantially more efficient than required by applicable codes and that the overall electric usage under tenant control is minimal, and expressly provides buildings which are electrically heated and buildings which have individual unit electric water heaters as examples that would not qualify for a waiver. *Id.*

consideration being given to exceptional or unusual situations and upon due investigation of the facts and circumstances therein involved, the adoption of requirements as to individual utilities or services which shall be lesser, greater, other, or different than those provided in said rules.

The proposed pilot's multiple premise provision provides the option for a customer to join multiple premises into a campus behind a single meter point that will be billed as a single customer. Because the proposed pilot would only be made available to commercial or industrial customers whose multiple premises are covered under a single account number, it is possible that many of the customers eligible to participate would not be connecting multiple dwelling units or multiple tenants behind one meter, in which case the individual metering requirements would not be applicable. Commission staff noted that if any customer's combination of premises could violate the individual metering requirements of the Wisconsin Administrative Code, such as if participation in the resiliency project would result in separate tenant spaces in a commercial building being combined behind one meter, or if the combination of premises would combine dwelling units as that term is defined by the Code behind one meter, the applicant would need to apply for a waiver of those requirements pursuant to Wis. Admin. Code §§ PSC 113.0803(5) and 113.01(2). The applicant's comments on Commission staff's memorandum clarified that the pilot allows participating customers to meter each premise individually behind the single metering point, and that each separately metered space (i.e., tenants in a commercial office building) must be of the same customer account to be eligible for the multiple premise provision. (PSC REF#: 410679.)

As previously mentioned, the applicant has experience performing similar modifications to customer metering and distribution facilities for military and mining customers. None of the

public comments expressed opposition or concern regarding the multiple premise provision. The Commission finds it reasonable to approve the multiple premise provisions in the tariff without modification. The Commission notes, however, that in the implementation of the proposed pilot where distribution facilities are installed on the customer side of the meter and where metering is changed to facilitate a single metering point, compliance with all aspects of Wis. Admin. Code ch. PSC 113 must be maintained to ensure safe and fair service for participating customers.

Interconnection of Distributed Generation Facilities

Wisconsin Admin. Code ch. PSC 119 provides the rules for interconnecting DG facilities.[2] The resiliency service assets installed under the pilot could qualify as DG facilities, in which case they would be required to follow ch. PSC 119 in order to interconnect with the utility distribution system. Section PSC 119.04 provides rules around the application process and includes the steps where an engineering review by the utility would be conducted. In response to staff data request BK-1.22, the applicant states that it intends to follow all steps of ch. PSC 119, similar to how it would for any other application of a customer-owned DG facility interconnection.

Chapter PSC 119 as a whole provides rules for interconnection of DG facilities to the utility distribution system beyond the application process. Subchapter III – Design Requirements describes safety and equipment protection requirements, while Subchapters IV and V describe equipment certification and testing, respectively. Based on Commission staff's analysis and the lack of concerns raised in public comments, the Commission finds it reasonable

[2] Updates and revisions of ch. PSC 119 are currently being considered in docket 1-AC-256, *In the Matter of Rulemaking to Update Wisconsin Administrative Code Chapter PSC 119 for Interconnecting Distributed Generation Facilities.*

to approve the RS-1 interconnection provisions without modification. The Commission notes that the applicant's proposed pilot must comply with all aspects of ch. PSC 119 in order to ensure safe and fair interconnection of any DG facilities.

Accounting Treatment

The applicant's application stated that resiliency service asset revenues and costs will be accounted for consistent with current practices. Participating customers will cover the costs associated with their project through the charges described in the previous sections, which will appear as a unique line item on the customer's bill. Similar to MGE's RER program, the revenue requirement for each resiliency service asset will be recovered by each customer, thereby preventing non-participating customers from subsidizing the program. The applicant will receive incremental revenue as new resiliency service assets are placed in service. The Commission previously approved this type of accounting treatment for the applicant's EV pilot program in docket 4220-TE-104.

The applicant proposed that when resiliency service assets are placed in service the capital costs, less any upfront customer CIAC payments, will be added to rate base in Federal Energy Regulatory Commission (FERC) Account 371 (Installations on Customers' Premises). The purchase and installation of resiliency service assets will be capitalized as electric distribution assets to Plant in Service as individual assets. Under the applicant's proposal the rate of return for resiliency service assets would be equal to its authorized return on rate base investments. Routine O&M expenses related to the pilot program would also be included in the applicant's revenue requirement during its next rate case filing using the appropriate FERC accounts. Further, revenue from RS-1 program and resiliency charges would be included in

revenue at present rates in future rate case filings. WIEG's public comment supported Commission staff's recommendation that the applicant be required to use direct allocation of pilot program costs in future rate cases. (PSC REF#: 410646.) The applicant also agreed that direct allocation is appropriate for all pilot program costs with the exception of administrative and general costs embedded in the monthly program charge. (PSC REF#: 410679.)

The Commission acknowledges the applicant's statement that resiliency projects will be highly customizable, and the revenues and costs associated with the pilot will be difficult to forecast. Therefore, the Commission finds that it is reasonable not to include forecasted project revenues and costs in future test years during the rate case process due to the inherent difficulty in forecasting resiliency service pilot costs and revenues. Consequently, the applicant proposed to only include revenues and costs for projects with signed customer service agreements from customers in future rate cases.

Currently, the applicant is using the class allocators authorized in docket 4220-UR-123 to allocate a share of the administrative and general expenses. However, costs associated with the program will be tracked to support development of appropriate cost allocation in the applicant's next rate case. Program costs and revenues would have to be separated from non-participating customers during COSS reviews in order to ensure non-participating customers are not allocated program costs in rate design. As mentioned previously, non-routine O&M costs and replacement capital costs will be directly invoiced to participating customers and therefore will not impact rate base or revenue requirement. Since the pilot is designed to be cost-based, with pilot revenues offsetting pilot costs, the applicant is not requesting a deferral for revenue requirement impacts in this proceeding. Rather, as projects in development go into service between rate

cases, the incremental revenue will offset individual project costs in real time without the need for recovery through a rate case. The applicant proposes to fully address issues of cost recovery and allocation in future rate case filings.

The Commission recognizes WIEG, RENEW, and Commission staff's recommendation to mandate the use of direct allocation for all RS-1 tariff revenue and expenses, but it finds that these decisions should be made during future rate case proceedings. The Commission finds the applicant's proposed accounting treatment to be reasonable.

Performance Metrics and Reporting Requirements

The applicant stated that the resiliency service pilot will demonstrate how emerging technologies can be deployed to support the operation of critical infrastructure during grid outages caused by severe weather or other emergencies. The structure of the program is designed to address barriers faced by customers who would otherwise be unable to develop their own resiliency projects due to financial or technical constraints. While each resiliency service project will be designed to achieve a unique set of customer-defined needs and priorities, the applicant identified a list of potential benefits that could be delivered both to participating customers and the utility. These potential benefits include: (1) provision of back-up or standby electric power generation; (2) peak demand reduction and/or peak shifting; (3) energy arbitrage; (4) frequency and voltage regulation services (i.e., ancillary services); (5) distribution system investment deferral; and (6) increased distribution system flexibility. Experience gained during the course of the pilot will determine the effectiveness of a utility-ownership model for providing these services and potential benefits to participating customers, the utility, and non-participating customers if system benefits are realized. (PSC REF#: 401403.)

The success of the resiliency service pilot in achieving the high-level objectives described above must be measured against a set of quantitative performance metrics. The unique nature of the resiliency service pilot makes data collection particularly important for informing future program modifications and improvements. The applicant proposed annual reporting requirements would include: (1) the number of new customers participating in the pilot from the prior year; (2) each new customer's resiliency service assets; (3) the cost of each asset; and (4) each participating customer's CIAC and allowance.

Commission staff reviewed data collection and reporting by the applicant's sister utility, Public Service Company of Colorado, to develop recommendations for the proposed resiliency service pilot program. In addition to the four annual reporting requirements proposed by the applicant, Commission staff recommended that key project development milestones, project cost estimates, and actual project costs (both capital and O&M) should also be included in the applicant's annual reports. The applicant's comments stated that the applicant is open to providing a list of projects in development with estimated project costs on an annual basis, but suggested that actual project costs be reported in rate case filings due to the unpredictable timing of project development under the RS-1 pilot program. The Commission finds it reasonable to approve Commission staff's recommendations for annual reporting requirements as modified by the applicant's comments regarding the inclusion of actual project costs in rate case filings, rather than in annual program reports.

Commission staff also recommended that the applicant collect data to quantify customer, utility, and system resiliency benefits. This information would be valuable for both the applicant and the Commission in the development of effective metrics for resiliency, reliability, ancillary

services, peak demand reduction and load shifting, and impacts on distribution system operations. The applicant stated that reporting on customer benefits should not be required for any resiliency service assets until they have been operational for at least one full calendar year. Commission staff did not express any concerns with that condition. Comments submitted by RENEW and WIEG were supportive of the proposed annual reporting requirements and performance metrics recommended by Commission staff. The Commission finds it reasonable for the applicant to provide annual reports to include the following:

1. Number of customers participating in the resiliency service pilot along with each customer's CIAC and any received construction allowances; and

2. List of resiliency service projects in development along with the estimated costs associated with those assets (a comparison of actual versus estimated capital and O&M costs shall be provided in the applicant's future electric rate cases).

In addition to annual reporting requirements, the applicant also proposed to prepare a Pilot Review Report no later than December 31, 2025. This more detailed report would include analysis of pilot program revenues against the revenue requirement associated with operating the portfolio of resiliency projects developed from 2021 through 2025. The Pilot Review Report would also provide analysis of customer benefits such as peak demand reduction, demand/energy bill reduction from self-generation, and would evaluate the resiliency project development framework. Findings presented in the Pilot Review Report will be used to inform future decisions regarding program continuation, modification, or termination beyond 2025. Commission staff recommended the following metrics for inclusion in the Pilot Review Report:

1. Frequency and duration of electric service interruptions before/after completion of each resiliency service project;

2. Performance of resiliency service projects during grid outages/island mode;

3. Interval load data and resiliency service asset generation data to identify peak load reduction and ability to achieve demand response or load shifting goals;

4. Number of residents served and critical services provided during emergency events (if applicable for community resiliency projects);

5. Power quality measurements before/after completion of each resiliency service project (if applicable and measurable);

6. Wholesale market data for any resiliency service assets that participate in ancillary services, capacity, day-ahead or real-time energy markets;

7. Description of any safety issues or grid operation difficulties and applied solutions;

8. Description of any applicable findings used or incorporated into distribution system planning or distribution system operations; and

9. Customers' resiliency and operational objectives (if not confidential).

The applicant's public comments did not express opposition to Commission staff's recommendations, nor to providing a Pilot Review Report no later than December 31, 2025. (PSC REF#: 410679.) The applicant requested, however, that Item 3 in the above list be modified to include language that the information be required only "if applicable and available." Comments submitted by RENEW and WIEG expressed support for Commission staff's recommendations for the Pilot Review Report. The Commission finds it reasonable to require the applicant to include Commission staff's recommendations for performance metrics and

reporting requirements in the Pilot Review Report, with the applicant's requested modification to Item 3, and to require that the Pilot Review Report be filed no later than December 31, 2025.

Order

1. The applicant's request to implement the proposed resiliency service pilot program, as modified and conditioned by this Final Decision, is approved.

2. The applicant shall evaluate revisions to the proposed Program Charges based on data collected from the pilot program in future electric rate cases.

3. The applicant shall work with Commission staff to modify RS-1 tariff Sheet 62.53 to include optional non-routine O&M "insurance" options as part of the resiliency charge. The applicant shall submit a revised Sheet 62.53 to the Division Administrator within two years of pilot approval. Authority to approve these modifications is delegated to the Administrator of the Division of Energy Regulation and Analysis.

4. The applicant's proposed tariff terms and conditions are approved as filed.

5. The applicant's proposed accounting treatment of RS-1 is approved without modification or conditions.

6. The applicant shall provide annual reporting for the resiliency service program that includes the following:

   a. Number of customers participating in the resiliency service pilot along with each customer's CIAC and any received construction allowances;

   b. List of resiliency service projects in development along with the estimated costs associated with those assets. A comparison of actual versus estimated capital and O&M costs shall be provided in the applicant's future electric rate cases.

7. The applicant shall submit a Pilot Review Report to be filed in this docket (4220-TE-106) no later than December 31, 2025. The Pilot Review Report shall include the following information:

a. Frequency and duration of electric service interruptions before/after completion of each resiliency service project;

b. Performance of resiliency service projects during grid outages/island mode;

c. Interval load and data and resiliency service asset generation data to identify peak load reduction and ability to achieve demand response or load shifting goals (if applicable and available);

d. Number of residents served and critical services provided during emergency events (if applicable for community resiliency projects);

e. Power quality measurements before/after completion of each resiliency service project (if applicable and measurable);

f. Wholesale market data for any resiliency service assets that participate in ancillary services, capacity, day-ahead or real-time energy markets;

g. Description of any safety issues or grid operation difficulties and applied solutions;

h. Description of any applicable findings used or incorporated into distribution system planning or distribution system operations.

i. Customers' resiliency and operational objectives (if not confidential).

8. The applicant shall file the final RS-1 resiliency service tariff under Amendment Number 767, and make the tariffs available to the public pursuant to Wis. Stat. § 196.19 and Wis. Admin. Code § PSC 113.0501(1).

9. This Final Decision takes effect one day after the date of service.

10. Jurisdiction is retained.

Dated at Madison, Wisconsin, the 26th day of July, 2021.

By the Commission:

Steffany Powell Coker
Secretary to the Commission

SPC:BGK:dsa:cmb:pc DL: 01799740

See attached Notice of Rights

Docket 4220-TE-106

PUBLIC SERVICE COMMISSION OF WISCONSIN
4822 Madison Yards Way
P.O. Box 7854
Madison, Wisconsin 53707-7854

NOTICE OF RIGHTS FOR REHEARING OR JUDICIAL REVIEW, THE TIMES ALLOWED FOR EACH, AND THE IDENTIFICATION OF THE PARTY TO BE NAMED AS RESPONDENT

The following notice is served on you as part of the Commission's written decision. This general notice is for the purpose of ensuring compliance with Wis. Stat. § 227.48(2), and does not constitute a conclusion or admission that any particular party or person is necessarily aggrieved or that any particular decision or order is final or judicially reviewable.

PETITION FOR REHEARING

If this decision is an order following a contested case proceeding as defined in Wis. Stat. § 227.01(3), a person aggrieved by the decision has a right to petition the Commission for rehearing within 20 days of the date of service of this decision, as provided in Wis. Stat. § 227.49. The date of service is shown on the first page. If there is no date on the first page, the date of service is shown immediately above the signature line. The petition for rehearing must be filed with the Public Service Commission of Wisconsin and served on the parties. An appeal of this decision may also be taken directly to circuit court through the filing of a petition for judicial review. It is not necessary to first petition for rehearing.

PETITION FOR JUDICIAL REVIEW

A person aggrieved by this decision has a right to petition for judicial review as provided in Wis. Stat. § 227.53. In a contested case, the petition must be filed in circuit court and served upon the Public Service Commission of Wisconsin within 30 days of the date of service of this decision if there has been no petition for rehearing. If a timely petition for rehearing has been filed, the petition for judicial review must be filed within 30 days of the date of service of the order finally disposing of the petition for rehearing, or within 30 days after the final disposition of the petition for rehearing by operation of law pursuant to Wis. Stat. § 227.49(5), whichever is sooner. If an *untimely* petition for rehearing is filed, the 30-day period to petition for judicial review commences the date the Commission serves its original decision.[3] The Public Service Commission of Wisconsin must be named as respondent in the petition for judicial review.

If this decision is an order denying rehearing, a person aggrieved who wishes to appeal must seek judicial review rather than rehearing. A second petition for rehearing is not permitted.

Revised: March 27, 2013

[3] *See Currier v. Wisconsin Dep't of Revenue,* 2006 WI App 12, 288 Wis. 2d 693, 709 N.W.2d 520.