

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO**

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IN THE MATTER OF ADVICE NO.                   )  
1881-ELECTRIC OF PUBLIC SERVICE        )  
COMPANY OF COLORADO FOR                )  
APPROVAL OF A RESILIENCY                ) PROCEEDING NO. 22AL-\_\_\_\_E  
SERVICE PROGRAM TARIFF IN ITS         )  
COLORADO PUC NO. 8 – ELECTRIC         )  
TARIFF EFFECTIVE APRIL 24, 2022         )

**DIRECT TESTIMONY AND ATTACHMENTS OF EMMETT R. ROMINE**

**ON**

**BEHALF OF**

**PUBLIC SERVICE COMPANY OF COLORADO**

**March 24, 2022**

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**SUMMARY OF THE DIRECT TESTIMONY OF EMMETT R. ROMINE**

The Company's Resiliency Service Program is an offering designed in response to Small Commercial and Commercial & Industrial ("C&I") customer interest in Public Service supporting microgrids and other resiliency projects that require additional protections against potential power interruptions to operate their businesses. The objective of this program is to provide these customers additional choices to achieve their resiliency, sustainability, or other energy-related goals. Resiliency in the electric system is critical as customers navigate the risks of weather events or other significant disruptions.

This Program will facilitate investment in customer resiliency and emerging technologies, such as solar and battery storage, because they can play an important role in helping support critical facilities and business processes. The Company believes this program will lower upfront costs of resiliency investments for participating customers and provide a positive customer experience through customized combinations of Resiliency Service Assets that meet customers' specific resiliency and reliability needs. Specifically,

Public Service will provide this support through Company ownership, installation, operation, and maintenance of Resiliency Service Assets, which is defined as assets owned, operated, and maintained by the Company on the customer's behalf that consist of eligible technologies such as Battery Energy Storage Systems ("BESS"), on-site generation, and switching and control equipment. The program is designed to allow for customers to choose resiliency options to best meet their needs. Under the program, customers will work with Public Service and its vendors to design, construct, and interconnect their system.

While the Resiliency Service Program will help facilitate behind-the-meter projects, the Company is not proposing to encroach on the competitive market for these services. Rather than compete with vendors in this space, the Company is proposing to provide project capital and facilitate the technical development of resiliency projects within the competitive market without any cost impact to non-participating customers. The Resiliency Service Program seeks to provide quantifiable benefits to all of the Company's customers, both participating and non-participating. Specifically, this Program may provide participating customers with overall bill reductions, including in the form of demand reductions, energy reductions, or credits from their participation in demand response programs. Other quantifiable benefits include increased uptime during outages, as well as increased power quality. Overall benefits to non-participating customers include the additional deployment of microgrids and green energy infrastructure, which help achieve carbon emissions goals for communities and the State of Colorado.

For these reasons, the Company respectfully requests that the Commission approve the Resiliency Service Program Tariff.

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**LIST OF ATTACHMENTS**

Attachment ERR-1	C&I Customer Research Survey Results
Attachment ERR-2	Stakeholder letters of support for the Resiliency Service Program
Attachment ERR-3	Model Contract
Attachment ERR-4	Resiliency Service Program process

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**DIRECT TESTIMONY AND ATTACHMENTS OF EMMETT R. ROMINE**

**I. INTRODUCTION, QUALIFICATIONS, PURPOSE OF TESTIMONY, AND  
RECOMMENDATIONS**

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Emmett R. Romine. My business address is 1800 Larimer Street,  
Denver, Colorado 80202.

**Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT POSITION?**

A. I am employed by Xcel Energy Services Inc. (“XES”) as Vice President, Customer  
Solutions and Innovation. XES is a wholly owned subsidiary of Xcel Energy Inc.  
 (“Xcel Energy”) and provides an array of support services to Public Service  
Company of Colorado (“Public Service” or the “Company”) and the other utility  
operating company subsidiaries of Xcel Energy on a coordinated basis.

**Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THE PROCEEDING?**

A. I am testifying on behalf of Public Service.

1   **Q.   PLEASE SUMMARIZE YOUR RESPONSIBILITIES AND QUALIFICATIONS.**

2   A.   As Vice President, Customer Solutions and Innovation, I am responsible for  
3       aligning and delivering customer-focused products and services for residential,  
4       commercial, and industrial customers on behalf of Public Service. My duties  
5       include, among other things, developing customer and stakeholder strategies, new  
6       products and services, and processes and approaches to achieve long-term  
7       customer support and service goals. This includes oversight of demand-side  
8       management, demand response, renewable choice, economic development, and  
9       product development teams and ensuring performance management of core  
10      business elements are met. A more detailed description of my qualifications,  
11      duties, and responsibilities is set forth in my Statement of Qualifications at the  
12      conclusion of my Direct Testimony.

13   **Q.   WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

14   A.   The purpose of my Direct Testimony is to provide support for the Company's  
15      request for approval of a Resiliency Service Program Tariff.

16   **Q.   ARE YOU SPONSORING ANY ATTACHMENTS AS PART OF YOUR DIRECT**  
17      **TESTIMONY?**

18   A.   Yes, I am sponsoring Attachments ERR-1 through ERR-4, which were prepared  
19      by me or under my direct supervision. The attachments are as follows:

- 20      •   Attachment ERR-1: C&I Customer Research Survey Results
- 21      •   Attachment ERR-2: Letters of support for the Resiliency Service Program
- 22      •   Attachment ERR-3: Model Contract
- 23      •   Attachment ERR-4: Resiliency Service Program process

1   **Q.   WHAT RECOMMENDATIONS ARE YOU MAKING IN YOUR DIRECT**  
2       **TESTIMONY?**

3   **A.**   I recommend that the Colorado Public Utilities Commission (“Commission”)  
4       approve the Company’s Resiliency Service Program Tariff as reasonable and in  
5       the public interest.



1                   **II.   PROPOSED RESILIENCY SERVICE PROGRAM TARIFF**

2   **Q.   WHAT IS THE PURPOSE OF THIS SECTION OF YOUR DIRECT TESTIMONY?**

3   A.   In this section, I provide support for the Company's request for approval of a  
4       Resiliency Service Program Tariff. This optional service is designed to support  
5       those customers that have a need for higher than standard service reliability  
6       through use of battery energy storage or on-site generation assets. The Company  
7       believes this program will lower upfront costs of resiliency investments for  
8       participants and provide a positive customer experience with no material cost  
9       increase or impacts to the system or non-participating customers. Further, the  
10      Company does not anticipate net cost increases to non-participating customers as  
11      a result of this program. For these reasons, the Company requests approval of  
12      the Resiliency Service Program design, as well as the Resiliency Service Program  
13      Tariff presented as Attachment RNC-1 to the Direct Testimony of Mr. R. Neil  
14      Cowan.

15               **A. Resiliency Service Program Overview**

16   **Q.   WHAT IS A RESILIENCY SERVICE PROGRAM?**

17   A.   "Resiliency Service" is a product offering designed to support microgrids and other  
18       resiliency projects for Small Commercial and C&I customers that require additional  
19       protections against potential power interruptions to operate their businesses. The  
20       objective of this program is to give those customers additional choices to achieve  
21       their resiliency, sustainability, or other energy-related goals. Public Service will  
22       provide this support through Company ownership, installation, operation, and  
23       maintenance of Resiliency Service Assets, which is defined as assets owned,

1 operated, and maintained by the Company on the customer's behalf that consist  
2 of eligible technologies such as BESS, on-site generation and switching and  
3 control equipment. The program is designed to be technology agnostic and will  
4 allow for customers to choose resiliency options to best meet their needs. Under  
5 the program, customers will work with Public Service and its vendors to design,  
6 construct, and interconnect their system.

7 **Q. WHAT ARE THE KEY OBJECTIVES OF THE PROGRAM?**

8 A. The Company proposes to offer this service to facilitate investment in customer  
9 resiliency and emerging technologies, such as solar and battery storage, because  
10 they can play an important role in helping support critical facilities. In the future,  
11 projects like those undertaken by the Company and customers under this service  
12 may help inform the Company's distribution planning process. The Company  
13 believes the program will lower upfront costs of resiliency investments for  
14 participating customers and provide a positive customer experience through  
15 customized combinations of Resiliency Service Assets that meet customers'  
16 specific resiliency and reliability needs.

17 **Q. WHY IS THE COMPANY PROPOSING THE RESILIENCY SERVICE**  
18 **PROGRAM?**

19 A. The concept of resiliency in the electric system is becoming more relevant as,  
20 across the country, customers seek to navigate the risks of weather events or other  
21 significant disruptions. Resiliency strategies are designed to address anticipated  
22 severe electric disruptions to day-to-day life or a customer's operations by

1 investing in critical infrastructure and systems to sustain the customer's electric  
2 service during electric disruption, and to hasten recovery.

3 While Public Service's electric system is currently 99.9<sup>1</sup> percent reliable,  
4 customers that seek higher than standard reliability have expressed interest in  
5 receiving support from the Company to achieve this increased reliability. This  
6 program likewise supports customers' move toward renewable, but often  
7 intermittent, power supplies. It provides support, such as battery storage or diesel  
8 generation, as a back-up to facilitate greater reliance on intermittent wind and solar  
9 resources on their property. Because new tariffs are necessary to implement this  
10 service, the Company seeks approval of the Resiliency Service Program and the  
11 associated tariff.

12 **Q. IS THERE DATA INDICATING CUSTOMER INTEREST IN THE TYPE OF**  
13 **SERVICE PROPOSED?**

14 A. Yes. The Company conducted research through a third party that indicated C&I  
15 customers are seeking help with respect to reliability assessments and planning  
16 and are interested in resiliency solutions, as well as financing solutions to support  
17 implementation. Attachment ERR-1 shows the results of this research. In  
18 conversations with Account Managers and other customer facing staff, customers  
19 frequently cite resiliency needs as a primary operational focus with the expectation  
20 that the Company will assist with finding solutions to these needs.

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<sup>1</sup> See the Company's Electric Quality of Service Plan 2020 Annual Summary Report.

1           The Company has discussed the need for resiliency solutions directly with  
2 customers and, at this time, has received letters of support for this product from  
3 the City of Denver, University of Colorado Boulder, Colorado School of Mines,  
4 Denver International Airport, and the Denver Federal Center, which are included  
5 as Attachment ERR-2 to my Direct Testimony. These customers all have projects  
6 at their facilities that have been identified as potentially benefitting from the  
7 proposed tariff.

8 **Q. DOES PUBLIC SERVICE HAVE EXPERIENCE OFFERING CUSTOMER**  
9 **RESILIENCY SERVICES?**

10 A. Yes. In Proceeding No. 15A-0847E, the Innovative Clean Technology program,  
11 Public Service built the Panasonic Battery Storage Microgrid demonstration project  
12 (the “Panasonic Project”). This system has been operating successfully since its  
13 completion in 2017. The Panasonic Project, located near the Denver International  
14 Airport, combined a 1.6 MW<sub>dc</sub> solar photovoltaic (“PV”) resource, a 1 MW-2 MWh  
15 battery storage resource, islanding switch and microgrid controls to demonstrate  
16 how a battery energy storage system can be used to provide benefit to the electric  
17 grid and resilience services to individual customers. In the event of a grid outage,  
18 the BESS and customer facility are isolated, or “islanded,” from the rest of the  
19 electric grid. The BESS then goes into “grid forming” mode, restoring power to the  
20 customer’s facility within eight seconds. Through the Panasonic Project, this  
21 functionality has been successfully demonstrated through testing as well as  
22 responding to multiple real-life power disruptions due to storm-related outages on  
23 the feeder.

1 As described in the “Final and Comprehensive Report to the Colorado  
2 Public Utilities Commission Regarding the Panasonic and Stapleton Pilot  
3 Projects,” the Panasonic Project demonstrated several grid and customer benefits,  
4 including grid integration of high-penetration solar PV, system peak demand  
5 reduction, energy arbitrage, frequency regulation, and back-up service to an end-  
6 use customer in case of grid outage. The Panasonic Project has also  
7 demonstrated the ability to respond to sudden changes in production of the on-site  
8 solar PV resource. Many of the lessons learned in the design, construction, and  
9 operation of the Panasonic Project have been integrated into subsequent  
10 resiliency service projects, including the proposals for seven additional projects in  
11 Colorado as part of Public Service’s Community Resiliency Initiative that was  
12 recently approved by the Commission.<sup>2</sup>

13 In addition, Xcel Energy has filed a tariff in its Wisconsin service territory  
14 providing this same service to customers. The program received approval and  
15 was launched in September 2021. The Company has engaged with numerous  
16 customers in that state with plans to begin design and construction of resiliency  
17 assets this year.

18 **Q. WHAT ARE THE KEY COMPONENTS OF THE PROPOSED RESILIENCY**  
19 **SERVICE PROGRAM?**

20 A. The Resiliency Service will be available to Small Commercial and C&I customers  
21 and will support customer resiliency through Company ownership, installation,

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<sup>2</sup> See Public Service’s Community Resiliency Initiative, Proceeding No. 19A-0225E. Six of these projects are currently in development with the seventh having been cancelled when the site host backed out of the project.

1 operation, and maintenance of Resiliency Service Assets through its vendor  
2 partners, which may include combinations of BESS, microgrid control equipment  
3 such as islanding switches, and generation assets including but not limited to  
4 Back-Up Generation (“BUG”) and solar PV paired with a BESS. Under the  
5 Company’s proposal, Resiliency Service Assets will be located on or near a  
6 customer’s premise(s), serving load located behind a single customer meter.

7 **Q. ARE VENDORS ABLE TO PARTICIPATE IN THE PROGRAM?**

8 A. Yes. Vendors will be pre-selected through a competitive bidding process and  
9 included in conversations with customers regarding potential projects. Upon  
10 program approval, the Company will release a Request for Qualifications (“RFQ”)  
11 to identify vendors capable of providing resiliency services in its service territory.  
12 The Company plans to keep a robust group of vendors under contract with a wide  
13 range of skill sets to be able to meet a wide variety of customer’s needs. This will  
14 allow the Company to assign projects to vendors based on the project need and  
15 vendor skillsets. Vendors that are selected will sign a Master Services Agreement  
16 (“MSA”) with the Company to allow for expedited project contracting when a vendor  
17 is selected.

18 **Q. HOW CAN A VENDOR WHO IS NOT SELECTED THROUGH THE RFQ**  
19 **PROCESS PARTICIPATE IN THE PROGRAM?**

20 A. Vendors that are not selected through the RFQ process can still participate in the  
21 program and utilize the tariff for program services. If a customer wishes to  
22 participate in the program and has already selected a vendor that is not on the  
23 Company’s pre-approved list, the project can still be built and paid for through the

1 program tariff. However, these vendors will need to undergo contract negotiations  
2 to execute construction and maintenance on the Company's behalf and submit any  
3 financial information requested by the Company similar to what will be requested  
4 in the RFQ.

5 **Q. IS THE COMPANY ATTEMPTING TO ENCROACH ON THE COMPETITIVE**  
6 **MARKET FOR BEHIND-THE-METER SERVICES?**

7 A. No. While the Resiliency Service Program will help facilitate behind-the-meter  
8 projects, the Company is not proposing to encroach on the competitive market for  
9 these services. Rather than compete with vendors in this space, the Company is  
10 proposing an option to provide project capital and facilitate the technical  
11 development of resiliency projects within the competitive market. By providing  
12 necessary financial and technical support, the Company's Resiliency Service  
13 Program Tariff can bring customers to the market that might otherwise hesitate to  
14 seek a resiliency solution. Importantly, the implementation of these projects will  
15 be the responsibility of qualified local vendors. The Company will connect local  
16 suppliers with customers looking for resiliency solutions, while providing quality  
17 assurance and consumer protection. The program presents a mutually beneficial  
18 partnership between these local suppliers and the Company.

19 **Q. WILL NON-PARTICIPATING CUSTOMERS BE RESPONSIBLE FOR SOME OR**  
20 **ALL OF THE PROGRAM COSTS?**

21 A. No. As explained in the Direct Testimony of Mr. Cowan, the Resiliency Service  
22 Program Tariff is a voluntary product offering and will not be subsidized by non-  
23 participating customers. All program costs will be borne by participating customers

1 and no services, including project overhead, will be socialized to non-participating  
2 customers. The customer's charge will reflect only the Company's cost of service,  
3 including a carrying charge based on the Company's then current weighted  
4 average cost of capital, with nothing preventing a competitive provider from  
5 offering the same service to customers at a lower price or under different terms.

6 **B. Program Design**

7 **Q. PLEASE DESCRIBE CUSTOMER ELIGIBILITY AND PARTICIPATION UNDER**  
8 **THE PROPOSED PROGRAM.**

9 A. The Resiliency Service Program will be available to Small Commercial or  
10 Commercial and Industrial Secondary, Primary or Transmission Service  
11 customers that take service from a single premise.<sup>3</sup> Customers will be given an  
12 option of 10-year, 15-year, or 20-year terms for the Customer Service Agreement  
13 ("CSA"). Term length will be determined by customer need and asset type. A  
14 model contract has been provided as Attachment ERR-3.

15 **Q. HAS THE COMPANY INCLUDED AN ESTIMATED PROGRAM BUDGET IN**  
16 **THIS CASE?**

17 A. Yes. The Company has included a budget estimate in a workpaper based on  
18 conversations with customers and experience acquired through program

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<sup>3</sup> Customers that have premises that are in close physical proximity but served by more than one meter may be eligible to combine those premises behind a single meter as part of the Resiliency Service Program under the Multiple Premises Provision.



implementation in its Wisconsin service territory.<sup>4</sup> See Table ERR-D-1 below for the estimated capital spend of the program.

**Table ERR-D-1  
Estimated Capital Spend**

Program Year	PY1	PY2	PY3	PY4	PY5	PY6	Total
Incremental Projects	2	2	3	3	3	2	15
Capital Spend	\$1.7M	\$1.7M	\$3.0M	\$3.0M	\$3.0M	\$2.6M	\$15M

**Q. HOW IS THE COMPANY PROPOSING THAT THE REGULATORY ACCOUNTING AND REPORTING BE HANDLED?**

A. The Company is proposing to report all costs and revenues resulting from the Resiliency Service Program once projects are under contract in an executed CSA. All costs and revenues for contracted Resiliency Service Program projects would be excluded in subsequent rate cases.

**Q. HOW WILL SERVICE UNDER THE TARIFF BE GOVERNED?**

A. Each resiliency project will be customized to meet the needs of the individual customer and will consider site-specific design considerations. The planning, construction, and operation of the resiliency project will be governed by the detailed program process set forth in Attachment ERR-4 to my Direct Testimony. Resiliency Service Assets will be installed, owned, and maintained by the Company through its vendor partners during the contract term. During the contract term, participants will pay for all program costs through dedicated customer

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<sup>4</sup> Due to the high variance in project costs and the relatively small number of projects that this program is expected to serve, the budget estimates included in this workpaper have a high degree of variability and are largely illustrative.

1 charges to be included on the customer bill as explained above. These details will  
2 be set forth in the CSA, which will be in effect for the contract term.

3 **Q. WHAT WILL HAPPEN TO THE ASSET AT THE END OF THE CONTRACT**  
4 **TERM?**

5 A. When the contract term is up, the asset will be fully depreciated, and all costs will  
6 have been recovered from the customer. At this point, ownership of the asset will  
7 be transferred to the customer as the default option. However, the customer may  
8 choose to sign an additional CSA instead of the default option, which maintains  
9 Company ownership and operation of the asset at a lower monthly rate. A third  
10 option for customers is to replace the asset and continue payment under a new  
11 CSA.

12 **Q. HAS THE COMPANY CONSIDERED THE POTENTIAL RISK OF DEFAULT AS**  
13 **WELL AS PROTECTIONS FOR NON-PARTICIPATING CUSTOMERS FROM**  
14 **FINANCIAL RISK?**

15 A. Yes. In developing due diligence and financial security terms and conditions for  
16 Resiliency Service Program contracts, the Company has attempted to draw an  
17 appropriate balance between ensuring that the Company is protected from undue  
18 financial risk, while at the same time offering a Resiliency Service Program that  
19 meets the key objectives to lower upfront costs for participating customers and  
20 meet customers' specific resiliency and reliability needs in a practical manner.

1 **Q. WHAT DUE DILIGENCE WILL THE COMPANY CONDUCT PRIOR TO**  
2 **ENTERING INTO A SERVICE AGREEMENT WITH A RESILIENCY SERVICE**  
3 **PROGRAM CUSTOMER?**

4 A. While there may be new customers who enroll in the Resiliency Service Program,  
5 most customers that enroll will be existing customers with a bill payment credit  
6 history. All of the Company's current credit and default policies will be applicable  
7 to all Resiliency Service Program customers. In addition to reviewing the general  
8 credit history with the Company during the enrollment assessment process, the  
9 Company will require a credit report to be obtained at the prospective Resiliency  
10 Service Program customer's expense. This will provide the Company with the  
11 prospective customer's credit rating to help the Company gauge the potential risk  
12 of default. Because this is an optional service, the Company is not obligated to  
13 provide service under this tariff. As such, if a prospective Resiliency Service  
14 Program customer's credit rating leads the Company to believe there is a  
15 substantial risk of customer default, the Company has the discretion not to move  
16 forward with the resiliency project, or the Company may require additional financial  
17 security that will be accounted for in the Resiliency Service Program Tariff charges.

18 **Q. WHAT FINANCIAL SECURITY IS THE COMPANY PROPOSING?**

19 A. The Company has conducted an analysis of the risk of default based on credit  
20 ratings for C&I customers. First, for customers meeting a minimum credit rating  
21 threshold, the proposed tariff and CSA require customers to cover the full cost of  
22 project design and engineering costs. However, for customers with a credit rating  
23 below the minimum, the Company proposes to require customers to either require

1 a down payment prior to project work beginning or pay for an insurance product  
2 sufficient to address the default risk, with amounts on a sliding scale for various  
3 credit rating levels. These costs would be incorporated into the bill charges for the  
4 customer under the Resiliency Service Program Tariff.

5 Further, in the event of non-payment, default due to breach of other contract  
6 provisions, or early termination, the Company retains ownership of the resiliency  
7 assets. As such, if other cures in the contract provisions are not effective, the  
8 Company may ultimately remove the assets from the customer's premise and  
9 repurpose for other uses.

10 **Q. DESPITE THE PROTECTIONS DESCRIBED EARLIER, IS THERE STILL RISK**  
11 **OF UNRECOVERABLE COSTS FROM RESILIENCY SERVICE PROGRAM**  
12 **CUSTOMERS IN THE CASE OF DEFAULT?**

13 **A.** Yes. There could potentially be limited instances where a portion of the resiliency  
14 assets costs may be unrecoverable from the Resiliency Service Program  
15 customer. However, the Company believes the proposed contract provisions and  
16 financial security requirements address the risk of default, and the Company will  
17 make business decisions on a case-by-case basis to contractually address these  
18 risks as described above. Stranded costs that result from a customer default will  
19 be borne by shareholders rather than socialized to other customers.

1 **Q. HOW WILL THE COMPANY COMMUNICATE AND/OR MARKET THE**  
2 **AVAILABILITY OF THIS PROGRAM TO CUSTOMERS WHO MAY BE**  
3 **INTERESTED AND ELIGIBLE TO PARTICIPATE?**

4 A. The Company will primarily rely on support from its Area Managers and Account  
5 Managers along with program staff to communicate with customers about  
6 opportunities to participate in this program. The Company believes it will be  
7 important to have specific conversations with individual customers about how this  
8 service may help meet the customer's specific resiliency needs. This  
9 individualized approach has functioned well to date as the Company has had  
10 preliminary discussions about resiliency projects with several customers to gauge  
11 customer interest prior to filing this proposal and to solicit feedback from customers  
12 when designing this program. The Company may also market the program  
13 through channels that customers expect to use when receiving or seeking  
14 information regarding any of the products and services offered by the Company  
15 such as email, social media, and traditional media.

16 **C. Benefits**

17 **Q. PLEASE DESCRIBE THE BENEFITS OF THE PROGRAM FOR**  
18 **PARTICIPATING CUSTOMERS.**

19 A. Each customer will receive the benefits of the Resiliency Service Assets deployed  
20 for their resiliency project. Given that the costs of Resiliency Service Assets are  
21 being borne entirely by the single participating customer, the Company believes  
22 that the customer is due all benefits that derive from the use of those assets.

1 Benefits will vary depending on the specific customer resiliency needs and  
2 resiliency project specifics, and may include the following:

- 3 • Back-up or Alternative Power Service – Resiliency Service Assets will  
4 enable customers to disconnect from the Company's grid and meet their  
5 own power needs during emergency periods.
- 6 • Peak Demand Reductions – BESS and BUG Resiliency Service Assets  
7 may be utilized to lower demand charges on customer bills through low-  
8 cost off-peak charging and discharging during customer peak  
9 consumption times during normal grid operations.
- 10 • Energy Arbitrage – BESS Resiliency Service Assets may be utilized to  
11 lower energy charges on customer bills through low-cost off-peak  
12 charging and high-cost on-peak discharging during normal grid  
13 operations.
- 14 • Reduced Energy Purchases – Under the terms of the Tariff, Resiliency  
15 Service Assets are eligible for any rates and regulations related to  
16 parallel generation. Eligible PV Solar Resiliency Service Assets, and  
17 potentially other types of low- or no-fuel-cost Generation Assets, can  
18 provide reductions to energy charges on customer bills pursuant to the  
19 terms of the Company's parallel generation tariffs.
- 20 • Frequency or Voltage Regulation – BESS and other technology may be  
21 used improve the quality of power as a resiliency service. The Company  
22 will continue to explore the use of BESS to meet customer power quality  
23 needs.
- 24 • Peak Control Rate Eligibility – Back-Up Generators or BESS Resiliency  
25 Service Assets at customer premises may enable customers to  
26 participate in one of the Company's peak control rates, which can result  
27 in customer bill savings through reduced demand charges.

28 **Q. WILL PARTICIPATING CUSTOMERS SEE ANY QUANTIFIABLE BENEFITS OF**  
29 **THIS PROGRAM?**

30 A. Some benefits discussed above will not be quantifiable in terms of customer bill  
31 savings, but other benefits may result in bill reductions. After the implementation  
32 of the Resiliency Service Assets, any bill savings for participating customers will  
33 be included in the customer's bill in the form of demand reductions, energy

1 reductions, or credits from their participation in demand response programs. Since  
2 these benefits are embedded in the charges on the participating customer's bill,  
3 the customer will not be able to directly observe the savings caused by the  
4 Resiliency Service Assets. However, there are quantifiable benefits such as  
5 increased uptime during outages, as well as increased power quality. These  
6 benefits will be measured and communicated to customers as applicable.

7 **Q. DOES THE COMPANY ANTICIPATE ANY EMISSIONS REDUCTIONS AS A**  
8 **RESULT OF THIS PROGRAM?**

9 A. Yes. The purpose of this program is to spur investment in resiliency technologies  
10 that are not implemented today either due to customer capital constraints or design  
11 complexity. Low or no carbon technologies in this space tend to be the most capital  
12 intensive and complex projects and, therefore, least likely to be built under current  
13 conditions. This program will lower barriers to implementation for newer  
14 technologies and encourage customers to invest in lower carbon technologies,  
15 such as solar and storage, rather than cheaper, simpler and more carbon intensive  
16 options.

17 **Q. ARE DIESEL GENERATION ASSETS AVAILABLE UNDER THE RESILIENCY**  
18 **SERVICE PROGRAM?**

19 A. Yes. While diesel back-up generation will be available to customers through this  
20 program, the Company does not anticipate these projects to make up a large  
21 proportion of the total projects built. As noted above, low carbon or carbon free  
22 technologies tend to be more capital intensive and complex from a design  
23 perspective. This program is designed specifically to address these barriers,

1 meaning it is more in line with the needs of low or no carbon projects than diesel  
2 generation. Customers with diesel generation needs often have the capital and  
3 internal capacity to install and operate these projects on their own. These  
4 assumptions have been borne out in the Company's resiliency program in  
5 Wisconsin.

6 A primary use case that has emerged for this program through  
7 conversations with customers in Colorado, as well as actual program  
8 implementation in Wisconsin, is to replace existing diesel generation with clean  
9 energy technologies such as battery storage. Many customers with resiliency  
10 needs currently utilize diesel generation to meet them. Of these customers, a large  
11 portion have carbon reduction commitments and, as a result, have goals of  
12 replacing diesel back-up power with clean energy technologies. These customers  
13 often lack the capital and design expertise to make this transition effectively. This  
14 program can provide the resources necessary in this situation, facilitating clean  
15 energy projects that would not move forward otherwise.

16 **Q. ARE THERE ADDITIONAL OVERALL BENEFITS OF THE PROGRAM BEYOND**  
17 **THOSE DIRECTLY RELATED TO PARTICIPATING CUSTOMERS?**

18 **A.** Yes. The Company has identified additional overall benefits of the program. First,  
19 Company ownership and operation of Resiliency Service Assets will provide  
20 valuable experience to the Company on the benefits of behind-the-meter  
21 technologies that can aid the Company in the evaluation of alternatives to  
22 traditional utility distribution investments. As proposed, the program is voluntary  
23 for customers and exists to meet customer resiliency needs. The Company is not



1       proposing this program as an alternative to traditional distribution investments or  
2       planning, and it will not be used to actively pursue non-wire alternatives; however,  
3       the data and experience gained from customer participation in this program may  
4       be valuable for evaluating non-wire alternatives in the future.

5               In addition, availability of the Resiliency Service Program Tariff may result  
6       in the additional deployment of microgrids and green energy infrastructure, which  
7       could help achieve carbon emissions goals for individual customers, communities,  
8       and the State of Colorado. Community microgrid projects enabled under the  
9       Resiliency Service Program Tariff may enable communities to provide support to  
10      their most vulnerable groups during a disaster by providing an area of refuge  
11      during a prolonged grid outage.

### III. CONCLUSION

**Q. PLEASE SUMMARIZE YOUR REQUEST FOR APPROVAL OF THE COMPANY'S PROPOSED RESILIENCY SERVICE PROGRAM TARIFF.**

A. The Company's proposed Resiliency Service Program Tariff is designed to support those customers that have a need for higher than standard service reliability through use of battery energy storage or on-site generation assets and is an optional service for Small Commercial and C&I customers. The Company believes this program will lower upfront costs for participants and provide a positive customer experience with no net cost increase or impacts to the system or non-participating customers.

**Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.**

A. I recommend that the Commission approve the Resiliency Service Program and associated tariff as it is reasonable and in the public interest for the reasons explained in my Direct Testimony.

**Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

A. Yes, it does.

## **Statement of Qualifications**

### **Emmett R. Romine**

In my current role as Vice President Customer Solutions and Innovation, I am responsible leading my teams to develop new products and services as well as deliver our demand-side management, demand management, renewable choice programs, AGIS and Distributed Intelligence customer programs as well as pursuing economic development opportunities in Xcel Energy's territory. My team develops and implements corporate brand strategy and performs primary and secondary research to understand customer needs and expectations. My teams support all customer classes through the research, brand efforts and the products and services we provide. I have been in this current role since July 2020. I joined Xcel Energy in November 2019 as Vice President of Commercial and Industrial (C&I) Customers. In this role, I oversaw primarily the C&I customer programs for demand-side management as well as demand management, renewable choice and C&I product development groups.

Prior to Xcel Energy, I worked from 2003 until 2019 at DTE Energy or DTE Energy affiliates. From 2015 through 2019, I helped to form Powerley, a startup focused on leveraging real-time energy data from automated meters to provide home energy management solutions. I served as a board member for the first year of operations, then joined the company as the Senior Vice President of Business Development, responsible for sales, delivery and regulatory strategy for the company. Powerley is an affiliate within DTE Energy. Prior to Powerley, I held several leadership roles in various parts of DTE. Those roles include General Manager overseeing the DTE Insight platform and demand

response and General Manager over Energy Optimization. In these roles, I was tasked with developing and launching DTE Energy's energy efficiency offerings as a result of the Michigan Legislature's Act 295 of 2008 as well as developing and commercializing DTE Insight, the mobile app platform leveraging DTE's AMI deployment for residential customers.

Additionally, while at DTE, I also had roles in operations and other parts of the business including Service Center Manager overseeing warehouse operations for distribution operations, Continuous Improvement manager for distribution operations which included cost optimization and chief of staff duties and Manager Project Management in the enterprise performance management group.

Before DTE Energy, I held several other roles including Director Power Generation Solutions at Enigma, Manager in the Chemicals and Energy Practice at KPMG Consulting and Manufacturing Engineer at Nordyne, Inc.

I hold a Master's in Business Administration from Olin School of Business at Washington University in St. Louis, a Bachelor of Science in Mechanical Engineering from Washington University, and a Bachelor of Arts in Physics from William Jewell College. I am also a certified lean six sigma blackbelt and have executive education from Kellogg School of Management in Organic Growth & Innovation.

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO


\* \* \* \* \*

IN THE MATTER OF ADVICE NO. )  
1881-ELECTRIC OF PUBLIC SERVICE )  
COMPANY OF COLORADO FOR )  
APPROVAL OF A RESILIENCY ) PROCEEDING NO. 22AL-\_\_\_\_E  
SERVICE PROGRAM TARIFF IN ITS )  
COLORADO PUC NO. 8 – ELECTRIC )  
TARIFF EFFECTIVE APRIL 24, 2022 )

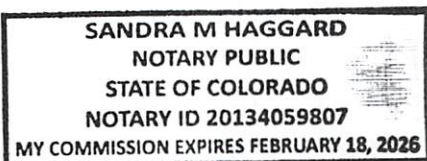
AFFIDAVIT OF EMMETTE R. ROMINE  
ON BEHALF OF  
PUBLIC SERVICE COMPANY OF COLORADO

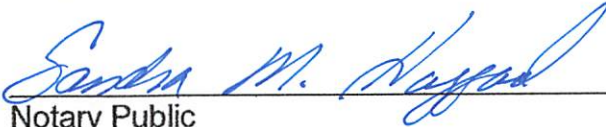
I, Emmett R. Romine, being duly sworn, state that the Direct Testimony and attachments were prepared by me or under my supervision, control, and direction; that the Direct Testimony and attachments are true and correct to the best of my information, knowledge and belief; and that I would give the same testimony orally and would present the same attachments if asked under oath.

Dated at Denver, Colorado, this 23<sup>rd</sup> day of MARCH, 2022

  
Emmett R. Romine  
Vice President, Customer Solutions and  
Innovation

Subscribed and sworn to before me this 23<sup>rd</sup> day of MARCH, 2022



  
Notary Public

My Commission expires 2/18/2026