

Decision No. R11-1344

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

DOCKET NO. 11A-226E

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IN THE MATTER OF THE APPLICATION OF BLACK HILLS/COLORADO ELECTRIC UTILITY COMPANY, LP, FOR (1) A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT A POWER PLANT CONSISTING OF AN LMS 100 NATURAL GAS-FIRED TURBINE AND ASSOCIATED BALANCE OF PLANT AND OTHER FACILITIES PURSUANT TO COMMISSION DECISION NO. C10-1330 AND (2) COMMISSION AUTHORIZATION TO RETIRE PUEBLO 5 AND 6 STEAM TURBINE UNITS ON THE IN-SERVICE DATE OF THE LMS 100 NATURAL GAS-FIRED TURBINE AND ASSOCIATED PLANT AND FACILITIES.

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**RECOMMENDED DECISION OF  
ADMINISTRATIVE LAW JUDGE  
MANA L. JENNINGS-FADER  
DENYING APPLICATION**

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Mailed Date: December 14, 2011

Appearances:

Judith M. Matlock, Esquire, and Christopher M. Irby, Esquire, Denver, Colorado, for Applicant Black Hills/Colorado Electric Utility Company, LP;

Richard L. Corbetta, Esquire, Denver, Colorado, for Intervenors Cripple Creek & Victor Gold Mining Company and Holcim (U.S.) Inc.;

Mark D. Detsky, Esquire, Boulder, Colorado, for Intervenor Colorado Independent Energy Association;

William H. McEwan, Esquire, Peoria, Arizona, for Intervenors Board of Water Works of Pueblo, Colorado, and Fountain Valley Authority;

David M. Nocera, Senior Assistant Attorney General, and Emanuel Cocian, Assistant Attorney General, Denver, Colorado, for Intervenor Litigation Staff of the Public Utilities Commission;

R. William Rowe, Esquire, Denver, Colorado, for Intervenors Chesapeake Energy Corporation, EnCana Oil & Gas (USA), and Noble Energy, Inc.; and

Jacob J. Schlesinger, Assistant Attorney General, Denver, Colorado, for Intervenor Colorado Office of Consumer Counsel.

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**I. STATEMENT**

1. On March 14, 2011, Black Hills/Colorado Electric Utility Company, LP (Black Hills, the Company, or Applicant), filed an Application for a Certificate of Public Convenience and Necessity (CPCN) to construct, to own, and to operate a power plant at the Pueblo Airport Generation Station (Project) as more fully described in the Application.<sup>1</sup> The Applicant also seeks Commission authorization to retire the natural gas-fired Pueblo 5 and 6 steam turbine units on the in-service date of the LMS100 facility. That filing commenced this proceeding.

2. On March 15, 2011, the Commission issued its Notice of Application Filed (First Notice). That First Notice established an intervention period. The First Notice also contained a procedural schedule. Decision No. R11-0465-I vacated that procedural schedule.

3. On March 31, 2011, Chesapeake Energy Corporation (Chesapeake) filed a Motion to Intervene. Decision No. R11-0532-I granted that motion. On July 8, 2011, Chesapeake withdrew from this proceeding. Decision No. R11-0755.

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<sup>1</sup> On March 16, 2011, Applicant filed the correct Exhibit 3 to the March 14, 2011 filing. Unless the context indicates otherwise, reference in this Decision to the Application is to the March 14, 2011 filing as corrected by the March 16, 2011 filing.

The Application and its four exhibits are Hearing Exhibit No. 1.

4. On March 31, 2011, EnCana Oil & Gas (USA) (EnCana) filed a Motion to Intervene. Decision No. R11-0532-I granted that motion.

5. On March 31, 2011, Noble Energy, Inc. (Noble), filed a Motion to Intervene. Decision No. R11-0532-I granted that motion.

6. On April 12, 2011, the Board of Water Works of Pueblo, Colorado (Board) filed a Petition to Intervene and Request for Hearing. Decision No. R11-0532-I determined that the Board is a party.

7. On April 12, 2011, the Fountain Valley Authority (FVA) filed a Petition to Intervene and Request for Hearing. Decision No. R11-0532-I determined that FVA is a party.

8. On April 13, 2011, the Colorado Office of Consumer Counsel (OCC) filed a Notice of Intervention by Right. OCC is an intervenor by right.

9. On April 14, 2011, the Colorado Independent Energy Association (CIEA) filed a Motion to Intervene. Decision No. R11-0532-I granted that motion.

10. On April 14, 2011, Cripple Creek & Victor Gold Mining Company (CC&V) filed a Petition to Intervene. Decision No. R11-0532-I granted that petition.

11. On April 14, 2011, Holcim (U.S.) Inc. (Holcim) filed a Petition to Intervene. Decision No. R11-0532-I granted that petition.

12. On April 14, 2011, Trial Staff of the Commission (Staff) filed a Notice of Intervention by Right. Staff is an intervenor by right.

13. On April 27, 2011, by Minute Order the Commission referred this matter to an Administrative Law Judge (ALJ).

14. For the reasons stated in Decision No. R11-0529-I, the ALJ amended the caption of this docket and ordered a renote of the Application.

15. On May 17, 2011, the Commission issued a Re-Notice of Application Filed in this proceeding (Second Notice). That Second Notice established an intervention period. The Second Notice also contained a procedural schedule. Decision No. R11-0532-I vacated that procedural schedule.

16. During the second intervention period, no one intervened of right and no one filed a motion for leave to intervene.

17. The Board, CC&V, CIEA, EnCana, FVA, Holcim, Noble, OCC, and Staff, collectively, are the Intervenors.<sup>2</sup> Applicant and Intervenors, collectively, are the Parties.

## **II. PROCEDURAL HISTORY**

18. The ALJ issued numerous Interim Orders. Only the significant Interim Orders are discussed here.

19. On April 27, 2011, the Commission deemed the Application to be complete within the meaning of § 40-6-109.5, C.R.S. By Decision No. R11-0465-I and pursuant to § 40-6-109.5(1), C.R.S., the ALJ enlarged, to and including November 23, 2011, the time for Commission decision in this proceeding. By Decision No. R11-0696-I, with Applicant's agreement, the ALJ further enlarged, to and including December 30, 2011, the time for Commission decision in this proceeding. Applicant subsequently acknowledged that, due to the hearing on the Settlement Agreement, the Commission will not issue its decision in this case until the end of January 2012, at the earliest. Decision No. R11-1071-I.

20. During the course of this proceeding, the ALJ held prehearing conferences, heard oral argument, and issued Orders that, among other things, scheduled the evidentiary hearings in

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<sup>2</sup> In this Decision, unless the context indicates otherwise, the Board and FVA, collectively, are the Governmental Intervenors. In this Decision, unless the context indicates otherwise, EnCana and Noble, collectively, are the Gas Intervenors or the Gas Producers.

this matter and established procedural schedules.<sup>3</sup> The ALJ also ruled on a motion to compel; motions to strike prefiled answer testimony, prefiled cross-answer testimony, and prefiled rebuttal testimony; and a motion to strike testimony in support of the Settlement Agreement.<sup>4</sup>

21. On June 28, 2011, Black Hills filed a Motion for Protective Order Affording Extraordinary Protection to Highly Confidential Vendor, Bid and Other Competitive Information. CIEA filed a Response in Opposition to Motion for Extraordinary Protection.

22. In Decision No. R11-0792-I, the ALJ granted the Black Hills motion filed on June 28, 2011. In that Order, the ALJ (a) designated specific information and documents as Highly Confidential Information (*id.* at Ordering Paragraph No. 2); (b) established general extraordinary protections; (c) established specific extraordinary protections and access by entity (*e.g.*, Commission and its Staff, each intervenor, counsel for the Commission and for the Parties); and (d) attached the Nondisclosure Agreement Relating to Highly Confidential Information (*id.* at Appendix A) that one must sign, serve, and file in order to have access to the Highly Confidential Information.

23. The ALJ certified Decision No. R11-0792-I as immediately appealable to the Commission by exceptions. No party filed exceptions. In addition, no party filed either a motion to reconsider or to modify Decision No. R11-0792-I or a motion to modify the Nondisclosure Agreement appended to that Interim Order.

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<sup>3</sup> Decisions No. R11-0532-I, No. R11-0696-I, and No. R11-0710-I.

<sup>4</sup> Decision No. R11-1250-I.

24. On August 16, 2011, CIEA filed, in one document, a Combined Motion to Compel, Motion to Accept Revised Non-Disclosure Agreement or, in the Alternative, to Waive Paragraph 4 of Non-Disclosure Agreement, and Motion for Shortened Response Time and [Motion for] Expedited ALJ Decision. For the reasons discussed in Decision No. R11-1250-I, the ALJ denied the Motion to Accept Revised Non-Disclosure Agreement or, in the Alternative, to Waive Paragraph 4 of Non-Disclosure Agreement.

25. Because several of the Parties disagreed about the scope of this proceeding, the ALJ found “it best to resolve, as soon as practicable, the issue of the meaning of the Commission Decisions in the Black Hills [Clean Air - Clean Jobs Act] proceeding and the impact of those Decisions on the scope of this proceeding.” Decision No. R11-0532-I at ¶ 24. The ALJ established a schedule for the filing of opening briefs and response briefs on the issue of the scope of this proceeding.

26. Pursuant to the established schedule, the following parties filed opening briefs: Applicant, CIEA, Gas Intervenors, and Staff. Pursuant to the established schedule, the following parties filed response briefs: Applicant, CIEA, Gas Intervenors, Governmental Intervenors, OCC, and Staff. Pursuant to Decision No. R11-0696-I, Applicant and Gas Intervenors filed their responses to new arguments presented for the first time in the response brief of Governmental Intervenors and in the response brief of OCC.

27. In Decision No. R11-0889-I, the ALJ determined the scope of this docket and certified that Order as immediately appealable to the Commission by exceptions. Applicant and Gas Intervenors each filed exceptions. CIEA, Governmental Intervenors, and Staff each filed a response to those exceptions. In Decision No. C11-1048, the Commission denied the exceptions and affirmed Decision No. R11-0889-I in its entirety.

28. By Decision No. R11-0734-I, the ALJ scheduled a September 14, 2011 hearing to take public comment on the Application. The hearing to take public comment was held as scheduled and is discussed below.

29. At the time and place scheduled, the ALJ called the evidentiary hearing to order on September 28, 2011. As a preliminary matter, Applicant informed the ALJ that Applicant and some intervenors<sup>5</sup> had reached an agreement in principle but had not reduced their agreement to writing. By Decision No. R11-0710-I, the ALJ established a procedural schedule and filing requirements with respect to the agreement and scheduled an October 25, 2011 evidentiary hearing on the agreement.

30. On September 28 and 29, 2011, the evidentiary hearing addressing the Application was held. At the conclusion of that hearing, the ALJ continued the hearing until October 25, 2011.

31. In accordance with Decision No. R11-0710-I, Applicant filed, in one document, the Settlement Agreement (Settlement)<sup>6</sup> and Motion for Approval of Settlement Agreement. Applicant, Gas Intervenors, Governmental Intervenors, and OCC each filed written testimony in

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<sup>5</sup> The intervenors that signed the Settlement are: Gas Intervenors, Governmental Intervenors, and OCC.

<sup>6</sup> The Settlement is Hearing Exhibit No. 21, and Confidential Exhibit 2 to the Settlement Agreement is Confidential Hearing Exhibit No. 21A.

support of the Settlement. CIEA and Staff each filed a statement in opposition to the Settlement but did not file written testimony. CC&V and Holcim filed a joint statement that they took no position on the Settlement.

32. At the time and place scheduled, the ALJ held the October 25, 2011 evidentiary hearing on the Settlement. At the conclusion of the October hearing, the ALJ closed the evidentiary record in this proceeding.

33. On November 2, 2011, each of the following filed a Statement of Position (SOP):<sup>7</sup> Applicant, CC&V and Holcim,<sup>8</sup> CIEA, Gas Intervenors, Governmental Intervenors, OCC,<sup>9</sup> and Staff. No response was permitted.

34. In accordance with § 40-6-109, C.R.S., the ALJ now transmits to the Commission the record in this proceeding along with a written recommended decision.

### **III. PUBLIC COMMENT**

35. Review of the Commission file in this docket reveals that one person (other than a party) filed a written comment with respect to the Application. The written comment is an e-mail dated December 5, 2011. The Commission received the e-mail after the close of the evidentiary record and after the Parties filed their statements of position. The e-mail contains factual information that was not presented in the evidentiary record. In addition, the e-mail appears to be a request for a meeting with Commissioners and Staff. The ALJ did not consider this e-mail for purposes of this Recommended Decision.

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<sup>7</sup> The ALJ permitted the filing of SOPs that do not exceed 40 pages in length.

<sup>8</sup> These intervenors filed a joint SOP.

<sup>9</sup> The OCC Statement of Position references an Attachment 1, but no Attachment 1 was filed.

36. By Decision No. R11-0734-I, the ALJ scheduled a September 14, 2011 hearing to take public comment (public comment hearing). In that Order, the ALJ scheduled the public comment hearing in Pueblo, Colorado and established the procedures for that hearing.

37. On September 7, 2011, the Commission issued a news release about the public comment hearing. On September 13, 2011, an article about the public comment hearing appeared in *The Pueblo Chieftain*.

38. The ALJ held the public comment hearing on September 14, 2011, in Pueblo, Colorado.<sup>10</sup> At the public comment hearing, one individual spoke. The individual stated that, although not fully prepared on the issue, he has not seen information that supports the need for another LMS100 at the Pueblo Airport Generating Station and suggested that Black Hills might consider converting existing units to gas-fired generation because that might be more cost effective.

39. As is the practice before the Commission, the Parties were given an opportunity to present testimony or otherwise to address the comments made at the public comment hearing.

#### **IV. EVIDENTIARY RECORD**

40. The evidentiary record consists of testimony and exhibits from the two-day hearing on the Application and from the one-day hearing on the Settlement. A transcript of each day of hearing has been filed in this docket.<sup>11</sup>

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<sup>10</sup> A transcript of the public comment hearing has been filed in this proceeding.

<sup>11</sup> In this Decision, citation to the page and line numbers of the transcripts of the September hearing and the October hearing is: date at page:line. For example, citation to page 100 at line 10 of the September 28 transcript is: Sept. 28 tr. at 100:10. The same page and line number convention is used when citing to Hearing Exhibits.

**A. Evidentiary Hearing on Application: September 28 and 29, 2011.**

41. On September 28 and 29, 2011, the ALJ held an evidentiary hearing on the Application. The Parties were present, were represented, and participated. The ALJ heard the testimony of seven witnesses.

42. Applicant presented four witnesses: Messrs. Kyle White,<sup>12</sup> Mark Lux,<sup>13</sup> and Fred Carl<sup>14</sup> and Dr. Robert Pearson.<sup>15</sup> CIEA presented one witness: Mr. Nicholas Muller.<sup>16</sup> Gas

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<sup>12</sup> Mr. White is Vice President of Resource Planning and Regulatory Affairs for Black Hills Corporation, which is Applicant's parent company. Mr. White's direct testimony is Hearing Exhibit No. 2, his supplemental direct testimony and exhibits are Hearing Exhibit No. 4, and his rebuttal testimony and exhibits are Hearing Exhibit No. 6. Confidential Exhibit No. 4A contains confidential exhibits 18 and 19 to Exhibit KDW-1 to Mr. White's supplemental direct testimony (Hearing Exhibit No. 4). Highly Confidential Exhibit No. 4B contains highly confidential exhibits 14B, 20, and 23 to Exhibit KDW-1 to Mr. White's supplemental direct testimony (Hearing Exhibit No. 4). During his oral testimony, Mr. White corrected his written testimony and exhibits. His oral testimony is found in the September 29, 2011 transcript (Sept. 29 tr.) at 3:10-138:18.

By ruling memorialized in Decision No. R11-1250-I, the ALJ granted Staff's motion to strike portions of the Black Hills rebuttal testimony as stated in Appendix B to that Order. The cover page of Mr. White's rebuttal testimony (Hearing Exhibit No. 6) contains the following statement: "Strikeout per the ALJ's ruling on Staff's Motion to Strike portions of the Rebuttal Testimony of Mark Lux. Black Hills Energy has elected to present its rebuttal testimony with the stricken testimony shown in legislative format."

<sup>13</sup> Mr. Lux is Vice President and General Manager of Power Delivery for Black Hills Corporation and, as pertinent here, is the Business Unit Leader responsible for the electrical power generation assets owned by Black Hills Corporation. Mr. Lux's direct testimony and exhibits are Hearing Exhibit No. 3, his supplemental direct testimony is Hearing Exhibit No. 5, and his rebuttal testimony and exhibits are Hearing Exhibit No. 7. Confidential Exhibit No. 3A contains confidential exhibits ML-2, ML-3, and ML-4 to Mr. Lux's direct testimony and exhibits (Hearing Exhibit No. 3). During his oral testimony, Mr. Lux corrected his written testimony. His oral testimony is found in the September 28 transcript (Sept. 28 tr.) at 154:13-210:12.

By ruling memorialized in Decision No. R11-1250-I, the ALJ granted Staff's motion to strike portions of the Black Hills rebuttal testimony as stated in Appendix B to that Order. The cover page of Mr. Lux's rebuttal testimony (Hearing Exhibit No. 7) contains the following statement: "Strikeout per the ALJ's ruling on Staff's Motion to Strike portions of the Rebuttal Testimony of Mark Lux. Black Hills Energy has elected to present its rebuttal testimony with the stricken testimony shown in legislative format."

<sup>14</sup> Mr. Carl is Director of Environmental Services for Black Hills Corporation. Mr. Carl's rebuttal testimony and exhibit are Hearing Exhibit No. 8. His oral testimony is found in the Sept. 28 tr. at 142:1-154:3.

<sup>15</sup> Dr. Pearson is Vice President of Environmental Services for CH2M Hill, which is an environmental and engineering firm based in Denver, Colorado. Dr. Pearson's rebuttal testimony and exhibits are Hearing Exhibit No. 9. His oral testimony is found in the Sept. 28 tr. at 93:11-140:22.

By ruling memorialized in Decision No. R11-1250-I, the ALJ granted Staff's motion to strike portions of the Black Hills rebuttal testimony as stated in Appendix B to that Order. The cover page of Dr. Pearson's rebuttal testimony (Hearing Exhibit No. 9) contains the following statement: "Strikeout per the ALJ's ruling on Staff's Motion to Strike portions of the Rebuttal Testimony of Mark Lux. Black Hills Energy has elected to present its rebuttal testimony with the stricken testimony shown in legislative format."

<sup>16</sup> Mr. Muller is Executive Director of CIEA. Mr. Muller's answer testimony is Hearing Exhibit No. 10. During his oral testimony, Mr. Muller corrected his written testimony. His oral testimony is found in the Sept. 29 tr. at 170:19-193:10.

Intervenors presented one witness: Mr. Robert H. Weinstein.<sup>17</sup> Staff presented one witness: Ms. Sharon L. Podein.<sup>18</sup>

43. Including prefiled testimonies, 20 hearing exhibits were marked for identification and were offered during the September hearing. Of these, Hearing Exhibits No. 1 through No. 14,<sup>19</sup> No. 16, and No. 18 through No. 20 were admitted into evidence.<sup>20</sup>

44. At the conclusion of the September 2011 hearing, the ALJ adjourned the hearing until the October hearing.

45. For purposes of this Decision, the ALJ relies only on the evidentiary record developed up to and including the September 2011 hearing. That is the evidence presented in support of, and in opposition to, the Application. The October 2011 hearing was for the purpose of addressing the Settlement. The ALJ did not permit during that hearing -- and does not consider in this Decision -- additional or updated evidence in support of, or in opposition to, the Application that may have been included in testimony about the Settlement and the Parties' bases for their positions *vis-à-vis* the Settlement.

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<sup>17</sup> Mr. Weinstein is the principal in Robert Weinstein Consulting. Mr. Weinstein's answer testimony and exhibits are Hearing Exhibit No. 11, and his cross-answer testimony is Hearing Exhibit No. 12. His oral testimony is found in the Sept. 29 tr. at 140:18-146:23.

By ruling memorialized in Decision No. R11-1250-I, the ALJ granted CIEA's motion to strike portions of Mr. Weinstein's answer testimony and cross-answer testimony and Staff's motion to strike portions of Mr. Weinstein's cross-answer testimony as stated in Appendix A to that Order. Hearing Exhibits No. 11 and No. 12 contain strike-throughs in accordance with that ruling.

<sup>18</sup> Ms. Podein is a Professional Engineer employed by the Commission. Ms. Podein's answer testimony and exhibits are Hearing Exhibit No. 13. During her oral testimony, Ms. Podein corrected her written testimony. No portion of her answer testimony and exhibits is confidential. Her oral testimony is found in the Sept. 29 tr. at 147:15-169:11 and at 193:18-236:12. By oral ruling made during the hearing, the ALJ struck the following: Sept. 29 tr. at 164:15-21.

<sup>19</sup> The following are Confidential Hearing Exhibits: No. 3A and No. 4A. The following is a Highly Confidential Hearing Exhibit: No. 4B.

<sup>20</sup> The following were marked for identification and were either withdrawn or not offered: confidential exhibit no. 13B, exhibit no. 15, and exhibit no. 17.

**B. Evidentiary Hearing on Settlement: October 25, 2011.**

46. On October 25, 2011, the ALJ held an evidentiary hearing on the Settlement.<sup>21</sup>

The Parties were present, were represented, and participated. The ALJ heard the testimony of five witnesses.

47. Each signatory to the Settlement presented written and oral testimony in support of the Settlement. Applicant presented one witness: Mr. Kyle White.<sup>22</sup> Gas Intervenors presented one witness: Mr. Robert Weinstein.<sup>23</sup> Governmental Intervenors presented one witness: Mr. Terry Book.<sup>24</sup> OCC presented one witness: Dr. PB Schechter.<sup>25</sup>

48. CIEA and Staff oppose the Settlement. They made filings that outlined the bases for their opposition, did not prefile testimony, and presented oral testimony only. CIEA did not present a witness. Staff presented one witness: Mr. Gene Camp.<sup>26</sup>

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<sup>21</sup> The ALJ ordered that portions of the transcript that pertain to an assertion that Staff failed to supplement its response to discovery propounded to it, and those portions that contain the ALJ's ruling related to that assertion, be stricken. The transcript has been corrected based on counsel's representation, made after the evidentiary record was closed, that the assertion was factually incorrect. The portions of the transcript that have been stricken on this basis are found at Oct. 25 tr. at 212:19-24, 214:17-21, 215:3-8, and 218:4-6 and are shown in the transcript in legislative format, with strike-throughs.

<sup>22</sup> Mr. White is Vice President of Resource Planning and Regulatory Affairs for Black Hills Corporation. He testified during the September hearing. Mr. White's testimony in support of the Settlement is Hearing Exhibit No. 22. During his oral testimony, Mr. White corrected his written testimony. His oral testimony is found in the October 25, 2011 transcript (Oct. 25 tr.) at 11:18-107:24.

<sup>23</sup> Mr. Weinstein is the principal in Robert Weinstein Consulting. He testified during the September hearing. Mr. Weinstein's testimony in support of the Settlement is Hearing Exhibit No. 24. His oral testimony is found in the Oct. 25 tr. at 120:19-123:23.

<sup>24</sup> Mr. Book is the Deputy Executive Director for the Board of Water Works of Pueblo, Colorado. Mr. Book's testimony in support of the Settlement is Hearing Exhibit No. 23. During his oral testimony, Mr. Book corrected his written testimony. His oral testimony is found in the Oct. 25 tr. at 108:11-119:25.

<sup>25</sup> Dr. Schechter is a Rate Analyst employed by the OCC. Dr. Schechter's testimony in support of the Settlement is Hearing Exhibit No. 25. During his oral testimony, Dr. Schechter corrected his written testimony. His oral testimony is found in the Oct. 25 tr. at 124:7-162:24.

<sup>26</sup> Mr. Camp is the Chief of the Commission's Energy Section. His oral testimony in opposition to the Settlement is found in the Oct. 25 tr. at 164:13-243:7.

By oral ruling, the ALJ ordered that portions of Mr. Camp's oral testimony be stricken. The portions of the transcript that have been stricken on this basis are found at Oct. 25 tr. at 168:12-169:4 and 208:19-210:18 and are shown in the transcript in legislative format, with strike-throughs.

49. Including prefiled testimonies, nine hearing exhibits were marked for identification and offered during the October hearing.<sup>27</sup> Of these, Hearing Exhibit No. 21, Confidential Hearing Exhibit No. 21A,<sup>28</sup> Hearing Exhibits No. 22 through No. 27, and Hearing Exhibit No. 29<sup>29</sup> were admitted into evidence.<sup>30</sup>

50. At the conclusion of the October hearing, the evidentiary record was closed.

## V. BURDEN OF PROOF AND RELATED PRINCIPLES

51. Black Hills requests that the Commission (a) grant Black Hills a CPCN to construct, to own, and to operate an LMS100 (and associated facilities) at the Pueblo Airport Generating Station; and (b) authorize Black Hills to close the Pueblo 5 and 6 generating units.

52. As the party seeking action by the Commission, Applicant bears the burden of proof with respect to the relief sought by a preponderance of the evidence. Section 24-4-105(7), C.R.S.; § 13-25-127(1), C.R.S.; Rules of Practice and Procedure, 4 *Code of Colorado Regulations* (CCR) 723-1-1500. The evidence must be “substantial evidence,” which the Colorado Supreme Court has defined as

such relevant evidence as a reasonable person’s mind might accept as adequate to support a conclusion ... it must be enough to justify, if the trial were to a jury, a refusal to direct a verdict when the conclusion sought to be drawn from it is one of fact for the jury.

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<sup>27</sup> Hearing exhibit numbering began with Hearing Exhibit No. 21. This is the next number following the last hearing exhibit marked for identification during the September hearing.

<sup>28</sup> This is Confidential Exhibit 2 to the Settlement (Hearing Exhibit No. 21).

<sup>29</sup> Hearing Exhibit No. 29 consists of portions of Decision No. C09-0184, the February 24, 2009 Phase I Decision issued in Docket No. 08A-346E, *In the Matter of the Application of Black Hills/Colorado Electric Utility Company, LP, for Approval of its 2008 Colorado Resource Plan and Petition for Waivers of Portions of the Resource Planning Rules*.

<sup>30</sup> Hearing Exhibit No. 28 was marked, was offered, but was not admitted.

*City of Boulder v. Colorado Public Utilities Commission*, 996 P.2d 1270, 1278 (Colo. 2000) (quoting *CF&I Steel, L.P. v. Public Utilities Commission*, 949 P.2d 577, 585 (Colo. 1997)). The preponderance standard requires the finder of fact to determine whether the existence of a contested fact is more probable than its non-existence. *Swain v. Colorado Department of Revenue*, 717 P.2d 507 (Colo. App. 1985). A party has met this burden of proof when the evidence, on the whole and however slightly, tips in favor of that party.

53. If an intervenor advocates that the Commission adopt its position (*e.g.*, if an intervenor requests that a condition be placed on the CPCN), that intervenor must meet the same preponderance of the evidence burden of proof with respect to its advocated position.

54. Each of the Applicant's requests is a matter of the public interest. The Commission has an independent duty to determine matters that are within the public interest. *Caldwell v. Public Utilities Commission*, 692 P.2d 1085, 1089 (Colo. 1984). As a result, the Commission is not bound by the proposals made by the Parties. The Commission may establish conditions that the Commission deems necessary to assure that the final result is just, is reasonable, and is in the public interest provided the evidentiary record supports the result and provided the reasons for the choices made (*e.g.*, policy decisions) are stated.

55. In reaching her decision in this matter, the ALJ is mindful of these principles and of the Commission's duty.

## **VI. FINDINGS OF FACT**

56. The record establishes, and the ALJ finds, that the Commission has jurisdiction over the subject matter of this proceeding and over the Parties to this proceeding.

57. Findings of fact in addition to those stated in this section of the Decision are found in the remainder of the Decision.

**A. Parties.**

58. Applicant Black Hills<sup>31</sup> is a public utility that, as pertinent here, owns and operates facilities used to provide electric service to its ratepayers in Colorado. As a public utility, Black Hills has a certificated service territory in Colorado; is responsible for providing reliable electric service to its customers at reasonable rates; and is regulated by the Commission.

59. Applicant is a regulated electric utility subsidiary of Black Hills Corporation. Black Hills Corporation owns regulated and unregulated subsidiaries.<sup>32</sup> The unregulated subsidiaries of Black Hills Corporation include: Black Hills Service Company, LLC; Black Hills Power, Inc.; Black Hills Electric Generation, LLC. The unregulated subsidiaries of Black Hills Corporation are affiliates of Applicant.

60. If there be a dispute or conflict between or among its subsidiaries, Black Hills Corporation makes the final determination resolving the dispute. In making its determination, Black Hills Corporation weighs (for example) the interests of the subsidiaries and its own business plans. As stated by Black Hills witness White, Black Hills Corporation has “a fiduciary responsibility to shareholders to maximize the opportunities from the businesses we operate.” Sept. 29 tr. at 37:13-15.

61. Intervenor Board of Water Works of Pueblo, Colorado is an independent municipal governmental entity created by virtue of the Home Rule Charter of the City of Pueblo, Colorado. The Board provides raw and potable water service to customers inside and outside the City of Pueblo, Colorado. The Board is a customer of Applicant.

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<sup>31</sup> In the testimony, Applicant is sometimes referred to as BH Energy or Black Hills Energy.

<sup>32</sup> Hearing Exhibit No. 13 at Exhibit SLP-4 is the Black Hills Corporation Organizational Chart.

62. Intervenor Colorado Independent Energy Association is a trade association of independent power producer companies and other entities. CIEA's members are independent power producers that now operate in, or that seek to operate in, Colorado.

63. Intervenor Cripple Creek & Victor Gold Mining Company operates the Cresson gold mine and mill and related facilities near Victor, Colorado. CC&V is a customer of Applicant.

64. Intervenor EnCana Oil & Gas (USA) is a large natural gas company. EnCana has significant gas plays, resources, and sales of natural gas in Colorado.

65. Intervenor Fountain Valley Authority is an intergovernmental authority formed under Colorado law to operate a pipeline, pumping stations, and a water treatment plant used to provide potable water to the communities of Colorado Springs, Fountain, Security, Stratmoor Hills, and Widefield, Colorado. FVA is a customer of Applicant.

66. Intervenor Holcim (U.S.) Inc. operates a cement manufacturing facility in Florence, Colorado. Holcim is a customer of Applicant.

67. Intervenor Noble Energy, Inc., is an independent energy company with operations that include exploration for, development of, and production of natural gas in the United States. Noble has significant gas plays, resources, and sales of natural gas in Colorado.

68. Intervenor OCC is a Colorado state agency established pursuant to § 40-6.5-102, C.R.S. Its charge is as set out in § 40-6.5-104, C.R.S.

69. Intervenor Staff is litigation Staff of the Commission as identified in the Rule 4 CCR 723-1-1007(a) notices filed in this docket.

**B. Black Hills Service Territory.**

70. Black Hills provides electric service to 21 communities in Colorado and has approximately 93,000 customers.

71. The Black Hills service territory encompasses all or part of these counties: Crowley, Custer, Fremont, Otero, Pueblo, and Teller. The largest communities that Black Hills serves include Canon City, Pueblo, and Rocky Ford.

72. CF&I Steel, LP, doing business as Evraz Rocky Mountain Steel (ERMS), is located in Pueblo, Colorado. ERMS is an electric customer of Public Service Company of Colorado and not of Applicant.

**C. Black Hills Clean Air - Clean Jobs Act Docket.**

73. This proceeding has its origins in Docket No. 10M-254E, *In the Matter of Commission Consideration of Black Hills/Colorado Electric Utility Company, LP, Plan in Compliance with House Bill 10-1365, "Clean Air - Clean Jobs Act"* (CACJA Proceeding). Black Hills filed that proceeding to comply with the provisions of the Clean Air - Clean Jobs Act, §§ 40-2.3-201 through 40-2.3-210, C.R.S. (CACJAct). In the CACJA Proceeding, the Commission issued Decision No. C10-1330 and Decision No. C11-0118 (CACJA Decisions).

74. In Decision No. R11-0889-I, the ALJ discussed the CACJAct; the statute's purposes; and the role of the Commission and of the Colorado Department of Public Health and Environment (CDPHE) in implementing the statute. That discussion is incorporated here and will not be repeated.

75. As discussed in Decision No. R11-0889-I, the CACJA Decisions approved the Black Hills plan to decommission the coal-fired Clark Station units by December 31, 2013 and

afforded a presumption of need to the 42 MW of capacity needed to replace those units.<sup>33</sup> That discussion is incorporated here and will not be repeated.

76. As relevant here, in Decision No. C10-1330, the Commission stated:

Section 40-3.2-204(2)(b)(III), C.R.S., requires the CDPHE to “determine whether any new ... electric generating unit proposed under the plan, *other than a peaking facility utilized less than twenty percent on an annual basis* ... will achieve emission rates equivalent to or less than a combined-cycle natural gas generating unit.” Section 40-3.2-205(1)(b), C.R.S., requires us to consider whether the CDPHE made this determination. As discussed above, CDPHE has stated that the emission rates from the LMS 100 will not exceed the emission rates of a combined-cycle gas unit. This consideration supports approving the Company’s plan.

Decision No. C10-1330 at ¶ 82 (emphasis supplied).

77. On January 7, 2011, based on the Black Hills emissions reduction plan approved in Decision No. C10-1330, the Air Quality Control Commission of CDPHE issued the Revised Colorado Visibility and Regional Haze State Implementation Plan for the Twelve Mandatory Class 1 Federal Areas in Colorado (SIP). Hearing Exhibit No. 4 at Exhibit KDW-1 at 13 and Exhibit 3. The SIP makes mandatory the decommissioning of the Clark Station coal units by the end of 2013.

78. By House Bill 11-1291, which was signed by the Governor on May 4, 2011, the General Assembly approved the SIP. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 4.

79. The SIP was submitted to the United States Environmental Protection Agency.

80. Neither House Bill No. 11-1291 nor the SIP references the replacement capacity for the retired Clark Station units. Black Hills acknowledges this: “[T]he Regional Haze State Implementation Plan only addresses the shutdown of the Clark Station coal units. *The LMS100 at [the Pueblo Airport Generating Station (PAGS)] is a newly-permitted facility and, therefore, is*

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<sup>33</sup> In this Decision, the 42 MW of capacity to replace the coal-fired Clark Station 42 MW of capacity is sometimes referred to as the Replacement Capacity.

*not part of the State Implementation Plan.*” June 9, 2011 response of Black Hills to filings of CIEA and Staff concerning scope of proceeding at note 1 (emphasis supplied).

81. Section 40-3.2-204(2)(c), C.R.S., requires that an emissions reduction plan “include a schedule that would result in full implementation of the plan on or before December 31, 2017.” The schedule must be designed “to protect system reliability, control overall cost, and assure consistency with the requirements of the federal” Clean Air Act.” *Id.* Black Hills has until December 31, 2017 to replace the Clark Station coal units’ 42 MW of capacity.

**D. Sunflower Contract or Swap.**

82. The Black Hills system is summer peaking; that is, it typically experiences its highest customer demand for electricity during the months of June, July, and August. The same was true for Aquila, Inc., the regulated electric utility from which Black Hills acquired utility assets and service territory in Colorado.

83. In 1997, the Western Area Power Administration (WAPA) and Utilicorp United, Inc. (subsequently known as Aquila, Inc.), entered into an Energy Displacement Agreement (Sunflower Contract or Sunflower Swap) pursuant to which Utilicorp provided firm capacity and energy to WAPA in Kansas and WAPA provided an equal amount of firm capacity and energy to Utilicorp in Colorado. The Sunflower Swap was for 18 MW of firm capacity and energy in the Summer Season, and contract pricing was subject to wholesale tariffs. Black Hills subsequently acquired Aquila’s service territory and utility assets, including the Sunflower Swap.

84. Black Hills and its predecessors took capacity and associated energy from the Sunflower Swap from 1997 through December 2010. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 12 shows the energy costs by month for August 2008 through December 2010.

85. The original term of the Sunflower Swap was through September 20, 2024. A November 2007 Letter Agreement between Mid-Kansas Electric Company, LLC (a successor to Aquila) and WAPA shortened the term of the Sunflower Swap to December 31, 2010. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 11.

86. The Sunflower Swap was a take-or-pay arrangement. As a result of this take-or-pay characteristic, that 18 MW resource was among the first resources dispatched to meet customer demand. Black Hills treated the Sunflower Swap as a baseload unit.

87. Two natural gas-fired General Electric (GE) LM6000 2 X 1 combined cycle generating units are expected to be in service at Pueblo Airport Generating Station (PAGS) on January 1, 2012. In addition, two natural-gas fired GE Model LMS100PA (LMS100) combustion turbine generator units are expected to be in service at PAGS on January 1, 2012.<sup>34</sup> When these four units are in service at the end of 2013 when the Clark Station coal units are decommissioned, Black Hills' entire baseload need will be met by the two combined cycle units and a small portion of one of the two LMS100 units.

88. Beginning in 2013, Black Hills will need only peaking capacity on its system.

89. Based on its loads and resources exhibit, through the end of 2012 with a 15 percent reserve margin,<sup>35</sup> Black Hills has sufficient capacity available to cover the expired Sunflower Swap. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15 (page 2).<sup>36</sup>

90. Based on its loads and resources exhibit, through the end of 2013 with a 15 percent reserve margin, Black Hills has sufficient capacity available to cover the 18 MW of the expired Sunflower Swap. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15 (page 2).

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<sup>34</sup> These units are discussed below.

<sup>35</sup> This is Black Hills' current Commission-approved reserve margin.

<sup>36</sup> This exhibit is discussed in detail below.

In that year, Black Hills intends to make block purchases from the market, if appropriate and necessary, to cover the peak summer months.

91. Based on its loads and resources exhibit, Black Hills will have a slight capacity shortfall in 2014 even with the addition of the LMS100 for which a CPCN is sought in this proceeding. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15 (page 2).

92. But for the CACJA Proceeding, the CACJA Decisions, and its need to establish a need for the 90 MW of capacity of the third LMS100 at PAGS, Black Hills most likely would have included the need to replace the Sunflower Swap's 18 MW of capacity in its next ERP proceeding. Sept. 29 tr. at 52:1-23.

**E. Pueblo 5 and 6.**

93. Pueblo 5 was installed in 1941 as a coal-fired steam turbine. It was subsequently converted to a natural gas-fired steam turbine. It has a net capacity during the summer months in Pueblo, Colorado of nine MW.<sup>37</sup> Based on data from the Company's 2008 Electric Resource Plan case,<sup>38</sup> this unit has a forced outage rate of 13.06 percent; a scheduled outage rate of 5.8 percent; and an average heat rate<sup>39</sup> at full load of 14,900 Btu/kWh.<sup>40</sup> The unit has these air

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<sup>37</sup> A gas turbine is designed to produce a specific output with a specific heat rate under a given set of ambient and operating condition. The net capacity of a generating unit takes into account the elevation and the ambient temperature at which the unit is operated. The capacity of a generating unit in Pueblo (at its elevation) is less than the capacity of that same unit at sea-level, and the capacity of a generating unit operated during the summer is less than the capacity of that same unit operated during the winter. In addition, a portion of the unit's capacity will be used for auxiliary power. Consequently, when determining the available capacity of a generating unit, one uses the net capacity of that unit. In this Decision, unless the context indicates otherwise, reference to the net capacity of a generating unit is to its net capacity in Pueblo, Colorado during the summer months.

<sup>38</sup> This was Docket No. 08A-346E, *In the Matter of the Application of Black Hills/Colorado Electric Utility Company, LP, for Approval of its 2008 Colorado Resource Plan and Petition for Waiver of Portions of the Resource Planning Rules* (2008 ERP Docket).

<sup>39</sup> Heat rate is an indicator of the efficiency of a generating unit, which in turn includes the amount of fuel consumed to produce a kWh of energy. The higher its heat rate, the more fuel a generating unit consumes to produce a kWh of energy.

<sup>40</sup> These values are found in Hearing Exhibit No. 4 at Exhibit KDW-1 at 27. The record does not show whether these values are annual. The extent to which these values may have changed in the three years since the Company's 2008 ERP Docket is unknown.

emissions rates: NO<sub>x</sub> is 0.034 lb/MMBtu; CO<sub>2</sub> is 1713 lb/MMBtu; and SO<sub>2</sub> is 0.0106 lb/MMBtu.<sup>41</sup>

94. Pueblo 6 was installed in 1949 as a coal-fired steam turbine. It was subsequently converted to a natural gas-fired steam turbine. It has a net capacity of 20 MW. Based on data from the 2008 ERP Docket, this unit has a forced outage rate of 13.06 percent; a scheduled outage rate of 5.8 percent; and an average heat rate at full load of 13,613 Btu/kWh.<sup>42</sup> The unit has the following air emissions rates: NO<sub>x</sub> is 0.329 lb/MMBtu; CO<sub>2</sub> is 1564 lb/MMBtu; and SO<sub>2</sub> is 0.0096 lb/MMBtu.<sup>43</sup>

95. Two natural gas-fired GE LM6000 2 X 1 combined cycle generating units are expected to be in service at PAGES on January 1, 2012. In addition, two natural-gas fired LMS100 units are expected to be in service at PAGES on January 1, 2012.<sup>44</sup> When these four units are in service at the end of 2013 when the Clark Station coal units are decommissioned, Black Hills' entire baseload need will be met by the two combined cycle units and a small portion of one of the two LMS100 units.

96. Beginning in 2013, Black Hills will need only peaking capacity on its system.

97. Both Pueblo 5 and 6 have a start time of approximately 12 hours, which is roughly the same start time as a coal-fired unit. Both units have a relatively slow ramp rate of 1.5 to 3.0 MW per minute. In Black Hills' opinion, as a result of these characteristics, the units are "not ideal for peaking service[.]" Hearing Exhibit No. 5 at 5:5-6.

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<sup>41</sup> These values are found in Hearing Exhibit No. 4 at Exhibit KDW-1 at 27. Black Hills does not provide the source from which these emissions rates are taken.

<sup>42</sup> These values are found in Hearing Exhibit No. 4 at Exhibit KDW-1 at 31. The record does not show whether these values are annual. The extent to which these values may have changed in the three years since the Company's 2008 ERP Docket is unknown.

<sup>43</sup> These values are found in Hearing Exhibit No. 4 at Exhibit KDW-1 at 31. Black Hills does not provide the source from which these emissions rates are taken.

<sup>44</sup> These units are discussed below.

98. At present, Black Hills operates these Pueblo units primarily during the summer months of July and August when Black Hills experiences its peak demand.

99. The age of these units can present difficulties should a component or part fail. If a part or component is no longer supported by its Original Equipment Manufacturer (OEM), Black Hills either must fabricate the part or component or must locate it through some other means (*e.g.*, E-bay).

100. Pueblo 5's burner management system and its package boiler were installed in 2001 and are fairly new. Hearing Exhibit No. 5 at 5:12-24. Its exciter was rebuilt in 2009 "and thus is in good condition, but would have to be rebuilt ... should something happen to this unit." *Id.* at 5:16-18. Its emissions monitoring system is supported by the company that owns the software. The unit's auxiliary systems are 1941 vintage, and the OEM no longer supports the systems. In addition, the unit's turbine controls are 1941 vintage and are no longer supported.

101. Most of Pueblo 6's systems (*e.g.*, burner management system, the boiler controls, and the feedwater control system) are no longer supported by their OEMs. These systems were updated in the early 1990s with new controls. In the last few years, when a controller went bad, Black Hills sent the controller out to be rebuilt because new controllers are no longer made. The unit's excitation system is a rotating exciter; it is "in fairly good condition but parts cannot be bought for it and when needed [they must] be rebuilt rather than replaced." Hearing Exhibit No. 5 at 6:6-8. During the unit's last major outage (the date of this outage is unknown), turbine parts were remanufactured. The last time Black Hills needed to buy a component for the burner management system (the date is unknown), the Company had to locate one on E-bay because the OEM no longer supports the component.

102. Black Hills did not present the results of an objective and quantified analysis performed to determine that the Pueblo 5 and 6 units are the units that should be retired by the

end of 2013. Black Hills did not present evidence describing such an analysis. The record contains no information from which to determine whether such an analysis was done and, if done, the completeness or the results of such an analysis.

103. The record contains no quantified information concerning the reliability of Pueblo 5 and 6.<sup>45</sup> For example, and without limitation, the record contains none of the following information with respect to either Pueblo 5 or Pueblo 6: (a) the available spare parts inventory (if any); (b) the reliability history of the unit (*e.g.*, date of each forced outage (if any) over the past five years; time at which each forced outage began; duration of each forced outage; cause of each forced outage; and costs (if any) incurred as a result of each forced outage); (c) identification of critical parts, critical components, and critical systems; (d) Black Hills' ability or inability to fabricate critical parts or critical components; (e) if Black Hills can do the fabrication, the cost to fabricate, and the time necessary to fabricate, a part or component no longer supported by its OEM; (f) the date of the unit's last scheduled maintenance, the cost to perform the scheduled maintenance, what was done during the scheduled maintenance, and the impact of the scheduled maintenance on the probability or likelihood of a future forced outage of the unit; and (g) the date of the unit's next scheduled maintenance.

104. In 2009, the Operation and Maintenance (O&M) costs (exclusive of fuel) *for both units* were \$ 1.27 million. In 2010, the O&M costs (exclusive of fuel) *for both units* were \$ 0.99 million.

105. Black Hills estimates that the decommissioning costs of Pueblo 5 and 6 will not exceed \$ 2 million. This estimate is based on Black Hills Corporation's general experience with

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<sup>45</sup> As discussed in Decision No. R11-1250-I at ¶¶ 85-104, the ALJ ordered stricken the discussion of information concerning outages at Pueblo 5 and 6 that was contained in Black Hills witness Lux's rebuttal testimony and exhibits (Hearing Exhibit No. 7). Even had the testimony and exhibits been admitted, the record would not include the quantified data listed in this Decision.

closing and decommissioning power plants; it is not based on a study of the specific decommissioning costs of Pueblo 5 and 6.

106. Given the significant capital costs that would be involved, there is no suggestion that Black Hills should take steps to extend the life of either Pueblo 5 or Pueblo 6.

107. Black Hills acknowledges, and no party disputes, that “[t]he capacity of Pueblo 5 and 6 does not have to be replaced at the end of 2013. The Company could propose retirement of Pueblo 5 and 6 in its next resource plan and wait until new resources resulting from that plan are acquired before retiring these units.” Hearing Exhibit No. 4 at Exhibit KDW-1 at 52.

108. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit No. 13 is a paper dated July 6, 2011 and entitled “General Factors to Consider When Retiring Units.” Black & Veatch prepared this paper specifically for this proceeding. The Application seeking authorization to close Pueblo 5 and 6 was filed in March 2011. There is no evidence that Black Hills relied on this paper when it decided to seek authorization to close Pueblo 5 and 6. Given the July 2011 date of the paper, Black Hills could not have relied on the paper or its conclusions. Because Black Hills did not rely on, and could not have relied on, this paper at the time it considered whether to close Pueblo 5 and 6, the ALJ disregarded the Black & Veatch paper and the Company’s testimony and report that relied on that paper.<sup>46</sup>

**F. LMS100 at PAGS.**

109. Black Hills filed the CPCN portion of the Application pursuant to Rule 4 CCR 723-3-3102. That Rule incorporates by reference Rule 4 CCR 723-3-3002(b) and Rule 4 CCR 723-3-3002(c).

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<sup>46</sup> For example, *see* Hearing Exhibit No. 4 at Exhibit KDW-1 at 31-32.

110. Rule 4 CCR 723-3-3002(b)(IX) requires an applicant for a CPCN for facilities to provide financial information. Hearing Exhibit No.1 (Application) at Exhibit 1 contains the audited consolidated Statements of Income, Balance Sheets, and Statements of Cash Flow for Black Hills Corporation from its annual report (10K) for the year ended December 31, 2010. No party addressed, rebutted, or controverted these data; thus, the information is unrefuted.

111. In that same exhibit, Black Hills provided portions of the most recent Federal Energy Regulatory Commission Form No. 1 filed in Colorado. This contained, for the year ending December 31, 2009, Applicant's Comparative Balance Sheet (Assets and Other Debits), Comparative Balance Sheet (Liabilities and Other Credits), Statement of Income, Statement of Retained Earnings, and Statement of Cash Flows. No party addressed, rebutted, or controverted these data; thus, the information is unrefuted.

112. Rule 4 CCR 723-3-3002(c)(IX) requires an applicant for a CPCN for facilities to provide specified information required by Rule 4 CCR 723-1-1310. The required information is on file with the Commission in Docket No. 06M-525EG. No party addressed, rebutted, or controverted these data; thus, the information is unrefuted.

113. In Hearing Exhibit No. 1 (Application), Black Hills states that one basis for the Company's reconsideration and examination of its resource needs is the U.S. Environmental Protection Agency's issuance of the Boiler MACT Rule. That rule is no longer a basis on which Black Hills seeks the CPCN.

**1. Description of PAGS.**

114. The PAGS is located approximately three miles north of the Pueblo Municipal Airport in Pueblo, Colorado. The property consists of three lots or parcels. Black Hills IPP,

LLC, an unregulated affiliate of Applicant, owns one parcel;<sup>47</sup> and Applicant owns two parcels. Hearing Exhibit No. 18 is a plot plan for PAGS.

115. As pertinent here, on the *Black Hills IPP parcel* are two natural gas-fired GE LM6000 2 X 1 combined cycle generating units (PAGS LM6000 units or combined cycle units) that are owned by Black Hills IPP.<sup>48</sup> These units are dispatchable, are capable of non-intermittent operation, have a net capacity of 200 MW (100 MW per unit), and are expected to be in service on January 1, 2012. Pursuant to a power purchase agreement (PPA) with Black Hills IPP, Applicant will purchase the net capacity (approximately 200 MW) and associated energy from these combined cycle units through December 31, 2031.

116. On *Applicant's two parcels*, as pertinent here, are: (a) two natural gas-fired LMS100 units;<sup>49</sup> (b) the control room for PAGS; (c) the warehouse facilities for PAGS; (d) the 115kV substation through which all generating units at PAGS interconnect with Applicant's transmission system; (e) the storm water pool for PAGS; (f) the water storage tanks for PAGS; (g) virtually all of the wastewater containment basin facility for PAGS; (h) the gas supply interconnection to the Colorado Interstate Gas system; and (i) the site access road.

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<sup>47</sup> This parcel is outlined in green on Hearing Exhibit No. 18. There is some confusion in the record concerning the Black Hills unregulated affiliate that owns this parcel. In the oral testimony, Black Hills witnesses refer to the parcel owner as Black Hills IPP. In Hearing Exhibit No. 4 at KDW-1 at 7 and elsewhere in the written testimony and exhibits, Black Hills refers to the parcel owner as Black Hills Generation. The record is not clear about whether these are two separate entities or two names for the same entity. In this Decision, the parcel owner is referred to as Black Hills IPP.

<sup>48</sup> On Hearing Exhibit No. 18, these units are found to the right of the area labeled EXP (*i.e.*, the expansion slot).

<sup>49</sup> On Hearing Exhibit No. 18, these units are found to the left of the area labeled EXP (*i.e.*, the expansion slot).

Applicant received a CPCN for these units in Docket No. 09A-415E, *In the Matter of the Application of Black Hills/Colorado Electric Utility Company, LP, for a Certificate of Public Convenience and Necessity to Construct Two LMS100 Natural Gas-Fired Turbines; and Proposed Expedited Procedural Schedule*. In that proceeding, by Decision No. R10-0102, the ALJ approved a Stipulation and Settlement Agreement and granted the requested CPCN. That Recommended Decision became a Commission Decision by operation of law.

117. Applicant and Black Hills IPP both use the following facilities at PAGES: (a) the control room; (b) the warehouse facilities; (c) the substation; (d) the storm water pool; (e) the water storage tanks; (f) the wastewater containment basin facility; (g) the gas supply interconnections to the Colorado Interstate Gas system; (h) the site access road; and (i) the water supply line connection to the Pueblo municipal system.<sup>50</sup> Most of these jointly-used facilities are located on Applicant's parcels.

118. The two utility-owned LMS100 units are under construction, with a January 1, 2012 expected in-service date. These units are dispatchable, are capable of non-intermittent operation, and have a net capacity of 176 MW (88 MW per unit).<sup>51</sup>

119. In conjunction with other resources,<sup>52</sup> the two utility-owned LMS100 units at PAGES (referred to in the cited exhibit as LSM100 1 ren12 and LMS100 2 ren12) and the two combined cycle units at PAGES (referred to in the cited exhibit as LMCC1 renew12 and LMCC2 renew)<sup>53</sup> are sufficient to meet Applicant's 2014 baseload and intermediate energy demands. This information is based on Hearing Exhibit No. 7 at Exhibit ML-7.<sup>54</sup>

120. Assuming the CPCN for the third LMS100 were granted, in 2014, 470 MW would interconnect with the Black Hills' system at the substation on PAGES. In that year, Black Hills' total resources would be 512 MW. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15

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<sup>50</sup> The location of this connection is not known. Given the configuration of PAGES, some or all of the water supply lines are on Applicant's parcels.

<sup>51</sup> For planning purposes, each LMS100 is shown as 90 MW.

<sup>52</sup> These other resources include: (a) a five MW take-or-pay arrangement with Western Area Power Administration (BHCE MPS Swap), which five MW Black Hills uses as baseload at 100 percent due to the take-or-pay characteristic; (b) solar and any other renewable resources (3\_Solar BPSolar), which Black Hills uses 100 percent as available because they are energy only; and (c) a 50 MW energy purchase from the economy market (EP\_COE). With respect to the 50 MW energy purchase from the economy market, Black Hills' planning assumption is that it is able to go to the economy (*i.e.*, non-firm) energy market in any hour for up to 50 MW of economy energy. 29 Sept. tr. at 118:14-119:16.

<sup>53</sup> These units are run in tandem.

<sup>54</sup> This exhibit is discussed below.

(page 2). If the Application were granted, PAGES would be the site for, and would serve as the sole interconnection point for, approximately 92 percent of Black Hills' resources. A similar high concentration of generation resources at PAGES occur, beginning in 2012, even if the Application is denied.

## 2. The PAGES Air Permit.

121. The PAGES generating units operate under the provisions of, and according to the emissions levels stated in, Air Pollution Control Division Construction Permit No. 09PB0591, issued by the CDPHE on July 22, 2010 (Air Permit). Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 1. The Air Permit allows operation of the two IPP-owned PAGES LM6000 units and the two utility-owned LMS100 units now under construction at PAGES. The Air Permit also includes a third LMS100 at PAGES (the Expansion Slot); this is the portion of the Air Permit that pertains to the LMS100 that is the subject of this proceeding.

122. Black Hills Electric Generation, LLC (also referred to as Black Hills IPP), an unregulated affiliate of Applicant, owns the Air Permit. It is the policy of Black Hills Corporation, the parent company, to acquire air permits in the name of unregulated subsidiaries because it is difficult to transfer a regulated utility-owned air permit if the project for which the air permit was obtained does not go forward.

123. The Air Permit provides, as pertinent here:

**THIS PERMIT AUTOMATICALLY EXPIRES IF** you [*i.e.*, the holder of the Air Permit] (1) do not commence construction or operation within 18 months after either the date of issuance of this permit or the date on which such construction or activity was scheduled by commence as set forth in the permit, whichever is later; (2) discontinue construction for a period of 18 months or more; or (3) do not complete construction within a reasonable time of the estimated completion date. *Extensions of the expiration date may be granted by the [Air Pollution Control Division] upon a showing of good cause by the permittee [i.e., the holder of the Air Permit] prior to the expiration date.*

Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 1 at 18 (bolding and capitalization in original; italics supplied).

124. The two utility-owned LMS100 units are expected to be on-line no later than January 1, 2012. When construction of those units is completed, the ability to construct another generating unit under the Air Permit will expire, unless extended, if construction of the third (and final) LMS100 at PAGS does not commence within 18 months. This would not affect the generating units already in service at PAGS, which could operate under the terms of the Air Permit.

125. The Air Permit identifies the specific generating units that may be constructed, the permissible operation, and the permissible emissions levels of specified air pollutants. It is possible to reopen an air permit to substitute a different generating unit for the permitted unit. (For example, one might wish to investigate substituting a LM6000 for a permitted LMS100.) This has been done in Colorado for existing generating units. What has not been done in Colorado is to reopen an air permit to replace the unit named in the air permit (in this case, the third LMS100) with another unit before the unit named in the air permit has been constructed and is in operation. As a result, Colorado has no experience with such a proposal. Sept. 28 tr. at 126:22-128:8.

126. Black Hills Corporation, the parent of Black Hills Electric Generation, LLC (which owns the Air Permit) and of Applicant (which does not own the Air Permit), will not allow the Air Permit to be reopened due to its concerns about (a) the risk that reopening the Air Permit may lead to increased regulatory compliance costs for the existing units at PAGS (for example, they might be subject to more recent and more stringent air emissions standards); (b) the possibility that a stricter emissions standard or process may be applied to the facility sought to be substituted for the third permitted LMS100; (c) the potential for delay; and (d) its

general uncertainty and unease about what reopening the Air Permit would entail or might engender.

127. There is no evidence with respect to whether either Black Hills Corporation or Black Hills Electric Generation, LLC, would seek an extension of the Air Permit's expiration date.

128. There was written and oral testimony from Black Hills witness Carl and Staff witness Podein about conversations each had with personnel at the Air Pollution Control Division of the CDPHE about the potential effects of reopening the Air Permit to substitute another generating unit for the third LMS100. The ALJ affords no weight to this hearsay testimony. First, Colorado has no experience with reopening an air permit for such a purpose. Second, the statement of an agency staff member cannot bind the agency. Thus, one cannot rely on a staff member's comments to ascertain with any certainty what the agency will do in the future. Third, the ALJ finds that the hearsay statements do not meet the *Industrial Claims Appeals Office v. Flower Shop Marketing Corporation*, 782 P.2d 13, 18 (Colo. 1989), standard in that they are not "sufficiently reliable and trustworthy and [do not] possess[] probative value commonly accepted by reasonable and prudent persons in the conduct of their affairs."<sup>55</sup> Fourth and finally, the ALJ observes that, although the possibility of reopening the Air Permit and the potential effects of reopening the Air Permit appear to have been a significant issue to each of them, neither Applicant nor Staff called as a witness a representative from the Air Pollution Control Division of the CDPHE to present direct testimony about the impact (if any) of

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<sup>55</sup> For example, there is virtually no evidence on which to determine whether the declarants (*i.e.*, the personnel at the Air Pollution Control Division of the CDPHE) are credible; there is little to no persuasive and independent corroboration of the hearsay statements; and the hearsay statements are contradicted by other hearsay statements.

reopening the Air Permit. Importantly, neither explained its failure to call as a witness a representative from the Air Pollution Control Division of the CDPHE.

### 3. Description of Project.

129. Black Hills seeks a CPCN to construct, to own, and to operate a power plant consisting of one natural gas-fired LMS100 and the associated balance of plant and other facilities to be build at PAGS. Hearing Exhibit No. 1 at Exhibit 3 is a map showing the general area where the facilities will be constructed. Hearing Exhibit No. 1 at Exhibit 4 contains a general arrangement drawing<sup>56</sup> and an electrical one-line diagram of the LSM100. Hearing Exhibit No. 4 at Exhibit KDW-1 at 42-47 and at Exhibit 22 provides technical information and data about the unit.

130. Thus is a brownfield project as it will be built at the PAGS, which has existing infrastructure. The LMS100 will use the PAGS infrastructure and the Air Permit.

131. At 100 percent load, the LMS100 will have a net capacity of 88 MW in summer and 91 MW in winter. An LMS100 unit has an average heat rate of 9,000 Btu/kWh. An LMS100 unit has the following air emissions rates: NO<sub>x</sub> is 0.18 lb/MMBtu; CO<sub>2</sub> is 1035 lb/MMBtu; and SO<sub>2</sub> is 0.0064 lb/MMBtu. Hearing Exhibit No. 4 at Exhibit KDW-1 at 31. The LMS100's annual O&M costs (2014\$), exclusive of fuel, are found in Highly Confidential Hearing Exhibit No. 4B at line 3.

132. Black Hills expects construction of the LMS100 to be completed in time for the unit to be in service by December 31, 2013.<sup>57</sup> This date coincides with the date on which Black Hills expects to close the coal-fired Clark Station.

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<sup>56</sup> This is a portion of, and less complete than, Hearing Exhibit No. 18 (PAGS plot plan for PAGS).

<sup>57</sup> Hearing Exhibit No. 3 at Exhibit ML-1 is the most current construction milestone schedule for the unit.

133. Applicant has not made the decision whether to use an Engineering, Procurement, and Construction (EPC) contract to construct the LMS100 or to self-build. Although “[i]t’s always less risk-adverse if you can do an EPC contract” (Sept. 28 tr. at 181:10-11), Black Hills has not made the EPC contract or utility self-build determination because it has “not fully tested the market to determine which one of these options is the ultimate least cost for the project” (*id.* at 182:17-19). Consequently, Black Hills presented two cost estimates: one assuming an EPC contract and one assuming a utility self-build.

134. The EPC contract-based all-in cost estimate for the Project is \$ 102 million (2011\$).<sup>58</sup> Because this is a planning figure, Black Hills provided information with respect to the range of accuracy for each type of cost.<sup>59</sup> Applying the accuracy ranges results in the cost of the Project falling within this range: approximately \$ 86.7 million (2011\$) to approximately \$ 127 million (2011\$).

135. The Black Hills self-build-based all-in cost estimate for the Project is \$ 95.05 million (2011\$).<sup>60</sup> This is an internal cost estimate that is subject to change. One should apply the same accuracy range to this cost estimate.<sup>61</sup>

136. The LMS100 will be on the expansion slot owned by Black Hills IPP. Black Hills plans to purchase that brownfield site. Neither cost estimate includes the cost of purchasing the expansion slot.

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<sup>58</sup> This is the total of: (a) \$ 88.85 million for the EPC contract (Confidential Hearing Exhibit No. 3A at Exhibit ML-2 provides the detail); (b) \$ 1.35 million for electrical interconnection costs (Confidential Hearing Exhibit No. 3A at Exhibit ML-3 provides the detail); and (c) \$ 11.83 million for site-specific and general owner’s costs (Confidential Hearing Exhibit No. 3A at Exhibit ML-4 provides the detail).

<sup>59</sup> For the EPC contract direct and indirect capital costs, the range is +25 percent to -15 percent. There is no range for the electrical interconnection cost estimate. For the owner’s costs figure, the range is +35 percent to -15 percent.

<sup>60</sup> Highly Confidential Hearing Exhibit No. 4B at Exhibit 20 to Exhibit KDW-1 provides the detail.

<sup>61</sup> The detail underlying the total figure is highly confidential. This Decision does not state the range, but it can be calculated from the information in the record.

137. The LMS100 will operate under the Air Permit, which is owned by Black Hills Generation, LLC. Neither cost estimate includes compensating Black Hills Generation, LLC, for the use of the Air Permit.

138. Use of the brownfield PAGS expansion slot and the already-procured Air Permit reduces the construction and permitting costs of the third LMS100 at PAGS.

139. In the Application and in its testimony at the September hearing, Black Hills did not recommend a specific point cost cap.

140. Based on its internal budgets, on its understanding that there are benefits to building the LMS100 on the brownfield expansion site at PAGS, and on its understanding of the construction cost advantages of building on that brownfield site, Black Hills is prepared to accept a Commission order that sets a price point cap of \$ 102 million for the Project. The price point cap would need to be subject to the same conditions (*e.g.*, a provision to address extraordinary circumstances) as those contained in Decision No. R10-0102.<sup>62</sup> Sept. 29 tr. at 93:18-94:11.

141. Using the \$ 102 million (2011\$) cost estimate and using assumptions from its case in the pending rate case, Black Hills calculated a first year (2014) revenue requirement of \$ 20.63 million (2014\$) for the full capacity of the LMS100.<sup>63</sup> When calculated against the revenue requirement sought by Black Hills in its rate case as filed (*i.e.*, \$ 253.74 million), there is an estimated first year (2014) revenue increase of 8.14 percent and there is an average revenue

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<sup>62</sup> This Recommended Decision was issued in Docket No. 09A-415E, approved a Stipulation and Settlement Agreement, and granted to Black Hills a CPCN for the two LSM100s now under construction at PAGS. That Recommended Decision became a Commission Decision by operation of law.

<sup>63</sup> Highly Confidential Hearing Exhibit No. 4B at Exhibit 14B to Exhibit KDW-1 provides the detail. It is important to note that most of the assumptions in this exhibit are taken from Black Hills' case in Docket No. 11AL-387E (Black Hills' pending rate case) and are not based on principles established in a previous rate case.

increase (over the assumed life of the unit) of 5.62 percent.<sup>64</sup> Whether the increased revenue requirement will necessitate a rate increase is unknown at present.

142. Black Hills did not present a revenue requirement estimate for 42 MW of the LMS100 at PAGS. Black Hills cited testimony it presented in the CACJA Proceeding to the effect that “the rate impact of 42 MW of the third LMS100 (the portion of the LMS100 to replace the Clark Station coal units) would be less than 5%.” Hearing Exhibit No. 6 at 11:6-9 (footnote omitted). The record in this case contains no information about the derivation of this rate impact estimate.

#### **4. Black Hills Report (Hearing Exhibit No. 4 at Exhibit KDW-1).**

143. In response to the ALJ’s order and as support for its Application, Black Hills filed its “Report Under Rules 723-3-3611(b), (c), (e), and (h) of the Commission’s Electric Resource Planning Rules.” The report is dated July 8, 2011; is Exhibit KDW-1 to Hearing Exhibit No. 4; and was prepared for this proceeding.<sup>65</sup> The report was filed on July 8, 2011 as an exhibit to Hearing Exhibit No. 4 (Black Hills witness White’s supplemental direct testimony).

144. This report is Black Hills’ explanation of its resource planning activities that resulted in the Application. It contains information provided by various departments and, in some respects, is a library of information available within Black Hills at the time the report was created. The fundamental assumptions underlying the information that was created for the report are stated, but the fundamental assumptions are not stated for information that was already available within Black Hills. *See generally* Sept. 29 tr. at 47:16-49:16.

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<sup>64</sup> These percentages will change if the Commission orders, in the pending Black Hills rate case, a revenue requirement other than \$ 253.74 million. If the Commission-ordered revenue requirement is larger, the percentages will be smaller. If the Commission-ordered revenue requirement is smaller, the percentage will be larger.

<sup>65</sup> Appended to the report are 23 exhibits, some of which are confidential (Hearing Exhibit No. 4A) and some of which are highly confidential (Hearing Exhibit No. 4B).

145. The report was prepared and submitted as part of Black Hills' supplemental direct testimony. It takes information from Black Hills sources that were available but had been created for other dockets or other purposes. As a result, the report contains conflicting information; does not report data consistently; and omits information that is important to understanding the report's content.<sup>66</sup> Black Hills witness White, who sponsored the report, acknowledged these problems: "One of the challenges we had was in preparing supplemental direct testimony, for efficiency sake we borrowed information from numerous sources. And what I'm coming to understand is that that may have created some confusion as to what is supportive of the application and what is not." Sept. 29 tr. at 84:10-15.

146. On December 30, 2010, the Commission issued Decision No. C10-1330. In that Decision, the Commission directed Black Hills to file an application for the LMS100 at PAGS (*id.* at ¶ 69) and held that Black Hills has the burden to establish, in a subsequent CPCN proceeding, its need for the LMS100 capacity in excess of the 42 MW for which the Commission had granted a presumption of need. Decision No. C10-1330 at Ordering Paragraph No. 4.

147. Black Hills created the report after it was aware that, in this CPCN docket, it had the burden to establish its need for the entire capacity of the LMS100 unit.

## 5. Future Need.

148. There is no present need for the LMS100 that is the subject of the Application.

149. As discussed above, the Sunflower Swap has expired. Black Hills can no longer

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<sup>66</sup> As one example, when making comparisons of resource-related costs, the report does not indicate the year in which the dollar amount is stated. As a result, the reader does not know whether the costs are comparable. (Because there are inflationary factors from one year to the next, it is important to state dollar figures in the same year to make true comparisons.) As another example, some of the peak loads have the notation "net of demand-side management"; and the report contains no definition of that term.

rely on the 18 MW from that resource. When Black Hills must acquire resources to replace that 18 MW of capacity is not clear.

150. As discussed above, Black Hills seeks authorization to close Pueblo 5 and 6 in 2013. Those units have 29 MW of total capacity. If the Commission authorizes the closing of Pueblo 5 and 6, it is not clear when Black Hills must acquire resources to replace that capacity.

151. An LMS100 has a net capacity of 88 MW in summer and a net capacity in winter of 91 MW. For planning purposes, Black Hills treats the LMS100 as having a capacity of 90 MW. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15 (each of the three LMS100 units at PAGES shown as 90 MW). To be consistent with the Company's planning assumption, this Decision refers to the LMS100 at PAGES for which a CPCN is sought as having 90 MW of capacity.

152. The CACJA Decisions create the presumption that Black Hills has a need for Replacement Capacity. Those Decisions also create the presumption that the Replacement Capacity need would be met by an LMS100 at PAGES.<sup>67</sup>

153. At the time of the September hearing, Black Hills had not determined whether it will build the LMS100 at PAGES if the Commission denies a CPCN for 90 MW of LMS100 capacity and grants a CPCN for the Replacement Capacity only.

154. The 18 MW to replace the Sunflower Swap, the 29 MW to replace the Pueblo 5 and 6 capacity (assuming the Commission authorizes, in this proceeding, closing those units), and the 42 MW of Replacement Capacity equal the 90 MW of LMS100 capacity.

155. Between 2003 and 2011 (a period of eight years), Black Hills' actual peak demand increased a total of 47 MW (from 345 MW to 392 MW). Hearing Exhibit No. 4 at

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<sup>67</sup> As discussed in Decision No. R11-0889-I, this presumption satisfies only one of the three CPCN criteria that must be met.

Exhibit KDW-1 at Exhibit 10 (actual peak demand data for 2003 through 2010); Hearing Exhibit No. 7 at 7 n.7 (actual peak demand data for 2011).

156. In 2008, Black Hills' actual peak demand occurred in August and was 376 MW. In 2009, Black Hills' actual peak demand occurred in July and was 365 MW, which was a decrease of 11 MW from 2008. In 2010, Black Hills' actual peak demand occurred in July and was 384 MW, which was an increase of 19 MW from 2009 but an increase of only 8 MW from 2008. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 10. In 2011, Black Hills' actual peak demand occurred in July and was 392 MW, which was an increase of 8 MW from 2010. Hearing Exhibit No. 7 at 7 n.7.

157. Between 2008 and 2011 (a period of three years), Black Hills' actual peak demand increased a total of 16 MW (from 376 MW to 392 MW). As discussed in Hearing Exhibit No. 7 at 7 n.7, Black Hills' peak demand for 2011 would have been 400 MW if a customer had not curtailed 8 MW of its load. (The curtailment is discussed below). In the absence of the curtailment, the peak demand for 2011 would have been 400 MW. Using the 400 MW figure, which is the highest peak demand number presented by Black Hills for 2011 (although it was not the actual realized peak demand), between 2008 and 2011 (a period of three years), Black Hills' actual peak demand increased a total of 24 MW (from 376 MW to 400 MW).

158. Black Hills uses these inputs when it makes its peak demand forecasts: (a) discussion with, and information from or about, large-demand customers on its system and potential new large-demand customers; and (b) trending based on historical information. With respect to information about existing large-demand customers and potential new large-demand customers, Black Hills "make[s] different judgments based on whether or not [the information is based on something that is] already under construction, compared to [information received through] a contact through economic development organizations." Sept. 29 tr. at 70:24-71:2.

Black Hills provided no further explanation of the bases of its forecasted peak demand levels, including those in Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15. When asked whether the 2014 forecasted peak demand in Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15 was based on construction that is in-progress, Black Hills did not address that issue. Sept. 29 tr. at 71:3-8.

159. In the CACJA Proceeding, on July 8, 2010, Black Hills presented forecasted peak demand information to the Commission. The peak demand information was net of demand-side management, which means that the demand forecast included peak demand reductions expected to result from Commission-approved energy efficiency programs. The CACJA Proceeding filing stated that Black Hills forecasted that its peak demand: (a) would be 410 MW in 2013; (b) would be 427 MW in 2014; (c) would be 430 MW in 2015; (d) would be 434 MW in 2016; (e) would be 438 MW in 2017; and (f) would be 442 MW in 2018. Hearing Exhibit No. 4 at Exhibit KDW-1 at 19 (Table 6).

160. In July 2010, Black Hills forecasted that, between 2013 and 2015 (a period of three years), its peak demand would increase by 20 MW. Hearing Exhibit No. 4 at Exhibit KDW-1 at 19 (Table 6).

161. In July 2010, Black Hills forecasted that, between 2015 and 2018 (a period of three years), its peak demand would increase by 12 MW. Hearing Exhibit No. 4 at Exhibit KDW-1 at 19 (Table 6). This portion of the forecast appears to have been based on trending (*i.e.*, an assumed growth of 1-1.5 percent based on historical demand growth information).

162. To establish its need for the entire capacity of the LMS100 capacity, on July 8, 2011 and based on March 2011 data, Black Hills presented Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15. This document is entitled "Loads and Resources Balance

2012-2020 Base”; was prepared for this proceeding; uses the forecasted peak demand data that Black Hills submitted to the Western Electricity Coordinating Council in March 2011; and consists of two pages. The first page uses a reserve margin of 25 percent, and the second page uses a reserve margin of 15 percent. Because the Commission-approved reserve margin for Black Hills is 15 percent, the discussion in this Decision refers to the second page.

163. In Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15, Black Hills forecasts that its peak demand: (a) will be 405 MW in 2012; (b) will be 422 MW in 2013; (c) will be 450 MW in 2014; (d) will be 460 MW in 2015; (e) will be 468 MW in 2016; (f) will be 473 MW in 2017; and (g) will be 478 MW in 2018. The forecasted peak demand information is net of demand-side management.

164. In March 2011, Black Hills forecasts that, between 2012 and 2014 (a period of two years), its peak demand will increase by 45 MW. In July 2010, Black Hills forecasts that, between 2012 and 2015 (a period of three years), its peak demand will increase by 55 MW. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15.

165. In July 2010, Black Hills forecasts that, between 2015 and 2018 (a period of three years), its peak demand will increase by 18 MW. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15. This portion of the forecast appears to be based on trending (*i.e.*, an assumed growth rate of 1-1.5 percent based on historical demand growth information).

166. Black Hills presented Hearing Exhibit No. 7 at Exhibit 7, which contains the results of a production cost model run for the years 2014 through 2016. This exhibit is a reasonable approximation of the dispatch order of Black Hills’ resources; that is, it is a

reasonable approximation of the order in which Black Hills would use its resources to meet customer energy demand.<sup>68</sup>

167. In 2014, the LMS100 will have an annual capacity factor of 2.29 percent,<sup>69</sup> which is an expected run time of approximately 200 hours in that year. In 2015, the LMS100 will have an annual capacity factor of 3.89 percent, which is an expected run time of approximately 340 hours in that year. In 2016, the LMS100 will have an annual capacity factor of 3.92 percent, which is an expected run time of approximately 343 hours in that year. Hearing Exhibit No. 7 at Exhibit ML-7. Based on the exhibit, Black Hills will dispatch the LMS100 as the last incremental resource, or as one of the last incremental resources, to meet its forecasted peak demand.

168. The annual capacity factors in Hearing Exhibit No. 7 at Exhibit ML-7 are based on a forecasted peak demand of 429 MW in 2014, a forecasted peak demand of 432 MW in 2015, and a forecasted peak demand of 436 MW in 2016. The forecasted peak demand figures used to generate the annual capacity factor data in Hearing Exhibit No. 7 at Exhibit ML-7 are different than the forecasted peak demand figures presented in the CACJA Proceeding (Hearing Exhibit No. 4 at Exhibit KDW-1 at 19 (Table 6)) and are different than the forecasted peak demand figures presented in support of the Application (Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15).

169. The resources shown on Hearing Exhibit No. 7 at Exhibit 7 include Pueblo 5 and 6. Black Hills seeks authorization (in this docket) to decommission these generating units by December 31, 2013. Assuming the Application is granted (which is a principal assumption in the production cost model) in years after 2013, the Pueblo units will not be available for dispatch in

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<sup>68</sup> The exception is the dispatch of the two LM6000 units. These units are dispatched largely in tandem.

<sup>69</sup> This information is the same as that in Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 16.

a production cost model run. Hearing Exhibit No. 7 at Exhibit 7 shows that the production cost model chose to dispatch the Pueblo 6 unit in 2015 (an annual capacity factor of 0.04 percent) and in 2016 (an annual capacity factor of 0.11 percent).

170. Black Hills will make economy energy purchases from the market in 2014-2016. Hearing Exhibit No. 7 at Exhibit ML-7 at EP\_COE line. That line shows that the “50 MW purchase market” will have an annual capacity factor of 55.47 percent in 2014, of 49.18 percent in 2015, and of 51.16 percent in 2016.

171. For resource planning purposes, interruptible load reduces the firm native load that Black Hills must acquire resources to serve. Sept. 29 tr. at 106:8-10; *id.* at 109 11-21. As a result, all interruptible load has value even if no interruptions are called. In addition, load that is interruptible on less than ten-minute notice has value as operating reserve. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 7 at 2-3. Finally, should the Company approach its reserve margin, interruptible load is valuable because it can assist with system reliability. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 7 at 2-3. No-notice firm interruptible load, such as that in Black Hills’ interruptible service tariff, is akin to a utility capacity resource: it can assist the utility to avoid capacity costs, particularly the capital cost of additional generation resources that would run only a few hours per year; and the utility can use it to meet its operating reserves, both spinning and non-spinning.

172. Black Hills has an interruptible service tariff that is found at Sheets No. 61 through No. 63 of the Company’s electric tariffs. Hearing Exhibit No. 19. Under the tariff, a participating customer<sup>70</sup> dedicates at least 1000 kW (*i.e.*, one MW) of its demand to interruption and places that interruptible load on a separate circuit. Black Hills owns the interrupting

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<sup>70</sup> To participate, the customer must qualify for service under the Large General Service and Large Power Service. Interruptible service is available only to commercial, industrial, and institutional customers.

facilities, which are “under its operational control ... without intervention of the customer unless otherwise specified by” Black Hills. Hearing Exhibit No. 19 at Sheet 63.

173. A participating customer gives Black Hills the right to interrupt (*i.e.*, control), the customer’s demand (*i.e.*, electric load) on the Company’s system for a period of time as determined by the Company. In June, July, August, and September, Black Hills can interrupt, without notice, a participating customer’s dedicated interruptible load on weekdays between the hours of 10 a.m. and 9 p.m. Black Hills’ right to interrupt is bounded by the terms and conditions stated in the tariff.

174. In exchange for allowing interruption of its dedicated interruptible load without notice, a participating customer receives a monthly credit on its demand (\$/kW) charge.<sup>71</sup> The participating customer receives a monthly bill credit for each Summer month (*i.e.*, June, July, August, and September) that is equal to the customer’s dedicated interruptible demand times the monthly credit amount<sup>72</sup> stated in the tariff. The credit reduces the participating customer’s demand charge and, thus, its electric bill.

175. Participation in interruptible service is on an annual basis by contract.

176. At present, two large industrial customers (with a combined interruptible load of approximately 10 MW) take electric service under the Company’s interruptible service tariff.<sup>73</sup>

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<sup>71</sup> For customers eligible to obtain interruptible service, Black Hills’ monthly demand charge is \$ 18.41/kW. Hearing Exhibit No. 20.

<sup>72</sup> The \$/kW credit is based on the voltage level at which the participating customer receives service. For customers at secondary voltage level, the monthly credit is \$ 9.87/kW. For customers at primary voltage level, the monthly credit is \$ 9.61/kW. For customers at transmission voltage level, the monthly credit is \$ 9.36/kW.

<sup>73</sup> The customer whose service “was curtailed by approximately 8 MW” on July 8, 2011 (Hearing Exhibit No. 7 at 7 n.7) takes its electric service under the interruptible service tariff. That customer acceded to Black Hills’ request to reduce its load and reduced its load for most of the day. For the reasons discussed below, Black Hills did not control the interruptible load and could not force a service interruption.

177. In a loads and resources table, peak demand reduction as a result of interruptible load typically is shown in one of two ways: (a) interruptible load is included in peak load “net of DSM” (this directly reduces peak demand in the same way as energy efficiency does); or (b) interruptible load is shown as a separate resource or line item. Black Hills’ practice appears to be to include interruptible service within net of DSM.

178. Facially, Black Hills’ interruptible service tariff (Hearing Exhibit No. 19) satisfies the necessary requirements; and Black Hills can reduce its forecasted peak load by a participating customer’s designated interruptible demand. The loads and resources table in Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15 does not show any peak demand load reduction from the two Black Hills customers on interruptible service. Black Hills did not reduce its forecasted peak demand by 10 MW to reflect the interruptible load of these two customers because “the nature of the contracts with the customers served under this interruptible [service tariff] do not provide for ... direct control by the company.” Sept. 29 tr. at 114:7-9. Given that Black Hills does not have direct control of the load, the 10 MW is not firm interruptible and cannot be used to offset demand.

#### **6. Facilities available in 2014 and evaluation of alternatives.**

179. Because there is no present need for the third LMS100 at PAGS, there is no analysis of facilities except as related to Black Hills’ asserted future capacity need.

180. In Colorado, CIEA members operate approximately 380 MW of natural gas-fired facilities that will be available for contracting beginning in 2012.

181. The asserted need is for capacity beginning in 2014. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15 presents the availability of Black Hills’ facilities, and their adequacy to meet the forecasted peak demand, beginning in 2012. Hearing Exhibit No. 7 at Exhibit 7 shows the capacity factor of Black Hills resources available in 2014-2016.

182. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15 and Hearing Exhibit No. 7 at Exhibit 7 assume that the Application is granted. As a result, those exhibits assume: (a) Pueblo 5 and 6 are closed in 2013 and, thus, neither is available beginning in 2014; and (b) the third LMS100 is available at 90 MW beginning in 2014.

183. Hearing Exhibit No. 4 at Exhibit KDW-1 at 22, 37 identifies the alternatives to an LMS100 at PAGS that Black Hills considered for purposes of this proceeding: (a) the three alternatives the Company internally considered in the CACJA Proceeding; (b) the alternative of waiting for the resources acquired following the Company's next ERP proceeding; and (c) the alternative of purchasing economy energy.<sup>74</sup> The exhibit describes the analysis by which Black Hills arrived at the decision that the LMS100 is the appropriate resource to acquire to meet its identified need beginning in 2014. Hearing Exhibit No. 4 at Exhibit KDW-1 at 22, 37-53.

184. *Alternatives that Black Hills considered internally in the CACJA Proceeding:* Black Hills repeats these alternatives for purposes of this CPCN proceeding. Black Hills views this CPCN proceeding as a follow-up docket to the CACJA Proceeding and, as a result, has not looked formally for an alternative to the LMS100 at PAGS since submission of its CACJA Proceeding rebuttal testimony. Sept. 29 tr. at 50:9-13, 72:16-73:4. In this CPCN proceeding, Black Hills relies on its CACJA Proceeding-related 2010 internal evaluation of alternatives to the LMS100 at PAGS. Except as discussed below, Black Hills neither updated nor

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<sup>74</sup> Black Hills presented cost comparisons between the third LMS100 at PAGS and a greenfield (construction on an undeveloped site) LMS100 and cost comparisons. This was presented only for the purpose of a cost comparison.

conducted further investigation of the alternatives it examined during its 2010 internal evaluation related to the CACJA Proceeding.

185. In 2010, during the CACJA Proceeding, Black Hills internally considered three alternatives before it recommended the expansion slot for the third LMS100 at PAGS as the Replacement Capacity. Black Hills internally considered: (a) construction of a 90 MW LMS100 at the brownfield PAGS site;<sup>75</sup> (b) construction of a greenfield 40 MW LM6000;<sup>76</sup> and (c) acquisition of then-existing Independent Power Producer (IPP) assets whose contracts with Public Service Company of Colorado (Public Service or PSCo) would expire before 2014.<sup>77</sup>

186. *With respect to the LM6000*, Black Hills found, on the basis of operating characteristics and cost/kW, that the LMS100 is superior to the LM6000. The operating characteristics of the 40 MW LM6000 are compared to those of the 90 MW LMS100 in Hearing Exhibit No. 4 at Exhibit KDW-1 at 46-47.<sup>78</sup>

187. The all-in costs of a greenfield LMS100 are compared to those of a greenfield LM6000 in Hearing Exhibit No. 4 at Exhibit KDW-1 at 48; *see also id.* at Exhibit 20. These

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<sup>75</sup> Hearing Exhibit No. 4 at Exhibit KDW-1 at 38-47.

<sup>76</sup> Hearing Exhibit No. 4 at Exhibit KDW-1 at 46-49 and at Exhibit 21.

<sup>77</sup> Hearing Exhibit No. 4 at Exhibit KDW-1 at 49-51.

<sup>78</sup> This information is taken from Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 21, which is a paper dated July 6, 2011 and entitled "LM600 and LSM100 Characterization." The Black Hills internal consideration of alternatives in the context of the CACJA Proceeding was concluded before Black Hills filed its rebuttal testimony in the CACJA Proceeding in 2010. Black Hills could not have relied on this July 6, 2011 paper in that internal process. There is no evidence that Black Hills examined information of this type in its 2010 internal consideration of alternatives.

The Application was filed in March 2011. Black Hills could not have relied on this July 6, 2011 paper or its conclusions as a basis for filing the Application. There is no evidence that Black Hills examined information of this type prior to filing the Application.

The information contained in Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 21 is largely technical, and no party questioned the accuracy of the technical information. Although it is not tied to Black Hills' 2010 internal consideration of alternatives or to the Application, the ALJ finds that the information is entitled to some weight with respect to examination of alternatives in this CPCN proceeding.

all-in costs (2010\$/kW) are higher than the all-in costs (2011\$/kW) of the brownfield LMS100 at PAGS.<sup>79</sup> *Id.*

188. Black Hills found the LMS100 to be the preferred option because it could be constructed without reopening the PAGS Air Permit. In addition, a greenfield LM6000 would require an air permit, which would delay construction. Finally, Black Hills preferred the LMS100 because it avoided a piecemeal approach to the Replacement Capacity and is the better fit with the Company's short-term and long-term resource needs, beginning in 2014.

189. *With respect to IPP facilities*, Black Hills determined that, in 2010, there were five generating facilities owned by IPPs whose contracts with PSCo would expire in 2014. For reasons articulated by Thomas M. Ohlmacher, then-President of Black Hills Non-regulated Holdings, LLC, in his 2010 rebuttal testimony in the CACJA Proceeding (as paraphrased in Hearing Exhibit No. 4 at Exhibit KDW-1 at 50 and elsewhere in Black Hills' testimony and exhibits), Black Hills determined that it would not pursue acquisition of then-existing IPP facilities as Replacement Capacity.

190. Because it did not intend to pursue acquisition IPP assets, Black Hills did not obtain specific cost information regarding those facilities. As a result, in the 2010 internal evaluation and in the rebuttal testimony in the CACJA Proceeding, there is no comparison of the costs of the LMS100 at PAGS and the costs of acquiring IPP assets.

191. In evaluating alternatives to the LMS100 at PAGS during the course of the CACJA Proceeding, Black Hills considered these criteria: (a) availability by the end of 2013 (when the Clark Station coal units are to be retired); (b) cost; (c) the technology's suitability to

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<sup>79</sup> The costs of the brownfield LMS100 at PAGS are discussed below.

meet the Company's short-term and long-term needs beginning in 2014; (d) reliability; and (e) emissions. Hearing Exhibit No. 4 at Exhibit KDW-1 at 38; Hearing Exhibit No. 4 at 11:1-6.

192. The record contains none of the following information: (a) the precise process by which the three alternatives were considered; (b) whether each criterion was assigned a weight; (c) if weights were not assigned to the criteria, the basis for the decision not to assign weights; (d) if a weight was assigned to each criterion, how the assigned weight was determined and by whom; (e) if a weight was assigned to each criterion, the weight that was assigned to each criterion; and (f) if a weight was assigned to each criterion, how consideration of the weighted criteria resulted in the Company's internal decision that the LMS100 was the preferred alternative.

193. A written report of the evaluation process or of the evaluation itself is not in the record in this case. There is a question as to whether such a written report exists.

194. The evidence presented in this case about the evaluation of these alternatives rests entirely on the CACJA Proceeding written rebuttal testimony and the oral testimony of Thomas M. Ohlmacher. At the time of that testimony, Mr. Ohlmacher was President of Black Hills Non-regulated Holdings, LLC; he retired in March 2011. Mr. Ohlmacher and his group conducted an evaluation of alternatives in the CACJA Proceeding. Other than the result, no particulars of that evaluation are in the record.

195. Mr. Ohlmacher's written rebuttal testimony in the CACJA Proceeding is not an exhibit in this case. The transcript of Mr. Ohlmacher's oral testimony in that proceeding is not an exhibit in this case.

196. Black Hills witness White presented testimony on the evaluation process that occurred in the CACJA Proceeding. He did not participate in that process. His testimony on the

2010 internal evaluation process is based on conversations that he had with unidentified individuals. Sept. 29 tr. at 75:1-9.

197. In response to questions from the ALJ and calling upon his knowledge of Mr. Ohlmacher, Black Hills witness White testified as to his belief about the order of importance, *to Mr. Ohlmacher*, of the five stated criteria. Sept. 29 tr. at 75:13-77:4.

198. *Alternative of waiting until conclusion of the next Black Hills ERP proceeding:* Black Hills considered this alternative for purposes of this CPCN proceeding.

199. Black Hills found this alternative to be unacceptable because: (a) the CACJA Decisions created a unique situation in which Black Hills must decommission the Clark Station coal units by December 31, 2013; (b) the Commission selected 42 MW of the LMS100 at PAGES as the Replacement Capacity (citing Decision No. C101330 at ¶ 69); (c) given the LMS100 construction timeline, the ERP timeline does not allow sufficient time to conduct a competitive solicitation to obtain the Replacement Capacity by December 31, 2013 and to construct the LMS100 at PAGES; (d) Black Hills must replace the 18 MW of the expired Sunflower Swap; and (e) although it could wait to retire the Pueblo 5 and 6 units (29 MW) of capacity, **“the optimum time to retire the Pueblo 5 and 6 units is at the end of 2013, not upon acquisition of new resources following the Company’s next resource plan, because of the superiority of the LMS100 technology and the cost savings associated with the expansion slot”** (Hearing Exhibit No. 4 at Exhibit KDW-1 at 53 (bolding in original)).

200. In addition, the Company was concerned that it did not “know what resources will be available and at what cost at the end of its next resource plan.”<sup>[note 39]</sup>, Hearing Exhibit No. 4 at Exhibit KDW-1 at 53. In note 39, Black Hills discussed additional concerns:

Since both the [PSCo] and Black Hills Energy resource plans are required to be filed at the same time, potential bidders may bid resources to both [PSCo] and Black Hills thus creating a further uncertainty as to resource availability since, for

most bidders, [PSCo], with its significantly greater size, will attract more bidders. [Black Hills] expects that all of the existing [Independent Power Producer (IPP)] facilities will be bid to [PSCo] in [PSCo's] next competitive solicitation.

Hearing Exhibit No. 4 at Exhibit KDW-1 at 53.

201. On October 18, 2011, Black Hills filed a Petition for Variance from Rules 3603 and 3612(a). As relevant here, Rule 4 CCR 723-3-3603 requires Black Hills to file, on or before October 31, 2011, its Electric Resource Plan. By Decision No. C11-1155, mailed on October 28, 2011, after the evidentiary record in this proceeding closed on October 25, 2011, the Commission granted the petition. Black Hills is to file its next ERP on or before April 30, 2012.

202. *Alternative of economy energy purchase:* Black Hills considered this alternative for purposes of this CPCN proceeding.

203. Black Hills found this option to be unacceptable because: (a) economy energy has no associated capacity and, thus, cannot satisfy a capacity need; (b) given the nature of the market, there is no guarantee that economy energy will be available; and (c) given the nature of the market, there is no guarantee that the schedule will not be cut. Hearing Exhibit No. 4 at Exhibit KDW-1 at 22.

## **VII. POSITIONS OF THE PARTIES**

204. Applicant, Gas Intervenors,<sup>80</sup> Governmental Intervenors,<sup>81</sup> and OCC<sup>82</sup> (Supporting Parties) take the position that Black Hills has met its burden of proof with respect to closing the Pueblo 5 and 6 units in 2013 and with respect to issuance of a CPCN for the entire capacity of the LMS100. For ease of reference, the ALJ discusses their arguments as one position.

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<sup>80</sup> Gas Intervenors initially supported the Application. As a signatory to the Settlement, Gas Intervenors support the Application.

<sup>81</sup> Governmental Intervenors initially opposed the Application. As signatories to the Settlement, Governmental Intervenors support the Application.

<sup>82</sup> OCC initially opposed the Application. As a signatory to the Settlement, OCC supports the Application.

205. CIEA<sup>83</sup> and Staff<sup>84</sup> (Opposing Parties) take the position that Black Hills has failed to meet its burden of proof with respect to the CPCN and the need to close Pueblo 5 and 6 in 2013. For ease of reference, the ALJ discusses their arguments as one position.

206. CC&V and Holcim take no position with respect to the Application. They neither support nor oppose it.

**A. Need for Entire Capacity of LMS100, including Pueblo 5 and 6 Retirement.**

207. Applicant, Gas Intervenors,<sup>85</sup> Governmental Intervenors, and OCC assert: (a) it is uncontested that Black Hills must replace the 18 MW of capacity from the expired Sunflower Swap; (b) it is uncontested that Black Hills must obtain the 42 MW of Replacement Capacity; and (c) in the CACJA Proceeding, Black Hills informed the Commission of Black Hills' intention to use the LMS100 as a peaking unit and that intended use has not changed. They argue that the record (*e.g.*, Hearing Exhibit No. 4 at Exhibit KDW-1) contains the technical and cost comparisons that support the conclusion that the LMS100 is the appropriate unit to meet Black Hills' resource need in 2014 and beyond.<sup>86</sup>

208. The Supporting Parties argue that the record establishes that the Pueblo 5 and 6 units need to be retired because they are old, have lengthy ramp rates, are inefficient, are costly to run, and are difficult to maintain, with the result that they are not suited for use as peaking units (which will be Black Hills' resource need beginning in 2014) and that they pose a serious

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<sup>83</sup> CIEA initially opposed the Application and has not changed that position.

<sup>84</sup> Staff initially opposed the Application and has not changed that position. In its Statement of Position, Staff proposes for consideration an alternative to denying the Application. Because the ALJ finds that the Application must be denied, the ALJ does not address this proposal.

<sup>85</sup> In their Statement of Position at 7-15, Gas Intervenors repeat the legal arguments and propositions concerning the CACJA Proceeding, the CACJA Decisions, and this docket that they presented in argument concerning the scope of this CPCN proceeding. The ALJ addressed these arguments and propositions in detail in Decision No. R11-0889-I. Because the legal arguments and propositions are the same, the ALJ will neither restate them in this Decision nor address them in this Decision. The ALJ relies on Decision No. R11-0889-I.

<sup>86</sup> The resource need is: replacing the Sunflower Swap capacity and the Pueblo 5 and 6 capacity and acquiring the Replacement Capacity for the Clark Station coal units.

reliability risk. In addition, the Supporting Parties state that the air emissions of these units support their retirement. Finally, they assert that the retirement is supported by the fact that an LMS100, an efficient unit with low air emissions, will replace the Pueblo 5 and 6 units that are inefficient and have higher air emissions. For these reasons, they assert that the record establishes that closing Pueblo 5 and 6 is in the public interest.

209. The Supporting Parties state that, from Black Hills testimony in the CACJA Proceeding, the Commission knew that Black Hills proposed to use the LMS100 at PAGS to replace the Sunflower Swap and the Pueblo 5 and 6 units as well as for the Replacement Capacity for the Clark Station coal units. They assert that the Application implements that overall plan as conveyed to the Commission by the oral testimony of Mr. Ohlmacher.

210. For these reasons, Applicant, Gas Intervenors, Governmental Intervenors, and OCC state that Black Hills has met its burden to establish a need for 90 MW of the LMS100 beginning in 2014.

211. CIEA and Staff assert that Black Hills has not met its burden of proof with respect to need for the LMS100 because Black Hills has not established that it needs capacity to replace the Sunflower Swap, that closing Pueblo 5 and 6 is in the public interest, and/or that it has a resource need beginning in 2014.

212. With respect to closing Pueblo 5 and 6, the Opposing Parties argue that the Company has not met its burden to establish that closing the units is in the public interest because: (a) before selecting Pueblo 5 and 6 for retirement, the Company did not perform a unit retirement analysis or study in order to determine which units (if any) should be retired; (b) the Company elected to retire Pueblo 5 and 6 based on the opportunity created by the CACJA Proceedings and Decisions; (c) the Company has stated that these units do not need to be

retired by December 31, 2013; (d) the units could continue to operate for very limited hours during July and August, as is currently the case; and (e) there is no quantified evidence concerning reliability issues with these units. These parties conclude that, given its failure to provide studies assessing the need for retirement, the Company has not established that retiring Pueblo 5 and 6 is in the public interest.

213. With respect to replacing the 18 MW from the Sunflower Swap, the Opposing Parties assert that there is no record support for the proposition that the capacity needs to be replaced by a date certain. Consequently, they argue that this capacity should be considered in Black Hills' next Electric Resource Plan (ERP) proceeding.

214. With respect to a resource need beginning in 2014, the Opposing Parties assert that the evidence is unreliable or incomplete because, for example: (a) the forecasted peak demand in 2014 and beyond is unclear because Black Hills presents several exhibits each of which contains different forecasted peak demand figures; and (b) Black Hills failed to consider, and to include in its analysis and exhibits, both existing renewable resources and future renewable resources that the Company must acquire pursuant to the Renewable Energy Standard. In addition, they point out that the LMS100's capacity factor does not exceed four percent in 2016 and that the unit's capital costs are at least \$ 102 million.

215. For these reasons, CIEA and Staff argue that Black Hills has not met its burden of proof to establish a need for the full capacity of the LMS100 beginning in 2014.

**B. Availability of Facilities and Study of Alternatives.**

216. The Supporting Parties assert that the record (*e.g.*, Hearing Exhibit No. 4 at Exhibit KDW-1) contains the technical and cost comparisons to alternatives available in 2014 that support the conclusion that the LMS100 is the appropriate unit to meet Black Hills' resource need in 2014 and beyond. They state that all reasonable alternatives were studied. With respect

to IPP assets, they point to these shortcomings, among others: (a) IPP assets have time restrictions on their air permits, and these restrictions may prevent the units' being available when Black Hills needs capacity; and (b) use of IPP assets involves transmission costs that are costs that the LMS100 at PAGES does not have. They argue that the cost comparisons and benefit-cost analysis contained in Hearing Exhibit No. 4 at Exhibit KDW-1 were conducted properly, were complete, and provide record support for the selection of the LMS100 at PAGES.

217. The Supporting Parties state that the expansion slot at PAGES is a brownfield site that presents significant construction cost savings and that Black Hills, as owner of the LMS100 at PAGES, can take advantage of those savings. They point to the existence of the Air Permit as an important advantage that the LMS100 at PAGES has over alternatives that will need to obtain an air permit (*e.g.*, a greenfield generating unit) because obtaining an air permit is expensive, is time-consuming, and may not be possible. They point out that, because the LMS100 at PAGES can be available 8,760 hours per year, the unit can provide Black Hills with operating flexibility.

218. For these reasons, Applicant, Gas Intervenors, Governmental Intervenors, and OCC conclude that the record establishes that the full capacity of the LMS100 is the appropriate resource to meet Black Hills' resource need beginning in 2014.

219. The Opposing Parties assert that the record supports a finding that that Black Hills did not conduct an adequate evaluation of alternatives in that: (a) it did not evaluate available IPP assets; (b) it did not present or investigate the costs of the IPP asset alternative and, thus, did not present a complete or reasonable benefit-cost analysis; and (c) it did not perform a benefit-cost analysis using identified criteria. They point out that, after it presented its rebuttal testimony in the CACJA Proceeding, Black Hills did no additional investigation or evaluation of available alternatives available in 2014. They point out that the record contains no first-hand information about the internal evaluation of alternatives that Black Hills did during the

CACAJ Proceeding. They argue that, assuming that Black Hills has established a resource need (they take the position that it has not), the record does not support a finding that Black Hills has established that the full capacity of the LMS100 is the appropriate resource to meet the identified resource need.

220. CIEA and Staff argue that Black Hills' failure to conduct an adequate evaluation of available alternatives establishes that Black Hills has failed to meet its burden in this proceeding.

**C. Alternative Request for CPCN for 42 MW of LMS100 Capacity.**

221. Applicant, Gas Intervenors, Governmental Intervenors, and OCC state that Black Hills must obtain the 42 MW of Replacement Capacity. They assert that, in the CACJA Proceeding, Black Hills stated its intention to use the LMS100 as a peaking unit and that the intended use has not changed. Relying on the evaluation of alternatives presented in the CACJA Proceeding and for the reasons discussed above, these parties assert that the record establishes that the LMS100 is the appropriate resource to serve as the Replacement Capacity.

222. CIEA and Staff acknowledge that the CACJA Decisions gave Black Hills a presumption of need for 42 MW of Replacement Capacity. They assert that Black Hills must prove in this proceeding that it evaluated alternatives available in 2014 and that, based on that evaluation, the LMS100 is the appropriate Replacement Capacity resource. For the reasons discussed above, these parties assert that the record fails to establish that the LMS100 is the appropriate Replacement Capacity resource.

**D. Ability of Commission to Change Black Hills' Emissions Reduction Plan Approved in CACJA Proceeding.**

223. Gas Intervenors<sup>87</sup> and Governmental Intervenors<sup>88</sup> argue that denying the Application or ordering a facility other than the LMS100 at PAGS as the Replacement Capacity for the Clark Station coal units would differ from the emissions reduction plan established in the CACJ Proceeding; would constitute a new overall emissions reduction plan; and would require a new CACJAct docket. They argue that a new CACJAct docket (a) would violate the § 40-3.2-205(2), C.R.S., deadlines; (b) would undo the CDPHE modeling and evaluation of the CACJA Proceeding emissions reduction plan because § 40-3.2-205(1)(a)(II), C.R.S., requires that the CDPHE model a specific unit with specific emissions data; (c) would require a new CDPHE evaluation and a new Air Quality Control Commission approval; (d) has the potential to reopen the PAGS Air Permit; (e) would force Black Hills to retire the Clark Station coal units without a plan for acquisition of Replacement Capacity; and (f) would require an amendment of the SIP and the passage of new legislation to alter the SIP.

224. CIEA addresses this issue in its Statement of Position. It states that, in the first CPCN proceeding to follow a CACJAct docket, Public Service proposed, and the Recommended Decision approved, the elimination of a resource choice that the Commission had selected and approved in PSCo's CACJAct proceeding. CIEA argues that Decision No. R11-0854<sup>89</sup> establishes that, "where an alternative for a selected replacement resource is shown to provide ratepayer benefits and does not increase emissions over those found in the [CACJAct] approvals, an approved replacement resource can be revisited without re-litigating the [CACJAct]." CIEA Statement of Position at 31 n.115.

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<sup>87</sup> Gas Intervenors Statement of Position at 15-16.

<sup>88</sup> Governmental Intervenors Statement of Position at 12.

<sup>89</sup> This Recommended Decision was entered in Docket No. 11A-209E on August 5, 2011. It became a Decision of the Commission by operation of law.

**VIII. DISCUSSION AND CONCLUSION**

225. As discussed above, in reviewing and considering the evidence with respect to the Application, the ALJ did not consider any evidence presented during the October 2011 hearing on the Settlement.

226. In deciding this case, the ALJ first considered the question of whether closing Pueblo 5 and 6 is in the public interest. The ALJ did so because the 29 MW of capacity from those units is part of the basis for asserted need for the full capacity of the LMS100. Based on the record and for the reasons discussed below, the ALJ finds and concludes that Black Hills has not met its burden of proof to establish that closing Pueblo 5 and 6 by December 13, 2013 is in the public interest and, as a result, the request for authorization to close these units must be denied.

227. The ALJ next considered the evidence presented in support of the Application for a CPCN for the entire capacity of the LMS100. Based on the record and for the reasons discussed below, the ALJ finds and concludes that Black Hills has not met its burden of proof and, as a result, the Application for a CPCN for the full capacity of the LMS100 must be denied.

228. The ALJ then considered the evidence presented in support of the alternative Application for a CPCN for 42 MW of the LMS100. Based on the record and for the reasons discussed below, the ALJ finds and concludes that Black Hills has not met its burden of proof and, as a result, the alternative Application for a CPCN for 42 MW of the LMS100 must be denied.

229. Because the ALJ determines that the Application will be denied in its entirety, the ALJ does not address the Settlement because the Settlement's premise is that Black Hills receives a CPCN for the LMS100. The focus of the Settlement is on the structure of, and the conditions on, that CPCN.

230. Any issue raised or argued by the Parties that is not specifically addressed in this Decision was considered and rejected.

**A. Relevant Statutory Provisions and Commission Rules and Decisions.**

231. Pursuant to § 40-5-101(1), C.R.S., Black Hills seeks a CPCN to construct, to own, and to operate the Project. As pertinent here, that provision states: “No public utility shall begin the construction of a new facility ... without first having obtained from the commission a certificate that the ... future public convenience and necessity ... *will require* such construction.” (Emphasis supplied.)

232. As stated in Decision No. R11-0889-I at ¶¶ 106-07 (internal citations omitted)(emphasis in original):

To secure a CPCN to construct facilities, a public utility must establish that (a) there is a present or future need for the construction or extension of facilities *and* (b) existing facilities are not reasonably adequate and available. ... In addition, Rule 4 CCR 723-3-3102(b)(VIII) contains a third element: the applicant utility must provide specified information concerning alternatives that the applicant utility studied.

Section 40-5-103(1), C.R.S., also pertains to the granting of a CPCN. That statute states, as pertinent to this proceeding:

Nothing contained in [§ 40-5-103(1), C.R.S.,] shall be construed to limit or restrict the power and authority of the commission: To regulate, issue, or refuse to issue certificates of public convenience and necessity for construction of a new facility ... as provided in section 40-5-101; and to attach to the exercise of the rights granted by such certificate such terms and conditions as in the commission’s judgment may be required by the public convenience and necessity.

In addition, § 40-3-102, C.R.S., imposes on the Commission the duty “to generally supervise and regulate every public utility in this state; and to do all things, whether specifically designed in articles 1 to 7 of [Title 40] or in addition thereto, which are necessary or convenient in the exercise of such power[.]” subject to restrictions that are not relevant to this proceeding.

In that Order, the ALJ determined that, in the CACJA Decisions, the Commission left the question of whether to grant a CPCN for an LMS100 at PAGES to be answered in this docket and found that the scope of this proceeding includes consideration of the traditional CPCN elements

or criteria and consideration of whether authorizing the retirement of the Pueblo 5 and 6 steam turbines is in the public interest.

233. In Decision No. C11-1048, the Commission discussed the exceptions taken to Decision No. R11-0889-I and held:

In its exceptions, Black Hills raises three points in support of its concern that “[t]he Interim Order allows intervenors in this CPCN docket to reopen [Black Hills’] CACJA case and relitigate the Commission’s decision concerning replacement capacity.” *See* Black Hills Exceptions at 1. Black Hills argues for the Commission to find

that the decision was made in the CACJA that 42 NW [*sic*] of the third LMS100 unit at PAGS is the replacement capacity for the Clark Station coal units and that decision is outside the scope of this docket, and the only issues within the scope of this docket are (i) whether [Black Hills] has established the usefulness of the excess capacity of the third LMS100 unit, and (ii) whether a “not to exceed point cost cap” should be established for the LMS100 unit at PAGS.

Black Hills Exceptions at 17.

Similarly, the [Gas Intervenors] argue that the Interim Order defines the scope of this proceeding “inconsistently with the Commission’s final Decision in C10-1330” by “requiring relitigation” of the replacement resource question and by applying resource planning requirements to this CPCN proceeding. *See* Colorado Gas Producers Exceptions at 20.

The Commission finds these arguments unpersuasive. In Decision No. R11-0889-I, the ALJ carefully and clearly describes the scope of the proceeding in this matter, including the applicability of the three traditional CPCN elements. The Commission concludes that the ALJ’s interpretation of the Commission’s decisions entered in the Black Hills CACJA Proceeding is consistent with those decisions. The Commission also concludes that, as a result of Black Hills’ election to apply for a CPCN for the entire capacity of a LMS100 at PAGS, the ALJ correctly determined that the scope of this proceeding includes consideration of the traditional CPCN elements, including evidence on alternatives to the LMS100 that Black Hills studied, and consideration of whether authorizing the retirement of Pueblo 5 and 6 is in the public interest. It was therefore appropriate for the ALJ to require Black Hills to submit additional information in support of its application. *In sum, the Commission agrees with all of the findings and conclusions contained in Decision No. R11-0889-I.*

To the extent this Order does not specifically comment, discuss, or rule on a point raised in the exceptions of either Black Hills or the Colorado Gas Producers, the exceptions are denied.

Decision No. C11-1048 at ¶¶ 20-23 (emphasis supplied).

234. The ALJ ordered Black Hills to provide the information specified in Rules 4 CCR 723-3-3611(b), (c), (e), and (h). Those Rules state:

(b) Notwithstanding the Commission's preference for all-source bidding for the acquisition of all new utility resources under these rules, the utility may propose in its filing under rule 3603, an alternative plan for acquiring the resources to meet the need identified in rule 3610. The utility shall specify the portion of the resource need that it intends to meet through an all-source competitive acquisition process and the portion that it intends to meet through an alternative method of resource acquisition.

(c) If the utility proposes that a portion of the resource need be met through an alternative method of resource acquisition, the utility shall identify the specific resource(s) that it wishes to acquire and the reason the specific resource(s) should not be acquired through an all-source competitive acquisition process. In addition, the *utility shall provide a cost-benefit analysis to demonstrate the reason(s) why the public interest would be served by acquiring the specific resource(s) through an alternative method of resource acquisition.*

\* \* \*

(e) In the event that the utility proposes an alternative method of resource acquisition that involves the *development of a new renewable energy resource or new supply-side resource that the utility shall own as a rate base investment*, the utility shall file, simultaneously with its plan submitted under rule 3603, an application for a CPCN for such new resource. The Commission may consolidate, in accordance with the Commission's Rules of Practice and Procedure, the proceeding addressing that application for a CPCN with the resource planning proceeding. *The utility shall provide a detailed estimate of the cost of the proposed facility to be constructed and information on alternatives studied, costs for those alternatives, and criteria used to rank or eliminate those alternatives.*

\* \* \*

(h) In the event that the utility proposes to acquire specific resources through an alternative method of resource acquisition that involves the development of a new renewable energy resource or new supply-side resource that the utility shall own as a rate base investment, the utility shall provide the Commission with the following best value employment metric information regarding each resource:

(I) The availability of training programs, including training through apprenticeship programs registered with the United States Department of Labor, Office of Apprenticeship and Training;

(II) The employment of Colorado workers as compared to importation of out-of-state workers;

(III) Long-term career opportunities; and

(IV) Industry-standard wages, health care, and pension benefits.

(Emphasis supplied.)

235. The ALJ required Black Hills to file this information in order to allow

the Commission and the Parties to test, in this CPCN proceeding, (a) whether the Pueblo 5 and 6 units should be closed and (b) whether the LMS100 at PAGS is the appropriate replacement for the capacity of the Clark Station units; the capacity of Pueblo 5 and 6; and the expired Sunflower Contract. Even if one assumes that the CACJA Decisions establish the need for 42 MW of the LMS100's capacity ..., the Rule 4 CCR 723-3-3611(b), (c), (e), and (h) data will allow the Commission and the Parties to test whether the LMS100 at PAGS is the appropriate replacement for the capacity of the Pueblo 5 and 6 units and the expired Sunflower Contract.

Decision No. R11-0889-I at ¶ 134 (footnotes omitted).

236. Black Hills filed its Application pursuant to Rule 4 CCR 723-3-3102. The information specified in Rules 4 CCR 723-3-3611(c) and 723-3-3611(e) is similar to the information required by Rule 4 CCR 723-3-3102(b)(VII): "As applicable, information on alternatives studied, costs of those alternatives, and criteria used to rank or [to] eliminate alternatives."

237. The ALJ also is mindful of these regulatory principles: (a) as a regulated utility with the obligation to provide reliable electric service, Black Hills is required to have sufficient capacity to meet its annual peak demand and a Commission-established reserve margin; (b) Black Hills may meet this obligation by utility-owned resources and by firm purchased power agreements; and (c) in determining the public interest, the Commission has the obligation to balance the interests of the shareholders and the interest of the ratepayers.

**B. Applicant's Failure to Meet Burden of Proof Concerning Closing Pueblo 5 and 6.**

238. Applicant seeks Commission authorization to close the Pueblo 5 and 6 natural gas-fired steam turbines. The ALJ finds that Black Hills has failed to meet its burden of proof that closing these units by December 31, 2013 is in the public interest.

239. First, Black Hills acknowledges that “the capacity of Pueblo 5 and 6 does not have to be replaced at the end of 2013.” Hearing Exhibit No. 4 at Exhibit KDW-1 at 52. It seeks to close these two units because (a) the LMS100 is a superior technology; (b) there are cost savings associated with the PAGES expansion slot; and (c) the PAGES “expansion slot is an *opportunity*” (*id.* at 53 (emphasis in original)). The opportunity presented by the expansion slot appears to be the principal original basis for closing Pueblo 5 and 6 and, insofar as the record reveals, remains the principal basis.

240. Second, the record contains no information with respect to whether Black Hills performed a unit retirement analysis before selecting Pueblo 5 and 6 for retirement. If Black Hills did such an analysis, it is neither in the record nor discussed in the record. Without such an analysis (or, at a minimum, the results of such an analysis), the record contains no information on which the Commission can evaluate, or understand the rationale underlying, Black Hills' initial determination that the Pueblo 5 and 6 units are the correct generating units to close.

241. Third, at present, Black Hills operates the Pueblo 5 and 6 units as peaking units. There is no or little quantified information in the record to explain why the Company cannot continue to use these units as peaking units through the acquisition of resources following the Company's next ERP proceeding.

242. Fourth and finally, Black Hills argues that the Pueblo 5 and 6 units present a reliability issue. The record contains the following qualitative and anecdotal information: the

units are old, are difficult to maintain, are expensive to operate, and have experienced reliability issues. The record is devoid of quantified evidence concerning (a) reliability issues with these units, (b) any study of reliability issues with respect to these units, and (c) any analysis of reliability issues with these units. Black Hills could and should have presented quantified evidence -- developed when it decided to close these units (*i.e.*, *before* it filed the Application seeking authorization to decommission the units) -- to support of its reliability claims. The fact that it did not leads the ALJ to conclude that reliability did not play a significant role in Black Hills' decision to seek authorization to decommission Pueblo 5 and 6; it appears that this rationale developed after the Application was filed and was honed during the course of this proceeding. Accordingly, the ALJ gives little weight to this asserted basis for closing the units.

243. To obtain a CPCN for the full capacity of the LMS100 unit, Black Hills must demonstrate to the Commission that Black Hills has a need for 90 MW of capacity beginning in 2014. It appears that the principal reason for closing Pueblo 5 and 6 is to support the need for the LMS100; without more, this reason does not support a finding that closing Pueblo 5 and 6 is in the public interest.

244. Based on the record and the paucity of persuasive evidence, the ALJ finds that Black Hills has failed to meet its burden of proof to establish that closing Pueblo 5 and 6 is in the public interest. As a result, the ALJ will deny the portion of the Application that seeks authorization to close those units by December 31, 2013.

**C. Applicant's Failure to Meet Burden of Proof Concerning Need for Entire Capacity of LMS100.**

245. Applicant seeks to obtain a CPCN for the full capacity of the LMS100 and states that it needs this capacity to replace the 29 MW of the retired Pueblo 5 and 6 units, to replace the

18 MW of the Sunflower Swap, and to serve as the authorized Replacement Capacity for the Clark Station coal units. Each of these is discussed below.

246. *Replacement for Pueblo 5 and 6 (29 MW)*: As discussed above, Black Hills has not met its burden of proof to establish that closing these units is in the public interest; authorization to close these units is denied. Accordingly, there is no need to replace this capacity.

247. *Replacement for expired Sunflower Swap (18 MW)*: Black Hills acknowledges that, but for the opportunity presented by the LMS100 and the CACJA Decisions, it would have sought to replace the 18 MW of capacity from the Sunflower Swap in its next ERP proceeding.

248. Based on the record, it appears that Black Hills can wait to replace the 18 MW until the conclusion of its next ERP proceeding because, beginning in 2012 when the four generating units now under construction at PAGES come on-line, Black Hills does not need baseload or intermediate capacity.

249. Black Hills relies on Hearing Exhibit No. 4 at KDW-1 at Exhibit 15 to establish its resource needs for 2014 (and beyond) and also to establish its need to replace (by December 31, 2013) the 18 MW of the expired Sunflower Swap. Without that exhibit, the record does not support Black Hills' case for its need for the 18 MW.

250. For the reasons detailed below, the ALJ does not rely on Hearing Exhibit No. 4 at KDW-1 at Exhibit 15 in this proceeding. As a result, the ALJ finds that the record does not support the need to replace, by the end of 2013, the 18 MW from the expired Sunflower Swap. Consequently, the ALJ finds that Black Hills has failed to establish that the LMS100 is needed to replace the 18 MW from the Sunflower Swap.

251. *Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15 (Loads and Resources Table)*: This exhibit purports to establish that Black Hills has a need for the full capacity of the

LMS100. Based on the record and for the following reasons, the ALJ finds that the Loads and Resources Table overstates the forecasted peak demand by a significant and unexplained margin. The ALJ further finds that this systematic overstatement of forecasted peak demand renders the Loads and Resources Table insufficiently reliable to be used as a basis for a Commission determination of need in this docket.

252. First, on December 15, 2010, the Commission issued Decision No. C10-1330. In that Decision, the Commission held that Black Hills bears the burden to establish, in a subsequent CPCN proceeding, its need for the LMS100 capacity above the 42 MW of Replacement Capacity. Black Hills created the Loads and Resources Table after it was aware that, in this CPCN docket, it had the burden to establish its need for the entire capacity of the LMS100 unit.

253. Black Hills Corporation has a fiduciary duty to its shareholders to maximize the opportunities from the businesses it operates. Logically, this would include assuring that its subsidiaries' assets (such as the PAGS expansion slot) are used and increasing the rate base of a regulated utility subsidiary (such as by utility ownership of generation).

254. To accomplish Black Hills Corporation's goal of maximizing shareholder value, Applicant has an incentive to inflate or to overstate the forecasted peak demand figures in order to establish that it needs the entire capacity of the LMS100 by December 31, 2013. Establishing this need is a critical step in obtaining the CPCN that would allow Applicant to own that generation, thereby increasing its rate base. In addition, obtaining the CPCN would guarantee full use of the expansion slot, an asset of a Black Hills Corporation subsidiary.

255. Second, the difference between the 2011 actual peak demand of 392 MW and the forecasted peak demand of 405 MW for 2012 is an increase of 13 MW in one year. Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15; Hearing Exhibit No. 7 at 7 n.7. This forecasted

increase in peak demand is greater than Black Hills' historical pattern of increased in peak demand, as shown on Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 10. Black Hills offered no explanation for the increase and did not explain why Black Hills expects the peak demand increase from 2011 to 2012 to be so markedly different from the increases in peak demand that Black Hills historically has experienced.<sup>90</sup>

256. Third, between 2003 and 2011 (a period of eight years), Black Hills' actual peak demand increased a total of 47 MW (from 345 MW to 392 MW). Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 10; Hearing Exhibit No. 7 at 7 n.7. In the Loads and Resources Table, Black Hills forecasts that, between 2012 and 2014 (a period of two years), its peak demand will increase by 45 MW and that, between 2012 and 2015 (a period of three years), its peak demand will increase by 55 MW. The magnitude of the forecasted peak demand increases finds no support in actual peak demand increases. The forecasted 45 MW two-year peak demand increase matches Black Hills' eight-year actual peak demand increase. The forecasted 55 MW three-year peak demand increase exceeds Black Hills' eight-year actual peak demand increase.

257. Fourth, the increase in the forecasted peak demand is greatest from 2012 through 2014; this is the period during which Black Hills must demonstrate need for the LMS100. The increase in the forecasted peak demand slows markedly beginning in 2016.

258. Fifth, the differences between the July 2010 forecasted peak demand figures that Black Hills presented in the CACJA Proceeding and the March 2011 forecasted peak demand figures that Black Hills presents in the Loads and Resources Table are striking. In each year presented, the forecasted peak demand in this docket is higher than the forecasted peak demand in the CACJA Proceeding: (a) 12 MW higher in 2013; (b) 23 MW higher in 2014; (c) 30 MW

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<sup>90</sup> Given the economic situation in Colorado, this forecasted increase between 2011 and 2012 is particularly puzzling.

higher in 2015; (d) 34 MW higher in 2016; (e) 35 MW higher in 2017; and (f) 36 MW higher in 2018.<sup>91</sup>

259. Sixth, Black Hills states that its forecasted peak demand in the Loads and Resources Table is based on conversations held with its current customers, with potential customers, and with economic development people in its service territory. The forecasted peak demand does not appear to be based on current construction in Black Hills' service territory.

260. Based on the foregoing, and given Black Hills service territory and the absence of any persuasive evidence to support the forecasted peak demand, the ALJ finds that Black Hills' forecasted peak demand for each year presented in the Loads and Resources Table is unsupported, unreliable, and implausible.

261. The analysis of the Company's need for resources contained in the Loads and Resources Table rests on the forecasted peak demand. Because the forecasted peak demand is implausible, the ALJ finds that the Loads and Resources Table provides no evidentiary basis for a Commission determination of need in this docket.

262. As an aside, the ALJ notes that the record evidence establishes that, apparently as a result of language in existing contracts, Black Hills cannot use as planning reserves or as operating reserves approximately 10 MW of capacity for which ratepayers are paying through the demand charge credit given to the two customers who take service under the interruptible service tariff. The interruptible tariff contracts are for one year. Black Hills has the opportunity to renegotiate the contracts in order to implement the tariff in a way (that is, to have the interruptible load placed on a separate circuit that is controlled by the utility) that permits the

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<sup>91</sup> Beginning in 2016, the July 2010 forecast and the March 2011 forecast appear to be based on an assumed rate of growth in peak demand of 1-1.5 percent per year. As a result, the differences between the two forecasts are steady in 2016, 2017, and 2018.

firm interruptible load to be treated as operating reserve and planning reserve. Direct utility control of the firm interruptible load would reduce forecasted peak demand by the amount of the firm interruptible demand, and Black Hills ratepayers would get the benefit and value from interruptible service as intended by the concept of firm interruptible service.

263. *Hearing Exhibit No. 7 at Exhibit No. 7 (capacity factor data)*: For the following reasons, the ALJ finds that this exhibit contains inputs that call into question the capacity factors stated in the exhibit.

264. First, the annual capacity factors in Hearing Exhibit No. 7 at Exhibit ML-7 are based on a forecasted peak demand of 429 MW in 2014, a forecasted peak demand of 432 MW in 2015, and a forecasted peak demand of 436 MW in 2016. The forecasted peak demand figures used to generate the annual capacity factor data in Hearing Exhibit No. 7 at Exhibit ML-7 not the same as the forecasted peak demand figures presented in the CACJA Proceeding (Hearing Exhibit No. 4 at Exhibit KDW-1 at 19 (Table 6)) and are not the same as the forecasted peak demand figures presented in support of the Application (Hearing Exhibit No. 4 at Exhibit KDW-1 at Exhibit 15). The source of the forecasted figures used in Hearing Exhibit No. 7 at Exhibit ML-7 is unknown.

265. Second, the resources shown on Hearing Exhibit No. 7 at Exhibit 7 include Pueblo 5 and 6. In this docket, Black Hills seeks authorization to decommission these generating units by December 31, 2013. In years after 2013, therefore, the units should not be available for dispatch in a production cost model run. The exhibit shows that the production cost model chose to dispatch the Pueblo 6 unit in 2015 (an annual capacity factor of 0.04 percent) and in 2016 (an annual capacity factor of 0.11 percent), which means that they were not removed from the available resources in the production cost model run.

266. Using different forecasted demand numbers and including Pueblo 5 and 6 units may or may not have changed materially the results of the production cost model run. The point is that these mistaken inputs suggest that the production cost model run may not have been as carefully conducted and reviewed as it ought to have been.

267. For these reasons, the ALJ places little reliance on the capacity factors stated in Hearing Exhibit No. 7 at Exhibit 7.

268. For these reasons and based on the record, the ALJ finds that Black Hills has failed to establish, through persuasive evidence, that there is a need for the full capacity of the LMS100 in 2014.

**D. Applicant's Failure to Meet Burden of Proof Concerning Availability and Adequacy of Facilities.**

269. Pursuant to Rule 4 CCR 723-3-3102(b)(VIII) and as part of the Application, Black Hills must provide, "information on alternatives studied, costs for those alternatives, and criteria used to rank or [to] eliminate alternatives." The Rule requires an applicant utility to provide information on any alternative that the utility studied but does not mandate or specify the content of the utility's study of alternatives. As discussed in Decision No. R11-0889-I, both the evaluation of alternatives and the criteria used to evaluate and to rank alternatives are important considerations in this proceeding.

270. In the Application, Black Hills did not provide information on alternatives studied because, in its view, in the CACJA Decisions the Commission had authorized an LMS100. Hearing Exhibit No. 1 at 16.

271. Black Hills subsequently filed, in response to an ALJ order, Hearing Exhibit No. 4 at Exhibit KDW-1, in which Black Hills presented evidence of the alternative resources it evaluated and of the results of that internal evaluation.

272. Based on the record, the ALJ finds that the evidence presented concerning the Company's internal evaluation and its study of alternatives is not persuasive on the issue of whether the LMS100 is the appropriate resource given the absence or inadequacy of the resources available in 2014.

273. First, Black Hills admits that the internal evaluation occurred during the CACJA Proceeding and that Black Hills did not update the investigation or evaluation of alternatives after it filed its rebuttal testimony in that proceeding.

274. Second, Black Hills conducted no meaningful investigation into the availability of IPP assets in 2014. It appears that, in the internal evaluation conducted during the CACJA Proceeding, Black Hills assumed away the availability of IPP assets in 2013 and, as a result, collected no concrete information about IPP availability in 2013. Black Hills never revisited this assumption of unavailability.

275. Third, the ALJ affords little weight to the Black Hills evidence concerning the Company's 2010 internal evaluation of alternatives during the CACJA Proceeding. Aside from a list of five criteria used in the internal evaluation, there is no information in the record about the five criteria used to evaluate the alternatives or the ranking of the alternatives. In addition, Black Hills witness White could only speculate about the process and the criteria used. Further, Black Hills relied exclusively on the CACJA Proceeding testimony of Mr. Ohlmacher (as paraphrased in Black Hills' testimony and exhibits) as evidence of its internal evaluation of the IPP alternative. Because Black Hills elected not to call Mr. Ohlmacher, the individual who could have presented direct testimony on this evaluation, the only evidence about the internal evaluation is hearsay to which the ALJ gives little weight. Moreover, to the extent that Black Hills witness White's testimony on Black Hills' internal evaluation during the

CACJA Proceeding was based on conversations with unnamed individuals, that further weakens that testimony.

276. Fourth, based on the record, the ALJ finds that Black Hills understates the LMS100 costs and, as a result, that the cost comparisons to alternative facilities are biased toward the LMS100. The LMS100 will be on the expansion slot owned by Black Hills IPP. In addition, Black Hills IPP owns the Air Permit under which the LMS100 will operate. As Black Hills witnesses testified, the PAGS brownfield site with an already-awarded air permit has substantial value and Black Hills' ability to use that site significantly reduces its construction costs and allows it more quickly to begin construction of the LMS100.

277. Although Black Hills plans to purchase the expansion slot from its affiliate Black Hills IPP, no LMS100 at PAGS cost estimate includes the cost of purchasing the brownfield expansion slot. The record contains no information about the market value of the expansion slot or a similar property.

278. Black Hills must purchase items from affiliates at market price or at a contract price negotiated at arm's-length. Given the record evidence, the ALJ finds it likely that, in an arm's-length negotiation for purchase of the expansion slot, Black Hills IPP will demand a price that reflects the fair market value of the brownfield site and of the use of the Air Permit. Because the cost of the expansion slot and the cost of the use of the Air Permit are not reflected in any cost estimates for LMS100 at PAGS, the ALJ finds that the LMS100 costs are understated. This reduces the usefulness and persuasiveness of Black Hills' cost comparisons and of its internal evaluation of alternatives to the LMS100.

279. Fifth, the record contains no cost comparisons to acquisition of IPPS assets. This is due to the fact that at no time did Black Hills investigate the cost to acquire IPP assets in lieu of the LMS100. The ALJ finds that the complete absence of information about the cost of

acquiring IPP assets renders the Company's cost comparisons incomplete and further undercuts its internal evaluation of alternatives to the LMS100.

280. For these reasons and based on the record, the ALJ finds that Black Hills has failed to establish, through persuasive evidence, that the LMS100 is the appropriate unit because, in 2014, other facilities are not available or are inadequate.

281. Based on the record, the ALJ finds and concludes that Black Hills has failed to meet its burden of proof with respect to issuance of a CPCN for the full capacity of a third LMS100 at PAGS.

**E. Applicant's Failure to Meet Burden of Proof Concerning Alternative Request for CPCN for 42 MW of LMS100 at PAGS.**

282. In the CACJA Decisions, the Commission established a presumption of need for 42 MW of Replacement Capacity and found the Replacement Capacity to be in the public interest. Decision No. C10-1330 at ¶ 66. In order to obtain a CPCN for 42 MW of the LMS100, Black Hills must meet its burden with respect to all CPCN elements (as described above). As discussed in Decision No. R11-0889-I, a showing of need alone is insufficient to meet Black Hills' burden of proof.

283. The same exhibits are offered to support Black Hill's application for a CPCN for 90 MW of LMS100 capacity and its alternative request for a CPCN for 42 MW of LMS100 capacity. For the reasons discussed with respect to a CPCN for 90 MW, the ALJ finds that the record does not support the alternative application for a CPCN for 42 MW. In addition, the record contains no evidence addressing this issue: why the LMS100 is the appropriate resource for meeting the 42 MW of Replacement Capacity need.

284. Based on the record, the ALJ finds that Black Hills has failed to meet its burden of proof with respect to issuance of a CPCN for 42 MW of LMS100 at PAGS.

**F. Additional Issues.**

285. The ALJ addresses two additional issues.

286. *Effect of Commission's denying CPCN for LMS100 at 90 MW and denying alternative request for CPCN for LMS100 at 42 MW as Replacement Capacity:* As stated above, Gas Intervenors and Governmental Intervenors argue that the Commission cannot deny the Application without opening a new CACJA docket. CIEA disagrees with them.

287. The ALJ finds that the Commission can deny the Application without incurring the consequences identified by Gas Intervenors and Governmental Intervenors.

288. First, in Decision No. C10-1330 at ¶ 82, the Commission found, based on Black Hills' representation that the LMS100 would operate as a peaking unit used less than 20 percent on an annual basis, that § 40-3.2-204(2)(b)(III), C.R.S., exempted the LMS100 from CDPHE review under the CACJAct. CDPHE agreed. Thus, whatever review of the LMS100's air emissions that the CDPHE may have done in the CACJA Proceeding was done voluntarily and was not mandated by § 40-3.2-204(2)(b)(III), C.R.S.

289. Second, the ALJ agrees with CIEA that Decision No. R11-0854 supports the position that, "where an alternative for a selected replacement resource is shown to provide ratepayer benefits and does not increase emissions over those found in the CACJA approvals, an approved replacement resource can be revisited without re-litigating the CACJA." CIEA Statement of Position at 31 n.115.

290. Third, § 40-3.2-204(2)(c), C.R.S., requires that an emissions reduction plan "include a schedule that would result in full implementation of the plan on or before December 31, 2017." The schedule must be designed "to protect system reliability, control overall cost, and assure consistency with the requirements of the federal" Clean Air Act. *Id.* Thus, assuming that acquiring 42 MW of Replacement Capacity is included in the schedule for

full implementation of the emissions reduction plan,<sup>92</sup> Black Hills has until December 31, 2017 to obtain the Replacement Capacity. This is sufficient time for Black Hills to include acquisition of the Replacement Capacity in its next ERP or to file another application for a CPCN to acquire the Replacement Capacity.

291. Fourth and finally, in denying this Application, the Commission is not deciding that Black Hills may not own the Replacement Capacity. The Commission is deciding, on the basis of the record in this proceeding, that Black Hills has not established that LMS100 is the appropriate Replacement Capacity. This does not preclude Black Hills from making another appropriate filing to acquire as a utility resource the 42 MW of Replacement Capacity.

292. *Location risk beginning in 2012:* Irrespective of whether the Application is granted, the record is clear that, beginning in 2012, PAGS will be the location of most of Black Hills' baseload and intermediate generation resources. In addition, the record is clear that this generating station interconnects with Black Hills' transmission system through one substation: the substation at PAGS.

293. The ALJ views this concentration of baseload and intermediate load generation at one site as troublesome, if not problematic, as it could result in catastrophic loss of generation if the substation is unavailable. In addition, if one generation unit at PAGS experiences a forced outage, there may be impacts on the other generating units at PAGS.

294. The record contains little or no evidence that Black Hills has addressed this location risk. The record contains no information about Black Hills' contingency plan (if any) for providing service to its customers in the event of a forced or unplanned substation outage. While not a consideration in the ALJ's decision to deny the Application, the absence of this

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<sup>92</sup> The LMS100 is not part of the emissions reduction plan that is contained in the revised SIP.

information concerns the ALJ in light of the significant impact that such an outage would have on Black Hills' customers.

**IX. ORDER**

**A. The Commission Orders That:**

1. Consistent with the discussion above, the Black Hills/Colorado Electric Utility Company, LP, Application for a Certificate of Public Convenience and Necessity and for Commission authorization to retire the Pueblo 5 and 6 steam turbine units is denied.

2. This Recommended Decision shall be effective on the day it becomes the Decision of the Commission, if that is the case, and is entered as of the date above.

3. As provided by § 40-6-109, C.R.S., copies of this Recommended Decision shall be served upon the parties, who may file exceptions to it.

a) If no exceptions are filed within 20 days after service or within any extended period of time authorized, or unless the decision is stayed by the Commission upon its own motion, the recommended decision shall become the decision of the Commission and subject to the provisions of § 40-6-114, C.R.S.

b) If a party seeks to amend, modify, annul, or reverse basic findings of fact in its exceptions, that party must request and pay for a transcript to be filed, or the parties may stipulate to portions of the transcript according to the procedure stated in § 40-6-113, C.R.S. If no transcript or stipulation is filed, the Commission is bound by the facts set out by the administrative law judge and the parties cannot challenge these facts. This will limit what the Commission can review if exceptions are filed.

4. If exceptions to this Decision are filed, they shall not exceed 30 pages in length, unless the Commission for good cause shown permits this limit to be exceeded.

(S E A L)



THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO

MANA L. JENNINGS-FADER

Administrative Law Judge

ATTEST: A TRUE COPY

A handwritten signature in cursive script that reads "Doug Dean".

Doug Dean,  
Director