Decision No. R14-1405

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

PROCEEDING NO. 14A-0287E

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO (A) FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE PAWNEE TO DANIELS PARK 345 KV TRANSMISSION PROJECT, AND (B) FOR SPECIFIC FINDINGS WITH RESPECT TO EMF AND NOISE.

RECOMMENDED DECISION OF ADMINISTRATIVE LAW JUDGE G. HARRIS ADAMS CONDITIONALLY GRANTING CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND MAKING FINDINGS OF REASONABLENESS

Mailed Date: November 25, 2014

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I. STATEMENT

1. On March 28, 2014, Public Service Company of Colorado (Applicant, Public Service, or Company) filed its Application for a Certificate of Public Convenience and Necessity for the Pawnee to Daniels Park 345 kV Transmission Project (Project) and for Specific Finding with Respect to EMF and Noise.

2. By Decision No. C14-0553-I issued May 23, 2014, the matter was referred to an administrative law judge (ALJ) to conduct a public comment hearing and for preparation of a recommended decision.

3. The Commission gave notice of the application on April 2, 2014. Requests for permissive intervention were due within 30 days thereafter. An Intervention by Staff of the Public Utilities Commission was due within 37 days thereafter.

4. The Colorado Office of Consumer Counsel (OCC) and Staff of the Public Utilities Commission (Staff) timely intervened of right.

5. By Decision No. R14-0556-I issued May 23, 2014, Colorado Energy Consumers (CEC) was granted intervenor status in this proceeding.

6. By Decision No. R14-0599-I issued June 4, 2014, the request for permissive intervention filed by the Rowley Downs Homeowners Association was stricken without prejudice for failing to comply with Commission rules and failing to respond to an order to show cause. *See* Decision No. R14-0557-I issued May 23, 2014.

7. By Decision No. R14-0610-I issued June 5, 2014, a public comment hearing was scheduled. On July 23, 2014, the public comment was held in Parker, Colorado. The comment hearing was scheduled so that public comments could inform the presentation of evidence by parties as well as the Commission's exercise of discretion as appropriate. In addition to well over 100 written public comments filed in this proceeding, numerous oral public comments were provided. The vast majority of public comment supports need for the overall project, but a majority also expressed siting concerns outside the scope of this proceeding. Several comments express specific concern regarding electromagnetic fields associated with the Project.

8. By Decision No. R14-0609-I issued June 5, 2014, procedural matters were addressed, a hearing was scheduled, and the applicable statutory period in this matter is extended pursuant to § 40-6-109.5(1), C.R.S., for an additional 90 days in order to accommodate the procedural schedule adopted.

9. On July 29, 2014, the OCC filed its Motion of the Colorado Office of Consumer Counsel to Use Highly Confidential Information from Another Proceeding. The OCC seeks leave to use the highly confidential information from Proceeding No. 11A-869E in this Proceeding.

10. On September 5, 2014, the Motion to Approve Stipulation and Settlement Agreement (Motion) was filed by Public Service. The Motion requests approval of the Stipulation and Settlement Agreement (Stipulation) filed concurrently.

11. At the scheduled time and place, a hearing was convened regarding the application. All parties appeared and participated through counsel. Hearing Exhibits 200, 201(Rev. 1), 202 through 207(Rev. 2), Hearing Exhibit 300 (in both a public and highly confidential version), Hearing Exhibit 600, and Hearing Exhibits 701 through 704 were identified, offered, and admitted into evidence.[1] Daniel P. Kline, Thomas W. Green, Derek D. Holscher, Danny J. Pearson, and James F. Hill testified on behalf of Public Service. Chris Neil testified on behalf of the OCC. Inez D. Dominguez testified on behalf of Staff.

12. In reaching this Recommended Decision the ALJ has considered all arguments presented by the parties, including those arguments not specifically addressed in this Decision. Likewise, the ALJ has considered all evidence presented at the hearing, even if the evidence is not specifically addressed in this Decision.

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

II. FINDINGS, DISCUSSION, AND CONCLUSIONS

A. Use of Highly Confidential Information

14. No response was filed to the OCC's motion requesting to use highly confidential information from Proceeding No. 11A-869E.

15. The information at issue is included and marked as being subject to highly confidential protections in Hearing Exhibit 300 Answer Testimony and Attachments of Chris Neil on Behalf of the Colorado Office of Consumer Counsel (Highly Confidential Version).

[1] Hearing Exhibit 704 is replacement pages 43 and 44 for both versions of Hearing Exhibit 300. Hearing Exhibit 704 supersedes Hearing Exhibit 300 to the extent of conflict.

16. The highly confidential information is afforded protection by Decision No. C11-1391 in Proceeding No. 11A-869E issued December 27, 2011, and Rule 3614 of the Rules Regulating Electric Utilities, 4 *Code of Colorado Regulations* (CCR) 723-3.

17. Good cause is shown for the unopposed request, and it will be granted.

18. The OCC may use the highly confidential information from Proceeding No. 11A-869E that is marked in the Highly Confidential Version of Hearing Exhibit 300, subject to existing protections.

19. The OCC and Staff are permitted to access the subject information in Proceeding No. 11A-869E and shall be permitted to access the same in this proceeding, subject to the same terms, conditions, and obligations set forth in Proceeding No. 11A-869E.

20. It is anticipated that the subject information will become publicly available in Proceeding No. 11A-869E. When the information is made publicly available in Proceeding No. 11A-869E, it shall then no longer be protected in this proceeding. The OCC is encouraged to file a public version of the Highly Confidential Version of Hearing Exhibit 300 in this proceeding without redaction, when it is publicly available.

B. Stipulation

21. The Motion is silent as to response time. As a preliminary matter at hearing, all parties were asked whether there was any objection to shortening response time to the motion to the time of hearing. No objection was made, so response time was shortened *sua sponte*.

22. The Stipulation, Hearing Exhibit 702, reflects an agreement reached between Public Service and Staff. Both parties "agree that the analyses performed by each supports a recommendation that the Commission grant a CPCN for the project, and both agree that that they

will not, in this proceeding, contest in a hearing the methodology employed by the other to determine the need for the project." Stipulation at 3.

23. "[T]o assure that the Company has a better opportunity to consider Staff's suggestions regarding supporting analyses for future proposed transmission projects that the Company intends to advance as consistent with the requirements of SB 07-100, the Company agrees that it will meet with Staff to discuss its suggestions prior to completing future analyses undertaken to support future CPCN filings for such projects." Stipulation at 3-4.

24. Finally, "the Commission should make the specific findings with respect to the reasonableness of the noise and magnetic field levels that the Company estimates will result from operating the Project." Stipulation at 4.

25. Mr. Kline and Mr. Dominguez testified in support of the Stipulation.

26. Mr. Kline explains that the Stipulation memorializes recognition that efficiencies could be realized through earlier communication regarding Senate Bill 07-100 projects, including identification of potential issues and study scenarios. The agreement is in keeping with the spirit of the open transmission planning process in Rule 3627.

27. Based upon good cause shown for the unopposed request, the Stipulation is found to be clear, understandable, and administratively enforceable. The Motion to approve the Stipulation will be granted and the Stipulation shall be binding upon the parties thereto. It was admitted as Hearing Exhibit 702 at hearing.

C. Application

1. Project

28. Public Service requests that the Commission grant it a certificate of public convenience and necessity (CPCN) to expand the project that went into service in 2013.

29. Since 2007, Public Service has added approximately 2200 MW of generation between Pawnee and the Denver-metro area. Public Service proposes construction of the Project to alleviate the resulting constraints and allow additional resources to be developed in northeast Colorado for delivery to loads in the Denver metro area.

30. Mr. Hill, Director of Resource Planning and Bidding of XES, testified as to the effect of Decision No. C14-0731 issued July 1, 2014 in Proceeding No. 13A-0686EG upon this proceeding: "Attributing lower peak load reductions to energy efficiency and demand response programs going forward has the effect of increasing the net peak load the Company must serve with its generation fleet." Hearing Exhibit 207 at 5-6 (emphasis original). Therefore, references in testimony to 500 to 600 megawatts of resource need by 2024 (e.g. in Hearing Exhibit 202) should now refer to 1200 to 1400 megawatts of additional resource need going forward. Hearing Exhibit 207 at 7 and Transcript at 58-59.

31. There is not currently capacity available for an additional 1200 to 1400 megawatts of generation at the injection locations for the project at issue (e.g. that have been studied by the Public Service Transmission Group and provided publically on OASIS and to bidders in the 2013 All-Source RFP). Transcript at 61. However, the Company has not determined a process to meet this projected need. Transcript at 66, ll. 9-11.

32. By summer 2024, Public Service now projects need for an additional 1200 to 1400 megawatts of additional generation capacity. Table JFH-1 summarizes the injection capabilities provided to bidders prior to the 2013 All-Source Request for Proposals (RFP) as well as estimated capabilities after the RFP.

33. Public Service's planning studies examine the cost and performance of various generation technologies and how those technologies integrate with the existing power supply

fleet. Based thereupon, Mr. Hill expects natural gas-fired generation resources will best serve projected future need. Hearing Exhibit 202 at 6.

34. Mr. Hill also opines that new gas-fired generation resources will be developed in the area north and east of Denver to meet future projected needs based upon experience in prior electric resource plans (ERPs). Hearing Exhibit 202 at 6-8. In its 2009 and 2011 ERPs, more than 2,400 MW of new gas-fired generation was proposed in that area. It is unlikely the Company will be able to consider acquisitions of wind or gas-fired resources until there is additional transmission capacity from the Pawnee area into Denver.

35. Public Service proposes to construct approximately 115 miles of new 345 kV transmission originating at the Pawnee Station, near Brush, Colorado, and terminating at the Daniels Park Substation. The Project will also include a new Smoky Hill – Daniels Park 345 kV circuit. The Project consists of five primary components:

a) Section 1: Pawnee – Missile Site. This 51-mile section is presently being operated at 230 kV but after completion of the Project will be operated at 345 kV.

b) Section 2: Missile Site – Byers Transition. This 13-mile section will be installed by modifying existing towers and adding conductors for a second circuit.

c) Section 3: Byers Transition – Smoky Hill. This 29-mile section will be installed by rebuilding an existing 230 kV wood-pole transmission line to a double-circuit, 345 kV-capable steel-pole transmission, resulting in two double-circuit 345 kV capable transmission lines. Two circuits will be operated at 230 kV and include sections of the two 230 kV circuits that run between Pawnee and Smoky Hill and between Pawnee and Daniels Park. The remaining two circuits will be operated at 345 kV. One of the circuits is a section of the Pawnee – Smoky Hill 345 kV line. The other will be the third section of the Pawnee – Daniels Park 345 kV Project.

d) Section 4: Smoky Hill – Daniels Park. In this approximately 21-mile section, new double-circuit 345 kV transmission will be built. One of the circuits will be the final section of the Pawnee – Daniels Park Project. The other circuit creates a new Smoky Hill – Daniels Park 345 kV line.

e) Harvest Mile: The Harvest Mile Substation is an expansion of the existing Smoky Hill Substation. Initially, it will include a 345/230kV autotransformer and some line termination equipment. It has been designed to allow for future 345kV line terminations and other equipment. Because the Smoky Hill Substation cannot accommodate additional 345kV transmission equipment, this new substation will effectively expand the Smokey Hill Substation.

36. If a CPCN is granted in 2014, Public Service anticipates commencement of construction in 2017 so that the Project can be placed into service by May 2019. Hearing Exhibit 202 at 11. The lead time for the transmission project is substantially longer than the anticipated generation that will be served. A typical construction period for gas-fired generation is between 1.5 and 4 years.

37. Mr. Kline, the Director of Strategic Transmission Initiatives for Xcel Energy Services, Inc., describes the current status of the project as the "regulatory need" stage. Public Service's high-level scoping estimate is that the Project will cost $178 million ±30% (*i.e.*, between 124.6 and 231.4 million).[2]

38. Mr. Kline contends the Pawnee – Daniels Park Project provides Public Service with the most benefit for the cost. Cost estimates will be further refined as the Project proceeds, including points such as receipt of routing permits, procurement of major material contracts, and execution of contracts associated with construction labor. Typically, estimates are refined to ±10% at the point construction begins.[3]

[2] "The level of accuracy for the cost estimates in this study is considered to be ± 30%, which is typical for a project at this budgetary stage in the process. This estimate is based on cost indicators of past projects, average unit costs, and 2014 overhead and labor rates. This estimate is in 2014-year dollars, and it includes all appropriate overheads including AFUDC. At this stage of the project, these are high level, scoping estimates, which are the best estimates that the Company is able to provide prior to detailed engineering of the Transmission Project." Hearing Exhibit 201, Attachment No. TWG-1, at 6, note 1.

[3] Mr. Kline also generally refers to management processes to monitor and control the cost of transmission projects and continually pursue cost savings. *See* Transcript at pp 50-52.

39. The OCC's testimony and argument, and CEC's argument highlight substantial cost uncertainty. The OCC also notes that costs have increased over the years when the Project has been discussed in Commission proceedings. *See* Table CN-10, Hearing Exhibit 300 at 46.

40. Mr. Derek D. Holscher, is Public Service's Principal Agent, Siting and Land Rights for the Project. Although the Company is specifying the end points of the Project, he explains that siting approval is not requested in this application. Public outreach strategies will continue as a part of the ongoing siting and permitting process for the Project. Hearing Exhibit 203, Rev 1, at 12.

41. Mr. Danny Pearson, Principal Transmission Design Engineer with Public Service, addresses the transmission line design criteria associated with the Project, including structures, right-of-way (ROW) corridor, magnetic fields, audible noise, and prudent avoidance measures. He describes the basic types of structures proposed for the Project. *See* Hearing Exhibit 204 at 6-9.

42. Existing ROW corridors are anticipated and proposed to be utilized for almost the entire length of line. A new easement will be needed for approximately three-fourths of a mile near the Daniels Park Substation and approximately one mile of new easement will need to be obtained from the existing Smoky Hills Substation to the new proposed Harvest Mile Substation.

43. Mr. Thomas Green, a Transmission Planning Engineer with Public Service, describes the Project in detail, presents and explains the transmission studies that were performed to evaluate the Project as well as any system alternatives that were investigated. He also explains the Company's analysis and conclusions regarding the system studies performed. He describes the objectives of the Project as expanding on an existing Senate Bill 07-100

transmission project; establishing the high-voltage backbone transmission system; fulfilling the goals of Senate Bill 07-100; and proactively building transmission to accommodate resources.

44. The high-voltage backbone transmission system provides the last link to complete a 345 kV transmission network from Pawnee to Comanche in Pueblo, which allows more "operational flexibility for the Company's generation fleet." Hearing Exhibit 201 at 9. The project results in a better balance in the capability to deliver power to by creating another 345 kV entry point into the Denver-metro load center. *Id.* Upon completion, the Project can accommodate at least 1000MW of new generation. *Id*.

45. Mr. Neil challenges the vague references to "benefits of a 345 kV backbone from Pueblo to Pawnee" and argues that operational efficiencies have not been shown to provide benefits warranting the corresponding customer impact. Hearing Exhibit 300 at 47.

46. In rebuttal, Mr. Kline concedes this project is not being proposed because of an immediate reliability issue. Hearing Exhibit 205 at 6.

47. Mr. Green acknowledged that the project being a Senate Bill 07-100 project is not a criterion identified in the section of his direct testimony addressing the purpose of the project. *See* Hearing Exhibit 201 at 8. However, he points to the project satisfying longer range transmission plans. *See* Hearing Exhibit 201 at 15.

48. This project is proposed to implement long-term transmission planning on a timeframe consistent with the development of beneficial resources in Energy Resource Zones (ERZs) based upon transmission planning with stakeholder outreach and input.

2. Project Analysis

a. Planning and Outreach

49. The Project has been reported in: the WestConnect Annual Ten-Year Transmission Plans; the Colorado Coordinated Planning Group (CCPG); open stakeholder meetings for transmission planning adhering to the principles contained in the Open Access Transmission Tariff attachment (R), in compliance with FERC Order 890; the Company's 2013 Commission Rule 3206 Report for Proposed Construction or Extension of Transmission Facilities; and Specific Stakeholder Outreach. Hearing Exhibit 200 at 16.

50. Mr. Green describes the CCPG as:

> a planning forum that cooperates with state and regional agencies to ensure a high degree of reliability in planning, development and operation of the transmission system in the Rocky Mountains. CCPG has a formal process for receiving, evaluating, and providing feedback on any stakeholder submitted comments. Stakeholders are provided opportunities for meaningful participation through multiple channels, including an online form that can be emailed, by participating in open meetings via teleconference, or by actively attending quarterly meetings. There are at least four meetings a year. The meetings are almost always held at the offices of Tri-State Generation and Transmission in Westminster, Colorado.

Hearing Exhibit 206 at 17.

51. Public Service's reporting related to Senate Bill 07-100 has identified and discussed the Pawnee – Daniels Park Project since the filing of a 2008 supplement. In the report filed in October of 2013, it was indicated that the CPCN for the Project was anticipated to be filed in early 2014.

52. Public Service has presented the Pawnee – Daniels Park project in long-range transmission plans filed pursuant to Rule 3627. Rule 3627 plans, including outreach, are submitted to the Commission in February of even years. The Project was listed in Public Service's first 10-Year Transmission Plan for the State of Colorado to comply with Rule 3627

filed in 2012. Hearing Exhibit 201 at 16. The Company reports that open house-style meetings were conducted in 2011. Two such meetings were held in Aurora and provided information about the ten-year plans and specific information about projects that could impact the local area. The Aurora meetings featured information about the Pawnee – Daniels Park Transmission Project.

53. Email invitations to local and state government officials (both elected and staff), local businesses, community organizations, and others were sent prior to the meetings. Meeting notices were placed in local newspapers, *The Denver Post*, and on the Xcel Energy website. Information from these meetings was made available on the Xcel Energy website.

54. Public Service has conducted more than 70 meetings to introduce the Project to stakeholders and solicit feedback. In 2013, meetings with local elected officials provided overviews of the proposed project and timeline. Meetings have also been held with economic development groups, homeowner associations, developers, and many other stakeholders within Aurora and Parker.

55. Shortly before filing the within application, a series of public open houses were held. Notice of the meetings was sent to all residents within ¼ mile of either side of the Project ROW, email invitations were sent to homeowner associations, and ads were placed in local papers to notify the public of the meetings.

56. The Commission found that Public Service's 2014 plan, which includes the Project, to be adequate and in compliance with Rule 3627. Decision No. R14-0845, Proceeding No. 14M-0110E, ¶ 22.

b. Transmission Study

57. Public Service prepared the Transmission Planning Study Report (Study). Hearing Exhibit 201, Attachment TWG-1. According to Mr. Green, the Study objectives were:

1. Maintain the reliability of the transmission network in accordance with North American Electric Reliability Council ("NERC") Standards and Western Electricity Coordinating Council ("WECC") Criteria.
2. Verify that the Pawnee – Daniels Park Project will reliably accommodate additional amount of generation resources for existing and future resource needs; and
3. Fit in with longer-term transmission initiatives.

Hearing Exhibit 201 at 10.

58. According to the study: "This study was performed to determine how much additional generation could be accommodated by the Pawnee – Daniels Park 345 kV Project." Hearing Exhibit 201, Attachment TWG-1 at 7.

59. Public Service concludes that the transmission system between Pawnee and the Denver-metro load center has once again become constrained in its ability to deliver generation resources to customer loads.

60. The study includes a benchmark analysis of the existing system and adopts several modeling assumptions representing 2023 peak summer conditions. "Wind generation was generally kept at constant levels and modeled at 21% of nameplate capacity." Hearing Exhibit 201, Attachment TWG-1 at 9.

61. Conclusions of the benchmark studies were summarized:

> the maximum generation that can be operated with the existing system varies from around 1650 MW to 2000 MW, depending on the dispatch patterns. As shown in Figure 4, the combined maximum capability of the existing area generation is approximately 2000 MW. Therefore, it is reasonable to summarize that the existing transmission system is at its capacity for accommodating generation.

Hearing Exhibit No. 201, Attachment No. TWG-1, at 13.

62. The existing transmission system can accommodate approximately 2000 MW of total generation at the Pawnee and Missile Sites. Limiting issues were the failure of one 345/230 kV transformer at Smoky Hill that has the potential to overload a second unit at the location and certain outages of the 230 kV transmission west of Smoky Hill have a tendency to overload a 230 kV line between the Clark and Greenwood Village Substations.

63. The study indicates a 200 MW deficit, assuming all of the project area generation is operated at maximum. From a transmission planning perspective, Mr. Green opines that the Project is needed to avoid the potential constraints associated with high generation patterns.

64. Based upon the study, Public Service found that at least 1000 MW of additional generation resources in the Project area can be accommodated when compared to the benchmark. Hearing Exhibit No. 201, Attachment No. TWG-1, at 15. Similar levels of generation could be added at Missile Site or Pawnee, or a combination of the two sites. Hearing Exhibit No. 201, Attachment No. TWG-1, at 16-7.

65. Mr. Green concludes that the "Project is a prudent solution that will allow at [least 1000] MW of new resources to be added in northeast Colorado. In addition, the Project enhances reliability of the regional transmission network, creates a high-voltage backbone system along the Front Range, and fits with long-term transmission plans for the region." Hearing Exhibit 201 at 16.

66. The Company proposes to have transmission terminations into Daniels Park to alleviate performance issues associated with too much power flowing into the Smoky Hill system. Hearing Exhibit No. 201, Attachment No. TWG-1, at 18. However, no cost or study information was provided as to any other alternative to alleviate identified constraints.

67. Mr. Neil opines that the existing 230 kV lines from Smokey Hill to Daniels Park are lightly loaded. If either line failed, each has sufficient capacity to carry the load of the other. The OCC contends that no need is shown to add 345 kV lines between Smoky Hill and Daniels Park. So, unless there is in fact substantial additional generation in the Pawnee and Missile Site areas, Mr. Neil contends that need for the section has not been shown.

68. Mr. Neil disagrees with aspects of the study conducted by Public Service. He contends that the study focused upon the NERC Category B (N-1) contingencies in the study area. However, in order to stress the transmission system, there was both an increase in generation at Pawnee and a decrease at Comanche – *i.e.*, N-3 contingency. The scenario further assumes that generation selected in the 2013 Solicitation is not being operated. Therefore, he concludes that Dispatch 1 actually reflects an N-11 scenario. Table CN-8, Hearing Exhibit 300 at 41.

69. In rebuttal, Mr. Green reiterates that it is common transmission planning practice to increase generation in one part of the system and reduce it in another in order to stress a path and establish resource injection limits. Generation was reduced in the south, to create heavy north to south flows through the system.

70. Turning to Dispatch 2, maximum generation in the area is 1996 MW with the limit being the Smoky Hill 345/230 kV transformers. Giving wind in the area the appropriate capacity consideration, Mr. Neil argues the Project is not necessary to support firm capacity.

Because it is not necessary to add generation at Pawnee and Missile Site at this time, he concludes new lines between Smoky Hill and Daniels Park are not needed.

71. While generally agreeing with Public Service's Benchmark methodology, Staff disagrees with the Project limit study. Hearing Exhibit 600 at 20-22. Incorporating modifications Mr. Dominguez believed necessary, he considered "Mr. Green's Dispatch 2 methodology to be useful in this study to support the 1000 MW generation increase at Pawnee from the Benchmark case." Hearing Exhibit 600 at 27.

72. Pursuant to the Stipulation, both Staff and Public Service agree by different means "that the analyses performed by each supports a recommendation that the Commission grant a CPCN for the project." Stipulation at 3.

73. Although originally having some concerns with the analysis conducted by Public Service, Staff agrees that the analyses performed by Staff and Public Service each support a recommendation that the Commission grant a CPCN for the project. Hearing Exhibit 702 at 3.

c. Project Alternatives

74. Mr. Kline opines that the real alternatives to the Project are: (1) proceeding with a different project identified in our Senate Bill 07-100 reports; or (2) not pursuing the Project or any other project at this time.

75. Several sensitivity studies were conducted to configure the Project. One alternative was considered that consisted of a second 345 kV circuit between Pawnee and Smoky Hill, but with no new transmission between Smoky Hill and Daniels Park. The lines from Pawnee and Smoky Hill into Daniels Park were found to be necessary to divert some of the additional generation flows away from Smoky Hill.

76. Mr. Neil points out that the only alternatives actually considered by Public Service "focused on technical configurations of the Pawnee-Daniels Park Transmission Line." Mr. Neil testified that many feasible alternatives to the Project have not been evaluated and that existing facilities are reasonable, adequate, and available to meet the purported need. However, Mr. Neil's testimony analyzes Public Service's projected requirements of 500 MW to 600 MW by 2024 to 2025. Hearing Exhibit 300 at 5.

77. Mr. Neil contends that there is sufficient injection capacity available to meet projected need without construction of the Pawnee-Daniels Park Transmission Line and that the Company artificially narrowed the scope of injection alternatives to be considered. One key alternative that he contends should have been studied was a Pawnee-Ft. Lupton line. Such a line would be shorter and appears to involve less construction in urban areas, resulting in significant cost savings to customers and more geographic diversity.

78. While Mr. Hill correctly reports that there is approximately 334 to 384 MW of total injection capability remaining when reducing the capacities shown in the 2013 Solicitation RFP by the amount that was taken in the 2013 Solicitation, Mr. Neil opines that this amount does not reflect the maximum injection capacity at the locations listed or the total injection capacity on the Public Service system. Based upon the actual available injection capacity, he further opines that Public Service failed to show need for the Project to meet projected future load.

79. As an example, Mr. Neil criticizes Public Service for not considering the ability to increase the injection capacity at Fort St. Vrain at a modest cost. Hearing Exhibit 300 at 8. The response to Discover Request OCC 1-6 makes clear that the Company has not explored in detail the feasibility of implementing specific resources at several locations. In the 2013 Solicitation, Public Service proposed to construct two combustion turbines (CTs) with about 380 MW of

capacity. Approximately $700K for electric transmission upgrades was necessary for delivery. Additionally, a Company proposal for two CTs totaling about 380 MW at Fort St. Vrain required approximately $4.5M for electric transmission upgrades necessary for delivery. *See* Attachment CN-2 to Hearing Exhibit 300.

80. Mr. Hill believes the points of injection used by the Company in its analysis is appropriate and reasonable as it reflects where electric utilities and Independent Power Producers had expressed interest in (and expended significant financial resources to study) electrically interconnecting new generation. Hearing Exhibit 207 at 9. Mr. Hill opines that Mr. Neil's consideration was too narrow to consider all factors in developing new generation.

81. Table JFH-1 consists of injection locations and amounts that have been studied by Public Service's Transmission Group, provided publicly on Oasis, and provided to bidders in the 2013 All-Source RFP. Transcript at 75, ll. 15-21. The ten locations studied for injection capability were determined through operations under the open access transmission tariff, which defines how transmission service is provided to **both** internal and external entities. In part, the tariff describes the Large Generator Interconnection Process (LGIP), which is the Transmission Group's process to determine whether additional generation can be interconnected and injected.

82. Mr. Hill is not part of the LGIP, but estimates of injection capability identified in Table JFH-1, Hearing Exhibit 202, were based upon injection points where entities expressed interest through the LGIP. Mr. Hill also acknowledged that Senate Bill 07-100 studies and other expansion studies are not driven by this type of request, but he did not believe any such study was included in Table JFH-1.

83. Public Service has identified a projected future need. Mr. Neil opines that an ERP proceeding is the appropriate place to consider how that need should be met, including

transmission. Hearing Exhibit 300 at 15-16. By comparison to the 2013 Solicitation, Mr. Neil identifies alternative means to meet Public Service's projected need. None of the gas-fired bids in the 2013 Solicitation supported the need to add the Pawnee-Daniels Park Transmission Line. In fact, the 2013 Solicitation showed that it is possible to add natural gas-fired generation at Pawnee or Missile Site without adding the Pawnee-Daniels Park Transmission Line.

84. Mr. Neil also points to the experience of the 2011 ERP. There, Public Service proposed cost-efficient expansion of generation capability at existing sites: Cherokee, Ft. Saint Vrain, Rocky Mountain Energy Center, and Blue Spruce Energy Center. Despite these proposals, these sites were not included in the estimate of injection capacity presented here. Hearing Exhibit 300 at 21.

85. Mr. Neil suggests that a 2015 ERP could be utilized to identify how best to proceed. Hearing Exhibit 300 at 19-20. In addition to prior experience, he notes that Public Service will retire 184MW of generation at Valmont in 2017. Hearing Exhibit 300 at 22. Further, in Proceeding No. 08A-145E, Public Service applied and later withdrew an application for a CPCN to construct 514 to 569 MW of generation at Arapahoe.[4] Hearing Exhibit 300 at 22. Approximately 526 MW of purchased power contracts expires between 2022 and 2025. Might they be renewed or extended as an alternative? Hearing Exhibit 300 at 23.

86. Mr. Neil is also concerned with the lack of geographic diversity if the Project is approved because approximately half of Public Service's 2014 peak demand will depend upon three transmission lines running in one transmission corridor. He contends this risk was not

[4]The cost to make 587 MW of injection capacity available was approximately $3.693. Hearing Exhibit 300 at 22, *citing* Supplemental Direct Testimony and Exhibits of Gerald M. Stellern, Proceeding No.08A-145E, April 28, 2008, Exhibit GS-3, page 2 of 24.

given proper consideration in Public Service's analysis because of the absence of less risky alternatives considered.

87. Based upon the several alternatives available that Public Service failed to consider, Mr. Neil contends that the required burden of proof has not been met and need for the Project at this time has not been shown. Public Service is proposing to put the Project in service in 2019 -- approximately five years before capacity is needed. Rather than proceed at this point, he advocates awaiting the outcome of the 2015 ERP and its Phase II 2017 Solicitation. Exhibit 300 at 24. There is sufficient injection capacity so that the Pawnee-Daniels Park Transmission Line is not needed at this time. Rather, if there is a need for generation in northeast Colorado and the Pawnee-Daniels Park Transmission Line, the OCC contends it should be considered in the 2015 ERP. Exhibit 300 at 25-26.

88. On cross-examination, Mr. Green acknowledged he did not evaluate all potential alternatives addressed by Mr. Neil. Rather, he considered the proposed project as an alternative to doing nothing at this time. *See* Transcript at 87, l. 19 through 88, l. 14.

89. Public Service criticizes Mr. Neil's analysis because he has not considered simultaneous interactions between interconnection locations utilizing the same transmission network. Hearing Exhibit 206 at 12. To the specific alternative Mr. Neil discussed of the Pawnee-Ft. Lupton line, Mr. Green offers that the alternative would not connect the 345 kV transmission gap between Smoky Hill and Daniels Park. Other comments were limited because Mr. Neil did not provide "technical analysis."

90. While conceding that transmission planning driven by the selection of resources through an ERP is not inherently wrong, Mr. Kline contends that applicable policy in the State of Colorado favors a more proactive transmission planning and development approach.

91. Mr. Kline notes that the Project has been considered in open, public stakeholder forums that have provided the appropriate time and method for consideration of alternatives like those raised here by Mr. Neil. Yet, the OCC did not raise any alternative in such a forum. Hearing Exhibit 205 at 14.

92. Public Service maintains that further delay in the Project, as advocated by the OCC, would jeopardize timeliness of the Project to meet projected demand.

d. Staff's Perspective

93. Staff analyzes the Project in the context of the Colorado Coordinated Planning Group Conceptual Plan for Year 2035 for the State of Colorado Scenario 3 in the 20-Year Conceptual Scenario Report, filed February 3, 2012 in Proceeding No. 14M-0110E, in compliance with Rule 3627. "[T]he long term plan accommodates power injections at the Smoky Hill Substation and Daniels Park/Waterton Substations when such injections become necessary due to load growth." Hearing Exhibit 600 at 12. With this long-term perspective, Staff believes the Project will, in part, play an important role in the Company's transmission backbone by completing "the primary corridors to bring in power to the 230 kV outer belt around the Denver metropolitan area and then on to the load serving network within the 230 kV belt that serves the Denver area load." Hearing Exhibit 600 at 11.

94. Staff views the Project as a means to incorporate Pawnee generation through the 2023 generation resource planning horizon and to serve the Denver area load center. A ten-year transmission plan is dependent upon a ten-year resource plan. Projects can be evaluated in the context of resource plans. Based upon Mr. Hill's evaluation, Staff concludes "that Pawnee is an acceptable location to inject generation." Hearing Exhibit 600 at 8.

95. Staff points out that brownfield projects within the Denver load area might be ideal: "[i]ndeed, having generation added in the middle of the load center, say at Valmont and Arapahoe, is the ideal and preferable scenario from a system operating standpoint because there are fewer transmission line losses and excellent dynamic voltage regulation." Hearing Exhibit 600 at 9. However, such opportunities would have to be studied further.

96. Although power injections at existing brown field power plants within the 230 kV load serving network make technical sense from an operating standpoint, Staff recommends deferring consideration until the next ERP where a thorough production cost evaluation can be performed. Public Service agrees with deferring injection capability at brown field sites to the resource planning process. Hearing Exhibit 205 at 5.

97. Notably, Mr. Dominguez opines that approval of the project is on a reasonable timeline. Although projected to be in place prior to projected need, he notes that major transmission lines take five to ten years to be built and can easily be delayed. Particularly in light of the policy behind Senate Bill 07-100 to encourage transmission to energy zones and complications of this Project, approval is appropriate now. Hearing Exhibit 600 at 13-14.

98. Staff supports approval of the Project after consideration of the Company's case that the Pawnee area has the greatest potential for new generation and the Project can accommodate generation needed in the early 2020s.

D. Burden of Proof and Related Principles

99. Except as otherwise provided by statute, the Administrative Procedure Act imposes the burden of proof in administrative adjudicatory proceedings upon "the proponent of an order." § 24-4-105(7), C.R.S. Applicant, as the party seeking an order by the Commission, 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.; *Rule 1500 of the Rules of Practice and Procedure*, 4 CCR 723-1. The evidence must be "substantial evidence," which is 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." *See, e.g., City of Boulder v. Pub. Utils. Comm'n*, 996 P.2d 1270, 1278 (Colo. 2000) (quoting *CF&I Steel, L.P. v. Pub. Utils. Comm'n*, 949 P.2d 577, 585 (Colo. 1997)). This 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). If an intervenor advocates that the Commission should adopt its position (for example, that a condition be placed on the CPCN), then that intervenor must meet the same preponderance of the evidence burden of proof with respect to its advocated position.

100. Section 40-5-101, C.R.S., addresses CPCN requirements, including additional provisions specifically applicable to transmission. The Commission recently described the Company's burden to obtain approval of a CPCN in a steam proceeding:

> To meet its burden of proof for approval of a CPCN to construct and operate a facility, a utility must establish the following by preponderance of the evidence: (a) a present or future need for the facility;[5] (b) existing facilities are not reasonably adequate and available to meet that need;[6] and (c) the utility has evaluated alternatives to the proposed facility.[7] The impact on utility rates, and the magnitude of underlying operating, maintenance, and capital costs, also is relevant to the public interest analysis.[8]

[5] Necessity does not mean the additional service is essential or absolutely indispensable, but that it would be an improvement justifying its costs. *See*, 64 Am. Jur. 2nd Public Utilities § 164.

[6] For criteria (a) and (b), *see* § 40-5-101, C.R.S.; Decision No. R10-1245, Proceeding No. 09A-324E issued September 19, 2010, at ¶ 447, Public Service SOP, p. 11; *Pub. Serv. Co. of Colo. v. Pub. Utils. Comm'n*, 142 Colo. 135, 350 P.2d 543, *cert. denied sub nom. Union Rural Electric Ass'n, Inc. v. Pub. Serv. Co. of Colo.*, 364 U.S. 820 (1960).

[7] This means evaluation of feasible alternatives rather than all conceivable alternatives. Decision No. C11-0288, Proceeding No. 09A-324E issued March 23, 2011 ¶ 119.

[8] *City of Boulder*, 996 P.2d at 1277, 1279, n. 5.

Decision No. C13-1549, Proceeding No. 12A-164ST issued December 18, 2013, ¶13.

101. Determining future need, "the Commission bases its decisions on substantial possibilities in many different contexts and that some level of prediction is inherent in making a decision that will affect future conditions." Decision No. C11-0288, Proceeding 09A-324E issued March 23, 2011 *citing* Decision No. C10-1149, at ¶ 20.

102. The Application was filed in accordance with Rule 3102 requesting a CPCN for facilities. Unique to construction or extension of transmission facilities, the applying utility must also address cost-effective noise mitigation and prudent avoidance with respect to planning, siting, construction, and operation of the proposed construction or extension. Prudent avoidance is defined as "the striking of a reasonable balance between the potential health effects of exposure to magnetic fields and the cost and impacts of mitigation of such exposure, by taking steps to reduce the exposure at reasonable or modest cost." Rule 3102(d).

103. Additionally, a proponent must show the estimated costs for the facility: "If the facility is a transmission facility, the estimated costs shall be itemized as land costs, substation costs, and transmission line costs." Rule 3102(b)(IV).

104. The Commission also is also obliged to independently consider and determine matters affecting the public interest. Decision Nos. C03-0670, Proceeding No. 02S-315EG issued June 26, 2003 and R10-1245.

E. Unique Aspects of Transmission Planning

105. The Commission's recent decisions applying the burden of proof in a steam proceeding do not fully consider that transmission planning for Colorado has proactively evolved consistent with legislative changes.

106. Commission rules "establish a process to coordinate the planning for additional electric transmission in Colorado in a comprehensive, transparent, statewide basis." Decision No. R12-1431, Proceeding No. 11M-872E issued December 13, 2012 at 4-5.

107. "[E]lectric transmission planning embodies a complex and deliberate balance between costs, energy to be transported, and electrical, mechanical, civil, performance, and environmental factors. Decision No. R14-0845 at 10, *citing* Electric Power Research Institute, EPRI AC Transmission Line Reference Book-200 kV and Above, Third Edition (the "Red Book"), Section 1-8.

108. "This statewide transmission plan should be the result of coordination among utilities, independent transmission developers, and other interested parties. By incorporating stakeholder outreach and input and the vetting of suggestions and alternatives, the biennial ten-year transmission plan filed by the Utilities should be the preferred plan and should fulfill the goals of the transmission planning rules…. Also, the information contained in the most recent transmission plan should place any subsequent CPCN applications for transmission projects into an appropriate context so that the Commission and the stakeholders no longer review those applications in a vacuum." Decision No. R12-1431 at 29.

109. In 2010, the Commission addressed policy considerations regarding transmission planning in its Notice of Proposed Rulemaking implementing legislation:

> Relatively recent legislative and policy changes impacted transmission planning significantly by adding germane criteria in addition to reliability and cost into consideration….These legislative and policy changes require a more complex decision-making and the Commission to become more involved in transmission planning (similar to resource generation planning). The Commission concludes that both state-wide coordinated transmission planning and a meaningful involvement in such planning by stakeholders and the Commission are essential.

> In addition, an effective transmission planning approach needs to be long-term and pro-active rather than just-in-time and reactive.

Decision No. C10-0797 at 2-3.

110. Relating the planning process to CPCN proceedings:

> [o]ne intent of the proposed rules is to provide useful information to the parties and the Commission in a subsequent CPCN proceeding. The stakeholders and the Commission will be better able to assess the need for a transmission facility and how it fits into a larger state-wide transmission plan. The Commission expects that this will facilitate the resolution of subsequent CPCN proceedings in a more expeditious manner…. The Commission expects that the proceedings envisioned by the proposed rules will identify stakeholder concerns and provide an opportunity to resolve these concerns prior to the filing of CPCN applications. The biennial proceedings will also provide an opportunity for the jurisdictional utilities to receive Commission input before the filing of [a] CPCN application. The Commission will address public policy issues that will provide guidance to the utilities and CCPG in their development of future transmission plans.
>
> Decision No. C10-0797 at 9-10.

111. In Proceeding No. 11M-872E, the Commission first applied the rules in the context of a ten-year transmission plan. Relating that type of proceeding to CPCN proceedings, the Commission referenced Proceeding No. 10R-526E and stated:

> the Commission planning process should not be categorized as either informational only (and not constituting a presumption of need) or adjudicatory (and constituting a presumption of need). Rather the weight given to the Commission transmission planning proceeding in a subsequent CPCN filing "will depend primarily upon the quality of the information provided, the nature of the stakeholder outreach that has taken place and whether circumstances have changed between the Commission transmission planning proceeding and the CPCN filing." *Id.*, at ¶ 16. Additionally, the Commission explained that, given sufficient documentation in the biennial ten-year transmission plan for the project under review and assuming the relevant circumstances have not changed, the applicant may rely substantively on the information contained in the plan and the Commission's decision on the review of that plan to support its application. *Id.*, at ¶ 85. The Commission found that this flexible approach was necessary because the biennial plans may contain a variety of transmission proposals, at various stages of development. Hence, an all or nothing "presumption of need" standard would not be appropriate. Decision No. C11-0318, mailed March 23, 2011, at ¶¶ 22-23.
>
> Decision No. R12-1431 at 6-7.

112. An overriding principle of Rules 3627(c)(I-V) is to promote efficiency by enabling qualified interested parties (parties that have executed appropriate confidentiality agreements) to analyze the exact same models used by the utility to support the projects in ten-year plans. Decision No. R12-1431 at 16-17.

113. The Commission interpreted the term "alternatives" in describing the intended operation of the rule:

> The term "alternatives," as used within Rule 3627(c)(VI), includes technical electric alternatives (such as conductor size or transmission voltage) related to individual transmission projects. The transmission plans shall address and discuss technical alternatives related to specific projects when appropriate. However, the rules do not contemplate solely technical alternatives, as the Utilities contend. Also, the rules do not contemplate the filing of several full and complete alternative transmission plans from which the Commission is to approve a single plan, as argued by CIEA. Rather, to understand the depth and variety of alternatives to be considered when developing the Plan, the term "alternatives" must be read in conjunction with other portions of the transmission planning rules, and the overall purpose and intent of these rules. This intent includes coordinated, comprehensive, and transparent transmission planning that occurs in part because of stakeholder input and the alternatives suggested by those stakeholders.
>
> To begin the planning process, the Utilities develop a proposed transmission plan for consideration by stakeholders. Then, through a process of early stakeholder outreach, this proposed plan is disseminated by the Utilities to potentially affected stakeholders (such as landowners, local governments, and government agencies), experienced and knowledgeable stakeholders (such as [OCC,] CIEA, WRA, and Commission Staff), other stakeholders, and the public at large.
>
> After stakeholder outreach, a process must be available to allow the Utilities to receive stakeholder input on the proposed plan. This process must discern the nature of the input and alternatives from stakeholders so that the input and alternatives can be categorized to be evaluated in the proper forum. For instance, technical alternatives on specific transmission projects will likely be presented by the more experienced and knowledgeable stakeholders and therefore may be addressed through CCPG. Input and suggestions related to public policy and other issues may fall outside of the scope of CCPG and therefore would be considered and addressed by the Utilities through another process. Additionally, some alternatives may be more appropriate for the 10-year plan while others may be more appropriately included in the 20-year conceptual long-range scenario, and some proposed alternatives may not be feasible at all. The Utilities must be ready to make and support their determinations in these cases.

> In sum, for a comprehensive and coordinated transmission planning process to occur, stakeholder participation, the consideration of alternatives, and the manner in which alternatives are evaluated, must coalesce. The Utilities must be prepared to properly consider and respond to many types of alternatives and input from stakeholders whose knowledge on transmission issues range from cursory to in-depth. The Utilities must be able to describe and support the methodology used to categorize the types of input and alternatives, the forums in which the input and alternatives were evaluated, and the [rationale] for the final dispositions of the input and alternatives. This information will be incorporated in developing and finalizing the Plan before it is filed with the Commission.
>
> This planning process, which begins with a proposed plan that is modified in response to input and alternatives from stakeholders and then filed with the Commission, is an iterative process that will continue for each filing.
>
> Regarding alternatives related to policy issues, the transmission planning rules contemplate that the Commission may be addressing public policy goals for the utilities to incorporate in their future transmission planning filings. For example, the Commission could express an interest in the Utilities focusing on only one SB 07-100 ERZ (as opposed to multiple ERZs at the same time) or working to solve an identified transmission congestion problem. Therefore, the Hearing Commissioner finds that the rules contemplate that the Utilities would address alternatives to meet such public policy goals within their plans.
>
> Decision No. R12-1431 at 18-20.

114. The Commission has clarified that evaluation of alternatives, means "evaluation of feasible alternatives rather than all conceivable alternatives." Decision No. C13-1549, Proceeding No. 12A-1264ST at 5, footnote 8.

115. Utilities must include "[t]he related studies and reports for each new transmission facility identified in the transmission plan including alternatives considered and the rationale for choosing the preferred alternative. The depth of the studies, reports, and consideration of alternatives shall be commensurate with the nature and timing of the new transmission facility." Rule 3627(c)(VI).

F. Discussion

1. Present or Future Need

116. By Decision No. C11-0288, the Commission upheld the ALJ's application of policies surrounding Senate Bill 07-100:

> The ALJ concluded that the legislative intent of SB 07-100 was to encourage construction of transmission facilities, including those needed to deliver renewable generation resources from ERZs to load, even in the absence of "hard evidence." Recommended Decision, at ¶¶ 452-455. The ALJ found that, taken together, these statutes and policies encourage the construction of transmission to designated ERZs in advance of the construction of renewable resources to foster the development of these resources
>
> Decision No. C11-0288 at ¶65.

117. The Colorado Legislature has clearly resolved the chicken-and-egg dilemma in favor of transmission over generation. As the Commission has recognized, Senate Bill 07-100 "promotes identification of transmission projects in advance of actual generation development." Decision No. R14-0845 at ¶ 11.

118. The Commission decides future needs based upon a substantial possibility of need evidenced.

119. The evidence clearly demonstrates an additional resource need between 1200 to 1400 megawatts by 2024. Mr. Hill's testimony stands largely uncontested in this regard.[9] Staff has reviewed and supports the conclusions reached by Public Service.

120. Mr. Green's testimony establishes that existing transmission is constrained supporting generation in northeast Colorado serving the Denver metro area load and that existing transmission cannot support generation meeting future projected need.

[9] For the first time, the OCC argues in its Statement of Position that modifying Mr. Hill's testimony to reflect a resource need of 1,200 to 1,400 was inappropriate. Statement of Position of the Colorado Office of Consumer Counsel at 4, note 12. No timely objection was raised to admission of the evidence and the OCC did not present testimony contesting the accuracy of the modified amount.

121. Hearing Exhibit 200, Attachment DPK-3 is a map depicting the ERZs identified in accordance with Senate Bill 07-100. Mr. Hill's testimony establishes a substantial possibility that projected generation needs will be met by development in ERZs 1 or 2 of natural gas or renewable resources, so long as transmission is available to connect the generation to load.

122. The Project is designed to support additional resources to be developed in northeast Colorado (ERZs 1 and/or 2) for delivery to loads in the Denver metro area. In absence of additional transmission it is unlikely a proposal for new generation in the ERZs 1 and 2 will otherwise be considered in the ERP process.

123. While no means a certainty, a substantial possibility has been shown that such generation will develop through the ERP process if the Project is approved. The Project will support projected generation needs through the 2024 timeframe.

124. Senate Bill 07-100 encourages making available transmission for generation in ERZs. The Project will not only be capable of serving the resource need, but also will be able to support two ERZs.

125. The undersigned adopts Staff's perspective of the proceeding. The Project has been reviewed and considered in several contexts as an integral part of long-term transmission planning. The Project will incorporate Pawnee generation through the 2023 generation resource planning horizon and to serve the Denver area load center. Additional benefits will be achieved by completing a second 345 kV entry point to the outer belt around the Denver metropolitan area.

126. Based upon Staff's consideration, it is found that the proposed timeline, although potentially a few years in advance of need, is reasonable in light of the various sources of potential delay. Although CEC and the OCC argue there is adequate time to delay approval of

the project for various purposes, these positions also demonstrate the potential for delay in subsequent proceedings. This proceeding will determine need for the Project. Potential for future litigation and construction delays remain. Approval without further delay best assures availability of transmission to deliver power with the timing of generation.

127. Particularly in light of the policy to encourage development of transmission to serve ERZs, the undersigned finds that the Commission should stay the course of the current reliance upon the long-term transmission planning process.

128. Thwarting the long-term planning process to definitively resolve the possibility of a feasible alternative first presented in this proceeding, in absence of a failure in the transmission planning process, would not further the public interest. As stated by Public Service, "that approach is not consistent with the policy determinations that have been made by both the Colorado General Assembly and the Commission through SB07-100 and Commission Rule 3627" Public Service Statement of Position at 9. The OCC's contention that a determination on need should be deferred to the 2015 ERP process, while not wrong as acknowledged by Mr. Kline, is contrary to the transmission planning policy implemented by the Commission. *See e.g.* Decision No. R14-0845.

129. The Commission relies heavily upon the thorough vetting of the Project through an open transmission planning process and early Commission involvement to develop and expose feasible alternatives to the Project. That process ensures an opportunity for meaningful input and coordination by all affected by the Project (*i.e.*, including the OCC). Advancement of this policy provides the opportunity to define and refine a project and to efficiently consider alternatives during the planning process.

130. No showing has been made as to any change of circumstance affecting the Project or that the transmission planning process failed in any way. To the contrary, Public Service has shown a robust planning process and Commission approval of more than one plan incorporating and addressing the project.

131. As the Commission previously found, a vigorous transparent process is essential to justify reliance on the results of the process. If the OCC had timely presented alternatives in the planning process, it is important that they would have been given appropriate consideration.

132. The OCC raises several questions about potential alternatives to the proposed project. However, considering the body of evidence presented as a whole, the undersigned finds that Public Service has shown more probable than not that the future public convenience and necessity requires construction of the Project. In substantial part, the timing of the issues raised by the OCC outside the benefit of the planning process does not require denial of the application. Further, it has not been shown that a combination of alternatives addressed will cumulatively negate need for the project.[10]

133. Considering the recent 2014 Ten-Year Transmission Plan and the first 2014 Twenty-Year Conceptual Scenario Report, the Commission addressed appropriate alternatives in the development of plans: "Rule 3627(g)(II) and Decision No. R12-1431 also require the Utilities to solicit stakeholder input in regards to alternative solutions during the development of the ten-year plan "*when objectives and needs are being identified*" by the Utilities." Decision No. R14-0845 at 7 (emphasis original). In one aspect, the Commission

[10] While delaying this Project could benefit from the outcome of the 2015 ERP and further budget development, it would jeopardize timely availability of the Project to meet proven future need, particularly in light of several remaining uncertainties that could affect the project. The ERP process and re-litigating this proceeding alone could use approximately half of the scheduled time between anticipated completion and projected need.

emphasized timing of the solicitation of input focusing on plan development. The Commission ultimately found that those alternatives were not "alternatives" within the scope of the ten-year transmission plans. Decision No. R14-0845 at 8.[11]

134. Although there is no evidence whatsoever that the planning process failed in any way, and the Commission approved Public Service's plan in Proceeding No. 14M-0110E, the undersigned feels compelled to clarify the timing reference in Decision No. R14-0845 and emphasizes the recognized evolutionary process described in Decision No. R12-1431. Decision No. R12-1431 at 26.

135. Timing has practical impacts, as relied upon in part in this Recommended Decision. Timing may be a basis to support categorization and disposition of an alternative in one plan based upon when the plan is developed or the nature and timing of the facility. However, a proposed alternative may also inform a subsequent plan. While not determining merit of any proposal warranting study, an alternative disposed of for need of additional study might not reasonably be rejected in a subsequent plan on the same basis. To permit otherwise would likely result in perennial rejection of projects without ever considering merit.

136. Rule 3627(g) addresses plan development, not project development. So long as a project is included in a ten-year plan, it is appropriate that input be given. Particularly where circumstances may change that affect long-term planning, input should not artificially be limited to the timing of plan development. Although emphasizing the evolving process over multiple

[11] "CIEA states it submitted five timely and detailed proposed alternatives during the development of the plan to the Utilities through the CCPG. These alternatives were: a 2017 in-service date for segments of the Lamar-Front Range project so that new generation can interconnect to either Lamar or Burlington substations; strengthening Colorado-New Mexico ties to allow for greater exports in the Four Corners market region; San Luis Valley-Front Range Alternatives; and radial generation tie extension and system integration. CIEA states its intent was to initiate a discussion at the CCPG on the merits of pursuing certain policy goals, including connecting Colorado to neighboring markets. CIEA argues that the Utilities did not evaluate substantively the five alternatives and instead advised CIEA to pursue these studies on its own." Decision No. R14-0845 at 6-7.

plans, the undersigned does not intend to negate the fact that timeliness may still affect utility consideration of any alternative. In the end, utilities must make and support determinations made in the planning process (*e.g.*, plan approval and implementation through the CPCN process).

137. The Commission's policy promotes a thorough vetting of projects during the planning process. Too narrow of construction of alternatives in the context of a ten-year transmission plan has the potential to thwart that policy because the CPCN proceeding would remain the *de facto* opportunity for Commission consideration as a matter of first impression.

2. Beneficial Energy Resource

138. Public Service is required to "[d]evelop plans for the construction or expansion of transmission facilities necessary to deliver electric power consistent with the timing of the development of beneficial energy resources located in or near [ERZs]." Section 40-2-126(2)(b), C.R.S.

139. The OCC contends that gas resources cannot be a beneficial energy resource defined in Senate Bill 07-100 and that wind resources can only be deemed beneficial energy resources if they are found to be economic through the ERP process. *See* Attachment Nos. DPK-4 and DPK-5 to Hearing Exhibit 205.

140. Mr. Neil also contends that Senate Bill 07-100 does not support need for the Project because a wind "beneficial energy resource" under Senate Bill 07-100 must be economic. Particularly with no assurance that the Federal Production Tax Credit will be available, he contends that Public Service has not made this required showing. In addition to cost concerns, Mr. Neil considers the potential for geographic diversity based upon other alternatives not considered by Public Service and existing injection capability.

141. In Rebuttal, the Company focuses on the proactive policy for transmission planning supported by statutory and regulatory requirements over the ERP-centered focus advocated by Mr. Neil. The Company has presented broad planning efforts through ten-year transmission planning and Colorado Coordinated Planning Group processes. Hearing Exhibit 205 at 4.

142. The undersigned agrees with Public Service's legal and policy analysis implementing beneficial energy resources under Senate Bill 07-100. Although Mr. Neil is correct that gas resources are not specifically mentioned, § 40-2-126(3)(a), C.R.S., does not limit the scope to renewable resources. The plain language indicates that an application for the expansion of transmission under Senate Bill 07-100 may enable meeting the renewable energy standard or the reliable delivery of electricity. Based upon this finding, it is not necessary to reach the dispute regarding whether wind must be shown economic to be a beneficial energy resource.

3. Project Definition

143. In sum, the OCC contends that Public Service failed to meet their burden of proof that the Project is needed at this time and that the 2015 ERP process should be utilized to determine how projected needs should be met. Then, if necessary, the Project could be reconsidered.

144. Despite a lengthy planning process, the evidence of record fails to fully answer some of the very reasonable questions raised by Mr. Neil about how the Company came to propose this project. This leads one to question the least cost solution to serve projected need through 2024.

145. Mr. Klein properly focuses on the crux of transmission planning policy determining the outcome of the proceeding. While the OCC's approach is not inherently wrong, it continues to have transmission follow generation resources despite the fact that transmission projects generally take longer to complete than generation projects and the Commission's planning policies.

146. Notably, the Project is not defined in terms of the most cost-efficient manner to serve identified customer loads. Rather, the Company defined the scope of the Project so that the only solution is the one offered by the Company. No feasible alternative was developed through the planning process.

147. Mr. Neil points to several alternatives to provide transmission to defined energy zones and serve a substantial portion of the projected demand. However, because Public Service's project not only does the same but also promotes reliability with the 345 kV backbone, those alternatives were apparently not considered.

148. Mr. Neil also points to inconsistent statements made in two applications filed just days apart regarding injection capacities. *See* Table CN-2, Hearing Exhibit 300 at 10. Public Service has not studied the injection capabilities of six locations included in Proceeding No. 14A-0301E. Additionally, five locations are identified in Proceeding No. 14A-0301E as being able to accept the maximum capacity considered in the proceeding.

149. When determining the public convenience and necessity, the best evidence of project cost at this stage can be considered in the context of alternatives and anticipated benefits. In order to effectively consider a project, the ability to match costs and benefits is important.

150. In isolation, the undersigned is concerned that project definition in the planning process, including pancaking of components or projects, can create unnecessary distinctions

affecting overall consideration. While the benefits from each pancaked component may contribute to an overall determination, marginal alternatives may need to be considered to understand and evaluate the contribution of components to an overall project.

151. One way the Company defined the Project was as an extension of a prior project. This provides the basis for the Company's position that there is no alternative to expanding the Project except not to expand the Project. In electric transmission, it is highly improbable that there is only one way to serve load. As a purpose, the position does little to advance any required element of proof to obtain a CPCN.

152. Although demonstrating a constraint on Public Service's system, there is no evidence as to the cost of alleviating the demonstrated transmission constraint aside from constructing the Project. Further, there is no indication whatsoever that the Company considered alternative projects to alleviate the constraint. To the contrary the only alternative considered was to not alleviate the constraint. The cost of an alternative means to alleviate constraint, even if part of a different project scope, would help quantify the benefit of constructing the Project to achieve that benefit.

153. Public Service demonstrated a future need, yet chose to define the project differently than how to plan transmission to most efficiently serve that need. Thus, many questions raised by Mr. Neill might never have been considered.

154. The planning process should not permit a utility to define a project such that customer interests are harmed. For example, it is concerning that the stated objective of the transmission study performed was to determine the amount of additional generation that can be accommodated by the Project. While such a study shows that future generation can be supported

by the Project, it does little to support that the Project is the chosen alternative that best serves the public interest.

155. Proactive long-term planning promotes state-wide interests including the coordination among all utilities. In as much as the OCC raises several unanswered questions, attempting to answer every one in this proceeding in absence of a showing that the planning process failed to fairly consider the alternatives to individual transmission projects or other stakeholder input promotes just-in-time decision making thwarting the necessary and beneficial longer-term planning process implemented by the Commission.

156. The key to this proceeding is the context in which those questions were raised and the posture of the OCC's case. The OCC did not attempt to carry the burden of proof in this proceeding to have the Commission order construction of an alternative. Rather, the OCC challenges the Company's showing that feasible alternatives to the Project were considered.

157. The Commission's process is to engage interested stakeholders early and to streamline the CPCN process as much as feasible. Mr. Neil's opinion regarding feasible alternatives is also based upon his work expressed for the first time in this proceeding, rather than earlier in the transmission planning process. The undersigned encourages the OCC to engage the process and address any failures to the Commission. The OCC's failure to address alternative proposals earlier in the planning process substantially affects the weight given the evidence in challenging the Company's showing in the proceeding. Having thoroughly vetted the Project in the planning process, and assuming the relevant circumstances have not changed, Public Service should be able to substantively rely upon the transmission plan and the Commission's approval of that plan to support its application. Decision No. R12-1431.

158. The Commission relies upon the planning process to inform development of feasible alternatives in the first instance. "[T]o the extent future stakeholder outreach processes conducted by the utilities prior to filing of ten-year transmission plans do not fairly consider the alternatives to individual transmission projects or other stakeholder input within the scope of Rule 3627, the Commission would then become a forum of first impression to address these issues. Thus, if a non-utility stakeholder submits an alternative(s) and the utilities do not provide information on the method by which the suggested alternative(s) had been categorized, evaluated, recorded, as well as the rationale for the final disposition of the alternative(s), it would be appropriate for the stakeholder to raise that matter before the Commission." Decision No. R12-1431 at 31.

159. Had the OCC alternatives been presented during development of the ten-year plans previously approved by the Commission, the weight given might have substantially differed based upon how the Company addressed and disposed of them during the planning process. While questions remain unanswered, Public Service still slightly tipped the scale in its favor based upon the body of evidence presented and reliance upon the transmission planning process.

4. Audible Noise

160. Mr. Pearson described the Company's actions and techniques to cost-effectively mitigate noise associated with the proposed facilities as well as studies addressing potential noise levels expressed in dB(A) and measured at the edge of the transmission ROW plus 25 feet. *See generally* Hearing Exhibit 204 at 12.

161. Public Service requests a finding of reasonableness for the estimated noise levels in compliance with Commission Electric Rule 3102(c). No party has contested the Company's testimony in support of these findings.

162. Public Service considered the following in the sound modeling of the Project:

> a) the BPA program, a recognized software program in the utility industry typically used for sound analyses, was used; b) readings were predicted for mid-span locations, at conductor low points, without the influence of the transmission structures; c) maximum elevation of 6000 feet between Pawnee and Daniels Park; d) the operating voltages are shown on the attachments; e) "wet" or "rain" signifies when water droplets were formed on the line, the L50 curve is represented (a common statistical indicator); f) audible noise reflection from the ground or other objects is not known (for example, concrete amplifies sound by reflecting sound waves, whereas dirt or grass conditions absorb sound waves or dampen audible noise); and g) a "burn in" period exists for a few months after new construction and the model predicts audible noise after the "burn-in" period.
>
> Hearing Exhibit 204 at 18.

163. Several factors produce audible noise on high voltage transmission lines. Corona is what creates the hissing, crackling, or random popping sound emanating from transmission lines. Generally, corona on the line increases with voltage. Corona increases substantially in wet weather, when water droplets form on a transmission line. Corona also increases approximately 1 dB(A) for every 1000 feet in elevation gain. Audible noise is also created by a 120 Hertz (Hz) synchronous hum created by systems operating at 60 Hz.

164. Transmission lines in the Project will utilize low corona hardware to minimize audible noise. The precise structural style and configuration was selected based upon electrical, structural, and aesthetic considerations. *See* Hearing Exhibit 204 at 9-11.

165. Rule 3206(f) requires the Company to file the projected level of noise radiating beyond the property line or ROW (as applicable) at a distance of 25 feet. Rule 3206(f)(II) sets the corona noise level 25 feet from the edge of the ROW for different zoning designations.

166. Noise measured at 50 db(A) or less beyond the property line or ROW (as applicable) at a distance of 25 feet in a residential zone is deemed reasonable. This is the most stringent threshold in any statutorily-defined zone. Thus, noise below 50 db(A) necessarily is deemed reasonable in all other zones. Rule 3206(f)(II). Noise measured at 55 db(A) beyond the property line or ROW (as applicable) at a distance of 25 feet in a commercial zone is also deemed reasonable. Rule 3206(f)(II).

167. Public Service projected audible noise levels for each section of the Project under both fair and wet/rainy weather conditions. *See* Hearing Exhibit 204, Attachment DJP-10. Attachment DJP-10 illustrates the expected audible noise generated from Sections 1 to 4 of the Project, based on the Bonneville Power Administration (BPA) Corona and Field Effects Program Version 3.1.[12]

168. The noise levels modeled for each section other than Section 4A, beyond the property line or ROW (as applicable) at a distance of 25 feet to be less than 50 db(A), are found to be reasonable. See Attachment DJP-10 to Hearing Exhibit 204.

169. Regarding Section 4A, further consideration is necessary. Mr. Pearson opines that the visual impact and increased cost of raising the steel poles eight additional feet in the Quad Circuit portion of Section 4 to meet the 50 dB(A) threshold is not warranted because Public Service has an adjacent additional 50 foot easement and the area is within a Commercial Zone. Modification of the towers to meet the 50 dB(A) threshold would cost approximately an additional $7,400 per tangent steel pole. As proposed, the new structures will be approximately the same height as existing towers in Section 4.

[12] This application uses the same BPA noise subroutine as the EPRI ENVIRO program used in previous applications. The ENVIRO program is no longer offered to utilities.

170. Staff reviewed Mr. Pearson's studies for all sections of the Project and supports a finding that the levels for all sections be deemed reasonable.

171. The Commission may determine whether projected noise levels for electric transmission facilities are reasonable in this proceeding. § 25-12-103(12)(a), C.R.S.

172. Public Service proposes and requests a finding that the following projected noise levels for Section 4A be found reasonable: 50.5 dB(A) on the 345 kV side of the ROW plus 25 feet and 48.8 dB(A) on the 230/115 kV side of the ROW plus 25. The 230/115 kV side being below 50 dB(A), it is reasonable.

173. Unless projected noise levels are 50 db(A) or below, an alternative design must be presented to reduce the level of noise. Rules 3206(f)(II) and (III).

174. If the overall height of the structures is increased by eight feet, phase spacing can be increased an additional two feet per phase. The additional separation would result in projected noise levels of 50 dB(A) or less at the edge of the ROW plus 25 feet (50 dB(A) on the 345 kV side and 48.4 dB(A) on the 230/115 kV side). As such, the section would fall within a reasonable level of noise. Rule 3206(f)(II). The additional cost to reduce noise levels is $7,400 per tangent steel pole.

175. Only Mr. Pearson addresses land use around section 4A of the project. *See* discussion at Hearing Exhibit 204 at 25. He states: "Even though there are some residences in the area, Section 4A traverses an area that is considered a Commercial zone within the meaning §25-12-102(1), C.R.S." Hearing Exhibit 204 at 25.

176. Mr. Pearson provides no basis for why he concludes that the area is considered a commercial zone.[13] Further, there is no evidence that Public Service attempts to reference a corresponding zoning. The only factual testimony is that there "are some residences in the area." Hearing Exhibit 204 at 25.

177. Public Service failed to demonstrate that Section 4A is located in a zone permitting a noise threshold than 50 db(A), the level found reasonable in all zones. Thus, consistent with 3206(f)(III), a noise threshold of 50 db(A) or below the noise level will not be subject to further review regardless of land use.

178. When an alternative is presented, the Commission shall weigh the societal, engineering, and economic considerations of the Project as proposed and the alternatives presented in determining whether the CPCN should be granted.

179. Public Service provides an alternative feasible design costing an additional $7,400 per tangent steel pole that will reduce projected noise levels for the 345 kV side to below 50 dB(A).[14] In the context of the project, this alternative does not appear to impose a material cost difference and will ensure a reasonable noise level regardless of zone.

180. Public Service does not argue a material cost difference, but claims the area is a commercial zone adjacent to an underground gas pipeline and that the public expressed concern for taller structures being installed. Hearing Exhibit No. 204 at 25.

181. As acknowledged by the Company, this proceeding is not determining siting for the Project. Thus, it cannot be determined at this time whether Public Service will own or

[13] Mr. Holscher has a very general discussion addressing the Project area. *See* Hearing Exhibit 203 at 8. However, one cannot discern how that discussion overlay the area described as Section 4A.

[14] Unfortunately, the number of affected structures was not shown. However, the segment is approximately two miles long. Hearing Exhibit 204 at 9.

control adjacent properties to the ultimate location of construction (*e.g.*, realignment of a portion of the project). This recognition leads to either a condition upon the CPCN that the alignment not be affected by the siting process or considering the merits of the reasonableness of the projected noise levels.

182. Considering the alternative proposal, the undersigned finds most appropriate that the alternative be implemented rather than conditioning the relief granted.

183. Section 4A is a two-mile segment that currently appears as depicted in Attachment DJP-9. Hearing Exhibit 204 at 9. As proposed, Section 4A will appear as depicted in Attachment DJP-4 after construction. Hearing Exhibit 204 at 37. New structures will generally be located adjacent to any parallel line structures to minimize visual impacts. However, the structures will not appear identical in any event. While the structures themselves will clearly have a significant visual impact, marginally increasing the height of the new structure eight additional feet will not upset the aesthetic balance struck.[15] In addition to reducing noise levels, the additional height will further mitigate magnetic fields associated with the line – concerns also thoroughly expressed in comment. Public Service identifies no engineering impediments.

184. Based upon the foregoing it is concluded and found that 50 dB(A) on the 345 kV side and 48.4 dB(A) on the 230/115 kV side of Section 4A beyond the property line or ROW (as applicable) at a distance of 25 feet is reasonable.

[15] This is particularly the case if Public Service's suggestion is correct that the area is zoned for commercial use.

5. Magnetic Field Mitigation

185. Public Service requests a finding of reasonableness for the estimated magnetic field levels in compliance with Commission Electric Rule 3102(d). No party has contested the Company's testimony in support of these findings.

186. Magnetic fields are directly proportional to the electric current flowing in the conductor. The loads used to calculate the transmission line magnetic fields are based upon Rule 3206(e).

187. Rule 3102(d) requires an electric utility to describe the actions and techniques applied when they were planning, siting, constructing and operating the line, relating to prudent avoidance of the magnetic fields. Prudent avoidance "means the striking of a reasonable balance between the potential health effects of exposure to magnetic fields and the cost and impacts of mitigation of such exposure, by taking steps to reduce the exposure at reasonable or modest cost." Rule 3102(d).

188. Rule 3206(e) requires the Company to file the expected maximum level of magnetic fields that could be experienced under design conditions at the edge of the transmission line ROW or substation boundary, at a location one meter above the ground.

189. Rule 3206(e)(II) defines the methodology by which the magnetic field level for multiple circuits will be presented: "For a right-of-way containing multiple circuits, the magnetic field level will be presented at the maximum pre-outage currents wherein the outage of a single circuit loads the remaining circuits to their continuous MVA rating."

190. Public Service has incorporated two measures to mitigate magnetic fields created by the Project. First, the arrangement of phasing of conductors has been optimized to reduce magnetic fields. Second, increasing the height of structures by approximately five feet greater

than those required for minimum ground clearance will also reduce the magnetic field at ground level.[16]

191. Public Service examined various configurations for the Project to determine the configuration that has a reasonable balance for lowering both magnetic fields and audible noise. Attachment DJP-13 to Hearing Exhibit 204 provides an accurate representation of magnetic field levels associated with the Project. All values for the N-1 condition are: Sections 1 and 2: at -112.5 feet (existing 230 kV structure side) 14 mG & +312.5 (existing 345 kV double circuit side) 22 mG. Section 3; at -112.5 feet & at +112.5 feet 22.6 mG. The segment of Section 3 with the Daniels Park – Waterton structures: at -112.5 feet (wider ROW side - south) 18.67 mG & +112.5 feet 21.9 mG. Section 4; at -102.5 feet (existing 230 kV double circuit side) 9.85 mG & +102.5 feet (proposed new 345 double circuit side) 46.03 mG. The Parker – Sulphur segment of Section 4; at -102.5 feet (existing Quad circuit 230 kV – 115 kV side) 26.72 mG & +102.5 feet (proposed new 345 double circuit side) 50.32 mG.

192. The Company requests that the Commission find, consistent with the Commission's ruling in Proceeding No. 05A-072E and Proceeding No. 07A-156E, that 150 mG (milliGauss) is a reasonable level for this Project. Public Service advocates that this is reasonable based upon past Commission action and standards adopted by others.

193. The uncontested evidence of record is that undergrounding the transmission line to minimize environmental impacts is not justified due to the increased cost and construction impacts. The Company also notes that undergrounding would not eliminate magnetic fields.

[16] This additional five feet of clearance is without regard to the additional eight feet structure height ordered for Section 4A.

194. Colorado has not established field exposure limit values for magnetic fields, as measured at the edge of ROW. Public Service explains that, in Florida, a range from 150 to 250 milli-Gauss exists for transmission lines ranging in voltage from 69 to 500 kV. New York has adopted a value of 200 mG for any transmission line regardless of voltage. The American Conference of Governmental Industrial Hygienists[17] has set a not-to-exceed value of 10,000 mG for occupational exposure, and 1,000 mG for those workers with pacemakers. The International Commission on Non-Ionizing Radiation Protection[18] has set exposure limits of 4,167 mG for occupational exposure and 833 mG for the general public.

195. Staff reviewed each section of the Project and found that each will have expected magnetic field levels of less than 150 mG at the edge of the transmission line ROW at a location one meter above the ground. Hearing Exhibit 600 at 31. The highest magnetic field occurs when Section 4A is loaded to reflect Rule 3206(e)(II) resulting in 50.32 mG at the edge of the ROW, well below the 150 mG deemed reasonable by the Commission. Hearing Exhibit 600 at 32.

196. Magnetic field levels of 150 mG and below measured at the edge of the transmission line ROW or substation boundary, at a location one meter above the ground are deemed reasonable. Rule 3206(e)(III).

197. Based upon Commission rules, prior findings, and comparative standards, Public Service has shown that the Project has been designed prudently to avoid magnetic fields. The levels described above, measured at the edge of the transmission line ROW or substation boundary, at a location one meter above the ground, are reasonable.

[17] The American Conference of Governmental Industrial Hygienists is a professional organization that facilitates the exchange of technical information about worker health protection. It is not a governmental regulatory agency.

[18] The International Commission on Non-Ionizing Radiation Protection is an organization of 15,000 scientists from 40 nations who specialize in radiation protection.

6. Cost Estimate Adequacy

198. In part, CEC argues that the Application should be denied to permit further refinement of cost estimates. If the Application is approved, it further argues that conditions should be imposed to appropriately balance and protect ratepayer interests. The OCC also presented argument based upon substantial cost uncertainty at this stage of the project.

199. CEC argues that ratepayers should be provided a full opportunity to timely examine the Company's estimated cost at the CPCN stage and to challenge the prudence of actual expenses during either a Transmission Cost Adjustment Rider (TCA) or rate case proceeding. It argues that approval based upon the evidence presented places too much risk upon customers.

200. CEC's position was first stated in its statement of position. However, Public Service has contended throughout the proceeding that the estimate provided, plus or minus 30 percent, is reasonable and adequate for the "regulatory need" stage of the Project.

201. In part, the Commission relies upon best-available cost estimates to consider the cost and benefits of alternative solutions. Based upon these conclusions and determinations, if approved, the Commission finds that the present or future public convenience and necessity requires construction of transmission between Pawnee and Daniels Park.

202. Generally, the actual costs incurred are not presented at the Commission until cost recovery is sought as part of a rate case where the Company seeks to include those actual costs in rate base or through the TCA. Costs for construction work in progress and projects that have been completed but not yet subject to a general rate case are subject to recovery through the TCA. Such costs are subject to periodic prudency reviews.

203. In response to perceived concerns from cross-examination at hearing, Public Service proposed filing semi-annual status reports, including reporting of costs incurred as compared to the Company's budget, once the route of the line is known. Such a proposal would timely inform review processes.

204. Procedures are available to consider the prudency of expenditures in a future proceeding without jeopardizing timeliness to meet the future public convenience and necessity. Based upon the evidence of record, the estimate presented is found to be adequate to determine that the public convenience and necessity requires construction of transmission from Pawnee to Daniels Park, particularly based upon the alternatives developed in the planning process. It is also noteworthy that delaying approval to increase the accuracy of estimates would not determine recovery of costs actually incurred. Further, the transmission planning process yielded no alternative for comparison (other than technical alternatives) to be informed by a more advanced estimate of project cost. No amount of expenditures is deemed prudent by this Recommended Decision. As such, these matters will appropriately be subject to future consideration.

205. If the application is approved, CEC requests minimum requirements for periodic reporting proposed by the Company:

> At a minimum, these reports should be provided semi-annually, and should present updated detail on the actual versus estimated costs of the Project. The reports should also provide updates on the Project schedule, as well as updated information on system load and transmission capacity, reflecting any known or reasonably anticipated changes in load based on customer attrition or growth. Furthermore, interested parties should be permitted some process for conducting discovery on these status reports, so as to develop a more complete understanding of the expenses, both anticipated and incurred, to construct the Project.
>
> CEC's Post-Hearing Statement of Position at 12.

206. The Company is planning a project estimating expenses years into the future. Estimates will be revised to plus or minus 10 percent prior to commencement of construction. There is recognition that the budget for the Project will change over time. Also, the Company generally references management processes to monitor and control the cost of transmission projects and continually pursue cost savings. These changes over time also inform the prudency of costs incurred.

207. A condition will be imposed upon the CPCN granted hereby to partially address argument presented. Uncertainty as to the timing of commencement of construction is substantial. In part, requested delays from denial of the application advocated by the OCC and CEC are rejected in light of this substantial uncertainty.

208. Construction is anticipated to take approximately two years. Hearing Exhibit 200 at 19. However, should construction commence when currently anticipated by Public Service, the Project will be completed in 2019 -- years in advance of the demonstrated need for the Project in 2023. To balance interests of timely availability with avoiding premature customer rate impact, Public Service will not be permitted to commence construction of the Project prior to May 1, 2020.

209. Potentially delaying the start of construction has two direct impacts responsive to argument presented. First, the customer bill impact will better coincide with need for the Project. Secondly, the Company's proposed reporting will be adopted, as ordered below. Semi-annual status reports will be available to reflect management processes and evolution of project estimates to plus or minus 10 percent prior to commencement of construction.

III. ORDER

A. The Commission Orders That:

1. The Motion of the Colorado Office of Consumer Counsel (OCC) to Use Highly Confidential Information from Another Proceeding filed on July 29, 2014, is granted.

2. The OCC will be permitted to use the highly confidential information from Proceeding No. 11A-869E that is identified in Hearing Exhibit 300 Answer Testimony and Attachments of Chris Neil on Behalf of the Colorado Office of Consumer Counsel (Highly Confidential Version), otherwise subject to existing protections. Upon termination of extraordinary protections afforded this highly confidential material in Proceeding No. 11A-869E, protections shall simultaneously terminate in this proceeding.

3. The OCC and Staff of the Public Utilities Commission are permitted to access the subject information otherwise in accordance with existing protections and shall be permitted to access the same in this proceeding, subject to the same terms, conditions, and obligations.

4. The Motion to Approve Stipulation and Settlement Agreement (Stipulation) filed by Public Service Company of Colorado (Public Service) on September 5, 2014, is granted. The Stipulation is approved and shall be binding upon the parties thereto.

5. The Application for a Certificate of Public Convenience and Necessity for the Pawnee to Daniels Park 345 kV Transmission Project and for Specific Findings with Respect to EMF and Noise is granted, in part, consistent with the discussion above.

6. Public Service is granted a Certificate of Public Convenience to construct and to operate the Pawnee to Daniels Park 345 kV Transmission Project (Project) as modified in accordance with the discussion above and subject to the condition that construction of the Project shall not commence prior to May 1, 2020.

7. Public Service shall file with the Commission, as compliance filings in this proceeding, Semi-Annual Progress Reports for the Project. The first report shall be filed within 30 days following receipt of the last route permit determining route of the Project. Subsequent reports shall be filed no later than six months following the due date of the prior report. Semi-Annual Progress Reports shall continue to be filed until the Project is reported therein to be complete. Each Semi-Annual Progress Report must report:

a. monthly actual expenses incurred and monthly budgeted expenditures by activity;[19]

b. any modifications, by month, to subsequent forecasted expenditures for the remainder of the Project;

c. a cumulative comparison of actual performance of the Project to budget;

d. an explanation of any changes to the overall budget for the Project;

e. an explanation of any changes to the Project schedule;

f. efforts to reduce the cost of the Project; and

g. a narrative statement of the overall Project status.

8. By this Decision, the Commission makes a finding on the reasonableness of transmission line-related noise levels for the Project.

9. For the entire transmission Project, a transmission line-related noise level of 50 dB(A), measured beyond the property line or right-of-way (as applicable) from the transmission line at a distance of 25 feet at 25 feet from the edge of the right-of-way, is reasonable so long as each segment (described above and in Hearing Exhibit 204) is constructed and is operated using the cost-effective noise mitigation actions and techniques that Public Service proposes to use in the respective segment.

[19] The explanation should fully describe each Activity and identify and describe the major component sub-tasks of each Activity.

10. By this Decision, the Commission makes a finding on the reasonableness of electro-magnetic field (EMF) levels for the Project.

11. The following EMF levels are found to be reasonable), measured at the edge of the transmission line right-of-way or substation boundary, at a location one meter above the ground: Sections 1 and 2: at -112.5 feet (existing 230 kV structure side) 14 mG & +312.5 (existing 345 kV double circuit side) 22 mG. Section 3; at -112.5 feet & at +112.5 feet 22.6 mG. The segment of Section 3 with the Daniels Park – Waterton structures:; at -112.5 feet (wider ROW side - south) 18.67 mG & +112.5 feet 21.9 mG. Section 4; at -102.5 feet (existing 230 kV double circuit side) 9.85 mG & +102.5 feet (proposed new 345 double circuit side) 46.03 mG. The Parker – Sulphur segment of Section 4; at -102.5 feet (existing Quad circuit 230 kV – 115 kV side) 26.72 mG & +102.5 feet (proposed new 345 double circuit side) 50.32 mG.). These findings of reasonableness apply so long as each segment (described above and in Hearing Exhibit 204) is constructed and is operated using the prudent avoidance techniques that Public Service proposes to use in each respective segment.

12. 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.

13. 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

G. HARRIS ADAMS

Administrative Law Judge

ATTEST: A TRUE COPY

Doug Dean,
Director