

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

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

DIRECT TESTIMONY OF TARA FOWLER

ON

BEHALF OF

PUBLIC SERVICE COMPANY OF COLORADO

June 28, 2019

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GLOSSARY OF ACRONYMS AND DEFINED TERMS

<u>Acronyms/Defined Term</u>	<u>Meaning</u>
2020-21 RES Plan, RE Plan, Plan, or Compliance Plan	Public Service’s 2020-2021 Renewable Energy Compliance Plan
DG	Distributed Generation
MW	Megawatt
MWh	Megawatt hour
No RES Plan	Company’s Plan to acquire only non-renewable resources
Non-DG	Non Distributed Generation
Public Service or Company	Public Service Company of Colorado
PV	Photovoltaic
QRU	Qualified Retail Utility
RE	Renewable Energy
REC	Renewable Energy Credit
RES	Renewable Energy Standard
RES Plan	Renewable Energy Standard Plan
RESA	Renewable Energy Standard Adjustment
Retail DG	Retail Distributed Generation
R*C	Renewable*Connect
WECC	Western Electricity Coordinating Council
Wholesale DG	Wholesale Distributed Generation
WREGIS	Western Renewable Energy Generation Information System

<u>Acronyms/Defined Term</u>	<u>Meaning</u>
Xcel Energy	Xcel Energy Inc.

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1 I. **INTRODUCTION AND PURPOSE OF TESTIMONY**

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

3 A. My name is Tara Fowler. My business address is 1800 Larimer Street, Suite
4 1000 Denver, Colorado 80202.

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

6 A. I am employed by Xcel Energy Services, Inc., a wholly-owned subsidiary of Xcel
7 Energy Inc. which is the parent company of Public Service Company of
8 Colorado. My job title is Renewable Energy Power Purchases Manager,
9 Purchase Power.

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

11 A. I am testifying on behalf of Public Service Company of Colorado (“Public Service”
12 or the “Company”).

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

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

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

4 A. The purpose of my testimony is to support the sections of the Company's 2020-
5 21 Renewable Energy Plan ("RE Plan" or "Plan") relating to Renewable Energy
6 Credits ("RECs"). I am responsible for managing the Company's internal REC
7 Tracking System (utilized for RECs generated from less-than-1-MW solar
8 resources on our system) and the Company's involvement in the Western
9 Renewable Energy Generation Information System ("WREGIS").

10 **Q. WHAT SECTIONS OF THE PUBLIC SERVICE 2020-21 RENEWABLE**
11 **ENERGY COMPLIANCE PLAN DID YOU PREPARE?**

12 A. I prepared Section 4 – Estimates of Existing and Forecasted RECs in Attachment
13 JWI-1 of the Plan, and Tables 4-1 through 4-5 in Attachment JWI-2.

14 **Q. ARE THESE SECTIONS IN COMPLIANCE WITH THE COMMISSION'S**
15 **RENEWABLE ENERGY STANDARD RULES?**

16 A. Yes, these sections are in compliance with the Commission's RES rules.

1 **II. RENEWABLE ENERGY CREDITS**

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

4 A. In this section of my testimony, I summarize the Company’s treatment of RECs
5 to fulfill the RES requirements as presented in this 2020–21 RE Plan.

6 **Q. PLEASE BRIEFLY DESCRIBE TABLE 4-1 IN ATTACHMENT JW1-2?**

7 A. Table 4-1 details the RES requirements by resource type for the years 2019
8 through 2030 showing the quantity of RECs that are required for compliance
9 retirements each year.

10 **Q. CAN YOU LEAD US THROUGH TABLE 4-1 IN GREATER DETAIL?**

11 A. Yes, Table 4-1 Column “Retail Sales (MWhs)” shows the Retail Sales forecast
12 the Company is using in the requirement calculations as provided by Company
13 witness Jannell E. Marks. Rows 16 through 27 contain the percentages applied
14 to the Retail Sales based on the RES requirement each year. Column “RES
15 (Recycled Energy and RECs)” shows the total RES requirement each year and
16 columns “RES DG Requirement”, “Retail DG Minimum”, “Wholesale DG
17 Minimum”, and “Non-DG Requirement” detail the requirements by resource type.

18 **Q. PLEASE BRIEFLY DESCRIBE TABLE 4-2 IN ATTACHMENT JW1-2.**

19 A. Table 4-2 provides information about the RECs and type of RECs Public Service
20 plans to acquire in the 2019 through 2021 Compliance Years and the RECs that
21 Public Service expects to retire to comply with the 2019 through 2021 RES.
22 2019 is being provided as foundation for presenting years 2020-21.

1 **Q. CAN YOU LEAD US THROUGH TABLE 4-2 IN GREATER DETAIL?**

2 A. Certainly. More specifically, Table 4-2 contains by REC type, the amount of
3 RECs the Company expects to have available and anticipates retiring for the
4 years 2019 through 2021 RES compliance.¹ These RECs are provided by fuel
5 type within each REC category. For example, Row 9 presents the subtotal for all
6 eligible Wholesale-DG wind resources and Row 11 presents the subtotal for all
7 eligible Wholesale-DG resources.

8 Column "Renewables Resources" describes the REC category. Column
9 "Capacity (MW)" shows the resource capacity. Column "RECs Carried Forward
10 After RES Compliance" identifies the quantity of RECs that were carried forward.
11 Column "RECs & Recycled Energy Available" identifies the quantity of RECs
12 generated for the various sources. The remaining columns in Table 4-2 detail
13 REC Bonus, REC compliance requirements by resource type, and REC balances
14 without bonus that are carried forward.

15 **Q. WHAT REC BONUSES ARE BEING APPLIED?**

16 A. Commission Rule 3654(g) and (h) provide for bonuses for each kilowatt-hour of
17 eligible energy generated from a resource in Colorado or from a Community-
18 Based project. We typically measure in MWhs, which is 1000 kilowatt-hours. For
19 RES compliance, these rules allow a Qualifying Retail Utility ("QRU") to count an
20 in-state REC as 1.25 RECs or from a Community based project as 1.5 RECs.
21 The in-state bonus for Retail DG included applies only to purchase transactions

¹ 2018 and projected 2019 REC production is included in the plan tables to provide additional detail for the REC production and illustrate how the banked RECs are carried forward for the 2020-21 RE Plan.

1 entered into prior to August 11, 2010. Columns “REC & Recycled Energy Bonus
2 Applied” and “Additional Community REC Bonus Applied” in Table 4-2 reflect
3 these rule provisions.

4 **Q. DID THE PASSAGE OF SB 13-252 AFFECT THE REC BONUS APPLIED?**

5 A. Yes. SB 13-252 allows for a 1.25 REC bonus on all resources, other than retail
6 distributed generation, placed in service prior to January 1, 2015 (i.e. less than or
7 equal to December 31, 2014). We assume that all incremental renewable
8 resources placed in service prior to January 1, 2015, will retain the REC bonus.
9 Consequently, this law affects new energy resources that come online afterward
10 by making them ineligible for the bonus:

- 11 • 120 MW Comanche Solar → COD 09/02/2016
- 12 • 50 MW Solar Star III → COD 12/23/2015
- 13 • 250 MW Golden West Wind → COD 10/12/2015
- 14 • 600 MW Rush Creek → COD 12/07/2018

15 **Q. WHY IS THE COMPANY TRANSFERRING RECS TO OTHER PARTIES?**

16 A. If the wholesale customer agrees to pay the full costs associated with the
17 acquisition of the eligible energy, Commission Rule 3660(l) requires that Public
18 Service transfer RECs to the wholesale customer based on the wholesale
19 customer’s load ratio share of Public Service’s total retail and wholesale energy
20 deliveries. Row 113 of Table 4-3 is for “Total Renewable Resources” and the
21 entitled column “Wholesale REC Allocation” would reflect the Company’s
22 anticipated REC transfer obligations given Rule 3660(l).

1 **III. REC TRACKING**

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

4 A. In this section of my testimony I discuss the Company's method for tracking
5 RECs for compliance with the RES and note the potential implications that the
6 Commission's ongoing Rulemaking Proceeding (Proceeding 19R-0096E) may
7 have on the Company's tracking systems.

8 **Q. PLEASE SUMMARIZE TABLE 4-4.**

9 A. Table 4-4 presents the projected RECs that Public Service expects will be
10 generated by existing resources in each category and resources acquired
11 through the Company's Solar*Rewards® programs and Solar*Rewards
12 Community® programs. Table 4-4 does not show the impact of the carry forward
13 rule. For recycled energy, the Company will utilize a production meter to track
14 the energy produced by customers' recycled energy systems, and for compliance
15 purposes, will equate one megawatt-hour produced to one compliance
16 requirement.

17 **Q. PLEASE SUMMARIZE TABLE 4-5.**

18 A. Table 4-5 presents the projected RECs from our 50 MW Titan Solar facility to
19 supply the Company's Renewable *Connect® program. We plan to retire 100
20 percent of the RECs from the facility on behalf of the customers under the
21 program. The RECs for R*C will be tracked in WREGIS under a custom sub-

1 account which specifically collects all of Titan Solar's RECs. The company will
2 retire Titan Solar's RECs from this particular sub-account.

3 **Q. HOW DOES THE COMPANY TRACK RECS FOR COMPLIANCE?**

4 A. The Company internally tracks RECs generated from less-than-1-MW solar
5 resources on our system. For this purpose, the Company developed a REC
6 Tracking System which became operational in mid-2007. The internal database
7 creates, tracks, and counts all RECs by type of renewable resource, date of
8 generation, identification of the generator, and generation location. The REC
9 Tracking System issues a REC for each megawatt-hour of renewable energy
10 Public Service produces or purchases through power purchase agreements. To
11 ensure RECs are not double counted or retired for multiple purposes, the system
12 assigns a unique serial number to each REC.

13 Similarly, WREGIS assigns unique serial numbers to each REC to protect
14 against double-counting and to increase credibility and consumer confidence. All
15 Non-DG and Wholesale-DG generators are registered in WREGIS and RECs
16 from these generators have been loaded in WREGIS since January 2009. Retail-
17 DG generators greater than 1 MW (large Retail-DG) are registered in WREGIS
18 and RECs from this generation have been loaded in WREGIS since Nov 2010.

19 The REC Tracking System was designed to ensure compatibility with
20 WREGIS, and was reconciled with WREGIS to maintain consistency between the
21 two systems during the transition phase from using the REC Tracking system to

1 using WREGIS for tracking and reporting of all Non-DG, Wholesale-DG and large
2 Retail-DG RECs which are now managed in WREGIS.

3 **Q. WHY ARE NOT ALL RETAIL DG SOLAR RECS TRACKED IN WREGIS?**

4 A. Pursuant to Commission Rule 3659(j), effective December 30, 2010, retail DG
5 generators less than 1 MW are exempt from registration in WREGIS. Therefore,
6 at this time the Company uses the REC Tracker system for retail DG REC
7 tracking under 1 MW.

8 **Q. ARE YOU AWARE OF ANYTHING THAT COULD IMPACT REC TRACKING
9 AS IT CURRENTLY ADMINISTERED?**

10 A. Yes. The current Rulemaking Proceeding (Proceeding 19R-0096E) and the
11 recently signed Senate Bill 19-236 could have an impact.

12 **Q. CAN YOU EXPLAIN HOW?**

13 A. For the Rulemaking Proceeding, as presented by the Commission in Decision
14 C19-0197, the proposed rules included the concept of allowing investor-owned
15 utilities to take credit for the production of on-site solar systems where the
16 customers have elected to interconnect outside the Company's Solar*Rewards
17 program.

18 At this time the Company is not entirely clear how it would develop the
19 necessary methods and processes to accomplish this type of tracking along with
20 its normal tracking. The Company along with many other participants in that
21 proceeding provided comments, but it is believed that the concept will be further

1 revised as the Rulemaking Proceeding proceeds into its next phase which the
2 Company expects will be later this summer (2019).

3 **Q. COULD REC TRACKING BE IMPACTED BY THE RECENTLY SIGNED**
4 **SENATE BILL 19-236?**

5 A. Yes, it could be. Under 40-2-124(3)(III) it states:

6 The qualifying retail utility shall retire renewable energy
7 credits under Section 40-2-124(1)(d), in the year
8 generated, by an eligible energy resources used to
9 comply with the requirements of this section.

10 The Company believes this issue is one which will be developed further in other
11 venues given it does not affect this 2020-21 RE Plan.

1 **IV. WINDSOURCE® PROGRAM**

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

4 A. In this section of my testimony I detail how the Company proposes to retire RECs
5 associated with the Windsorce® program for the purposes of this 2020–21 RE
6 Plan.

7 **Q. PLEASE DESCRIBE HOW THE COMPANY WILL RETIRE RECS FOR THE**
8 **WINDSOURCE® PROGRAM TO COMPLY WITH THE DECISION IN**
9 **PROCEEDING NO. 13A-0836E?**

10 A. Green-e allows the Company to retire RECs that have a generation date from the
11 last half of the prior year. Once these RECs are retired for Windsorce®, they
12 cannot be used for REC transfers or RES compliance or sold to a third party. The
13 Windsorce® REC retirements are from Non-DG wind sources and are detailed
14 in our RES Compliance Reports.

15 **Q. IS THE WINDSOURCE® PROGRAM THIRD-PARTY CERTIFIED?**

16 A. Yes. Green-e currently certifies the Windsorce® program and the Company will
17 continue to use Green-e Energy to certify its Windsorce® program through
18 2021.

19 **Q. HAS THE COMMISSION PREVIOUSLY APPROVED THE COMPANY TO**
20 **RETIRE SPECIFIC TYPES OF RECS ON BEHALF OF WINDSOURCE®**
21 **CUSTOMERS?**

1 A. Yes. In Decision Nos. R14-0902 and C14-1505, the Commission approved the
2 Company to retire non-DG RECs on behalf of customers. Consistent with that
3 decision, the Company has been retiring only non-DG wind RECs on behalf of
4 customers.

5 **Q. SINCE THE WINDSOURCE® PROGRAM IS SOURCED FROM THE**
6 **COMPANY'S RENEWABLE PORTFOLIO, HOW DOES THE COMPANY**
7 **ACCOUNT FOR THE FACT THAT CUSTOMERS PURCHASING 100**
8 **PERCENT OF THEIR ENERGY FROM WINDSOURCE® ARE PURCHASING**
9 **ENERGY FROM A PORTFOLIO OF RENEWABLE ENERGY REQUIRED FOR**
10 **THE COLORADO RES?**

11 A. The Company's renewable portfolio tracks RECs produced by various sources.
12 Therefore, when submitting RECs for certification through Green-e the Company
13 can provide only RECs associated with non-DG wind to ensure that other
14 compliance RECs are not retired on behalf of Windsource® customers.

15 **Q. HAVE THE WINDSOURCE® CUSTOMERS BEEN NOTIFIED THAT A**
16 **PORTION OF THE RECS ASSOCIATED WITH WINDSOURCE SALES WILL**
17 **BE RETIRED FOR RES COMPLIANCE?**

18 A. Yes. In the Summary of Prices, Terms and Conditions on the Company's
19 website², the Company explains this special retirement provision for 100 percent
20 subscription. There is also an annual notification provided in the Windsource®
21 customer bill that includes the product content label approved by Green-e.

²https://www.xcelenergy.com/programs_and_rebates/residential_programs_and_rebates/renewable_energy_options_residential/windsource_for_residences/windsource_for_residences_-_pricing_terms_and_conditions

1 **V. WESTERN RENEWABLE ENERGY GENERATION INFORMATION**
2 **SYSTEM (WREGIS)**

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

5 A. In this section of my testimony I provide information related to the Company's
6 participation in WREGIS and the process for registering and tracking RECs
7 within this regional system.

8 **Q. CAN YOU PLEASE PROVIDE MORE BACKGROUND ON WREGIS?**

9 A. WREGIS is an independent, renewable energy registry and credit tracking
10 system for electricity generation within the western states, including Colorado.
11 WREGIS was developed through a collaborative effort between the Western
12 Governors Association, the Western Regional Air Partnership and the California
13 Energy Commission. WREGIS is operated by the Western Electricity
14 Coordinating Council, of which Public Service is a member.

15 **Q. IS PARTICIPATION IN WREGIS MANDATORY?**

16 A. Yes. Pursuant to Commission Rule 3659(j), effective December 30, 2010, all
17 renewable energy resources located in the region covered by the Western
18 Electricity Coordinating Council ("WECC") that generate RECs used by the
19 Company for RES compliance are to be registered in WREGIS and the RECs
20 from these resources are to be recorded in WREGIS, with the exception for small
21 retail DG.

1 **Q. ARE THERE COSTS ASSOCIATED WITH PARTICIPATION IN WREGIS?**

2 A. Yes, Public Service will incur costs for participating in WREGIS. WREGIS
3 charges an annual account holder fee of \$125. In addition, WREGIS charges a
4 fee when a renewable energy credit or certificate is issued, transferred, or retired.
5 The WREGIS issuance, transfer, and retiring fee is \$0.005 per certificate. There
6 is also a \$212 monthly fee for being an eTag user. The Company anticipates its
7 2020–2021 expenses associated with participation in WREGIS, net of wholesale
8 costs, will be approximately \$95,000 to \$102,000 each year.

9 **Q. ARE ANY ADDITIONAL REC TRACKING EXPENSES ASSOCIATED WITH**
10 **WREGIS EXPECTED?**

11 A. No.

12 **Q. HOW IS PUBLIC SERVICE PLANNING TO RETIRE RECS FOR COMPLIANCE**
13 **WITH THE RES?**

14 A. For compliance years 2020 - 2021, Public Service plans to retire Non-DG and
15 Wholesale-DG RECs for RES compliance in WREGIS. All generation from
16 Retail-DG systems smaller than 1 MW will continue to be tracked through the
17 Solar*Rewards® system and the RECs will be reported and retired in the REC
18 Tracking System for all vintages.

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

20 A. Yes.

Statement of Qualifications

Tara Fowler

I received a dual bachelor's degree in Management and Marketing from the University of Iowa in 2001 and a Master of Science in Global Energy Management from the University of Colorado in 2015.

I began my professional career with Aquila in 2001 as an Energy Trader. In 2003, I accepted a position as a Transmission Accountant with Xcel Energy and four months later transitioned to an Energy Trader position. In that position, I was responsible for maximizing revenues, reducing Operating Company system costs, and ensuring reliable system operations.

In 2015, I was promoted to my current position as Manager, Renewable Energy Power Purchases, where I manage a team of Purchased Power Analysts, Renewable Portfolio Consultants, and a Contract Analyst. My group is responsible for the negotiation of renewable energy purchases and the administration of over 200 long-term PPAs, totaling in excess of 7,000 megawatts ("MW") of installed capacity from wind, hydro, and photovoltaic ("PV") solar projects. I am also responsible for the overall management of Xcel Energy's Renewable Energy Credits portfolio including managing all activities to meet corporate compliance objectives for Renewable Energy Portfolio Standards for each state jurisdiction.

In September 2018 I testified on behalf of the Company's Texas and New Mexico operating Company, Southwestern Public Service Company, for the authorization to establish the voluntary Solar*Connect Community Program and to enter into a

Purchased Power Agreement for the Purchase of 1.98 MW of nominal capacity and associated energy for Solar*Connect.