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

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."

## FINAL ORDER APPROVING EMISSION REDUCTION PLAN

Mailed Date: December 15, 2010 Adopted Date: December 1, 2010

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## I. BY THE COMMISSION

#### A. Statement

1. This matter comes before the Commission for consideration of an emission reduction plan filed by Black Hills/Colorado Electric Utility Company (Black Hills or the Company) pursuant to House Bill (HB) 10-1365. HB 10-1365 requires the Commission to "review the plan and issue an order approving, denying or modifying the plan by December 15, 2010." § 40-3.2-205(2), C.R.S. Having conducted a hearing on the plan and fully considered the facts and arguments before us, the Commission hereby approves Black Hills' plan.

## B. House Bill 10-1365 and Docket No. 10M-254E

## 1. The Clean Air – Clean Jobs Act

- 2. On April 19, 2010, Governor Ritter signed into law HB 10-1365, commonly known as the "Clean Air Clean Jobs Act" (HB 10-1365). HB 10-1365 finds a coordinated plan of emissions reductions from coal-fired electric generating units will enable Colorado to comply with the requirements of the federal Clean Air Act (CAA) while protecting the public health, and all at a lower cost than a piecemeal approach to emissions reductions. § 40-3.2-202(1), C.R.S.
- 3. To assist in achieving these goals, HB 10-1365 requires Black Hills to submit an emissions reduction plan addressing at least 50 percent of its coal-fired electric generating units in Colorado, no later than August 15, 2010. § 40-6.2-204(1), C.R.S. This plan must "include a schedule that would result in full implementation of the plan on or before December 31, 2017." § 40-3.2-204(2)(c), C.R.S. The Commission must then undertake an evidentiary hearing before entering an order "approving, denying, or modifying the plan by December 15, 2010." § 40-3.2-205(2), C.R.S. If the plan or some modified version of the plan is approved by the Commission, the plan is subject to further review by the Colorado Department of Public Health

and Environment (CDPHE). The Air Quality Control Commission (AQCC), a division of CDPHE, undertakes a proceeding to incorporate the air quality provisions of the approved plan into the regional haze element of the State Implementation Plan (SIP) that Colorado will soon be filing with the Federal Environmental Protection Agency (EPA).

4. HB 10-1365 therefore sets forth independent and complementary roles for this Commission and the CDPHE. Because the relationship between the CDPHE and this Commission is somewhat complex, we will briefly address this issue as a preliminary matter.

## 2. Role of the CDPHE

- 5. The CDPHE plays an integral role in both the implementation of HB 10-1365 and in this Docket. First, prior to submitting its plan, Black Hills was required to consult and work with CDPHE in good faith to design a plan that meets the current and reasonably foreseeable emissions reduction requirements in a cost-effective and flexible manner. § 40-3.2-204(2)(b)(I), C.R.S.
- 6. Then, after the plan is submitted, the CDPHE is required to offer its perspective on the plan to the Commission. The Commission is directed to provide an opportunity for the CDPHE to comment on the air quality benefits and emissions reductions of the plan, and to evaluate whether the plan is consistent with reasonably foreseeable requirements of the CAA. § 40-3.2-204(2)(b)(II), C.R.S. This determination is critical because the Commission shall not approve a plan unless the CDPHE has determined that the plan is consistent with the reasonably foreseeable requirements of the CAA. § 40-3.2-204(2)(b)(IV), C.R.S. In preparing these comments, the CDPHE is also required to make a determination as to "whether any new or repowered electric generating unit proposed under the plan, other than a peaking facility utilized less than twenty percent on an annual basis or a facility that captures and sequesters more than

seventy percent of emissions not subject to a national ambient air quality standard or a hazardous air pollutant standard, will achieve emission rates equivalent to or less than a combined-cycle natural gas generating unit." § 40-3.2-204(2)(b)(III), C.R.S.

- 7. Further, when evaluating the plan, the Commission is required to consider whether the CDPHE believes the plan is likely to achieve at least a 70 percent reduction in oxides of nitrogen (NOx). § 40-3.2-205(1)(a), C.R.S. In making a determination as to achievable emissions reductions, the CDPHE is required to consider emissions from coal-fired power plants identified in the plan that will continue to operate with emission control equipment, as well as emissions from any facilities constructed to replace any coal-fired plants identified in the plan. *Id*.
- 8. Finally, the CDPHE's opinion regarding what emission reduction requirements are reasonably foreseeable impacts what modifications the Commission may adopt in approving the final plan. Section 40-3.2-205(2), C.R.S., provides "[a]ny modifications required by the commission shall result in a plan that the [CDPHE] determines is likely to meet current and reasonably foreseeable federal and state clean air act requirements."

#### 3. Role of the Commission

9. After preparing its plan in coordination with the CDPHE, the Company is required to file the plan with this Commission for approval. At a high level, the Commission's role is to ensure the Company's plan achieves the necessary emissions reductions in a reasonable and cost-effective manner. Additionally, the Commission is tasked with ensuring the plan meets the minimum standards of HB-10-1365, such as satisfaction of the full implementation deadline of December 31, 2017, as set forth in § 40-3.2-204(2)(c), C.R.S. In order to make these

determinations, the Commission is required to conduct an evidentiary hearing. § 40-3.2-204(2)(b)(IV), C.R.S.

- 10. HB 10-1365 identifies nine specific factors the Commission must consider in evaluating the plan: (1) whether CDPHE has determined the plan is likely to achieve at least a 70 percent reduction in NOx; (2) whether the CDPHE made a determination under § 40-3.2-204(2)(b)(III), C.R.S.; (3) the degree to which the plan will result in reductions in other air pollutant emissions; (4) the degree to which the plan will increase utilization of existing natural gas fired generation; (5) the degree to which the plan enhances the ability of the utility to meet state or federal clean energy requirements and relies on energy efficiency or other low-emitting resources; (6) whether the plan promotes Colorado economic development; (7) whether the plan preserves reliable electric service; (8) whether the plan is likely to protect Colorado customers from future cost increases, including costs associated with reasonably foreseeable emission reduction requirements; and (9) whether the cost of the plan results in reasonable rate impacts, particularly on low-income customers. § 40-3.2-205(1)(a), C.R.S.
- 11. The plan is also required to set forth associated costs. § 40-3.2-204(2)(d), C.R.S. The Company is "entitled to fully recover the costs that it prudently incurs in executing an approved emission reduction plan, including the costs of planning, developing, constructing, operating, and maintaining any emission control or replacement capacity constructed pursuant to the plan, as well as any interim air quality emission control costs the utility incurs while the plan is being implemented." § 40-3.2-207(1)(a), C.R.S. The Commission is tasked with evaluating the reasonableness of costs associated with the plan, as well as the mechanisms by which costs will be recovered.

12. The Commission is required to issue a final order addressing these elements and approving, denying, or modifying the plan no later than December 15, 2010. § 40-3.2-205(2), C.R.S.

## 4. Role of the AQCC

- 13. The AQCC is required to initiate a proceeding "to incorporate the air quality provisions of the utility plan into the regional haze element of the [SIP]." § 40-3.2-208(2)(a), C.R.S. This proceeding can only occur after notice and an opportunity for public participation. § 40-3.2-208(2)(c), C.R.S. The AQCC may act on the plan after the Commission has approved it. § 40-3.2-208(2)(a), C.R.S.
- 14. If the Commission does not timely approve a plan, if the Company withdraws its plan, or if the final approved plan is rejected by the AQCC, HB 10-1365 establishes an alternative procedure: the AQCC is to vacate the entire proceeding related to the Company's plan and initiate a new proceeding for the consideration of alternative proposals for the appropriate controls of those units covered by the Company's plan. § 40-3.2-208(2)(b), C.R.S.

#### 5. Further Action Under HB 10-1365

15. After the Company's submitted plan has been approved by the Commission and further approved by the AQCC, it proceeds to the legislature for consideration as part of the Colorado SIP related to regional haze, which is then submitted to the EPA. If the final approved provisions of the SIP are not consistent with the air quality provisions of the plan the Commission approved, the Company may file a revised plan with the Commission that modifies the original plan to obtain consistency with the SIP. § 40-3.2-208(3), C.R.S.

## C. Procedural Summary

16. The Commission opened this Docket by Decision No. C10-0550, mailed on June 9, 2010. Decision No. C10-0550 served as the initial notice, provided an opportunity for interested parties to file petitions for leave to intervene, and scheduled a pre-hearing conference to address procedural matters on July 8, 2010.

17. By Decision No. C10-0811 the Commission noted interventions by right and found good cause to grant petitions to intervene by permission filed by the following entities:

- CDPHE;
- Colorado Governor's Energy Office (GEO);
- Colorado Interstate Gas Company and Wyoming Interstate Company, LLC, jointly;
- Colorado Office of Consumer Counsel (OCC);
- Cripple Creek & Victor Mining Company and Holcim US Inc., jointly (CC&V and Holcim);
- Interwest Energy Alliance (Interwest);
- Noble Energy, Inc., Chesapeake Energy, Inc., and Encana Corporation (collectively, Gas Intervenors);
- Peabody Energy Corporation (Peabody);<sup>1</sup>
- Wal-Mart Stores, Inc. and Sam's West Inc., jointly (collectively, Wal-Mart); and
- Western Resource Advocates.

By Decision No. C10-0811, the Commission memorialized the results of the pre-hearing conference, including the establishment of a procedural schedule and provisions for discovery. In that Decision, we also denied a Notice for Withdrawal of Petition for Intervention filed by the CDPHE. In making that determination, the Commission found the CDPHE was a necessary party in this docket, and that its absence would render the Commission unable to resolve the matters before it. We held that the CDPHE would be permitted to file its official report

<sup>&</sup>lt;sup>1</sup> The Commission granted Peabody's Motion to Withdraw by Decision No. C10-1283.

analyzing Black Hills' plan no later than September 29, 2010, the deadline for answer testimony. We also delayed the date after which the CDPHE would be subject to discovery. Decision No. C10-0811, at ¶¶ 17-18.

- 18. Black Hills filed its emissions reduction plan on August 13, 2010. The plan addressed Clark Station, the location of both of the Company's only coal-fired electric generation units (42 MW combined). The plan contained two options: either convert both coal units at the Clark Station to woody biomass by December 31, 2017 or retire both units and replace that 42 MW of capacity with utility-owned natural gas-fired generation by January 1, 2015 (or January 1, 2013 with accelerated transmission system upgrades) by expanding the Company's Pueblo Airport Generation Station (PAGS).
- 19. The Commission re-noticed these proceedings and specifically noticed the plan filed by Black Hills on August 18, 2010. The Notice of Filing further established a second period for interventions. By Decision No. C10-0967, the Commission granted the Petition to Intervene filed by Cañon City, Colorado.
- 20. By Decision No. C10-0991, issued on August 18, 2010, the Commission scheduled a public comment hearing. By Decision No. C10-1199, the Commission assigned the matter to an Administrative Law Judge (ALJ) and instructed her to conduct the public comment hearing in the Cañon City or Pueblo area.
  - 21. Parties submitted answer testimony on September 29, 2010.
  - 22. On October 29, 2010, parties submitted cross-answer and rebuttal testimony.
- 23. By Decision No. C10-1199, the Commission modified the procedural schedule so that hearings would take place on November 18, 2010.

24. The Commission began hearings in this matter on November 18, 2010. Hearings concluded on November 20, 2010.

- 25. The public comment hearing was conducted by the ALJ on November 22, 2010 in Cañon City.
  - 26. Parties filed statements of position on November 24, 2010.
  - 27. The Commission undertook deliberations in this Docket on December 1, 2010.

#### D. Black Hills' Plan

#### 1. Black Hills' August 13, 2010 Filing

- 28. Black Hills proposed two options for Clark Station in its August 13, 2010 filing:
  - Option 1 Convert both coal units at the Clark Station (42 MW) to woody biomass (wood pellets) by December 31, 2017.
  - Option 2 Retire both coal units at the Clark Station (42 MW) and replace that capacity with utility-owned natural gas-fired generation by January 1, 2015 (or January 1, 2013 with accelerated transmission system upgrades) by expanding the Pueblo Airport Generation Station (PAGS).
- 29. As proposed by Black Hills, the Company would make the final selection between the two options as part of its 2011 Electric Resource Plan (ERP) proceeding.<sup>2</sup> The Company explained that the determination regarding the feasibility of required additional time for further analysis, including an evaluation of the long-term availability of wood pellets, the logistics of the delivery and management of this fuel supply, and the costs of managing pollutants such as carbon monoxide. Black Hills' Emission Reduction Plan filed August 13, 2010 (Hearing Exhibit 1), Exhibit TMO-1, at 11. Because the feasibility and costs of the first

<sup>&</sup>lt;sup>2</sup> The Commission's Electric Resource Planning Rules, set forth at Rule 3600, 4 *Code of Colorado Regulations* 723-3, *et seq.*, require the filing of an ERP on or before October 31, 2011.

option were not certain, the Company requested that the Commission approve both options in this Docket.

- 30. Black Hills further requested that the Commission enter a finding in this Docket to allow Black Hills to own any electric generation plan constructed or acquired primarily to replace Clark Station, since Option 2 would entail the retirement of the Clark Station units. Regardless of which option was selected, Black Hills requested a finding that the cost recovery provisions of HB 10-1365, as set forth at § 40-3.2-207, C.R.S., would apply.
- 31. The Company stated in its August 13, 2010 filing that the replacement capacity associated with Option 2 would increase the Company's revenue requirements by less than 5 percent. Hearing Exhibit 1, Ex. TMO-1, at 13. With respect to Option 1, the Company explained that a preliminary, high level cost estimate prepared on its behalf indicated a total price of approximately \$49 million plus or minus 30 percent. Hearing Exhibit 1, Exhibit TMO-1, at 16.
- 32. As required by § 40-3.2-206(1)(b)(II), C.R.S., Black Hills also provided an estimate of the costs of installing emission controls on the Clark Station units. This cost estimate would serve as a benchmark against which the costs of the plan's options would be compared. Black Hills stated that a controls scenario would cost about \$45 million, which translates to an approximate 12 percent increase in the Company's revenue requirements. Hearing Exhibit 1, Exhibit TMO-1, Appendix A.

## 2. Black Hills' Proposed Scenario

33. In its rebuttal testimony filed on October 29, 2010, the Company explained that it further investigated the feasibility of Option 1 and found it was not feasible due to capital and fuel costs, uncertainty regarding the long-term availability of wood pellets, and the potential for

further emissions regulations that would have an impact on Clark Station even if it burned biomass (*e.g.*, emissions of particulates and carbon monoxide). Black Hills also modified its request that the retirement of Clark Station and the development of replacement capacity be deferred to the Company's next ERP proceeding. The Company instead sought Commission approval in this Docket to retire Clark Station by the end of 2013 and replace its 42 MW of capacity at PAGS.

- 34. First, Black Hills concludes that the EPA's proposed Boiler Maximum Available Control Technology (MACT) Rule would require Clark Station to be retired, because it would not be cost effective to install the needed emissions controls on the units primarily due to their advanced age. The Company anticipates that closure of the Clark Units would be necessary before the end of 2013 as a result of the proposed Boiler MACT Rule. Hearing Exhibit 1, Exhibit TMO-1, at 11.
- 35. Second, Black Hills wants the Commission to approve the replacement of the 42 MW of retired capacity at Clark Station with a portion of the capacity of a new LMS 100 that would be constructed at PAGS.<sup>3</sup> The Company states that this expansion slot is available from the Company's affiliate that is also developing new generation facilities at PAGS. Black Hills further explains that the expansion slot allows for the construction and operation of an LMS 100 unit during a specified period of time and that the slot can be used for no technology other than an LMS 100. *Id*.
- 36. Because the proposed LMS 100 has already been granted an air permit by CDPHE by virtue of the expansion slot at PAGS, Black Hills states that the retirement of the

 $<sup>^{3}</sup>$  An LMS 100 constructed a PAGS would have a total capacity of 92 MW, or 50 MW more than the retired capacity at Clark Station.

Clark Station and the replacement of its capacity in the form of an LMS 100 at PAGs will reduce the Clark Station's NOx emissions to zero. If the NOx emission rates of the LMS 100 were nonetheless to be considered on a net basis vis-à-vis the emission rates of Clark Station, the Company claims that the emissions would be reduced by 93 percent. Tr. Nov. 20, 2010, at 12.

- 37. Black Hills states that it plans to run the additional LMS 100 at PAGS as a peaking facility that would operate no more than 20 percent of all hours per year. Hearing Exhibit 1, Exhibit TMO-1, at 13. In other words, the LMS 100 would be used as a peaking rather than a baseload unit.<sup>4</sup> Given this assumption, CDPHE does not need to determine whether the LMS 100 achieves emissions rates equivalent to or less than a combined-cycle natural gas generating unit under § 40-3.2-204(1)(b)(III), C.R.S. Nevertheless, CDPHE has stated that even if this provision of HB 10-1365 were to apply, the emissions from the LMS 100 would not exceed that of a combined-cycle natural gas unit. CDPHE Statement of Position, at 3.
- 38. With respect to costs, Black Hills estimates that the closure of Clark Station and the replacement of its 42 MW capacity through the development and operation of 42 MW of the new LMS 100 would come at a cost that is no more than a 5 percent increase in the Company's total revenue requirements. Olmacher Rebuttal Testimony (Hearing Exhibit 2), at 10. Black Hills explains that this cost estimate considers the planning, development, construction, and operation costs (including fuel costs) that are associated with the new gas-fired unit, as well as the shutdown and de-commissioning costs associated with the closure of Clark Station. Black Hills also explains that by using the proposed expansion slot, the costs of the project will be reduced by one-third as compared to a stand-alone LMS 100 unit. Tr. Nov. 18, 2010, at 21.

<sup>&</sup>lt;sup>4</sup> Black Hills explains that baseload needs resulting from the retirement of the Clark Station will be satisfied under the purchased power agreement with the LM6000 2 X 1 combined cycle units presently under construction at PAGS.

## 3. Requested Approvals

- 39. Black Hills seeks the following approvals or findings in this Docket:
- Approval of the retirement of Clark Station units by the end of 2013;
- Approval of the construction of replacement capacity for the retired Clark Station units utilizing an expansion slot for an LMS 100 at PAGS;
- A finding that the Company has the right to seek the benefits of the cost recovery provisions of § 40-3.2-207, C.R.S., if the facts and circumstances warrant it; and
- A finding of a presumption of prudence under HB 10-1365.

#### **E.** Preliminary Necessities

## 1. Scope of the Plan

- 40. Section 40-3.2-204(2)(a), C.R.S., requires that the emissions reduction plan address "a minimum of nine hundred megawatts or fifty percent of the utility's coal-fired electric generating units in Colorado, whichever is smaller." In evaluating compliance with this requirement, the calculation "shall not include any coal-fired capacity that the utility has already announced that it has plans to retire, prior to January 1, 2015." *Id*.
- 41. Black Hills' emissions reduction plan addresses all of its coal-fired electric generation in Colorado. The Company had not announced plans to retire either of the Clark Station units prior to January 1, 2015. Therefore, the Commission finds the plan satisfies this requirement.

#### 2. Evidentiary Hearing

42. Section 40-3.2-204(2)(b)(IV), C.R.S., states "The Commission shall not approve a plan except after an evidentiary hearing." The Commission held an evidentiary hearing in this Docket on November 18 and 20, 2010. Therefore, the Commission finds this procedural requirement was satisfied.

# 3. CDPHE Determination Regarding Consistency with Reasonably Foreseeable Emission Reduction Requirements

- 43. Section 40-3.2-204(2)(b)(IV), C.R.S., states "The Commission shall not approve a plan . . . unless the Department has determined that the plan is consistent with the current and reasonably foreseeable requirements of the federal [Clean Air] act."
- 44. The CDPHE determined current and reasonable foreseeable CAA requirements and concluded that the Company's plan is consistent with those requirements. Tourangeau Direct Testimony (Hearing Exhibit 3) at 12-18. Therefore, the Commission finds this requirement of HB 10-1365 was satisfied.

#### 4. Full Implementation by 2017

- 45. Section 40-3.2-204(2)(c), C.R.S., requires that the plan "include a schedule that would result in full implementation of the plan on or before December 31, 2017." Further, this schedule must be designed "to protect system reliability, control overall cost, and assure consistency with the requirements of the federal [Clean Air] act." *Id*.
- 46. Because Black Hills intends to retire Clark Station before December 31, 2013 and because the Company has proposed to replace the retired capacity at PAGS consistent with the retirement of Clark Station, the Commission finds the plan will be fully implemented by the statutory deadline.

## 5. Identification of Associated Costs

47. Section 40-3.2-204(2)(d), C.R.S., states "[t]he plan shall set forth the costs associated with activities identified in the plan," including "planning, development, construction, and operation of elements."

48. Black Hills represents the cost of the retirement of Clark Station and the construction and operation of 42 MW of replacement capacity at PAGS in the form of a portion of new LMS 100 can be achieved at a cost that is no more than a 5 percent increase in the Company's revenue requirements. This estimate includes costs associated with planning, development, construction, shutdown, and decommissioning. Tr. Nov. 18, 2010, at 67. Therefore, the Commission finds this requirement of HB 10-1365 was satisfied.

## F. Modifications and Approvals

## 1. Closure of Clark Station

#### a. Position of the Parties

- 49. Black Hills explains that the closure of Clark Station will achieve the requirement in § 40-3.2-205(a), C.R.S., that the plan reduce NOx emissions by at least 70 percent as compared to 2008 levels. Black Hills states that its plan will also result in significant emissions reductions of other pollutants regulated under the CAA, including carbon dioxide emissions.
- 50. Gas Intervenors and the GEO recommend that the Commission approve the retirement of Clark Station. CC&V and Holcim take no position on this matter, while Wal-Mart and the OCC do not oppose the closure of Clark Station.
- 51. Cañon City opposes the closure of Clark Station. Cañon City would prefer the Commission approve an emission reduction plan that continues operations at Clark Station using low-cost coal or an alternative fuel. Cañon City would likewise support investments that would extend the useful life of the units.
- 52. Cañon City argues Clark Station provides jobs and other important economic benefits to the city and Fremont County. Cañon City points to comments made at the public

comment hearing where testimony was given regarding potential adverse financial impacts on the city's local economy if Clark Station is retired.

53. In sum, Cañon City wants additional options, including emissions controls, to be explored before the Commission approves a plan under HB 10-1365 that entails the closure of Clark Station. If closure is approved by the Commission, Cañon City believes the Commission should order it to remain open until January 1, 2018.

## b. Findings

- 54. The Commission finds the retirement of Clark Station by 2013 to be needed and in the public interest. Due to the age of the units at Clark Station, we conclude that it does not make economic sense to install emission controls at the site. Moreover, re-powering Clark Station with an alternative fuel appears to be neither feasible nor cost effective.
- 55. Because §§ 40-3.2-205(1)(f) and 40-3.2-206(3)(e), C.R.S., require the Commission to consider the economic impacts of the Company's emission reduction plan, we encourage Black Hills to assist its employees at Clark Station as suggested by Cañon City. In addition, the Commission directs Black Hills to report to the Commission on the impacts of the closure of the Clark Station on the Company's employees at the facility and, if known, on the Colorado communities that supplied coal to the Clark Station. This report shall be due June 1, 2014.
- 56. In addition, we encourage Black Hills to coordinate with Cañon City officials and Fremont County officials to adopt an appropriate plan for the re-use of the facility or the land upon which it is situated.
- 57. We agree with Wal-Mart that the Company has not provided sufficiently detailed information regarding the costs associated with closing Clark Station. We therefore direct Black

Hills to file under Rule 3103 an application to amend its Certificate of Public Convenience and Necessity (CPCN) for Clark Station to allow for its retirement before the end of 2013. *See* Rule 3103, 4 *Code of Colorado Regulations* (CCR) 723-3.

- 58. Given that the Commission will have already approved the closure of the Clark Station units in this Docket, we expect that this application proceeding will be limited to Commission review and approval of detailed cost estimates associated with the closure and decommissioning of Clark Station. We will therefore waive certain provisions under Rule 3103 such that the Company will be required to provide in the application only the following elements:
  - the information required in Commission Rules 3002(b) and 3002(c), consistent with conventional application filings;
  - a description of the proposed facilities to be decommissioned and/or removed;
  - estimated costs of the decommissioning and/or removal of these facilities; and
  - anticipated start date of the decommissioning and/or removal work, a schedule for these activities, and a completion date.
- 59. Black Hills shall file the application described above within three months prior to the commencement of the Company's next electric base rate proceeding but no later than July 1, 2012.

## 2. Replacement of Clark Station Capacity

#### a. Position of the Parties

- 60. Black Hills wants the Commission to approve the construction of replacement capacity for the retired 42 MW of Clark Station utilizing an expansion slot for an LMS 100 at PAGS.
- 61. The Gas Intervenors support the replacement of Clark Station with a portion of capacity of a new LMS 100 at PAGS, concluding that a rate impact of less than 5 percent is

reasonable and should therefore be approved. The GEO likewise states that the replacement of Clark Station capacity with a new LMS 100 at PAGS meets both the spirit and the letter of HB 10-1365.

- 62. CC&V and Holcim take no position on this specific matter. However, they point out that Black Hills agrees it would still need to seek a CPCN to construct these facilities and the associated costs would be at issue regarding that future application.
- 63. The OCC argues that the decision regarding how to replace the capacity of the retired Clark Station should be made in the Company's 2011 ERP pursuant to competitive bidding. The OCC argues this will result in the lowest-cost approach to compliance with HB 10-1365. Regardless of whether the Commission approves the 42 MW of replacement capacity at PAGS, the OCC notes that the additional 50 MW of the LMS 100 should not be approved without a competitive solicitation process, a showing of necessity, and a CPCN.
- 64. Wal-Mart does not oppose the construction of replacement capacity using the expansion slot for an LMS 100 at PAGS. However, Wal-Mart suggests that the Commission adopt in this Docket a cost cap for the replacement capacity at a level below 5 percent of the Company's revenue requirements as established by the Commission in Docket No. 10AL-008E. Wal-Mart points out that Black Hills' filings in this proceeding contain no specific information on the costs of planning, developing, and constructing the LMS 100 unit at PAGS.
- 65. Interwest argues that Black Hills ignored key provisions of HB 10-1365 by failing to conduct a complete review of existing generation units and to issue a Request for Proposals for replacement generation. Interwest complains that Black Hills' presentation of the plan's costs is too limited. As a consequence, Interwest suggests that any prudency finding be limited to costs associated with 42 MW of the placed replacement capacity and that such a finding not

come before the completion of a resource planning process in which the Commission's competitive bidding rules are applied.

#### b. Findings

- 66. The Commission finds that 42 MW of replacement capacity is needed and in the public interest. Although we are concerned that the capacity of an LMS 100 (92 MW) exceeds the 42 MW of need created by the retirement of the Clark Station, we will grant Black Hills a presumption of need for 42 MW of capacity with respect to a future CPCN application for the new LMS 100 at PAGS.
- 67. Commission Rule 3102, 4 CCR 723-3, requires Black Hills to file an application for a CPCN to construct the LMS 100 at PAGS as a new generation facility. As part of that filing, the Company shall bear the burden of demonstrating the usefulness of the remaining 50 MW of capacity of the LMS 100 unit.
- 68. While we will not institute a limit on the recoverable costs of the 42 MW of the LMS 100 at this time, Black Hills shall present detailed and firm cost estimates in the CPCN application in order for the Commission to consider the establishment of a not-to-exceed maximum level of expenditures for the purposes of rate recovery. We further find a CPCN for the LMS 100 must be granted before Black Hills can enjoy a presumption of prudence with respect to the recovery of the costs of replacement capacity for Clark Station under §§ 40-3.2-205(3) and 40-3.2-207(1)(a), C.R.S.
- 69. The Commission further directs Black Hills to file the CPCN application for the LMS 100 no later than June 1, 2011, in order to ensure a timely review of the associated costs given the project's construction schedule and the retirement of Clark Station in 2013.

70. The Commission is concerned that with the retirement of Clark Station and the replacement of its capacity with an LMS 100, Black Hills' generation fleet will lack a diversified fuel mix after 2013, as essentially all of the Company's generation will be fueled with natural gas. We expressed similar concerns regarding the Company's increased dependence on natural gas for electricity generation in Docket No. 08A-346E concerning the Company's most recent ERP.

- 71. Section 40-3.2-206(4), C.R.S., allows Black Hills to enter into long-term gas supply agreements and to file them with the Commission for review and approval. Black Hills elected not to seek approval of a long-term gas contract in this Docket. However, the Company stated it is exploring entering into long-term gas supply agreements.
- 72. Because Black Hills is already required by Decision No. C09-0184 in Docket No. 08A-346E to file a gas mitigation plan, we shall require Black Hills to address the potential benefits from entering into long-term gas contracts as part of the Company's gas mitigation strategies.

## G. Analysis of Approved Plan

## 1. Replacement Capacity

73. HB 10-1365 tasks the Commission with assessing the reasonableness of the resources selected to replace retired coal plants. § 40-3.2-206(1)(a), C.R.S. ("The general assembly finds that . . . it is in the public interest for utilities to give primary consideration to replacing or repowering their coal generation with natural gas generation and that utilities shall also consider other low-emitting resources, including energy efficiency, if this replacement or repowering can be accomplished prudently and for reasonable rate impacts compared with placing additional emission controls on coal-fired generating units, and if the electric system

reliability can be preserved."). To evaluate the reasonableness of replacement capacity selections, HB 10-1365 identifies factors we must consider, which are discussed in detail below.

- 74. First, § 40-3.2-206(3)(a), C.R.S., requires us to "compare the relative costs of repowering or replacing coal facilities with natural gas generation or other low-emitting resources, including energy efficiency, to an alternative that incorporates emission controls on the existing coal-fired units." The Company estimates the costs associated with its controls option would increase its revenue requirements by approximately 12 percent. By contrast, the Company's plan, including replacement capacity, is estimated to increase revenue requirements by 5 percent. Given that the Company's plan is less expensive than an all controls option, we find the Company's plan is superior to the controls alternative.
- 75. Second, § 40-3.2-206(3)(b), C.R.S., requires us to "use reasonable projections of future coal and natural gas costs." Black Hills explains that its cost estimate for the plan includes projections of fuel costs, including coal and natural gas. *See* Hearing Exhibit 8. Therefore, we have taken these costs into consideration in evaluating the Company's plan.
- 76. Third, § 40-3.2-206(3)(c), C.R.S., requires us to "incorporate a reasonable estimate for the cost of reasonably foreseeable emission regulation consistent with the commission's existing practice." Due to the circumstances surrounding the already-permitted expansion slot at PAGS for an additional LMS 100, the emissions at Clark Station will be considered reduced to zero and thus will not be subject to reasonably foreseeable emission regulation. Therefore, we find the plan addresses all reasonably foreseeable emission regulation costs.
- 77. Fourth, § 40-3.2-206(3)(d), C.R.S., requires us to "consider the degree to which the plan will increase utilization of existing natural gas-fired generating resources available to

the utility, together with increased utilization of other low-emitting resources including energy efficiency." The Company stated that upon retirement of Clark Station, it expects the utilization of the natural gas combined cycle units at PAGS to increase because the replacement capacity in the form of 42 MW of an LMS 100 will be used for peaking needs. In addition, it appears that an LMS 100 will be well suited to back-up wind resources, which Black Hills may elect to acquire to comply with Colorado's Renewable Energy Standard. Based on these considerations, we have satisfied this requirement of HB 10-1365.

78. Finally, § 40-3.2-206(3)(e), C.R.S., requires us to "consider the economic and environmental benefits of a coordinated emissions reduction strategy." The CDPHE has determined that Black Hills' plan will meet current and reasonably foreseeable requirements of the CAA. Moreover, the retirement of the Clark Station will result in significant reductions in other emissions, including mercury, SO<sub>2</sub>, and carbon dioxide. These emission reductions will also come at a lower expected cost to ratepayers as compared to a scenario where controls are installed at Clark Station in lieu of retirement. Tourangeau Direct Testimony (Hearing. Exhibit 3). Therefore, we find the Company's proposed coordinated emissions strategy presents significant economic and air quality benefits.

## 2. Evaluation Factors

79. HB 10-1365 sets forth nine factors the Commission must consider in evaluating the plan, § 40-3.2-205(1), C.R.S., each of which is addressed in detail below.

## a. The CDPHE's Report Concerning Reduction in Emissions of Oxides of Nitrogen

80. The Commission must consider whether the CDPHE "reports that the plan is likely to achieve at least a seventy to eighty percent reduction, or greater, in annual emissions of

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oxides of nitrogen." § 40-3.2-205(1)(a), C.R.S. In making this determination, the CDPHE is required to consider "emissions from coal-fired power plants identified in the plan and continuing to operate after retrofit with emission control equipment", § 40-3.2-205(1)(a)(I), C.R.S., as well as "emissions from any facilities constructed to replace any retired coal-fired power plants identified in the plan." § 40-3.2-205(1)(a)(II), C.R.S.

81. We have considered NOx emission reductions in evaluating the merits of the Company's plan, and note that CDPHE has determined for the purposes of HB 10-1365 and the AQCC's SIP, the emissions of NOx from Clark Station will be completely eliminated upon its retirement, therefore exceeding the reduction amounts required by HB 10-1365. Tourangeau Direct Testimony (Hearing. Exhibit 3) at 13. Therefore, we find this factor weighs heavily in favor of approving the Company's plan.

## b. The CDPHE's Determination Pursuant to § 40-3.2-204(2)(b)(III), C.R.S.

82. Section 40-3.2-204(2)(b)(III), C.R.S, requires the CDPHE to "determine whether any new or repowered electric generating unit proposed under the plan, other than a peaking facility utilized less than twenty percent on an annual basis or a facility that captures and sequesters more than seventy percent of emissions not subject to a national ambient air quality standard or a hazardous air pollutant standard, 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.

## c. The Degree to Which the Plan Will Result in Reductions in Other Air Pollutant Emissions

83. Section 40-3.2-205(1)(c), C.R.S., requires us to consider "the degree to which the plan will result in reductions in other air pollutant emissions." We acknowledge CDPHE's analysis of the retirement of Clark Station that indicates Black Hills' plan will significantly reduce emission of SO2, mercury, and greenhouse gases. Tourangeau Direct Testimony (Hearing. Exhibit 3) at 13-18. As a result, the Commission believes this factor supports approving the Company's plan.

## d. The Degree to Which the Plan Will Increase Utilization of Existing Natural Gas-Fired Generating Capacity

84. Section 40-3.2-205(1)(d), C.R.S., requires us to consider "the degree to which the plan will increase utilization of existing natural gas-fired generating capacity." We note that Black Hills anticipates utilization of natural gas to increase upon implementation of its plan, primarily due to an expected increase of the natural gas-fired combined cycle units at PAGS that will be in place before the new LMS 100 goes into operation. We therefore find this factor favors adoption of the Company's plan.

# e. Satisfaction of Clean Energy Requirements, and Utilization of Energy Efficiency or Other Low-Emitting Resources

85. Section 40-3.2-205(1)(e), C.R.S., requires us to consider "the degree to which the plan enhances the ability of the utility to meet state or federal clean energy requirements, relies on energy efficiency, or relies on other low-emitting resources." The Company's plan entails the development of natural-gas fired replacement capacity to replace the retired 42 MW of the Clark Station coal-fired units. The plan may increase the Company's ability to satisfy clean energy requirements. In addition, the plan's reliance on natural gas capacity, a lower emitting resource

than the Company's existing coal facilities, indicates this factor supports approval of the Company's plan.

## f. Promotion of Colorado Economic Development

- 86. Section 40-3.2-205(1)(f), C.R.S., requires us to consider "whether the plan promotes Colorado economic development." Based on Black Hills' representation, we understand the plan may generate construction related jobs in Pueblo, including longer construction activities beyond the schedule presently established for PAGS. The additional LMS 100 at PAGS may also provide sales tax and property revenues to the City of Pueblo and Pueblo County. Countering these positive impacts are potential job losses and property tax losses in Cañon City and Fremont County. Due to the conflicting evidence in the record, we find this factor is neutral in our evaluation of the Company's plan.
- 87. However, we encourage Black Hills to assist its employees at Clark Station as a result of the retirement of the plant and to coordinate with Cañon City and Fremont County officials to adopt an appropriate plan for the re-use of the facility or the land upon which it is situated.

## g. Preservation of Reliable Electric Service

88. Section 40-3.2-205(1)(g), C.R.S., requires us to consider whether the plan preserves reliable electric service for Colorado customers. With respect to the Cañon City area, Black Hills has stated that a planned transmission project unrelated to the plan will help improve reliability to the Cañon City area. The Company also concedes that additional transmission system improvements may be necessary. We therefore direct Black Hills to address service reliability of Cañon City after Clark Station closes in the future application filing concerning the decommissioning of Clark Station, consistent with the discussion above.

89. Nonetheless, because replacement capacity will be available when the Clark Station closes in accordance with the Company's plan, we find that reliable service to Black Hills' customers will be preserved. Therefore, this factor supports approval of the Company's plan.

#### h. Protection from Future Cost Increases

90. Section 40-3.2-205(1)(h), C.R.S., requires us to consider "whether the plan is likely to help protect Colorado customers from future cost increases, including costs associated with reasonably foreseeable emission reduction requirements." Consistent with the CDPHE's findings regarding the expected emissions reductions from the plan and pursuant to the General Assembly's determinations in HB 10-1365 that a coordinated plan will protect public health and the environment at a lower cost than a piecemeal approach, we find that the plan will help protect Black Hills' ratepayers from higher cost compliance actions associated with the Clark Station.

## i. Reasonable Rate Impacts

91. Section 40-3.2-205(1)(i), C.R.S., requires us to consider "whether the cost of the plan results in reasonable rate impacts." In making this determination, we are directed to "examine the impact of the rates on low-income customers." *Id.* We agree with Black Hills and the Gas Intervenors that an increase of 5 percent or less in the Company's revenue requirement is reasonable. In addition, the Company's coordinated plan is expected by the General Assembly to be less costly than an alternative approach to complying with current and reasonably foreseeable CAA requirements to the benefit of all customers, including low-income customers, consistent with HB 10-1365. We therefore find this factor weighs in favor of approving the Company's plan.

## H. Cost Recovery

- 92. Section 40-3.2-207(3), C.R.S., permits "current recovery" of "construction work in progress at the utility's weighted average cost of capital, including its most recently authorized rate or return on equity, for expenditures on projects associated with the plan during the construction, startup, and pre-service implementation phases of the projects." Further, § 40-3.2-207(4), C.R.S., states the Commission shall employ rate-making mechanisms that allow for adjustments of not less than once per year, without requiring the Company to file a rate case, to the extent Black Hills can show: (1) the "approved plan includes the early conversion or closure of coal-based generation capacity by January 1, 2015," and (2) "a lag in the recovery of the costs of the plan related to the investment required" by the plan contributes to Public Service "earning less than its authorized return on equity." Finally, § 40-3.2-207(5), C.R.S., provides that "during the time any special regulatory practice is in effect, the utility shall file a new rate case at least every two years or file a base rate recovery plan that spans more than one year."
- 93. Black Hills did not request approval in this Docket of any new cost recovery or regulatory accounting mechanisms associated with the investments it expects to make under its plan. Instead, Black Hills requests that the Commission affirm the Company's right to seek the benefits of the cost recovery provisions of HB 10-1365 in a future proceeding if the facts and circumstances warrant it.
- 94. CC&V and Holcim request that the Commission state in its order that the approval of the plan does not: (1) constitute approval of any costs that may be proposed or incurred to implement the plan; (2) authorize Black Hills to recover any costs; (3) include any findings pursuant to § 40-3.2-207(4), C.R.S.; and (4) authorize Black Hills to implement a

special ratemaking mechanism under § 40-3.2-207(4), C.R.S. Instead, CC&V and Holcim suggest the Commission should defer all such issues to a later docket.

- 95. The OCC recommends that the Commission not make any findings with regard to the cost recovery provisions of HB 10-1365. The OCC generally argues the facts of the Company's plan are not yet specific and matters of cost recovery should be decided when such facts are known. The OCC does not object to the Commission affirming what cost recovery provisions exist in HB 10-1365.
- 96. Cañon City requests that ratepayers not be charged with any costs associated with new facilities outside of a base rate case. Cañon City wants any special cost recovery provisions under HB 10-1365 that might apply in the future to attach only to the 42 MW of replacement capacity and not the entire 92 MW of the proposed LMS 100.
- 97. Although Wal-Mart addressed the cost recovery provisions of HB 10-1365 in prefiled testimony, Wal-Mart concedes, based on the Company's presentations at hearing, that such cost recovery matters should be addressed in a later docket. Wal-Mart suggests that the Commission not act beyond affirming that the HB 10-1365 cost recovery provisions will apply in a future docket just as they would apply today.
- 98. As a preliminary matter, we find that the provisions regarding cost recovery from wholesale customers set forth in § 40-3.2-207(2), C.R.S., do not apply to Black Hills because the Company is not engaged in providing wholesale service as regulated by the Federal Energy Regulatory Commission.
- 99. With respect to § 40-3.2-207(3), C.R.S., we find that Black Hills will be eligible for current recovery earnings on construction work in progress (CWIP) for the portion of the LMS 100 to be constructed as replacement capacity for the Clark Station (42 MW). The timing

and the form of such CWIP recovery will, however, be determined in a future proceeding. This finding is intended to preserve the Company's right to seek the benefits of § 40-3.2-207(3), C.R.S., in the future.

100. Similarly, we find that Black Hills will meet the first threshold for special regulatory practices under § 40-3.2-207(4), C.R.S., namely the condition that the Company's approved plan includes the early closure of coal-based generation by January 1, 2015. However, we defer to a future docket, a determination of whether the Company has met the second threshold in § 40-3.2-207(4), C.R.S., concerning the demonstration that "a lag in the recovery of the costs of the plan related to the investment required by such plan contributes to a utility earning less than its authorized return on equity." That proceeding would naturally be the time when the Commission would consider approval of the timing and form of any special regulatory practice that applies to the Company's investments as required by the plan. We conclude that these findings will also preserve the Company's right to seek the benefits of § 40-3.2-207(4), C.R.S., in the future.

## II. ORDER

#### **A.** The Commission Orders That:

- 1. The emission reduction plan filed by Black Hills/Colorado Electric Utility Company, LP, (Black Hills) under § 40-6.2-201, C.R.S., *et seq.*, is approved, consistent with the discussion above.
- 2. The Commission finds that the retirement of Clark Station units by the end of 2013 is needed and in the public interest, consistent with the discussion above.
- 3. The Commission finds that the construction of replacement capacity utilizing an expansion slot for an LMS 100 at Black Hill's Pueblo Airport Generation Station for the retired

Clark Station units, in the amount of 42 MW only, is approved, consistent with the discussion above.

- 4. Black Hills shall file an application for a Certificate of Public Convenience and Necessity (CPCN) for the LMS 100 of 92 MW no later than June 1, 2011, consistent with the discussion above. In that application proceeding, Black Hills shall bear the burden of demonstrating the need for the 50 MW of capacity above the 42 MW for which a presumption of need has been granted.
- 5. The Commission preserves the right of Black Hills to seek the benefits of the cost recovery provisions of § 40-3.2-207, C.R.S., in future ratemaking proceedings, consistent with the discussion above.
- 6. The Commission grants Black Hills a presumption of prudence under §§ 40-3.2-205(3) and 40-3.2-207(1)(a), C.R.S., contingent upon the approval of the CPCN for the LMS 100, consistent with the discussion above.
- 7. Black Hills shall file a report concerning the economic impacts resulting from the closure of the Clark Station on or before June 1, 2014.
- 8. Black Hills shall address the potential benefits from entering into long-term gas contracts as part of its gas mitigation plan required by Decision No. C09-0184 in Docket No. 08A-346E.
- 9. The 20-day period provided for in § 40-6-114, C.R.S., within which to file applications for rehearing, reargument, or reconsideration, begins on the first day following the effective date of this Order.
  - 10. This Order is effective upon its Mailed Date.

# B. ADOPTED IN COMMISSIONERS' DELIBERATIONS MEETING December 1, 2010.

(SEAL)

OF COLORADO \* ZOUS STATE OF COLORADO \*

ATTEST: A TRUE COPY

Doug Dean, Director THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

RONALD J. BINZ

JAMES K. TARPEY

MATT BAKER

Commissioners