BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

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IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO FOR APPROVAL OF ITS 2022–2025 RENEWABLE ENERGY COMPLIANCE PLAN	))))))	**PROCEEDING NO. 21A-____EG**

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DIRECT TESTIMONY AND ATTACHMENTS OF R. NEIL COWAN

ON

BEHALF OF

PUBLIC SERVICE COMPANY OF COLORADO

December 20, 2021

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

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is R. Neil Cowan. My business address is 1800 Larimer, Denver, Colorado 80202.

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

A. I am employed by Public Service Company of Colorado ("Public Service" or the "Company") as a Regulatory Policy Specialist.

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

A. I am testifying on behalf of Public Service.

Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AND QUALIFICATIONS.

A. As a Regulatory Policy Specialist, I am responsible for the strategic planning, policy development, and regulatory and legislative support for issues pertaining to renewable energy products and services, demand-side management ("DSM"), and

customer data privacy. A description of my qualifications, duties, and responsibilities is set forth after the conclusion of my Direct Testimony in my Statement of Qualifications.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my Direct Testimony is to describe the success of the current Renewable*Connect® (or "R*C") program and proposed changes to two programs that will fall under the R*C brand, Renewable*Connect 2.0 ("R*C-2.0") and Renewable*Connect Month-to-Month ("R*C-MTM"). I further introduce two new programs to the R*C brand: Renewable*Connect Community ("R*C-C"), and Renewable*Connect Natural Gas ("R*C-NG"). The Company is seeking Colorado Public Utilities Commission ("Commission") approval to operate both the existing and additional programs, as they are in the public interest.

Q. DO YOU SPONSOR ANY SECTIONS OF ATTACHMENTS JWI-1 THROUGH JWI-3?

A. Yes. I sponsor portions of Section 6 of Attachment JWI-1 and two agreements in Attachment JWI-3.

Q. CAN YOU DESCRIBE THE AGREEMENTS?

A. Yes. The two agreements are the R*C-2.0 Subscriber Agreement and the R*C-C Program Agreement.

Q. WHAT ARE THE MAIN PROVISIONS OF THE RENEWABLE*CONNECT 2.0 SUBSCRIBER AGREEMENT?

A. The R*C-2.0 Subscriber Agreement offers only a 15-year term,[1] unlike the prior R*C program, which offered 10-year, five-year, and month-to-month programs. If a subscriber terminates early, it incurs a termination fee related to the expected future charges and capacity credits, which can be reduced if replacement subscribers enroll within a certain period after termination.

Q. WHAT ARE THE MAIN PROVISIONS OF THE R*C-C PROGRAM AGREEMENT?

A. The R*C-C Program is available to Colorado municipalities, counties, or other local entities that want to meet their own sustainability or renewable energy commitments through renewable energy credits ("RECs") sourced from projects in Colorado, within Public Service's service territory. The agreement is a master agreement covering the terms to purchase RECs, and the local entities can enter into purchase letters under the master agreement with Public Service for a specific purchase of RECs, whether a one-time purchase, annual purchases, or other arrangements to meet the needs of the local community.

Q. ARE YOU SPONSORING ANY OTHER ATTACHMENTS AS PART OF YOUR DIRECT TESTIMONY?

A. Yes, I am sponsoring Attachments NC-1 through NC-10, which were prepared by me or under my direct supervision. The attachments are as follows:

[1] The actual term of the Subscriber Agreement may be for a different length of time, depending on the term of the PPA(s) the Company will execute for the dedicated solar resource(s) for the Renewable*Connect 2.0 offering, as I explain in more detail below.

- Attachment NC-1: Sample R*C Capacity Interest Form
- Attachment NC-2: R*C Capacity Interest Summary
- Attachment NC-3: Windsource® Colorado Survey Results
- Attachment NC-4: Illustrative R*C-MTM Tariff
- Attachment NC-5: 2021 REC Pricing
- Attachment NC-6: Residential Natural Gas Decarbonization Survey – April 2020
- Attachment NC-7: Understanding Customer Perceptions of Renewable Natural Gas ("RNG") Products Survey Results – August 2020
- Attachment NC-8: RNG Survey Results June 2021
- Attachment NC-9: Program Design Calculator
- Attachment NC-10: Illustrative R*C-NG Tariff

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

A. I recommend that the Commission approve the R*C program in its entirety for the benefit of the Company's customers. As I will discuss in more detail below the overall R*C program will contain the following programs:

- R*C-1.0 – This is the program that is currently approved and has been operating since late 2018. The Company is proposing to make adjustments to allow changes to the administrative part of the R*C charge and to simplify the earnings share mechanism.
- R*C-2.0 – This is a new proposed program that the Company is requesting to initiate with up to 300 megawatts ("MW") based upon customer demand. R*C-2.0 is largely modeled on R*C-1.0.
- R*C-MTM – This program is essentially a rebranding of what is known today as Windsource where we will add solar resources as a means to serve interested customers with both wind and solar resources.

- R*C-C – This program will allow interested communities within the Company's service territory to purchase RECs as a means toward achieving their respective sustainability goals or targets.

- R*C-NG – This is a voluntary retail program that will enable the Company's natural gas customers to reduce the carbon footprint of their natural gas usage through a combination of RNG and carbon offsets.

II. THE CURRENT RENEWABLE*CONNECT PROGRAM

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

A. The purpose of this section of my testimony is to summarize the current R*C-1.0 program.

Q. PLEASE DESCRIBE THE CURRENT R*C PROGRAM OFFERING.

A. R*C-1.0 provides Public Service's residential and commercial customers with the option to power their homes and businesses from a dedicated 50 MW of utility-scale solar energy produced in Deer Trail, Colorado. The program allows for flexible terms and conditions with a set charge and an annually updated credit. The current capacity of R*C-1.0 is 50 MW, and the program has been fully subscribed since the program launched in 2018. The Company has maintained a waiting list since the inception of the program. When a customer terminates its participation in R*C-1.0, the departing customer's spot is immediately filled from the waiting list.

Q. WHY IS THERE A WAITING LIST?

A. As discussed in more detail later in my testimony, customer demand has simply been larger than the scale of the 50 MW resource that was approved by the Commission.

Q. WHY DOES THE COMPANY OFFER THIS PROGRAM?

A. The Company is offering R*C-1.0 to provide customers with greater flexibility. R*C-1.0 fills a gap by providing a program to customers who may not be able to pursue on-site solar or renewable resources or may not be able or want to participate in community solar garden ("CSG") opportunities. R*C-1.0 is the

Company's response to customer interest in renewable generation and related customer access issues, and Public Service's R*C-1.0 offering provides customers with another program option.

Customer interest: The R*C-1.0 offering was designed to satisfy the preferences of customers who want the flexibility to acquire greater levels of renewables in a cost-effective, transparent manner. R*C-1.0 fulfills subscribing customers' interest in meeting their energy needs from renewable energy and their preferences for certain program attributes. For example, R*C-1.0 offers low pricing, flexible contract terms, resource additionality, and customers' ability to claim RECs produced by "their" renewable electric generation resources.

Customer access: R*C-1.0 provides customers with a voluntary renewable energy option that does not limit participation to customers that can meet explicit or implicit economic qualifications, such as high upfront costs for other renewable participation programs or credit rating requirements.

Customer option: R*C-1.0 provides an alternative for customers to support renewables who either cannot utilize rooftop solar or simply do not want to do so. R*C-1.0 also offers customers an alternative to CSGs to fulfill their renewable energy goals. The R*C-1.0 program provides a customer-friendly option that includes the ability to scale subscriptions to the customer's preference, on-bill payments (i.e., a simple payment directly on the customer's electric bill from Public Service), and flexible terms and conditions.

Q. WHAT IS THE CURRENT RESOURCE FOR THE R*C-1.0 PROGRAM?

A. R*C-1.0 is sourced from a 50 MW solar system built by NextEra Energy Resources, LLC ("NextEra") located in Deer Trail, Colorado, in eastern Arapahoe County. This resource was specifically acquired for the program through a competitive solicitation utilizing a request for proposals ("RFP") process. Public Service acquires the output of the resource through a Power Purchase Agreement ("PPA") with NextEra. Approximately 133,000 megawatt-hours ("MWh") of electric energy is produced each year with a 0.05 percent degradation factor.

Q. WHAT ARE THE GENERAL R*C SUBSCRIPTION TERMS?

A. Subscribers to the existing R*C-1.0 offering have flexible terms and conditions and reasonable termination fees. Subscription terms offer month-to-month, five-year, and 10-year contracts. Termination fees are designed for when subscribing customers leave the R*C-1.0 program and serve to mitigate risk for the Company while encouraging participants to weigh the pros and cons of remaining in the program.[2]

Q. DO CUSTOMERS GET TO CLAIM THE RECS ASSOCIATED WITH THE R*C RESOURCE?

A. Yes. RECs associated with the energy produced from the R*C-1.0 program's resource are retired on the customer's behalf and certified via Green-e. This allows customers to claim environmental attribution for the electric energy

[2] Early termination fees are as stipulated in the R*C-1.0 Subscriber Agreement for participants in the Five-Year and 10-Year term offers. For subscribers receiving service under Schedules R and RD, the termination fee is fifty dollars ($50.00). For subscribers receiving service under the Schedule C, the termination fee is one hundred dollars ($100.00). For all other service schedules, the charge is twenty-five dollars ($25.00) per kilowatt ("kW") of subscription.

associated with their subscription and helps contribute to any environmental goals that they may have.

Q. HOW DOES THE PRICING FOR R*C WORK FOR SUBSCRIBING CUSTOMERS?

A. The costs for participating in R*C-1.0 are included as an add-on to customers' current bills. There are two components to the R*C-1.0 "add-on": (1) a charge; and (2) a credit. Customers who participate in R*C-1.0 pay charges based on the costs of the R*C-1.0 program. They also receive credits because of the electric energy and capacity that is displaced by the R*C resource on their behalf. While the R*C-1.0 credit is the same for all subscribers, the R*C-1.0 charge is dependent upon the subscriber's chosen subscription term (month-to-month, five-year, or 10-year term). The charge is essentially fixed with known cost components such as the PPA and solar integration costs with fluctuating administrative costs; the credit is variable and depends on natural gas prices and other generation that the Company adds to the system. In recent years these variables have led to overall lower system costs and thus a lower credit. Thus, the net R*C-1.0 pricing varies over time depending on natural gas prices. In 2021, the net price was $0.01044/kWh for a month-to-month contract, $0.00762/kWh for a five-year contract, and $0.00681/kWh for a 10-year contract. For 2022, the Company is expecting a higher R*C-1.0 credit due to higher forecasted natural gas prices.

Q. PLEASE DESCRIBE THE R*C-1.0 CHARGE COMPONENTS.

A. The program charge is based on: (1) the solar energy cost (PPA with NextEra); (2) integration costs for the solar resource; (3) program administration costs; and (4) a risk factor adjustment.

- The solar cost is based on the PPA signed with NextEra ($33.95/MWh flat pricing with no escalator).
- The solar integration costs are the incremental ancillary services that are needed to support the addition of non-dispatchable resources like solar.
- The program administration costs are costs for marketing the program, labor costs for administration, and the cost of any information technology ("IT") infrastructure and services necessary to support the program.
- The Company applies a risk factor of 1.1, 1.03, and 1.01 respectively to month-to-month, five-year, and 10-year term offers to account for the different risk profiles derived from different term lengths with customers coming in and out of the program. The risk factor is applied to the sum of all charge components.

Q. PLEASE DESCRIBE THE R*C-1.0 CREDIT COMPONENTS.

A. The bill credit is composed of: (1) an avoided energy credit; and (2) a capacity credit.

Q. HOW IS THE AVOIDED ENERGY CREDIT DERIVED?

A. The avoided energy credit is an estimate of the fuel costs, purchased energy, and variable operations and maintenance ("O&M") costs that are expected to be avoided on the customer's behalf through the addition of the R*C-1.0 program resource and the customer's participation in the program. The addition of the program resource reduces the needed output from traditional generation facilities as well as the need for purchased energy costs (if the price of energy is less than the cost of running its own plants). The avoided energy cost is based on the

Company's methodology for determining the avoided energy rate paid to qualifying facilities ("QFs") under the Public Utility Regulatory Policies Act ("PURPA"). This "PURPA QF" methodology uses an hourly marginal cost forecast which is based on the cost of the Company's natural gas fired units.

Q. HOW IS THE AVOIDED CAPACITY CREDIT DERIVED?

A. The avoided capacity credit is an estimate of the avoided cost of constructing new power plants and is calculated using the PURPA QF methodology. This methodology is based on the lowest cost capacity that would be available to the Company over the next ten years (at a levelized rate that is not escalated). This is calculated based on the 2018 projection of a 50 MW solar resource over the following ten years starting in 2018. This capacity credit is locked in for the term of the PPA.

Q. WHAT IMPACT DOES THE PROGRAM HAVE ON NONPARTICIPATING CUSTOMERS?

A. R*C-1.0 is a standalone program and there is no impact on nonparticipants. Since the credits are designed to equal the avoided costs that the resource brings to the system, the net result is that nonparticipants are left paying the same total costs as they would have absent the resource. In other words, none of the R*C-1.0 program costs are borne by nonparticipating customers. R*C-1.0 subscribers pay the full cost of the program, which includes the PPA charge, administrative fees, solar integration, and a risk factor adjustment so that nonparticipants are not subsidizing the offering.

Q. PLEASE DESCRIBE THE SUCCESS OF R*C-1.0 PROGRAM ENROLLMENT THUS FAR.

A. The Company effectively implemented a fair and transparent enrollment process in 2018. The first eight weeks of enrollment were reserved for residential and small commercial customers only. A total of 8 MW was filled during this eight-week period. After the initial eight-week limited enrollment period, commercial customers had the opportunity to submit subscription requests for the remaining capacity. Interest from commercial customers exceeded the remaining available 42 MW, and each commercial customer received 20.3 percent of their requested capacity.

Q. HAS THE R*C-1.0 PROGRAM REMAINED FULLY SUBSCRIBED?

A. Yes. The 50 MW was fully subscribed during the initial enrollment period and the program has remained fully subscribed since that time. The R*C-1.0 program is in its third year and is fully subscribed with a customer breakdown as of year-end 2020 as follows in Table NC-D-1:

Table NC-D-1: Renewable*Connect-1.0 Participants (2020)

R*C-1.0 Participants		
	Residential	**Business (including Small Commercial and Commercial)**
Customer Count	2,500	717
kW	6,599	43,403

Q. DOES THE COMPANY MAINTAIN A WAITLIST FOR R*C-1.0?

A. Yes. The Company has maintained a waitlist from which it adds new R*C-1.0 participants if an existing R*C-1.0 participant leaves the program. At the end of 2020, the waitlist was as follows in Table NC-D-2:

Table NC-D-2: Renewable*Connect-1.0 Participant Waitlist (2020)

R*C-1.0 Waitlist		
	Residential	**Business (including Small Commercial and Commercial)**
Customer Count	2,564	147
kW	6,893	178,129

Attrition from the program has been very low, approximately 0.4 percent per month. On average, only 11 residential customers leave the program per month and the openings have been filled immediately from the waitlist.

Q. HAVE THERE BEEN ANY CHALLENGES WITH THE PROGRAM?

A. Yes. The 50 MW R*C-1.0 program sold out immediately which indicates a strong demand for the offering. Customers have reached out to the Company directly, requesting information about when a R*C-1.0 program expansion will take place. Since the program launch, customer contact concerning program expansion has grown in number and frequency, especially with communities who have expressed an eagerness for the program's expansion.

III. THE EXPANDED SUITE OF R*C PROGRAMS

A. The Need for an Updated Suite of R*C Programs

Q. WHY IS PUBLIC SERVICE PROPOSING AN UPDATED R*C PROGRAM?

A. The proposed group of R*C programs, including R*C-2.0, is designed to achieve the goals of satisfying the increasing demand while enhancing the existing program based on the Company's implementation experience with R*C-1.0. The Company is meeting demand for greater participation in the completely subscribed products, expanding opportunity at both the customer and municipality level, and refining the components of the existing products.

The Commission has previously determined that a program like R*C-1.0 (a program that offers choice to Public Service customers while holding non-participating customers harmless) is an appropriate addition to the menu of energy options available to customers. Here, the Company seeks to expand and enhance that program, and the Company requests that the Commission once again approve this program because, among other things, it accomplishes a unique set of policy and practical objectives:

- It advances the State of Colorado's greenhouse gas ("GHG") emissions reduction goals by adding incremental renewable energy;
- It meets the demands and desires of both large and small customers;
- It advances individual customers and communities towards their sustainability and clean energy goals; and
- It provides an innovative program with respect to reducing the carbon footprint of retail natural gas consumption.

Q. HOW DOES THE PROGRAM ADVANCE THE STATE OF COLORADO'S ENERGY POLICY GOALS?

A. Any clean energy resource added to the system with its electric output for consumption in the State of Colorado—whether through the Electric Resource Plan ("ERP") process or as proposed here—advances the State's GHG emissions reduction goals.

Q. HOW DOES THE PROPOSED R*C-2.0 PROGRAM MEET THE EXPRESSED NEEDS OF CUSTOMERS AND MUNICIPALITIES?

A. Although this is addressed in more detail later in my Direct Testimony, there is currently a waitlist for the existing R*C-1.0 program and 40 larger customers have expressed interest through the completion of a Capacity Interest Form. It is important to note that this interest is not the result of a comprehensive or expansive survey, and the demand for this expansion may be even greater than this data suggests. In any event, it shows that customers want this program, and the demand exists for a significant expansion of the existing program.

Q. WILL THE NEW R*C OFFERINGS PROPOSED IN THIS PROCEEDING AFFECT THE TERMS, CONDITIONS, AND FEES FOR EXISTING R*C CUSTOMERS?

A. No. The new R*C-2.0 capacity will be structured and administered separately from the existing R*C-1.0 offering and thus will not affect existing R*C-1.0 terms and conditions or termination fees.

While these two programs (R*C-1.0 and R*C-2.0) will be structured and administered separately, we propose two changes to the existing R*C-1.0 program to streamline program administration and align the two programs: (1) introduce a

flexible administration fee; and (2) adopt the same earnings mechanism as proposed to be used for R*C-2.0. More information on each of these proposed changes can be found in the sections below where I discuss the new R*C-2.0 offering.

Q. HOW WILL R*C ADVANCE INDIVIDUAL CUSTOMERS AND MUNICIPALITIES TOWARD THEIR INDIVIDUAL CLEAN ENERGY AND SUSTAINABILITY GOALS?

A. The R*C program expansion proposed here, between the program offerings for individual residential and commercial customers as well as the R*C-C option, will provide pathways for all types of customers to subscribe to and obtain the benefits of a dedicated renewable energy program.

Q. CAN YOU EXPLAIN THE GREEN-E CERTIFICATION PROCESS AND WHY CUSTOMERS SHOULD BENEFIT FROM IT?

A. Yes. RECs associated with the energy under the program are retired on the customer's behalf and certified via Green-e. Green-e certification ensures that RECs from voluntary green power programs aren't double counted for use outside the program and that the energy is sourced from resources that are less than 15 years old. This certification allows customers to make environmental claims with their subscriptions and contribute toward their own clean energy and sustainability goals. Green-e is also further described in the Direct Testimony of Company witness Ms. Tara Fowler.

Q. HOW WILL R*C ALLOW RETAIL NATURAL GAS CUSTOMERS TO ACHIEVE REDUCTIONS IN THEIR CARBON FOOTPRINT?

A. As proposed, the R*C program will implement an innovative option for the Company's retail natural gas customers by enabling them to purchase a combination of RNG and carbon offsets to their natural gas usage.

Q. HOW WILL R*C INTERACT WITH OTHER ON-SITE AND CSG PROGRAMS?

A. The updated R*C program will continue to complement the other programs. Much like the initial R*C-1.0 offering, and the original Windsource offering before that, it makes available an additional option for customers who are strategizing the best path to meet their clean energy and sustainability goals. The demand for the program and success of the initial R*C-1.0 offering shows customers are interested in this product. The continued expansion of on-site and CSG opportunities along with the existence of R*C show that all of these programs and offerings can co-exist with one another.

Q. CAN YOU SUMMARIZE THE UPDATED SUITE OF R*C PROGRAMS?

A. Yes. The Company is seeking to bring together five programs under the R*C program brand, which will now consist of one existing program and four new offerings.

First, the existing R*C-1.0 program will continue with relatively minor changes and is incorporated under the expanded R*C umbrella. As presented in this testimony, the existing program will now be referred to as R*C-1.0. In addition, a second tranche of capacity is being offered as a new program which is called Renewable*Connect 2.0, or R*C-2.0.

The third program is a reconstituted and rebranded Windsource. The existing Windsource is being transitioned under R*C as R*C Month-to-Month, or R*C-MTM. R*C-MTM will continue to serve the needs of customers who desire a month-to-month renewable option. The one major change here is that the program will include solar resources in addition to the wind resources that have backed the program since its inception.

The fourth program is the R*C Community program, or R*C-C. This new program offers to sell RECs generated in the Company's Colorado service territory to Colorado communities.

Finally, the Company is introducing a new program involving natural gas called R*C Natural Gas, or R*C-NG.

Q. WHY IS THE COMPANY PROPOSING TO INCORPORATE ALL OF THESE PRODUCTS WITHIN THE R*C BRAND?

A. The Company believes there is an opportunity to create greater brand recognition and synergies for R*C by bringing together these voluntary off-site renewable retail energy programs under a single name. R*C will serve as the Company's umbrella utility-scale renewable retail energy brand going forward.

Q. IS XCEL ENERGY TAKING SIMILAR ACTION IN ITS OTHER SERVICE TERRITORIES?

A. Yes. In the Minnesota service territory of Northern States Power Company, a Minnesota corporation ("NSP-M"), Xcel Energy will launch a new Renewable*Connect umbrella in 2022 that incorporates similar programs.

B. Renewable*Connect 1.0 (R*C-1.0) and Renewable*Connect 2.0 (R*C-2.0)

Q. IS THE EXISTING R*C PROGRAM CONTINUING?

A. The existing R*C program will be re-branded as R*C-1.0 and brought under the broader R*C umbrella suite of programs under one brand. The program will continue to be sourced from its dedicated solar resource described earlier in my testimony. Current members will remain in the program under the new name and customers on the waiting list will stay on the waiting list.

Q. DOES PUBLIC SERVICE PROPOSE ANY CHANGES TO THE EXISTING R*C PROGRAM AS IT TRANSITIONS TO "R*C-1.0"?

A. Yes. R*C-1.0 will maintain the existing R*C structure, pricing, and terms and conditions, with two proposed changes. First, to align with the new R*C-2.0 program, we propose to cap administration costs at $0.004/kWh, adjusting annually if necessary. The Company proposes to annually update the administration fee in its annual Advice Letter for the R*C charge update. Second, the Company also proposes to adopt the same earnings mechanism for R*C-1.0 as is proposed for R*C-2.0, which I discuss below. These proposed changes to R*C-1.0 are consistent with what the Company proposes for the new R*C-2.0 offering, as I explain in more detail below.

Q. HOW WOULD YOU DESCRIBE THE NEW R*C-2.0 PROGRAM?

A. As I explained above, the Company will maintain the existing R*C program as R*C-1.0. Building upon the success of the first version of R*C, the second version, R*C-2.0, offers greater capacity for interested customers, introduces some new or different program policies to benefit the participating customers and achieve

administrative efficiencies, and adds a new income-qualified ("IQ") option that will enable the program to benefit more customers. Below, I discuss the program capacity, program pricing, changes to program policies and the regulatory framework, and then conclude with explaining the new IQ option.

1. R*C-2.0 Program Capacity

Q. HOW MUCH CAPACITY IS THE COMPANY SEEKING FOR THE R*C-2.0 PROGRAM?

A. The Company is seeking a program capacity of up to 300 MW of incremental solar generation. The actual program capacity amount will be dependent upon customer interest via Memorandums of Understanding ("MOUs") or similar expressions of interest before the expansion program launches, which will enable the Company to "right-size" the capacity to the identified customer demand. The MOU process will be open to all customers on eligible rates. Before opening the MOU enrollment to all customers, the Company will allow customers on residential ("R") and commercial ("C") rates to enroll for a set period of time beforehand in order to ensure enough capacity exists for customers that will likely enroll for smaller subscription amounts.

Q. CAN YOU PROVIDE ADDITIONAL DETAIL ON THE PROPOSED RESOURCE(S)?

A. Yes. The Company proposes to procure one or more solar resources through PPA(s). The Company anticipates that the PPA(s) will be for a term of approximately 15 years and for a total capacity of up to 300 MW, as I just described. The resource(s) will be selected either through a separate solicitation

or from unselected bids (i.e., bids that are not either selected in Phase II of the ERP or identified as back-up bids) from the Company's Phase II ERP in Proceeding No. 21A-0141E. The resource will be fully supported and contained by the program and will be incremental to other resources procured from Phase II of the ERP. The resource will be required to be located in Colorado. If this program is approved by the Commission, it is anticipated that the selection of this resource will be in early 2023 with construction starting sometime later that year or in 2024. It is expected that the resource will be operational by late 2024 or in 2025.

Contemporaneously with this Application, Public Service is filing a request for a variance from Rule 3615(a)(III) to acquire a resource outside of the Company's ERP process.

Q. CAN YOU PROVIDE MORE DETAIL ON HOW THE COMPANY WOULD PROCURE THE RESOURCE(S) FOR R*C-2.0?

A. Yes. At this point we assume that the Phase II of the ERP will be completed in the first quarter of 2023. From the date of Commission approval of this RE Plan to the approval of the Phase II ERP portfolio, the Company anticipates working with interested customers to confirm their commitment which will be used to determine the size of the resource. Once this is completed, the total customer demand for R*C-2.0 can be used to assess whether remaining bids from the ERP may be used. We note that "remaining bids" would not be Phase II bids that are selected for a final portfolio in that solicitation or those identified as back-up bids. Instead, we would use the pool of bids that remain after those selections. If we can identify bids that appropriately meet the demand, we will then make those selections, begin

discussions with those developers, and notify the Commission of the resources chosen for the program. If we can't find a resource or set of resources that work for the customer demand from the bids remaining from the Phase II process, then we will begin preparations for an entirely separate resource solicitation. I would anticipate that solicitation occurring in Q2 of 2023. Upon completion of that solicitation, the Company would notify the Commission of selections made from that separate solicitation.

Q. IS THERE SUFFICIENT CUSTOMER DEMAND FOR THIS SIZE OF A PROGRAM?

A. Yes. Since the launch of the current R*C-1.0 program many of our residential and commercial customers have been eager to enroll, and subscription interest has far exceeded available capacity. The current waitlist is over 240 MW and, in the last year, key customers have completed Capacity Interest Forms totaling 525 MW. The program expansion seeks to balance customer interest with the Company's grid decarbonization efforts, as well as injection capability and non-Company renewable energy offerings to which customers have access. Therefore, the Company believes a total resource size of up to 300 MW sufficiently balances these factors. Contingent upon Commission approval, the Company anticipates seeking MOUs with key customers to finalize the capacity amount that will be utilized when selecting an appropriate resource(s) or issuing an RFP.

Q. PLEASE EXPLAIN IN GREATER DETAIL THE LEVEL OF CUSTOMER INTEREST.

A. Since the initial R*C-1.0 program went live and the program was fully subscribed, both residential and commercial customers have shown their desire to attain renewable electricity via R*C-1.0 by joining the waitlist, reaching out to Area and Account Managers, interacting with Company staff through webinars, workshops, and conference calls, and completing the Capacity Interest Form. The Company believes a larger offering with minor changes will enhance the customer experience and accelerate a carbon free future while supporting customers in their quest toward more immediate term renewable energy adoption**.**

Q. PLEASE ELABORATE ON THE EXTENT OF CUSTOMER DEMAND.

A. As described above, the current R*C-1.0 waitlist is over 240 MW. In addition, 40 commercial customers have completed a Capacity Interest Form, totaling 562 MW. Between the waitlist and the collective Capacity Interest Forms, there is now a combined total of 803 MW of unmet interest in the program. A sample of the Capacity Interest Form is included as Attachment NC-1, and a summary of the customer interest expressed within the submitted Capacity Interest Forms is included in Attachment NC-2. The Capacity Interest Form is a way for the Company to gauge customer interest in an expansion of the program with pricing and terms and conditions similar to the first offering. The 40 customers who submitted a form are those who had previously expressed renewable electricity goals and generally were already engaged in conversations with their Xcel Energy Area and Account Managers.

Q. WHAT HAPPENS IF DEMAND EXCEEDS SUPPLY?

A. If the Company is able to fully subscribe 300 MW of capacity and there is still additional demand, the Company proposes to maintain a waitlist for the R*C-2.0 program and may consider proposing incremental capacity in future RE Plan filings.

Q. WHAT HAPPENS IF DEMAND FOR THE PROGRAM IS LESS THAN EXPECTED?

A. The Company is confident that there is enough demand for this amount of capacity. However, during the process of executing MOUs, the Company will "right-size" the resource capacity to better align with demand before publishing the RFP for solar procurement. The full capacity will be based on the total capacity expressed in the MOUs. Therefore, total resource capacity will be completely filled by MOUs before the program resource(s) come online. If the Company is only able to secure MOUs for less than 50 MW, the Company would not move forward with the new capacity for R*C-2.0 and would neither continue to develop nor introduce the R*C-2.0 brand.

2. Pricing for R*C-2.0

Q. PLEASE PROVIDE AN OVERVIEW OF THE PRICING FOR R*C-2.0.

A. R*C-2.0 is designed to be consistent with cost causation principles. In other words, participants will pay for all the costs associated with the new resource and the costs of administering the program, similar to the existing R*C-1.0 program pricing structure. In exchange, participants will receive bill credits that are equal to the avoided costs to the system associated with the benefits of the production from the

new generating resource. In this way, customers who are not participants in R*C-2.0 are not financially harmed.

Q. PLEASE DESCRIBE THE COMPONENTS OF THE R*C-2.0 CHARGE.

A. As with the current R*C-1.0 program charge, the R*C-2.0 program charge will be based on: (1) the resource cost, which will likely be set at a fixed $/MWh, set forth in the PPA(s) for the resource(s);[3] (2) integration costs for the resource; and (3) program administration costs. The resource cost will be based on the flat cost of the PPA with no escalators as is done for R*C-1.0. The resource integration costs are the incremental ancillary services that are needed to support the addition of non-dispatchable resources like solar. The program administration costs are costs for marketing the program, labor costs for administration, and the cost of any IT infrastructure necessary to support the program. Because this program expansion will only include a 15-year term option,[4] a risk factor adjustment (which was included in the initial R*C-1.0 program) is not necessary.

Q. HOW WILL THE R*C-2.0 PRICING DIFFER FROM THE EXISTING R*C-1.0?

A. There are three differences:

- Less expensive PPA cost: The Company anticipates that PPA pricing will be lower than when the resource was selected for the initial R*C program in 2017.[5] The new PPA cost will only apply to R*C-2.0 and will not apply to existing R*C subscribers whose costs are based on the existing PPA for the dedicated solar resource.

[3] The PPA(s) with the resource may also reflect certain curtailment costs, to accommodate the eventuality that the dedicated R*C-2.0 resource(s) may need to be curtailed on the system at certain times over the course of the PPA term. Such curtailment costs and terms will be set forth in the applicable PPA(s).
[4] The actual term of the Subscriber Agreement may be for a different length of time, depending on the term of the PPA(s) the Company will execute for the dedicated solar resource(s) for R*C-2.0.
[5] The PPA price for the R*C-1.0 resource is $33.95/MWh.

- Removal of the risk factor adjustment: To reduce administration and program charges, the Company plans to only offer a 15-year term option that aligns with the anticipated PPA term (or such other term that aligns with the PPA term). All existing R*C-1.0 subscribers will remain on their chosen subscription term with no change to the risk factor.

- A lower and flexible administration fee: The Company proposes to cap administration costs at $0.004/kWh and adjust annually if necessary. The Company proposes to annually update the administration fee in its annual Advice Letter for the charge update. The Company seeks this same treatment for the existing R*C-1.0 program.

Q. ARE THERE ANY CHANGES TO THE R*C CREDIT?

A. No. The general structure of the R*C Credit for both the existing R*C-1.0 program and for R*C-2.0 remains the same. The Company will continue to follow the QF methodology with a variable energy credit and a fixed capacity credit for R*C-2.0. The Company will update these amounts annually via an Advice Letter filed with the Commission with the same timing as the current R*C Advice Letter filing (on or before November 15) annually.

Q. WILL THE PRICING FOR THE R*C-2.0 PROGRAM RESULT IN ANY ADVERSE IMPACTS FOR NON-PARTICIPATING CUSTOMERS?

A. No. The pricing methodology virtually eliminates any adverse impacts on non-participating customers. Because rate design is an art as well as a science, it is impossible to state with absolute certainty that every customer pays exactly 100 percent of their costs to the system. However, by following cost causation principles consistently, the potential adverse impact on other customers is minimized or eliminated. The Company believes that it has designed the pricing methodology to assure that program costs will be paid by the participants in the program and to avoid adverse impacts on non-participating customers.

Q. WILL R*C-2.0 CUSTOMERS BE RESPONSIBLE FOR ALL APPLICABLE RIDERS?

A. Yes. Only the items I discussed above will be impacted in participating customers' rates. Other than those, the participating customers' base rate charges will remain the same.

3. R*C-2.0 Program Policies

Q. PLEASE DESCRIBE THE PRINCIPAL FEATURES OF THE R*C-2.0 PROGRAM OFFERING.

A. Customers will be able to subscribe up to 100 percent of their annual electric energy consumption through R*C-2.0. Subscriptions will be in terms of kilowatts ("kW"). As I explained above, the R*C-2.0 charge is designed to cover all of the program costs, including administrative and IT costs, so that non-participating customers will not be impacted financially.

Q. WHAT WILL BE THE R*C-2.0 CONTRACT LENGTH?

A. The Company will offer only a single 15-year R*C-2.0 program term, which aligns with the anticipated PPA term. To the extent the PPA term length is different than 15 years, the R*C-2.0 contract length will match the term of the PPA(s). See Attachment JWI-3 for a sample subscription agreement.

Q. WHY IS THE COMPANY PROPOSING TO ONLY OFFER A 15-YEAR OPTION FOR CONTRACTS?

A. The Company is proposing to offer a 15-year option for two key reasons. First, a 15-year horizon aligns with customer interest and goal setting. Of the 40 customers who submitted Capacity Interest Forms, 27 customers responded that

they are interested in a 15-year contract and three customers responded that they are possibly interested. Second, a contract length that is aligned with the PPA length limits risk to the Company. In addition, a single 15-year term option allows the Company to remove the Risk Factor Adjustment from the R*C-2.0 program charge, allowing the Company to keep program costs as low as possible.

Q. IS THE COMPANY PROPOSING TO CHANGE ITS POLICY ON RECS?

A. No. RECs associated with the energy under the R*C-2.0 program will be retired on the customer's behalf and will be certified via Green-e. Customers will continue to be able to claim the renewable attributes of their subscription's energy generation.

Q. WILL THE EARNINGS MECHANISM DIFFER FROM THE EXISTING R*C-1.0 MECHANISM?

A. Yes. Under the existing R*C program, the Company may earn up to its Weighted Average Cost of Capital ("WACC") on any program profit, which is calculated by subtracting program costs from program revenue. Any excess earnings beyond the WACC are distributed to the Renewable Energy Standard Adjustment ("RESA"). For R*C-2.0, the Company is now proposing to make this simpler by instead splitting the profit; the Company would retain eighty percent of the profit and the remaining 20 percent would be distributed to the RESA. In an effort to simplify and align the program administration of R*C-2.0 and R*C-1.0, the Company is open to applying this earnings mechanism to the existing R*C program, if the Commission is amenable to this change.

Q. HOW DOES THE COMPANY JUSTIFY CHANGING THE EARNINGS MECHANISM?

A. Because the Company is reducing administrative program costs overall, the total earnings from the program decrease. This means that customers benefit from a lower net cost. Thus, the Company proposes retaining 80 percent of the earnings that remain and transferring 20 percent to the RESA. The 80/20 split is easier to administer than using the Company's WACC.

4. R*C-2.0's Income-Qualified Option

Q. CAN YOU PROVIDE AN OVERVIEW OF THE INCOME-QUALIFIED ("IQ") OPTION?

A. Yes. This is a new feature that is not currently offered under the existing R*C program. Within R*C-2.0, subscribers will be able to choose to purchase additional capacity that will be turned into donated subscriptions for IQ customers. The IQ customers will receive the subscription credit, while the purchasing customer will receive the RECs which the Company will retire on their behalf.

Q. DO IQ PARTICIPANTS IN THE R*C-2.0 PROGRAM PAY ANY OF THE PROGRAM COSTS?

A. No. All costs for donated subscriptions will be paid by the donating customer.

Q. HOW DO IQ CUSTOMERS ENROLL IN THE R*C-2.0 PROGRAM?

A. The Company proposes to engage with one or more third-party organizations to identify and enroll IQ subscribers both at program launch and in an ongoing manner.

Q. PLEASE DESCRIBE THE CREDIT THAT IQ CUSTOMERS ARE ANTICIPATED TO RECEIVE.

A. IQ subscribers who receive donated subscriptions will receive the program credit, but the charge will be paid by the donating customer. As such, IQ subscribers would receive a net credit on their bill. Based upon R*C current pricing, this would be a credit of $0.034/kWh which would cover a significant portion of IQ customer energy charges.

Q. WHAT CONTRACT TERMS WILL BE AVAILABLE TO IQ SUBSCRIBERS?

A. The donating customer would hold the 15-year commitment to these subscriptions. For the IQ customers, however, the Company would utilize its current arrangement for its Company-owned CSGs to make sure the capacity is filled by eligible IQ customers. IQ subscription donations will be treated as a 'block' of capacity, for which the Company will partner with a third-party to identify and enroll eligible subscribers to fill that donated capacity. IQ subscribers will be able to terminate their subscription at any time without penalty, and the third-party will be responsible to fill that capacity with new subscribers on an ongoing basis. Like the existing R*C program, unsubscribed generation will be credited at the Average Hourly Incremental Cost. The Company would also look further to establish more subscriber partnerships beyond its current partnership with Energy Outreach Colorado ("EOC") to make sure donated capacity does not go unused.

C. Renewable*Connect Month-to-Month (R*C-MTM)

1. The Need to Reform the Company's Existing Windsource Program

Q. PLEASE DISCUSS WHY THE COMPANY IS PROPOSING TO OFFER THE R*C-MTM PROGRAM.

A. The existing Windsource program is one of the largest utility green pricing programs in the United States. The program began in 1997 and remains an important part of Public Service's renewable portfolio and enables customers to proactively purchase renewable energy to meet their personal and business needs. After over 20 years of operation, Windsource remains the largest voluntary renewable energy program in the Company's set of programs with over 70,000 customers, as Company witness Mr. Ihle shows in his Direct Testimony. The existing Windsource program allows customers to purchase RECs from Public Service's generation portfolio, so that participating customers can offset the environmental impacts of their energy usage.

While Windsource remains popular with residential and commercial customers as a voluntary renewable program, this legacy program is facing some challenges. First, customers subscribing to Windsource have expressed a desire to be served by solar resources in addition to wind. Second, some customers are confused about the presence of more than one brand of "green tariff" in the Company's portfolio and are unclear about the distinctions between Windsource and R*C. As such, the Company is proposing the following modifications:

- The discontinuation of Windsource as a brand name;

- The creation of a new voluntary month-to-month program, structured similarly to Windsource but existing under the R*C brand and incorporating solar resource(s); and,

- The migration of customers currently subscribing to Windsource to this new R*C-MTM.

Q. WITH THE NEW R*C-MTM PROGRAM, IS THE COMPANY PROPOSING TO CHANGE THE OBJECTIVES OF THE WINDSOURCE PROGRAM?

A. No. This new program seeks to continue the primary objectives of the Windsource program, while incorporating additional solar resources and creating a more easily navigable suite of renewable programs. The original objectives of the Windsource program, which remain in effect for R*C-MTM, include: (1) providing the opportunity for customers to purchase renewable energy in excess of the Company's RES requirements, thus offsetting their energy usage with the purchase of green energy; (2) offering renewable energy at rates that are competitively priced; and (3) ensuring that non-participants are not economically impacted by R*C-MTM.

Q. HOW WILL R*C-MTM ACHIEVE ITS OBJECTIVES?

A. As with the existing Windsource program, R*C-MTM enables Public Service's customers to offset the environmental impacts of their energy usage by purchasing RECs from Public Service's portfolio. The program then returns the revenues from the sale of the RECs to the RESA deferred account, which can fund the incremental cost of additional Eligible Energy Resources on the Public Service system.

Q. WHAT HAS THE COMPANY RECENTLY DONE TO DETERMINE CUSTOMER INTEREST IN THIS THIS TYPE OF PROGRAM?

A. The Company conducted a survey prior to the filing of this Application and has determined that there is robust interest in including solar resources in this program. 83 percent of survey respondents said they were 'very interested' in a program that utilizes both wind and solar, assuming cost and terms and conditions are similar to Windsource. A summary of the results of this survey are included in Attachment NC-3. The Company's affiliate NSP-M saw similar results when it conducted a similar survey in Minnesota.

Q. CAN YOU ELABORATE ON WHY THE CURRENT WINDSOURCE OPTION NO LONGER MEETS CUSTOMER NEEDS?

A. While Windsource remains a popular option for customers seeking to increase the portion of their electricity usage from renewable energy, there are challenges as the utility and energy industries move forward. First, across the Company's service territory, there is interest in a product that combines both wind and solar energy into a single product. By transitioning Windsource under R*C, participating customers' purchases of RECs will be sourced from solar resources as well as existing wind resources, meeting customer desire for a more diversified generation mix for the program. Second, as the Company continues to introduce additional voluntary renewable programs into the market, it can avoid customer confusion regarding the different programs by including similar voluntary retail renewable energy programs under the R*C umbrella.

2. Overview of R*C-MTM Program Features and Pricing

Q. IS R*C-MTM A FULLY REGULATED PRODUCT?

A. Yes, just as the existing Windsource product is fully regulated, the R*C-MTM product will be fully regulated and paid for exclusively by participating customers. An illustrative tariff for R*C-MTM can be found in Attachment NC-4.

Q. CAN YOU DESCRIBE HOW THE R*C-MTM PROGRAM WILL WORK AS A CUSTOMER CHOICE OPTION?

A. R*C-MTM is designed to be a simple way for a customer to participate in a voluntary renewable energy program without entering a long-term contract. Though it is designed primarily to meet the needs of the "mass market" (such as residential and small business customers), it will be available to all Public Service customers. This offering will maintain key Windsource features, including being open continuously and made available to customers through auto-renewing month-to-month subscriptions.

Like Windsource, this program offers customers the ability to purchase renewable energy above the Company's current RES compliance level. The Company will retire wind and solar RECs in alignment with total R*C-MTM program subscription sales. These RECs will be retired on behalf of program participants and therefore will not be used for RES compliance or any other purpose.

This program will replace Windsource as the month-to-month voluntary renewable energy offering. It will remain similar in program management and design. Customers can enroll in the program via multiple channels (email, phone, and web) up to 100 percent of their expected usage, with no long-term

commitment. Customers pay a monthly $/kWh charge based on their monthly electricity usage and are billed on a monthly basis.

Similar to Windsource, customers will not need to sign any long-term agreement to enroll. Customers can enroll and unenroll at any time of the year without penalty.

Q. HOW WAS THE PROPOSED PRICING METHODOLOGY DEVELOPED?

A. Pricing methodology will remain unchanged from the current Windsource methodology. In Proceeding No. 16A-0396E, the Company's 2016 ERP, the Windsource pricing methodology changed from a cost-based structure to a market-based structure. R*C-MTM will continue to utilize a market-based structure. See Attachment NC-5 for a market analysis of REC pricing within voluntary renewable programs.

Q. HOW WILL R*C-MTM PRICING COMPARE TO WINDSOURCE?

A. The Company is aiming to create a seamless transition. Like Windsource, R*C-MTM will be billed monthly on a per-kWh basis. The program will be priced lower than existing Windsource to reflect current REC market rates in the energy industry. The program premium will be set at $1.00 per one hundred (100) kWh block (equivalent to $10 per REC), a 33 percent drop in price compared to the current Windsource price of $1.50 per one-hundred kWh block (or $15 per REC). For an average home that uses 800 kWh per month, that is equivalent to a premium of $8 per month.

Q. ARE THERE ANY EARLY TERMINATION FEES?

A. No, the program is a month-to-month offering and customers do not need to sign a contract to enroll for any specified amount of time.

Q. WILL THE PRICING FOR R*C-MTM RESULT IN ADVERSE IMPACTS ON NON-PARTICIPATING CUSTOMERS?

A. No, one of the three primary objectives of this program is that all costs associated with this program are borne only by program subscribers. Any revenues from the sales of the RECs will be returned to Public Service customers via the RESA deferred account.

Q. WHAT IS THE FORECASTED PARTICIPATION AND HOW WAS IT DETERMINED?

A. Since 2012, Windsource has grown an average of eight percent annually. Continuing this trajectory forward, but at a slightly more conservative rate of five percent annual growth, the Company estimates 89,606 participants by 2025 as seen in Table NC-D-3.

Table NC-D-3: Annual R*C-MTM Participation Estimate

Annual R*C-MTM Participation Estimate				
Year	2022	2023	2024	2025
Participants	77,405	81,275	85,339	89,606

Q. HOW WILL THE RECS BE SOURCED FOR THIS PRODUCT?

A. Similar to existing Windsource protocol, RECs for R*C-MTM will be sourced from system resources, utilizing RECs that have not been used for RES compliance or

any other purpose. Resources utilized for R*C-MTM can include wind resources that have previously been used for Windsource as well as existing and additional solar resources that will be added through the Company's ERP. The Company will follow existing Windsource (to become R*C-MTM) practice for REC vintage. Eligible RECs include current-year and latter-half-of-previous-year (i.e., for the 2021 program year, RECs produced in 2021 and July-December 2020).

As described in more detail in the Direct Testimony of Company witness Ms. Tara Fowler, all program RECs will be registered with the Western Renewable Energy Generation Information System ("WREGIS"). The renewable attributes (the RECs) from Company's generation resources assigned to the R*C-MTM program are dedicated to the program and not used to satisfy the Company's RES compliance obligations.

If in any given year program demand is greater than the amount of energy generation from the program-specific resources, the Company will retire the appropriate amount of RECs sourced from system wind or solar resources for the amount of R*C-MTM program demand not covered by the program-specific resources. In other words, the Company will retire RECs from other Public Service resources whose renewable attributes (RECs) are not dedicated to the R*C-MTM program. RECs sourced from system resources and retired on behalf of R*C-MTM program participants will not be used for RES compliance purposes and will not be included within the calculation of the Company's annual Certified Renewable Percentage ("CRP").

RECs associated with the energy sold under R*C-MTM cannot be used to fulfill a state renewable energy goal and cannot be "double-counted" towards that goal, with one exception. The Company will continue to follow Green-e's National Standard Version 2.1, which states: "If the product meets 100% of a customer's electricity use with eligible renewables, Green-e Energy allows a percentage of a product's content to be satisfied by Renewable Portfolio Standard ("RPS") state-mandated renewables up to the percentage RPS requirement." The Commission approved this methodology as part of the Company's 2010 RE Plan, via Decision Nos. C10-1033 and R10-0586 in Proceeding No. 09A-772E.

Q. HOW WILL THE COMPANY MARKET THE R*C-MTM PROGRAM?

A. Awareness marketing will commence after the key notifications to existing Windsource customers are complete and ahead of the opening of enrollment. It will include channels for reaching a broad audience, such as social media, email, bill onsert, and online advisory tools. Customers will be directed to the Renewable*Connect website, which will contain information on how to enroll through My Account. Customer care representatives and account managers will be provided with information and tools to build awareness and support enrollments.

Q. HOW WILL EXISTING WINDSOURCE CUSTOMERS TRANSITION TO THE R*C-MTM PROGRAM?

A. Prior to the opening of program enrollment and prior to broad awareness marketing, Windsource customers will be notified by direct mail to inform them of the impending transition from Windsource to R*C-MTM and the opportunity to opt out. Customers can opt out of the program without penalty. If they do not opt out,

Windsource participants will be automatically transferred to R*C-MTM. Customers' subscription sizes will be unchanged through the transition.

The Company intends a seamless experience for customers without interruption in their renewable energy service or price increases. Upon the program launch date, R*C will appear in place of Windsource on customers' bills and in My Account as applicable.

Q. HOW WILL THE R*C-MTM CHARGE BE PRESENTED ON THE CUSTOMER'S BILL?

A. The program will be billed on a monthly basis. The program charge will appear as a separate line identifying the R*C-MTM program, similar to the existing Windsource program. Other taxes, fees, and adjustments still apply.

Q. PLEASE DESCRIBE WHAT THE CUSTOMER WILL EXPERIENCE WHEN RESEARCHING THE R*C-MTM PROGRAM ON THE XCEL ENERGY WEBSITE.

A. Customers will see a landing page for the R*C-MTM program with basic information on the program, as well as details around eligibility, the enrollment process (including a link to enroll), pricing, subscription term, and additional information on related topics.

Q. PLEASE DESCRIBE THE CUSTOMER ENROLLMENT PROCESS.

A. Customers can enroll online through the Company's My Account portal or call the Residential Contact Center (1-800-895-4999) or the Business Solutions Center – BSC (1-800-481-4700).

Q. WILL ALL CUSTOMERS BE ALLOWED TO PARTICIPATE IN R*C-MTM?

A. Yes, all Colorado customers receiving electric service from the Company are eligible to participate.

Q. WHAT IS THE UNIT OF SUBSCRIPTION FOR CUSTOMERS?

A. Customers participating in this offer may subscribe to 100 kWh blocks or 100 percent of their average monthly load over the last 12 months.

Q. WHAT HAPPENS IF A CUSTOMER PARTICIPATING IN R*C-MTM MOVES?

A. If a customer moves within the Public Service electric service territory, their subscription will automatically move with them. If they move outside of the Public Service electric service territory, their subscription will automatically terminate.

Q. CAN PARTICIPANTS CHANGE THEIR ENROLLMENT SUBSCRIPTION LEVEL?

A. Yes, customers can increase or decrease their enrollment at any time, up to the program's subscription cap.

3. Annual Program Financials and Tracking

Q. PLEASE EXPLAIN THE MARKET-BASED COST.

A. To assist in determining the appropriate market-based pricing methodology, the Company conducted a market analysis of third-party REC sale programs in Colorado. As referenced above, the market analysis can be found in Attachment NC-5.

Q. HOW DOES THE COST COMPARE TO OTHER SIMILAR REC-BASED PRODUCTS IN THE MARKET?

A. To assess the appropriateness of the program pricing, the Company conducted a comparison of pricing for similar voluntary renewable programs currently in the Colorado market. While pricing is often not made public, pricing generally falls between $6.25 and $15 per REC for those that are available, with an average of $11.45 per REC. With a proposed pricing of $10 per REC (equal to $1.00 per 100-kWh block), the Company's pricing aligns with the average cost of similar products currently available in the market.

Q. WHAT TYPE OF COSTS ARE ASSOCIATED WITH ADMINISTERING THIS PROGRAM?

A. Program costs include administration costs, cost to retire RECs, and marketing and outreach costs.

Q. HOW WILL THESE PROGRAM MANAGEMENT COSTS BE RECOVERED?

A. All program management costs will be recovered through the monthly program charge, which is fully included within the $1.00-per-block subscription cost.

Q. HOW WILL THE COMPANY CALCULATE ANNUAL PROGRAM REVENUE AND COSTS?

A. The Company calculates program revenue by totaling all program sales (revenue) and then subtracting all program costs. Throughout the year, the Company tracks monthly program sales (kWh) and revenue, in conjunction with all monthly costs, including IT, marketing, and labor.

Q. IS THE COMPANY PROPOSING AN EARNINGS MECHANISM FOR THIS PROGRAM?

A. No, all revenue net of administrative costs is returned to customers via the RESA deferred account. Windsource has been a steady source of revenue for the RESA, contributing approximately $3.6 million in 2020, and the new product would continue to contribute revenue to the RESA.

Q. HOW DOES THE COMPANY PROPOSE TO REPORT ON THE PROGRAM TO THE COMMISSION?

A. The Company is proposing to report on R*C-MTM in the Company's annual RES Compliance Report as has been done for Windsource. Data will include:

- Brief overview of the R*C-MTM program;
- Total number of participants;
- Total MWh purchased through R*C-MTM;
- RECs retired for R*C-MTM; and,
- Total revenue contributed to the RESA from the R*C-MTM program.

D. <u>Renewable*Connect Community (R*C-C)</u>

Q. IS THE COMPANY PROPOSING ANOTHER OFFERING UNDER THE R*C PROGRAM?

A. Yes. It is called Renewable*Connect Community (R*C-C). The offering will allow interested municipalities and counties (i.e., communities) within Public Service's territory to purchase RECs from Public Service to meet community-wide clean energy goals.

Q. PLEASE EXPLAIN WHY THE COMPANY DEVELOPED THIS OPTION.

A. Communities are increasingly eager to accelerate renewable energy adoption in a locally meaningful way. Over the years, the Company has partnered with communities to not only support this journey, but to provide expertise, resources, and advocacy efforts to establish plans and take action through channels such as Partners in Energy ("PiE") and Energy Futures Collaborations ("EFCs"). Communities can set renewable energy goals that apply not only to municipal and community buildings, but also take into account residential energy usage in their community. Through conversations with these customers, the Company has learned that a barrier to the ability of communities to achieve their 100 percent renewable electricity goals is the difficulty in meeting the community-wide goals that account for energy usage from local residents. Communities have expressed interest in leveraging R*C and the purchase of RECs on behalf of their local residential customers to meet their clean energy goals.

Q. IS R*C-C ONLY AVAILABLE TO COMMUNITIES?

A. Yes. The objective of R*C-C is to provide cities and counties with a pathway to adopt clean energy and claim the associated RECs in order to meet their renewable electricity goals. In essence, a participating city is buying renewable energy to cover up to 100 percent of the electric usage within the city. In the same vein, residential and commercial customers are limited to 100 percent of their electric usage. Communities are in a unique position where their ability to reach ambitious community-wide environmental and sustainability goals will be difficult

to achieve. R*C-C provides communities with a tool to help with that effort, and can be adjusted as the grid and community participation in programs increases.

Q. PLEASE DESCRIBE THIS PROGRAM IN GREATER DETAIL.

A. This option will be available to all communities throughout Public Service's electric service territory. The Company will work with interested cities and counties to determine the appropriate number of RECs to purchase. The process for enrollment and billing will proceed as follows:

(1) The Company conducts a renewable energy gap analysis in collaboration with an interested city. The gap analysis takes into total electricity usage within the community, then calculates the current percentage of that electricity that is renewable, accounting for the Company's CRP, as well as existing and future renewable energy program participation, such as other R*C programs, Solar*Rewards®, Solar*Rewards Community®, and DSM, for all customers within the community, including municipal and residential customers;

(2) The City considers its goal timeline and how R*C-C can best meet its needs;

(3) Using the gap analysis, the Community decides upon the number of RECs to purchase. Subscriptions are determined and contracts executed including payment schedule and payment mechanism;

(4) The City is invoiced on a predetermined schedule, which may be monthly, quarterly, or annually; and,

(5) RECs are transferred to the community customer or retired on behalf of the customer in line with the invoicing schedule. Contract terms will be annual, allowing the customer to resize the subscription based on updated calculations of community consumption and interest. The Company will allow a subscription size adjustment upward of 10 percent if capacity in the program is available. A downward adjustment will be allowed if the community has successfully lowered electric consumption through DSM programs or if the community has increased participation in other renewable energy programs.

Q. PLEASE FURTHER DESCRIBE THE COMPANY'S RENEWABLE ENERGY GAP ANALYSIS.

A. The Renewable Energy Gap Analysis provides an understanding of how much renewable energy is used within a community, given as a percentage of total electricity usage. The starting point to calculating renewable energy is the Company's CRP. Then, in cooperation with the interested community, participation by residents and municipal customers within voluntary renewable programs like R*C and Windsource, is added to the CRP to find the community's total renewable energy usage. This total is then subtracted from the total energy usage of the community, thereby providing the renewable 'gap' the community can fill by enrolling in R*C Community.

Q. PLEASE PROVIDE ADDITIONAL DETAILS ON THE RECS UTILITIZED FOR THE PROGRAM.

A. The Company will follow existing Windsource (to become R*C-MTM) practice for REC vintage for purposes of REC retirement. Eligible RECs include current-year and latter-half-of-previous-year (i.e., for the 2021 program, RECs produced in 2021 and July-December 2020). Keeping requirements consistent across similar programs creates easier program management. This also allows for flexibility to use RECs from the previous year. Similar to the R*C-MTM offering, RECs are sourced from system renewable generating resources that are not used for RES compliance.

Q. WHAT IS THE CONTRACT DURATION FOR THIS OFFERING?

A. Contract duration is one year. This allows customers to update their contract annually based on updated calculations within the gap analysis described above to incorporate the latest CRP and latest data on community participation in renewable energy programs.

Q. PLEASE DESCRIBE THE PRICING FOR R*C-C.

A. Pricing will be a negotiated amount each year that the community participates.

Q. IS THERE A TERMINATION FEE?

A. No.

Q. WHAT IS THE PROGRAM SIZE AND IS THERE AN ENROLLMENT CAP?

A. The potential program size is based on the number of RECs available to the Company not used for RES compliance or any other voluntary programs, such as R*C-MTM. As Public Service invests in and procures greater amounts of

renewable energy, the Company anticipates that it will produce between 3 and 4 million RECs each year that will not be used for RES compliance or other voluntary programs. With such a large number, it is not anticipated to be a constraint on program participation. However, the number of available RECs is finite and therefore the Company will cap participation per customer at 40 percent of total program capacity (i.e., the total number of RECs available each year for this program).

Q. WHAT IS THIS PROGRAM'S RELATIONSHIP WITH THE RES AND CERTIFIED RENEWABLE PERCENTAGE?

A. Any RECs retired on behalf of or transferred to customers within this program will not be used for the Company's RES compliance and will be removed from calculations within the Certified Renewable Percentage.

E. <u>Renewable*Connect Natural Gas (R*C-NG)</u>

Q. WHAT IS THE R*C NATURAL GAS PROGRAM?

A. R*C-NG is a new, voluntary retail program that will enable the Company's natural gas customers to reduce the carbon footprint of their natural gas usage through a combination of RNG and carbon offsets.

Q. PLEASE DISCUSS WHY THE COMPANY IS PROPOSING TO OFFER THIS PROGRAM.

A. Reducing emissions from the Company's natural gas system and those resulting from customer use of natural gas is crucial to continuing the Company's broader carbon reduction strategy. With R*C-NG, the Company proposes to institute a carbon reduction program for natural gas customers by utilizing a relatively new

low/no-carbon fuel option and taking advantage of established methods for reducing carbon consumption—namely, RNG and carbon offsets.

Q. WHAT IS RNG?

A. RNG is pipeline-compatible gaseous fuel derived from biogenic or other renewable sources that has lower lifecycle carbon dioxide equivalent (or "CO2e")[6] emissions than geological natural gas.[7] The majority of the RNG produced today comes from capturing biogas from organic wastes managed at farms, landfills, and wastewater facilities, and upgrading this biogas (a mixture of methane, carbon dioxide and other constituents) to RNG (a fuel essentially identical to and able to be blended with pipeline-quality natural gas). According to the U.S. Environmental Protection Agency ("EPA"), emissions from farms, landfills, and wastewater facilities account for roughly 30 percent of all human-caused methane emissions in the US.[8] By capturing these emissions, which are otherwise occurring naturally, and using them to displace fossil natural gas, the carbon intensity of the natural gas system can be reduced dramatically. The carbon intensity of RNG and the subsequent reductions attributed to the program vary by feedstock and production process. The Program Design section of my testimony will touch on how these variations

[6] CO2e refers to a unit of greenhouse gas emissions reductions that has been recalculated into units of carbon dioxide equivalence based on its relative global warming potential. *See, e.g.*, Definition of CO2e, U.S. Environmental Protection Agency, available at https://www3.epa.gov/carbon-footprint-calculator/tool/definitions/co2e.html.
[7] *See* Renewable Natural Gas, American Gas Association, available at https://www.aga.org/natural-gas/renewable/.
[8] *See* Inventory of U.S. Greenhouse Gas Emissions and Sink, U.S. Environmental Protection Agency, available at https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks.

will be addressed in this program and how the RNG attributes will be tracked and verified.

Q. PLEASE EXPLAIN HOW R*C-NG COMPLIES WITH SENATE BILL 21-264.

A. Senate Bill 21-264, commonly known as the "Clean Heat Bill," requires gas distribution utilities to achieve a four percent reduction in GHG emissions compared to a 2015 baseline by 2025, and a twenty-two percent reduction by 2030. One percent and five percent of these reductions, by 2025 and 2030, respectively, can be from recovered methane. The Company believes the RNG component of R*C-NG complies with Senate Bill 21-264.

Q. PLEASE DESCRIBE HOW R*C-NG ALIGNS WITH THE COMPANY'S NET ZERO BY 2050 GOAL ACROSS ELECTRIC AND GAS OPERATIONS?

A. RNG is one of the many tools that the Company may use to achieve this goal. The Company envisions assisting developers of RNG in connecting to our system and would encourage bringing additional projects onto the system.

Q. PLEASE EXPLAIN WHAT CARBON OFFSETS ARE AND HOW THEY ARE USED TO OFFSET GREENHOUSE GAS EMISSIONS.

A. A carbon offset is a reduction in emissions of carbon dioxide or other GHGs made to compensate for emissions elsewhere. One carbon offset represents one metric ton (or "tonne") of carbon dioxide equivalent (CO2e) avoided or sequestered. Carbon offsets can be derived from several different sources and are grouped into broad categories (e.g., agriculture, forestry, etc.) and specific project types within each category (e.g., livestock methane, afforestation, etc.), with each project type

usually having a specific protocol to measure GHG reductions and meet other requirements.[9]

Q. WHAT ARE THE MARKETS FOR CARBON OFFSETS?

A. There are two prevailing markets for carbon offsets: (1) a compliance market and (2) a voluntary market. Compliance markets are composed of entities who are required to comply with a carbon or other GHG emissions cap and may be allowed to use carbon offsets to remain within their cap (i.e., purchase and retire GHG reductions produced elsewhere), although most compliance markets only allow offsets for part of compliance to ensure regulated entities are also reducing their own emissions. The voluntary market allows individuals or companies to purchase carbon offsets to compensate for their own emissions. There are several types of accepted carbon offsets currently used by residential consumers, businesses, municipalities, and other non-residential entities with the goal of reducing their emissions profile.

Q. HOW WILL R*C-NG USE CARBON OFFSETS?

A. For purposes of this program, the Company is focusing on using voluntary carbon offsets to compensate for the combustion-related emissions associated with customers' end use of natural gas for their energy needs. The Company will collaborate with carbon offset developers to acquire long-term carbon offsets that meet specific minimum requirements established by the Company to ensure that they represent emissions reductions that are: additional to business-as-usual

[9] *See, e.g.*, Carbon Offset Project Types and Categories, Forest Trends Association, available at https://www.forest-trends.org/wp-content/uploads/2018/09/Factsheet_Carbon-Offset-Project-Types-and-Categories.pdf.

practices, permanent, conservatively quantified, not claimed by more than one entity to compensate for emissions, and calculated based on sound, peer-reviewed methodologies and equations. While carbon offsets are unregulated, Public Service will rely on these criteria that are generally accepted in the industry. While establishing these minimum requirements for the Company to acquire a carbon offset, the Company chooses to prioritize carbon offsets that are derived from projects that deliver local/regional jobs and other benefits such as improved air quality, and health outcomes, and projects that represent sustainable development activities in line with climate solidarity principles that consider potential risks to local and indigenous populations. The carbon offsets furthermore need to be issued and retired by a carbon offset registry that is established and reputable in the market.[10]

Carbon offset project types that will be acceptable to the Company for this program will include but are not limited to forestry projects, agriculturally-based projects, GHG avoidance and destruction projects, and grassland conversion avoidance projects. The Company intends to have carbon offsets associated with the program issued and retired on participating customers' behalf so they can claim the environmental benefits. Retiring a carbon offset on a customer's behalf means they are the only person that can claim the environmental benefits from that offset.

[10] Established and reputable carbon offset registries include: American Carbon Registry, Climate Action Reserve, Gold Standard, and Verified Carbon Standard.

Initially, the Company intends to focus on the development of Colorado-based projects, but if it encounters limited supply and/or prohibitive costs, the Company will then expand its focus to include regionally-based projects.

Q. PLEASE SUMMARIZE THE R*C-NG PROGRAM OFFERING.

A. Under R*C-NG, Public Service will offer natural gas customers the opportunity to avoid a block of approximately 0.0827 tonnes of carbon emissions for a flat rate of $5. The product is sized and priced so that the purchase of one $5 block each month (i.e., $60 per year) would enable an average residential customer to avoid one-quarter of their carbon emissions from natural gas each year, based on the average natural gas consumption of customers. The avoided carbon emissions will come from a blend of RNG and carbon offsets. I discuss the demand for the R*C-NG, the development of the program product and pricing, and other aspects of the R*C-NG program below.

1. <u>Customer Demand for R*C-NG</u>

Q. PLEASE DESCRIBE THE CUSTOMER DEMAND FOR R*C-NG.

A. R*C-NG is a voluntary program that will provide residential and commercial natural gas customers in Public Service's territory the opportunity to pay a premium to reduce their carbon footprint from natural gas usage through purchases of a combination of RNG and carbon offsets. The Company conducted customer research that indicates there is strong interest in a product of this nature. Customers have indicated that they like the functionality and reliability of natural gas in their homes, but they have also indicated that they would like a way to reduce their environmental impact. The high cost of appliance electrification,

customer preference and the potential grid constraints that rapid electrification would cause make RNG and offsets a valuable tool for natural gas decarbonization in the near term.

Q. PLEASE EXPLAIN WHY THE COMPANY'S CURRENT VOLUNTARY RENEWABLE ENERGY OPTIONS DO NOT COMPREHENSIVELY MEET CUSTOMERS' RENEWABLE ENERGY NEEDS.

A. A typical household's carbon footprint is composed of emissions from electricity use, natural gas use, transportation, and a few smaller components.[11] The existing renewable choice products offered by the Company provide solutions for the electricity component of customers' carbon footprint, but do not address a customer's carbon emissions from natural gas use. To that end, a carbon free natural gas product is needed. Customer surveys conducted by the Company indicate a desire among customers for more renewable choice options and a specific need for a natural gas offering. R*C-NG will fill this gap while increasing customer choice and helping to decarbonize the Company's system.

Q. WHAT HAS THE COMPANY DONE TO DETERMINE CUSTOMER INTEREST IN THIS THIS TYPE OF PROGRAM?

A. The Company has conducted multiple customer surveys concerning natural gas decarbonization and RNG and carbon offsets specifically. I discuss the survey results in more detail below. The survey data is contained in Attachments NC-6 through NC-8.

[11] *See* Carbon Footprint Calculator, U.S. Environmental Protection Agency, available at https://www3.epa.gov/carbon-footprint-calculator/.

Q. PLEASE GENERALLY DISCUSS THE MARKET RESEARCH THE COMPANY CONDUCTED.

A. The customer surveys were distributed to a wide swath of residential natural gas customers in the Company's Colorado service territory. Customers from the general population as well as customers participating in existing renewable choice programs were surveyed to understand and compare perceptions among all customers alongside those more likely to participate in premium programs such as R*C-NG. These surveys were intended to gain a better understanding of customer attitudes and behaviors toward their natural gas usage and decarbonization efforts, understanding of natural gas decarbonization strategies and RNG specifically, and customers' willingness to pay a premium dollar value to reduce the carbon intensity of their natural gas usage. Questions ranged from broad inquiries around a customer's perception of their carbon emitting activities and efforts to reduce emissions to specific questions outlining program design details.

In addition to customer surveys, the Company and its operating affiliates also conducted a Request for Information ("RFI") with RNG suppliers across all of the Xcel Energy service territories to understand the availability and price of locally sourced RNG. The results of this RFI were combined with the customer survey results to understand the demand and costs of a voluntary customer program and build the program projections outlined in the Program Design section of this testimony.

Q. PLEASE SUMMARIZE THE RESULTS OF THE MARKET RESEARCH THAT WAS PERFORMED.

A. The customer surveys indicated a strong interest in a voluntary RNG and offset program similar to the Company's existing Windsource and R*C offerings. 55 percent of survey responders indicated that they would be very or highly likely to participate in this program, including 83 percent of current Windsource customers. Customers were also asked to indicate the dollar amount per month that they would be willing to pay above their monthly natural gas bill to reduce the carbon intensity of their natural gas. The most common response across all customer types was a value between $5 and $10 per month with an average monthly payment of $8. This value aligns with other renewable choice programs in the Company's portfolio and indicates a healthy willingness to pay among customers surveyed. See Attachments NC-6 through NC-8 for detailed customer survey data.

In early surveys, customers were asked questions about their carbon footprint and actions they plan to take to reduce their emissions. These survey results provided a variety of insights that can be used to effectively market the product to customers. The survey asked customers how important it is to them to reduce their carbon footprint as well as questions about their perceptions around what contributes the most to their carbon emissions, actions they plan to take to reduce their emissions and preferences for reducing carbon emissions from natural gas usage specifically. While the survey results showed a strong interest among customers to reduce their carbon emissions, they also indicated a need to educate customers about the primary sources of carbon emissions. Customers

tended to underestimate the impact of natural gas usage as a share of their overall carbon footprint and when asked about what actions they plan to take to reduce their emissions, reductions in natural gas consumption ranked in the bottom half of options given. However, when asked about their preferences for reducing carbon emissions from natural gas, customers indicated a strong preference for RNG over appliance electrification. These results show that program messaging and education will be key to its growth and successful implementation.

Q. PLEASE DISCUSS THE SPECIFIC RESEARCH THE COMPANY CONDUCTED THAT INDICATES THERE IS A STRONG CUSTOMER DEMAND FOR A R*C-NG OFFERING.

A. As outlined above, the customer research indicated a strong interest in a premium R*C-NG offering and healthy willingness to pay. A premium natural gas program fills a currently unmet need among utility customers seeking ways to reduce their carbon emissions beyond electricity consumption. The positive customer response indicates that this program will attract significant participation allowing it to be funded exclusively by program participants and to have no impact on non-participating customers.

Customer surveys also indicated a reluctance to electrify natural gas appliances and a strong preference for RNG supply as a means for reducing natural gas emissions. In addition to these customer concerns, rapid appliance electrification would require significant upgrades to the electric distribution system and increase customer costs in the short term. Based on these findings, a premium priced RNG product that is funded solely by program participants would

be the optimal natural gas decarbonization offering to meet the needs of both the Company and the customer base.

Through the Company's previous experience with renewable choice products and customer surveys, any renewable choice offering should provide an affordable 100 percent carbon free option. As I explained above, the Company's electric customers can purchase a subscription for their entire electricity consumption through R*C-1.0, R*C-2.0, or R*C-MTM (Windsource). While carbon offsets ranked below RNG in both customer knowledge and interest in customer surveys, they play a key role in reducing the cost of a renewable choice program due to their significantly lower cost per ton of CO2e reduced, at least as an interim measure until the costs of RNG come down further. Based on the RFI that was conducted, average RNG supply in the Company's service territory is roughly $12 to $20 per dekatherm ("Dth") wholesale whereas fossil-based natural gas is roughly $2 per Dth. The average monthly usage of Public Service's retail residential natural gas customers is 6.24 Dth per month. At this price point and in consideration of customers' natural gas usage, the full decarbonization of a customer's natural gas usage through RNG purchases alone would likely result in a prohibitive premium for most customers. Therefore, the Company proposes a blended product that combines RNG and less expensive carbon offsets to meet the customer demand of an affordable carbon free offering.

This product offering allows for customers to affordably offset 100 percent of their natural gas carbon emissions (or a lower amount based on their affordability preferences) while still providing customers their preferred

decarbonization offering, RNG. The Company hopes that the share of carbon reductions from RNG in this program will increase over time as price decreases with more RNG development; if this occurs, the share of carbon offsets needed to maintain affordability should phase down over time. Outreach and education efforts will be critical to inform customers of the product mix, how both RNG and carbon offsets are sourced and how they benefit the community, and why the mix of offsets and RNG is necessary to keep the product affordable.

Q. DID THE COMPANY CONDUCT ANY RESEARCH TO UNDERSTAND THE MARKET DEMAND FOR A CARBON REDUCTION PROGRAM RELATED TO NATURAL GAS CONSUMPTION AT DIFFERENT PRICE POINTS?

A. Yes. The surveys asked customers to identify the prices they would be willing to pay for RNG, carbon offsets, and a blended offering. As I explained above, on average, customers indicated a willingness to pay approximately $8 per month for a premium natural gas product that would reduce carbon emissions from natural gas; however, customers provided a wide range of dollar amounts in response to this question.

Q. PLEASE PROVIDE AN OVERVIEW OF THE CONSUMPTION PATTERNS OF PUBLIC SERVICE'S NATURAL GAS CUSTOMERS.

A. Customers' natural gas demand varies greatly by season. Typically, customer demand for natural gas is highest in winter due to the use of natural gas for home heating. Likewise, demand for natural gas is lowest in summer.

Q. PLEASE DESCRIBE HOW CUSTOMER CONSUMPTION PATTERNS AND CUSTOMER RESEARCH INFORMED THE DEVELOPMENT OF THE R*C-NG PRODUCT AND PRICING.

A. In developing this product, the Company made two key assumptions: (1) customers would wish to avoid or reduce their carbon emissions on a continuing basis (rather than as a one-time event), and (2) customers would prefer to pay a steady, levelized amount over the year for their carbon reductions (rather than paying more during the winter season to offset higher levels of natural gas consumption during the winter heating season).

Based on average customer consumption over the course of a year and the customer responses that expressed a preference to have the option of avoiding all their carbon emissions or a portion thereof, the Company developed blocks of avoided carbon emissions. The blocks are sized so that a customer who participates in R*C-NG can purchase blocks that represent 25 percent, 50 percent, 75 percent of 100 percent of the average natural gas consumption of Public Service customers. In other words, if a customer purchases one block each month (12 blocks per year), the customer's 12 blocks will equate to the avoidance of 25 percent of the carbon emissions associated with the average consumption of a natural gas customer over the course of a year. If a customer purchases four blocks each month (48 blocks per year), the customer's 48 blocks will equate to the avoidance of 100 percent of the carbon emissions associated with the average consumption of a natural gas customer over the course of a year. I provide more detail on the blocks and pricing below.

Q. WHY DOES THE COMPANY BELIEVE THAT A PREMIUM PRICED NATURAL GAS PROGRAM WILL BE ATTRACTIVE TO CUSTOMERS?

A. The Company has extensive experience with premium priced renewable electric energy programs through its existing Windsource and R*C offerings. These programs have proven to be successful and there is a strong customer interest in a similar program for natural gas. Based on the experience of running premium priced renewable electric energy programs and the customer surveys referenced above, the Company believes that there is strong evidence that this program will be attractive to its customers.

Q. AFTER REVIEWING THE MARKET RESEARCH, WHAT IS THE FORECASTED PARTICIPATION IN R*C-NG AND HOW WAS IT DETERMINED?

A. The forecasted participation provided in Attachment NC-9 was determined based on customer surveys, enrollment figures for the Company's existing Windsource product, and past customer surveys conducted for Windsource. Customer survey results were compared to results for Windsource surveys when that program was first implemented and then used to determine an assumed participation level based on the correlation between Windsource survey results and actual participation following that survey. This was done for both customer counts and participation level (defined as the premium paid per month per customer). Using this analysis, the assumed participation level in R*C-NG per customer was $10 per month (or two blocks each month) with 22,773 residential participants estimated by the fifth year of the program. This represents approximately 1.7 percent of all

residential natural gas customers and would result in a carbon reduction of 0.6 percent of residential carbon emissions from natural gas.

While the R*C-NG program will be open to commercial customers as well as residential customers, the Company anticipates that the overwhelming share of program participation will come from residential customers. This is based on participation patterns within the existing Windsource program and market research conducted by both the Company and other utilities offering similar products. However, commercial customers looking to offset their natural gas-related emissions can also participate in the program by purchasing blocks as described above and in more detail below.

Q. DOES THE COMPANY BELIEVE THAT R*C-NG WILL PROVIDE OTHER EXTRINSIC BENEFITS?

A. Yes. In addition to the primary benefit of providing customers with a voluntary carbon emissions reduction program for natural gas customers, the Company also sees this as an opportunity to spur investment in RNG development in its Colorado service territory. RNG production is a nascent industry nationwide with most development currently going towards transportation end uses due primarily to policy drivers in certain jurisdictions. Because of these market factors, the price of RNG is currently prohibitively high to deploy as a decarbonization strategy at scale and further investment is required to drive down costs. Through this offering, the Company will provide an additional avenue for developers to sell RNG for local end uses, creating local environmental benefits and increased awareness. This should lead to an increase in development, a reduction in costs, and the potential

to expand system decarbonization through RNG in the future. This program offering will also provide the Company with valuable knowledge of development best practices and a better understanding of the RNG market which will be used to inform its future natural gas and carbon emissions reduction strategy.

2. Program Design

Q. IS R*C-NG A FULLY REGULATED PROGRAM?

A. Yes, this program will be fully regulated and paid for exclusively by participating customers. We are providing an illustrative tariff for the program as Attachment NC-10 to my testimony. If the Commission approves the R*C-NG program, the Company will engage in sourcing for RNG and carbon offsets (such as RFPs), after which the Company will determine the mix of RNG and carbon offsets that will constitute the block product (which I explain in more detail below) and solicit customer participation.

Q. CAN YOU DESCRIBE HOW THE R*C-NG PROGRAM WILL WORK AS A CUSTOMER CHOICE OPTION?

A. The program will operate in a similar fashion to the Company's existing electric renewable choice programs in that customers will pay a premium charge on their bill in exchange for a lower carbon fuel. In this instance, customer charges will go towards purchasing a blend of RNG and carbon offsets to reduce the carbon intensity of the customer's natural gas supply. I discuss the product sourcing for RNG and carbon offsets below. Customers will be given the option to purchase $5 monthly blocks (consisting of a blend of RNG and offsets) that will represent the avoidance or reduction of approximately 0.0827 tonnes of carbon emissions.

The block is sized so that the purchase of one block per month would result in the reduction of one-quarter of the average carbon emissions from a residential customer's consumption of natural gas. A residential customer could purchase four $5 blocks per month to offset 100 percent of the average natural gas carbon emissions of a Public Service natural gas customer.

a. R*C-NG Program Pricing and Costs

Q. PLEASE EXPLAIN THE BLOCK PRICING PROPOSAL.

A. The block pricing methodology provides a simple format for participation and gives customers a clear understanding of the impacts of their investment. Each $5 block will correspond to an amount of carbon reduced as a result of RNG and offset purchase—specifically, 0.0827 tons of carbon emissions. These blocks will be represented to customers through marketing materials and upon completing program sign-up as a percentage of carbon reduction for the average natural gas consumption, and the amount of equivalent therms of fossil gas that will be offset with a purchase of each block—1.56 Dth.

On average, a Public Service natural gas customer's annual natural gas consumption is 74.88 Dth, which represents 3.97 tonnes of carbon emissions. This amount was then divided by 48 to establish blocks of 0.0827 tonnes of carbon emissions. Each block of 0.0827 tonnes of carbon emissions will cost $5. If a customer purchases one $5 block per month ($60 for 12 blocks over the course of the year), that would represent the avoidance of 0.99 tonnes of carbon emissions, or 25 percent of the average carbon emissions from a natural gas customer over the year. If a customer purchases four $5 blocks each month ($20 per month), this

will represent carbon reductions equivalent to 100 percent of the average natural gas carbon emissions from a natural gas customer over a year.

Customers will be able to purchase an unlimited number of blocks regardless of their usage. In this way, a customer may purchase a greater amount of carbon emissions reductions than their own natural gas consumption.

Q. WHY IS THE COMPANY PROPOSING A BLOCK PRODUCT?

A. Block pricing is particularly effective for a gas product due to the wide variations in usage across a calendar year. Customers tend to use the majority of their gas during the winter months when they are heating their homes with gas furnaces with very little usage taking place in the spring and summer months. The use of blocks allows customers to levelize their spending if they wish to meet an annual carbon emission reduction goal by purchasing a set number of blocks each month. However, the use of blocks means that the customer's purchase of the carbon emissions reductions is not directly tied or correlated to the customer's own natural gas consumption.

An alternative to the block pricing model, tying the premium charge directly to a customer's usage, would result in huge variations in premium charges throughout the year, disproportionately impacting customers' winter bills, when their natural gas bills are already higher due to the application of a volumetric rate to higher consumption. This wide variance in seasonal usage may not be top of mind upon enrollment and could result in unusually high natural gas bills in winter months that customers may not be prepared to pay. Block pricing allows a typical residential customer to levelize the cost of their participation in R*C-NG by

spreading the cost of making their natural gas use carbon-neutral over the year, avoiding too high a cost in winter months that might discourage customer enrollment or retention. It provides a customer with a consistent bill addition that they can plan for throughout the year with clear indications of carbon impacts. I address more of the program design later in my testimony.

Q. PLEASE PROVIDE AN OVERVIEW OF THE BLOCK PRICING METHODOLOGY.

A. Due to the programmatic focus of carbon reductions and the combination of RNG and carbon offsets to achieve these reductions, each premium dollar spent by a customer equates to a reduction of a set amount of CO2e rather than an incremental increase in, or assignment of, renewable electric energy output as is the case in other renewable choice programs. With R*C-2.0 and R*C-MTM (Windsource), customers' premium charges relate to kWh of renewable energy on the grid. While the R*C-NG product will add RNG to the gas system (in place of traditional fossil natural gas), the driving metric for this program and the product offered will be carbon reductions. Customers are less familiar with tons of carbon than they are with kWh of renewable energy. A blocked pricing structure with each block equated to a set amount of carbon emissions, which, in turn, is tied to a set amount of fossil gas consumed, provides a simple opportunity for customers to participate and understand the impacts of the carbon reductions that their money is funding. By also representing each block as a volume of fossil gas, in therms, that is offset, customers can base their purchase decisions on their actual usage rather than that of the average. They can do this by purchasing the number of

blocks that most closely corresponds with their actual annual usage which could be more or less than four depending on how their usage compares with that of the Company average. As I explained previously, because the R*C-NG product consists of specified blocks, customers will not be able to purchase carbon emissions reductions that are tied directly to their natural gas consumption.

Q. HOW WAS THE PROPOSED PRICING METHODOLOGY DEVELOPED?

A. The average residential customer in Public Service's territory uses 74.88 Dth per year of natural gas which equates to 3.97 tonnes per year of CO2 emissions.[12] As I described earlier, the R*C-NG product was designed with the intention of providing an affordable carbon free option to customers. From the customer surveys, the Company learned that the most customers were willing to pay for premium natural gas service was $20 per month with most customers stating a willingness to pay between $5 and $10 per month. Based on these results, the zero-net carbon option was set at $20, meaning a monthly premium payment of this amount totaling $240 over a calendar year, which would offset 3.97 tonnes of carbon emissions.

Q. PLEASE DESCRIBE THE ADMINISTRATIVE COSTS FOR THE PROGRAM.

A. A portion of the customer premiums will be used to fund program labor costs, marketing campaigns, and program tracking and carbon accounting costs. The cost assumptions take into consideration the higher education barrier to an RNG product as compared to other renewable choice programs. Funds will also be

[12] The typical emission factor is 117 lbs of CO2 per dekatherm (e.g., see Environment - U.S. Energy Information Administration (EIA) - U.S. Energy Information Administration (EIA); a dekatherm is the same as 1000 cubic feet).

dedicated to educating customers about the benefits of this product and its impact on carbon emissions.

Q. WILL THE PRICING FOR THE R*C-NG PROGRAM RESULT IN ADVERSE IMPACTS ON NON-PARTICIPANTING CUSTOMERS?

A. No. The R*C-NG program will not have any adverse impacts on non-participating customers. All program costs will be paid for with customer premiums. This includes funds for RNG purchases, offset purchases and program administrative costs. The Company is not seeking any earnings or profits for this program. Attachment NC-9 shows a breakout of how these funds will be used.

Q. ARE THERE OTHER COSTS SPECIFIC TO THE R*C-NG PROGRAM NOT BEING BORNE BY THE PROGRAM?

A. No, all program costs will be borne by participating customers.

b. <u>R*C-NG Program Blocks</u>

Q. PLEASE DESCRIBE THE BLOCK PRODUCT THAT CUSTOMERS WILL BE ABLE TO PURCHASE.

A. As I explained earlier in my testimony, each block will consist of a mix of RNG and carbon offset purchases. Customers participating in the Company's existing Windsource program will be familiar with block pricing as it is utilized there. Where Windsource blocks consist of kilowatt hours ("kWh") of wind energy, this program's block pricing will represent tonnes of carbon reduced through RNG and carbon offset purchases, which will be related to a set number of Dth of natural gas consumption.

Q. HOW IS THE CONTENT OF A PROGRAM BLOCK CALCULATED?

A. Blocks consist of a blend of RNG and carbon offsets, both of which the Company will purchase from third-party sources. The Company started from the principle that customers willing to make their natural gas consumption 100 percent net zero carbon would be willing to pay $240 per year to do so.

Using the received pricing of $15 per Dth for RNG from the RFI that was conducted and an assumed carbon offset price of $15 per tonne of CO2e, the Company determined the mixture of RNG and offset purchases necessary to achieve a carbon offset of 3.97 tonnes per year at an annual customer cost of $240. In order to do this, the Company first needed to establish the carbon content of the RNG and its reduction compared to traditional fossil gas. The carbon intensity of RNG varies depending on its source and therefore the carbon reductions of the program will be heavily dependent on how the RNG is sourced. For the purposes of the forecasting included in this filing, landfill gas was assumed as the source of the RNG purchased. Carbon reduction of RNG was calculated by subtracting the tons of CO2e per Dth of the RNG source from the tons per Dth of traditional fossil gas. The values used for this analysis can be found in the table below.[13]

At these assumed prices and carbon reduction values, carbon offsets will be responsible for roughly 90 percent of the carbon reductions with RNG providing the other 10 percent of reductions. While the majority of carbon reductions will

[13] *See* California Air Resources Board, LCFS Pathway Certified Carbon Intensities, available at https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/fuelpathways/current-pathways_all.xlsx.

result from carbon offset purchases at these price levels, the majority of the customer premiums will be used to purchase RNG as the cost per ton of carbon reduction is much lower for carbon offsets than for RNG. With the assumed pricing and RNG sources, 78 percent of program supply funds would be spent on RNG and 22 percent on carbon offsets. These values are subject to change based on actual pricing and RNG sourcing which is outlined in the sections below as seen in Table NC-D-4.

Table NC-D-4: Natural Gas Carbon Intensity by Source

Natural Gas Carbon Intensity by Source		
RNG Source	Carbon Intensity (g CO2e/MJ)	tonnes/dkTh
Traditional Fossil gas	78.3	0.08
Landfill	46.4	0.05
Dairy	-276.2	(0.29)
Wastewater	19.3	0.02
Municipal solid waste	-22.9	(0.02)

Q. HOW WILL THE RATIO OF RNG AND CARBON OFFSETS BE DETERMINED WITHIN THE PRODUCT OFFERING?

A. The percentage of carbon reductions provided to the program by RNG and carbon offsets will be dependent on the pricing the Company receives when sourcing for this product after receiving Commission approval. The assumed pricing of $15 per Dth of RNG and $15 per tonne of carbon offset are based on data points collected from an RFI and previous experience with carbon offsets. While these pricing assumptions are indicative of current market conditions,[14] actual pricing for these

[14] The Company notes that $15 per tonne is a fairly high price for carbon offsets today; offsets from many project types and locations can be purchased for significantly less. The Company has assumed a conservative $15 per tonne to reflect that the preference for certain project types and for offsets from projects within Colorado may translate into a higher price. The Company will procure offsets competitively to ensure it is obtaining the lowest price for offsets that meet its quality, project type, and locational criteria.

products will be determined through separate sourcing events, which I discuss below. Given the greater customer interest in RNG and the preferable method of achieving carbon reductions, the R*C-NG program will take every opportunity to increase the share of RNG. High levels of carbon offsets are necessary at this time to ensure the affordability of a 100 percent net zero carbon product; however, the Company hopes that decreasing RNG prices over time will allow for a larger amount of RNG to be incorporated while keeping the product affordable.

Q. HOW WILL THE RNG AND CARBON OFFSETS BE SOURCED FOR THIS PRODUCT?

A. Initially, the Company intends to collaborate with RNG producers who are currently (or soon to be) connected to the Company's natural gas distribution system, and with developers of local carbon offset projects. This will allow for the RNG and carbon offsets to be supplied from local sources. If this approach is not feasible, the Company will source both the RNG and carbon offsets through a competitive bid process, which the Company will undertake after receiving approval from the Commission to implement R*C-NG. In that scenario, RFPs will be conducted for both RNG and carbon offsets. In either case, the Company will include minimum requirements for both RNG and carbon offsets including criteria related to the project location, project type, verification, and retirement, to ensure that customers receive the highest quality product possible within the confines of the program. The Company will target long-term off-take agreements for both RNG and carbon offsets that will be directly sourced or through a solicitation to provide enough supply to account for projected growing enrollments over periods of time. In either

case a long-term agreement will provide certainty in terms of both supply and cost. While a shorter-term approach which may require greater risk and less certainty with respect to both cost and supply.

3. Customer Experience

Q. HOW WILL THE COMPANY MARKET THE R*C-NG PROGRAM?

A. After receiving Commission approval to implement the program and conducting product sourcing (such as through RFPs) for RNG and carbon offsets, the Company will utilize existing channels to disseminate program information. The existing R*C and Windsource (which will become R*C-1.0 and R*C-MTM) are established programs with broad customer familiarity which R*C-NG will draw on to attract customers. Various channels, such as email, social media, direct mail, advertising, bill onsert, and call center support may be leveraged to market the program to customers. The Company will target existing R*C and Windsource customers with the opportunity to expand their use of renewable energy and further reduce their carbon footprint.

In addition to the marketing strategies outlined above, customer education will be a crucial part of all recruitment efforts due to the various educational barriers unique to natural gas programs outlined in this testimony. Program materials will include educational components highlighting how natural gas usage contributes to a customer's carbon footprint and the various ways this program can help them reduce that footprint. RNG and carbon offsets will be explained to customers in detail along with sourcing information to give customers an idea of the program benefits to them, their community, and the natural gas system.

In addition, the R*C-NG product will have its own landing page within the Company's Renewable Energy webpage alongside other renewable choice options. The webpage will include an application form, information outlining what RNG and carbon offsets are and how they reduce the carbon intensity of the natural gas system, information about where the RNG and carbon offsets for this program are sourced, as well as information and tools that will help customers understand their usage and desired participation level.

Q. WILL ALL CUSTOMERS BE ALLOWED TO PARTICIPATE IN R*C-NG?

A. The program will be open to all residential and commercial gas sales customers in Public Service's territory. The program will not be open to gas transport customers. While the program is open to all natural gas sales customers, the Company anticipates that the participation will be largely among residential customers and small business customers with lower usage based on the customer surveys conducted and customer behavior in other premium priced programs.

Q. WHAT ARE THE SUBSCRIPTION LIMITS FOR EACH CUSTOMER?

A. There is no limit to the number of blocks that a customer can purchase per month, including above their own natural gas consumption. In addition, customers will be allowed to increase their enrollment at any time and purchase as many program blocks as they like.

Q. ARE THERE ANY EARLY TERMINATION FEES?

A. No. There is no pre-defined term of enrollment for customers and therefore no early termination fees. Participation is on a month-to-month basis and customers are free to unenroll at any time with no penalty.

Q. HOW WILL THE R*C-NG CHARGE BE PRESENTED ON THE CUSTOMER'S BILL?

A. Customers will see an additional line item on their bill reflecting their R*C-NG subscription with the total charge and number of program blocks purchased included.

Q. PLEASE DESCRIBE THE PROCESS A CUSTOMER WILL GO THROUGH TO ENROLL IN THE PROGRAM.

A. Customers will have the ability to enroll in the program through multiple avenues. The program webpage will link the customer to the My Account portal which will allow them to enroll in the program. Within My Account, customers will see a program page, click to an enrollment screen, and choose the number of blocks they would like to purchase per month. Customers will either be presented with a tool that will allow them to enter their natural gas usage to determine the number of blocks necessary to offset 100 percent of their usage and allow them to purchase the blocks necessary to offset their desired level of carbon, or this information will be automatically populated on the enrollment screen. All digital and email marketing will route customers to the website allowing them to access the path toward online enrollment.

Customers will also be able to enroll via the Xcel Energy app. Currently Windsource enrollment is available through the app, along with other customer programs, and R*C-NG will be included as well. Customer account information is already available within the app so customers would be able to simply choose their

level of participation and enroll. A link will be provided to the usage calculator tool reference above to assist customers in their enrollment decisions.

Additionally, customers will be given the opportunity to enroll upon requesting a new service connection or transferring service to a different premise. This is an effective channel for existing customer programs and the addition of this product will provide customers with additional service options without inconveniencing the customer. These requests can take place digitally or over the phone. Customers can select an enrollment digitally similar to how they would through the web portal. If a customer is making the request over the phone, the call center representative will be able to walk the customer through the product and enroll them.

Q. WHAT HAPPENS IF A CUSTOMER PARTICIPATING IN R*C-NG MOVES?

A. If a customer that is enrolled in the program moves within the Company's service territory, they will be given the opportunity to remain enrolled in the program at their current subscription level or adjust their subscription if requested. Customers will not be automatically enrolled at their new premise and must agree to maintain their subscription.

Q. WILL CUSTOMERS WHO PARTICIPATE IN R*C-NG EXPERIENCE ANY CHANGE TO THEIR NATURAL GAS SERVICE?

A. No. Participation in R*C-NG is intended to provide customers with a seamless experience. Customers will continue to receive natural gas service at their premises from Public Service the same as they do now. Because natural gas is a "fungible" commodity—similar to electric energy—any RNG injected into Public

Service's natural gas distribution system cannot be directed to a specific customer's interconnection.

4. Annual Program Financials and Tracking

Q. WHAT TYPES OF COSTS ARE ASSOCIATED WITH IMPLEMENTING THIS PROGRAM?

A. Program costs will be split out into three general categories: RNG supply costs, carbon offset supply costs, and program administration costs. All program costs will be covered exclusively by customer premiums. How the program costs are divided will be dependent on the price of the RNG and carbon offsets and the composition of the program blocks. The administrative costs will be separated from the supply costs and the supply costs will be split between RNG and carbon offsets according to the pricing received. Based on the 90 percent offset and 10 percent RNG product modeled using the assumptions outlined in this testimony, 77 percent of the supply costs would be used to purchase RNG while 23 percent would be used to purchase carbon offsets.

Q. WHAT IS THE TOTAL COST OF THE PROGRAM?

A. The total program cost will directly reflect the participation level as all costs will be supported by customer premiums. Attachment NC-9 shows the forecasted program annual program costs using the assumptions outlined in this testimony. The total revenues and cost over the first five years of this program are projected to be $8,644,000. That total program cost is split into $1.9 million in administrative costs (22 percent of total spend) and $6.7 million in supply costs (78 percent).

Q. HOW WILL PROGRAM COSTS AND PARTICIPATION BE ALIGNED WITH RNG AND OFFSET SUPPLY?

A. The Company will directly source or conduct one or multiple RFPs for both RNG supply and carbon offsets. The Company intends to execute multiyear contracts at a fixed or variable volume depending on how they are sourced. If program participation exceeds the RNG or carbon offset volume contracted for, the Company will work with suppliers to increase the volumes to meet customer demand. If the Company reaches the end of the contract term with excess RNG or carbon offsets, the Company will either try to recoup the costs of these purchases in future program years or sell the excess supply on the open market to help offset program costs. The R*C-NG program will coordinate its purchases of RNG commodity with the Company's Gas Supply group.

Q. IS THE COMPANY PROPOSING AN EARNINGS MECHANISM FOR THIS PROGRAM?

A. No, the Company is not proposing any earnings mechanisms for this program. All revenues will cover the Company's costs for the program.

Q. HOW DOES THE COMPANY PROPOSE TO REPORT ON THE PROGRAM TO THE COMMISSION?

A. The Company will report on program revenues, participating customers, RNG and offset purchases, and the associated carbon reduction resulting from these purchases in the Company's annual RES Compliance Report filed on or before June 1 of each year. When the Company makes RNG commodity acquisitions,

these will be identified in an appropriate filing and the R*C-NG program will work with the Company's Gas Supply group to ensure appropriate cost allocations.

IV. CONCLUSION

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

A. I recommend that the Commission approve the R*C program in its entirety for the benefit of the Company's customers. As detailed in my testimony the overall R*C program will contain the following programs:

- R*C-1.0 – For the existing program the Company has proposed to make adjustments to allow changes to the administrative charge and the earnings share mechanism.

- R*C-2.0 – A new proposed program where the Company is requesting to initiate with up to 300 MW based upon customer demand. R*C-2.0 is largely modeled on R*C-1.0. As part of this approval recommendation, I recommend that the Commission approve the acquisition plan as described in my testimony.

- R*C-MTM – A rebranding of what is known today as Windsource where we will add solar resources to serve interested customers with both wind and solar resources.

- R*C-C – A new program which will allow interested communities within the Company's service territory to purchase RECs as a means toward achieving their respective sustainability goals or targets.

- R*C-NG – A new voluntary retail program that will enable the Company's natural gas customers to reduce the carbon footprint of their natural gas usage through a combination of RNG and carbon offsets.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Statement of Qualifications

R. Neil Cowan

I graduated from Colorado State University in 1994 with a BA degree in History and graduated from the University of Colorado at Denver in 2005 with an MBA Degree.

I started with Xcel Energy in 2005, first working in the Regulatory Accounting organization and then with the Marketing organization (what today is called Customer Solutions), working specifically in the DSM Regulatory Strategy and Planning group as a Senior Regulatory Analyst. In this role my responsibilities included providing analysis and management of regulatory filings for DSM programs in the States of Colorado, New Mexico, and Texas. In this position I filed direct testimony in the States of Colorado (Proceeding No. 11AL-947E) and Texas.

I joined the Regulatory Department in June 2013 as a Regulatory Policy Specialist and have primarily worked on a variety of issues related to renewables, DSM, and customer data privacy in the State of Colorado. In this position my responsibilities include providing policy research and guidance to Company leadership to drive strategic planning and business decisions, operationalize regulatory decisions for compliance and efficiencies, and interfacing with external stakeholders, including regulators, to drive corporate strategies while balancing public interest.

Prior to my employment with Xcel Energy, I was employed by AT&T of the Mountain States for five years, where I worked on regulatory issues surrounding switched and special access rates and contracts in the 14-state region that was covered by US West/Qwest.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

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IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO FOR APPROVAL OF ITS 2022–2025 RENEWABLE ENERGY COMPLIANCE PLAN	)	PROCEEDING NO. 21A-____EG

AFFIDAVIT OF NEIL COWAN ON BEHALF OF
PUBLIC SERVICE COMPANY OF COLORADO

I, Neil Cowan, 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 14 day of December 2021.

Neil Cowan
Regulatory Policy Specialist

Subscribed and sworn to before me this 14th day of Dec., 2021.

AMANDA CLARK
Notary Public
State of Colorado
Notary ID # 20164004880
My Commission Expires 03-25-2024

Amanda Clark
Notary Public

My Commission expires 3/25/2024