

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

* * * * *

IN THE MATTER OF THE)
APPLICATION OF PUBLIC SERVICE)
COMPANY OF COLORADO FOR) PROCEEDING NO. 19A-XXXXE
APPROVAL OF ITS 2020-2021)
RENEWABLE ENERGY COMPLIANCE)
PLAN)

DIRECT TESTIMONY OF KERRY R. KLEMM

ON

BEHALF OF

PUBLIC SERVICE COMPANY OF COLORADO

June 28, 2019

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

* * * * *

IN THE MATTER OF THE)
APPLICATION OF PUBLIC SERVICE)
COMPANY OF COLORADO FOR) PROCEEDING NO. 19A-XXXXE
APPROVAL OF ITS 2020-2021)
RENEWABLE ENERGY COMPLIANCE)
PLAN)

DIRECT TESTIMONY OF KERRY R. KLEMM

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
I. INTRODUCTION AND PURPOSE OF TESTIMONY	6
II. PLAN OVERVIEW FOR RETAIL DISTRIBUTED GENERATION	9
III. SOLAR*REWARDS® PROPOSALS	16
A. Solar*Rewards® Small Proposals	22
B. Solar*Rewards Medium Offering Proposals	24
C. Solar*Rewards Large Proposals.....	30
D. Solar*Rewards Low-Income Proposal	32
IV. SOLAR*REWARDS COMMUNITY®	34
A. Colorado’s CSG Regulatory Framework	34
B. Solar*Rewards Community® Capacity Levels.....	38
C. Other Solar*Rewards Community® Proposals	44
D. Solar*Rewards Community Bid Evaluation.....	48
E. Other Solar*Rewards Community Terms, Conditions, and Proposals.....	52
A. Company-Offered CSG Low Income-Labor Collaboration.....	56
V. WINDSOURCE®.....	60
VI. OTHER PROGRAMS.....	63
VII. VOLUME III UPDATES	66

**VIII. IMPACT OF PUBLIC SERVICE’S MOTION TO EXTEND 2017–19 RE
PLAN THROUGH FIRST QUARTER 2020..... 77**

GLOSSARY OF ACRONYMS AND DEFINED TERMS

<u>Acronyms/Defined Term</u>	<u>Meaning</u>
2017-19 RE Plan, RE Plan, Plan, or Compliance Plan	Public Service’s 2017-2019 Renewable Energy Compliance Plan
2020-21 RE Plan or Plan	PSCo 2020-21 Renewable Energy Plan
CEO	Colorado Energy Office
CI	Commercial and Industrial
CSG	Community Solar Garden
DG	Distributed Generation
DSM	Demand Side Management
EOC	Energy Outreach Colorado
HB 19-1003	House Bill 19-1003
kW	KiloWatt
kWh	KiloWatt-hour
Motion	Motion to Implement Extension of 2017-19 RE Plan through First Quarter 2020
MW	Megawatt
NEM	Net Energy Metering
NEM Only	Net Energy Metering only, without additional Solar*Rewards or other incentives
No RES Plan	Company’s Plan to acquire only non-renewable resources
PBI	Performance Based Incentives
PLA	Project Labor Agreement

<u>Acronyms/Defined Term</u>	<u>Meaning</u>
Public Service or Company	Public Service Company of Colorado
PV	Photovoltaic
RD-TDR	Residential Demand-Time Differentiated Rate
RD TOU Rate	Residential-Demand Time of Use Rate
RE	Renewable Energy
RES	Renewable Energy Standard
Retail DG	Retail Distributed Generation
RFP	Request for Proposal
SG	Secondary General
SPVTOU	Secondary Photovoltaic Time-of-Use
S*R®	Solar*Rewards®
Xcel Energy	Xcel Energy Inc.

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

* * * * *

IN THE MATTER OF THE)
APPLICATION OF PUBLIC SERVICE)
COMPANY OF COLORADO FOR) PROCEEDING NO. 19A-XXXXE
APPROVAL OF ITS 2020-2021)
RENEWABLE ENERGY COMPLIANCE)
PLAN)

DIRECT TESTIMONY OF KERRY R. KLEMM

I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Kerry Ryan Klemm. My business address is 401 Nicollet Mall,
Minneapolis, Minnesota 55401.

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

A. I am employed by Xcel Energy Services, Inc., a wholly-owned subsidiary of Xcel
Energy Inc. which is the parent company of Public Service Company of Colorado
("Public Service" or the "Company"). My job title is Manager, Renewable Choice
Programs.

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

A. I am testifying on behalf of Public Service.

**Q. HAVE YOU INCLUDED A DESCRIPTION OF YOUR QUALIFICATIONS,
DUTIES, AND RESPONSIBILITIES?**

A. Yes. A description of my qualifications, duties, and responsibilities is included at
the end of my testimony.

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

2 A. The purpose of my testimony is to support portions of Section 5, Section 6, and
3 Volume III of the Company's 2020-2021 Renewable Energy Plan ("2020-21 RE
4 Plan" or "Plan"). I describe the Company's customer choice Renewable Energy
5 ("RE") options under its Solar*Rewards and Solar*Rewards Community program
6 offerings. I present the Company's proposed incentive levels for these offerings
7 in addition to Public Service's proposed capacity acquisition levels during the
8 2020-21 RE Plan. I also clarify or explain changes to operational practices
9 regarding how the Company operates these offerings. As sponsor Section 6 of
10 the Plan, I discuss the Company's Windsource® program pricing analysis. Table
11 KRK-D-1 on the following page provides a summary of the proposals I support in
12 my testimony:

1 **Table KRK-D- 1: 2020-21 Renewable Energy Plan – Solar Offerings Capacity**
 2 **Summary (MW_{DC})¹**

	2017-2019 Plan	2020	2021	Total RE Plan
Offering	Avg. Capacity (MW)	Capacity (MW)	Capacity (MW)	Capacity (MW)
Solar*Rewards Small (≤25 kW)	24	12	12	24
Solar*Rewards Medium (25 to ≤500 kW)	24	20	20	40
Solar*Rewards Large RFP (>500 kW)	10	20	20	40
Low-income On-Site Solar (CEO) (≤3.5 kW)*	0.35	0.35	0.35	0.7
TOTAL ON-SITE SOLAR*REWARDS	58.4	52.4	52.4	104.7
Uncapped (net-metered only) solar (projected)**	20	32	32	64
TOTAL ON-SITE SOLAR PROJECTIONS	78.4	84.4	84.4	168.7
General Solar*Rewards Community RFP (Max)***	35	35	35	70
Low-income Solar*Rewards Community RFP	4	4	4	8
Solar*Rewards Community Standard Offer **** (Low-Income + Standard)	1	5	5	10
Low-income Solar*Rewards Community Company-Offered	2	4	4	8
TOTAL SOLAR*REWARDS COMMUNITY	41	48	48	96
TOTAL SOLAR*REWARDS - ALL OFFERINGS IN PLAN	99.4	100.4	100.4	200.7
TOTAL ON-SITE SOLAR PROJECTIONS - ALL TYPES	119.4	132.4	132.4	264.7
*The 2017-2019 RE Plan target 300 projects, at 3.5 kW each, over three years, which equals 0.35 MW per year.				
**Net Metered Only system capacity is not governed by this Plan; numbers shown to illustrate potential Net Meter Only solar applications based on historic trends that may change in the future. 32 MW is the Net Metered Only capacity installed during 2018.				
***Minimum and maximum annual awards to be determined during award solicitation and evaluation. Recommended minimum capacity for S*RC is 15 MW per year.				
****The 1 MW of Standard Offer CSGs (standard + Low-income), Company-Offered CSGs and Standard CSG RFP capacity are included in the 35 MW of S*RC capacity in the 2017-19 Plan. This Plan specifies the totals individually for clarity.				
****The Company proposes to continue the low-income Standard Offer at the same level, 0.5 MW, as under the 2017-19 RE Plan.				

¹ Capacity total and subtotals are rounded for presentation purposes. Not included in Table KRK-D-1 is the annual capacity for the Company’s Recycled Energy program which the Company will continue to offer at 20MW per year.

1 **II. PLAN OVERVIEW FOR RETAIL DISTRIBUTED GENERATION**

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

3 A. In this section of my Direct Testimony, I explain the Company’s retail Distributed
4 Generation (“DG”) programs, and its required retail DG acquisition levels
5 pursuant to Colorado’s Renewable Energy Standard (“RES”). I explain that the
6 Company has exceeded and expects to continue exceeding the minimum
7 acquisition levels for retail DG set forth in the RES.

8 **Q. WHAT IS RETAIL DG?**

9 A. Colorado’s RES, § 40-2-124(1)(c)(I)(E), C.R.S., requires that in 2020 and years
10 thereafter, Public Service “generate, or cause to be generated” 30 percent of its
11 retail electricity sales in Colorado from Eligible Energy Resources, with
12 “distributed generation equaling at least three percent of its retail electricity
13 sales.” Of this amount, the Company must acquire electricity derived from retail
14 DG equal to one-and-one-half percent of its retail electricity sales. The RES
15 defines “retail distributed generation” as a renewable energy resource that is
16 located on the customer’s site and interconnected on the customer’s side of the
17 utility meter.² The RES defines “Eligible Energy Resources” as “recycled energy
18 and renewable energy resources . . . [i]n addition resources using coal mine
19 methane and synthetic gas produced by pyrolysis of municipal solid waste are

² Section 40-2-124(1)(a)(VIII), C.R.S.

1 eligible energy resources if the commission determines that the electricity
2 generated by those resources is greenhouse gas neutral.”³

3 **Q. PLEASE PROVIDE AN OVERVIEW OF THE COMPANY’S RETAIL DG**
4 **OFFERINGS.**

5 A. Public Service provides two types of retail DG offerings through its on-site solar
6 and Community Solar Garden (“CSG”) offerings, known as Solar*Rewards® (for
7 on-site solar) and Solar*Rewards Community® (for CSGs), which are designed
8 to provide all customers with a variety of renewable energy program choices.

9 The Solar*Rewards® incentive program for customers’ on-site solar
10 installations has a variety of options for small, medium, large, and low-income
11 customers, which are filled through a mix of standard offers and competitive bids.
12 For the Company’s Solar*Rewards Small®, Solar*Rewards Medium®, and
13 Rooftop Low-income Solar offerings, customers enroll through a standard offer
14 with pre-established incentive amounts and capacity levels set through the
15 Company’s RE Plan. For the Solar*Rewards Large® option, customers are
16 selected through a competitive bidding process.

17 In 2010, Colorado became the first state in the country to pass legislation
18 that created a legal framework for implementing CSGs, which is set forth in
19 § 40-2-127, C.R.S. The Company’s Solar*Rewards Community® program makes
20 CSG subscriptions available to all customers in its service territory, with carve
21 outs for low-income customers. Consistent with Colorado law and the

³ Section 40-2-124(1)(a), C.R.S.

1 Commission's Rules, these offerings are delivered to customers via solar
2 development companies, who participate in Solar*Rewards Community® through
3 competitive bids and standard offers.

4 **Q. HAS THE COMPANY MET COLORADO'S RES COMPLIANCE TO DATE?**

5 A. Yes. As explained in the Direct Testimonies of Mr. Jack Ihle and Ms. Tara
6 Fowler, the Company has and will acquire the RECs necessary to meet its RES
7 Retail DG requirement for the years prior to 2018, and is also on track for 2019.

8 **Q. IS THE COMPANY RECOMMENDING IT ACQUIRE MORE THAN THE
9 STATUTORY MINIMUM LEVEL OF RETAIL DG IN 2020 AND 2021?**

10 A. Yes. As of December 31, 2018, the Company had acquired 330 MW of
11 Solar*Rewards® capacity and 50 MW of active Solar*Rewards Community®
12 projects. This puts the Company beyond its RES compliance requirement for the
13 retail DG component of Colorado's RES in 2019. Under the Company's
14 proposals in its 2020-21 RE Plan, we will continue to exceed the minimum
15 requirements set forth in the RES.

16 **Q. WHAT ARE SOME OF THE TRENDS THAT HAVE INFLUENCED PUBLIC
17 SERVICE'S PROPOSALS IN THIS PLAN?**

18 A. Several trends have influenced this Plan. First, since implementing our 2017-
19 2019 Renewable Energy Plan ("2017-19 RE Plan"), the Company has
20 experienced a significant decline in the number of customers choosing to
21 participate in the Company's Solar*Rewards Small® offering for systems less
22 than or equal to 25 KiloWatt ("kW"). At the same time, customers have been

1 foregoing Solar*Rewards® incentives and applying for Net Energy Metering
2 ("NEM") only without incentives ("NEM-only") in increasing numbers.

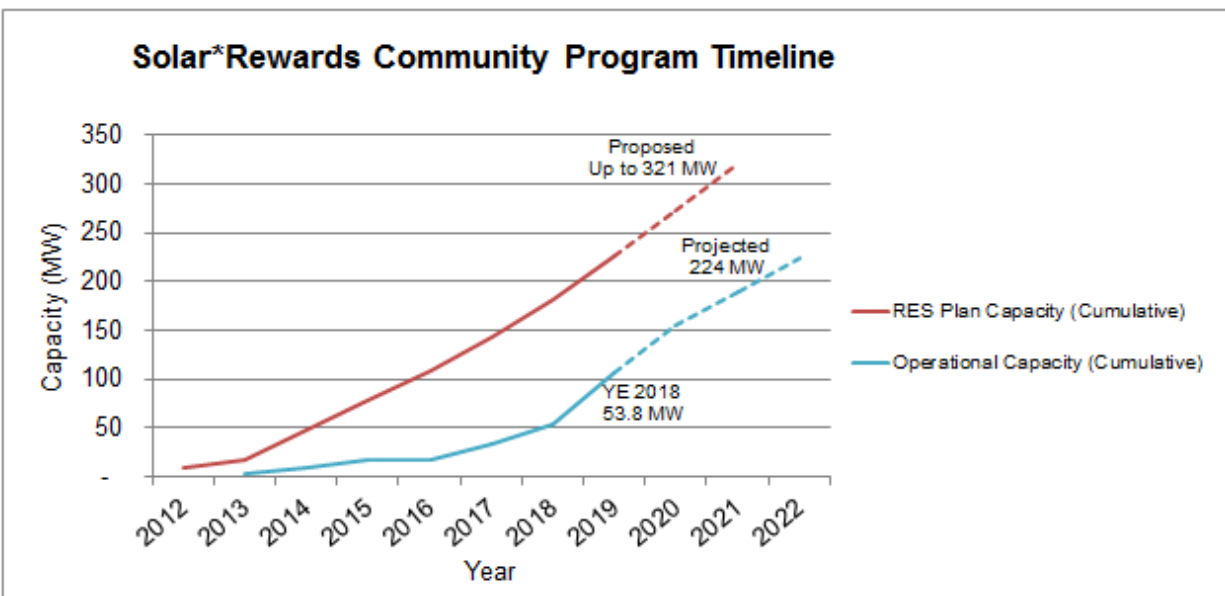
3 The net impact of this market change is that more private small solar
4 systems are being installed within Public Service's service territory today than
5 projected in the 2017-19 RE Plan, despite fewer customers participating in the
6 Company's Solar*Rewards offerings. In 2018, total planned Solar*Rewards
7 Small® application capacity was 42 MW, including Option A and Option B. In
8 2018, the Company received applications for a total of 45 MW of small retail DG
9 capacity. Of that, 8 MW was for Solar*Rewards Small® and 37 MW was for
10 NEM-only small project capacity. The same trend appears to be starting for
11 Solar*Rewards Medium® size facilities. The Company anticipates this trend will
12 continue and has adjusted its options and capacity projections to adapt to the
13 market and reflect these projections.

14 While the Plan reduces annual capacity for the Solar*Rewards Small®
15 and Medium offerings, once NEM-only projects are included, total annual
16 distributed generation applications are expected to grow under this plan in 2020
17 and 2021. In response to these evolving solar market dynamics, the Company
18 plans to shift some of its Solar*Rewards Medium® capacity to the Solar*Rewards
19 Community® Standard Offer, while expanding the project size limits for the
20 Solar*Rewards Community® Standard Offer to bolster the market for installations
21 up to 500 kW.

1 **Q. PLEASE DESCRIBE SOME OF THE TRENDS PUBLIC SERVICE HAS**
2 **EXPERIENCED WITH RESPECT TO ITS SOLAR*REWARDS COMMUNITY®**
3 **OFFERINGS.**

4 A. The Company has experienced interest and growth in its Solar*Rewards
5 Community® Program during the 2017-19 RE Plan period. At the beginning of
6 the 2017-19 RE Plan, only 18 MW of community solar were actively producing
7 energy. By the end of 2018, there were 50 MW of active CSGs within Public
8 Service's territory, reflecting an increase of more than 20 MW since the end
9 2017, with an additional 111 MW in the development process. Figure KRK-D-1
10 below reflects the rapid growth in CSG capacity awarded and systems that came
11 online during the 2017-19 RE Plan, and the ongoing growth proposed in this
12 Plan. (Note: An 18-24 month lag is typical for CSG projects, so active gardens
13 naturally lag behind awarded capacity at any point in time.)

14 **Figure KRK-D-1: Solar*Rewards Community® Program Timeline**



1 While a RESA-funded subsidy in the bill credit remains, the Commission-
2 established program caps and Commission decision to authorize negative REC
3 bids (Proceeding No. 17D-0082E) has brought more cost-discipline to these
4 offerings. Stakeholders have also been paying greater attention to subscriber
5 mix—*i.e.* low-income and residential subscribers—leading to an increasingly
6 diverse program.

7 While the Company’s Solar*Rewards Community® program has a diverse
8 mix of subscribers, the capacity allocated among those subscribers includes
9 many Secondary General (“SG”) customers, who accounted for approximately 80
10 percent of the program capacity at the end of 2018. We believe this is partly due
11 to early program rules that benefitted customers in this rate class with high
12 demand and low KiloWatt-hour (“kWh”) usage. The Company worked with the
13 industry in 2016 to create a class average bill credit rate that was most recently
14 approved by Decision No. C16-0747. The Company is again requesting the
15 Commission authorize the Company to continue applying the class average bill
16 credit rate through a Motion for Permanent Variance filed with its Application.
17 While this outcome has led to greater administrative efficiency, CSG capacity
18 allocations still tend to skew strongly toward large business, government, and
19 school customers. The Company has undertaken efforts to target residential
20 class customers in RFP solicitations to help resolve this disparity. Early
21 indications show this approach to be promising, but we do not anticipate results
22 for 18-24 months as most of the winning CSGs have yet to be built. Our 2020-21

1 RE Plan builds off this effort and includes recommendations to further enhance
2 subscriber diversity.

1 **III. SOLAR*REWARDS® PROPOSALS**

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

4 A. In this section of my Direct Testimony, I present the Company's proposals for its
5 Solar*Rewards® Small, Medium, and Large options, including annual capacity,
6 terms for installation and other details.

7 **Q. PLEASE PROVIDE AN OVERVIEW OF PUBLIC SERVICE'S PROPOSED**
8 **SOLAR*REWARDS CAPACITY LEVELS DURING THE 2020-21 RE PLAN.**

9 A. Table KRK-D-2 below summarizes the Company's proposed capacity levels for
10 each of its Solar*Rewards offerings, not including Solar*Rewards Community,
11 which I discuss later in my testimony. As I discuss in more detail below, the
12 Company proposes eliminating the Solar*Rewards Small Option B offering.

1 **Table KRK-D-2: Summary of Changes to Solar*Rewards® Offerings**

Offering	2017-2019 Plan	2020	2021	Total RE Plan	Explanation
	Avg. Capacity (MW)	Capacity (MW)	Capacity (MW)	Capacity (MW)	
Solar*Rewards Small (≤25 kW)	24	12	12	24	Dropped due to market demand. No incentive change from 2019.
Solar*Rewards Medium (25 to ≤500 kW)	24	20	20	40	Moved 4 Megawatt (“MW”) to Standard Offer CSGs. No incentive change from 2019.
Solar*Rewards Large RFP (>500 kW)	10	20	20	40	Increased due to demand. New deposit structure, timeline
Low-income On-Site Solar (CEO) (≤3.5 kW)	0.35	0.35	0.35	0.7	Retain current size of offering.
TOTAL ON-SITE SOLAR*REWARDS	58.4	52.4	52.4	104.7	
Uncapped (net-metered only) solar (projected)	20	32	32	64	Conservative estimates based on 2018 actuals.
TOTAL ON-SITE SOLAR PROJECTIONS	78.4	84.4	84.4	168.7	

2 **Q. PLEASE DESCRIBE THE INCENTIVES PROVIDED TO CUSTOMERS WHO**
 3 **ENROLL IN SOLAR*REWARDS®.**

4 A. Public Service’s Solar*Rewards® Small, Medium, and Large offerings provide
 5 Performance-Based Incentives (“PBI”) to customers who install on-site solar
 6 facilities. These payments, which are funded through the RESA, provide
 7 additional incentive beyond net metering benefits to help bolster solar
 8 installations. Incentives are paid for 20 years in exchange for the RECs
 9 produced by the system.

10 Incentive levels vary by system size. In addition to the system sizes listed
 11 below for each option, consistent with the RES, customer installations are limited

1 to 120 percent of the customer’s annual energy used for the prior 12 months, or a
2 Company-approved estimate if adequate usage history does not exist. A
3 summary of Public Service’s proposed incentives and system sizes (in kW_{DC}) is
4 provided in Table KRK-D-3 below:

Table KRK-D-3: Proposed Solar*Rewards Incentives

Solar*Rewards Option	Eligible kW Size Range	Proposed PBI
Small	>.5 kW to 25 kW	\$0.005 / kWh
Medium	>25 kW to 500 kW	\$0.0375 / kWh
Large	>500 kW	Annual RFP

5
6 **Q. PLEASE PROVIDE MORE DETAIL ABOUT THE ON-SITE SOLAR TRENDS**
7 **THE COMPANY HAS OBSERVED DURING THE 2017-19 RE PLAN.**

8 A. Above I mentioned the significant shift from Solar*Rewards® Small to NEM-only
9 for small systems during the 2017-19 RE Plan. This ongoing market
10 transformation has been influenced by diminishing Solar*Rewards® incentives
11 and a change in metering fees starting in 2017¹ that required Solar*Rewards®
12 participants to fund their production meter costs while NEM-only customers’
13 production meter costs are paid by the RESA. These factors, combined with
14 declining solar installation costs and attractive purchase/lease terms, has
15 contributed to more customers choosing net energy metering only over

¹ Proceeding No.16AL-0048E. Corrected Non-Unanimous Comprehensive Settlement Agreement (hereafter, “Three Case Settlement”), p. 36, approved by Decision No. C16-1075 (mailed Nov. 23, 2016).

1 participating in Solar*Rewards® incentives. Additionally, despite efforts to roll
 2 capacity back into the option from quarter to quarter the pace of Solar*Rewards®
 3 Medium applications is slowing and volume is decreasing. While
 4 Solar*Rewards® Small and Medium applications and installation have dropped,
 5 overall solar capacity applications are exceeding what was projected in the 2017-
 6 19 RE Plan. At the same time, the Solar*Rewards® Large option saw healthy
 7 interest during the 2017 and 2018 RFPs, along with competitively priced RECs.
 8 Table KRK-D-4 below shows this shift in application capacity and installed
 9 capacity compared to the 2017-19 RE Plan targets.

10 **Table KRK-D-4:**
 11 **2017 and 2018 MW Capacities, Applications, and Installations**

	2017 Plan	2017 Applications	2017 Installations	2018 Plan	2018 Applications	2018 Installations
Solar*Rewards Small Option A	24	16	15	24	8	6
Solar*Rewards Small Option B	9	0	0	18	0	0
Solar*Rewards Medium	24	26	7	24	22	14
Solar*Rewards Large	6	6	0	10	10	0
Rooftop Low-income	0.2	0.2	0.04	.35	0.3	0.1
Solar*Rewards Total	63.2	48.2	22.04	76.35	40.3	26.1
Net Metering Only	0	45	21	0	40	32
Total On-site Solar	63.2	93.2	43.04	76.35	86.3	52.1

12 **Q. ARE APPLICATIONS TYPICALLY INSTALLED IN THE YEAR IN WHICH**
 13 **THEY ARE AWARDED?**

14 A. Not necessarily. Because there is a natural time lag between when an
 15 application is submitted and when the installation is completed, some variations

1 between these figures are expected and natural. For example, applications
2 approved for the 2017 incentive plan may be installed in 2017 or 2018. Large
3 projects that win an RFP award may not be completed until the following
4 calendar year. Attrition after an application is approved for an incentive is also
5 reflected in these numbers because cancelled applications are counted as
6 applications received, but are never realized as installations. Application capacity
7 that is not received for Solar*Rewards® applications is rolled into available
8 applications for the remainder of that calendar year, but not from year to year.

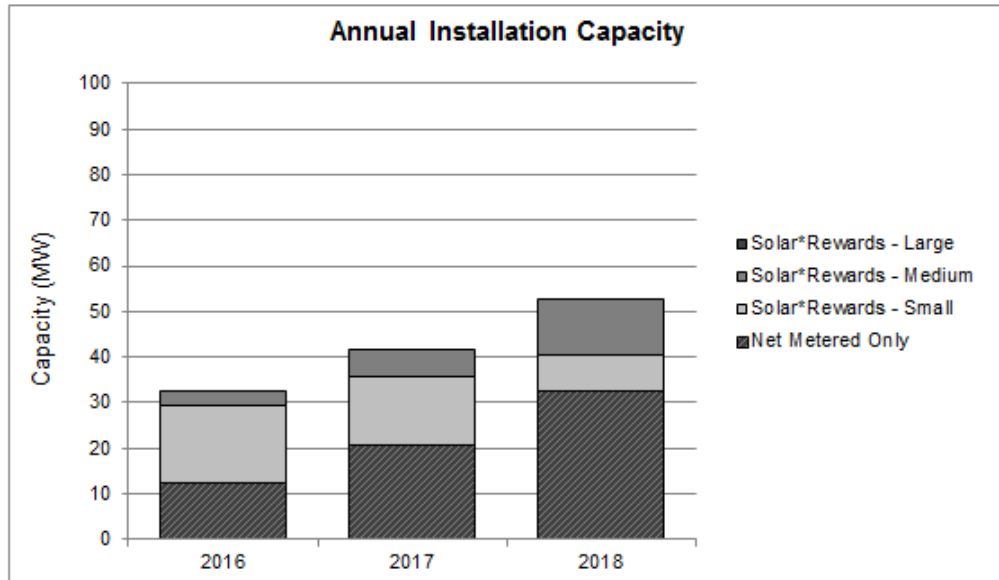
9 **Q. HOW DO SOLAR TRENDS IN COLORADO COMPARE TO NATIONAL**
10 **TRENDS?**

11 A. Overall on-site installed solar capacity grew 28 percent from 2017 to 2018 while
12 national installations dropped.² As reflected in Figure KRK-D-2 below,
13 Colorado's on-site solar market is growing beyond 2017-19 RE Plan levels
14 despite declining levels of Solar*Rewards Small participation.

² Smart Electric Power Alliance (June 2019), *2019 Utility Solar Market Snapshot*,
<https://sepapower.org/resource/2019-utility-solar-market-snapshot>

1
2

**Figure KRK-D-2:
Annual Incremental Installed Solar by Offering**



3 **Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED SOLAR*REWARDS**
4 **ACQUISITION LEVELS FOR THIS PLAN.**

5 A. The Company proposes to acquire the following amounts of capacity through
6 Solar*Rewards during the 2020-21 RE Plan Period:

1
2

**Table KRK-D-5:
 2020-2021 Proposed On-Site Solar Capacities (In MW_{DC})**

	2020	2021	Total RE Plan
Offering	Capacity (MW)	Capacity (MW)	Capacity (MW)
Solar*Rewards Small (≤25 kW)	12	12	24
Solar*Rewards Medium (25 to ≤500 kW)	20	20	40
Solar*Rewards Large RFP (>500 kW)	20	20	40
Low-income On-Site Solar (CEO) (≤3.5 kW)	0.35	0.35	0.7
TOTAL ON-SITE SOLAR*REWARDS	52.4	52.4	104.7
Uncapped (net-metered only) solar (projected)*	32	32	64
TOTAL ON-SITE SOLAR PROJECTIONS	84.4	84.4	168.7

*Net-metered only installations are forecasted to hold steady at 2018 installed solar levels of 32 MW for the purpose of demonstrating holistic on-site solar market installations. Actual levels may be lower or higher than predicted here.

3 As reflected above, Public Service also proposes a slight expansion of the
 4 low-income rooftop solar option offered in partnership with the Colorado Energy
 5 Office (“CEO”). The Company also proposes to eliminate Solar*Rewards® Small
 6 Option B. Below, I discuss the Company’s proposals by option.

A. Solar*Rewards® Small Proposals

7 **Q. WHAT IS THE COMPANY’S RATIONALE FOR PROPOSING 12 MW OF**
 8 **ANNUAL CAPACITY FOR THE SOLAR*REWARDS SMALL OPTION?**

9 A. For the Solar*Rewards® Small offering, the Company recommends dropping
 10 capacity to 12 MW per year due to declining customer interest. 12 MW reflects
 11 the two-year average for 2017 and 2018, with only 8 MW of capacity installed in
 12 2018. The Company believes this amount of capacity will meet or exceed the
 13 level of customer demand for incentivized systems up to 25 kW.

1 **Q. IS THE COMPANY PROPOSING TO CHANGE THE INCENTIVE LEVEL FOR**
2 **ITS SOLAR*REWARDS SMALL OPTION?**

3 A. No. The Company proposes maintaining the Solar*Rewards® Small incentive at
4 \$0.005 per kWh produced by the solar system, paid for 20 years. Although the
5 Company has experienced declining participation, the Colorado market continues
6 to experience an increasing number of small solar system installations in the
7 market, and roughly 20 percent of small system applications continue to choose
8 to participate in the Solar*Rewards option. Therefore, the Company believes this
9 level incentive strikes the proper balance between providing an incentive to
10 participants without unreasonably burdening non-participants.

11 **Q. WHAT IS THE SOLAR*REWARDS SMALL OPTION B AND WHY IS THE**
12 **COMPANY PROPOSING TO ELIMINATE IT?**

13 A. Solar*Rewards Small Option B is available to customers who install new solar
14 under the Company's Residential Demand-Time Differentiated Rate ("RD-TDR"),
15 a.k.a. the Peak-Demand Pricing portion of the Company's rate pilot program.
16 This rate was meant to offset the low kWh net metering credits that solar
17 customers under this rate would have received. However, the Company has not
18 experienced any interest in this program and therefore proposes to eliminate this
19 option due to lack of customer interest. Because there will be no new pilot
20 participants enrolling in the pilot during the term of this plan, we do not expect
21 interest to grow. The Company is open to re-evaluating this type of offering
22 alongside any future time-based rate filings.

1 **Q. WILL THE COMPANY PROPOSE CONTINUE MAKING SOLAR*REWARDS®**
2 **SMALL OFFERING CAPACITY AVAILABLE ON A MONTHLY BASIS?**

3 A. Yes. Although the Solar*Rewards® Small option has not sold out since early
4 2017, the Company believes that the monthly allocation for the Small offering has
5 helped pace the offering, by reducing attrition. The monthly openings help
6 ensure that all stakeholders have a fair opportunity to receive capacity in a
7 predictable cycle. This arrangement also creates continuity so customers have
8 the potential to submit an application during any part of the year, rather than
9 closing the offering before the end of the year. Therefore, the Company
10 proposes to continue using a monthly allocation, with unused capacity carrying
11 forward month to month before expiring at the end of the calendar year. As I
12 explain in more detail below, our proposed monthly capacity levels will vary
13 slightly during the first year due to the Company's pending request that this Plan
14 take effect on April 1, 2020.

B. Solar*Rewards Medium Offering Proposals

15 **Q. WHAT CAPACITY AND INCENTIVE LEVELS IS THE COMPANY PROPOSING**
16 **FOR ITS SOLAR*REWARDS® MEDIUM PLAN?**

17 A. The Company recommends lowering its Solar*Rewards Medium capacity slightly
18 in this Plan to reflect decreasing market demand, and holding the incentive level
19 steady at \$0.0375 per kWh for the term of the Plan. A driver of the Company's
20 proposal is that it has experienced high levels of attrition in this offering. In total,
21 of applications that received deposits, only fifty percent of the 2017

1 Solar*Rewards Medium® application capacity has been completed and over one-
2 third of capacity allocated in the Medium offering was cancelled or withdrawn.

3 While we are proposing to decrease Solar*Rewards Medium® capacity by
4 17 percent annually during this 2020-21 RE Plan, it remains higher than the
5 capacity of applications currently being submitted. The Company proposes
6 moving the reduced capacity into its Solar*Rewards Community® Standard Offer
7 option, where we are also proposing to broaden the eligibility requirements so
8 that system installation sizes that qualify for Solar*Rewards Medium (25 kW to
9 500 kW) can now qualify for the Solar*Rewards Community® Standard Offer
10 option, which may prove to be a more viable option for systems of this size. It's
11 possible that customers with facilities to support installations of this size could
12 find greater value and benefit from operating a CSG facility, or that the section of
13 the solar industry that thrives on projects this size could find additional
14 opportunity this portion of the Solar*Rewards Community program.

15 **Q. ARE THERE ANY DETAILS SURROUNDING THE ADMINISTRATION OF THE**
16 **SOLAR*REWARDS® MEDIUM OFFERING YOU WOULD LIKE TO COMMENT**
17 **ON?**

18 A. Yes. First, the Company plans to continue rolling capacity for projects cancelled
19 due to duplicate entries and no deposits received into the next quarter of the
20 calendar year. I discuss the Company's proposed quarterly capacity levels in
21 more detail below, as this is implicated by our request for a March 1, 2020,
22 effective date.

1 Second, the Company recommends lengthening the timeline for
2 completion of Solar*Rewards® Medium projects from 12 to 18 months, offering
3 more time and seasonal flexibility for customers like schools and retail
4 businesses while also ensuring projects move forward in a reasonable manner.

5 Third, the Company will continue to apply capacity limits based on the
6 total amount of existing incentivized solar at the system compared to the size of
7 the application. For example: a customer with a prior Solar*Rewards® Medium
8 project of 100 kW could apply to install a second Solar*Rewards® Medium
9 project of up to 400 kW for a total of 500 kW of Solar*Rewards® Medium
10 incentives at the site, provided they comply with the 120 percent rule.

11 **Q. WHAT TRENDS HAS THE COMPANY OBSERVED IN ITS**
12 **SOLAR*REWARDS® MEDIUM OFFERING, AND HOW HAVE THESE**
13 **TRENDS INFLUENCED ITS PROPOSED CAPACITY IN THIS PLAN?**

14 A. The Settlement Agreement set the following Solar*Rewards Medium capacity
15 and incentives for the 2017-2019 Plan Periods:

16 **Table KRK-D-6:**
17 **2017-19 RE Plan Solar*Rewards Medium Capacity & Incentives**

Plan Year	Capacity	Incentive / kWh
2017	24 MB (6 MW / quarter)	\$0.0475
2018	24 MB (6 MW / quarter)	\$0.0425
2019	24 MB (6 MW / quarter)	\$0.0375

18
19 Through mid-2017, the Solar*Rewards® Medium offering's 6 MW of quarterly

1 capacity sold out quickly. The Company offered an extra application period in
2 December 2017 to allocate capacity from previously cancelled applications,
3 leading to more than 26 MW in total applications (including projects cancelled
4 during the year), and 24 MW of active applications in progress at the end of the
5 2017, all at an incentive level of \$0.0475 per kWh.

6 Applications slowed in 2018, with capacity allocations filling increasingly
7 later in the quarter. Due to the rollover process for unsubscribed capacity,
8 Solar*Rewards Medium® allocated 28 of its 24 MW in 2018 at an incentive level
9 of \$0.0425 per kWh, of which one third of projects have since been cancelled.

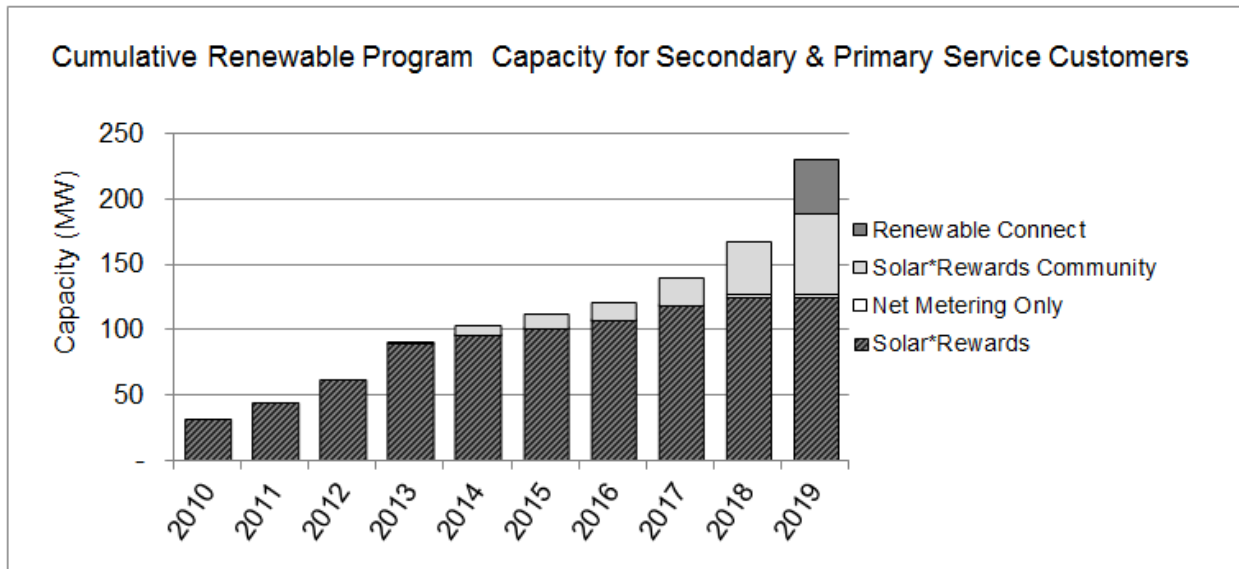
10 Similar to how the small solar system market is shifting to net-meter-only
11 systems; the medium solar system market is also experiencing an increase in
12 net-meter-only applications, with more than 15 applications for approximately 3
13 MW of net-metering-only capacity in 2017 and 2018 combined. Thus far
14 approximately 60 percent of that application capacity has been completed, with
15 many more moving through the interconnection process. This trend has helped
16 inform our proposed Solar*Rewards® Medium incentives for this Plan.

17 **Q. ARE THERE ADDITIONAL FACTORS THAT COULD BE LEADING TO**
18 **DECLINING CUSTOMER INTEREST IN SOLAR*REWARDS MEDIUM?**

19 A. The customer mix for the Solar*Rewards® Medium option is predominantly made
20 up of Commercial and Industrial (“C&I”) customers, who comprise more than 96
21 percent of the MW capacity. Over the past five years, options have expanded for
22 all customer segments. When focusing on medium and large business

1 customers, on-site installations make up the majority of total renewable program
2 participation. However, business participation is also building in other options.
3 Municipalities and schools, who often participate in on-site solar for medium-
4 sized systems, also are frequent subscribers to CSGs and the Company's
5 Renewable*Connect® option that came online in January 2019. Altogether, an
6 environment of renewable choice options gives customers the variety and
7 characteristics they desire, regardless of their preferences and objectives, as
8 shown by the participation trends in Figure KRK-D-3 below.

9 **Figure KRK-D-3: Business Customer Participation in Renewable Programs**



1 **Q. HOW DOES THE SECONDARY PHOTOVOLTAIC TIME-OF-USE (“SPVTOU”)**
2 **RATE PLAY INTO MEDIUM PROJECT ECONOMICS AND DOES THE**
3 **COMPANY PROPOSE ANY CHANGES?**

4 A. To be clear, the SPVTOU Rate is not an incentive, and is meant to reflect non-
5 coincident demand reductions that benefit the system. The rate is only available
6 to Solar*Rewards® participants with a load profile greater than or equal to 25
7 percent.

8 Throughout 2017 and 2018, there was a persistent stakeholder who
9 expressed interest in learning more about how to make the Solar*Rewards®
10 Medium offering work for demand-billed customers with a load profile less than
11 25 percent, which excludes them from eligibility for the SPVTOU rate. In early
12 2018, the Company analyzed potential system benefits, but found no system
13 benefits from solar customers with this load profile. We therefore do not believe
14 additional compensation is warranted for these customers through the SPVTOU
15 rate. In our analysis the Company observed that customers with low load factors
16 reduce their monthly bills when on this rate, regardless of whether they deploy
17 solar. Public Service endeavors to limit such rate arbitrage as it results in costs
18 that must be subsidized by other rate payers. The analysis also showed that over
19 80 percent of C&I customers currently qualify for Schedule SPVTOU and that
20 lowering the load factor limit to 24 percent would add only 6 percent to that
21 population. Therefore, though this topic is often raised, the Company does not
22 recommend any changes to this rate’s eligibility.

C. Solar*Rewards Large Proposals

1 **Q. WHAT IS THE COMPANY PROPOSING FOR ITS SOLAR*REWARDS LARGE**
2 **OPTION?**

3 A. Solar*Rewards® Large RFPs have drawn competitive pricing from a robust pool
4 of applicants during the 2017 and 2018 offerings. Due to the strong market
5 response, the Company recommends increasing this offering from the 2017-19
6 RE Plan's capacity of 6 MW in 2017, 10 MW in 2018, and 14 MW in 2019. The
7 Company proposes offering up to 20 MW through competitively bid RFPs in 2020
8 and 2021, for a total of 40 MW during the 2020-21 RE Plan.

9 **Q. DOES THE COMPANY PROPOSE ANY SIZING RESTRICTIONS FOR THE**
10 **SOLAR*REWARDS® LARGE RFP SOLICITATIONS?**

11 A. Given the wide range of potential project sizes, it could make sense to allocate
12 some of the available capacity each year into smaller project segments to allow,
13 for example, a 1 MW project to compete more successfully with projects of a
14 more similar size than a one-RFP-for-all approach. The Company will seek
15 stakeholder feedback about targeted RFPs by project size and potential bidder
16 diversity with the desire for additional low-cost solar resources before offering
17 capacity through competitive bids under this Plan.

18 **Q. WHAT REGULATORY OR STAKEHOLDER OVERSIGHT DOES THE**
19 **COMPANY PROPOSE FOR VETTING RFP AWARDS?**

20 A. The Company plans to continue its current practice of sharing RFP bids and
21 proposed award plans with Commission Staff prior to issuing awards.

1 **Q. WHAT AWARD CRITERIA DOES THE COMPANY INTEND TO USE FOR**
2 **AWARDING WINNING RFP BIDS?**

3 A. Generally speaking, the Company first and foremost uses economic criteria to
4 select competitively bid solar projects that move forward. If, at some point during
5 the Plan, there are insufficient reasonably priced bids to award the full capacity
6 solicited, the Company will discuss plans for not awarding the increased full
7 capacity with Commission Staff prior to finalizing award decisions. Additional
8 selection criteria, such as developer experience, project viability, unique project
9 attributes such as size or educational focus, and customer segment details are
10 examples of other criteria we may take into consideration when evaluating bids.
11 However, many bidders offer creative solutions not previously contemplated as
12 part of their bid package, and the Company reserves the right to consider these
13 attributes alongside economic criteria in the selection process.

14 **Q. PLEASE EXPLAIN HOW THE COMPANY DETERMINED THE LEVEL OF**
15 **CAPACITY RECOMMENDED FOR THE SOLAR*REWARDS® LARGE**
16 **OFFERING.**

17 A. The Company reviewed its 2017-2019 solicitations, which were fully awarded at
18 a low cost, and determined that: (1) there is ongoing interest from a variety of
19 customer types; and (2) a competitive RFP can deliver competitively-priced bids.
20 The Company is interested in further exploring this option alongside customers
21 interested in installing large on-site solar systems.

1 **Q. IS THERE A SET INCENTIVE FOR THE SOLAR*REWARDS® LARGE**
2 **OPTION?**

3 A. No. The Company issues a competitive solicitation where interested solar
4 developers or customers can submit proposed projects and their proposed
5 incentive level. The Company will then select these projects based on the
6 economic and non-economic criteria of the proposals mentioned above. Non-
7 economic criteria may vary with marketing conditions to meet unmet needs or
8 reflect project viability concerns.

9 **Q. HAS THE COMPANY PROVIDED AN EXAMPLE RFP FOR THE LARGE**
10 **OFFERING?**

11 A. Yes, a copy is included in Volume III of the Company's 2020-21 RE Plan
12 (Attachment JW1-3).

D. Solar*Rewards Low-Income Proposal

13 **Q. WHAT IS THE COMPANY PROPOSING WITH RESPECT TO ITS ROOFTOP**
14 **LOW-INCOME SOLAR OPTION COORDINATED THROUGH THE CEO?**

15 A. While the CEO's Rooftop Low-income on-site solar program has not yet achieved
16 the installation levels proposed in the 2017-19 RE Plan, the Company is
17 committed to exploring opportunities for low-income customers to participate in
18 its Solar*Rewards® offerings and has engaged in productive outreach with CEO.
19 The Company will continue exploring options for income-qualified customers to
20 help reduce their energy costs by continuing the CEO's net metering incentive
21 program. For this program, the Company proposes up to 0.35 MW of capacity

1 per year. The required minimum PV Watts capacity factor for the location, as
2 entered by the installer into the online application system, will remain at 14
3 percent. This option is available only to individually net metered systems
4 occupied directly by direct-billed Public Service electricity customers

5 Due to the high cost and the flexibility of the incentive structure, the
6 Company does not propose any incentive changes in this Plan. While the
7 Company has contemplated increased up-front incentive payments, the
8 Company's stance is that including PBI per kWh of solar energy produced helps
9 ensure that these projects will produce energy and RECs for the life of the
10 system. Without a PBI, there is less incentive to maintain the system and
11 optimize ongoing performance, which can ultimately harm non-participants.

12 The Company plans to maintain a maximum system size of 3.5 kW,
13 though the Company is open to considering alternative sizes that CEO might
14 propose in this proceeding. Projects will have up to 12 months from the time of
15 incentive allocation to be completed.

1 **IV. SOLAR*REWARDS COMMUNITY®**

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

3 A. In this section of my Direct Testimony, I provide an overview of Public Service's
4 Solar*Rewards Community® program. I explain the regulatory framework for the
5 program, the growth the program has experienced over time, issues resolved in
6 the 2017-19 RE Plan, and present the Company's Solar*Rewards Community®
7 proposals for this Plan.

A. Colorado's CSG Regulatory Framework

8 **Q. PLEASE EXPLAIN COLORADO'S REGULATORY FRAMEWORK**
9 **SURROUNDING CSGS.**

10 A. As I previously mentioned, Public Service's CSG offerings are largely governed
11 by Colorado law (§40-2-127, C.R.S.), the Commission's Rules (primarily Rule
12 3665), and policy determinations made by the Commission in approving RES
13 Plans. For example, the Commission has regulatory oversight regarding: bill
14 credits paid to CSG subscribers, the accounting of energy produced and the
15 RECs created and retired, the Company's minimum and maximum purchases of
16 renewable energy and RECs from CSGs, the size of eligible facilities, and the
17 process for acquiring new CSG facilities. The Company is required to purchase
18 all renewable energy and RECs generated by a CSG, including unsubscribed
19 renewable energy and RECs. For CSGs that are competitively bid, the Company
20 shares the results of those solicitations with Commission Staff prior to making the
21 award, and proposes additional transparency into future RFPs under this Plan.

1 Some joint aspects of the Solar*Rewards Community® program are
2 regulated, such as program contracts between Public Service and CSG
3 developers, and reporting of CSG performance, which the Company includes in
4 its annual compliance reports filed with the Commission (See Proceeding No.
5 16A-0139E).

6 The subscriber mix of CSGs is at the discretion of the individual CSG
7 developer, except for a five percent low-income target pursuant to Rule
8 3665(d)(IV). Otherwise, the Company has previously run, and proposes to again
9 run, a dedicated solicitation for CSGs that exclusively serve low-income
10 subscribers.

11 Solar developers who participate in the program and the subscription
12 arrangements with Public Service’s customers are not regulated by the
13 Commission. Importantly, subscription agreements between solar developers
14 and Public Service’s customers, which can last up to 20 years in correlation with
15 the life of the CSG, are not regulated—nor are the prices subscribers pay or risks
16 associated with their subscription agreements. Unlike a regulated utility, the
17 profits, financial risks, and business operations of CSG developers are not
18 subject to Commission regulation.

19 **Q. IS THERE ANY RECENT LEGISLATION OR COMMISSION RULEMAKINGS**
20 **RELATED TO CSGS YOU WOULD LIKE TO DISCUSS?**

21 A. Yes. In May 2019, the Colorado General Assembly passed new legislation
22 (House Bill 19-1003 “HB 19-1003”) addressing CSGs, though the Commission

1 has yet to initiate a rulemaking proceeding to give effect to the new legislation.
2 There has also been a significant amount of discussion surrounding the
3 Company's CSG program offerings in an ongoing Electric Rulemaking
4 proceeding before the Commission—Proceeding No. 19R-0096E. Because this
5 is an ongoing proceeding, I will not discuss the merits of various arguments
6 raised in that proceeding. Rather, the Company recognizes it is possible that the
7 Commission's rules regarding CSGs may change while this 2020-21 RE Plan is
8 in place. This is a large factor that contributed to the Company's decision to
9 submit only a two-year plan. While we attempted to design this Plan with
10 flexibility to accommodate new rules, we are proposing to proceed under the
11 current rules in place for purposes of this Plan, until the time at which the
12 Commission implements HB 19-1003 through associated rulemakings or other
13 form of approval.

14 For example, HB 19-1003 increases the per-garden size cap for CSGs
15 from 2 MW to 5 MW, and eliminates the requirement that a CSG be physically
16 located in the same or adjacent county as its subscribers. The Company plans
17 to implement these changes for 2020 and 2021 CSG RFPs, in accordance with
18 the final rules in Proceeding No. 19R-0096E or other Commission direction on
19 the implementation of HB 19-1003. The Company would note it understands the
20 Commission desires to have new such rules in effect as of March of next year, so
21 these statutory changes should be able to be incorporated into future RES
22 acquisitions seamlessly.

1 The Company does not believe it would be appropriate for the
2 Commission to retroactively modify past RFPs and associated awards to allow
3 application sizes of 5 MW to prevail, as this change is very material to CSG
4 pricing and would call into question the results and process of prior RFP
5 solicitations. Notably, the Company issued its 2018 solicitation on August 28,
6 2018, awarded bids on December 1, 2018, and issued its 2019 RFP on April 5,
7 2019—all before HB 19-1003 was signed into law. As part of each RFP, the
8 Company specifically informed bidders that winning facilities would be subject to
9 the law and rules in place at the time of solicitation. Therefore, bidders were
10 expected to craft their bids based on legislation in place at the time they
11 submitted their bids.

12 The Company believes this approach provides the most certainty and
13 transparency to all stakeholders, while maintaining the integrity of its previously
14 conducted RFPs and ensuring a level playing field for bidders. Changing the
15 rules after-the-fact would be unfair to bidders who submitted bids in reliance on
16 the statutory and regulatory regime in place at the time they submitted their bids.
17 In the interests of fairness, certainty, administrative and regulatory efficiency, and
18 transparency the Company does not support modifying any Solar*Rewards
19 Community RFPs conducted during the 2017-19 RE Plan to allow for larger
20 facilities.

B. Solar*Rewards Community® Capacity Levels

1 **Q. PLEASE EXPLAIN THE COMPANY'S PROPOSED SOLAR*REWARDS**
2 **COMMUNITY CAPACITY LEVELS.**

3 A. Pursuant to Rule 3665(d)(l), "[t]he Commission shall establish the minimum and
4 maximum purchases of renewable energy from newly installed CSG generation
5 (new CSGs) by the investor owned QRU for each compliance year under the
6 RES." In this Plan, the Company is proposing to increase its overall CSG
7 capacity levels to: acquire a minimum and maximum range of 15 MW to 35 MW
8 annually during the Plan period for the General RFP, 4 MW for the Low-Income
9 RFP, 4 MW for company-offered low-income CSGs, and 5 MW for the standard
10 offer. Of the 5 MW standard offer CSGs we propose to continue the low-income
11 standard offer at the same 0.5 MW per year level. In total, we propose 48 MW
12 annually under the Solar*Rewards Community program.

13 **Q. HOW DO THESE LEVELS COMPARE TO THE AVERAGE ANNUAL**
14 **CAPACITY UNDER THE 2017-19 RE PLAN?**

15 A. Under the 2017-2019 Plan, the Company agreed to increase the annual capacity
16 for the Solar*Rewards Community program, building to a maximum of 46 MW per
17 year in 2019, as shown in the Table KRK-D-7 below:

1

Table KRK-D-7: 2017-19 RE Plan CSG Capacity

2017-2019 RE Plan CSG Capacity	2017	2018	2019	Average 2017-2019
Minimum	15	15	15	15
Maximum*	30	35	40	35
100% Low-income CSGs	4	4	4	4
Company-Offered CSGs	2	2	2	2
Combined Maximum	36	41	46	41
*Of this maximum, 1) 0.5 per year for non-low-income standard offer, 2) up to 2 MW per year for Company-offered CSGs, and 3) 0.5 MW per year for low-income standard offer.				

2

Table KRK-D-8 below provides a summary of the Company's proposed

3

CSG capacity levels compared to the average annual capacity under the

4

2017-19 RE Plan:

5

Table KRK-D-8: Comparison CSG Capacity

	2017-2019	2020	2021	Total RE Plan
Offering	Avg. Capacity (MW)	Capacity (MW)	Capacity (MW)	Capacity (MW)
General CSG RFP (Max)	35	35	35	70
100% low-income RFP CSG	4	4	4	8
Standard Offer CSGs*	1**	5	5	10
Company-offered CSGs	2	4	4	8
TOTAL SOLAR*REWARDS COMMUNITY	41	48	48	96

*The Company proposes to continue the low-income Standard Offer RFP at the same level, 0.5 MW, as under the 2017-19 RE Plan.

**The 1 MW of Standard Offer CSGs is included in the 35 MW of General CSG RFP in the 2017-19 RE Plan.

6

Q. HOW DID THE COMPANY DETERMINE ITS PROPOSED CAPACITY LEVELS

7

FOR THIS PLAN?

8

A. In determining the appropriate CSG capacity, the Company first looked to the

9

health and growth of Solar*Rewards Community® gardens awarded during the

10

2017-19 RE Plan. Early years under the 2017-19 RE Plan were marked with

1 regulatory uncertainty regarding the calculation of bill credit amounts³, and
2 negative REC bids in several capacity solicitations.⁴ Given these uncertainties,
3 the Company allowed developers with impacted facilities to delay their projects
4 without penalty. The Company also delayed its solicitations for additional
5 incremental capacity until these issues were resolved. These factors may have
6 slowed growth early in the 2017-19 RE Plan, but RFP solicitations following
7 resolution of these issues led to 63 MW of CSG capacity awarded in 2018,
8 creating a pipeline of projects with anticipated completion in 2019 and 2020.
9 Most CSGs naturally experience a lag of 18 to 24 months between award and
10 completion as they proceed through the final site selection and development
11 process.

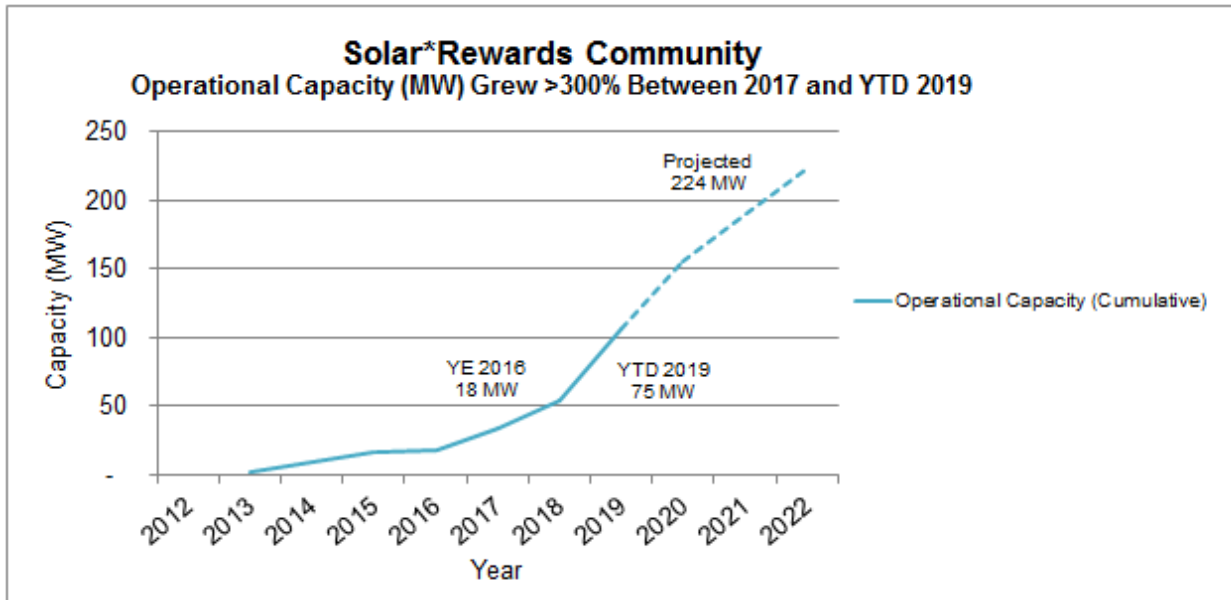
12 Despite these delays, CSG capacity has grown more than 300 percent
13 during the 2017-19 RE Plan year to date, and is expected to grow by nearly 600
14 percent between 2017 and the end of 2019. This trajectory is expected to
15 continue. The Company is forecasting nearly 190 MW of operational CSG
16 capacity by the end of 2021, and more than 220 MW of installed CSG capacity
17 by the end of this Plan. The forecast adjusts for the average time between award
18 and completion, and does not assume that all of the Community Solar proposed
19 under this Plan will be completed, though history has proven that often to be the

³ Proceeding No. 13A-0836E, Decision No. C16-0747 (mailed Aug. 12, 2016).

⁴ Proceeding No. 17D-0082E, Decision No. C18-0149 (mailed Mar. 1, 2018).

1 case. Figure KRK-D-4 below shows historic and projected CSG growth between
2 2013 and 2022.

3 **Figure KRK-D-4: Growth of Capacity**



4 **Q. HOW DOES COLORADO'S EXPERIENCE COMPARE TO OTHER STATES'**
5 **COMMUNITY SOLAR OFFERINGS?**

6 A. According to the Wood Mackenzie Power & Renewables' Solar Market Insight
7 Report through Q1 2019,⁵ Colorado ranks fourth in the nation in installed CSG
8 capacity, fueled largely by Public Service's 75 MW of installed capacity.
9 Colorado has achieved this ranking at a comparatively low cost while preserving
10 value for its customer subscribers.

⁵ Woods Mackenzie, *US Solar Market Insight* (Q2 2019), available at:
<https://www.woodmac.com/research/products/power-and-renewables/us-solar-market-insight/>

1 **Q. WHY IS THE COMPANY PROPOSING TO CONTINUE USING COMPETITIVE**
2 **BIDDING FOR MOST OF ITS SOLAR*REWARDS COMMUNITY® CAPACITY?**

3 A. Colorado’s market-based pricing model serves as an example of how competitive
4 solicitations can create opportunity for the solar industry while enabling creative
5 proposals. A market-based pricing model also removes the boom/bust cycles of
6 standard offer models that don’t always align with the changing market conditions
7 of the solar industry, such as fluctuating tariff levels and tax incentives,
8 equipment supply and pricing, land availability, regulated program rules, and
9 customer expectations. The competitive solicitation model also allows flexibility
10 to meet subscriber diversity goals, vet developers for experience and financial
11 soundness, address other utility system needs, and ensure that RESA funds are
12 reasonably spent.

13 Both the General and low-income RFP awards have proven to enable
14 successful projects at lower costs than the Company anticipated. Had the
15 Company set standard offer levels to fulfill this capacity, it likely would have set
16 higher price points that would lead to a surge of applications and higher costs
17 paid by all customers for these resources than necessary. When the Company’s
18 Solar*Rewards® Small and Medium incentives were set at an above-market
19 price, demand far exceeded supply and capacity sold out in seconds using a
20 first-applied, first-reserved approach in our time-marked online application
21 system. This led to high levels of cancelled projects due to speculative
22 applications—*i.e.* customers were not willing to commit to projects without

1 knowing whether they would “win” an incentive award, and developers bore the
2 burden of selling systems to customers without controlling the likelihood of
3 receiving an incentive award. In a competitively bid scenario, however, the solar
4 industry controls the viability of their bids rather than relying on being the first to
5 hit “enter” on a keyboard or the luck of a lottery. Customers and industry
6 professionals were not satisfied in this situation and the Company struggled to
7 find solutions that met everyone’s needs for certainty, cost efficiency, and ability
8 to move forward with viable projects and meet capacity targets.

9 Industry response to lottery-type offerings in Illinois has not been
10 favorable, and even likened to by one media outlet as a game of “Hungry Hungry
11 Hippos”,⁶ with funding and capacity quickly eaten up by a small portion of
12 interested parties. Because projects needed to be well vetted to participate in the
13 lottery, many industry, utility, land owner, and other resources were futilely spent
14 preparing projects that were not chosen and have no path to move forward. The
15 Company believes that pegging capacity to market-based solicitations helps
16 avoid the risks of setting prices too low and not seeing enough projects move
17 forward, and the risk of paying too much and having the surges of CSG
18 installations that are not sustainable in the long-term.

⁶ Kevin Stark, *Illinois awards 215 megawatts of community solar, but developers left hungry*, GreenTech Media (Apr. 12, 2019), available at <https://www.greentechmedia.com/articles/read/illinois-awards-more-than-200-megawatts-of-community-solar-but-developers->; and Kari Lydersen, *‘Lottery ticket’ comment highlights potential pitfall of Illinois solar program*, Energy News Network (Nov. 20, 2018), available at <https://energynews.us/2018/11/20/midwest/solar-lottery-comment-highlights-pitfall-of-illinois-program/>.

1 A measured amount of capacity helps keep prices low while enabling
2 market success among a number of players, most of whom are locally based. It
3 also helps create highly sought-after awards, such that speculative bids and
4 unfulfilled capacity are rarely seen. With more than 200 MW of aggregated
5 capacity expected in the near future, it is reasonable that generation resources
6 that add up to this size of resource are competitively bid, similar to other utility
7 resources.

C. Other Solar*Rewards Community® Proposals

8 **Q. WHAT OTHER CAPACITY-RELATED CHANGES IS THE COMPANY**
9 **PROPOSING IN THIS PLAN?**

10 A. The Company is also taking steps to provide greater clarity in the interactions
11 among program options while increasing the overall capacity for CSGs. In prior
12 RES Plans, the minimum and maximum capacity for the program included
13 Standard Offer and Company-Offered CSG capacity but not low-income RFP
14 CSGs. Many found this mathematical construct confusing. For example, a year
15 with 35 MW of maximum capacity included 2 MW of Company-Offered CSGs,
16 0.5 MW Standard Offer, 0.5 MW of Low-Income Standard Offer, and 32 MW of
17 General RFP CSGs, plus an additional 4 MW of Low-Income RFP CSG capacity
18 for a total of 39 MW. This is more easily visualized in Table KRK-D-1. For this
19 Plan, to support the ongoing growth of its General CSG Offering, the Company
20 proposes to award a maximum of 35 MW per year. This figure is based on the
21 average capacity offered in our previous plan, the variety and pricing of past bids,

1 and bidder's abilities to develop their awarded bids within the allowed timeframe.
2 The Company intends to stop the practice of subtracting the standard offer and
3 company-offered CSGs from the capacity available for the General Offering to
4 provide room for growth in those areas without penalizing the General Offering.

5 **Q. WHY ISN'T THE COMPANY PROPOSING MORE SUBSTANTIAL CHANGES**
6 **TO CSG CAPACITY IN THIS PLAN?**

7 A. There are several reasons the Company decided against significantly higher
8 incremental capacity for Solar*Rewards Community® under this Plan.

9 First, there is notable regulatory uncertainty looming as the Commission
10 continues its rulemaking in Proceeding No. 19R-0096E, and in the wake of a very
11 active 2019 legislative session. This "bridge" Plan builds on the progress and
12 momentum gained during the 2017-19 RE Plan without creating undue confusion
13 or unanticipated market impacts by proposing more significant changes.
14 Therefore, the offerings under this Plan largely continue on the successes of our
15 prior plan.

16 Second, we have started to experience some practical and technical
17 issues that warrant further exploration. We anticipate these capacity issues will
18 become even more exacerbated once projects up to 5 MW are permitted. We
19 believe the capacity levels set forth in this plan present a sustainable path that
20 will allow for more awards to actualize in a timely manner, and encourage fewer
21 speculative proposals that lead to withdrawn program capacity.

1 Finally, with a lifespan of approximately 20 years, it is important to
2 recognize that CSGs are long-term commitments supported by the RESA. Given
3 the evolving marketplace and legal/regulatory frameworks surrounding clean
4 energy in Colorado, the Company believes it is prudent to take a measured
5 approach. That said, an annual incremental amount in the 35 MW range has
6 proven to attract low-cost bids, enable multiple vendors to succeed, and allow
7 CSG bids to offset the value of the RESA contributions to the bill credits paid.

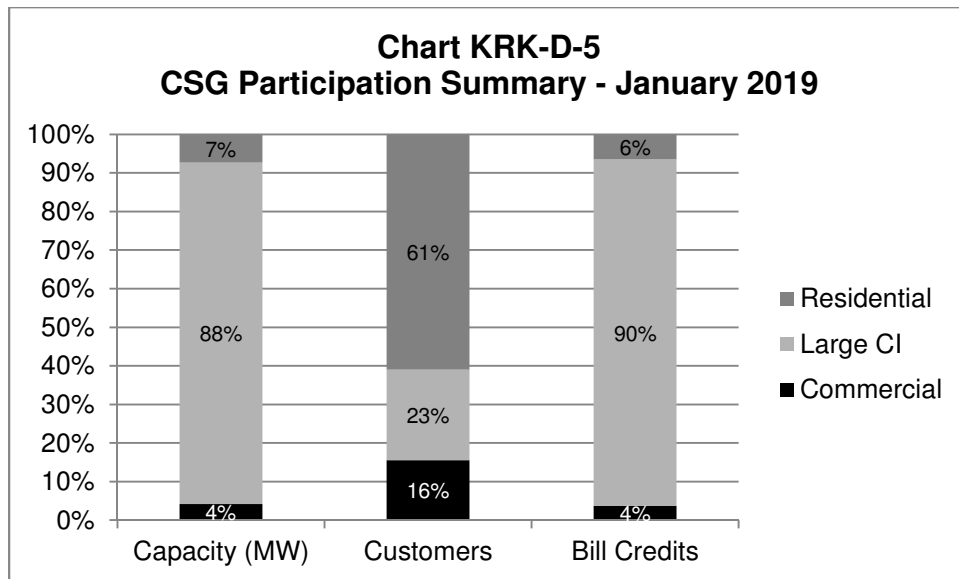
8 **Q. DOES CUSTOMER DEMAND FOR CSG SUBSCRIPTIONS WARRANT**
9 **ADDING MORE CAPACITY?**

10 A. Based on the existing bill credit structure and the ongoing net savings between
11 the bill credits and the amount paid to the CSG developer, we anticipate there
12 will be healthy demand for CSG subscriptions. This is grounded in the
13 anticipation that there likely will always be high customer market demand for net
14 bill savings - that is, bill credits subsidized by the RESA that are higher than the
15 cost to obtain those bill credits through CSG subscription fees—especially when
16 customers can avoid the on-site risks, personal land use concerns, and
17 maintenance issues associated with on-site DG. While the Company supports
18 maintaining its Solar*Rewards Community® offering, a measured amount of
19 annual capacity around 35 MW of incremental community solar will help maintain
20 a balance between higher cost CSG offerings that benefit only a few subscribers,
21 compared to lower-cost utility-scale renewable resources.

1 **Q. WHAT CUSTOMER SEGMENTS ARE MOSTLY LIKELY TO SUBSCRIBE TO**
2 **CSGS?**

3 A. As of the end of first quarter 2019, roughly 1,900 customers subscribed to the
4 Solar*Rewards Community® program. However, as reflected in Figure KRK-D-5,
5 capacity (which drives the bill credit benefits) largely skews toward larger entities
6 with less than 10 percent of capacity and bill credits benefitting residential
7 customers, who make up more than 60 percent of the total number of
8 subscribers.

9 **Figure KRK-D-5: CSG Participation Summary**



10 **Q. HAS THE COMPANY ATTEMPTED TO ALTER THE PORPORTION OF**
11 **SUBSCRIBER BENEFITS AMONG CUSTOMER SEGMENTS?**

12 A. After seeing this disparity and hearing stakeholder concerns, the Company
13 attempted to target more residential customers with its 2019 RFP solicitation for
14 General CSG capacity. While it will take a while to achieve greater capacity

1 allocation diversity will due to the lag between RFP awards and online capacity,
2 the Company would like to see a more balanced blend of customers represented
3 in the allocation of capacity and bill credits. Future rulemaking could also help
4 inform the subscriber mix and targeting in later RFP cycles; the Company will
5 work to implement these rules as they are finalized.

D. Solar*Rewards Community Bid Evaluation

6 **Q. HOW DOES THE COMPANY EVALUATE SOLAR*REWARDS COMMUNITY**
7 **RFP RESPONSES?**

8 A. The Company evaluates RFPs based on the criteria laid out in the bid proposals.
9 Historically, bids have been awarded primarily on an economic basis, though
10 sometimes developer experience, subscriber diversity, low-income commitments,
11 location near an under-served area, unique commitments and other criteria have
12 led to project awards that weren't solely based on economics, particularly when
13 presented with economically similar bids. When bids are awarded based on non-
14 economic factors, bidders are held to those factors for the life of the CSG as a
15 condition of the award and resulting contracts.

16 In the 2019 Standard CSG bid cycle, based on stakeholder comments
17 regarding CSGs, the Company decided to encourage residential subscriptions,
18 with additional consideration for other factors mentioned above. While economics
19 were still weighted at 50 percent, the results of this bid cycle and the associated
20 scoring matrix helped create a template model that we propose to use during the
21 course of this Plan to provide greater transparency into the evaluation process.

1 The Evaluation Criteria presented in Table KRK-D-9 below will be the
 2 default model for General Solar*Rewards Community RFPs under the 2020-21
 3 RE Plan. The Company reserves the right to change these criteria in the event
 4 the Commission issues new rules that impact the Solar*Rewards Community®
 5 program, or in the event of other, unforeseen conditions. If the Company
 6 determines changes to the methodology are warranted for either of these
 7 reasons, the Company commits to making an informational filing that contains
 8 the modified criteria at least 15 days prior to releasing the RFP. Table KRK-D-9
 9 below shows the default evaluation criteria for the General CSG RFP.

Table KRK-D-9: Default Evaluation Criteria for General RFP Scoring

DEFAULT EVALUATION CRITERIA FOR GENERAL RFP SCORING		
Criteria	Scoring	Breakdown
Economic	50	Lowest price gets 50, proportionally scored downward based on differential from lowest price
Developer Experience	20	Development plan + past performance, ranking worst (0) to best (20)
Residential / LI Subscriber Mix	10	100% = 10, 90% = 9, 75% = 7.5, etc.
Preparedness	10	Financial securement (5) Site Securement (2.5) Permitting plan (2.5)
Additional Commitments	10	Based on robustness, additional subscriber commitments, subscriber proximity and innovation
Production, Geographic location	Tie breaker	
Community Based	5	Additional points for community based projects

11 **Q. HOW WILL THE SOLAR*REWARDS COMMUNITY® 100 PERCENT LOW-**
 12 **INCOME RFP WORK?**

13 **A.** Similar to the RFPs offered in 2017, 2018, and 2019, Public Service plans to
 14 issue a Solar*Rewards Community® RFP seeking 4 MW annually for 100

1 percent Low-Income serving CSGs with the option to take additional capacity
 2 (from the regular RFP) at the program’s discretion. The awards will be held to the
 3 same requirements as other Solar*Rewards Community® projects, and with the
 4 additional requirement that all subscribers must meet the low-income definition in
 5 Rule 3652(o).

6 **Q. WHAT EVALUATION MODEL IS USED FOR THE LOW-INCOME CSG RFP?**

7 A. During 2018, the Company worked with CSG stakeholders through a series of
 8 workgroups and meetings to create a Low-Income CSG RFP template that has
 9 been used in the 2018 and 2019 Low-Income RPF evaluations. This process has
 10 made the Company more comfortable in moving forward with a similar process in
 11 the General RFPs. The Low-Income default scoring table is shown in Table KRK-
 12 D-10 below. Similar to the General RFP process, the Company commits to
 13 making an informational filing that contains the modified criteria at least 15 days
 14 prior to releasing the RFP.

15 **Table KRK-D-10: Low Income RFP Default Evaluation Criteria**

DEFAULT EVALUATION CRITERIA FOR LOW-INCOME RFP SCORING		
Criteria	Scoring	Breakdown
Economic	50	Lowest price gets 50, proportionally scored downward based on differential from lowest price
Additional LI Commitments	20	Percent of bill credit benefitting subscribers (net), types of benefits, % of residential class subscribers, jobs programs, etc.
Energy & REC Production	15	Efficiency of capacity and energy production
Developer Experience	15	Development plan + past performance, ranking worst (0) to best (20)

1 **Q. HOW DOES THE COMPANY RELEASE INFORMATION REGARDING RFP**
2 **CYCLES AND AWARDS?**

3 A. The Company traditionally notified RFP cycle winners and non-winners privately,
4 and released little information until the CSG facilities were completed and
5 reported in that year's annual RES Compliance Report, which is typically June 1
6 of the following year.

7 In exploring ways to increase the transparency of the RFP processes, the
8 Company has considered the process it uses to release bid summaries following
9 solicitations in its ERP solicitations. Though CSG projects are much smaller than
10 most projects considered in the ERP, we appreciate that some individual bidders
11 may appreciate a more predictable and transparent flow of information.
12 Therefore, the Company plans to release an anonymized RFP response
13 summary via an informational filing 30 days post-bid deadline that includes the
14 following elements:

- 15 • Average Bid price;
- 16 • Number and total capacity of bids received; and,
- 17 • Number of bidders.

18 **Q. ARE THERE ANY OTHER PRACTICES REGARDING THE RFP PROCESS**
19 **THAT YOU WOULD LIKE TO SHARE?**

20 A. In addition to the updates explained above, the Company will continue its
21 practice of providing pre-RFP-release early notice of release timing during prior
22 workgroup meets so that bidders can work ahead knowing the rough timeframe

1 when the RFP will be released. The Company will also continue holding RFP
2 informational sessions after the RFP has been released, and publishing all
3 questions received (with answers) on the Company's website for all parties to
4 see.

5 The Company intends to continue to review RPF award recommendations
6 with Commission Staff prior to issuing award notifications, and providing
7 information on operational CSGs in its annual RES Compliance Reports.

E. Other Solar*Rewards Community Terms, Conditions, and Proposals

8 **Q. IS THE COMPANY PROPOSING TO OFFER A STANDARD-OFFER WITHIN**
9 **SOLAR*REWARDS COMMUNITY IN 2020 AND 2021?**

10 A. Yes. The Company proposes to offer the Standard-Offer portion of the offering in
11 2020 and 2021, with an increase in capacity from 0.5 MW to 5 MW, and an
12 increase in maximum project size from 100 kW to 500 kW. This offering will
13 include an incentive priced at \$0.02/kWh above the average REC price of the
14 awarded bids from each vintage of solicitation. This change is based on industry
15 feedback that 100 kW projects are not easily financed and that this size limit has
16 lowered participation in the past. The Company proposes to continue the
17 separate low-income standard offer at 0.5 MW per year, as an offering within the
18 overall Standard Offer. We propose to continue the existing pricing methodology
19 for this option; the REC incentive to be paid for standard offer participants will be
20 the average annual awarded REC for the low-income CSG RFP plus \$0.01/kWh.
21 The Company is not proposing any other modifications.

1 **Q. IS THE COMPANY PROPOSING ANY ADMINISTRATIVE CHANGES TO**
2 **SOLAR*REWARDS COMMUNITY® IN 2020?**

3 A. Yes, the Company is proposing several administrative changes to the program to
4 encourage viable project applications and timely interconnections. The key
5 changes we plan to implement include: (a) using volumetric pricing methodology
6 for deposits, (b) providing additional time to construct the installation after award,
7 and (c) adjustments to the associated contracts, which I discuss in more detail
8 below.

9 **Q. WHAT IS THE PROPOSED CHANGE TO THE DEPOSIT AMOUNT, AND WHY**
10 **IS THE COMPANY PROPOSING THIS CHAGE?**

11 A. The Company's proposed change aligns the deposit amount for RFP solicitations
12 to a common \$100/kW. Historically, the deposit amount was fixed at \$25,000 for
13 all CSG projects through the RFP solicitation while Standard Offer amount is set
14 as a minimum of \$100/kW in the Commission's Rules. Both deposits are
15 refunded when the project is completed within the required time period. This
16 keeps the deposit consistent for simplicity and scales with varying project size to
17 encourage timely interconnections. Table KRK-D-11 compares penalties for
18 exceeding the project timeline under the 2017-19 RE Plan against those in this
19 Plan.

Table KRK-D-11: Penalty Comparison

2017-2019 Delay Damages for Exceeding Project Timeline					
MW	0 to 18 months	18 to 24 months	24 to 36 months	Total	\$/MW
1	\$0	\$25,000	\$180,000	\$205,000	\$205,000
2	\$0	\$25,000	\$180,000	\$205,000	\$102,500
Proposed 2020-21 Delay Damages for Exceeding Project Timeline					
MW	0 to 18 months	18 to 24 months	24 to 36 months	Total	\$/MW
1	\$0	\$0	\$100,000	\$100,000	\$100,000
2	\$0	\$0	\$200,000	\$200,000	\$100,000
3	\$0	\$0	\$300,000	\$300,000	\$100,000
4	\$0	\$0	\$400,000	\$400,000	\$100,000
5	\$0	\$0	\$500,000	\$500,000	\$100,000

1 This change may cause some CSGs to pay higher deposit fees; this is
 2 reasonable because as projects become larger, their availability becomes more
 3 critical to our system. Bringing power online in the expected timeline is important
 4 from an operational perspective, and the need to be true to the RFP timeline
 5 requirements from a bidding fairness perspective. Based on our experience with
 6 cancelled projects to date, we believe these delay damage levels will aid in
 7 deterring developers from cancelling projects.

8 **Q. WHAT CHANGES IS THE COMPANY MAKING TO THE CONSTRUCTION**
 9 **TIMELINE POLICY?**

10 A. Projects will have 24 months from when they receive an award to interconnect
 11 the CSG without penalty. Previously, developers had 18 months. As we have
 12 gained more experience over the last few years, we have learned that 24 months
 13 is a more accurate timeframe to expect projects to reach interconnection. Under
 14 our modifications, a project will still be eligible to extend from 24-30 months,

1 subject to a proportional forfeiture of their deposit based on the time required to
2 interconnect. Projects will be cancelled at 30 months if not completed.

3 **Q. WHAT IS THE COMPANY'S PROPOSED CO-LOCATION POLICY?**

4 A. Consistent with the Settlement approved in Proceeding No. 13A-0836E, the
5 Company's planned co-location policy is that the location of CSGs may not result
6 in more than 2 MWs of commonly owned total capacity of CSGs within a 0.5 mile
7 distance as measured from point of interconnection⁷ to point of interconnection
8 for rural CSGs.⁸ In urban areas, the distance between points of interconnection
9 will be maintained at 0.5 miles; however, the capacity allowed within this distance
10 will be increased to 4 MW. Additionally, each awarded CSG must be contained
11 on its own legal parcel of land.

12 Ownership is defined as common ownership where awarded CSGs have
13 common ownership arrangements (including through legal affiliates or
14 partnerships other than common debt or tax equity partners).

15 **Q. HAS THE COMPANY PROVIDED AN EXAMPLE RFP FOR THE**
16 **SOLAR*REWARDS COMMUNITY® PROGRAM?**

17 A. Yes. This is included in Volume III of the Plan (Attachment JW1-3).

⁷ For the purposes of this agreement, an interconnection point is defined as the location of equipment where energy is transferred from a CSG to Public Service.

⁸ For the purposes of this agreement, an area classified as "rural" by the Census Bureau – *i.e.*, areas that are not classified as urban by the Census bureau. See <https://www.census.gov/geo/reference/ua/urban-rural-2010.html>.

A. Company-Offered CSG Low Income-Labor Collaboration

1 **Q. IS THE COMPANY PROPOSING ANY CAPACITY FOR COMPANY-OFFERED**
2 **CSGS?**

3 A. Yes. The Company proposes to continue to offer these CSGs along with the
4 continued assumption of the 5 percent reservation of CSG subscriptions for low-
5 income customers per Commission Rule 3665(d)(IV) from other CSG
6 developers. The Company is proposing to add 4 MW annually in 2020 and 2021
7 for a total of 8 MW over the term of its Plan, and is proposing to develop this
8 capacity to serve low-income customers in collaboration with Energy Outreach
9 Colorado (“EOC”). The Company is also proposing to explore a collaborative
10 labor partnership in developing this capacity.

11 **Q. ARE THERE SPECIFIC PROVISIONS IN STATUTE AND COMMISSION**
12 **RULES ADDRESSING COMPANY-OFFERED CSGS?**

13 A. Yes. In defining a CSG, § 40-2-127(2), C.R.S., specifically recognizes that “the
14 owner of a community solar garden may be the qualifying retail utility.”
15 Commission Rule 3665(d)(V) also recognizes that utilities are authorized to own
16 CSGs.

17 **Q. HAS THE COMMISSION PREVIOUSLY AUTHORIZED CAPACITY FOR**
18 **COMPANY-OFFERED CSGS?**

19 A. Yes. In approving the Company’s Three-Case Settlement, the Commission also
20 approved capacity levels for Company-offered CSGs subject to several
21 conditions. Specifically, the Company assumed the same five percent low-

1 income subscription obligation as CSG developers in the Settlement, in addition
2 to the following:

- 3 • Company-offered CSGs are subject to all other requirements applicable to
4 other CSG facilities (2 MW maximum, etc.);
- 5 • The capacity of Company-offered CSGs are included in the maximum
6 capacity for the Solar*Rewards Community program;
- 7 • The Company will an incentive for RECs generated by Company-offered
8 CSGs equal to the standard offer REC incentive for low-income gardens;
- 9 • Company-offered CSGs are subject to all other requirements applicable to
10 other CSG facilities; and,
- 11 • Public Service will not seek recovery for its investment in CSGs developed
12 under this Plan through base rates.

13 **Q. CAN YOU PROVIDE AN UPDATE ON THE CURRENT STATE OF**
14 **COMPANY-OFFERED GARDENS?**

15 A. Yes. The Company is close to selecting a developer for the construction of 6
16 MW of CSGs (for a total of three facilities), and has identified a number of
17 locations that could be used for these facilities. The Company has learned a lot
18 in developing these sorts of projects, and looks forward to using what it has
19 learned to develop an additional 8 MW of projects under this Plan in collaboration
20 with Colorado trade laborers to serve Low-Income customers.

1 **Q. ARE THERE CHANGES TO THE MANNER IN WHICH THE COMPANY PLANS**
2 **TO PURSUE CSGS UNDER ITS 2020-21 RE PLAN?**

3 A. Yes. For 2020 and 2021 the Company is proposing to:

- 4 • Continue to target low-income customers and increase the subscriptions by 4
5 MW (total across both 2020 and 2021) above what is required for the five
6 percent obligation. The Company plans to partner with EOC who will manage
7 customer enrollment and subscriptions.
- 8 • Develop this capacity using a collaborative labor partnership under a Project
9 Labor Agreement (“PLA”), which the Company sees as a positive opportunity
10 for Colorado trade laborers to gain valuable experience in constructing solar
11 facilities as discussed by Mr. Ihle.
- 12 • To help fund the development of CSGs, the Company proposes a REC
13 incentive up to five cents per kWh.

14 **Q. WHY IS THE COMPANY PROPOSING TO TARGET LOW-INCOME**
15 **CUSTOMERS?**

16 A. The Company believes that it has identified an approach that will help benefit low
17 income customers more efficiently using the CSG model to provide this customer
18 segment with greater access to renewable energy options. The Company has
19 teamed with EOC, who will use their expertise to establish a pool of eligible
20 subscribers for these gardens. Since these customers are already familiar with
21 EOC and Xcel Energy, Public Service anticipates it will make the enrollment and
22 billing process more efficient.

1 **Q. WHY IS THE COMPANY PROPOSING THE CHANGE TO THE REC**
2 **INCENTIVE FOR THESE GARDENS?**

3 A. As indicated in the Opening Testimony of Alice K. Jackson supporting the Three-
4 Case Settlement Agreement, appropriate REC pricing for Company-offered
5 CSGs was thought to be about \$0.0515/kWh, based upon anecdotal evidence at
6 the time.⁹ This amount was developed by taking the average REC bid prices
7 from the Low-Income RFP and adding one cent to that amount. At the time, we
8 thought this would be sufficient to fund the projects. The Company believes this
9 incentive level is appropriate for carrying out its proposed Low-Income-Labor
10 Collaboration awarded as part of this Plan. We are therefore proposing that the
11 Company maintain flexibility to provide up to a five cent / kWh REC incentive for
12 projects developed as part of its CSG Low-Income–Labor Collaboration. The
13 Company will use this flexibility to address varying project costs, with a targeted
14 customer savings of 20 percent.

⁹ Proceeding Nos. 16AL-0048E, 16A-0055E, and 16A-0139E, Opening Testimony of Alice K. Jackson, p. 72, lines 14–18 (filed Sept. 2, 2016).

1 **V. WINDSOURCE®**

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

4 A. In this section of my Direct Testimony, I explain that the Company is proposing to
5 continue its Windsource® program with no changes to the program's pricing or
6 features.

7 **Q. PLEASE DESCRIBE PUBLIC SERVICE'S WINDSOURCE PROGRAM.**

8 A. The Windsource® program is one of the largest utility green pricing programs in
9 the United States. Windsource® customers in Colorado have purchased over 2.8
10 billion kWh of renewable energy since the program began in Colorado in 1997.
11 The program remains an important part of Public Service's renewable portfolio
12 and enables our customers to proactively purchase renewable energy to meet
13 their personal and business needs.

14 **Q. IS THE COMPANY PROPOSING TO CHANGE TO THE OBJECTIVES OF THE**
15 **WINDSOURCE PROGRAM?**

16 A. No. The primary objectives for the Windsource® program are as follows: (1)
17 provide the opportunity for customers to purchase renewable energy in excess of
18 the RES, thus offsetting their energy usage with the purchase of green energy;
19 (2) offer renewable energy at rates that are competitively priced; and (3) ensure
20 that non-participants are not economically impacted by the Windsource®
21 program.

1 **Q. HOW DOES WINDSOURCE® ACHIEVE ITS OBJECTIVES?**

2 A. Windsorce® enables Public Service’s customers to offset the environmental
3 impacts of their energy usage by purchasing RECs from Public Service’s
4 portfolio. The Windsorce® program then returns the revenues from the sale of
5 the RECs to the RESA deferred account, which can fund the incremental cost of
6 additional Eligible Energy Resources on the Public Service system. As
7 discussed in Decision No. R09-0117, “The premiums paid . . . would be assigned
8 to the RESA, which would provide additional money in the RESA to fund
9 incremental increases in renewable resources. This would allow the Company to
10 purchase more renewable resources than could otherwise be purchased under
11 the 2 percent retail rate impact cap.”¹⁰

12 **Q. HAVE THERE BEEN CHANGES TO THE WINDSOURCE® PROGRAM SINCE
13 PUBLIC SERVICE’S 2009 WINDSOURCE® SETTLEMENT?**

14 A. Yes. In Proceeding No. 16A-0396E, the Company’s 2016 ERP, the pricing
15 methodology changed from a cost-based structure to a market-based structure.

16 **Q. IS THE COMPANY PROPOSING CHANGES TO THE WINDSOURCE®
17 PROGRAM IN ITS 2020-21 RE PLAN?**

18 A. No. The Company is not proposing changes the program or pricing structure.
19 Based on current market pricing data, the analysis resulted in no change to the
20 average REC price; this is largely because based on the data available,
21 Windsorce® is the predominant REC option subscribed to by Public Service

¹⁰ Proceeding No. 08A-260E, Decision No. 09-0117, ¶ 57 (mailed Feb. 5, 2009).

1 customers. While other options like Renewable*Connect or offerings from other
2 service providers may offer lower-priced REC options, their market share is
3 relatively small and has negligible impact on a weighted average price.
4 Therefore, the Company is proposing to maintain the current Windsource®
5 premium of \$1.50 per 100 kWh block.

6 **Q. WHAT TYPE OF RECS DOES THE COMPANY RETIRE ON BEHALF OF**
7 **CUSTOMERS?**

8 A. Consistent with the Company's request and the Commission's decision in
9 Proceeding No. 13A-0386E, the Company only retires non-DG wind RECs on
10 behalf of participants. The Company is not proposing to change this process.

1 **VI. OTHER PROGRAMS**

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

3 A. In this section of my testimony I discuss the Company's Renewable*Connect and
4 Recycled Energy customer programs as presented in this 2020-21 RE Plan.

5 **Q. BRIEFLY DESCRIBE THE RENEWABLE*CONNECT OFFERING AND HOW IT**
6 **DIFFERS FROM WINDSOURCE.**

7 A. Renewable*Connect allows customers to subscribe to solar output from a
8 Company-owned 50 MW solar energy installation located in Deer Trail, Colorado.
9 The program offers competitive pricing, flexible subscription terms, and no
10 program costs subsidized by non-participant customers. Subscribers have full
11 rights to the clean energy benefits from the solar energy produced, as RECs are
12 retired on behalf of subscribers and will not be included in RES accounting.
13 Subscriptions are offered on a capacity basis starting at 0.5 kW, whereas
14 Windsorce® subscriptions are offered on an energy basis in blocks of 100 kWh.
15 Additionally, Renewable*Connect offers five-year and 10-year contract options,
16 while Windsorce® is exclusively offered month-to-month. Renewable*Connect
17 is currently fully subscribed. There are 3,411 participants, with 14 percent of
18 capacity subscribed to residential customers and 86 percent of capacity
19 subscribed to C&I customers.

1 **Q. IS PUBLIC SERVICE PROPOSING ANY CHANGES TO**
2 **RENEWABLE*CONNECT IN ITS PLAN?**

3 A. No. We are not proposing any changes to the Renewable*Connect program in
4 the 2020-21 RE Plan.

5 **Q. BRIEFLY DESCRIBE THE RECYCLED ENERGY OFFERING**

6 A. Recycled Energy is a 20 MW annual offering that allows for projects with a
7 maximum of 10 MW generators to be installed for a single customer. Recycled
8 energy is using waste byproducts or heat to generate electricity. This renewable
9 option helps optimize the reuse of resources that otherwise would go to waste.
10 Examples include using off-gasses from waste water treatment as a fuel for
11 generating electricity, or using waste heat from a traditional combined heat and
12 power system to create additional electricity (only the waste heat portion would
13 qualify as recycled energy). The rebate amount is \$500/kilowatt (kW) paid out by
14 production over a period of time based on the system's production.

15 **Q. WHAT IS THE CURRENT STATUS OF RECYCLED ENERGY OFFERING?**

16 A. The program is available for participants to submit applications, any installation
17 will require engineering review and program approval to reserve capacity.
18 Capacity reservations will be awarded in the order in which they are received.

1 **Q. HOW DO POTENTIAL PARTICIPANTS BECOME AWARE OF RECYCLED**
2 **ENERGY INCENTIVE OPTIONS?**

3 A. Information is posted on XcelEnergy.com along with account managers being
4 made aware of the program to offer to prospective customers. Additionally, the
5 Colorado Energy Office has been marketing the program.

6 **Q. IS THE COMPANY PROPOSING ANY CHANGES TO ITS RECYCLED**
7 **ENERGY PROGRAM?**

8 A. No. The Company will continue to make potential customers aware of the
9 incentives and options by working with our Account Managers, and through third-
10 party awareness efforts as they become available.

1 **VII. VOLUME III UPDATES**

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

3 A. In this section of my Direct Testimony, I provide an overview of the agreements
4 included in Volume III (Attachment JW1-3) of this Plan, and provide an overview
5 of the updates the Company has made to some of these agreements since its
6 2017-19 RE Plan.

7 **Q. PLEASE PROVIDE AN OVERVIEW OF THE DOCUMENTS CONTAINED IN**
8 **VOLUME III.**

9 A. Rule 3657 directs the Company to (among other things) file with the Commission:

- 10 • RFP including any standard contracts the investor owned QRU plans to use
11 as part of a competitive acquisition process.
- 12 • Application forms, standard agreements, and general procedures for the
13 investor owned QRU's SRO programs under rule 3658 and for the
14 interconnection of renewable energy resources pursuant to rule 3667.

15 Consistent with past practice, the Company has included these
16 agreements in Volume III of its 2020-21 RE Plan (Attachment JW1-3). The three
17 core agreements contained in Volume III include Public Service's:

- 18 • Solar*Rewards REC Purchase Contract;
19 • Solar*Rewards Community Producer Agreement; and,
20 • Small Generator Interconnection Agreement.

1 **Q. HAS PUBLIC SERVICE MADE ANY UPDATES TO ITS VOLUME III**
2 **CONTRACTS SINCE THE 2017-19 RE PLAN?**

3 A. Yes. Our major changes can be summarized in four broad categories:

4 (1) Generally consolidate and conform multiple small edits that have been
5 made over time;

6 (2) Consolidate contracts into a smaller number of versions;

7 (3) Align terms across programs for deposits, construction milestones, and
8 project completion dates and address certain other operational matters that have
9 arisen as programs have grown

10 (4) Clarify certain provisions specific to three-way agreements.

11 **Q. WHY IS THE COMPANY MAKING THESE UPDATES?**

12 A. There are a few reasons. The Company considers most of its agreements in
13 Volume III to be standard contracts associated with our RES plan offerings, and it
14 is simply good practice to evaluate standard contracts from time to time. Over
15 time, the Company has identified areas where updates may be warranted or
16 necessary. As the Company's renewable energy plan offerings have grown in
17 variety and size, the Company has encountered operational matters that could
18 benefit from clarifications or revisions to the associated contracts. The Company
19 has also identified other updates that are necessary to correspond to changes in
20 program plans proposed in the 2020-21 RE Plan.

1 **Q. WERE THE VARIOUS AGREEMENTS UPDATED IN ANTICIPATION OF ANY**
2 **RULE CHANGES?**

3 A. No. The Solar*Rewards, Solar*Rewards Community, and interconnection
4 agreements reflect current Commission rules. The Company expects to update
5 its model contracts to comport with any upcoming rule changes, and the
6 Company would comply with any Commission directive(s) to make changes prior
7 to new rules becoming final.

8 **Q. WHAT AGREEMENTS IS THE COMPANY CONSOLIDATING?**

9 A. Table KRK-D-12 below summarizes the updates to the Solar*Rewards contracts
10 and interconnection agreements used in the 2017-19 RE plan against to the
11 planned agreements for the 2020-21 RE Plan.

1 **Table KRK-D-12: Comparison of Solar*Rewards Contracts and Interconnection**
 2 **Agreements**

Before	After
<ul style="list-style-type: none"> • Solar*Rewards REC Purchase Contract Customer Owned Systems (Small offering) • Solar*Rewards REC Purchase Contract Customer Owned Systems (Medium & Large offerings) • Solar*Rewards REC Purchase Contract Third Party-Owned Systems • Solar*Rewards REC Purchase Contract Customer Owned Systems (Government Entity) 	<ul style="list-style-type: none"> • Solar*Rewards REC Purchase Contract Third Party-Owned Systems (Combines all offering sizes) • Solar*Rewards REC Purchase Customer Owned Systems (Combines all offering sizes and Government Entity version)
<ul style="list-style-type: none"> • Small Generator Interconnection Agreement (Third-party owned) • Small Generator Interconnection Agreement (Customer owned) • Small Generator Interconnection Agreement (Solar Gardens) • Small Generator Interconnection Agreement (General) 	<ul style="list-style-type: none"> • Small Generator Interconnection Agreement (Third-party owned, <10 MW) • Small Generator Interconnection Agreement (Customer owned, <10 MW)

3 **Q. WHAT CHANGES WERE MADE TO CONSOLIDATE THE CUSTOMER-**
 4 **OWNED SOLAR*REWARDS® REC PURCHASE CONTRACT AND THE**
 5 **CUSTOMER OR PRODUCER-OWNED INTERCONNECTION AGREEMENT?**

6 A. The three customer-owned versions of the Solar*Rewards® REC Purchase
 7 Contract had slight variations, and the single form now incorporates the
 8 variations. For example, the deadline to complete construction and deposit
 9 forfeiture are differentiated by size of project. The specific terms for
 10 governmental entities are conditional, meaning they are effective in the contract
 11 only if the customer is a governmental entity. The differences between the forms
 12 of small generator interconnection agreement used for Solar*Rewards® and

1 Solar*Rewards Community® are mainly technical and operational, so the
2 multiple versions of the interconnection agreement were combined, with the key
3 technical and operational differences contained in the exhibits.

4 **Q. WHAT CHANGES WERE MADE TO THE CONTRACTS FOR THIRD**
5 **PARTY-OWNED SYSTEMS?**

6 A. The contracts for third party-owned systems are used when a third party, typically
7 a solar developer, owns the solar project on premises owned or leased by a retail
8 customer of the Company. Because the third party owns the system, it is the
9 party selling RECs to the Company and interconnecting to the Company's
10 electric grid. However, the customer has certain obligations, such as allowing
11 both the third party and the Company onto the premises. Based on feedback
12 and questions from customers using this type of arrangement, the Company has
13 updated its three-way agreements to clarify the respective obligations of the third
14 party, the customer, and the Company. In general, these changes have clarified
15 that the customer's obligations are limited to a few specific terms.

16 **Q. WHY ISN'T THE COMPANY CONSOLIDATING THE SOLAR*REWARDS®**
17 **REC PURCHASE CONTRACT FOR THE LOW-INCOME ROOFTOP SOLAR**
18 **PROGRAM WITH THE CUSTOMER-OWNED VERSION?**

19 A. The main difference between the Solar*Rewards® REC Purchase Contract for
20 Customer-Owned Systems and the Solar*Rewards® REC Purchase Contract for
21 the Rooftop Low-income Solar program is that the customer assigns all RECs to
22 the Colorado Energy Office in exchange for the Colorado Energy Office's upfront

1 subsidy to build the solar system, and the Company then pays the Colorado
2 Energy Office for purchase of the RECs. The Company did not want to confuse
3 other participants in Solar*Rewards by including a provision in the contract that
4 specifies that REC payment will be made to the Colorado Energy Office.

5 **Q. PLEASE DESCRIBE THE SIGNIFICANT PROGRAM AND POLICY CHANGES**
6 **PUBLIC SERVICE HAS UPDATED IN ITS AGREEMENTS?**

7 A. As explained above and in Section 5 of the 2020-21 RE Plan (Attachment JWI-
8 1), the most significant changes relate to the size of deposits, the timing of
9 deposit forfeitures, and the deadlines to complete construction set forth in its
10 Solar*Rewards® REC purchase contracts and the Solar*Rewards Community®
11 Producer Agreement. In addition, the revised model Solar*Reward Community®
12 Producer Agreement builds in flexibility to accommodate various subscriber mix
13 commitments or REC price structures (such as tiered or escalating prices) that
14 producers may include in their RFP bids.

15 **Q. HOW ARE DEPOSITS, DEPOSIT FORFEITURE TIMING, AND**
16 **CONSTRUCTION DEADLINES ALIGNED ACROSS PROGRAMS?**

17 A. The Solar*Rewards Community® deposit is now proportional to the size of the
18 project, which aligns with purchased bulk power and large Solar*Rewards
19 projects. In addition, the Solar*Rewards Community® size of deposit matches
20 the deposit amount (on a per kW basis) for purchased renewable energy bulk
21 power. The deposit forfeiture is also proportional to the size of the project rather
22 than a daily delay damage amount regardless of project size. In general, large

1 projects have more complexity and greater size deposits at risk, so they also
 2 have longer allowable times to completion and a more forgiving forfeiture
 3 schedule. Solar*Rewards Community® projects have the additional complexity
 4 of needing to identify a site, so those projects are permitted an additional six
 5 months to achieve substantial completion beyond large Solar*Rewards projects.
 6 All forfeited deposits are credited to the RESA. Table KRK-D-13, below,
 7 provides a summary of these deadlines:

Table KRK-D-13: Deposits, Deposit Forfeiture Timing, and Construction Deadlines

	S*RC SO	S*RC RFP	S*R Small	S*R Medium	S*R Large RFP
Deposit	\$100 per kW	\$100 per kW	\$250 Flat	\$1,500 Flat	\$10,000 per MW
Due Date	24 Months from Award	24 Months from Award	12 Months from Award	18 Months from Award	18 Months from Award
1st Extension Due Date & Deposit Forfeiture	6 Month extension granted automatically; Deposit forfeited in daily increments over the first 180 Days after 24 Months (approx. \$0.55 per day, per kW)	6 Month extension granted automatically; Deposit forfeited in daily increments over the first 180 Days after 24 Months (approx. \$0.55per day, per kW)	6 Month extension granted automatically; Full \$250 Deposit forfeited one day after 12 Months	6 Month extension granted automatically; Full \$1,500 Deposit forfeited one day after 18 Months	6 Month extension granted automatically; Deposit forfeited in daily increments over the first 180 Days after 18 Months (approx. \$0.06 per day, per kW)
Final Due Date	30 Months Project Cancelled; Deposit fully forfeited at 180 days after 24 Months	30 Months Project Cancelled; Deposit fully forfeited at 180 days after 24 Months	18 Months Project Cancelled; Full Reservation Deposit forfeited immediately after 12 Months	24 Months Project Cancelled Full Reservation Deposit forfeited immediately after 18 Months	24 Months Project Cancelled; Reservation Deposit fully forfeited at 180 days after 18 Months

10 **Q. HAS THE COMPANY ALIGNED ANY OTHER TERMS ACROSS PROGRAMS?**

11 A. Yes. The delay damages for a solar project ceasing operations are now aligned
 12 across both the Solar*Rewards® program and the Solar*Rewards® Community
 13 program, so that delay damages are calculated as the increased cost to the
 14 Company for procuring the RECs over the life of the project, relative to the most

1 recent RFP for the program. Also, the form agreements for both programs now
2 specify that the obligation to complete construction is an obligation to achieve
3 “substantial completion” rather than “commercial operation.” The reason for the
4 change is that substantial completion is completely within the control of the
5 project owner or developer, whereas commercial operation requires certain
6 testing to be performed by the Company. This change also aligns with the
7 Company’s power purchase agreements for bulk power.

8 **Q. HOW HAS THE COMPANY UPDATED ITS SOLAR*REWARDS® REC**
9 **PURCHASE CONTRACTS FOR OPERATIONAL MATTERS?**

10 A. The Company has revised the agreements to account for a wide range of
11 circumstances encountered during program operation and to facilitate more
12 efficient administration in light of program growth. For example, as the number of
13 customers enrolled in Solar*Rewards® has increased, processing contract
14 assignments for home sales has become a greater administrative burden. Under
15 the revised Solar*Rewards® REC Purchase Contract, the signing homeowner
16 agrees that a future home buyer can assume the agreement without any action
17 needed from the selling homeowner. Similarly, because commercial tenant
18 customers are entitled to move their solar projects to new premises, the revised
19 contract accounts for commercial tenant moves. The revised agreement also
20 accounts for circumstances when a landlord owns the solar project, but a
21 residential tenant is the customer of record and beneficiary under the net
22 metering or photovoltaic (“PV”) tariff.

1 **Q. WERE THERE ANY CHANGES TO THE REC PURCHASE CONTRACT**
2 **RELATED TO PROJECT SIZE FOR SOLAR*REWARDS?**

3 A. No. The annual capacity for the various Solar*Rewards® program offerings is
4 changing in 2020-2021. However, project size did not change for the
5 Solar*Rewards program. Instead, the different versions of REC Purchase
6 Contracts for different sized systems were consolidated into one contract
7 template. The Solar*Rewards® contract for third-party owners remains the
8 same, addressing all project sizes.

9 **Q. HOW IS THE SOLAR*REWARDS COMMUNITY® PRODUCER AGREEMENT**
10 **USED?**

11 A. The Solar*Rewards Community® Producer Agreement sets forth the
12 responsibilities of the developer to develop, construct, and complete solar garden
13 projects, as well as to serve subscribers, fulfill subscriber mix commitments and
14 identify the subscribers that are to receive bill credits. More specifically, this
15 includes deposit requirements, construction timelines, terms for sale of RECs to
16 the Company, and system requirements.

17 **Q. WERE THERE ANY CHANGES TO THE SOLAR*REWARDS COMMUNITY®**
18 **PRODUCER AGREEMENT RELATED TO REC OWNERSHIP?**

19 A. No. Minor changes were made to clarify the compensation for the RECs to avoid
20 confusion about whether the price is per kWh of power produced (it is) vs. per
21 REC (it is not). Additional changes were made to distinguish more clearly

1 between solar energy and RECs. However, no changes were made related to
2 ownership of RECs.

3 **Q. WAS LANGUAGE RELATED TO CO-LOCATION CHANGED?**

4 A. No. This is a detail the Company expects to be addressed through Commission
5 rules as the change for solar garden project sizes increases from 2 MW to 5 MW.

6 **Q. IS THERE ANY LANGUAGE RELATED TO SUBSCRIBER MIX?**

7 A. Yes. Because serving certain categories of customers is a legislative and
8 regulatory priority, and because RFP bids that commit to serving those
9 customers have improved chances of receiving an award, we anticipate seeing
10 more subscriber mix commitments in RFP bids. If the Company awards a bid
11 based on a stated subscriber mix commitment, then the Company's position is
12 that the subscriber mix commitment should be binding. Therefore, the Producer
13 Agreement includes an exhibit/attachment to specify the project-specific
14 subscriber mix commitments for that garden that were bid by the developer and
15 awarded by the Company. That subscriber mix will then become an enforceable
16 term of the signed Producer Agreement, and subscribed energy that fails to meet
17 the subscriber mix commitments will be treated as unsubscribed energy.

18 **Q. WHAT OTHER CLARIFICATIONS OR CHANGES WERE MADE IN THE**
19 **SOLAR*REWARDS COMMUNITY® PRODUCER AGREEMENT?**

20 A. Additional clarifications were made to the Solar*Rewards Community® Producer
21 Agreement to provide flexibility or to conform terms across programs, for
22 example for escalating or tiered REC payments, time frames for deposit/escrow

1 refunds by the Company, and the timing of obligations to provide progress
2 reports. Provisions related to environmental liability were also added.

1 **VIII. IMPACT OF PUBLIC SERVICE'S MOTION TO EXTEND 2017-19 RE PLAN**
2 **THROUGH FIRST QUARTER 2020**

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

4 A. In this section of my testimony I present the Company's proposal to extend the
5 2017-19 Plan through the first quarter of 2020 and the associated impacts to our
6 customer choice renewable energy programs.

7 **Q. HOW DOES THE COMPANY PLAN TO ADDRESS PROGRAMMING GIVEN**
8 **THAT IT IS UNLIKELY A FINAL COMMISSION DECISION WILL BE IN PLACE**
9 **BY JANUARY 1, 2020, WHEN THE 2017-19 RE PLAN ENDS?**

10 A. As explained in the Company's Motion to Implement Extension of 2017-19 RE
11 Plan Through First Quarter 2020 ("Motion"), Public Service is requesting this Plan
12 become effective at the beginning of the second quarter of 2020, April 1, 2020.
13 Public Service proposes to continue under its 2017-19 RE Plan on a pro rata
14 basis during the first calendar quarter of 2020 ("Q1 2020"). This will only impact
15 the levels of capacity offered through the Company's Solar*Rewards Small and
16 Medium options.

17 **Q. HOW WILL THE COMPANY MEET ITS ANNUAL COMPLIANCE**
18 **REQUIREMENTS FOR CAPACITY OFFERINGS FOR SOLAR*REWARDS®**
19 **FOR 2020?**

20 A. As explained in the Motion, Public Service is proposing a path that will allow it to
21 offer the total annual capacity levels prescribed for its Solar*Rewards® and
22 Solar*Rewards Community® programs during the 2020-21 RE Plan. The
23 Company's proposal will extend its 2019 capacity levels on a pro rata basis

1 through Q1 2020. In situations where the 2020 capacity levels differ from the
2 capacity levels that were in effect in 2019, the Company will calculate its monthly
3 or quarterly capacity offerings for the remainder of 2020 to meet the annual
4 requirement. Depending on the difference in the 2019 and 2020 requirements,
5 this may result in an upward or downward adjustment to the monthly or quarterly
6 offering for the second, third, and fourth quarters of 2020.

7 **Q. CAN YOU PROVIDE AN EXAMPLE OF HOW THE COMPANY WILL CARRY**
8 **OUT THE 2020 REQUIREMENTS AFTER IMPLEMENTING THE 2019**
9 **REQUIREMENTS DURING Q1 2020?**

10 A. Yes. As I discussed above, Public Service's Solar*Rewards® Small offering in
11 2019 was 24 MW for the year.¹¹ This equates to a monthly offering of 2 MW.
12 Capacity that was offered but not subscribed was carried over to subsequent
13 months' offerings. Public Service proposes to reduce the Solar*Rewards Small
14 offering to 12 MW each year for 2020 and 2021. This equates to a monthly
15 offering of 1 MW.

16 In its Motion, Public Service proposes to continue offering capacity for its
17 Solar*Rewards® Small and Solar*Rewards® Medium options at the levels
18 authorized in its 2017-19 RE Plan, on a pro rata basis, during Q1 2020. This
19 amounts to a monthly offering of 2 MW for Solar*Rewards® Small. If the offering
20 is fully enrolled in each of those months (i.e., January, February, and March

¹¹ As noted above, the Company proposes to discontinue Solar*Rewards Small – Option B in the 2020–2021 RE Plan. Accordingly, the Solar*Rewards Small – Option A is described in this section of the testimony only as “Solar*Rewards Small.” In addition, the Motion requests not to implement Solar*Rewards Small – Option B during Q1 2020.

1 2020), that would equal a total of 6 MW of capacity. Assuming the Commission
2 grants the Company's request to reduce the annual offering to 12 MW, the
3 Company would have nine months over which to offer the remaining 6 MW of
4 capacity. This equates to 0.67 MW per month for the remainder of 2020. Public
5 Service would then offer 1 MW per month in 2021.

6 The Company will roll over any unused capacity from the Solar*Rewards®
7 Small option during Q1 2020 into subsequent months in 2020.

8 **Q. HOW WILL THIS APPROACH APPLY TO THE SOLAR*REWARDS® MEDIUM**
9 **OPTION?**

10 A. This approach will apply similarly to the Solar*Rewards® Medium option.
11 However, because Solar*Rewards® Medium capacity is allocated on a quarterly
12 basis, any unenrolled capacity during Q1 will roll-forward to subsequent quarters
13 in 2020, but will not roll into 2021.

14 **Q. WILL PUBLIC SERVICE'S PROPOSED IMPLEMENTATION FOR Q1 2020**
15 **IMPACT ITS SOLAR*REWARDS® LARGE OFFERING OR**
16 **SOLAR*REWARDS COMMUNITY PROGRAM?**

17 A. No. Because Solar*Rewards® Large capacity and Solar*Rewards Community®
18 capacity is awarded through annual RFPs, the scenarios outlined in the
19 examples above do not apply. Public Service will undertake its RFP process for
20 the Solar*Rewards® Large and Solar*Rewards Community® programs promptly
21 after a final Commission decision is entered in this proceeding.

1 **Q. HOW WOULD PUBLIC SERVICE'S PROPOSED IMPLEMENTATION FOR Q1**
2 **2020 IMPACT THE ROOFTOP LOW-INCOME SOLAR OPTION?**

3 A. Similar to the Solar*Rewards Large and Solar*Rewards Community programs,
4 Public Service is proposing to increase the annual capacity for its low-income
5 option coordinated through CEO for 2020. Unlike the Solar*Rewards® Small and
6 Solar*Rewards® Medium offerings, though, the Rooftop Low-income Solar
7 program does not have caps for smaller time increments (i.e., months or
8 quarters). Accordingly, the Company can accept enrollment without interruption
9 during Q1 2020 for this program up to the 300 systems that were approved for
10 the program. If the program is approved for the 2020 and 2021 the new capacity
11 can begin on April 1, 2020.

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

13 A. Yes, it does.

STATEMENT OF QUALIFICATIONS

KERRY RYAN KLEMM

I work in the Customer Solutions organization of Xcel Energy where we develop, manage and market programs in support of our Demand Side Management (“DSM”), load management, time-based rates and renewable energy portfolios. My specific title is Manager, Customer Choice and Renewable Programs, which includes responsibility for the Company’s current wind, solar and other renewable energy choice programs, as well as the Company’s foray into time-based rate options for residential customers.

I have worked at Xcel Energy and Northern States Power Company for more than 20 years, and have held a variety of individual and leadership roles in the Company’s Corporate Communications, DSM Marketing, and Product Development areas prior to my current role.

I have a Bachelors of Administration degree from the University of St. Thomas in St. Paul, MN.