

December 27, 2017

VIA ELECTRONIC FILING

Utah Public Service Commission
Heber M. Wells Building, 4th Floor
160 East 300 South
Salt Lake City, UT 84114

Attention: Gary Widerburg
Commission Secretary

RE: Docket No. 17-035-08 In the Matter of the Application of Rocky Mountain Power for Approval of the Pole Attachment Agreement between Rocky Mountain Power and Crown Castle NG West LLC

Docket No. 17-035-09 In the Matter of the Application of Rocky Mountain Power for Approval of the Pole Attachment Agreement for Small Cells between Rocky Mountain Power and Crown Castle NG West LLC

Docket No. 17-035-10 In the Matter of the Application of Rocky Mountain Power for Approval of the Pole Attachment Agreement between Rocky Mountain Power and NewPath Networks

Rocky Mountain Power (the “Company”) hereby submits for filing its Berkshire Hathaway Energy Companies Common Guidelines for Small Cell Antenna Installation.

On May 16, 2017, the Public Service Commission of Utah (the “Commission”) issued an order in the above referenced dockets approving the Company’s applications for pole attachment agreements. In the Order, the Commission directed the Company to keep the Utah Division of Public Utilities informed of its progress towards developing a common application within the Berkshire Hathaway Energy companies. The Company has completed the development of a common application, which is herein provided.

The Company respectfully requests that all formal correspondence and requests for additional information regarding this filing be addressed to the following:

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Informal inquiries may be directed to Jana Saba at (801) 220-2823.

Sincerely,


Joelle Steward
Vice President, Regulation

Enclosure

Berkshire Hathaway Energy Companies Common Guidelines for Small Cell Antenna Installation

BHE DSG-JU-01—Small Cell Antenna Installation Guidelines

1. Scope

All small cell antenna installations must meet, at a minimum, the current applicable NESC standards, FCC, and FAA rules and regulations. The administrative authority may have additional requirements depending on the location of the installation. This guideline is intended to:

- Provide guidance on install locations on a distribution pole according to Federal Communications Commission (FCC) 11-50 and 47 U.S.C. (United States Code) 224
- Provide assistance to company personnel in evaluating correct installation of telecommunications equipment to avoid system operation problems
- Supplement published company distribution construction standards, policies, and procedures
- Implement common minimum practices throughout the company's service territory that comply with applicable codes, ordinances, and tariffs

2. Changes or Conflicts in Requirements

Where city, county, state, regulatory agency, or other administrative authority requirements exceed the company's requirements, the more stringent requirements shall apply.

Exceptions to the requirements shall not be permitted except when physical restrictions make compliance impractical, when required by an administrative authority, or where all parties involved are in agreement.

Depending on the local operating and weather conditions, deviations from this guideline may be required as determined by local engineering and operations. It is incumbent on those performing the design and site work to fully understand the requirements necessary to complete the installation safely and in compliance with federal, state, and local regulations.

3. Definitions and Acronyms

3.1. Definitions

Administrative Authority: The governmental authority exercising jurisdiction over the installation.

Company: Refers to MidAmerican Energy, NV Energy (NV Energy North and NV Energy South), PacifiCorp (Pacific Power and Rocky Mountain Power), and other subsidiaries of Berkshire Hathaway Energy providing electric supply services in the United States.

Small Cell: Types of small cells include femtocells, picocells and microcells – broadly increasing in size from femtocells (the smallest) to microcells (the largest). Any or all of these small cells can be based on ‘femtocell technology’ – i.e. the collection of standards, software, open interfaces, chips, and know-how that have powered the growth of femtocells. ‘Small cell’ is an umbrella term for operator-controlled, low-powered radio access nodes, including those that operate in licensed spectrum and unlicensed carrier-grade Wi-Fi. Small cells typically have a range from 10 meters to several hundred meters.

Note: This definition of small cell is derived from the Small Cell Forum, <http://www.smallcellforum.org/>.

3.2. Acronyms

FAA: Federal Aviation Administration

FCC: Federal Communications Commission

NEC: National Electrical Code

NESC: National Electrical Safety Code

OSHA: Occupational Safety and Health Administration

4. Coordination Between the Company and the Telecommunications Company

Close coordination will be necessary with the telecommunications company to complete the installation. In addition, company personnel use terminology unfamiliar to the communications industry; be aware of the resulting gap in understanding. This guideline may be shared with the telecommunications company prior to designing the installation so that the telecommunications company may be aware of the company’s basic requirements.

5. Supplemental Information

This guideline is not considered all-inclusive. The company may have additional installation requirements. In addition, the administrative authority responsible for approving specific installations may have additional requirements not covered by this guideline.

The company’s joint use department may provide assistance with the application process.

6. Pole Selection Criteria

Installation of communications equipment is limited to poles carrying electrical distribution facilities only with voltage level of 34.5 kV and below. The selected distribution pole is not encumbered by electrical equipment that includes, but is not limited to, an air break switch, transformers, capacitor banks, regulators, reclosers, down guys, or risers. Installation of communication equipment on distribution poles are at the sole discretion of the company. The priority of selection of appropriate pole candidates for small cell antenna attachments is as follows (in order of preference):

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6.1. Secondary or Service Pole (with or without Streetlight)



Figure 1—Secondary/Service Pole, Example

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6.2. Single-Phase Primary Pole



Figure 2—Single-Phase Primary Pole, Example

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6.3. Two-Phase Primary Pole

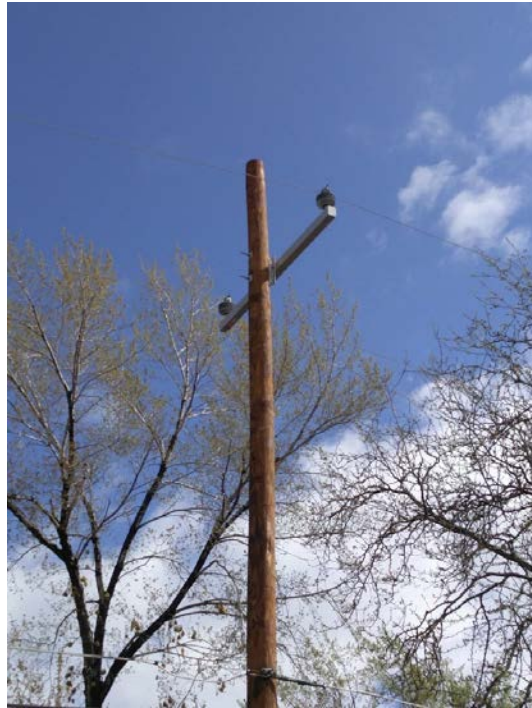


Figure 3—Two-Phase Primary Pole, Example

6.4. Three-Phase Primary Pole



Figure 4—Three-Phase Primary Pole, Example

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7. General Installation Requirements

The following covers the basic installation requirements for small cell antenna attachments. This list may not include all requirements needed for installation:

- Only one antenna array attachment installed per pole.
- Installation is on a “clean” pole. The pole is not encumbered by an air break switch, transformers, capacitor banks, regulators, reclosers, down guys, risers, or other electrical equipment.
- Distribution facilities are nearby for providing electrical service.
- All work is performed by an authorized qualified worker if the installation is in the supply space.
- Power outages needed for equipment installation must be coordinated with the company.
- Zoning, clearance, building permit, easements, and other required permits or approvals by the administrative authority are obtained by the telecommunications company.
- The company retains the right to remove the antenna equipment if requested by the administrative authority.
- The telecommunications company shall perform a TOWAIR (or Landing Slope Facility Calculator) study. The study shall be provided to the company to be filed with the FAA. If the FAA requires the structure to be registered, an Antenna Structure Registration number must be obtained from the FCC. The telecommunications company is responsible for all FAA requirements.
- The telecommunications company shall provide estimated electrical load information of the installation to the company.
- Antenna array wind loading information is provided to the company. A separate pole loading calculation study may be required to be submitted by the telecommunications company.
- A disconnect switch on the electrical service to the installed antenna system is provided by the telecommunications company to de-energized the entire antenna system.
- The telecommunications company must notify the surrounding residents and landowners when the pole modifications will be made.
- The telecommunications equipment owner shall incur the cost of removing the equipment from a pole in the event that the equipment is abandoned.
- The telecommunications company must notify the company at least 45 days in advance when an outage will be required to service an installed antenna.

8. Antenna Locations

Figure 5 depicts the possible installation locations of small cell antenna array on a distribution pole. No antennas shall be installed if existing electrical equipment is installed on the pole:

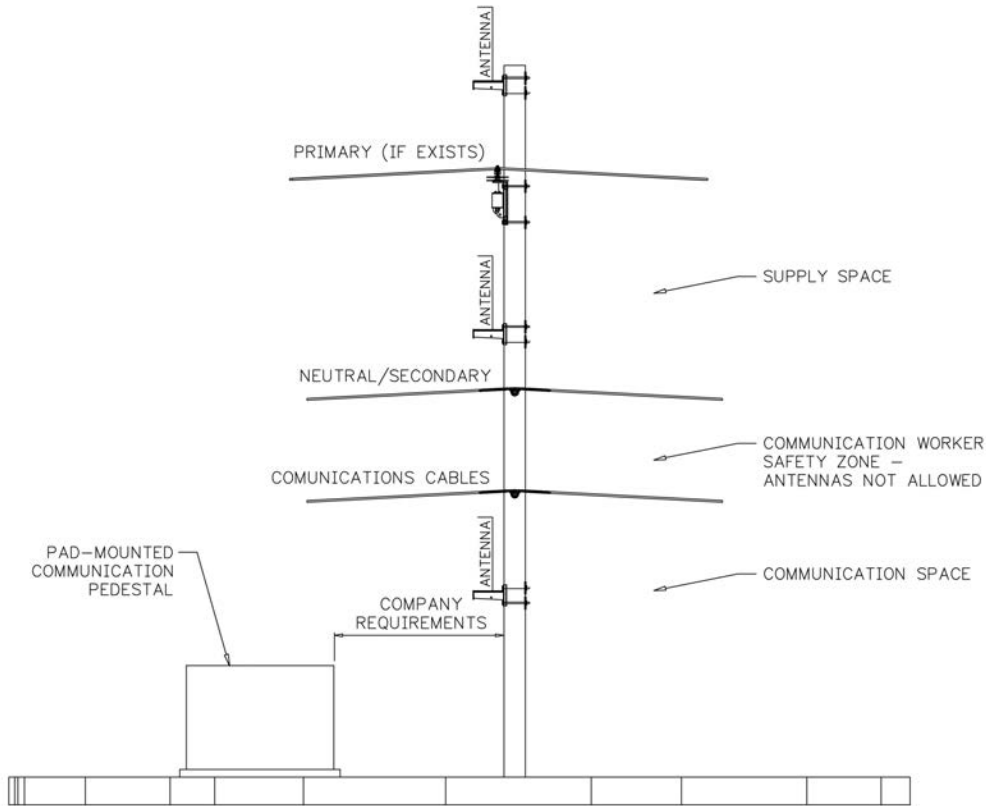


Figure 5—Possible Antenna Locations on Distribution Pole

8.1. Supply Space

Antenna installation above the communications worker safety zone is considered to be an installation in the supply space. All work in this space must be done by an authorized qualified worker in accordance with NESC and OSHA rules.

Pole-top extensions may not be used to extend the height of the pole for antenna array installation.

8.2. Communication Space

Antenna installations within the communications space shall be performed by a qualified communications worker.

8.3. Communications Worker Safety Zone

No antennas or equipment shall be installed within the communications worker safety zone per NESC rules.

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9. Additional Equipment Requirements

9.1. Communication Pedestal

The company requires that all additional equipment associated with the antenna system not critical to the antenna signal transmission be installed in a pad-mounted communication pedestal as illustrated in Figure 5. Other equipment critical to antenna transmission maybe installed on the pole at the discretion of the company. This pedestal is located at a distance specified by the company to ensure it does not block access to the pole. Conduits shall run underground between the pole and the pedestal.

The disconnect switch to completely de-energize the antenna system and metering equipment, if applicable, for the electrical service shall also be housed in this pedestal.

9.2. Grounding

The telecommunications company must install their own NEC-approved ground and bond it to the company's ground. If a ground is not available on the pole, the telecommunications company must request the company install a ground.

The telecommunications company is responsible for providing adequate lightning and over/under voltage protection to protect their antenna system from damage due to system voltage variations.

10. Climability

10.1. Climbing Space

All communications equipment on the distribution pole must be installed in a manner that maintains climbing space according to the NESC. The antenna installation must not impede the climbing space on the pole.

10.2. Bracket

Standoff brackets must provide at least 4.5 inches of clear space from the surface of the pole.

The company prefers all additional antenna equipment be installed in the communication pedestal. If it is necessary to install an additional communications equipment cabinet on the pole, it must be mounted on the pole using a standoff bracket if the height of the equipment is over 12 inches. The allowable size of the cabinet will be limited based on its total wind loading. Any communications equipment exceeding the maximum wind loading of the pole shall be installed in the communication pedestal. Only one communications equipment cabinet may be installed on the pole.

10.3. Conduit

All conduits on the pole must not interfere with a lineman's ability to safely climb the pole. Conduits less than two inches in diameter may be banded to the pole. Conduits must be mounted on standoff brackets in instances where a conduit is larger than two inches in diameter, or where there are more than two conduits.

Where a single-phase primary dip is already on the pole, the communications conduit standoffs shall be mounted jointly with the company.

All communications conduit entering the supply space must be non-conductive per NESC. All metallic conduit outside of the utility space installed on a pole must be bonded to the pole ground.

10.4. Steel Poles

If a steel pole is used for an antenna attachment, communication cables need to be routed inside the steel pole. There may be additional requirements specified by the company for this pole configuration.

11. Radio Frequency

The telecommunications company shall affix a sign near the base of the pole reading "High Energy Field – RF Monitors Must Be Worn." If the disconnect switch is installed on the pole, this sign shall be affixed near the disconnect switch equipment box.

The installation must be in compliance with the FCC Office of Engineering and Technology (OET) Bulletin 65, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields."

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12. Drawings

The telecommunications company shall provide drawings for the proposed small cell antenna attachment installation. The drawings should not be conceptual drawings, but location specific and complete for the proposed installation. Drawings shall include, at a minimum, but not be limited to:

1. Pole location (address, area map)
2. Pole photos
3. Customer-owned conduit, wire, cable, and service route details (for underground service)
4. Existing and proposed clearances on the structure
5. Down guys where required
6. Equipment cabinet sizes and mounting locations
7. Metering and electric service facilities and its proposed locations
8. Antenna array size
9. Wind loading information
10. Pole loading calculation study (if required)
11. Estimated electrical load for all equipment

13. Design Guide Issuing Department

The engineering standards and technical services department of the company published this document. Questions regarding editing, revision history and document output may be directed to the lead editor at eampub@pacificorp.com. Technical questions and comments may be directed to joint use or distribution standards engineering. This design guide shall be used and duplicated only in support of company projects.

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CERTIFICATE OF SERVICE

Docket No. 17-035-08, 17-035-09, and 17-035-10

I hereby certify that on December 27, 2017, a true and correct copy of the foregoing was served by electronic mail to the following:

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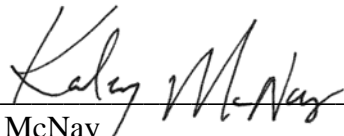
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