



2022 RENEWABLE ENERGY STANDARD COMPLIANCE REPORT

Proceeding No. 19A-0369E

JUNE 1, 2023

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STATEMENT OF RES COMPLIANCE & INTRODUCTION

Public Service Company of Colorado (“Public Service” or the “Company”) is pleased to report that the Company is in compliance with the Colorado 2022 Renewable Energy Standard (“RES”). For 2022, the RES required that 30 percent of the Company’s electric energy sales be served from renewable energy,¹ with three percent from distributed generation. At least one-half of the distributed generation must be from retail distributed generation.²

Colorado Public Utilities Commission (“Commission”) Rule 3659(a) states that Renewable Energy Credits (“RECs”) may be used to comply with the RES. The Rules define each REC to mean a contractual right to the full set of non-energy attributes, including any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, directly attributed to a specific amount of electric energy generated from an eligible energy resource. One REC results from one megawatt-hour (“MWh”) of electric energy generated from an eligible energy resource. By statute, certain eligible energy resources qualify for REC multipliers such that one MWh from these resources can generate more than one REC for compliance with the RES. Senate Bill 13-252 modified the REC multiplier to eliminate a REC multiplier for eligible energy resources that became operational after January 1, 2015.

As a result of acquiring the generation described below, Public Service was able to retire sufficient RECs to meet its RES obligation for the 2022 compliance year.

Pursuant to Commission Rule 3662, investor-owned Qualifying Retail Utilities (“QRUs”), like Public Service, are required to file an Annual RES Compliance Report (“Report”) that contains the information set forth in Rule 3662. In general, the Report is designed to give the Commission a status on the QRU’s compliance with the Renewable Energy Standard for the most recently completed compliance year. The Report will be reviewed by Commission Staff for compliance in accordance with Rule 3663.

Public Service is providing this Report in compliance with Rule 3662. The Report demonstrates that the Company is in compliance with Colorado’s 2022 Renewable Energy Standard, consistent with the Company’s Commission-approved 2020-21 RES Compliance Plan (“2020-21 RES Plan”), in Proceeding No. 19A-0369E, approved through Decision Nos. R20-0099 and C20-0289. On December 10, 2021, the Company filed an unopposed Motion to extend its 2020-2021 RES Plan programs in Proceeding No. 19A-0369E until a final order from the Commission in the Company’s 2022-2025 RES Plan, Proceeding No. 21A-0625EG. Through Decision No. C21-0838 the Commission granted

¹ Commission Electric Rule 3654.

² Commission Electric Rule 3655.

the Company's request to extend its 2020-2021 RES Plan programs. The 2020-2021 programs continued through nearly all of 2022, as the Company received a final Commission decision in Proceeding No. 21A-0625EG in November 2022.

OVERVIEW OF THE COMPANY'S EFFORTS TO MEET THE RENEWABLE ENERGY STANDARD

In addition to meeting the Renewable Energy Standard requirements for 2022, Public Service remains well-positioned to meet the Colorado RES going forward. The RES requires the Company to generate 30 percent of electric retail sales from renewable resources beginning in 2020 and each compliance year thereafter, with three percent of that energy coming from renewable distributed generation. The Company's compliance strategy and acquisition of eligible energy resources reflects a desire to protect the environment, provide customers with renewable energy choices that they want and value, and follow through on our commitment to provide safe, reliable and increasingly clean energy at a competitive price. In this portion of the Report, the Company briefly describes and summarizes some of its efforts to meet these commitments.

WIND ENERGY

Wind energy continues to play a significant role in Xcel Energy's renewable energy portfolio. Public Service's early actions to add wind energy at competitive prices and proactively comply with state mandates have benefited the customers we serve and the state. Xcel Energy continues to be a national leader in wind energy.

Wind energy on Xcel Energy's systems has increased significantly since 2010 and will continue to expand in the future. In 2022, wind energy made up 35 percent of Public Service Company of Colorado's energy supply. At the end of 2022, Public Service had nearly 4,100 MW of installed wind energy capacity on its system and Xcel Energy had over 11,000 MW of wind across its various utility operating companies.

The Company is continuing the implementation of its Colorado Energy Plan Portfolio ("CEPP"). The CEPP is a transformative plan that was approved by the Commission as part of the Company's 2016 Electric Resource Plan ("ERP") (Proceeding No. 16A-0396E) and involves retiring 660 MW of coal-fired generation by late 2025 and adding 1,100 MW of wind, approximately 750 MW of solar and 275 MW of storage to our Colorado generation fleet. In 2022, the Company retired Comanche Unit 1, a 325 MW coal-fired plant, as it continued to implement the CEPP. In addition to 630 MW of Power Purchase Agreement ("PPA") wind, the CEPP includes the Company-owned 500 MW Cheyenne Ridge Wind Project, the construction of which was approved by the Commission in Proceeding No. 18A-0905E. Construction commenced in June 2019 and was completed in 2020 with commercial operations beginning on August 26, 2020, allowing the Company to take full advantage of federal production tax credits ("PTCs") and provides savings for customers. Also, in 2020 the Company had three additional wind PPAs that began commercial operations – Bronco Plains (September 30, 2020, 299.36 MW), Colorado

Green (December 16, 2020, 162 MW), and Mountain Breeze (October 28, 2020, 171.72 MW). Following implementation of the CEPP, approximately 39 percent of the Company's energy mix will come from wind. Public Service also notes that its 2021 Electric Resource Plan and Clean Energy Plan approved by the Commission in Proceeding No. 21A-0141E will reduce carbon emissions on the Company's system by over 80 percent by 2030 when compared to 2005 levels. The Company estimates that nearly 80 percent of the electricity consumed by our customers by 2030 will be provided by renewable resources.

WINDSOURCE®

Wind energy is also available as a customer choice through the Company's popular Windsource® program, which began in 1998 and continues to be one of the largest voluntary green-energy programs in the United States. The current structure of our Windsource® program originated in the terms of a settlement agreement the Commission approved in Proceeding No. 08A-260E and more recently in the settlement of the Company's 2017-19 RES Compliance Plan (Proceeding No. 16A-0139E).

Windsource® is certified through the Green-e Energy program. To be Green-e Energy certified, the corresponding RECs associated with the energy sold under Windsource® cannot be used to fulfill a state renewable energy goal and cannot be "double-counted" towards that goal, with one exception. Pursuant to Green-e's National Standard Version 2.1: "If the product meets 100% of a customer's electricity use with eligible renewables, Green-e Energy allows a percentage of a product's content to be satisfied by Renewable Portfolio Standard ("RPS") state-mandated renewables up to the percentage RPS requirement." Consequently, for Windsource® customers who purchased 100 percent of their electricity under the Windsource® program in 2022, thirty percent of the RECs associated with the energy these customers purchased were retired to meet the Renewable Energy Standard. The Commission approved this methodology as part of the Company's 2010 RES Compliance Plan in Decision Nos. C10-1033 and R10-0586 in Proceeding No. 09A-772E. Information describing the method of retiring RECs for 100 percent Windsource® customer sales has been provided to our Windsource® customers and is also available on the Windsource® pages on Xcel Energy's website.³

The Company charges a Windsource® premium to those customers who subscribe to the program. The 2022 Windsource® premium price was \$1.50 per 100 kilowatt-hour ("kWh") block, or 1.5¢/kWh, on a market basis. Premiums from sales under the Windsource® program are credited back to the Renewable Energy Standard Adjustment ("RESA") (\$4.3 million in 2022).

³ <https://co.my.xcelenergy.com/s/renewable/windsource>

SOLAR ENERGY

The Company continues to integrate increasing levels of solar energy with a combination of low-cost large-scale utility solar projects, community solar gardens, and private customer-sited solar options. Public Service offers customers a growing number of renewable options such as Solar*Rewards[®], Solar*Rewards[®] Community[®], stand-alone net metering, and Renewable*Connect[®].

UTILITY SOLAR INSTALLATIONS

Xcel Energy has continued its commitment to developing cost effective solar resources to benefit the greatest number of customers across the state. The Company purchases large-scale solar generation directly from sizable solar installations, many of which are located in the San Luis Valley in south-central Colorado.⁴ In 2022, the Company had one solar PPA located in Pueblo enter commercial operations – Sun Mountain Solar 1 (December 7, 2022, 200 MW).

The CEPP approved by the Commission as part of the Company's 2016 Electric Resource Plan ("ERP") (Proceeding No. 16A-0396E) and amended through Decision No. R20-0285 in Proceeding No. 19A-0530E intended to add four additional utility-scale solar resources to the Company's system. In addition to the Sun Mountain project noted above, the Thunder Wolf, and Neptune projects are expected to come online in summer 2023. However, as detailed in the Company's annual Electric Resource Plan progress reports,⁵ multiple third-party solar resources have failed to come online as originally planned and approved including three Coronal Energy projects (Owl Canyon, Picadilly, and Steelworks), as well as the Hartsel and Front-Range Midway projects.

Large-scale installations make solar power available at a low cost to the greatest number of people in the communities Xcel Energy serves. The Company supports the development of large, central solar because of the benefits that come with direct delivery and economies of scale for our customers.

PRIVATE SOLAR INSTALLATIONS

Additionally, over 80,000 Xcel Energy customers in Colorado have private on-site or rooftop solar through either the Company's Solar*Rewards[®] program or are interconnected outside the program as "Net Metered Only" systems. The Company's

⁴ Solar installations in south-central Colorado include: the SunE Alamosa facility (6.20 MW_{AC}), the SunPower Greater Sandhill facility (19 MW_{AC}), the Iberdrola Renewables San Luis Valley Solar facility (30 MW_{AC}), the Amonix at Solar Technology Acceleration Center ("Solar TAC") (0.484 MW), Sun E at Solar TAC (0.193 MW), and EPRI at Solar TAC (0.085 MW), and the Cogentrix Alamosa Solar Generating Project (30 MW_{AC}).

⁵ See, Proceeding Nos. 16A-0396E and 21A-0141E.

Small program was extended from the 2020-21 RE Plan (with average system size of approximately 6 kilowatts (“kW”)) and was fully allocated. The non-incentivized interconnection application continued to make up a majority of the capacity interconnected in 2022.

In 2022, Solar*Rewards® supported the installation of systems at several program levels—small systems up to 25 kW and medium systems between 25.1 to 500 kW. Through Solar*Rewards®, customers interested in installing solar systems at their homes or businesses receive incentives to participate in this program.

Table 1: 2020-2022 Solar*Rewards Capacities and Incentives

Solar*Rewards Incentives	2020		2021		2022		TOTAL
	Capacity (up to)	Incentive per kWh	Capacity (up to)	Incentive per kWh	Capacity (up to)	Incentive per kWh	
Small	12 MW	\$0.005	12 MW	\$0.005	12 MW	\$0.005	36
CEO WAP Low Income Rooftop Solar	0.35	Upfront \$2/watt plus \$0.034/kWh	0.35	Upfront \$2/watt plus \$0.034/kWh	0.35	Upfront \$2/watt plus \$0.034/kWh	0.7
Medium	24 MW	\$0.0375	24 MW	\$0.0375	24 MW	\$0.0375	72
Large	20 MW	RFP	20 MW	RFP	N/A	N/A	40
TOTAL	56.35		56.35		36		148.7

Customer-owned and third-party owned systems receive the same incentive levels for a 20-year term. Small solar system capacity for systems less than or equal to 25 kW is released monthly with one-twelfth of the available capacity released each month. Medium system capacity for systems greater than 25 to 500 kW is released biannually.

Large-solar system capacity is released and awarded through a competitive RFP process for net metered systems greater than 500 kW in size, capped at 200 percent of reasonably expected annual total consumption of electricity. The RFP requests proposed pricing from bidders for the Company to purchase RECs from the production of the solar array. Price is typically the primary differentiator and selection criteria. In addition to the REC incentive, the customer(s) will receive net energy metering credits.

The Colorado Energy Office’s (“CEO”) Low-Income WAP (“Weather Assistance Program”) Rooftop Solar program was added under the 2017-19 RES Compliance Plan

and proposed to add up to 300 systems over a three-year period: up to 75 systems in 2017; 100 systems in 2018 and 125 systems in 2019. Systems can be sized up to 3.5 kW with the average system size at 3.1 kW. The CEO Program was continued under the 2020-21 RES Compliance Plan as it was under the Settlement Agreement in Proceeding No. 16A-0139E, except for changing to a capacity cap of 0.35 MW annually rather than an annual installation count cap. The program also requires a 14 percent per-system capacity factor as a reasonable production performance measure of this program. Through 2022, 561 systems have been interconnected, equaling over 1.7 MW of total cumulative capacity from 2017-2022 at a cost of approximately \$5.2 million. Roughly two-thirds of the total cost has been paid for with RESA funds.

COMMUNITY SOLAR GARDENS

The Community Solar Garden (“CSG”) market is continuing to expand in Colorado and is widely available throughout the Company’s service territory. By the end of 2022, there were approximately 135 MW_{AC} of CSGs operational and 177 MW_{AC} in development.⁶

Public Service launched Solar*Rewards Community® (“S*RC”) in Colorado in 2012, after the state became one of the first to approve the solar garden concept in 2010. In Colorado, the Company enables Solar*Rewards Community® for customers who want to participate in shared, centralized solar installations. CSGs are an option for customers who want to support solar energy but lack certain qualities (physical – roof space, shading, etc. or financial) to install systems on-site. Solar developers build community-based shared solar installations interconnected to Public Service’s system and offer subscriptions with various purchase arrangements to customers.

The Company has grown a solid portfolio of solar garden projects, and with the additional capacity and segmenting from the 2020-21 RES Plan, this portfolio has become even more robust in 2022. The Company also notes that Commission Rule 3877 currently allows for CSGs to be sized up to five MW_{AC} and that sizing can increase to 10MW_{AC} beginning July 1, 2023.

RENEWABLE*CONNECT®

Renewable*Connect® allows customers to subscribe to solar output from a 50 MW solar energy installation located in Deer Trail, Colorado (Arapahoe County), which came online in late December 2018. Thus, 2022 is the program’s fourth year of operations. The program offers competitive pricing, flexible subscription terms, and no program costs subsidized by non-participant customers. Subscribers have full rights to the clean energy

⁶ Beginning in 2020, the Company is reporting all capacities in alternating current or “AC.”

benefits from the solar energy produced, as RECs are retired on behalf of subscribers and will not be included in RES accounting.

2022 RESULTS

NON-DISTRIBUTED GENERATION (“NON-DG”)

As a result of prior filings approved by the Commission, the Company currently has nearly 4,100 MW of wind generation capacity on its system that qualifies as Non-DG eligible energy resources. The Company acquires the full electrical output as well as all RECs produced from these wind resources for compliance with the Non-DG portion of the RES. The generation from these facilities that came online before January 1, 2015, is eligible for the 1.25 REC multiplier when used for compliance. Several wind facilities, such as the 249 MW Golden West wind farm, the 600 MW Rush Creek wind farm, and the 500 MW Cheyenne Ridge wind farm, came online after that and do not receive the REC multiplier. The Company currently has 18 operational large wind resources that are considered Non-DG for RES compliance (see Attachment C).

WINDSOURCE®

In 2022, nearly 76,000 residential and commercial/industrial Colorado customers purchased over 290,000 MWh of wind energy through Windsorce® and contributed \$4.3 million to the RESA account.

WHOLESALE DG

The Company currently has over 172 MW of resources that qualify as Wholesale DG resources for RES compliance. This includes various hydroelectric resources, landfill gas resources, photovoltaic solar resources, and wind resources. All of the generation from these facilities is eligible for the 1.25 REC multiplier when used for compliance with the Colorado RES. The following resources are currently operational and are considered as Wholesale DG for RES compliance (see Attachment C):

Table 2: Operational Wholesale DG Resources

• SunE Alamosa Solar	• Waste Management/	• Hillcrest
• Cogentrix Solar	Aurora Disposal	• Roberts Tunnel
• Greater Sandhill Solar (I	• Ames	• Strontia Springs
& II)	• Georgetown (I & II)	• Ute Hydro
• EPRI at Solar TAC	• Salida II	• Gross Reservoir
• San Luis Solar (Iberdrola)	• Shoshone (I & II)	• Redlands
• Northern Colorado Wind	• Tacoma (I & II)	• Dillon Dam
II	• Betasso	• Foothills
• Ridgecrest	• Silver Lake	
	• Lakewood	

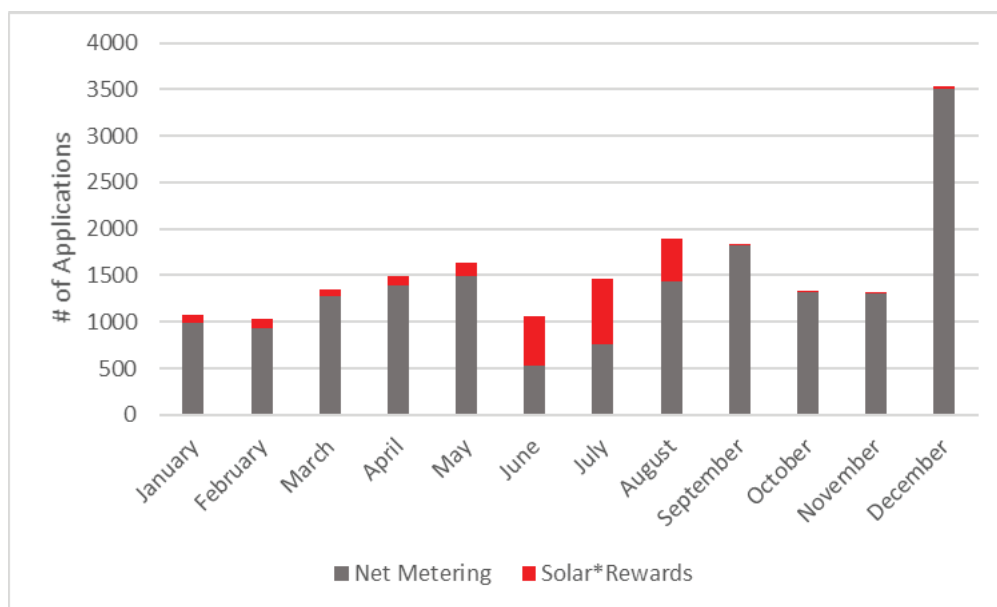
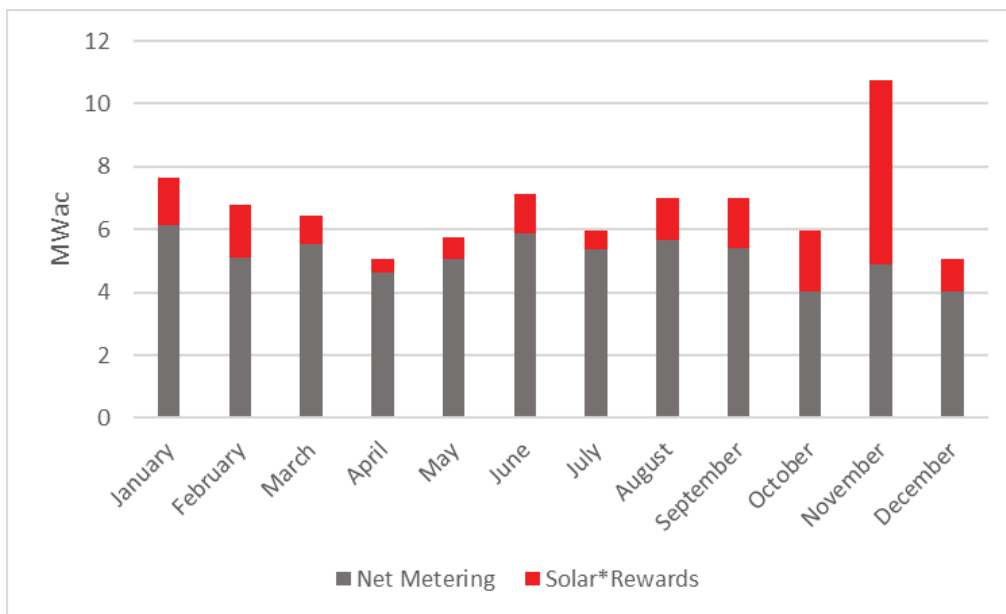
RETAIL DISTRIBUTED GENERATION

At the end of 2022, the Company had more than 750_{DC} MW of retail distributed generation on our Colorado system. The Company did see a decline in applications received and installations in 2020 likely due, at least in part, to the COVID-19 pandemic. The Company is pleased to report that the 2022 numbers have continued to rebound and application numbers for 2022 remained above 2021 numbers throughout the year.

Solar*Rewards®

The Company continues to see growing interest from customers for small (systems up to 25 kW) solar system installations. In 2022, the Company received over 2,100 Solar*Rewards® applications for small systems. Over 1,400 small solar systems were installed for a total of approximately 14 MW.⁷ For 2022, the Company is continuing to see more applications for small systems being interconnected outside of its Solar*Rewards® Program (commonly referred to as Net Metered Only systems) than inside the program. In 2022, over 13,000 Net Metered Only applications were received and more than 8,000 were installed for a total of approximately 60 MW. The charts below show the number of applications in terms of the number of applications received and capacity installed.

⁷ Systems are not always installed in the same calendar year in which applications are received.

Figure 1: Monthly On-site Solar Applications in 2022**Figure 2: Monthly On-site Solar MW Installed in 2022**

For medium systems in 2022, 76 total applications were received and 42 systems were installed for a total of approximately 9 MW. The Medium Program capacity opened an additional 2 MW per month and the Company will rollover any unallocated capacity from previous years of the 2020-21 RE Plan.

The Company did not release a Large RFP in 2022 due to the litigation of the 2022-25 RE Plan and its eventual settlement and approval in late 2022.

Energy Storage

In 2022, the Company continued its engagement with installers and manufacturers directly to review proposed Energy Storage Systems (“ESS”) through an initial review process to confirm they meet the storage principles and guidelines agreed to in the Distribution Grid and Interconnection Stakeholder Group (“Grid” Stakeholder Group). Specifically, 45 ESS design configurations have been approved through the initial review process providing a variety of options for customers to interconnect batteries. Subsequent applications are compared with the initial review documents for expedited approval of the official applications.⁸ The Company received 620 applications for energy storage systems in 2022. Cumulatively, by the end of 2022, the Company had over 3,692 applications received with nearly 1,600 installations. The Company has continued its outreach with developers to do equipment reviews to streamline the application process.

Solar*Rewards Community® – Solar Gardens

It was the fourth year of operations for the Renewable*Connect® program, from the Settlement Agreement reached in Proceeding Nos. 16AL-0048E and 16A-0055E. In the Settlement Agreement, Public Service agreed to file with the Commission annual reports including total program expenditures, total revenues, number of participants, program term capacities, unsubscribed energy volumes, excess revenue applied to the RESA, participation by rate class, and number and capacity of customers on the waitlist.⁹ The Company has chosen the RES Report as the vehicle to report this information as it can be compared to other renewable energy programs and is providing work papers to Commission Staff in support of the information provided below. Below are summaries of the program results for 2022.

Renewable*Connect®

2022 was the fourth year of operations for the Renewable*Connect® program, from the Settlement Agreement reached in Proceeding Nos. 16AL-0048E and 16A-0055E. In the Settlement Agreement, Public Service agreed to file with the Commission annual reports including total program expenditures, total revenues, number of participants, program term capacities, unsubscribed energy volumes, excess revenue applied to the RESA, participation by rate class, and number and capacity of customers on the waitlist.¹⁰ Additionally, as part of the Settlement Agreement in the 2022-25 RE Plan, Proceeding No. 21A-0625EG, we are reporting the curtailment volumes and costs for the Titan solar

⁸ In 2018, there were 15 ESS design configurations.

⁹ Decision No. C16-1075.

¹⁰ Decision No. C16-1075.

resource. Settling Parties to that Proceeding agreed that curtailment costs arising from the curtailment of the generating resource supplying R*C-1.0 are appropriately recovered through the Electric Commodity Adjustment (ECA). The Company has chosen the RES Report as the vehicle to report this information as it can be compared to other renewable energy programs and is providing work papers to Commission Staff in support of the information provided below. Below are summaries of the program results for 2021.

Program Participation

The program was essentially fully subscribed during 2022 with light customer turnover. The Company maintains a waitlist for the program and can quickly replace customers who choose to exit the program. The tables below report the program participation by rate class, by contract term, and waitlist.

Table 3 3: Renewable*Connect Participants by Rate Class and Capacity

Customer Count by Rate Class					
	R	C	SG	PG	TG
Count	2,232	605	137	13	1
Program Capacity by Rate Class					
	R	C	SG	PG	TG
kW	5,980	3,281	30,607	8,540	1,015

Table 4 4: Renewable*Connect Contract Durations

Customer Count by Term			
Count	MTM	5 Year	10 Year
	964	613	1,414
Capacity by Term			
kW	MTM	5 Year	10 Year
	2,412	2,308	44,709

Table 5 5: Renewable*Connect Waitlist

Waitlist		
	Residential	Business
Count	5,506	173
kW	60,064	29,143

Program Financial Performance & Curtailments

With full subscription, the Renewable*Connect® program was able to generate revenues in excess of program costs and thus yield program earnings. Per the Settlement Agreement in the aforementioned Commission proceedings, the Company can retain earnings up to its weighted average cost of capital (“WACC”) with any excess earnings contributed to the RESA. The table below reports the program revenues, costs, and earnings (both retained by the Company and contributed to the RESA). Also included is the unsubscribed energy volumes from the light customer churn in the program.

Table 6 6: 2022 Renewable*Connect Financial Performance

2022 Financial Performance	
Revenues:	
R*C Customer Charges	\$4,250,991
Costs:	
Purchase Power	\$3,690,824
Solar Integration	\$45,154
Program Administration	\$35,031
Earnings:	\$479,981
Company (6.43%)	\$242,476
RESA	\$237,505
Unsubscribed Energy	
kWh	351,171
Curtailments	
MWh	13,426
Costs	\$455,808

The excess earnings were credited to the RESA in December 2022. With essentially a full subscription and a strong waitlist, the Company kept program administration costs low. These factors, and with little to no IT costs in 2022, kept overall program costs minimized relative to the purchase power cost.

2022-25 RES PLAN IMPLEMENTATION

Despite the 2022 RES Report being focused on RES compliance and the results of programming for the year, the Company wanted to summarize other activity regarding the implementation of the 2022-25 RES Plan that was approved by the Commission in November 2022.

Program Launches

As of the submission of the 2022 RES Report, the Company has launched its Solar*Rewards Income Qualified and Solar*Rewards Commercial/Industrial¹¹ programs along with the Colorado Energy Office's Low-Income Rooftop Solar program. The Company is also in the midst two solicitations for its Solar*Rewards Large program and the 2023 Solar*Rewards Community (CSGs).

There are other programs that will launch soon. The Off-Site Net-Metering program was filed on May 23, 2023, with Advice Letter 1924 and that program is expected to launch in early June 2023. The Company's Renewable Battery Connect program is expected to launch in June as well.

Stakeholder Engagement

While 2022 was spent mostly engaged in litigation of the 2022-25 Plan, we continue the practice of holding quarterly stakeholder meetings along with engaging on more specific meetings with stakeholders if there is a need to focus on a particular topics. Since the beginning of 2023, we have hosted the Q1 stakeholder meeting on March 23 and have scheduled the Q2 meeting for June 21. We also engaged with stakeholders to develop the first 60-Day Notice for any RES Plan that pertains to qualifying customers in the two Solar*Rewards programs that have IQ/DI-Community incentives. We expect that process to conclude here in June.

Regarding the IQ/DI-Community Engagement and Outreach Plan, the Company added staff at the beginning of 2023 and we are expecting to engage with stakeholders more broadly during the remainder of 2023.

While this section summarizes stakeholder engagement, it should not be assumed that this is the only interaction that Company representatives have with stakeholders for RES Plan programming. We are connected with our stakeholders in a variety of settings from more formal stakeholder meetings to standing meetings to one-on-one phone calls to take input and resolve issues.

RESA Audit

As part of the Commission approval of the 2022-25 RES Plan, Commission Decision No. C22-0678 directs the Company and Staff to provide an update on the progress regarding an audit of the RESA account in the annual RES Reports and the review of these

¹¹ Includes the IQ/DI-Community part of this program.

reports.¹² As of the submission of the 2022 RES Report the Company can report that it is working with its sourcing organization to identify firms that can perform this work. Once the firm, or firms, are identified the Company plans to work with Staff to resume the audit scope discussions. The Company anticipates that this will occur during the summer of 2023.

REC TRACKING & COMPLIANCE

The Company tracks RECs through an internal REC tracking system and also the Western Renewable Energy Generation Information System ("WREGIS") system. Commission Rule 3659(j) requires all renewable energy resources 1 MW and larger to be registered with WREGIS. WREGIS is a third-party REC tracking and verification system for the western states (including Colorado), developed through a collaborative effort between the Western Governors Association, the Western Regional Air Partnership, and the California Energy Commission. The Company, through Xcel Energy Services Inc. ("XES"), participates in the Stakeholder Advisory, Policy and Change Control Committees of WREGIS. The Company believes that WREGIS and other regional REC tracking and verification systems add significant credibility to, and aid in the development of, REC markets. Xcel Energy's registered generating facilities have been uploading data to WREGIS since the last quarter of 2008.

During the 2022 compliance year, the Company used its internal REC tracking database to retire RECs from distributed generation solar facilities under 1 MW for 2022 RES compliance. Any WREGIS RECs that were used for 2022 compliance, Renewable*Connect®, Certified Renewable Percentage, or Windsource® were also retired in WREGIS. The Company maintained its internal REC tracking database and WREGIS in tandem.

WREGIS collects generation from eligible renewable energy resources and complies with a standard procedure to review such generation feasibility standards and subsequently creates RECs. WREGIS also uses an algorithm to confirm if reported generation is within an expected or normal range as determined by the size of the generator and previous months' recorded output. If generation falls outside of this typical range or exceeds the anticipated MWhs reported, the system will trigger a warning and seek additional manual review to ensure accuracy before RECs will be issued.

Certified Renewable Percentage

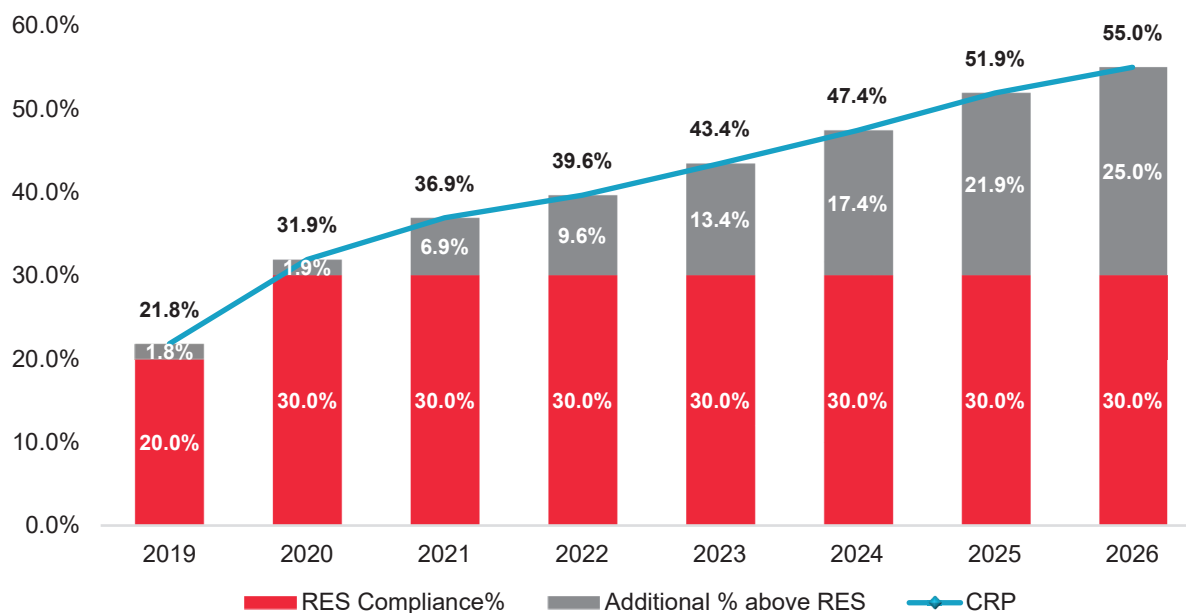
The Certified Renewable Percentage ("CRP") is a voluntary information offering under which the Company will retire RECs above its Renewable Energy Standard compliance requirements so that the total RECs retired in each calendar year will represent the total

¹² Proceeding No. 21A-0625EG, Decision No. C22-0678, page 27, para. 76.

renewable energy provided to retail customers from the Company's system. This incremental retirement in each calendar year allows retail customers to better account for and claim the renewable energy delivered from the Company's system in their efforts to satisfy their specific renewable energy goals. The CRP is discussed in much greater detail, including a detailed formula, in the Direct and Rebuttal Testimony of Mr. Jack Ihle in Proceeding No. 19AL-0268E.

In Proceeding No. 19AL-0268E, through Decision No. C20-0096, the Commission directed Public Service to work with interested intervenors in that Proceeding to improve the CRP implementation before initiating the offering. Public Service did so and filed with the Commission a Notice of Public Service Company of Colorado Regarding the Certified Renewable Percentage on April 13, 2020. Within that Notice, Public Service and other parties agreed to some implementation and reporting actions to enhance the value of the CRP. Most notably for this Proceeding, Public Service forecasted a likely trajectory for the increase of the CRP value over the next several years. Public Service and the interested intervenors agreed that Public Service will make a good faith effort to steadily increase the CRP value over time, starting at approximately 31.9 percent in 2020 and reaching 55 percent in 2026. The Company's CRP forecast through 2026 is provided in the table below.

Figure 3: Public Service Certified Renewable Percentage Forecast - 2019 – 2026



The Company is reporting the CRP and providing further detail of that calculation as part of Attachment B to this Report. For 2022, the Company continues to exceed forecasts and is reporting its CRP is 42.3 percent. This value will also be available to interested

parties on the Company's web site and will also be reported in the annual Community Energy Reports.

Demonstration of Compliance

To demonstrate compliance with the Colorado 2022 RES, Public Service has included several attachments to this report providing the data identified in Rule 3662, which are set forth in Attachment A, Rule Requirements.

Attachment B shows the Company's 2022 actual retail energy sales and lays out the resulting Renewable Energy Standard compliance requirements which flow from those sale numbers.

Attachment C, Renewable Energy Credit Compliance Summary, is similar to Tables 4-2 and 4-3 as originally filed in our 2020-21 RES Compliance Plan, Volume 2. The numbers reflect actual RECs generated in 2022 and RECs used for compliance in 2022. As mentioned above the Company is also reporting the CRP for 2022 in this Attachment.

Attachment D compares the 2022 RESA forecasted expenditures and revenues to the actual expenditures and revenues. It also compares the 2022 forecasted RESA deferred account balance and the 2022 actual RESA deferred account balance. The Company designed this attachment so that it reflects the relevant information contained in Tables 7-2 (a) – (c) as filed in the Direct Testimony of Jack W. Ihle, Attachment JWI-2, in the 2020-21 RE Plan. Although Attachment D reflects the actual totals by column, it also contains a breakdown of the actual costs by individual resource. This segregation of costs by resource allows one to easily assess the resources that contributed to the actual RESA costs for 2022.

Attachment E sets forth each individual resource that has costs that are allocated between the RESA and the ECA and provides the incremental costs for each resource expressed as \$/MWh charged in 2022. Set forth at the bottom of the attachment are the adjustments, if any, made to the \$/MWh figure. Attachment E also shows the Average Hourly Incremental Cost ("AHIC") for 2022 and volumes of Solar*Rewards® that elected to sell excess kWh credits to the Company per Rule 3664 (b). The AHIC is also used to compensate Solar*Rewards Community® garden owners for unsubscribed energy required by Rule 3665 (c)(V). The 2022 volumes of the unsubscribed energy are also shown in Attachment E.

As part of Commission Decision No. C11-1080 approving the Company's 2010 RES Compliance Plan, the Commission directed the Company to provide comparisons between the modeled incremental costs and the actual incremental costs of eligible energy resources that are charged against the RESA account, and to provide an explanation of significant deviations. Attachment D provides the modeled costs as

compared to actuals and Attachment F explains the differences between the modeled costs and the actual costs of eligible energy resources to the extent the variance is notable.

Attachment G provides a table with all S*RC projects that are either operational or that have been awarded and are in various stages of development.

Attachment H lists all Solar*Rewards Community® contracts signed since the Company's last Compliance Report and due to the voluminous nature of the contracts will provide individual contracts upon request.

Attachment I contains the Solar*Rewards Community® volumes and corresponding billing credits per rate class, and the total number of unsubscribed kWhs as required by Rule 3662 (a)(XVIII). Also included in Attachment I are associated metrics regarding income-qualified subscriptions.

Finally, Attachment J contains the Colorado Energy Office's 2022 Report on its Solar for Low-income and the Weatherization Assistance Program. This report is required to be filed in the 2020-2021 RES Reports as required per the Comprehensive Settlement Agreement in Proceeding No. 16A-0139E.

Because the Company is not claiming that the retail rate impact cap limitation inhibited its ability to meet the requirements, there is no need to report the data required in Subsection (a) (XIV) of Rule 3662.

In compliance with Rule 3662 (XV), the Commission has approved the Company's methodology for calculating the retail rate impact for the 2022 RES compliance year. Because the Company is not claiming that the retail rate impact cap limited its ability to comply with the 2022 RES, no modifications pertaining to the calculation of the retail rate impact for 2022 were necessary.

The Company is providing the Commission with an electronic copy of this filing, as well as posting it on the Company's website at www.xcelenergy.com under "Filings" in the Rates and Regulations directory.

ORIGINAL AWARDS WITH DEGRADATION AND SALE/FORCE ESTIMATES																			
Estimated Year One production		Nov 2021 Sellerforce.com PV Watts estimated production																	
21,613,772		21,613,772																	
6.86%		6.86%																	
Annual degradation		Annual degradation																	
WACC		WACC																	
0.00003		0.00003																	
Estimate of \$/MWh		Estimate of \$/MWh																	
0.00003		0.00003																	
Variance \$/MWh		Variance \$/MWh																	
0.00003		0.00003																	
Total 20 Year		Total 20 Year																	
430,350,855		430,350,855																	
Year 1		Year 1																	
21,619,930		21,619,930																	
Year 2		Year 2																	
21,605,120		21,605,120																	
Year 3		Year 3																	
21,598,315		21,598,315																	
Year 4		Year 4																	
21,591,412		21,591,412																	
Year 5		Year 5																	
21,584,816		21,584,816																	
Year 6		Year 6																	
21,577,915		21,577,915																	
Year 7		Year 7																	
21,571,014		21,571,014																	
Year 8		Year 8																	
21,564,374		21,564,374																	
Year 9		Year 9																	
21,557,871		21,557,871																	
Year 10		Year 10																	
21,551,317		21,551,317																	
Year 11		Year 11																	
21,544,793		21,544,793																	
Year 12		Year 12																	
21,538,261		21,538,261																	
Year 13		Year 13																	
21,531,718		21,531,718																	
Year 14		Year 14																	
21,525,173		21,525,173																	
Year 15		Year 15																	
21,518,628		21,518,628																	
Year 16		Year 16																	
21,512,083		21,512,083																	
Year 17		Year 17																	
21,505,538		21,505,538																	
Year 18		Year 18																	
21,499,001		21,499,001																	
Year 19		Year 19																	
21,492,462		21,492,462																	
Year 20		Year 20																	
21,485,923		21,485,923																	
Year 21		Year 21																	
21,479,384		21,479,384																	
Year 22		Year 22																	
21,472,845		21,472,845																	
Year 23		Year 23																	
21,466,306		21,466,306																	
Year 24		Year 24																	
21,459,767		21,459,767																	
Year 25		Year 25																	
21,453,228		21,453,228																	
Year 26		Year 26																	
21,446,689		21,446,689																	
Year 27		Year 27																	
21,440,150		21,440,150																	
Year 28		Year 28																	
21,433,611		21,433,611																	
Year 29		Year 29																	
21,427,072		21,427,072																	
Year 30		Year 30																	
21,420,533		21,420,533																	
Year 31		Year 31																	
21,413,994		21,413,994																	
Year 32		Year 32																	
21,407,455		21,407,455																	
Year 33		Year 33																	
21,400,916		21,400,916																	
Year 34		Year 34																	
21,394,377		21,394,377																	
Year 35		Year 35																	
21,387,838		21,387,838																	
Year 36		Year 36																	
21,381,299		21,381,299																	
Year 37		Year 37																	
21,374,760		21,374,760																	
Year 38		Year 38																	
21,368,221		21,368,221																	
Year 39		Year 39																	
21,361,682		21,361,682																	
Year 40		Year 40																	
21,355,143		21,355,143																	
Year 41		Year 41																	
21,348,604		21,348,604																	
Year 42		Year 42																	
21,342,065		21,342,065																	
Year 43		Year 43																	
21,335,526		21,335,526																	
Year 44		Year 44																	
21,328,987		21,328,987																	
Year 45		Year 45																	
21,322,448		21,322,448																	
Year 46		Year 46																	
21,315,909		21,315,909																	
Year 47		Year 47																	
21,309,370		21,309,370																	
Year 48		Year 48																	
21,302,831		21,302,831																	
Year 49		Year 49																	
21,296,292		21,296,292																	
Year 50		Year 50																	
21,289,753		21,289,753																	
Year 51		Year 51																	
21,283,214		21,283,214																	
Year 52		Year 52																	
21,276,675		21,276,675																	
Year 53		Year 53																	
21,270,136		21,270,136																	
Year 54		Year 54																	
21,263,597		21,263,597																	
Year 55		Year 55																	
21,257,058		21,257,058																	
Year 56		Year 56																	
21,250,519		21,250,519																	
Year 57		Year 57																	
21,243,980		21,243,980																	
Year 58		Year 58																	
21,237,441		21,237,441																	
Year 59		Year 59																	
21,230,902		21,230,902																	
Year 60		Year 60																	
21,224,363		21,224,363																	
Year 61		Year 61																	
21,217,824		21,217,824																	
Year 62		Year 62																	
21,211,285		21,211,285																	
Year 63		Year 63																	
21,204,746		21,204,746																	
Year 64		Year 64																	
21,198,207		21,198,207																	
Year 65		Year 65																	
21,191,668		21,191,668																	
Year 66		Year 66																	
21,185,129		21,185,129																	
Year 67		Year 67																	
21,178,590		21,178,590																	
Year 68		Year 68																	
21,172,051		21,172,051																	
Year 69		Year 69																	
21,165,512		21,165,512																	
Year 70		Year 70																	
21,158,973		21,158,973																	
Year 71		Year 71																	
21,152,434		21,152,434																	
Year 72		Year 72																	
21,145,895		21,145,895																	
Year 73		Year 73																	
21,139,356		21,139,356																	
Year 74		Year 74																	
21,132,817		21,132,817																	
Year 75		Year 75																	
21,126,278		21,126,278																	
Year 76		Year 76																	
21,119,739		21,119,739																	
Year 77		Year 77																	
21,113,200		21,113,200																	
Year 78		Year 78																	
21,106,661		21,106,661																	
Year 79		Year 79																	
21,100,122		21,100,122																	
Year 80		Year 80																	
21,093,583		21,093,583																	
Year 81		Year 81																	
21,087,044		21,087,044																	
Year 82		Year 82																	
21,080,505		21,080,505																	
Year 83		Year 83																	
21,073,966		21,073,966																	
Year 84		Year 84																	
21,067,427		21,067,427																	
Year 85		Year 85																	
21,060,888		21,060,888																	
Year 86		Year 86																	
21,054,349		21,054,349																	
Year 87		Year 87																	
21,047,810		21,047,810																	
Year 88		Year 88																	
21,041,271		21,041,271																	
Year 89		Year 89																	
21,034,732		21,034,732																	
Year 90		Year 90																	
21,028,193		21,028,193																	
Year 91		Year 91																	
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Year 92		Year 92																	
21,015,115		21,015,115																	
Year 93		Year 93																	
21,008,576		21,008,576																	
Year 94		Year 94																	
21,002,037		21,002,037																	
Year 95		Year 95																	
20,995,498		20,995,498																	
Year 96		Year 96																	
20,988,959		20,988,959																	
Year 97		Year 97																	
20,982,420		20,982,420																	
Year 98		Year 98																	
20,975,881		20,975,881																	
Year 99		Year 99																	
20,969,342		20,969,342																	
Year 100		Year 100																	
20,962,803		20,962,803																	
Year 101		Year 101																	
20,956,264		20,956,264																	
Year 102		Year 102																	
20,949,725		20,949,725																	
Year 103		Year 103																	
20,943,186		20,943,186																	
Year 104		Year 104																	
20,936,647		20,936,647																	
Year 105		Year 105																	
20,930,108		20,930,108																	
Year 106		Year 106																	
20,923,569		20,923,569																	
Year 107		Year 107																	
20,917,030		20,917,030																	
Year 108		Year 108																	
20,910,491		20,910,491																	
Year 109		Year 109																	
20,903,952		20,903,952																	
Year 110		Year 110																	
20,897,413		20,897,413																	
Year 111		Year 111																	
20,890,874		20,890,874																	
Year 112		Year 112																	
20,884,335		20,884,335																	
Year 113		Year 113																	
20,877,796		20,877,796																	
Year 114		Year 114																	
20,871,257		20,871,257																	
Year 115		Year 115																	
20,864,718		20,864,718																	
Year 116		Year 116																	
20,858,179		20,858,179																	
Year 117		Year 117																	
20,851,640		20,851,640																	
Year 118		Year 118																	
20,845,101		20,845,101																	
Year 119		Year 119																	
20,838,562		20,838,562																	
Year 120		Year 120																	
20,832,023		20,832,023																	
Year 121		Year 121																	
20,825,484		20,825,484																	
Year 122		Year 122																	
20,818,945		20,818,945																	
Year 123		Year 123																	
20,812,406		20,812,406																	
Year 124		Year 124																	
20,805,867		20,805,867																	
Year 125		Year 125																	
20,799,328		20,799,328																	
Year 126		Year 126																	
20,792,789		20,792,789																	
Year 127		Year 127																	
20,786,250		20,786,250																	
Year 128		Year 128																	
20,779,711		20,779,711																	
Year 129		Year 129																	
20,773,172		20,773,172																	
Year 130		Year 130																	
20,766,633		20,766,633																	
Year 131		Year 131																	
20,760,094		20,760,094																	
Year 132		Year 132																	
20,753,555		20,753,555																	
Year 133		Year 133																	
20,747,016		20,747,016																	
Year 134		Year 134																	
20,740,477		20,740,477																	
Year 135		Year 135																	
20,733,938		20,733,938																	
Year 136		Year 136																	
20,727,399		20,727,399																	
Year 137		Year 137																	
20,720,860		20,720,860																	
Year 138		Year 138																	
20,714,321		20,714,321																	
Year 139		Year 139																	
20,707,782		20,707,782																	
Year 140		Year 140																	
20,701,243		20,701,243																	
Year 141		Year 141																	
20,694,704		20,694,704																	
Year 142		Year 142																	
20,688,165		20,688,165																	
Year 143		Year 143																	
20,681,626		20,681,626																	
Year 144		Year 144																	
20,675,087		20,675,087																	
Year 145		Year 145																	
20,668,548		20,668,548																	
Year 146		Year 146																	
20,662,009		20,662,009																	
Year 147		Year 147																	
20,655,470		20,655,470																	
Year 148		Year 148																	
20,648,931		20,648,931																	
Year 149		Year 149																	
20,642,392		20,642,392																	
Year 150		Year 150																	
20,635,853		20,635,853																	
Year 151		Year 151																	
20,629,314		20,629,314																	
Year 152		Year 152																	
20,622,775		20,622,775																	
Year 153		Year 153																	
20,616,236		20,616,236																	
Year 154		Year 154																	
20,609,697		20,609,697																	
Year 155		Year 155																	
20,603,158		20,603,158																	
Year 156		Year 156																	
20,596,619		20,596,619																	
Year 157		Year 157																	
20,590,080		20,590,080																	
Year 158		Year 158																	
20,583,541		20,583,541																	
Year 159		Year 159																	
20,577,002		20,577,002																	
Year 160		Year 160																	
20,570,463		20,570,463																	
Year 161		Year 161																	
20,563,924		20,563,924																	
Year 162		Year 162																	
20,557,385		20,557,385																	
Year 163		Year 163																	
20,550,846		20,550,846																	
Year 164		Year 164																	
20,544,307		20,544,307																	
Year 165		Year 165																	
20,537,768		20,537,768																	
Year 166		Year 166																	
20,531,229		20,531,229																	
Year 167		Year 167																	
20,524,690		20,524,690																	
Year 168		Year 168																	
20,518,151		20,518,151																	
Year 169		Year 169																	
20,511,612		20,511,612</																	

2022 Renewable Energy Standard Compliance Report
Public Service Company of Colorado
Attachment B

2022 Forecasted Renewable Energy Standard Compliance Amounts

Row		71,976	Notes	%
1	Colorado Retail Electric Sales	28,790,273 MWh		100.000%
2	Total RES Requirement	8,637,082 RECs	30% x (1) Colorado Retail Electric Sales	30.000%
3	DG Requirement	863,708 RECs	3% x (1) Colorado Retail Electric Sales	3.000%
4	Retail DG RES Requirement	431,854 RECs	50% x (3) DG Requirement	1.500%
5	Wholesale DG RES Requirement	431,854 RECs	(3) DG Requirement - (4) Retail DG RES Requirement	1.500%
6	Non-DG RES Requirement	7,773,374 RECs	(2) Total RES Requirement - (3) DG Requirement	27.000%

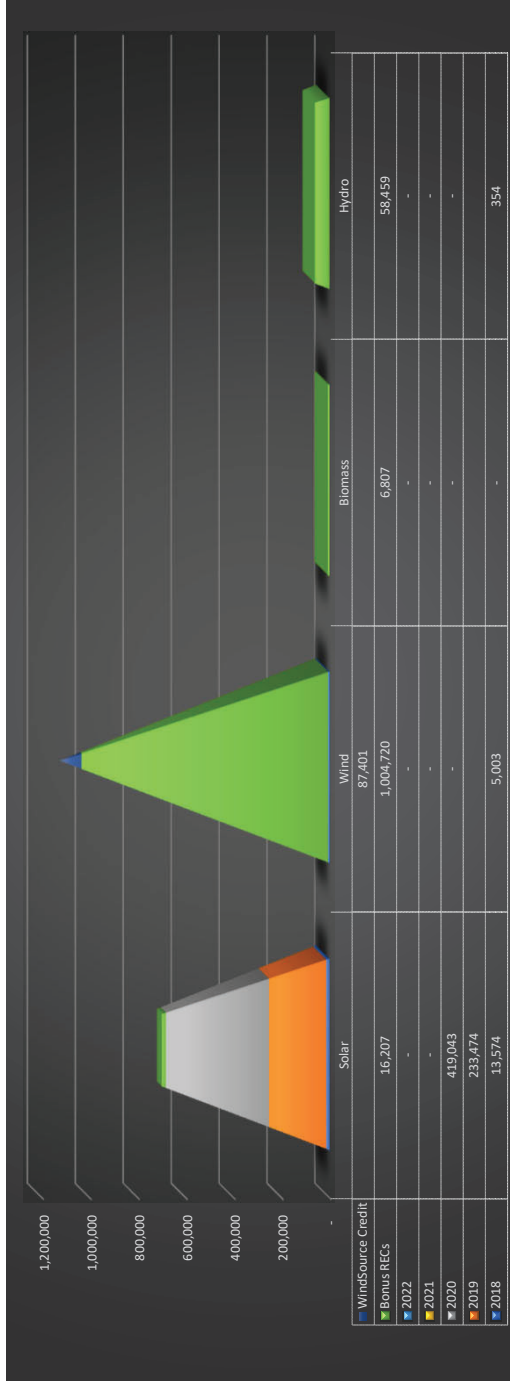
8	Summary Compliance Table	
9	Compliance	8,637,082
10	Windsorsource Credit	(87,401)
11	RECs (Retail DG, Wholesale DG, and Non DG)	(7,463,488)
12		
13		
14	Bonus RECs	(1,086,193)
15	Balance	0

17	Summary Compliance Table Disaggregated	
18	Compliance	8,637,082
19	Windsorsource Credit	(87,401)
20	RECs (Retail DG)	(419,043)
21	RECs (Wholesale DG)	(345,481)
22	RECs (Non DG)	(6,698,964)
23	Bonus RECs	(1,086,193)
24	Balance	0

26	Summary Compliance Table Aggregated	
27	Compliance	8,637,082
28	Windsorsource Credit	(87,401)
29	RECs (Retail DG) + Bonus	(431,856)
30	RECs (Wholesale DG) + Bonus	(431,855)
31	RECs (Non DG) + Bonus	(7,685,970)
32		
33	Balance	0

2022 Renewable Energy Standard Compliance Report
Public Service Company of Colorado
Attachment B

RES Retirements	Vintage	Vintage	Vintage	Vintage	Vintage	Vintage	Bonus	WindSource
Fuel Type	2018	2019	2020	2021	2022	RECs	Credit	Total
Solar	13,574	-	419,043	-	-	16,207	-	448,824
Wind	5,003	6,764,814	-	-	-	1,004,720	87,401	7,861,938
Biomass	-	27,226	-	-	-	6,807	-	34,033
Hydro	354	233,474	-	-	-	58,459	-	292,287
Total	18,931	7,025,514	419,043	-	-	1,086,193	87,401	8,637,082



Certified Renewable Percent Summary

$$CRP = \frac{\left(\text{Wholesale} + \text{NonDG} + \text{Solar} + \text{Rewards} + \text{SR} + \text{Community} \right) - \left(\text{Renewable} + \text{WindSource} + \text{Boulder Transfers} + \text{Wholesale} + \text{REC} + \text{Trade Margin} \right)}{\text{PSCo Retail Sales including SR Community} + \text{Solar Rewards}}$$

CRP	=	$\frac{12,377,989}{29,273,702}$	=	42.3%
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CRP Numerator	12,377,989	RECs retired for RES compliance	8,637,082	Additional RECs to retire for CRP	3,740,907
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Additional RECs to retire for CRP					
Fuel Type Vintage Year	2018	2019	2020	2021	2022
Solar	-	-	-	-	374,091
Wind	-	-	-	-	3,348,117
Biomass	-	-	-	-	3,741
Hydro	-	-	-	-	14,958
Total	-	-	-	-	3,740,907

Attachment C - Renewable Energy Credit Compliance Summary
Public Service Company of Colorado
2022 Renewable Energy Standard Report

[illegible]

Attachment III - Renewable Energy Credit Compliance Summary
Public Service Company of Colorado
2022 Renewable Energy Standard Report

Renewable Resources																							
Column Reference																							
38	39	40	41	42	43	44	45	46	47	48	49	Wholesale DG Hydropower											
												Company-Owned Generation:											
												Wholesale DG bonus is 1.25 for eligible facilities s Dec 31, 2014											
A	B	C	D	E	F	G	H	I	J	K1	K2	L	M	N									
2017-2021 *(1)	2017-2021 *(2)	2022	2022	2022	f=(g-h+c-v+d-e)	g s f (x 25%)	h	i=(f+g+h)															
13,375	-	5,838	6,810	-	19,213	4,803	24,015	4,741	1,185	5,926	1,326	6,628	18,090	14,472									
14,522	608	14,522	6,810	-	21,940	5,485	27,425	5,302	1,326	6,638	1,326	7,409	20,797	16,638									
17,266	(608)	425	17,266	-	17,083	4,271	21,354	5,927	1,482	7,409	1,482	7,409	13,945	11,156									
128	-	1,119	1,119	-	1,247	312	1,559	90	23	113	23	113	1,446	38									
01/01/2009 Maxwell	-	6,374	6,374	-	1,594	1,594	7,969	-	-	-	-	1	7,968	-									
02/01/2009 Sunshine	-	1,119	1,119	-	30,151	7,538	37,689	8,900	2,200	11,000	2,200	12,689	21,351	21,351									
10/01/1987 Dillon Dam	-	6,374	6,374	-	24,285	6,071	30,356	5,088	1,267	6,355	1,267	7,622	13,921	13,921									
06/01/1985 Foothills	-	3,033	3,033	-	37,919	9,480	47,399	18,135	4,534	22,669	4,534	27,203	39,217	39,217									
06/01/1993 Hilcrest	-	6,374	6,374	-	37,919	9,480	47,399	18,135	4,534	22,669	4,534	27,203	39,217	39,217									
01/01/1988 Roberts Tunnel	-	3,033	3,033	-	37,919	9,480	47,399	18,135	4,534	22,669	4,534	27,203	39,217	39,217									
07/01/1986 Strentis Springs	-	28,870	57	-	36,488	9,122	45,610	20,181	2,545	12,726	2,545	15,271	24,730	19,784									
08/01/2007 Gros Reservoir	-	13,125	13,125	-	73,250	18,313	91,563	21,340	5,335	26,675	5,335	32,010	64,888	51,910									
06/27/2015 Ute Hydro	-	1,204	1,204	-	7,163	8,554	8,554	10,767	-	-	-	-	8,554	1,204									
08/01/1931 Redlands	-	5,959	5,959	-	35,315	8,829	44,144	10,767	2,692	13,459	2,692	16,151	30,685	24,548									
01/01/1932 Grand Valley	-	9,856	-	-	9,856	2,464	12,320	4,827	1,207	6,034	1,207	7,241	6,029	5,029									
01/01/1932 Orchard Mesa	-	9,856	-	-	9,856	2,464	12,320	4,827	1,207	6,034	1,207	7,241	6,029	5,029									
01/01/1932 Orchard Mesa	-	9,856	-	-	9,856	2,464	12,320	4,827	1,207	6,034	1,207	7,241	6,029	5,029									
Total Wholesale DG Hydropower																							
531,730	-	127,465	14,958	-	664,217	161,956	805,273	232,287	58,459	292,287	58,459	350,746	512,866	410,389									
531,730	-	127,465	14,958	-	664,217	161,956	805,273	232,287	58,459	292,287	58,459	350,746	512,866	410,389									
1,572,845	-	403,345	18,609	-	1,957,491	489,377	2,446,868	345,481	86,374	431,855	86,374	518,229	1,620,010	1,620,010									
Total Wholesale DG																							
1,572,845	-	403,345	18,609	-	1,957,491	489,377	2,446,868	345,481	86,374	431,855	86,374	518,229	1,620,010	1,620,010									
Meeting Compliance? True																							

Attachment III - Renewable Energy Credit Compliance Summary
Public Service Company of Colorado
2022 Renewable Energy Standard Report

[illegible]

(2) WREGIS adjustments are net of under/over-bonus bonuses attributable to state bonus programs.

(3) A 25% Bonus only applies to **Retail DG** RECs based on purchase transactions entered into on or after 12/31/2014 (i.e. less than or equal to 12/31/2014).

(4) Only Wholesale DG and Non-DG generators with COD < 12/31/2014 (i.e. less than or equal to 12/31/2014).

(5) A 50% Bonus Applies to Community Based Projects per 3654(a).

2022 Renewable Energy Standard Report

Column Reference	Calculation
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Attachment IV - Renewable Energy Credits Acquired/Transferred
Public Service Company of Colorado
2022 Renewable Energy Standard Report

25	Wholesale DG Wind				Nameplate Capacity (MW-ac)	RECs Acquired	City of Boulder Transfers	Wholesale Wind Purchases	Wholesale Allocation	Total RECs Available	Capacity Factor Check
26	Company Owned Generation										
27											
28											
29	Power Purchase w/RECs:										
30	Northern Colorado Wind II				22.50	73,527			11,309	62,218	37%
31	NREL Siemens				2.30	0			0	0	0%
32	Ponnequin I				-	0				0	
33	Ridgecrest				-	60,440				60,440	
34	Total Wholesale DG Wind					133,967	0	0	11,309	122,658	
35											
36	Wholesale DG Biomass				Nameplate Capacity (MW-ac)	RECs Acquired	City of Boulder Transfers	Wholesale Wind Purchases	Wholesale Allocation	Total RECs Available	Capacity Factor Check
37	Power Purchase w/RECs:										
38											
39	75th St Digester				-	0					
40	WM Denver/Aurora Disposal Site				3.28	20,375			1,634	18,741	71%
41	Total Wholesale DG Biomass					20,375	0	0	1,634	18,741	

Attachment IV - Renewable Energy Credits Acquired/Transferred
Public Service Company of Colorado
2022 Renewable Energy Standard Report

Wholesale DG Hydropower		Nameplate Capacity (MW-ac)	RECs Acquired	City of Boulder Transfers	Wholesale Wind Purchases	Wholesale Allocation	Total RECs Available	Capacity Factor Check
Company-Owned Generation:								
42	Ames	2.80	5,761			1,072	4,689	23%
43	Georgetown I	0.70	193			0	193	3%
44	Georgetown II	0.70	63			0	63	1%
45	Salida I	0.65	1,580			0	1,580	28%
46	Salida II	7.20	34,099			0	34,099	54%
47	Shoshone I	7.20	30,921			0	30,921	49%
48	Shoshone II	2.20	0			0	0	0%
49	Tacoma I	2.20	0			0	0	0%
50	Tacoma II	2.20	0			0	0	0%
51								
52								
53	Power Purchase w/RECs:							
54	Betasso	3.00	11,675	5,837		0	5,838	44%
55	Lakewood	3.50	13,621	6,811		0	6,810	44%
56	Silver Lake	3.30	850	425		0	425	3%
57	Dillon Dam	1.80	9,007		7,888	0	1,119	57%
58	Foothills	3.10	6,374			0	6,374	23%
59	Hillcrest	2.00	5,619			0	5,619	32%
60	Roberts Tunnel	5.50	3,033			0	3,033	6%
61	Strontia Springs	1.00	7,618			0	7,618	87%
62	Gross Reservoir	7.80	13,125			0	13,125	19%
63	Redlands	1.40	6,551			592	5,959	53%
64	Grand Valley	1.50	0			0	0	0%
65	Orchard Mesa	1.50	0			0	0	0%
66								
67	Total Wholesale DG Hydropower		150,090	13,073	0	9,552	127,465	
68								
69	Total Wholesale DG		450,858	13,073	0	34,440	403,345	
70								

Attachment IV - Renewable Energy Credits Acquired/Transferred
Public Service Company of Colorado
2022 Renewable Energy Standard Report

71	Non-DG Wind	Nameplate Capacity (MW-ac)	RECs Acquired	City of Boulder Transfers	Wholesale Wind Purchases	Wholesale Allocation	Total RECs Available	Capacity Factor Check
72	Company-Owned Generation:	Rush Creek	600.00	2,252,096		0	2,252,096	43%
73		Cheyenne Ridge	499.00	1,955,767		52,313	1,903,454	45%
74	Power Purchase w/RECs:	Cedar Creek	300.50	654,894		642,745	12,149	25%
75		Cedar Creek II	250.80	377,516		186,376	191,140	17%
76		Bronco Plains	300.00	1,135,006		0	1,135,006	43%
77		Mountain Breeze	171.72	634,419		168,476	465,943	42%
78		Cedar Point	252.00	494,740		39,009	455,731	22%
79	Colorado Creek	Colorado Green	162.00	547,590		0	547,590	39%
80		Footo Creek III						
81	Golden West Power Partners Golden West Power Partners	Golden West	249.40	845,958		0	845,958	39%
82		Limon Wind	200.00	689,987		0	689,987	39%
83	Limon Wind II	Limon Wind III	200.00	600,493		0	600,493	34%
84		Logan	200.60	809,369		0	809,369	46%
85	Northern Colorado Wind I	Peeetz Table	201.00	472,153		0	472,153	27%
86		Spring Canyon	151.80	495,527		0	495,527	37%
87	Twin Buttes	Spring Canyon	199.50	746,508		0	746,508	43%
88		Twin Buttes	60.00	152,755		0	152,755	29%
89	Total Non-DG Wind		75.00	207,134	0	0	207,134	32%
90				13,071,912		1,088,919	11,982,993	

Attachment IV - Renewable Energy Credits Acquired/Transferred
Public Service Company of Colorado
2022 Renewable Energy Standard Report

94	Non-DG Solar	Nameplate Capacity (MW-ac)	RECs Acquired	City of Boulder Transfers	Wholesale Wind Purchases	Wholesale Allocation	Total RECs Available	Capacity Factor Check
95	Solar Star III (Hooper)	50.00	104,381			0	104,381	24%
96	Titan Solar	50.00	109,191			0	109,191	25%
97	Comanche Solar	120.00	231,662			43,126	188,536	22%
	Bighorn Solar	240.00	588,431			41,517	546,914	28%
	Sun Mountain Solar	200.00	79,253			0	79,253	5%
98	Total Non-DG Solar		1,112,918			84,643	1,028,275	
99								
100	Total Non-DG		14,184,830	0	0	1,173,562	13,011,268	
101								
102	Total Renewable Resources							
103								
104	Notes:							
105								
106	(1)							
107								

Retail DG solar capacity presented in DC; all other generators presented in AC

Attachment V - RECs Acquired Compliance Plan vs Report
Public Service Company of Colorado
2022 Renewable Energy Standard Report

Row	Renewable Resources Column Reference Calculation	RECs Acquired		
		2022 RES Compliance Plan*	2022 RES Compliance Report	Percent Difference
		a	b	c (b-a) / a
1	<u>Retail DG Solar Systems</u>	840,671	758,048	-10%
2				
3	<u>Wholesale DG Solar Systems</u>	192,883	146,426	-24%
4				
5	<u>Wholesale DG Wind</u>	135,843	133,967	-1%
6				
7	<u>Wholesale DG Biomass</u>	20,291	20,375	0%
8				
9	<u>Wholesale DG Hydro</u>	191,090	150,090	-21%
10				
11	<u>Non-DG Wind</u>	13,293,151	13,071,912	-2%
12				
13	<u>Non-DG Solar</u>	1,361,674	1,112,918	-18%
14				
15	Total Renewable Resources	16,035,604	15,393,736	-4%

Attachment VI - Certified Renewable Percent
Public Service Company of Colorado
2022 Renewable Energy Standard Report

Row	All values in MWh RECs unless otherwise noted	2022
1	Colorado Sales	
2	Total PSCo Retail Sales	28,790,273
3	Total PSCo Trade Margin Sales	1,046,055
4	Trade Margin Sales as a percent of Total Sales	3.5%
5	RECs Allocated to CO	
6	Solar*Rewards Community (CSG)	271,560
7	Wholesale DG RECs Gen	450,858
8	Non DG RECs Gen	14,184,830
9		14,907,248
10		
11	Small Customer-Owned (<25 kW)	162,020
12	Small Third Party Developer (<25 kW)	114,561
13	Medium 1 (25.01 - 500 kW)	152,563
14	RFP Large	57,344
15	RFP Large (off-grid)	(3,059.00)
16	REC Only	-
17	Solar Rewards Generation	483,429
18		
19	Total CO Renewable Gen	15,390,677
20		
21	Adjustments	
22	Trade Margin Adjustment	539,594
23	Purchased RECs	0
24	Wholesale Transfers: IREA, Yampa Valley, Holy Cross, Grand Valley, and Burlington	1,208,002
25	Wholesale Transfers: Boulder	13,073
26	REC Sales	849,700
27		
28	REC Retirements and Attribution	
29	RES Obligation %	30%
30	RECs retired for RES compliance	8,637,082
31	Renewable*Connect Sales	110,983
32	Windsources Sales	291,336
33		
34	CRP Calculation	
35	CRP Numerator	12,377,989
36		
37	CRP Denominator	29,273,702
38		
39	Certified Renewable Percentage	42.28%
40		
41	Additional RECs to retire for CRP	3,740,907
42		
43		
44		
45	Total PSCo Retail Sales	28,790,273
46	RECs retired for RES compliance	8,637,082
47	Additional RECs to retire for CRP	3,740,907
48	Total RECs retired for RES & CRP	12,377,989
49		
50	RES Compliance%	30.0%
51	Additional % beyond RES	12.3%
52	Certified Renewable Percentage	42.28%

19	Renewable*Connect								Customers	
20	Reason	WREGIS GU ID	Generator Plant-Unit Name	County	State	Fuel Type	Vintage Month	Vintage Year	Certificate Serial Numbers	Quantity
21	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	10	2021	7293-CO-522645-5555 to 7949	2,395.00
22	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	11	2021	7293-CO-530679-1 to 5684	5,684.00
23	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	12	2021	7293-CO-540439-1 to 5270	5,270.00
24	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	1	2022	7293-CO-549044-1 to 5650	5,650.00
25	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	2	2022	7293-CO-557276-1 to 6920	6,920.00
26	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	3	2022	7293-CO-565682-1 to 8914	8,914.00
27	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	4	2022	7293-CO-573813-1 to 9691	9,691.00
28	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	5	2022	7293-CO-582710-1 to 9950	9,950.00
29	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	6	2022	7293-CO-591548-1 to 11702	11,702.00
30	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	7	2022	7293-CO-07-2022-98F8A80B-1 to 12912	12,912.00
31	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	8	2022	7293-CO-08-2022-4BECE8B-1 to 13212	13,212.00
32	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	9	2022	7293-CO-09-2022-BF01D6B8-1 to 10978	10,978.00
33	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	10	2022	7293-CO-10-2022-4CDE68B8-2645 to 8205	5,561.00
34	Voluntary Green Pricing Program	W7293	Titan Solar, LLC - Titan Solar, LLC	Arapahoe	CO	Solar	10	2022	7293-CO-10-2022-4CDE68B8-501 to 2644	2,144.00
	Sum									110,983.00

Delta = \$10,419,100

***Note: Delta = Modeled minus Adjusted Actual

	S * R	Incremental Costs
Pre-2009 - 2017		25,932,570
CEO Low Income Rooftop		724,431
On-site Avoided		(25,973,787)
		<u>\$ 673,214</u>

S*R Community	Incremental Costs
S*RC	4,453,267
S*RC Sub/Unsubscribed	-
	\$ 4,453,267

	Wind
Bronco Plain	14,972,917
Cedar Creek II	34,490,792
Cedar Point Wind, LLC	51,309,101
Mountain Breeze	11,864,204
Golden West	28,045,377
Limon I	27,307,510
Limon II	23,412,627
Limon III	22,966,866
Northern CO Wind II	5,428,139
Northern CO Wind	32,753,858
Colorado Green	(585,765)
Ridge Crest	1,332,128
Springs Canyon Energy, LLC (I)	7,090,019.58
Twin Buttes	12,946,009.50
Preetz Table	\$
Rush Creek/Cheyenne	\$
Ridge (See Attachment F)	\$
Total	177,660,752

*ECA Unlocked & Locked Resources (Tables 7-2(a) & 7-2(b)).

**Includes Wholesale Customer RESA RJA Credit.

II - Internal Information

RES Compliance Report 2022
Attachment E

			2022	2022	2022	2022
Technology	Contract	Generator	Total Cost	RESA Cost	ECA Cost	Renewable* Connect Cost
Hydro	City of Boulder	Betasso/Silverlake	\$ 490,130.63	\$ -	\$ 490,130.63	
Hydro	City of Boulder	Kohler	\$ -	\$ -	\$ -	
Hydro	City of Boulder	Maxwell	\$ -	\$ -	\$ -	
Hydro	City of Boulder	Orodel	\$ -	\$ -	\$ -	
Hydro	City of Boulder	Sunshine	\$ -	\$ -	\$ -	
Hydro	Denver Water Board	Dillon Dam	\$ 354,971.30	\$ -	\$ 354,971.30	
Hydro	Denver Water Board	Foothills	\$ 229,844.76	\$ -	\$ 229,844.76	
Hydro	Denver Water Board	Gross Reservoir	\$ 480,577.08	\$ -	\$ 480,577.08	
Hydro	Denver Water Board	Hillcrest	\$ 210,843.66	\$ -	\$ 210,843.66	
Hydro	Denver Water Board	Roberts Tunnel	\$ 104,039.01	\$ -	\$ 104,039.01	
Hydro	Denver Water Board	Strontia Springs	\$ 294,827.09	\$ -	\$ 294,827.09	
Hydro	Grand Valley Water Users Association	Grand Valley Water Users Association	\$ -	\$ -	\$ -	
Hydro	Orchard Mesa Irrigation District	Orchard Mesa Irrigation District	\$ -	\$ -	\$ -	
Hydro	Redlands Water & Powr Company	Redlands Water & Powr Company	\$ 225,773.89	\$ -	\$ 225,773.89	
Hydro	STS Hydropower, LTD.	STS - Mt. Elbert	\$ -	\$ -	\$ -	
Hydro	Black Hills	Black Hills	\$ 8,724.00	\$ -	\$ 8,724.00	
Hydro	Brush 2	Brush 2	\$ 62,373.01	\$ -	\$ 62,373.01	
Hydro	Ute Hydro	Ute Hydro	\$ -	\$ -	\$ -	
Biomass/LT	WM Renewable Energy, LLC	WM Renewable Energy, LLC	\$ 1,373,308.74	\$ -	\$ 1,373,308.74	
			\$ 3,835,413.17	\$ -	\$ 3,835,413.17	\$ -
Solar	Sunpower	SNDHL	\$ 7,387,089.79	\$ 3,877,334.65	\$ 3,509,755.14	
Solar	Miscellaneous Retail Solar Purchases	Miscellaneous Retail Solar Purchases	\$ (118,162.07)	\$ -	\$ (118,162.07)	
Solar	Solar Gardens subscribed/Unsubscribed	Solar Gardens subscribed/Unsubscribed	\$ 18,776,123.44	\$ 355,487.91	\$ 18,420,635.53	
Solar	Cogentrix of Alamosa	Cogentrix of Ala	\$ 4,095,183.21	\$ -	\$ 4,095,183.21	
Solar	San Luis Solar LLC	San Luis Solar LLC	\$ 10,203,370.62	\$ 4,819,506.11	\$ 5,383,864.51	
Solar	SunEAlamosa	SunEAlamosa	\$ 3,004,210.02	\$ 1,788,146.86	\$ 1,216,063.16	
Solar	EPRI Solar Tac	EPRI Solar Tac	\$ -	\$ -	\$ -	
Solar	Comanche Solar PV, LLC	Comanche Solar PV, LLC	\$ 18,899,667.39	\$ (567,141.48)	\$ 19,466,808.87	
Solar	Solar Star	Solar Star	\$ 7,427,170.09	\$ (640,044.87)	\$ 8,067,214.96	
Solar	Solar Gardens subscribed/Unsubscribed	Solar Gardens subscribed/Unsubscribed	\$ (125,608.15)	\$ -	\$ (125,608.15)	
Solar	Titan Solar, LLC	Titan Solar	\$ 4,162,847.62	\$ -	\$ -	\$ 4,162,847.62
Total Solar			\$ 73,711,891.96	\$ 9,633,289.18	\$ 59,915,755.16	\$ 4,162,847.62
Wind	Alstom Power Inc	Alstom Power Inc	\$ -	\$ -	\$ -	
Wind	Bronco Plain	Bronco Plain	\$ 14,872,917.30	\$ (1,089,102.41)	\$ 15,962,019.71	
Wind	Cedar Creek	CdrCrk	\$ 41,714,320.80	\$ -	\$ 41,714,320.80	
Wind	Cedar Creek II	Cedar Creek II	\$ 34,490,792.16	\$ 9,343,406.94	\$ 25,147,385.22	
Wind	Cedar Point Wind, LLC	Cedar Point Wind, LLC	\$ 51,309,100.79	\$ 11,785,513.37	\$ 39,523,587.42	
Wind	Mountain Breeze	Mountain Breeze	\$ 11,864,203.78	\$ 4,102,253.17	\$ 7,761,950.61	
Wind	Gamesa Wind US, LLC	Gamesa Wind US, LLC	\$ -	\$ -	\$ -	
Wind	Golden West Power Partners	Golden West Power Partners	\$ 28,045,376.80	\$ (9,655,761.91)	\$ 37,701,138.71	
Wind	Limon I	Limon I	\$ 27,307,510.19	\$ (6,305,822.23)	\$ 33,613,332.42	
Wind	Limon II	Limon II	\$ 23,412,626.73	\$ (5,626,366.26)	\$ 29,038,992.99	
Wind	Limon III	Limon III	\$ 22,966,866.36	\$ (12,633,261.99)	\$ 35,600,128.35	
Wind	Logan	Logan	\$ 31,990,037.05	\$ -	\$ 31,990,037.05	
Wind	National Renewable Energy Laboratory	National Renewable Energy Laboratory	\$ -	\$ -	\$ -	
Wind	Northern CO Wind Energy II	NCoWndII	\$ 5,428,138.74	\$ 1,827,294.55	\$ 3,600,844.19	
Wind	Northern Colorado Wind Farm	NCoWnd	\$ 32,753,858.30	\$ 8,946,571.19	\$ 23,807,287.11	
Wind	PacifiCorp	COLOGREEN	\$ (585,765.19)	\$ 1,886,011.95	\$ (2,471,777.14)	
Wind	Peetz Table	Peetz Table	\$ 36,112,504.13	\$ -	\$ 36,112,504.13	
Wind	Ridge Crest Wind Partners, LLC	RIDGECREST	\$ 1,332,128.09	\$ (1,650,485.57)	\$ 2,982,613.66	
Wind	Siemens Energy, Inc.	Siemens Energy, Inc.	\$ -	\$ -	\$ -	
Wind	Spring Canyon Energy LLC (Invenergy)	SprCanWind	\$ 7,090,019.58	\$ -	\$ 7,090,019.58	
Wind	Twin Buttes	TWNBTS	\$ 12,945,609.50	\$ -	\$ 12,945,609.50	
Wind	Transfers for the Trading Book		\$ 119,140.17	\$ -	\$ 119,140.17	
Wind	Owned	Rush Creek / Cheyenne Ridge	\$ (131,684,354.85)	\$ 12,397,158.23	\$ (131,684,354.85)	
			\$ 251,485,030.43	\$ 13,327,409.03	\$ 250,554,779.63	\$ -
Total			\$ 329,032,335.56	\$ 22,960,698.21	\$ 314,305,947.96	\$ 4,162,847.62
Onsite	Avoided Costs		\$ -	\$ (25,973,786.89)	\$ 25,973,786.89	
Total Incremental Costs			\$ 329,032,335.56	\$ (3,013,088.68)	\$ 340,279,734.85	\$ 4,162,847.62
Onsite	Common to All Programs		\$ -	\$ -	\$ -	
Onsite	Customer Sited Solar < 10 kW		\$ 8,787,451.90	\$ 8,787,451.90		
Onsite	Customer Sited Solar >10 kW -500 kW		\$ 10,552,964.61	\$ 10,552,964.61		
Onsite	Customer Sited Solar Large RFP		\$ 6,582,153.75	\$ 6,582,153.75		
Onsite	Small 3rd Party Developer		\$ -	\$ -		
Onsite	Non-Customer Sited Solar		\$ -	\$ -		
Onsite	Wholesale Costs		\$ -	\$ -		
Onsite	Solar Gardens 10-50kW		\$ 4,453,267.31	\$ 4,453,267.31		
Onsite	Solar Gardens 50.01 - 500 kW		\$ -	\$ -		
Onsite	Solar Gardens 500.01 - kW - 2MW		\$ -	\$ -		
Onsite	Low Income Rooftop Solar		\$ 724,430.59	\$ 724,430.59		
Total Other RESA Expense			\$ 31,100,268.16	\$ 31,100,268.16		
				\$ 28,087,179.48	\$ 340,279,734.85	\$ 4,162,847.62

I. INTRODUCTION

In Commission Decision No. C11-1080 approving the Company's 2010 RES Compliance Plan, the Company was directed to provide in its future RES compliance plan reports a comparison between the forecasted and the actual RESA incremental costs of eligible energy resources assessed against the Renewable Energy Standard Adjustment ("RESA") deferred account. The Company was also directed to explain any significant deviations between the Company's modeled and actual RESA incremental costs. This Attachment F is being provided in compliance with this requirement

Two attachments to this report provide the support for this Attachment: Attachments D and E. Attachment D of this report generally presents the differences between the forecasted incremental costs set forth in Table 7-2(a) through (c) in the 2020-21 Plan as filed by Company witness Jack W. Ihle in Direct Testimony, Attachment JWI-2, and the actual RESA incremental costs. Attachment D is a RESA cost view only; it shows the total incremental costs of all eligible energy resources that are charged to the RESA deferred account.

Attachment E of this report shows the total costs of all renewable resources allocated between the ECA and the RESA as required by Decision Nos. R12-0261 and C12-0606.

II. Analysis

The Company performs modeling according to Rule 3661 to determine the amount of costs for eligible energy resources to be allocated between the ECA deferred account and the RESA deferred account.

A. Rule 3661, RESA and ECA Accounting and Monthly RESA Reports

In accordance with Rule 3661, the RESA is only charged the incremental costs of the eligible energy resources on our system installed after July 2, 2006. Rule 3661 details the architecture for how we are to use our computer models to determine the difference in costs between two alternative scenarios of electric resources. The first scenario ("RES Plan") includes the eligible energy resources we propose to acquire. The second scenario (the "No RES Plan") removes the eligible energy resources we propose to acquire and replaces them with those reasonably available non-renewable resources necessary to replace the eligible energy resources so that the Company can meet its capacity and energy requirements. The cost difference between these two model runs equals the incremental costs of the renewable energy we propose to acquire. These incremental costs are allocated to the RESA. The costs calculated as part of the No RES model run are considered "Avoided Energy Costs" and are allocated to the ECA. These costs are considered "avoided" because our acquisition of generation produced from eligible energy resources permits us to avoid, to some extent, acquiring generation from new non-renewable resources, such as additional gas-fired capacity (either combustion

turbine or combined cycle generation), and/or re-dispatching existing resources to satisfy the energy needs of the system.

The process outlined above generally describes the manner in which the costs of energy -- including the incremental costs of eligible energy resources -- are calculated and the accounts to which those costs are ultimately charged. However, the accounting process used to ensure that the proper costs are allocated between the RESA and the ECA is described in detail under the 2020-21 Plan Volume I Section 8 and is incorporated into this Attachment F by reference.

Each month the Company submits to the Commission a “Monthly RESA Report” that is filed under Proceeding No. 06S-016E. The Monthly RESA Report sets forth, among other things, all of the incremental costs for eligible energy resources that are charged to the RESA. These incremental costs charged to the RESA are set forth within the “Summary” tab of the Monthly RESA Report. The monthly “Incremental Costs” of the eligible energy resources acquired under the Solar*Rewards® programs (including Solar*Rewards Community) are set forth under the heading “Expenditure by Type”.

The Solar*Rewards® (including Solar*Rewards Community) portion of the Monthly RESA Report also specifies the total -- not just incremental -- costs of each Solar*Rewards® program by program size. The total costs are the annual REC costs for the entire Solar*Rewards® program. These total costs are set forth in the Monthly RESA Report both in the “Summary” Tab and as detailed in separate Tabs for the small, medium and large programs.

III. Variance Between Forecast and Actual RESA Costs in Attachment D

The below comparisons of forecasted, or modeled, costs to actual costs are based upon the updated costs presented in Attachment JW1-2. The Company believes that a delta of \$1 million or more requires an explanation for reporting purposes. All detailed calculations for resources comparing forecasted costs to actual costs by category are provided in Attachment D.

A. Column A – On-Site Solar Costs

Column A labeled New On-Site Solar Costs reflects a difference in costs of \$10.4 million. This variance is attributable to the steady decline in participation that the Company's Solar*Rewards program and is less than was originally modeled.

B. Column B – Central Solar Costs

Column B labeled New Central Solar Costs reflects a difference in costs of is \$7.6 million. This variance is attributable to modeled production differences amongst the central solar resources as compared to actual costs.

C. Column C – Wind Energy Costs

Column C labeled Wind Energy Costs reflects a difference in costs of \$142.6 million. This variance is largely attributable to the shift of Rush Creek capital revenue requirements from the ECA to base rates. This result leaves the production tax credits generated by Rush Creek to be absorbed by the ECA. The net effect of each of these components results in the \$132 million credit for the ECA as shown in Attachment D. Base rate capital costs are not presented in this attachment.

D. Column E – Total Renewable Energy Costs

The difference for Total Renewable Energy Costs is the result of the differences generated from Columns A through C but predominately from the difference in Wind Energy Costs.

E. Column F – RESA Rider Revenue

Column F labeled RESA Rider Revenue reflects a difference in revenues of nearly \$5.5 million. The variance simply reflects higher sales, and thus higher RESA Revenue, than what was forecasted for 2022.

F. Column H – REC Margins

Column H labeled REC Margins reflect the customers' share of the margins generated from the selling of RECs. The \$5.3 million variance simply reflects the fact that no REC sales were projected for 2022, however, the Company did sell RECs in 2022.

G. Column I – Total RESA Revenue

The difference for Total RESA Revenue of \$10.1 million is the result of the differences generated from Columns F through H and are predominately attributable to the proceeds from REC Margins and the higher actual RESA revenue.

H. Column J – Incremental Costs

The difference of \$1.8 million for Incremental Costs is due to higher forecasted incremental costs for 2022 that were included in the modeling.

I. Column K – Administrative Costs

\$1.2 million. Program administration costs were higher by \$1.2 million than originally modeled. The Company continued to see greater technology and

engineering spending than what was generally anticipated in 2022 to support programming.

j. Column L – Annual Excess or Deficiency

Column L labeled Annual Deficiency reflects the actual and forecasted amounts of the annual deficiency in the RESA balance. The actual annual deficiency in 2022 was \$10.6 million meaning there were more revenues being applied to the account than costs. This is reflected by the difference between Column I - Total RESA Revenues minus Columns J and K (RESA Related Expenditures).

J. Column N – Annual Excess or Deficiency

The total shown on Attachment D reflects the cumulative effect of the actual costs as compared to the forecasted costs along with the interest component which include all associated variances previously described.

K. Column O - Rolling Balance

The Rolling Balance is the culmination of the 2021 year-end RESA balance plus the annual excess or deficiency with interests. The variance is reflective of those described above for Column L.

RES Compliance Report 2022
Attachment G[illegible]

RES Compliance Report 2022
Attachment G[illegible]

SHC083120	2020 Standard Offer	Pivot Energy	Pivot Energy	Pivot Solar 72 LLC	40.349314, -104.739202	La Salle	80645	WELD		598	Step 4: Documents and Contract	500-Submission	N
SHC083121	2020 Standard Offer	Pivot Energy	Pivot Energy	Pivot Solar 73 LLC	40.320888, -104.734361	La Salle	80645	WELD		602.64	Step 4: Documents and Contract	500-Submission	N
SHC083122	2020 Standard Offer	Sunshare LLC	Sunshare LLC	Stewart Solar LLC	211571 CR 14	Greeley	80631	WELD		597.6	Step 4: Documents and Contract	480-Submission	N
SHC083123	2020 Standard Offer	Pivot Energy	Pivot Energy	Pivot Solar 74 LLC	182401m DP	Stearling	80751	LOGAN		675	Step 4: Documents and Contract	500-Submission	N
SHC083124	2020 Standard Offer	Pivot Energy	Pivot Energy	Pivot Solar 75 LLC	182401m DP	Stearling	80751	LOGAN		675	Step 4: Documents and Contract	500-Submission	N
SHC083125	2020 Standard Offer	Pivot Energy	Pivot Energy	Pivot Solar 76 LLC	40.017928, -103.155827	Stearling	80751	LOGAN		603.32	Step 4: Documents and Contract	500-Submission	N
SHC083126	2020 Standard Offer	McKinstry	McKinstry	CCD-C567 Montebello Rec Ctr	155151 E 51st Ave	Denver	80729	DENVER		556.5	Step 4: Documents and Contract	410-Submission	N
SHC083127	2020 Standard Offer	McKinstry	McKinstry	CCD-C568 DINK1	E 114th Ave and Truville St	Denver	80749	DENVER		625.6	Step 4: Documents and Contract	500-Submission	N
SHC083128	2020 Standard Offer	McKinstry	McKinstry	CCD-C5614-MWC M&O	5125 Reed Ct	Denver	80216	DENVER		284.3	Step 4: Documents and Contract	220-Submission	N
SHC083129	2020 Standard Offer	McKinstry	McKinstry	CCD-C564-Lowry Tennis	Sports Blvd and East F Aramount Drive	Denver	80220	DENVER		429.5	Step 4: Documents and Contract	310-Submission	N
SHC083130	2020 Standard Offer	Sunshare LLC	Sunshare LLC	Animal Solar LLC	40.319854, -104.480049	Greeley	80631	WELD		500	Step 4: Documents and Contract	500-Submission	N
SHC083131	2020 Standard Offer	McKinstry	McKinstry	CCD-C56-Central Park Rec Center	9051 E. Martin Luther King Jr. Blvd	Denver	80238	DENVER		655.2	Step 4: Documents and Contract	480-Submission	N
SHC083132	2020 Standard Offer	Pivot Energy	Pivot Energy	Pivot Solar 77 LLC	39.067127, -108.507323	Grand Junction	81504	MESA		581	Step 4: Documents and Contract	500-Submission	N
SHC083133	2020 Standard Offer	McKinstry	McKinstry	CCD-C56-DOTI Resyn Complex	5440 Reslyn St	Denver	80216	DENVER		432	Step 4: Documents and Contract	340-Submission	N
SHC083134	2020 Standard Offer	McKinstry	McKinstry	CCD-C5613-Harvard Gatch Rec Center	550 E. Buff Ave	Denver	80210	DENVER		293.8	Step 4: Documents and Contract	230-Submission	N
SHC083135	2020 Standard Offer	McKinstry	McKinstry	CCD-C5613-MWC CYEC	5002 Rocking Horse Rd	Denver	80216	DENVER		248.3	Step 4: Documents and Contract	210-Submission	N
SHC083136	2020 Standard Offer	McKinstry	McKinstry	CCD-C569-DINK2	E 114th Ave and Truville St	Denver	80749	DENVER		625.6	Step 4: Documents and Contract	500-Submission	N
SHC083137	2020 Standard Offer	Pivot Energy	Pivot Energy	Pivot Solar 78 LLC	40.471956, -104.621814	Greeley	80631	WELD		607.2	Step 4: Documents and Contract	500-Submission	N
SHC083138	2020 Standard Offer	Sunshare LLC	Sunshare LLC	Graze Solar LLC	40.537469, -104.663300	Eston	80631	WELD		597.36	Step 4: Documents and Contract	500-Submission	N
SHC083139	2020 Standard Offer	Sunshare LLC	Sunshare LLC	Mittenhorn Solar LLC	13372 CR 66	Greeley	80631	WELD		573.75	Step 4: Documents and Contract	480-Submission	N
SHC083141	2020 Standard Offer	Sunshare LLC	Sunshare LLC	Monstrum Solar LLC	40.341561, -104.489328	Kenney	80644	WELD		504.8	Step 4: Documents and Contract	390-Submission	N
SHC083243	2020 RFP	Cloudbreak Energy Partners	Green Street Power Partners	Wagner	15751 CR 41	Stearling	80751	LOGAN		6215.3	Step 4: Documents and Contract	9000-Submission	N
SHC083244	2020 RFP	Cloudbreak Energy Partners	Cloudbreak Energy Partners	GBEP Solar 2	21398 CR 64	Greeley	80631	WELD		9772	Step 4: Documents and Contract	2370-Submission	N
SHC083245	2020 RFP	Cloudbreak Energy Partners	Cloudbreak Energy Partners	Krieger Larmer	50213 E CR 48	Fort Collins	80524	LARIMER		2974.53	Step 4: Documents and Contract	2370-Submission	N
SHC083246	2020 RFP	Cloudbreak Energy Partners	Cloudbreak Energy Partners	Platte	11814 CR 46	Milliken	80543	WELD		528.86	Step 4: Documents and Contract	4000-Submission	N
SHC083247	2020 RFP	Cloudbreak Energy Partners	Cloudbreak Energy Partners	Gaffins	92116 COUNTY ROAD 48.5	Johnstown	80314	WELD		630.25	Step 4: Documents and Contract	9000-Submission	N
SHC083248	2020 RFP	Cloudbreak Energy Partners	Cloudbreak Energy Partners	GBEP Solar 6	19144 CR 76	Eston	80615	WELD		6013	Step 4: Documents and Contract	4620-Submission	N
SHC083249	2020 RFP	Cloudbreak Energy Partners	Cloudbreak Energy Partners	GBEP Solar 7	92116 CR 48.3	Johnstown	80524	WELD		6506	Step 4: Documents and Contract	9000-Submission	N

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SHC083596	2020 RFP	US Solar	US Solar	US Grant Plains Solar LLC	22483 E Hargrave Ave	Aurora	80014	ARAPAHOE	64125	Step 3: Engineering 453-Review	N
SHC083597	2020 RFP	US Solar	US Solar	US Cogburn Solar LLC	23831 County Road 66	Greeley	80631	WELD	3120	Step 4: Documents and Contract 2400-Submission	N
SHC083598	2020 RFP	US Solar	US Solar	US Fruita Solar LLC	108 E 19 Road	Fruita	81521	MESA	3088.8	Step 4: Documents and Contract 2150-Submission	N
SHC083599	2020 RFP	US Solar	US Solar	US Auburn Solar LLC	Fern Avenue	Greeley	80631	WELD	6466.5	Step 4: Documents and Contract 4870-Submission	N
SHC083640	2020 RFP	US Solar	US Solar	US Peadar Solar LLC	32536 County Rd 23	Greeley	80550	WELD	6500	Step 4: Documents and Contract 5000-Submission	N
SHC086152	2020 Standard Offer	MidEnergy	MidEnergy	CCD-CDC DPS NE Early College	11200 E 45th Ave	Denver	80239	DENVER	308.9	Step 4: Documents and Contract 240-Submission	N
SHC086705	2020 RFP	Cloudbreak Energy Partners	Cloudbreak Energy Partners	CBP Solar 8	27690 Cl 64	Greeley	80631	WELD	1190	Step 4: Documents and Contract 1000-Submission	N
SHC086766	Company Owned LI Gardens	Xcel Energy	Xcel Energy	Waterton CGI	14680 Co Rd 24	Fort Morgan	80701	MORGAN	5184	Step 4: Documents and Contract 4000-Submission	N
SHC086767	Company Owned LI Gardens	Xcel Energy	Xcel Energy	Waterton CGI	14680 Co Rd 24	Fort Morgan	80701	MORGAN	5184	Step 4: Documents and Contract 4000-Submission	N
SHC086768	2021 RFP	US Solar	US Solar	US South Plains Solar LLC	17938 Co Rd 394	La Salle	80645	WELD	4657.5	Step 3: Engineering 3632-Review	N
SHC086769	2021 RFP	US Solar	US Solar	US High Plains Solar LLC	22483 E Hargrave Ave	Aurora	80013	ARAPAHOE	6507	Step 3: Engineering 5000-Review	N
SHC086770	2021 RFP	US Solar	US Solar	US Engler Solar LLC	5 Gun Club Rd	Aurora	80018	ARAPAHOE	6480	Step 4: Documents and Contract 5000-Submission	N
SHC086771	2021 RFP	US Solar	US Solar	US Calico Solar LLC	5 Gun Club Rd	Aurora	80018	ARAPAHOE	6480	Step 3: Engineering 5000-Review	N
SHC086772	2021 RFP	US Solar	US Solar	US Hargrave Solar LLC	5 Gun Club Rd	Aurora	80018	ARAPAHOE	6500	Step 3: Engineering 5000-Review	N
SHC086773	2021 RFP	US Solar	US Solar	US Tallgrass Solar LLC	5 Gun Club Rd	Aurora	80018	ARAPAHOE	6500	Step 3: Engineering 5000-Review	N
SHC086774	2021 RFP	Pivot Energy	Pivot Energy	Pivot Solar 30 LLC	40 48488B - 304 665641	Greeley	80631	WELD	8005	Step 4: Documents and Contract 5000-Submission	N
SHC086776	2021 RFP	Pivot Energy	Pivot Energy	Pivot Solar 31 LLC	39 111 891 - 308 402419	Clifton	81520	MESA	3002	Step 4: Documents and Contract 2500-Submission	N
SHC086777	2021 RFP	MidEnergy	MidEnergy	Denver Botanic Gardens Chatfield Farms	8500 W Deer Creek Canyon Rd	Littleton	80128	JEFFERSON	1195.70	Step 4: Documents and Contract 940-Submission	N
SHC087080	2021 RFP	US Solar	US Solar	US Camp Creek Solar LLC	County Rd W 40 321085 - 103 513141	Hillrose	80733	MORGAN	4725	Step 3: Engineering 3632-Review	N
SHC087082	2021 RFP	SunShare LLC	SunShare LLC	Jahs Burning Solar LLC	40 311735 - 304 771396	EVANS	80645	WELD	5957	Step 3: Engineering 5000-Review	N
SHC087083	2021 RFP	US Solar	US Solar	US Welch Solar LLC	US-287	Lowland	80537	LARIMER	2738	Step 4: Documents and Contract 1840-Submission	N
SHC087084	2021 RFP	Grid Alternatives / SunShare	SunShare LLC	Dove Solar LLC	40 319796 - 304 886246	Johnstown	80543	WELD	5957	Step 4: Documents and Contract 5000-Submission	N
SHC08726	2021 RFP	Pivot Energy	Pivot Energy	Pivot Solar 72 LLC	40 275292 - 103 631773 Branh, CO 80723	Brush	80723	MORGAN	6125	Step 3: Engineering 5000-Review	N
SHC087288	2021 RFP	Pivot	Pivot Energy	Pivot Solar 27 LLC	(40451712 - 103 234619, Sterling, CO 80751	Sterling	80722	LOAN	3091.6	Step 3: Engineering 2500-Review	N
SHC087289	2021 RFP	Pivot	Pivot Energy	Pivot Solar 33 LLC	(40323885 - 104 731831) La Salle, CO 80645	La Salle	80645	WELD	6124.8	Step 3: Engineering 5000-Review	N
SHC087290	2021 RFP	Pivot	Pivot Energy	Pivot Solar 35 LLC	40 364981 - 304 794904 LA SALLE, CO 80645	La Salle	80645	WELD	6124.8	Step 3: Engineering 5000-Review	N
SHC087301	2021 RFP	Pivot	Pivot Energy	Pivot Solar 34 LLC	40 081295 - 105 857483 West, CO 80503	Boulder	80503	BOULDER	6124.8	Step 4: Documents and Contract 5000-Submission	N
SHC087392	2021 RFP	Pivot	Pivot Energy	Pivot Solar 35 LLC	40 327840 - 304 751821	La Salle	80645	WELD	5958	Step 4: Documents and Contract 4250-Submission	N
SHC087442	2020 RFP	Cloudbreak Energy Partners	Cloudbreak Energy Partners	CBP Solar 5 Sand Creek Unit 2	40 447225 - 304 662711	Greeley	80631	WELD	2177	Step 3: Engineering 1632-Review	N

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SKC088500	2020 RFP Provisional	SunShare LLC	SunShare LLC	Provisional Lincoln Solar LLC	39 463114, 304 716489	Aurora	80018	ARAP-AHDE	6167 34	Step 3: Engineering 5000 Review	N
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Solar Garden ID	SRC Producer / Garden Operator: Account Name	Garden Name	REC Payment per kWh	Garden Street	Name Plate Capacity (kW DC)	AC Active Power Nameplate Rating (kW)	Garden City	Garden State	Permission to Operate Date	Vintage Program
SRC068682	Mtn Solar 6 LLC	Mtn Solar 6 LLC	-0.00001	12050 Hwy 61 Unit-C	1997.2	1500	Sterling	CO	3/11/2022	2017 RFP
SRC074897	NSE Camber Solar PS6 LLC	NSE Camber Solar PS6 LLC	-0.005	12298 CR38	1995.8	1500	Platteville	CO	1/31/2022	2019 RFP
SRC074898	Vestal PS1 Solar LLC	Vestal PS1 Solar LLC	-0.0075	5851 Hwy 6 Unit-A	1000	990.125	Parachute	CO	7/19/2022	2019 RFP
SRC074899	Vestal PS2 Solar LLC	Vestal PS2 Solar LLC	-0.0025	18470-A County Road 26	2000	1500	Brush	CO	11/29/2022	2019 RFP
SRC074906	Vestal PS3 Solar LLC	Vestal PS3 Solar LLC	-0.0025	5851 Hwy 6 Unit-B	2000	1991.375	Parachute	CO	7/19/2022	2019 RFP
SRC074909	Vestal PS4 Solar LLC	Vestal PS4 Solar LLC	-0.0025	15757 CR 31	2000	1999.75	Platteville	CO	7/19/2022	2019 RFP
SRC074910	NSE Camber Solar PS5 LLC	NSE Camber Solar PS5 LLC	-0.0025	11489 CR36	2000	1500	Platteville	CO	1/31/2022	2019 RFP
SRC074911	Vestal PS7 Solar LLC	Vestal PS7 Solar LLC	-0.0025	7585 W Centennial Pkwy	1994.4	1990.875	RIFLE	CO	7/19/2022	2019 RFP
SRC074912	Vestal PS8 Solar LLC	Vestal PS8 Solar LLC	-0.0025	16564 CR 31	2000	1999.75	Platteville	CO	7/19/2022	2019 RFP
SRC075014	NSE Camber Solar PS11 LLC	NSE Camber Solar PS11 LLC	-0.0075	12050 Hwy 61 Unit-A	1999.82	1500	Sterling	CO	3/11/2022	2019 RFP
SRC075015	NSE Camber Solar PS12 LLC	NSE Camber Solar PS12 LLC	-0.006	12050 Hwy 61 Unit-B	999.82	720	Sterling	CO	3/11/2022	2019 RFP
SRC075016	NSE Camber Solar PS13 LLC	NSE Camber Solar PS13 LLC	-0.0025	12266 Hwy 61	2000	1500	Sterling	CO	1/31/2022	2019 RFP
SRC075022	Unit County Road 8320 LLC	Long's Peak North	0	21751 CR 62 Unit SRCD75022	1994.625	1500	Greeley	CO	10/31/2022	2019 RFP
SRC075025	Unit County Road 8320 LLC	Long's Peak South	0	21751 CR 62 Unit SRCD75025	1995	1500	Greeley	CO	10/31/2022	2019 RFP
SRC075335	Vestal PS14 Solar LLC	Vestal PS14 Solar LLC	0.00025	18470-B County Road 26	2000	1500	Brush	CO	11/29/2022	2019 LI RFP
SRC080205	Vestal PS15 Solar LLC	Vestal PS15 Solar LLC	-0.0075	18470-C County Road 26	1000	750	Brush	CO	11/29/2022	2019 RFP

Solar Garden ID	SRC Producer / Garden Operator	Name Plate Capacity (kW DC)	AC Active Power Nameplate Rating (kW)	Permission to Operate Date	Total kWh Billed	Subscribed kWh	Unsubscribed kWh	Percentage Subscribed
SRC010496	GC Solar 2, LLC	499.17	400	8/21/2014	827382	821236.92	6145.08	99.26%
SRC010497	Breck Solar 1, LLC	400.075	325	9/27/2013	479908	447514	32394	93.25%
SRC010498	CEC SOLAR #1026, LLC	115.15	90	6/26/2014	173223	168273.9	4949.1	97.14%
SRC010499	Mesa Solar 1, LLC	496.455	400	4/26/2013	147531	143222.06	4308.94	97.08%
SRC010500	Summit Solar 1, LLC	497.97	400	9/27/2013	511356	509700.99	1655.01	99.68%
SRC010502	CEC Solar #1020, LLC	499.515	400	9/27/2013	743168	743168	0	100.00%
SRC010506	Can Solar 1, LLC	498.01	400	11/12/2013	690709	656812.46	33896.54	95.09%
SRC010507	Community Energy Solar, LLC	498.3	400	12/10/2013	741996	741996	0	100.00%
SRC010509	CEC Solar #1037, LLC	499.895	400	6/1/2015	629428	605785.29	23642.71	96.24%
SRC010512	Lafayette Solar LLC	498.3	400	12/12/2013	765571	765571	0	100.00%
SRC011229	Fresh Air Energy VII, LLC	1999.8	1500	10/17/2014	3902270	3902270	0	100.00%
SRC011647	CEC SOLAR #1023, LLC	569.17	420	6/19/2014	248161	234367.07	13793.93	94.44%
SRC011744	Fresh Air Energy VIII, LLC	1999.8	1640	9/29/2014	3447843	3447843	0	100.00%
SRC018661	Arapahoe Community Solar Garden I LLC	499.3	400	7/31/2015	923191	862508.36	60682.64	93.43%
SRC018663	Denver Community Solar Garden I LLC	499.4	416	6/30/2015	943690	910648.5	33041.5	96.50%
SRC018664	Denver Community Solar Garden II LLC	499.4	416	6/30/2015	919550	823200.25	96349.75	89.52%
SRC018665	Adams Community Solar Garden I LLC	497.2	416	7/31/2015	920344	891591.82	28752.18	96.88%
SRC018667	CEC SOLAR #1021, LLC	499.03	400	8/21/2014	724999	716698.9	8300.1	98.86%
SRC018668	CEC SOLAR #1025, LLC	499.9	400	5/29/2015	0	0	0	100.00%
SRC018669	CEC SOLAR #1022, LLC	499.9	400	4/30/2015	399294	399290.01	3.99	100.00%
SRC018672	Adams Community Solar Garden II LLC	497.2	416	7/31/2015	914470	885100.8	29369.2	96.79%
SRC018677	Antonito Solar LLC	500	410.4	11/17/2014	1050203	1050203	0	100.00%
SRC023375	Jeffco Community Solar Gardens LLC	1496.88	1200	5/31/2016	2632586	259779.1	34806.9	98.68%
SRC023376	Adams Community Solar Garden III LLC	1499.4	1200	7/31/2015	2785099	2784363.73	735.27	99.97%
SRC023377	Adams Community Solar Gardens LLC	1496.1	1200	7/31/2015	2731804	2693092.91	38711.09	98.58%
SRC042360	CEC Solar #1119, LLC	1987.2	1500	11/28/2017	4027654	3885800.03	141853.97	96.48%
SRC042361	CEC Solar #1121, LLC	1984.5	1764	12/29/2017	3675826	3675826	0	100.00%
SRC042362	CEC Solar #1122, LLC	1984.5	1764	9/25/2017	3591850	3587985.39	3864.61	99.89%
SRC042364	CEC Solar #1128, LLC	1987.2	1500	10/25/2017	3526588	3526394.04	193.96	99.99%
SRC042365	CEC Solar #1130, LLC	1987.2	1500	12/14/2017	3667359	3667359	0	100.00%
SRC042438	CEC Solar #1133, LLC	1984.5	1500	10/24/2017	3572081	3572081	0	100.00%
SRC042452	Terraform Power	1997.28	1500	3/27/2019	3018646	3018167.48	478.52	99.98%
SRC042454	Terraform Power	1994.85	1500	9/20/2018	3614051	3613628.61	422.39	99.99%
SRC042456	Quincy II Solar Garden LLC	1999.5	1500	5/1/2018	3169717	3169717	0	100.00%
SRC042457	Imboden III Solar LLC	1999.5	1500	4/6/2018	2879542	2879542	0	100.00%
SRC042458	Imboden II Solar LLC	1999.5	1500	4/6/2018	3125279	3116062.54	9216.46	99.71%
SRC042459	Terraform Power	1994.85	1500	8/30/2018	3403531	3403531	0	100.00%
SRC042462	Terraform Power	1994.85	1500	9/1/2018	3183336	3183336	0	100.00%
SRC042463	Terraform Power	1997.28	1500	3/27/2019	3491576	3491576	0	100.00%
SRC042532	San Luis Solar Garden LLC	1500	1200	8/31/2017	3115025	3115025	0	100.00%
SRC050353	Spark CSG 1 LLC	69.02	57.6	1/1/2019	84116	84116	0	100.00%
SRC050354	Stanley CSG 1 LLC	99.45	100	12/7/2018	143548	143548	0	100.00%
SRC050355	DRV Shared Solar 2018-1, LLC	97.5	99.6	12/28/2018	163406	163406	0	100.00%
SRC050356	SRC 050356 LLC	70.72	55.8	1/2/2019	87234	87234	0	100.00%
SRC050357	SRC 050357 LLC	99.45	72	12/7/2018	132658	132466.19	191.81	99.86%
SRC053370	Lafayette Horizon Solar CSG LLC	1995.84	1500	1/31/2019	3567476	3565984.63	1491.37	99.96%
SRC053577	Monte Vista Solar 2 CSG LLC	1995.84	1500	5/12/2020	4143373	4064463.12	78909.88	98.10%
SRC053578	DU CSG 1 LLC	497.25	400	6/24/2019	865684	865684	0	100.00%
SRC053579	Native Suns, LLC Tiny Town	994.5	600	5/9/2019	1748269	1748269	0	100.00%
SRC053581	Mesa CSG 2 LLC	1994.85	1500	5/21/2019	1977524	1977524	0	100.00%
SRC053585	Rock Creek Solar 2 CSG LLC	1995.84	1560	11/6/2020	4032360	4027224.68	5135.32	99.87%
SRC053962	Housing Authority of the City and County of Denver	1996	1500	12/20/2017	3680431	3586254.71	94176.29	97.44%
SRC053963	Oak Leaf Solar XXX LLC	1997.1	1500	12/6/2018	3691611	3691364.13	246.87	99.99%
SRC053964	Oak Leaf Solar XXI LLC	1997.1	1500	12/27/2018	3437637	3437637	0	100.00%
SRC053965	Oak Leaf Solar XXII LLC	1997.1	1500	4/5/2019	3741394	3741394	0	100.00%
SRC053966	Oak Leaf Solar XXIII LLC	1997.1	1500	3/27/2019	3317925	3317925	0	100.00%
SRC053967	Oak Leaf Solar XXIV LLC	1997.1	1500	3/29/2019	3236113	3236113	0	100.00%
SRC053968	Oak Leaf Solar XXV LLC	1997.1	1500	3/29/2019	3091662	3090838.21	823.79	99.97%
SRC053970	Oak Leaf Solar XXVII LLC	1997.1	1500	4/5/2019	3158472	3146499.01	11972.99	99.62%
SRC053971	Oak Leaf Solar XXVIII LLC	1997.1	1500	11/15/2018	3134206	3134206	0	100.00%
SRC053973	Oak Leaf Solar XXVIII LLC	1997.1	1500	5/29/2019	3328313	3328313	0	100.00%
SRC053974	Oak Leaf Solar XXIX LLC	1184	900	2/26/2019	2131210	2131210	0	100.00%
SRC053975	Oak Leaf Solar XXXII LLC	1997.1	1500	3/5/2019	3453828	3451295.4	2532.6	99.93%
SRC053976	Oak Leaf Solar XXXIII LLC	1998	1500	1/2/2020	3875312	3868829.38	6482.62	99.83%
SRC053977	Oak Leaf Solar XXXII LLC	1997.1	1500	12/27/2018	3178076	3176186.07	1889.93	99.94%
SRC054194	Mesa CSG 1 LLC	1993.68	1500	5/21/2019	3712371	3712163.96	207.04	99.99%
SRC054279	Native Suns, LLC Morrison	1000	790	6/11/2020	1347769	1282917.65	64851.35	95.19%
SRC054663	Alden Solar CSG LLC	1995.84	1260	3/25/2020	3411210	3398725.19	12484.81	99.63%
SRC054664	Plattview Solar CSG LLC	1633.96	1260	1/2/2020	3072567	3072567	0	100.00%
SRC055045	Altamora Solar South CSG LLC	1995.84	1560	12/3/2020	3929947	3723843.05	206103.95	94.76%
SRC064202	CO II CSG 1 LLC	1994.85	1500	10/31/2019	3631354	3631354	0	100.00%
SRC064203	CO II CSG 2 LLC	1000	750	6/24/2019	1695644	1695644	0	100.00%
SRC064204	CO II CSG 3 LLC	835.38	600	6/29/2021	1562317	1561195.98	1121.02	99.93%
SRC064251	GRID Alternatives Colorado	97.47	67.5	12/28/2018	153024	153024	0	100.00%
SRC067947	Mtn Solar 1 LLC	1994.85	1500	8/30/2019	2859522	2859242.21	279.79	99.99%
SRC067948	Mtn Solar 2 LLC	1994.85	1500	9/27/2019	3287986	3287802.24	183.76	99.99%
SRC067949	Mtn Solar 3 LLC	2000	1500	12/23/2019	2599453	2599453	0	100.00%
SRC067952	Mtn Solar 4 LLC	2000	1500	11/16/2021	3403218	3361190.07	42027.93	98.77%
SRC067953	Mtn Solar 5 LLC	990.22	750	6/29/2021	1473304	1473300.15	3.85	100.00%
SRC068682	Mtn Solar 6 LLC	1997.2	1500	3/11/2022	3171362	3131048.91	40313.09	98.73%
SRC068857	Oak Leaf Solar 36 LLC	1997.1	1500	6/25/2021	3286809	3263012.5	23796.5	99.28%
SRC068858	Oak Leaf Solar 37 LLC	1997.1	1500	12/30/2020	2948740	2948740	0	100.00%
SRC068869	Oak Leaf Solar 38 LLC	1997.1	1500	6/18/2021	3304436	3304436	0	100.00%
SRC068871	Oak Leaf Solar 39 LLC	1997.1	1500	6/25/2021	3229555	3228587.7	967.3	99.97%
SRC071109	GRID Alternatives Colorado	628.32	480	12/8/2020	906202	906202	0	100.00%
SRC071114	Jack's Solar Garden LLC	1244.88	1000	10/29/2020	2149437	2148784.29	652.71	99.97%
SRC071116	Oak Leaf Solar 44 LLC	1997.1	1500	12/30/2020	3128774	3128774	0	100.00%
SRC074897	NSE Camber Solar PS6 LLC	1995.8	1500	1/31/2022	3612382	3576397.93	35984.07	99.00%
SRC074898	Vestal PS1 Solar LLC	1000	990.125	7/19/2022	683649	648464.79	35184.21	94.85%
SRC074899	Vestal PS2 Solar LLC	2000	1500	11/29/2022	152868	152867.24	0.76	100.00%
SRC074906	Vestal PS3 Solar LLC	2000	1991.375	7/19/2022	1372339	1367228.42	5110.58	99.63%
SRC074909	Vestal PS4 Solar LLC	2000	1999.75	7/18/2022	1184170	1166801.73	17368.27	98.53%
SRC074910	NSE Camber Solar P55 LLC	2000	1500	1/31/2022	3664975	3509894	155081	95.77%
SRC074911	Vestal PS7 Solar LLC	1994.4	1990.875	7/19/2022	1008991	994786.97	14204.03	98.59%
SRC074912	Vestal PS8 Solar LLC	2000	1999.75	7/18/2022	1486980	1480249.02	6730.98	99.55%
SRC075014	NSE Camber Solar PS11 LLC	1999.82	1500	3/11/2022	3139008	3112309.07	26698.93	99.15%
SRC075015	NSE Camber Solar PS12, LLC	999.82	720	3/11/2022	1538026	1529059.7	8966.3	99.42%
SRC075016	NSE Camber Solar PS13 LLC	2000	1500	1/31/2022	3698985	3649697.32	49287.68	98.67%
SRC075020	USI Xcel CSG Venture 1 LLC	1997.28	1500	5/20/2021	3712684	3709491.72	3192.28	99.91%
SRC075021	UXI Xcel CSG Venture 3 LLC	1997.28	1500	9/29/2021	3626560	3292583.23	333976.77	90.79%
SRC075022	UXI County Road 8319 LLC	1994.625	1500	10/31/2022	371772	371772	0	100.00%
SRC075023	UXI Xcel CSG Venture 4 LLC	1997.28	1500	9/29/2021	3743964	3372683.83	371280.17	90.08%
SRC075024	UXI Xcel CSG Venture 2 LLC	1997.28	1500	9/29/2021	3730609	3364584.89	366024.11	90.19%
SRC075025	UXI County Road 8320 LLC	1995	1500	10/31/2022	303670	303670	0	100.00%
SRC075070	Xcel Energy	1995	1500	4/30/2021	2773054	2768652.19	4401.81	99.84%
SRC075071	Xcel Energy	1998	1500	5/28/2021	2906678	2522856.3	383821.7	86.80%
SRC075114	Xcel Energy	1997	1500	6/29/2021	3241903	3222133.78	19769.22	99.39%

RES Compliance Report 2022
Attachment I

SRC075335	Vestal PS14 Solar LLC	2000	1500	11/29/2022	157255	154389.97	2865.03	98.18%
SRC077501	GRID Alternatives Colorado	99.45	75	5/26/2021	149833	112894.88	36938.12	75.35%
SRC080106	Uncompahgre Solar LLC	5002.5	4750	1/21/2021	10420093	10419297.08	795.92	99.99%
SRC080107	LONGS PEAK SOLAR LLC	2181.2	1800	12/20/2021	4388387	4303035.32	85351.68	98.06%
SRC080108	Paula Carr Memorial Community Solar Garden LLC	4805	4000	11/12/2021	9431138	9421333.88	9804.12	99.90%
SRC080205	Vestal PS15 Solar LLC	1000	750	11/29/2022	77299	77299	0	100.00%
TOTAL		172,933			271,559,948	268,382,696	3,177,252	98.83%

CEO Low-income Rooftop Solar Report

Calendar Year 2022 Report

Program Summary

The Low-income Rooftop Solar Program provides rooftop solar systems to low-income clients via Colorado's Weatherization Assistance Program (WAP). WAP has over 45 years of history providing low-income residents (below 60% of the state median income or 200% of the federal poverty level) with energy efficiency retrofits to make their homes less expensive to heat and cool, as well as safer and healthier places to live. In order to provide its low-income residents with even more opportunity to save energy and money, rooftop solar was added to Colorado WAP in 2017, through the Low-income Rooftop Solar Program in partnership with Xcel Energy.

From January 1, 2017 to December 31, 2022, 561 systems have been interconnected. These systems have a total capacity of 1,714.14 kW. See Exhibit 1 for details, below.

Year	Number of Systems Interconnected	Annual Interconnected Capacity (kW)
2017	13	37.21
2018	94	279.14
2019	140	407.25
2020	83	273.09
2021	133	425.91
2022	98	291.56
Total (cumulative)	561	1,714.14

Exhibit 1: Interconnected systems from January 1, 2017 through December 31, 2022

Program Detail

The following detail section provides further information on the 561 systems which have been interconnected as of December 31, 2022.

Details at a Glance

- 561 systems interconnected
- 3.1 kW average system size
- \$9,221 average system cost
- \$2.99 average cost per Watt
- 4,507 kWh average annual energy offset
- \$586 average annual savings (assuming average of \$0.13/kWh rate)

- SIR of 1.58 over 25 year system life

Impact Detail

The 561 systems interconnected have been installed across Colorado from Denver north to Larimer County, south to Conejos County, and west to Mesa County. Without access to solar through this program these WAP clients would not have been able to afford to put rooftop solar on their homes.

Based on production data, the typical system generates approximately 376 kWh per month or 4,507 kWh per year. With an expected electricity rate of \$0.13 per kWh, each system will save the household an average of \$586 per year.

Ownership Detail

The vast majority of the homes, 512 in total, receiving rooftop solar are owned by the WAP client. An additional 49 homes receiving solar are occupied by renters: 29 of these homes are owned by Casas De Rio Grande, a senior housing facility in Del Norte, Colorado; 12 of these homes are owned by the Boulder County Housing Authority, an affordable housing agency within Boulder County government; and 8 of these are owned by Total Concept, a low-income housing non-profit in Salida, Colorado.

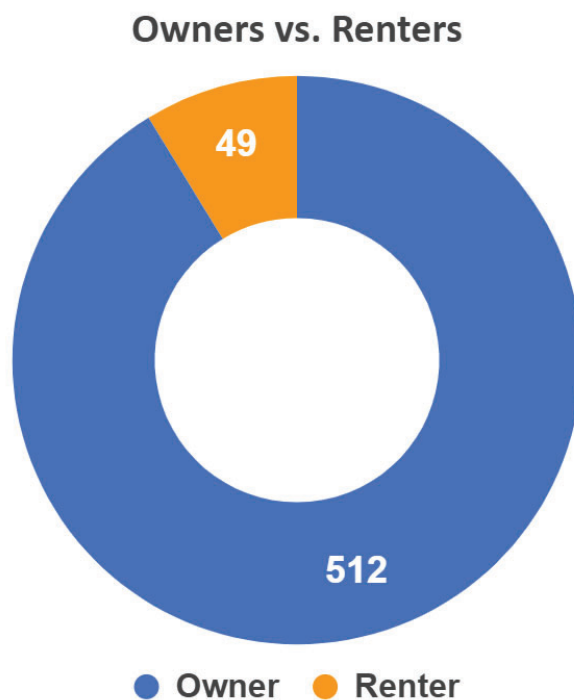


Exhibit 2: Owner and renter distribution of 561 total interconnected rooftop solar homes

Funding Detail

The 561 systems interconnected to date have cost a total of \$5,172,785, based on invoiced amounts. \$3,428,280 has been paid for with RESA funds and \$1,744,505 has been paid for with

WAP funds. This is a 66% to 34% split, respectively. Per system average cost is \$9,221; where \$6,111 was paid with RESA funds and \$3,110 was paid with WAP funds, on average.

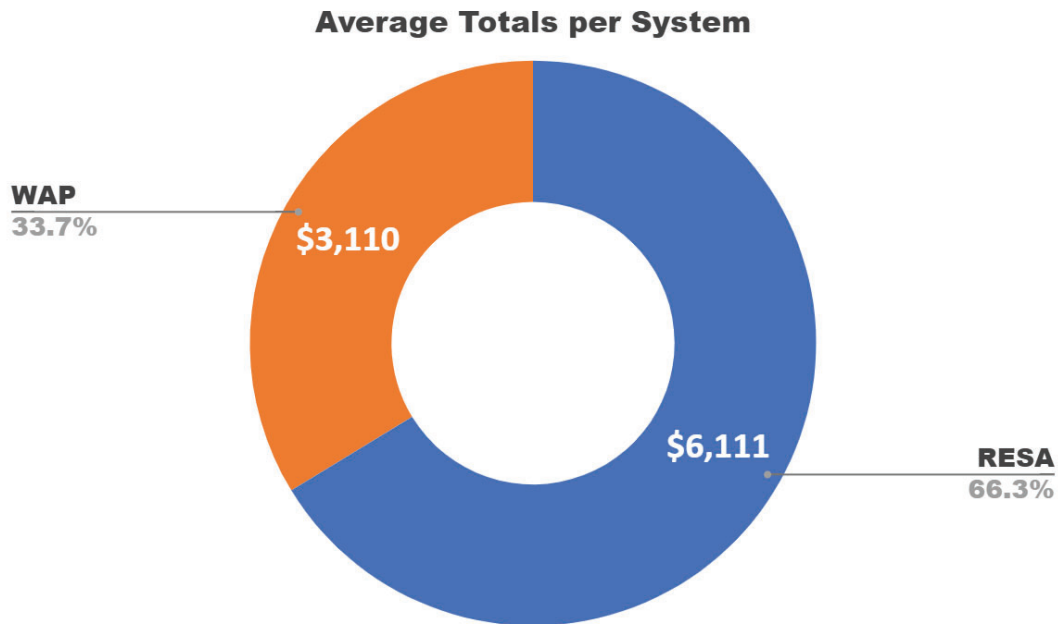


Exhibit 3: Funding distribution of \$9,221 average system cost for 561 interconnected rooftop solar homes

County and Zip Code Detail

County	Systems Interconnected	WAP Eligible Households	Zip Codes Served
Adams	81	52,932	80010, 80011, 80022, 80030, 80031, 80102, 80221, 80229, 80233, 80234, 80241, 80260, 80602
Alamosa	34	3,144	81101, 81144
Arapahoe	80	60,773	80010, 80011, 80012, 80013, 80014, 80015, 80016, 80017, 80018, 80110, 80113, 80120, 80121, 80122, 80128, 80247
Boulder	17	31,914	80027, 80301, 80305
Broomfield	6	3,743	80020
Chaffee	31	2,084	81201
Conejos	24	1,460	81120, 81140, 81141, 81148, 81151
Costilla	2	894	81133, 81152
Denver	116	98,956	80123, 80203, 80204, 80205, 80207, 80209, 80210, 80211, 80215, 80216, 80219, 80220, 80222, 80223, 80227,

May 1, 2023

			80230, 80236, 80239, 80246, 80249
Douglas	1	5,680	80130
Garfield	4	6,545	81623, 81647, 81680
Jefferson	51	45,632	80002, 80003, 80004, 80005, 80021, 80030, 80033, 80123, 80127, 80128, 80201, 80214, 80215, 80226, 80227, 80228, 80232, 80401, 80439, 80465, 80469
Larimer	2	36,403	80549
Mesa	56	20,221	81501, 81503, 81504, 81505, 81506, 81520, 81521, 81526, 81630
Park	1	1,722	80420
Rio Grande	53	1,686	81101, 81132, 81144
Saguache	1	1,446	81136
Summit	1	2,648	80435
Grand Total	561	377,883	

Exhibit 4: Counties and zip codes associated with 561 interconnected rooftop solar homes