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

Docket No. 10A-805E

IN THE MATTER OF THE APPLICATION OF BLACK HILLS/COLORADO ELECTRIC UTILITY COMPANY, LP, DOING BUSINESS AS BLACK HILLS ENERGY, FOR AN ORDER APPROVING ITS 2011 QUALIFYING RETAIL UTILITY COMPLIANCE PLAN.

#### SETTLEMENT AGREEMENT

Black Hills/Colorado Electric Utility Company, LP ("Black Hills" or the "Company"), Staff of the Colorado Public Utilities Commission ("Staff"), the Colorado Solar Energy Industries Association ("COSEIA"), the Governor's Energy Office ("GEO"), and the Colorado Renewable Energy Society ("CRES"), (all referred to hereafter as the "Settling Parties"), by and through their respective undersigned counsel, and for good and valuable consideration, herewith enter into this Settlement Agreement to resolve all disputed issues that have arisen or could have arisen in this docket between them, regarding the Application for Approval of the Company's 2011 Qualifying Retail Utility Compliance Plan (the "Application"). The Settling Parties submit that this Settlement Agreement results in a fair disposition of all disputed issues between them in this docket and that this Settlement Agreement is just and reasonable. Therefore, the Settling Parties respectfully request that the Colorado Public Utilities Commission ("Commission") approve this Settlement Agreement.

#### I. PROCEDURAL HISTORY

1. On November 5, 2010, Black Hills filed an Application for Approval of its 2011 Qualifying Retail Utility Compliance Plan. Attached to the Application was the Company's 2011

RES Compliance Plan (the "2011 RES Plan") and various appendices. The Plan set forth the Company's proposed plan detailing how Black Hills intended to comply with the Commission's Renewable Energy Standard ("RES") rules during the 2011 Compliance Year. The 2011 RES Plan also detailed the circumstances surrounding Black Hills' temporary suspension of its solar program<sup>1</sup> and its goal to identify a viable option for reopening the solar program in time to be submitted for Commission approval in this docket.<sup>2</sup>

- 2. The Commission issued notice of the Application on November 8, 2010.
- 3. The Staff and the GEO filed timely interventions as of right in this matter. Timely petitions to intervene permissively were granted for COSEIA, CRES, Interwest and Wal-Mart. A petition for late-filed intervention was also granted to CIEA.
- 4. On January 4, 2011, Black Hills filed the Direct Testimonies of Brian G Iverson and Bryan S. Owens in support of the Application.<sup>3</sup>
- 5. In his Prehearing Order, Administrative Law Judge G. Harris Adams ("ALJ Adams") adopted a procedural schedule negotiated by the parties and set the hearing for April 4-6, 2011. (See Decision No. R11-0023-I, mailed January 10, 2011.)
- 6. The temporary suspension of the solar program is the primary focus of this docket. As discussed in Section 1.C. of the 2011 RES Plan, Black Hills temporarily suspended accepting or processing any new solar applications or entering into any other new solar contracts on October 18, 2010. A letter was sent to Mr. Doug Dean, Director, Public Utilities Commission, advising of this temporary suspension. Copies of the letter were sent to Mr. Gene Camp, Mr. Bill Dalton, and Mr. William Levis, Director of the Colorado Office of Consumer Counsel.

<sup>1</sup> See pages 3-5 of the 2011 RES Plan.

<sup>&</sup>lt;sup>2</sup> See page 5 of the 2011 RES Plan.

<sup>&</sup>lt;sup>3</sup> An errata to the Direct Testimony of Brian Iverson was filed on January 24, 2011.

- 7. By the time the Plan was filed, the Company had already met with solar developers, community leaders, the Colorado Solar Energy Industries Association (COSEIA), Solar Electric Power Association (SEPA), the Governor's office and the Governor's Energy Office (GEO) concerning the temporary suspension. In Section 1.C. of the 2011 RES Plan, the Company stated its intention to continue conducting stakeholder meetings to identify and evaluate options that would allow a solar program to be reinstated that is sustainable and approved as prudent by the Commission. The Company strongly encouraged stakeholders to participate in these meetings and stakeholders did so. A summary of the stakeholder meetings is included in the testimony of Company witness Mr. Christopher Burke filed in support of this Settlement Agreement. Additionally, on February 2, 2011, the Company hosted a stakeholder meeting in Pueblo, Colorado, to discuss the issues surrounding the solar program. A second stakeholder meeting was held on February 16, 2011, in Denver, Colorado.
- 8. On February 18, 2011, Answer Testimony was filed by the following parties: Staff<sup>4</sup>, GEO<sup>5</sup>, COSEIA<sup>6</sup> and CRES<sup>7</sup>.
- 9. Subsequently, the parties began to participate in formal settlement negotiations. The parties agreed to request a continuance to allow more time for those negotiations. On March 15, 2011, Black Hills filed a Second Motion to Continue Procedural Schedule, Voluntary Waiver of Statutory Deadline and Waiver of Response Time ("Procedural Motion"). The Procedural Motion sought, in part, to continue the procedural schedule so that Rebuttal and Cross Answer Testimony would be due on April 15, 2011 and so that the administrative hearing in this matter

<sup>&</sup>lt;sup>4</sup> Answer Testimony and Exhibits of William J. Dalton.

<sup>&</sup>lt;sup>5</sup> Answer Testimony and Exhibits of Matt Futch.

<sup>&</sup>lt;sup>6</sup> Answer Testimony of Robert J. Harrington, Jr.

<sup>&</sup>lt;sup>7</sup> Answer Testimony of Tony Frank.

The first Motion to Continue the Procedural Schedule was filed on March 11, 2011. That motion was denied without prejudice in Decision R11-0276-I due to concerns with the statutory waivers sought in that motion.

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would be rescheduled for May 12 and 13, 2011. ALJ Adams granted the Procedural Motion on March 15, 2011, in Decision No. R11-0281-I.

- 10. During the prehearing phase of this docket, all parties have actively exchanged information through formal data requests, informal exchanges of information, and active settlement discussions. All parties were invited to, and many participated in, settlement discussions on March 9<sup>th</sup>, 17<sup>th</sup> and 31<sup>st</sup>, 2011. As a result of the significant time and resources invested in the meetings and negotiations concerning the solar program, the Settling Parties have concluded a settlement of all the disputed issues between all Parties in this docket. An agreement in principle to settle all disputed issues between them in this docket was reached by the Settling Parties on April 4, 2011.
- 11. This Settlement Agreement memorializes the negotiated settlement and stipulations among the Settling Parties. As a result of the settlement negotiations, the Settling Parties agree, as set forth below, that all issues in dispute between them, or that could have been disputed between them, in this docket have been resolved to the satisfaction of the Settling Parties, and that the terms and stipulations in this Settlement Agreement are fair, just and reasonable.
- 12. The Settling Parties will be filing the Settlement Testimonies of Christopher Burke, Vice President of Operations for Black Hills, and Robert J. Harrington, Jr., Policy Director of COSEIA, in support of the Settlement Agreement. These testimonies will be filed on May 5, 2011, in accordance with the procedural schedule established in Decision No. R11-0281-I. On May 5, 2011, the Settling Parties will also file a Draft Interim Order for the ALJ's consideration.

13. The Settling Parties agree that nothing in this Docket or in this Settlement Agreement concerns or affects the pending Application for Approvals in Docket No. 10A-930E concerning a proposed 29.04 MW wind project.

## II. FRAMEWORK FOR THE SETTLEMENT

- 14. The primary focus of this docket. The temporary suspension of Black Hills solar program ("Program") is the primary focus of this docket. Black Hills' prior administration of its Program, numerous issues surrounding the solar industry in the Company's service territory and the future of a Black Hills' Program made-up the majority of the Answer Testimony filed in this proceeding and was the subject of the settlement negotiations.
- 15. Opportunity for detailed analysis. The Commission recently expressed concern in Docket No. 11A-135E, Public Service Company of Colorado's SolarRewards® suspension, that it was not able to "devote more time to examining the issues surrounding the on-site solar market in Colorado and to think about the costs and benefits of retail renewable distributed generation in the context of the Company's plans for longer-term compliance with the RES."9 However, unlike the extremely expedited timeframe in that docket, 10 the Settling Parties to this proceeding have spent approximately six and one-half months working on the issues surrounding the solar market in the Company's service territory and considered the costs and benefits of the retail renewable distributed generation needs for Black Hills' system. The Settling Parties have designed their proposal for resumption of the solar program in light of the events that led to the temporary suspension of the solar program. The Settling Parties have looked at the "big picture" including the total amount of retail distributed generation required by the Company to be in compliance with the Renewable Energy Standard as required in both State Statute and

<sup>&</sup>lt;sup>9</sup> Docket No. 11A-135E, Decision No. C11-0304, p. 10, ¶25.

The Application in the proceeding was filled on February 16, 2011 and the final Commission Order approving the settlement agreement was issued March 21, 2011.

Commission Rules in 2020, the need to balance the RESA account within a reasonable period of time, and the needs of the solar industry, particularly over the next five years (through 2016), for predictability and transparency.

Years. Because the Settling Parties have had the time to do a detailed analysis, this Settlement Agreement includes both (1) a proposal for resumption of the Black Hills' solar program in 2011 for a Commission determination in this docket, and (2) an agreement among the Settlement Parties as to the proposal for the Black Hills' 2012 solar program that Black Hills will include in its 2012 RES Compliance Plan required to be filed by May 1, 2012. The Settling Parties agree not to assert any position contrary to the terms of this Settlement Agreement as it pertains to the 2012 RES Compliance year in the RES Compliance Plan docket required to be filed by May 1, 2012.

While the Settling Parties have looked beyond 2012 in order to design a revised solar program that has an appropriate pace (in terms of new solar retail distributed generation per year) and incentive levels for 2011 and 2012, the Settling Parties recognize that the Company's solar program for 2013 and subsequent compliance years will be determined in future dockets, including the combined 2011 Resource Plan and 2013-2014 RES Compliance Plan required to be filed on October 31, 2011, and the Interim RES Plan required to be filed on October 31, 2013. Therefore, this Settlement Agreement does not cover any RES compliance years other than 2011 and 2012.

17. <u>Model analysis providing the framework for the proposed settlement.</u> The Settling Parties' analysis of subsequent compliance years is, however, presented in this

<sup>&</sup>lt;sup>11</sup> The Settlement Parties recognize that approval of the 2012 RES Compliance Plan cannot be granted in this docket

<sup>12</sup> Decision No. C10-1112

Settlement Agreement to provide a context for the terms of the Settling Parties' agreements regarding the 2011 and 2012 RES compliance years. The Settling Parties believe this Settlement Agreement will allow restart of the retail distributed generation program in the Company's service territory and provide the solar industry market stability through 2016.

Black Hills stated in its 2011 Compliance Plan that its goal was to gain a viable option for reopening the solar program in time to be submitted for Commission approval in this docket or in its 2012 Compliance Plan.<sup>13</sup> Through a coordinated effort between Black Hills and COSEIA, with considerable contribution from additional stakeholders including among others, Staff, GEO, and CRES, the Settling Parties constructed a spreadsheet model (the "Model") covering the compliance years of 2011 through 2029 in order to be able to analyze and evaluate the "big picture" and design a program to meet the following primary objectives:

- 1. To create an opportunity to restart the Black Hills On-Site Solar Rebate Program.
- To create measures that would address and service the RESA (Renewable Energy Standard Adjustment) deficit currently associated with the Program.
- 3. To develop a framework for the financially prudent build-out of the remaining capacity necessary for Black Hills to comply with the Retail Distributed Generation ("RDG") requirements.
- 4. To establish a framework for a continuation of the Program in a manner providing reasonable market stability for Colorado's emerging solar industry in the Black Hills service territory.
- 5. To develop a framework for continuation of the Program in a manner providing transparency to all stakeholders.

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<sup>13</sup> See page 5 of the 2011 RES Plan.

6. To restart and continue the Program in a manner that is on a controlled, measured and transparent acquisition pace. The Settling Parties believe this pace will limit the disruption to the marketplace that pent up demand may create that will lead to premature achievement of capacity targets.

The Model addresses all of the conditions set forth above. The settlement proposal for the 2011 and 2012 RES compliance years is from the 2011 and 2012 years in the Model.

# 18. Proposed change in structure of the Solar Program.

- A. The prior program. The Settling Parties propose a change from the previous structure of the Program. The prior program involved two types of Up-Front Incentives: rebates and renewable energy credit ("REC") payments. Rebates were paid for all systems of 100 kW or less in size. The Company's standard rebate at the time of suspension of the solar program was \$2.00/watt. For small systems (10 kW or less in size), a lump sum REC payment was also paid when the system was completed based on the projected output of the solar system over the next twenty years. The Company's REC payment for these small systems at the time of suspension of the solar program was \$0.50 per watt. REC payments for systems larger than 10 kW up to 100 kW were paid annually over a twenty year period of time based upon the metered output of the solar system. The Company's REC payment offer for these medium systems at the time of suspension of the solar program was \$50.00 per MW hour produced.
- B. Reduction in rebates; elimination of up-front REC payments; addition of PBI payments. The Settling Parties propose a reduction in rebates for small customer-owned systems and for medium sized systems. The Settling Parties also propose eliminating Up-Front REC payments for small customer owned systems and annual REC payments for medium size systems. The Settling Parties propose, instead, the payment of a

Performance Based Incentive ("PBI") amount for all systems based on actual system production of energy (MWh or RECs). In addition, the Settling Parties propose establishing a separate category for small systems owned by third party developers to encourage deployment of Third-Party Financed (TPF) systems in the Company's service territory. Third party developer systems would not be eligible for an upfront rebate but would receive a PBI payment.

The Settling Parties propose that all new solar systems of any size must have a production meter in order to receive production based incentives. The owner or operator of the on-site solar system shall pay the cost of installing the production meter.

PBI payments will be paid annually, sixty days after the end of a calendar year, for the production provided by a system during such calendar year. The RECs and associated PBI payments shall be determined by the specifically metered renewable energy output from the onsite solar system.

19. Equitable distribution of expenditures. Another factor taken into consideration and adequately addressed in the Model is an equitable distribution of expenditures on solar retail distributed generation. The Model assigns 43% of the available installation capacity to the Small category systems (10 kW or less, customer or third-party owned) and 57% of the available installation capacity to the Medium category (systems larger than 10 kW and up to 100 kW), which is reflective of the average RESA collections from residential and commercial customers, respectively, during 2010. This is consistent with § 40-2-124(1)(g)(I)(C), C.R.S. which provides:

As between residential and nonresidential retail distributed generation, the commission shall direct the utility to allocate its expenditures according to the proportion of the utility's revenue derived from each of these customer groups; except that the utility may acquire retail distributed generation at levels that differ from these group allocations based upon market response to the utility's programs.

See also Rule 3655(f).

Ownership of RECs; higher PBI payments but with a shorter payout. The Commission's Rules require that renewable energy credit contracts shall have a minimum term of 20 years if the RECs are from an on-site solar system. Rule 3656(g). Furthermore, as required by the Commission's Rules, contracts will continue to require customers to maintain the on-site solar system so that it remains operational for the term of the contract. Rule 3658(f)(IV). However, rather than establishing PBI payments at a level that would be paid over a twenty year period, the Settling Parties established *higher* PBI payments paid over a *shorter* period of time (108 or 120 months, depending on the category of the system as discussed below). The purpose of this proposal is to assist the solar companies in recouping their investment faster while still ensuring that the RESA account is brought into balance within a reasonable period of time.

In the small system categories (customer owned and third party owned), a system may be as large as 10,000 watts. In the Company's service territory, the average size of the existing small customer systems is 5,800 watts. In order to make the limited amount of RESA dollars available to more customers, under the settlement proposal the maximum number of watts for which incentives will be paid is 6,000 watts. Small systems may continue to be as large as 10,000 watts (but not to exceed 120% of the entrance capacity) but the rebate will be calculated on the basis of 6,000 watts and PBI payments will only be paid for the production from 6,000 watts. The RECs associated with any capacity installed in any solar category which is in excess of the watts for which PBI incentives are made, including installed capacity above 6kW in both the small customer owned and small third party financed categories, shall remain with the owner of the system. The metered production from such systems will be allocated between the Company and the owner of the system on a pro rata basis based on the capacity eligible for PBI payments and the excess capacity not eligible for PBI payments.

Change in structure allows for better management of RESA funds; demand may still exceed available capacity. By lowering the Up-Front Amounts and moving to a longer "termed" incentive, substantial benefit was gained in managing the RESA funds associated with the incentives. This fundamental restructuring is what ultimately addresses the RESA deficit and allows for an immediate restart of the Program, while also allowing for transparent and predictable growth of the industry over the next several years. The Model specifies maximum kilowatts eligible for incentives by system size category and tier beginning in 2011 and for the subsequent years through 2016 when it is estimated that the 2020 RES requirements for RDG will be fulfilled. The model provides a framework for annual increases in the maximum kilowatts eligible for incentives and annual decreases in both Up-Front Incentives and PBI incentives beyond 2012.

The Settling Parties also considered the possibility that upon resumption of the solar program, the available capacity would relatively quickly be tied up with applications in the queue but concluded that efforts to allocate the number of allocations that could be submitted by contractor or similar measures would be anticompetitive. The intent of the proposed settlement is to establish a framework that will result in the installation of solar systems at a measured pace although the Settling Parties acknowledge that there is still a possibility that the demand for incentives in the 2011 and/or 2012 RES compliance years may exceed the available capacity and, if that occurs, the Company will not be able to accept applications in excess of the available capacity for that RES compliance year (other than on a waiting list basis for the current RES Compliance year only as discussed in section 25.f. below) and potential applicants will have to wait for the next compliance year to submit their applications.

- 22. <u>Small Customer Owned Systems.</u> The small customer owned systems category is for systems no larger than 10 kW. This category has been divided into the following two tiers:
  - 1. System size of less than or equal to 3kW, and
  - 2. System size greater than 3kW but less than or equal to 6kW.

The maximum system size for small customer owned systems remains at 10kW (as in the previous program), but the maximum size eligible for Up-Front Incentives and PBI incentives is 6kW. A customer will receive the energy from any installed capacity over 6kW and any net metering benefits from energy generated by the solar system in excess of the customer's needs from time to time but no incentives from the Company for any installed capacity over 6kW. The proposed rebate for the 3 kW system is higher than for small systems greater than 3 kW to encourage customers to consider all energy savings options, including energy efficiency improvements, before deciding on the size of a system to install. For example, a customer whose energy usage would justify a 4.5 kW system might achieve similar or greater benefits from making energy efficiency improvements and then installing a 3 kW system. The PBI incentive for this category is payable for the production of the system for 108 consecutive months. PBI payments are paid annually sixty days after the end of a calendar year, for the production from the system during such calendar year.

23. <u>Small Systems Owned by Third Party Developers.</u> This is a new category to allow for third party financed small systems (up to 10 kW) in the Company's service territory. This category is also divided into the same two tiers as the small customer owned systems category. However, the Settling Parties are not proposing any Up-Front Incentives (i.e., rebates) for these systems. Instead, these systems will receive a higher PBI than the customer owned systems and the PBI will be payable for the annual production of the system for 120 consecutive

months (i.e., for 12 additional months as compared to the customer owned systems). PBI payments are paid annually sixty days after the end of a calendar year, for the production from the system during such calendar year. The purpose of structuring the category in this manner is to allow for greater participation from lower income customers with sufficient credit who might not otherwise have the means for ownership available.

- 24. <u>Medium Sized Systems.</u> The medium system category is for systems larger than 10 kW and up to 100 kW. This category has been divided into the following three tiers:
  - 1. Greater than 10kW but less than or equal to 30kW,
  - 2. Greater than 30kW but less than or equal to 60kW, and
  - 3. Greater than 60kW but less than or equal to 100kW.

These three tiers each have respective Up-Front Incentives and PBI incentives associated with them and incentive levels decrease in the upper tiers simply by reason of economies of scale. The PBI incentives for this category are payable for the production of the system for 108 consecutive months. PBI payments are paid annually sixty days after the end of a calendar year, for the production from the system during such calendar year. The PBI incentive amounts are higher in the medium category to offset the lower upfront rebate level and the effect of the demand billing structure for commercial customers.

25. Annual maximum incentive kW. Specific annual capacity caps were established for each tier in each category and are shown on Exhibit 1. For example, in the 2011 settlement proposal, the annual capacity cap for the small customer owned system 3kW tier is 96,000 watts. This capacity can be any combination of various sized systems provided that each system does not individually exceed 3kW. The capacities associated with this tier are reserved only for systems equal to or under 3kW in size. Similarly, the annual capacity cap for the small

customer owned system larger than 3 kW is 210,000 watts. Capacity in both the small customer owned and small third party financed categories in excess of 6,000 watts will not be counted against the annual maximum incentive kW.

An installation capacity escalator was built into the Model. The Model shows a 20% capacity escalation from 2011 to 2012, as 2011 will be a partial calendar year at the time of restart of the Program. An installation capacity escalator of 11% is projected for subsequent years through 2016 when it is estimated that compliance capacity for retail distributed generation will be reached. This level of predictability and transparency will allow for reasonable market stability and a steady pace for the industry to prudently mature.

The purpose of these annual capacity caps is to allow the Company to add the additional amount of retail distributed generation it needs to meet the 2020 RES requirements at a measured pace while reducing its RESA balance. Although this Settlement Agreement only covers the 2011 and 2012 RES compliance years, if the program is able to continue beyond 2012 as designed by the Model, the Company expects to meet its 2020 retail distributed generation requirements by the end of 2016 and the RESA balance will be positive by 2022. See Exhibit 3 which is a revised Table 4 to the Company's 2011 RES Compliance Plan.

The annual maximum incentive kW by category and tier will be administered as follows:

a. Queue position. The Settling Parties agree that the position of a customer, or third party solar installer, in the Company's application "queue" will be determined in the following manner: Applications must be submitted through the Company's website and will be deemed provisionally submitted as of the electronic time-stamp of that submission. To complete the submission of the application a one-line diagram and deposit check must be **received** by the Company at its Pueblo, Colorado offices by 3:00 p.m. on the fifth calendar day following the

date of submission of the application. If this fifth calendar day falls on a Saturday, Sunday or Federal holiday, then this material must be provided by 3:00 p.m. on the next business day. These materials will be accepted by US Mail or in-person delivery at the Company's offices at 105 S. Victoria Ave, Pueblo, CO, 81003. If the one-line diagram and deposit materials are not received by the Company within this timeframe, the application will automatically be deemed rejected. Satisfaction of these requirements may be evidenced by a signed and dated return receipt for items sent by United States Mail or receipts given to persons submitting the materials in-person at Black Hills offices at the above address. In the event the deposit check is not honored, the application will automatically be deemed rejected.

b. Application deposits; payment of incentives. The Settling Parties believe that an application deposit procedure must be established to prevent queue positions from being tied up by applicants who have not contracted to install a system. The Settling Parties therefore agree that systems which are of a size at or below 5 kW will require a deposit of \$250, and systems which are of a size above 5 kW will require a deposit of \$.05/watt.

In order for an applicant to receive any incentives and a refund of the deposit, (i) a system must be substantially completed (as defined in the rules of the Colorado Public Utilities Commission) within the time required by subparagraph c. below, (ii) the system, including any interconnection facilities, must be inspected and approved by the appropriate governmental authorities having jurisdiction, and (iii) the system must otherwise have been constructed and installed in compliance with all applicable laws, rules and regulations including, but not limited to, C.R.S. §40-2-128 (effective January 1, 2012). Refunds of deposits required by the foregoing sentence will be made at the time a rebate is issued or, for third party systems which are not eligible for a rebate, within a reasonable time after the system is eligible for a refund of the

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deposit. Deposits will not be refunded in any other situation but shall, instead, be credited to the RESA fund.

Substantial Completion. The Settling Parties agree to request a waiver of C. Rule 3658(f)(III).14 Applicants for small systems (Categories 1 and 2) must be able to demonstrate substantial completion (as defined in the Commission's rules) within six months after the application submittal date unless an extension of time is granted by the Company for good cause. Applications for medium systems (Category 3) must be able to demonstrate substantial completion within twelve months after the application submittal date unless an extension of time is granted by the Company for good cause. The purpose of these requirements is to prevent queue positions from being tied up by applicants who may not have decided whether to install a system. Applications which have not demonstrated substantial completion within the required period of time shall expire and shall promptly be removed from the application queue and the capacity credited back to the annual capacity cap. The deposits associated with any expired applications shall be credited to the RESA. "Promptly" as used in this paragraph shall mean no less frequently than in the Company's next reporting period for the RESA funds which at this time is monthly.

d. <u>Notice of status of the Company's queue.</u> The Settling Parties agree that notice of the status of the Company's queue, for all system sizes, should be publicly available for interested persons. Black Hills has learned that its internal processes will not allow changes to its website without 90 days advance notice. Given the need to restart the Program as soon as practical once a Commission Decision on the Application becomes final, the Settling Parties

<sup>&</sup>lt;sup>14</sup> Rule 3658(f)(III) Applicants who are accepted for the SRO rebates shall have one year from the date of contract execution to demonstrate substantial completion of their proposed on-site solar system. Substantial completion means the purchase and installation on the customer's premises of all major system components of the on-site solar system.

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agree that the Company will establish a telephone hotline for the availability of this information until changes to the Company's website can be made. Information on the remaining capacity in each sub-tier will be updated on the telephone hotline each business day.

- e. <u>Capacity counted against the annual installation capacities.</u> Any capacity installed in any solar category that does not receive incentive REC or Rebate payments, including installed capacity above 6kW in both the small customer owned and small third party financed categories, will not be counted against the annual installation capacities.
- f. Capacity remaining in the fourth quarter. In the event that incentive capacity remains in any given tier by the first day of the fourth quarter of a calendar year, a reallocation will be made of the dollar incentives available for that capacity to other tiers in the same category with exhausted incentive capacity and continuing applicant demand or, if none, to another category and tier with exhausted incentive capacity and continuing applicant demand. The Company will maintain a waitlist for up to 10% of the annual capacity for each tier. Customers will be notified that they are on the waitlist and must confirm their intent to remain on the waitlist by December 1 of each year or their place will be forfeited. In the event that additional dollar incentives are added from another tier, the waitlist will be served on a first in first out basis.
- 26. <u>Declining Incentives for Up-Front Incentives and PBI Incentives.</u> A declining rate of incentives in both Up-Front Incentives and PBI Incentives is also represented in the Model and maintains the premise of gradually allowing for a mature industry to operate within the state without a need for subsidization. The PBI declines by a rate of 3% per year while the Up-Front Incentive declines at a rate of 15% per year. These declining rates for incentives help to

prudently manage the available RESA funds and also ultimately contribute to the elimination of the RESA deficit.

There are no Up-Front Incentives or PBI Incentives in the Model for new RDG systems added after 2016. The stakeholders involved in the settlement negotiations and design of the Model explained that federal tax incentives are scheduled to terminate at the end of 2016 and the industry is going to have to be able to survive on its own (i.e., without incentives) by that time. By 2017, even if the Up-Front Incentives and PBI Incentives were continued, but on the declining basis set forth in the Model, these would not be sufficient without tax incentives to sustain the industry. These stakeholders designed the model to stabilize the solar industry in the Black Hills' service territory and give it an opportunity to mature between now and 2017 when it needs to be able to stand on its own in any event. These stakeholders do not characterize the termination of incentives starting in 2017 as a "boom/bust" but rather as the necessary maturing of the solar industry. They explained that the stability and predictability designed into the model prior to 2017 will provide the opportunity for the industry to achieve that maturity.

27. **Results of the Model.** The results of the Model used by the Settling Parties to negotiate this Settlement Agreement are provided in the following exhibits to this Settlement Agreement:

Exhibit 1 Annual Maximum Number of kW eligible for incentives per category by system size

Exhibit 2 Incentives per tier by system size

Exhibit 3 Estimated impact of proposed settlement and future forecast on the RESA balance (updated to reflect Table 4 of the Company's 2012 RES Compliance Plan)

Exhibit 4 Retail distributed generation needed by 2020 including solar retail distributed generation of 8.1 MW and 3 MW of wind retail distributed generation expected to come on-line in 2011 or early 2012

28. <u>The 2011 Settlement Proposal</u>. The Settling Parties propose that the Black Hills solar Program be resumed, upon Commission approval of this Settlement Agreement, at the following capacity caps and incentive amounts per category and tier:

Category 1 – Small Customer Owned 10kW or Less	Tier 1	Maximum Watts Available in 2011 96,000	Maximum incentive size in Watts 3,000	Rebate per watt \$1.00	PBI price per kWh \$0.0945	PBI payment period*  108 months
	Tier 2	210,000	6,000	\$0.75	\$0.0945	108 months
Category 2 – Small Third Party Owned 10 kW or Less	Tier 1	42,000	3,000	\$0.00	\$0.1224	120 months
	Tier 2	60,000	6,000	\$0.00	\$0.1080	120 months
Category 3 – Medium Systems Greater than 10kW and up to 100 kW	Tier 1	270,000	30,000	\$0.25	\$0.2250	108 months
	Tier 2	180,000	60,000	\$0.23	\$0.2160	108 months
	Tier 3	100,000	100,000	\$0.20	\$0.2070	108 months

<sup>\*</sup>Payments are paid annually within 60 days after the end of a calendar year for the production from a system in that calendar year.

29. <u>The 2012 Settlement Proposal.</u> Black Hills agrees to propose the following solar Program for the 2012 RES compliance year:

Category 1 Small Customer Owned 10kW or Less	Tier 1	Maximum Watts Available in 2011 115,000	Maximum incentive size in Watts 3,000	Rebate per watt	PBI price per kWh \$0.0945	PBI payment period*
	Tier 2	252,000	6,000	\$0.75	\$0.0945	108 months
Category 2 – Small Third Party Owned 10 kW or Less	Tier 1	50,000	3,000	\$0.00	\$0.1224	120 months
	Tier 2	72,000	6,000	\$0.00	\$0.1080	120 months
Category 3 – Medium Systems Greater than 10kW and up to 100 kW	Tier 1	324,000	30,000	\$0.25	\$0.2250	108 months
	Tier 2	216,000	60,000	\$0.23	\$0.2160	108 months
	Tier 3	120,000	100,000	\$0.20	\$0.2070	108 months

<sup>\*</sup>Payments are paid annually within 60 days after the end of a calendar year for the production from a system in that calendar year.

## 30. Treatment of Community Solar Gardens

The Settling Parties acknowledge Black Hills has already acquired all of the RECs it needs to meet its retail distributed generation standard requirements through 2015. The Company does not require any RECs to achieve the retail distributed generation standard in years

2011 through 2013. The Settling Parties agree Black Hills is not required to purchase electricity and renewable energy credits generated by community solar gardens in 2011 or 2012.

#### IV. RESOLUTION OF SPECIFIC ISSUES RAISED BY PARTIES

This section of the Settlement Agreement will generally set forth the position of the Parties on each principal issue in dispute and the negotiated resolution of the disputed issue. The summary of the positions of the Parties below is included to provide a context for the resolution of each disputed issue and does not imply that the Parties agree with all of each other's positions on the disputed issues. Rather, each Settling Party has come to its own conclusions as to why it is willing to accept the resolution of the disputed issues as a package.

### 31. Issue: Prudence of Black Hills Administration of its Solar Program

On October 18, 2010, Black Hills made the decision to suspend taking new applications in its solar program. Strong customer participation in the Company's solar program had resulted in greater customer payments for rebates and SO-RECS than Black Hills program revenues being collected through the Renewable Energy Standard Adjustment ("RESA") charge. The Company took several steps to try to keep revenues ahead of costs during the 2009 and 2010 Compliance Years. First, the Company filed Advice Letter No. 623 on June 25, 2009, to increase the RESA surcharge on customer bills to 2%. This became effective on Aug. 1, 2009 by operation of law. Second, pursuant to §40-2-124(1)(g)(III) and Commission Rule 3659(d), the Company reduced its SO-REC offering prices three times between July 1, 2009 (the date the 2010 RES Plan was filed) and the October 18, 2010 (the date the solar program was suspended). The SO-REC reductions however only exacerbated the under-collection issue

<sup>&</sup>lt;sup>16</sup> See page 4 of Black Hill's 2011 Compliance Plan for a detailed table on the date of the reductions and the amount of the reductions.

because the Company experienced an additional increase in applications every time the Company reduced its SO-REC pricing.

Two additional industry factors contributed to the substantial increase in solar applications over this time period. First, the cost of installed solar systems declined significantly making it more cost-effective for customers to install solar. As discussed in the January 13, 2010, notice of Black Hills to the Commission of a reduction in the SO-REC payment, the quoted installed cost of a residential small system had declined to \$6.00/watt installed as compared to \$9.00/watt in 2006. Second, the \$2,000 maximum personal tax credit for solar-electric systems was removed for systems placed in service after 12/31/2008 and customers could thereafter receive a full 30% personal tax credit. Both of these events increased the number of applications received by the Company.

The Company's 2010 RES Compliance Plan was filed on July 1, 2009. The 2010 Plan did not project an undercollection until 2013. However, as a result of the factors discussed above, by the end of 2009, the Company had paid out over \$4,500,000 more than the RESA charge it was collecting. By the time the 2011 RES Plan was filed on November 5, 2010, the undercollection balance was in excess of \$10,000,000 and, due to applications in the one-year queue, it was expected to grow to over \$13,000,000 by the end of 2011. As shown in Table 4 in the 2011 RES Plan, the Company did not expect the RESA balance to get back to zero until sometime in 2016. Accordingly, effective at 6:00 p.m. (MT) on October 18, 2010, the Company temporarily suspended accepting or processing any new solar applications or entering into any other new solar contracts.

<sup>&</sup>lt;sup>17</sup> The Commission previously acknowledged this market change has occurred in Colorado in Docket No. 11A-135E, "We conclude that market conditions have changed as a result of declining solar energy costs..." Decision No C11-0304, p. 10, ¶26.

Answer Testimony questioning Black Hills' administration of its solar program was filed by the Staff, GEO and COSEIA. These parties raised several concerns regarding the size of the Company's RESA deficit as well as how the Company's solar program was designed to react to the solar industry shift which occurred.

Black Hills' position is that the events which lead to the negative balance in its RESA fund and necessitated suspension of the solar program were the result of factors affecting the solar industry as a whole. Black Hills believes it has complied with its 2010 Commissionapproved RES Compliance Plan, that the expenditures associated with the Black Hills solar program to date are consistent with the Commission's prior orders approving the Company's RES Compliance Plans and, therefore, are entitled to a presumption of prudence. 18

**Resolution:** The Settling Parties support a specific finding of the Commission that all of the Company's expenditures made to date on Black Hills' solar program are presumed prudent. The Settling Parties also support a specific finding of the Commission that Black Hills be allowed to advance funds to the RESA (i) as necessary to fulfill its obligations for all timelycompleted<sup>19</sup> solar applications that were in its queue prior to the date of the temporary suspension of its solar program, and (ii) for the additional amounts in rebate payments in 2011 under this Settlement Agreement (estimated at \$382,400.00) and for the production based incentive ("PBI") payments attributable to the systems added in 2011 under this Settlement Agreement (estimated at \$245,323.40 a year for a total of \$2,225,632 over the payout term which is nine years for small customer owned systems and for medium systems; ten years for small systems owned by third party developers).

Under the terms of the Company's solar program prior to suspension, applications must be completed within

twelve months unless an extension of time is granted.

<sup>&</sup>lt;sup>18</sup> The Commission acknowledged that Xcel Energy was entitled to a presumption of prudence as to its expenditures associated with its Solar\*Rewards® program because they were consistent with the Commission's prior orders approving the Company's RES compliance plans. Decision No. C11-0304, Docket 11A-135E.

The Company further agrees to request a Commission finding in every future RES Compliance Plan and Electric Resource Plan ("ERP") where approval is sought in accordance with Section 40-2-124(1)(g)(I)(B), C.R.S., on the specific amount of funds to be advanced from year to year to augment the amount collected from retail customers under the RESA that will be presumed prudent.

The Settling Parties agree that if the Company's actions are consistent with this Settlement Agreement, including the amounts spent under this Settlement Agreement and the acquisition commitments made under this Settlement Agreement, the Settling Parties will recommend that the Commission deem the Company's actions prudent, and no Settling Party shall challenge the prudency of the Company's actions taken in accordance with this Settlement Agreement.

As to the places in this Agreement which discuss the Company's 2012 QRU Compliance Plan, the Settling Parties hereby agree that a coordinated forward-looking Black Hills solar program for both 2011 and 2012 is in the best interest of the Company's customers and the solar industry in the Company's service territory and the Company itself. Therefore, to the extent that the Settling Parties have agreed certain items will be proposed in the 2012 Compliance Plan, Black Hills commits to making those proposals in that future docket. To the extent the other Settling Parties are allowed to intervene in that future docket, those Settling Parties agree to support the prudence of the costs and terms of this Settlement Agreement which will be filed in the 2012 Compliance Plan.

### 32. Issue: Stabilization of Solar Industry and the Company's Program "Queue"

Answer Testimony questioned the design of the Black Hills solar Program and claimed that it should have been designed to automatically respond to the changes in the industry and

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federal tax incentives that lead to the under collection in the RESA fund and the need to suspend the solar program.

Black Hills' position is that the events which lead to the negative balance in its RESA fund and necessitated suspension of the solar program were the result of factors affecting the solar industry as a whole. Black Hills notes that the Xcel Energy Solar Rewards program, which had certain automatic ratchets in incentive rates, experienced similar problems which caused Xcel Energy to suspend its program and make a filing with the Commission asking for certain relief.<sup>20</sup>

The Settling Parties agree that that there is a common problem in which the QRU can receive a flood of applications as the cost of solar systems and federal and QRU incentives change and that, absent additional measures, there would be a continuing risk of a flood of applications as costs and incentives change.

Resolution: In order to address this issue, the Settling Parties agreed to the following four program changes, all of which are discussed in paragraph 25 above: 1) in order to prevent a flood of applications, the redesigned solar Program places a restriction, in the form of a capacity cap by category and tier, on the number of applications which can be submitted to the Company annually 2) a process must be established which clearly delineates program "queue" position for customer and third party installers; 3) a deposit will be required for all applications,; and 4) a transparent notice process, as discussed above, will be established so that industry participants will be able to determine the remaining availability of incentives for each category and tier.

### 33 Issue: Treatment of Black Hills Section 123 Wind Resource

As stated in the Company's 2011 Compliance Plan, a Vestas Towers A/S, a wind turbine manufacturer with a facility located in the Company's service territory in Pueblo, Colorado,

<sup>&</sup>lt;sup>20</sup> Docket 11A-135E.

("Customer"), has installed on its site a wind turbine (V100 1.8 MW) with a prototype blade system technology ("Turbine") in order to test and demonstrate the ability of the system to generate energy with low wind velocity. The Company has entered into a purchase contract for all of the Renewable Energy Credits ("RECs") generated by the Turbine. The Company believes these RECs qualify as Section 123 resources.<sup>21</sup> As such, the costs of these resources do not count against the statutory 2% retail rate impact cap under the RES Statute and Rules.

Based on its interpretation of the Commission's Electric Resource Planning Rules, Rules 3600 – 3618, Staff believes the Commission intended to examine varying levels of conventional resources, demand-side resources, and Section 123 resources in the context of an overall ERP developed resource portfolio to determine what level of these resources could be approved as just and reasonable. Staff recommended in its Answer Testimony that the above-stated project receive Section 123 status for only five years to avoid possible RESA charges prior to the time when the RESA fund returns to a positive balance during the 2015 - 2016 time period. After this period, the Staff recommends any additional costs from the project be charged to the RESA.

Black Hills' believes that the Vestas turbine qualified as a Section 123 project at the time the contract was entered into without regard to the status of the RESA funds. Further, under the Model, Black Hills now projects that the RESA fund will not return to a positive balance until 2022.

Resolution: The Settling Parties agree that the purchase contract for RECs between the Company and Vestas Towers A/S, shall not be counted as a Section 124 resource<sup>22</sup> for RES modeling purposes in either this 2011 ORU Plan or the Company's 2012 ORU Plan. The Company will apply to the Commission for a Section 123 resource designation of this purchase

<sup>&</sup>lt;sup>21</sup> §40-2-123, C.R.S. <sup>22</sup> §40-2-124, C.R.S.

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contract in Black Hills' next combined Electric Resource Plan/ Renewable Compliance Plan filing. In that filing, the Settling Parties shall be free to take any position with regard to whether the wind turbine is a Section 123 resource.

### III. GENERAL TERMS AND CONDITIONS

- 34. Through active prehearing investigation and negotiation, the Settling Parties have reached the settlement set forth herein resolving all contested and disputed issues in this docket in a manner that the Settling Parties agree is just and reasonable and in the public interest.<sup>23</sup> This Settlement Agreement reflects the compromise and settlement of all issues raised or that could have been raised between the parties in this docket. The Settling Parties further agree that reaching agreement by means of negotiation and settlement rather than through litigation is in the public interest.
- 35. The Settling Parties agree to present, to support, and to defend this Settlement Agreement before the Commission and in the courts, should such defense be necessary. The Settling Parties further agree that Black Hills and COSEIA will both pre-file testimony with this Settlement Agreement and present oral testimony at the administrative hearing to obtain the Commission's approval of this Settlement Agreement. The Settling Parties hereby agree that all pre-filed testimony and exhibits of the Parties may be admitted into evidence in this docket without cross-examination.
- 36. This Settlement Agreement shall not become effective until the issuance of a final Commission Order approving the Settlement Agreement, which Order does not contain any modifications of the terms and conditions of this Settlement Agreement that are unacceptable to any of the Settling Parties. In the event the ALJ or the Commission modifies this Settlement

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<sup>&</sup>lt;sup>23</sup> If an issue was put into dispute by the Answer Testimony of a party and not specifically addressed by this Settlement Agreement, the Settling Parties agree that the position established in the Direct Testimony controls with respect to that issue.

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Agreement in a manner unacceptable to any Settling Party, that Settling Party shall have the right to withdraw from this Settlement Agreement and proceed to hearing on the issues that may be appropriately raised by that Settling Party in this docket. The withdrawing Settling Party shall notify the Commission and the other Parties to this Settlement Agreement by e-mail and facsimile within five (5) business days of the Interim Order, Recommended Decision or Commission Order that the Settling Party is withdrawing from the Settlement Agreement and that the Settling Party is ready to proceed to hearing; the e-mail and facsimile notice shall designate the precise issue or issues on which the withdrawing Settling Party desires to proceed to hearing (the "Hearing Notice").

- 37. The withdrawal of a Settling Party shall not automatically terminate this Settlement Agreement as to any other Settling Parties. Within three (3) business days of the date of the Hearing Notice from the first withdrawing Settling Party, all Settling Parties shall confer to arrive at a comprehensive list of issues that shall proceed to hearing and a list of issues that remain settled as a result of the first Settling Party's withdrawal from this Settlement Agreement. Within five (5) business days of the date of the Hearing Notice, the Settling Parties shall file with the Commission a formal notice containing the list of issues that shall proceed to hearing and those issues that remain settled. The Parties who proceed to hearing shall have and be entitled to exercise all rights with respect to the issues that are heard that they would have had in the absence of this Settlement Agreement.
- 38. Hearing shall be scheduled as soon as practicable on all of the issues designated in the formal Hearing Notice filed with the Commission. In the event that this Settlement Agreement is not approved, the negotiations or discussions undertaken in conjunction with the Settlement Agreement shall not be admissible into evidence in this or any other proceeding. In

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the event that this Settlement Agreement is approved with conditions that are unacceptable to any Settling Party who subsequently withdraws, the negotiations or discussions undertaken in conjunction with the Settlement Agreement shall not be admissible into evidence in this or any other proceeding as to that withdrawing Settling Party. However, as to Settling Parties that do not withdraw from this Settlement Agreement, the negotiations or discussions undertaken in conjunction with the Settlement Agreement shall be admissible into evidence in any proceeding to enforce the terms of this Settlement Agreement.

- 39. The Settling Parties agree that approval by the Commission of this Settlement Agreement shall constitute a determination that the Settlement Agreement represents a just, equitable and reasonable resolution of all issues that were or could have been contested among the Parties in this proceeding.
- 40. All Parties specifically agree and understand that this Settlement Agreement represents a negotiated settlement with respect to the various matters and issues presented in this docket, for the sole purpose of the settlement of the matters agreed to in this Settlement Agreement. No Settling Party or person shall be deemed to have approved, accepted, agreed to, or consented to any concept, theory or principle underlying or supposed to underlie any of the matters provided for in this Settlement Agreement, other than as specifically provided for herein. Notwithstanding the resolution of the issues set forth in this Settlement Agreement and except as specifically provided in paragraphs section 16 and 31 above, none of the methods or principles herein contained shall be deemed by the Parties to constitute a settled practice or precedent in any future proceeding, including any future ERP.

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- 41. This Settlement Agreement may be executed in counterparts and by facsimile or electronic copies of signatures, all of which when taken together shall constitute the entire Settlement Agreement with respect to the issues addressed by this Settlement Agreement.
- 42. The Settling Parties agree to seek any Commission rule waivers necessary to implement this Settlement Agreement. On the date of the execution of this Settlement Agreement, the Settling Parties contemplate seeking waivers from Commission Rules 4 CCR 723-2-3658(f)(III), and 3658(f)(VIII).
- 43. The Settling Parties support the Company's request to file a compliance tariff filing on one day's notice. The Settling Parties agree to jointly develop a proposed tariff which incorporates the terms of this Settlement Agreement.

### IV. <u>CONCLUSION</u>

For the reasons stated above, the Settling Parties respectfully request that the Commission enter an order approving the Company's 2011 RES Compliance Plan, as modified by this Settlement Agreement, with the finding that the Commission's approval of this Settlement Agreement represents a fair, just, and reasonable resolution of all disputed issues that have arisen, or which could have arisen, in this docket and further closing this docket.

DATED this 29th day of April, 2011.

Approved as to form:	Agreed to on behalf of:
Davis, Graham and Stubbs, LLP	Black Hills/Colorado Electric Utility Company, LP
Judim M. Matlock (12405) Davis Graham & Stubbs, LLP 1550 17 <sup>th</sup> Street, Suite 500 Denver, CO 80202 Telephone: 303-892-7380 Fax: 303-893-1379 Judith.matlock@dgslaw.com	Todd L. Brink Senior Managing Counsel Black Hills/Colorado Electric Utility Company, LP 625 Ninth Street Rapid City, SD 57701 Telephone: 605-721-2516 Todd.Brink@blackhillscorp.com
Attorney for Black Hills/Colorado Electric Utility Company, LP	

Approved as to form:

OFFICE OF THE ATTORNEY GENERAL

Agreed on behalf of:

TRIAL STAFF OF THE COMMISSION:

Bv.

Assistant Attorney General Business and Licensing Section 1525 Sherman Street, 5<sup>th</sup> Floor

Denver, Colorado 80203 Telephone: 303-866-

Attorney for the Trial Staff of the Commission

William Dalton

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Approved as to form:

Agreed on behalf of:

PERKINS RUSCHENA, LLC

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Agreed on behalf of:

Colorado Renewable Energy Society

Venas P. Cabrar

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Boulder, CO 80305 Phone: 703-975-6085

Email: vincecalvano@gmail.com

Attorney for CRES

Exhibit 1 to Settlement Agreement

	Ι Δ	В	С	l D l	E		G	Н	- 1	1 1	К	1 1	М	N
-	A BHE 2011 Solar Program:	В	C	U	E .	<u> </u>	G	п	ı	J	N.	L	IVI	IN
<u> </u>														
2	Docket 10A-805E	C1 W 11 11 C 1												
3		r of kW eligible for incentives per ca	ategory by system size											
4	Note - there are no incentives a	mer 2016.												
5							1			ome of fu	ture docl	kets		
6				Settlement	Proposal		See note	e (1) belo	w					
7				2011	2012		2013	2014	2015	2016	2017	2018	2019	2020
8														
	First Category - small													ļ
9	customer owned systems - 10 kW or less	System size:	Maximum kW eligible for incentives:											
10		Less than or equal to 3 kW	3 kW (3000 watts)	96	115		128	142	158	175	0	0	0	0
11		Greater than 3 kW and up to 10 kW	6 kW (6000 watts)	210	252		280	310	345	383	0	0	0	0
12	Total Tier kW added			306	367		408	452	502	557	0	0	0	0
13														
14														
	Second Category - small													ļ
	systems - 10 kW or less - owned by 3rd party		Maximum kW eligible											
15	developers	System size:	for incentives:											
16		Less than or equal to 3 kW	3 kW (3000 watts)	42	50		56	62	69	77	0	0	0	0
17	1 1101 11011	2000 than or oqual to 0 km	o mi (ecco mano)				- 55				-		ŭ	
18	Second Tier:	Greater than 3 kW and up to 10 kW	6 kW (6000 watts)	60	72		80	89	98	109	0	0	0	0
19	Total Tier kW added			102	122		136	151	167	186	0	0	0	0
20														
	Third Category - medium													
0.1	systems - greater than 10 kW		Maximum kW eligible											ļ
21		System size: Up to 30 kW	for incentives: 30 kW (30,000 watts)	270	324		360	399	443	492	0	0	0	0
23		Greater than 30 kW and up to 60 kW	60 kW (60,000 watts)	180	216		240	266	295	328	0	0	0	0
24		Greater than 60 kW and up to 100 kW	100 kW (100,000 watts)	100	120		133	148	164	182	0	0	0	0
25	Total Tier kW added		( == ,=== == == ,=== ,=== ,=== ,== ,== ,	550	660		733	813	903	1,002	0	0	0	0
26														
27	Total annual maximum sol	ar kW eligible for incentives		958	1,150		1,276	1,416	1,572	1,745	0	0	0	0
28		engible for incentives												
29														
30	Total annual maximum sol	ar MW eligible for incentives		0.96	1.15		1.28	1.42	1.57	1.75	0.00	0.00	0.00	0.00
31		engible for incentives												
32	Total solar retail distributed g	eneration added (in MW):								8.13				
33														
34														
35	Note (1) - subject to outcome	of the combined 2011 Resource Plan	and 2013-2014 RES Com	pliance Plan:	; and the inter	rim RES co	mpliance	plan to b	e filed in	October	2013.			
36														

	A	В	С	D	E		F	G	Н	I		J	I	K		L
1	BHE 2011 Solar Program:															
2	Docket 10A-805E															
3	1 3 3															
	Note - there are no incentives as	fter 2016.											_		<u> </u>	
5																
6					Overview								_		<u> </u>	
7	ŭ	dential and commercial customers ba		paid into the RI	ESA								_		<u> </u>	
8		Small (Residential) - 35.6% (this mo											_		<u> </u>	
	· _ · _ · · · · · ·	stem; incentives drop after specified	number of watts insta	lled.									_		<u> </u>	
10	Rebate:												_		<u> </u>	
11		On small customer owned systems			/								_		<u> </u>	
12		On small customer owned systems		bate is \$.75/watt	. Rebates only paid or	n fir	rst 6kW.	Declines 15 <sup>o</sup>	% per year	after 20	12		_		<u> </u>	
13		No rebate on <10k TPF systems. F													ļ	
14		On medium sized systems (10 - 100	kW) - rebate paid for	actual watts (i.e.,	up to 100,000 watts).	Dec	clines 15%	% per year a	fter 2012							
15	REC (PBI) payment:															
16		On small customer owned systems (	·													
17		On small systems (< 10 kW) owned				r yea	ar after 20	)12					$\perp$		<u> </u>	
18		On medium systems (10 - 100 kW),		drops 3% per ye	ar after 2012											
19	Allows for approximtely 104 r	new solar systems in 2011 and approx	ximately 120 in 2012													
20										Foreca	st - sı	ubject to o	utco	me of futi	ure do	ockets
21						Set	ttlement l	Proposal		See no	te (1)	below				
22							2011	2012			2013	201	4	2015		2016
23																
	First Category - small customer owned systems -		Maximum kW eligible	Estimated kWh												
24	10 kW or less	System size:	for incentives:	2)												
25		Less than or equal to 3 kW	3 kW (3000 watts)	-	PBI per kWh (note 3)	\$	0.0945	\$ 0.0945	ļ	\$ 0.0	917	\$ 0.0889	3 \$	0.0862	\$	0.0837
26	1	2000 than or oqual to 0 mi	o mir (coco mano)		Rebate per Watt	\$	1.00				0.85	•	2 \$	0.61		0.52
27	Second Tier:	Greater than 3 kW and up to 10 kW	6 kW (6000 watts)	9,150	PBI per kWh (note 3)	\$	0.0945			\$ 0.0	917			0.0862	\$	0.0837
28					Rebate per Watt	\$	0.75	\$ 0.75	1	\$	0.64	\$ 0.54	+ \$	0.46	\$	0.39
29	Second Category - small												_			
	systems - 10 kW or less -			Estimated kWh												
	owned by 3rd party		Maximum kW eligible													
30	developers	System size:	for incentives:	2)												
31	First Tier:	Less than or equal to 3 kW	3 kW (3000 watts)	4,575	PBI per kWh (note 4)	\$	0.1224	\$ 0.1224	1	\$ 0.1	187	\$ 0.1152	2 \$	0.1117	\$	0.1084
32 33	Second Tion	Greater than 3 kW and up to 10 kW	6 kW (6000 watts)	0.150	PBI per kWh (note 4)	Ф	0.1090	¢ 0.1090		¢ 0 1	049	\$ 0.1016	2 0	0.0096	<b>©</b>	0.0956
34	Second Her.	Greater than 3 kw and up to 10 kw	O KVV (0000 Walls)	9,130	r bi pei kwii (liote 4)	Ψ	0.1000	φ 0.1000		φ 0.1	040	φ 0.1010	,	0.0300	φ	0.0930
35																
	Third Category - medium															
	systems - greater than 10 kW		Maximum kW eligible													
		System size:	for incentives:	per watt	DDI I-MI- (t 0)	Φ.	0.0050	Φ 0.0050		Φ 0.0	1100	Φ 0011	7 0	0.0054	Φ.	0.4000
37 38		Up to 30 kW	30 kW (30,000 watts)		PBI per kWh (note 3) Rebate per Watt	\$	0.2250				0.21	\$ 0.2117	7	0.2054		0.1992
39		Greater than 30 kW and up to 60 kW	60 kW (60,000 watts)		PBI per kWh (note 3)	\$	0.2160				2095			0.1971		0.1912
40			,		Rebate per Watt	\$	0.23	\$ 0.23		\$	0.20	\$ 0.17	7 \$	0.14		0.12
41	Third tier	Greater than 60 kW and up to 100 kW	100 kW (100,000 watts	152500	PBI per kWh (note 3)		0.2070				8008					0.1833
42 43					Rebate per Watt	\$	0.20	\$ 0.20		\$	0.17	\$ 0.14	\$	0.12	\$	0.10
	Note (1) - subject to outcome	of the combined 2011 Resource Plar	n and 2013-2014 RES C	Compliance Plan	to be filed in October	201	1; and th	e interim RE	S complia	nce plar	to be	filed in O	ctob	er 2013.	<del>                                     </del>	
		ction based on NREL figures as avai				Ĺ	,		le							
		n received from years two through t														
47		n received from years one through t	en of operation										تــــــــــــــــــــــــــــــــــــــ		<u> </u>	
	2064679.1															

								Table 4 - Source	and Use of Funds A	vailable for Eligible	Energy Acquisition	1						
		2006	2007		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Retail Revenue Forecast:	\$	- \$	-	\$	- \$	- \$	183,137,342 \$	205,505,689 \$	239,876,516 \$	243,474,663 \$	247,126,783 \$	250,833,685 \$	254,596,190 \$	258,415,133 \$	262,291,360 \$	266,225,730	#######################################	#######################################
RESA Factor		1.00%	1.00%	6	1.00%	1.50%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
RESA Revenue Forecast	\$	- \$	-	\$	- \$	-	\$	4,110,114 \$	4,797,530 \$	4,869,493 \$	4,942,536 \$	5,016,674 \$	5,091,924 \$	5,168,303 \$	5,245,827 \$	5,324,515	\$ 5,404,382	\$ 5,485,448
RESA Revenue Actual		438,138	1,572,497		1,595,972	2,198,266	3,432,290	-	-	-	-	-	-	-	-	-	-	-
Total RESA Revenue	\$	438,138 \$	1,572,497	\$	1,595,972 \$	2,198,266 \$	3,432,290 \$	4,110,114 \$	4,797,530 \$	4,869,493 \$	4,942,536 \$	5,016,674 \$	5,091,924 \$	5,168,303 \$	5,245,827 \$	5,324,515	\$ 5,404,382	\$ 5,485,448
REC Costs:																		
2007 RFP Bid Selection					-	-		427,680	425,520	423,360	421,200	419,280	417,120	414,960	413,040	410,880	408,720	406,800
SO-RECs/Distrib Gen Acquired Ac	е	94,592	934,026		1,539,158	6,585,225	10,565,017											
SO-RECs / Distrib Gen forecast			-		-	-		5,373,243	1,309,622	1,578,083	1,870,589	2,188,788	2,534,468	2,566,471	2,566,471	2,566,471	2,566,471	2,566,471
Program Costs:																		
Actual		354,484	241,313		285,810	204,833	498,777											
Forecast			-		-	-		200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Total Costs		449,076	1,175,339		1,824,968	6,790,058	11,063,794	6,000,923	1,935,142	2,201,443	2,491,789	2,808,068	3,151,588	3,181,431	3,179,511	3,177,351	3,175,191	3,173,271
Revenue less Costs	\$	(10,938) \$	397,158	\$	(228,996) \$	(4,591,792) \$	(7,631,504) \$	(1,890,809) \$	2,862,388 \$	2,668,050 \$	2,450,747 \$	2,208,606 \$	1,940,336 \$	1,986,872 \$	2,066,316 \$	2,147,164	\$ 2,229,191	\$ 2,312,177
Cummulative	\$	(10,938) \$	386,220	\$	165,898 \$	(4,406,446) \$	(12,089,672) \$	(14,374,320) \$	(12,762,969) \$	(11,417,247) \$	(10,154,409) \$	(9,005,944) \$	(8,007,479) \$	(6,856,965) \$	(5,521,992) \$	(3,985,506)	\$ (2,227,619)	\$ (226,803)
Interest		\$	8,674	\$	19,448 \$	(51,722) \$	(393,839) \$	(1,251,038) \$	(1,322,328) \$	(1,187,909) \$	(1,060,141) \$	(941,871) \$	(836,358) \$	(731,343) \$	(610,678) \$	(471,305)	\$ (311,361)	\$ (128,830)
Balance - (Under)/Over Collected		\$	394,894	\$	185,346 \$	(4,458,168) \$	(12,483,511) \$	(15,625,358) \$	(14,085,298) \$	(12,605,156) \$	(11,214,550) \$	(9,947,815) \$	(8,843,836) \$	(7,588,308) \$	(6,132,669) \$	(4,456,810)	\$ (2,538,980)	\$ (355,633)

	Α	В	С	D	E	F
1	BHE 2011 Solar Program:					
2	Docket 10A-805E					
3	Retail distributed generation needed by	2020				
4	and the second great and the second					
5						
6	TARGET	TOTAL Retail DG	REC's needed in	year 2020	34,171	
7		Source: Table 3 2011 R	ES Compliance Plan			
8		000,000,100,000,000,000	20 001111111111111111111111111111111111			
9		CURRENT DG RETA	IL SYSTEMS ON LIN	E		
-	SOLAR		MW solar DG	adder	total MW	
11						
12	Thru Aug 2010	pre HB-1001	4.26	1.25	5.32	а
13						
14	thru Feb 2011	Since HB-1001	4.25	1.00	4.25	b
15		Total MW solar install			9.57	a + b = c
16		Annual MWH Product		•-	1,565	d
17		Annual MWH Product	ion/Mw installed to da	ie	14,979	c * d = e
18 19						
	WIND	Total MW Wind instal	1.80	1.00	1.80	f
21		est. Annual MWH Pro				g
22		est. Annual MWH Pro			2,466	f * g = h
23						<u>-</u>
24						
25		TOTAL Retail DG RE	C's installed to date		17,445	e + h = i
26						
27						
28						
29						
30						
30 31		FUTURE ADDITIONS	of Retail DG			
30 31 32	SOLAR	FUTURE ADDITIONS		adder	total MW	
30 31 32	SOLAR	FUTURE ADDITIONS	of Retail DG MW solar DG	adder	total MW	
30 31 32 33	SOLAR	FUTURE ADDITIONS Additional Solar Mega	MW solar DG	adder	total MW 8.10	
30 31 32 33 34 35 36	SOLAR	Additional Solar Mega	MW solar DG 8.10		8.10	
30 31 32 33 34 35 36 37	SOLAR	Additional Solar Mega Total MW solar neede	MW solar DG  8.10  ed to install		8.10 8.10	j
30 31 32 33 34 35 36 37	SOLAR	Additional Solar Mega Total MW solar neede Annual MWH Product	MW solar DG  8.10  ed to install ion/Mw installed	1.00	8.10 8.10 1,565	k
30 31 32 33 34 35 36 37 38 39	SOLAR	Additional Solar Mega Total MW solar neede Annual MWH Product	MW solar DG  8.10  ed to install	1.00	8.10 8.10	,
30 31 32 33 34 35 36 37 38 39	SOLAR	Additional Solar Mega Total MW solar neede Annual MWH Product	MW solar DG  8.10  ed to install ion/Mw installed	1.00	8.10 8.10 1,565	k
30 31 32 33 34 35 36 37 38 39 40		Additional Solar Mega Total MW solar needd Annual MWH Product Annual MWH Product	MW solar DG  8.10  ed to install ion/Mw installed ion/Mw installed future	1.00	8.10 8.10 1,565 12,675	, k j * k = l
30 31 32 33 34 35 36 37 38 39 40 41	SOLAR	Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega	MW solar DG  8.10  ed to install ion/Mw installed ion/Mw installed future 3.00	1.00 projects	8.10 8.10 1,565 12,675	k
30 31 32 33 34 35 36 37 38 39 40		Additional Solar Mega Total MW solar needs Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Pro	MW solar DG  8.10  ed to install ion/Mw installed ion/Mw installed future 3.00	1.00 projects 1.00 215.5% capacity fa	8.10 8.10 1,565 12,675	k j*k=l m
30 31 32 33 34 35 36 37 38 39 40 41 42 43		Additional Solar Mega Total MW solar needs Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Pro	MW solar DG  8.10  8d to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed ion/Mw installed	1.00 projects 1.00 215.5% capacity fa	8.10 8.10 1,565 12,675 3.00 1,370	k j*k=1 m n
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46		Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Product	MW solar DG  8.10  ed to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future	1.00 215.5% capacity fa	8.10 8.10 1,565 12,675 3.00 1,370 4,110	k j*k=1 m n
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47		Additional Solar Mega Total MW solar needs Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Pro	MW solar DG  8.10  ed to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future	1.00 a projects 1.00 a) 15.5% capacity factor projects	8.10 8.10 1,565 12,675 3.00 1,370	k j*k=1 m n
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48		Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Product	MW solar DG  8.10  ed to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future	1.00 a projects 1.00 a) 15.5% capacity factor projects	8.10 8.10 1,565 12,675 3.00 1,370 4,110	, k j*k=I m n m*n=o
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48		Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Product	MW solar DG  8.10  ed to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future	1.00 a projects 1.00 a) 15.5% capacity factor projects	8.10 8.10 1,565 12,675 3.00 1,370 4,110	, k j*k=I m n m*n=o
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	WIND	Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Product Annual MWH Product TOTAL additional Ret	MW solar DG  8.10  8 to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future ion/Mw installed future	1.00 a projects 1.00 a) 15.5% capacity factor projects	8.10 8.10 1,565 12,675 3.00 1,370 4,110	m n m*n=o
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50		Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Product Annual MWH Product TOTAL additional Ret	MW solar DG  8.10  8 to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future ion/Mw installed future	1.00 a projects 1.00 a) 15.5% capacity factor projects	8.10 8.10 1,565 12,675 3.00 1,370 4,110	, k j*k=I m n m*n=o
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	WIND	Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Product Annual MWH Product TOTAL additional Ret	MW solar DG  8.10  8 to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future ion/Mw installed future	1.00 a projects 1.00 a) 15.5% capacity factor projects	8.10 8.10 1,565 12,675 3.00 1,370 4,110	m n m*n=o
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	WIND  TOTAL RETAIL DG ANNUAL REC'S	Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Product TOTAL additional Ref	MW solar DG  8.10  8d to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future ion/Mw installed future  CE BY 2020	1.00 2 projects 1.00 215.5% capacity factorized by 2020	8.10 8.10 1,565 12,675 3.00 1,370 4,110	m n m*n=o
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54	WIND	Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Product TOTAL additional Ref	MW solar DG  8.10  8 to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future ion/Mw installed future	1.00 a projects 1.00 a) 15.5% capacity factor projects	8.10 8.10 1,565 12,675 3.00 1,370 4,110	m n m*n=o
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55	WIND  TOTAL RETAIL DG ANNUAL REC'S % of Solar DG Watts currently installed plus	Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Product TOTAL additional Ref  FOR COMPLIAN  future additions	MW solar DG  8.10  8d to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future ion/Mw installed future  CE BY 2020	1.00 215.5% capacity factor projects by 2020 78%	8.10 8.10 1,565 12,675 3.00 1,370 4,110	m n m*n=o
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 7 50 51 52 53 54 55 56	WIND  TOTAL RETAIL DG ANNUAL REC'S	Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Product TOTAL additional Ref  FOR COMPLIAN  future additions	MW solar DG  8.10  8d to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future ion/Mw installed future  CE BY 2020	1.00 2 projects 1.00 215.5% capacity factorized by 2020	8.10 8.10 1,565 12,675 3.00 1,370 4,110	m n m*n=o
30 31 32 33 34 35 36 37 38 39 40 41 42 44 45 46 47 48 49 50 51 52 53 55 55 56 57	WIND  TOTAL RETAIL DG ANNUAL REC'S % of Solar DG Watts currently installed plus: % of Wind DG Watts currently installed plus:	Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Product TOTAL additional Ref  FOR COMPLIAN  future additions  future additions	MW solar DG  8.10  8.10  ed to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future ion/Mw installed future ail DG REC's needed  CE BY 2020  16.61  4.80	1.00 2 projects 1.00 2 15.5% capacity factorized projects by 2020 78%	8.10 8.10 1,565 12,675 3.00 1,370 4,110	m n m*n=o
30 31 32 33 34 35 36 37 38 39 40 41 42 44 45 46 47 48 49 50 51 52 53 55 55 56 57	WIND  TOTAL RETAIL DG ANNUAL REC'S % of Solar DG Watts currently installed plus	Additional Solar Mega Total MW solar neede Annual MWH Product Annual MWH Product Additional Wind Mega est. Annual MWH Product TOTAL additional Ref  FOR COMPLIAN  future additions  future additions	MW solar DG  8.10  8d to install ion/Mw installed ion/Mw installed future  3.00 duction/Mw installed future ion/Mw installed future  CE BY 2020	1.00 215.5% capacity factor projects by 2020 78%	8.10 8.10 1,565 12,675 3.00 1,370 4,110	m n m*n=o