DIRECT TESTIMONY OF
KEVIN PRATT
ON BEHALF OF
BLACK HILLS/COLORADO ELECTRIC UTILITY COMPANY, LP

June 3, 2016
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DIRECT TESTIMONY OF KEVIN PRATT

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
A. My name is Kevin Pratt. My business address is 105 S. Victoria Ave., Pueblo, Colorado 81003.

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

Q. BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND AND BUSINESS BACKGROUND.
A. My educational background and employment history is attached as Appendix A.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?
A. I am testifying on behalf of Black Hills.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE COMMISSION?
A. Yes.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?
A. The purpose of my testimony is to provide information about the Company’s on-site solar and Community Solar Gardens (“CSG”) programs as they currently exist and as proposed for the 2018-2021 RES Compliance Plan (“RES Plan”).
III. ON-SITE SOLAR

Q. WHAT IS YOUR ROLE IN CONNECTION WITH THE CURRENT ON-SITE SOLAR PROGRAM OFFERED BY BLACK HILLS?

A. I manage the on-site solar incentive program, including the reservation process that facilitates the tracking of capacity reserved, solar systems installed, and associated incentives paid to program participants.

Q. WHEN DID THE BLACK HILLS ON-SITE SOLAR PROGRAM BEGIN, HOW MUCH CAPACITY HAS BEEN INSTALLED, AND HOW MUCH MONEY IN INCENTIVES HAS BEEN PAID OUT IN THE PROGRAM?

A. The program began in 2006 and through March 2016, has resulted in 11.09 MW of on-site solar installations. During that same time period, the program has paid out approximately $31.1M in incentives.

Q. PLEASE DESCRIBE THE CURRENT ON-SITE SOLAR PROGRAM OFFERED BY BLACK HILLS.

A. The current on-site solar incentive program offers production-based incentives (“PBI”) and net-metering. The authorized on-site solar system categories and PBI rates are set forth below:
Table KP-1
Current On-Site Solar Program

<table>
<thead>
<tr>
<th>System Category</th>
<th>Annual Solar Program Maximum kW</th>
<th>PBI Rate (per kWh production over a 10-year period)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small: 0.5 kW up to and including 10 kW</td>
<td>460</td>
<td>$0.05$1</td>
</tr>
<tr>
<td>Medium Tier 1:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.001 kW up to and including 30 kW</td>
<td>345</td>
<td>$0.05</td>
</tr>
<tr>
<td>Medium Tier 2:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.001 kW up to and including 60 kW</td>
<td>245</td>
<td>$0.075</td>
</tr>
<tr>
<td>Medium Tier 3:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60.001 kW up to and including 100 kW</td>
<td>100</td>
<td>$0.075</td>
</tr>
<tr>
<td>Total:</td>
<td>1,150 kW</td>
<td></td>
</tr>
</tbody>
</table>

Black Hills receives all Renewable Energy Credits (“RECs”) associated with these renewable energy systems delivered to Black Hills for 20 years. In addition, pursuant to the settlement agreement attached to Decision No. C15-1279 at ¶ 38, Black Hills has the ability to reallocate available capacity during a calendar year among system categories based on demand.

Q. HOW HAS THE CURRENT ON-SITE SOLAR PROGRAM PERFORMED?

A. Table KP-2 below shows how the on-site solar program performed in 2015 and how it has performed so far in 2016.

---

1 A 5 kW PBI cap applied to the small category was removed effective December 15, 2015 in accordance with Decision No. C15-1279 issued in Proceeding No. 14A-0535E. From January 1, 2015 until that date, the Interim On-Site Solar program, approved in Decision No. C14-1383 in Proceeding No. 14A-0923E, applied the 5 kW PBI cap to small systems.
Table KP-2
On-Site Solar Reservations

<table>
<thead>
<tr>
<th>System Category</th>
<th>Annual Solar Program Maximum kW</th>
<th>2015 Reservations (Under Interim On-Site Solar Program)</th>
<th>2016 Reservations (As of May 19, 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small: 0.5 kW up to and including 10 kW</td>
<td>460</td>
<td>190.46</td>
<td>225.50</td>
</tr>
<tr>
<td>Medium Tier 1: 10.001 kW up to and including 30 kW</td>
<td>345</td>
<td>101.83</td>
<td>177.65</td>
</tr>
<tr>
<td>Medium Tier 2: 30.001 kW up to and including 60 kW</td>
<td>245</td>
<td>39</td>
<td>0</td>
</tr>
<tr>
<td>Medium Tier 3: 60.001 kW up to and including 100 kW</td>
<td>100</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>Total Available/Reserved</td>
<td>1,150</td>
<td>431.29</td>
<td>403.15</td>
</tr>
<tr>
<td>Total Remaining</td>
<td>1,150</td>
<td>718.71</td>
<td>746.85</td>
</tr>
</tbody>
</table>

Q. WHAT IS BLACK HILLS PROPOSING FOR THE 2018 THROUGH 2021 ON-SITE SOLAR PROGRAM?

A. The Company is proposing to:

- resize the on-site solar categories by combining the Small and Medium Tier 1 categories, creating a single Medium Category, and creating a new Large Category;
- increase the annual amount of available capacity from the current 1,150 kW to 1,500 kW; and
• maintain the current incentive levels, including use of the current maximum PBI of $0.075/kWh for the new Large Category.

The proposed on-site solar program is summarized in the table below:

<table>
<thead>
<tr>
<th>System Category</th>
<th>Annual On-Site Solar Program Maximum kW</th>
<th>PBI Rate (per kWh production over a 10-year period)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small: 0.5 kW up to and including 30 kW</td>
<td>600</td>
<td>$0.05</td>
</tr>
<tr>
<td>Medium: 30.001 kW up to and including 100 kW</td>
<td>400</td>
<td>$0.075</td>
</tr>
<tr>
<td>Large: 100.001 kW up to and including 500 kW</td>
<td>500</td>
<td>$0.075</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>1,500 kW</td>
<td></td>
</tr>
</tbody>
</table>

Black Hills is proposing to retain its ability to reallocate available capacity among the system categories. The Company is also proposing that any unreserved capacity available at the end of each calendar year be rolled forward and added to the capacity for the next calendar year for the term of the RES Plan (2018 through 2021).

Q. **WHAT IS THE FINANCIAL IMPACT OF THE PROPOSED 2018-2021 ON-SITE SOLAR PROGRAM?**

A. Under the RES Plan, the cost of the proposed annual level of on-site solar resource additions, if fully subscribed at the proposed level of incentive payments, is approximately $157,950 for each year of the program. Thus, if fully subscribed, the cumulative annual cost of the 2018-2021 on-site solar program after 4 years is approximately $473,850.
Q. WHY IS THE COMPANY PROPOSING CHANGES TO THE ON-SITE SOLAR PROGRAM CATEGORIES?

A. Applications above 10 kW and under 30 kW (the current Medium Tier 1 Category) are typically for the residential market. Since this category has the same incentive level as the Small Category, it makes sense to combine the Small Category and Medium Tier 1 Category. In addition, the maximum available capacity that can be reserved under the current on-site solar program is 100 kW (which is the current Medium Tier 3 Category). Establishing a Large Category of above 100 kW up to and including 500 kW will offer large commercial customers such as large retail stores, incentives to install on-site solar to comply with corporate renewable energy initiatives. Also, commercial customers may be interested in a system above 100 kW in order to realize benefits from economies of scale in terms of installed cost reductions for larger solar systems. Providing a Large Category, as proposed for the 2018-2021 RES Plan, offers more options for the commercial market.

Q. WHY IS THE COMPANY INCREASING THE AMOUNT OF AVAILABLE ON-SITE SOLAR CAPACITY FROM 1,150 KW TO 1,500 KW?

A. Increasing the total annual on-site solar capacity from 1,150 kW to 1,500 kW allows the Company to create a Large Category so the Company has ability to accommodate larger on-site solar installations. In addition, increasing the annual aggregate available on-site solar capacity provides the Company with the ability to (1) back-fill capacity needs in the categories where most of the activity resides.
during a program year (using the requested reallocation flexibility) and (2) have

sufficient capacity to help ensure against shortages, which could cause the on-site

solar program to prematurely close.

Q. WHY IS THE COMPANY PROPOSING TO MAINTAIN THE CURRENT

ON-SITE SOLAR INCENTIVES DURING THE 2018-2021 RES PLAN?

A. Prior to implementation of the interim on-site solar program effective January 1,

2015, the on-site solar incentives were significantly higher, with the Small

Category at $0.1267 per kWh (capped at 5 kW) and all other categories at $0.16

per kWh. As shown in Table KP-2 above, the 2015 Interim On-Site Solar

Program\(^2\) under-performed: 718.71 kW of the allotted 1,150 kW remained

unused. With removal of the 5 kW PBI cap on Small Category systems on

December 15, 2015 and additional financing options provided by the installers as

discussed later in my testimony, the on-site solar program appears to be

recovering, as indicated by increased participation so far this year. However, this

increased participation does not provide adequate support for changing the PBI

levels for the 2018-2021 RES Plan.

In addition, pursuant to Decision No. C15-1279, Black Hills agreed to

initiate a retail distributed generation (“RDG”) stakeholder process, where one of

the goals was to “increase accessibility to and participation in existing RDG

programs”\(^3\) Through the stakeholder and other meetings Black Hills has held this

\(^2\) This program offered the current and much lower incentives, including the 5 kW cap.

\(^3\) Settlement Agreement attached to Decision No. C15-1279 at ¶ 41.
year, which I discuss later in my testimony, majority consensus has been that the current on-site solar incentive levels are adequate and appropriate.

Q. PURSUANT TO DECISION NO. C15-1279, BLACK HILLS INITIATED A RDG STAKEHOLDER PROCESS. WHAT INFORMATION HAS BEEN OBTAINED RELATING TO THE COMPANY’S ON-SITE SOLAR OR OTHER RDG OFFERINGS THROUGH THAT PROCESS?

A. Black Hills held its initial stakeholder meeting with a third-party facilitator on February 25, 2016. Stakeholder participation included representatives from Colorado Solar Energy Industries Association, the Southeast Colorado Renewable Energy Society, the National Renewable Energy Laboratory, Pueblo County, Western Resource Advocates, El Paso Green Energies, and the Sierra Club. Two follow-up meetings with a subset of this group were subsequently held at the Black Hills office on March 29, 2016 and April 28, 2016. RDG-related topics discussed during these meetings include incentive and capacity levels, rolling-over excess capacity, marketing efforts, low income programs, promoting energy efficiency and the RESA balance. While there was a general suggestion that the Company consider battery storage, there have been no other non-solar RDG suggestions.

Through stakeholder meeting feedback and separate meetings with solar installers, the Company has been advised that new solar installation financing and leasing options provided by solar installers for the Pueblo market are helping to increase demand for on-site solar installations. As of May 2016, the total amount
of reserved solar incentive capacity is roughly equivalent to the total amount of
solar incentive capacity reserved during the entirety of 2015.

Majority consensus among these groups, particularly with the solar installers, is that the current on-site solar incentive levels are adequate and appropriate and they should stay the same to keep the market active. The 2015 program year ended with 718.71 kW remaining capacity, indicating that the incentive levels were not set too high. Applications for the on-site solar program have sharply increased in early 2016 demonstrating that the incentives, in addition to financing options made available by installers, are adequate.

Solar installers have expressed some concern that available program capacity could run short. Increasing the program capacity by a modest 350 kW has a small impact to the Renewable Energy Standard Adjustment (“RESA”) account and helps to ensure that the program will have adequate capacity. The capacity increase will also allow creation of a large category for commercial customers seeking incentives for a larger system above 100 kW.

Separately, stakeholder feedback encouraged Black Hills to increase its solar marketing efforts with a goal of making customers of Black Hills more aware of the programs available to them. Suggestions were also made to making on-line tools available to customers so that they can evaluate the benefit of solar. Black Hills is committed to increasing its marketing efforts and to evaluate use of an on-line tool.
IV. COMMUNITY SOLAR GARDENS PROGRAM

Q. WHAT IS YOUR ROLE IN CONNECTION WITH THE BLACK HILLS CSG PROGRAM?

A. My role with the CSG program is to design and administer the program.

Q. WHAT IS THE STATUS OF THE 120 KW CSG THAT BECAME OPERATIONAL IN NOVEMBER 2015?

A. The 120 kW CSG, as of May 2016, is 50 percent subscribed and, currently, all subscribers are residential. 10 kW of the subscriptions are low income.

Q. WHAT CSG OFFERINGS WERE AUTHORIZED BY THE COMMISSION FOR 2015 THROUGH 2017?

A. The CSG program agreed upon by the Settling Parties in Proceeding No. 14A-0535E (“2015-2017 RES Plan”) has two offerings: (1) a standard offer program (“Standard Offer CSG”) and (2) capacity reserved for competitive solicitations (“CSG RFP”). The Standard Offer CSG includes 500 kW of capacity and the CSG RFP includes a maximum of 2 MW of CSG capacity. In aggregate, the Company’s 2015-2017 CSG program allows for the installation of up to 2,500 kW in each of the 2016 and 2017 compliance plan years.4

Pursuant to Rule 3665(d)(I), Black Hills proposed minimum and maximum purchases of renewable energy and RECs from new CSGs. The cumulative CSG programs agreed upon by the settling parties under the 2015-2017 RES Plan, and

4 Through Decision No. C14-1383 issued in Proceeding No. 14A-0923E, Black Hills was authorized to acquire a minimum of 120 kW and maximum of 240 kW of CSG resources in 2015 under the approved interim solar program. On June 5, 2015, the Company filed an Updated 2015-2017 RES Compliance Plan in Proceeding No. 14A-0535E which proposed that it acquire no CSG resources in 2015. The parties to the settlement agreement approved by Decision No. C15-1279 agreed that no CSG resources would be acquired in 2015.
approved by the Commission, are shown in Table KP-4 below. CSG capacity reserved through the Standard Offer or RFP may come online in a subsequent year. This CSG capacity, if subscribed, will be in addition to the 120 kW CSG that came online in 2015.

Table KP-4
2015-2017 CSG Program

<table>
<thead>
<tr>
<th>Compliance Year</th>
<th>Standard Offer CSG</th>
<th>CSG RFP Minimum</th>
<th>CSG RFP Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>0 kW</td>
<td>0 kW</td>
<td>0 kW</td>
</tr>
<tr>
<td>2016</td>
<td>500 kW</td>
<td>0 kW</td>
<td>2 MW</td>
</tr>
<tr>
<td>2017</td>
<td>500 kW</td>
<td>0 kW</td>
<td>2 MW</td>
</tr>
</tbody>
</table>

Q. WHAT IS THE CURRENT STATUS OF THE 2015-2017 BLACK HILLS CSG PROGRAM?

A. The 2015 CSG Standard Offer was launched and awarded for the total offering of 500 kW on April 22, 2016. Development of this CSG is in its preliminary stages. Separately, the CSG RFP program for 2 MW was offered on May 20, 2016 and the Company is awaiting bids to be submitted by July 1, 2016.

Q. WHAT IS BLACK HILLS PROPOSING WITH RESPECT TO A CSG PROGRAM UNDER THE 2018-2021 RES PLAN?

A. With regard to the CSG program, Commission Rule 3665(d)(I) provides that “[f]or compliance years 2014 and thereafter, the Commission shall determine the minimum and maximum purchases of renewable energy and RECs from new CSGs …” Accordingly, Black Hills proposes to offer a Standard Offer CSG and
a CSG RFP for the 2018-2021 RES compliance period. The minimum and
maximum amounts for each of these programs is shown in Table KP-5.

Table KP-5
Proposed 2018-2022 CSG Program

<table>
<thead>
<tr>
<th>Compliance Year</th>
<th>Standard Offer CSG Minimum</th>
<th>Standard Offer CSG Maximum Available Capacity (each Standard Offer CSG is limited to 500 kW)</th>
<th>CSG RFP Minimum</th>
<th>CSG RFP Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>10 kW</td>
<td>1,000 kW</td>
<td>10 kW</td>
<td>1,500 kW</td>
</tr>
<tr>
<td>2019</td>
<td>10 kW</td>
<td>1,000 kW</td>
<td>10 kW</td>
<td>1,500 kW</td>
</tr>
<tr>
<td>2020</td>
<td>10 kW</td>
<td>1,000 kW</td>
<td>10 kW</td>
<td>1,500 kW</td>
</tr>
<tr>
<td>2021</td>
<td>10 kW</td>
<td>1,000 kW</td>
<td>10 kW</td>
<td>1,500 kW</td>
</tr>
</tbody>
</table>

Black Hills projects that the cost of the proposed CSG program resource
additions, if fully subscribed at 2,500 kW, is approximately $615,250 annually.
Thus, if fully subscribed, the cumulative annual cost of the CSG program after
four years is approximately $2,461,000 annually.

Table KP-6
Proposed 2018 – 2021 CSG Program Cost

<table>
<thead>
<tr>
<th>Total Capacity Installed (kW)*</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producing Year</td>
<td>2019</td>
<td>2020</td>
<td>2021</td>
<td>2022</td>
</tr>
<tr>
<td>Total Annual Cost ($)</td>
<td>$615,250</td>
<td>$1,230,500</td>
<td>$1,845,750</td>
<td>$2,461,000</td>
</tr>
</tbody>
</table>

* Assumes all available capacity is installed each year and that the CSG is
installed the year following the available capacity year (i.e. capacity available in
2018 will be installed and producing energy in 2019).
Q. WHAT WILL BLACK HILLS PAY THE CSG OWNER UNDER THE
PROPOSED CSG STANDARD OFFER PROGRAM?

A. The payments differ depending upon whether the energy and RECs involve a
CSG subscriber or not. The payment structure is set forth in the Commission-
approved Community Solar Gardens Agreement. The Company is proposing
clarifying changes to this agreement and related CSG agreements in this
proceeding; however, the payment structure remains the same. In general, it is as
follows:

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Payment Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subscribed Energy</td>
<td>Credit paid to CSG subscribers pursuant to Community Solar Garden Service Tariff</td>
</tr>
<tr>
<td>Subscribed RECs</td>
<td>CSG owner is paid the price of $ [the avoided cost amount in effect at the time the standard offer for the CSG is opened,] per MWh for RECs</td>
</tr>
<tr>
<td>Unsubscribed Energy and RECs</td>
<td>CSG owner is paid at a rate equal to the Company’s average hourly incremental cost of electricity supply over the immediately preceding calendar year pursuant to Rule 3665(c)(V)</td>
</tr>
</tbody>
</table>

Q. WHAT WILL BLACK HILLS PAY THE CSG OWNER UNDER THE
PROPOSED CSG RFP PROGRAM?

A. For CSGs acquired through a RFP solicitation, the Company will accept bids that
are between the avoided cost amount in effect at the time the standard offer for
the CSG is opened and $0.00. The payment structure for bids received and ultimately accepted pursuant to any CSG RFP process is as follows:

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Payment Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subscribed Energy</td>
<td>Credit paid to CSG subscribers pursuant to Community Solar Garden Service Tariff</td>
</tr>
<tr>
<td>Subscribed RECs</td>
<td>CSG owner is paid the price of $ ____[up to the avoided cost amount in effect at the time the CSG RFP is opened, as reflected in the Company’s Tariff No. 8 at Sheet No. R36] per MWh* for RECs**</td>
</tr>
<tr>
<td>Unsubscribed Energy and RECs</td>
<td>CSG owner is paid at a rate equal to the Company’s average hourly incremental cost of electricity supply over the immediately preceding calendar year pursuant to Rule 3665(c)(V)</td>
</tr>
</tbody>
</table>

*Note: This is a cap (currently $29.47/MWh) and CSG owners can propose less than this amount to make an application submitted during the solicitation process more competitive.

**Note: As described above, the Company may accept project bids with differing prices based on whether the subscribed REC involves a low-income subscriber or not, so long as the average aggregate REC price for the project bid is at or below the avoided cost amount in effect at the time the CSG RFP is opened. Black Hills will accept REC prices anywhere from zero dollars up to the avoided cost cap.

Q. WITH RESPECT TO THE CSG RFP, IS THE COMPANY PROPOSING TO GIVE WEIGHT TO BIDS WITH HIGHER THAN REQUIRED LOW INCOME SIZING AND/OR ALLOW ALTERNATIVE BID PRICING BASED ON LOW INCOME SUBSCRIBERS?

A. Yes. This is discussed by Mr. Stoffel in his direct testimony.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.
Appendix A

Statement of Qualifications

Kevin Pratt

I have a Bachelor of Science in Technology degree - Industrial Administration and Sales from Pittsburg State University and a Master of Science in Energy Management from New York Institute of Technology – Old Westbury. I began my utility career in 1994 with Aquila, Inc., as a Commercial Energy Representative, and then moved into a position as a Business Account Executive then into a Principal Account Executive position, serving large volume gas and electric customers. Aquila sold its utilities to Great Plains Energy (“KCP&L”) and Black Hills Corporation in 2008. With the sale of the company I became an employee of KCP&L as an Energy Consultant, focusing on large volume customers.

I left KCP&L and began working for Black Hills in March of 2009 as the Renewable Resources Manager. I have also had responsibilities for large customer account management and tech service sales. My current job title is Program Manager Renewable Energy.

My renewable energy responsibilities are primarily focused on the management, design and implementation of the Black Hills solar programs.