

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

PROCEEDING NO. 13A-1240E

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY FOR THE ARVADA #1 AND #2 DISTRIBUTION TRANSFORMER REPLACEMENT AND CHEROKEE-ARVADA-RUSSELL-RIDGE LINE 230KV VOLTAGE CONVERSION PROJECTS AND FOR SPECIFIC FINDINGS WITH RESPECT TO THE MAGNETIC FIELDS AND AUDIBLE NOISE LEVELS OF THOSE PROJECTS.

**DECISION GRANTING CERTIFICATES OF
PUBLIC CONVENIENCE AND NECESSITY
FOR THE ARVADA REPLACEMENT AND LINE
VOLTAGE CONVERSION PROJECTS**

Mailed Date: January 3, 2014

Adopted Date: January 2, 2014

I. BY THE COMMISSION

A. Statement

1. On November 20, 2013, Public Service Company of Colorado (Public Service or Company) filed an Application requesting that the Colorado Public Utilities Commission (Commission) grant the Company Certificates of Public Convenience and Necessity (CPCNs) for the replacement of Arvada Substation's #1 and #2 distribution transformers (Arvada Replacement Project) and the conversion of the Cherokee-Arvada-Russell-Ridge Transmission Line to 230kV (Line Voltage Conversion Project), in accordance with § 40-5-101, C.R.S. *et seq.* and Rule 1303 of the Commission's Rules of Practice and Procedure, 4 *Code of Colorado Regulations* (CCR) 723-1 and Rules 3102, 3106, and 3206 of the Commission's Rules Regulating Electric Utilities 4 CCR 723-3 (Commission Rules). In addition, the Company

requested in its Application that the Commission find reasonable the audible noise and magnetic field levels expected to result from operating the proposed projects at 230kV.

2. Company witness Hari Singh submitted testimony and exhibits in this proceeding.

3. The Application was not contested and no interventions were filed in this proceeding.

4. The Application was filed in response to Decision No. C13-0879, issued in Proceeding No. 13M-0019E on July 17, 2013. The Company identified both the Arvada Replacement Project and the Line Voltage Conversion Project in its Rule 3206 Report, which was filed on April 30, 2013 in the same proceeding. In Decision No. C13-0879, the Commission required the Company to file either for approval of CPCNs for the proposed projects or for a formal determination that no CPCNs were required.

5. Public Service has proposed the Arvada Replacement Project because Arvada Substation's existing #1 and #2 distribution transformers are nearing the end of their useful life, as is indicated by heavy gassing in the transformer oil. The project would involve replacing the two 115/13.8kV, 42 MVA distribution transformers with two 230/13.8kV, 50 MVA distribution transformers.

6. The estimated cost of the Arvada Replacement Project is \$8 million. The Company is scheduled to begin work on the project in January 2014, and the project has an in-service date of June 2015.

7. The Company operates two transmission lines from Cherokee Station to Ridge Substation: the Cherokee-Ridge Line and the Cherokee-Arvada-Russell-Ridge Line. Both lines were originally constructed to 230kV specifications. However, only the Cherokee-Ridge Line operates at 230kV. The Cherokee-Arvada-Russell-Ridge Line operates at 115kV.

The Line Voltage Conversion Project consists of converting the operating voltage of the Cherokee-Arvada-Russell-Ridge Transmission Line from 115kV to 230kV.

8. The Line Voltage Conversion Project has been proposed to address a reliability need on the Company's system. Specifically, Public Service is proposing the Line Voltage Conversion Project to accommodate the retirement of the Valmont 5 generating unit in 2017 in response to the Clean Air Clean Jobs Act. The combination of the retirement of Valmont 5 with projected load growth results in the need to mitigate post-contingency overloading of the 100 MVA, 230/115kV auto-transformers at Ridge Substation. The Line Voltage Conversion Project would increase the capacity of the Cherokee-Arvada-Russell-Ridge Transmission Line, eliminating or deferring capacity upgrades of Ridge Substation's auto-transformers.

9. The estimated cost of the Line Voltage Conversion Project is \$5.5 million. The Company is scheduled to begin work on the project in June 2014, and the project has an in-service date of June 2016.

10. The Company proposes to work on the Arvada Replacement Project and Line Voltage Conversion Project simultaneously. Although transmission system reliability is not expected to become a concern for another six to ten years, the Company has concluded that beginning work on both projects in 2014 would save customers more money than doing the projects separately.¹

¹ The Company explored two alternatives to its current proposal. The first would be to avoid undertaking the proposed projects. This course of action would be unwise, as Arvada Substation's distribution transformers are nearing the end of their useful life. Another option would be to replace Arvada Substation's two aging 115kV distribution transformers with two new 115kV transformers and delay the Line Voltage Conversion Project. Completing these projects separately would require the Company to replace Arvada Substation's distribution transformers twice, once with 115kV transformers to replace the current transformers and again with 230 kV transformers at the time the Cherokee-Arvada-Russell-Ridge Line is converted to 230kV. Implementing both the Arvada Replacement Project and the Line Voltage Conversion Project simultaneously is the most economical option.

11. Commission Rules 3206(e)(III) and 3206(f)(III) set the acceptable level of electromagnetic fields and audible noise a transmission facility may produce. The Company's analysis has revealed that neither the level of audible noise nor the level of magnetic fields expected to result from the proposed projects are above the levels set in Commission Rules. Neither requires mitigation.²

12. Neither of the proposed projects requires any siting or permitting because neither would involve the construction of new transmission lines.

13. The Company's CPCN Application contains all of the information required by the Commission Rules of Practice and Procedure, 4 CCR 723-1-1303(b), and therefore we deem the Application complete.

14. The CPCN Application is unopposed. The Commission will determine this matter without a formal hearing under § 40-6-109(5), C.R.S., and Rule 1403, Commission Rules of Practice and Procedure, 4 CCR 723-1.

15. The Commission has reviewed the CPCN Application filed by Public Service. The Commission finds that the proposed projects are necessary to retain system reliability and satisfy anticipated increases in load requirements. Furthermore, the Commission finds that the magnetic field and audible noise levels referenced above meet the conditions of Commission Rules. The Commission will therefore grant the Application without a hearing.

² The Company anticipates that the audible noise radiating at a distance of 25 feet beyond the transmission line right-of-way (ROW) would be below 50 dB(A.) The magnetic fields at the edge of the line ROW and substation's boundary are expected to be below 150 milliGauss (mG.) Both these levels are in compliance with Commission rules.

II. ORDER

A. The Commission Orders That:

1. The Application filed on November 20, 2013, by Public Service Company of Colorado for Certificates of Public Convenience and Necessity for the Arvada Substation Project and Line Voltage Conversion Project is deemed complete and granted without a hearing.

2. The magnetic field values and audible noise values referenced above meet the conditions of the Commission Rules Regulating Electric Utilities 4 *Code of Colorado Regulations* 723-3-3206(e)(III) and 3206(f)(III) and are therefore considered reasonable for the proposed Arvada Replacement Project and Line Voltage Conversion Project

3. The 20-day period provided for in § 40-6-114, C.R.S., in which to file applications for rehearing, reargument, or reconsideration begins on the first day following the effective date of this Decision.

4. This Decision is effective on its Mailed Date.

**B. ADOPTED IN COMMISSIONERS' WEEKLY MEETING
January 2, 2014.**

(S E A L)



ATTEST: A TRUE COPY

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

Doug Dean,
Director

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

JOSHUA B. EPEL

JAMES K. TARPEY

Commissioners

COMMISSIONER PAMELA J. PATTON ABSENT.