

Before the Public Service Commission  
of the State of Wyoming

In the Matter of the Application of Cheyenne Light, Fuel and Power  
Company d/b/a Black Hills Energy for a Certificate of Public Convenience and Necessity to  
Construct and Operate a 115 kV Substation and Associated Transmission Lines, and Related  
Facilities in Laramie County, Wyoming

Docket No. 20003-\_\_-EN-21  
(Record No. \_\_\_\_\_)

January 8, 2021

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## **EXHIBITS**

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| Confidential Exhibit 2 | Campstool Substation Detailed Cost Estimate |
| Confidential Exhibit 3 | Facility Expansion Agreement                |
| Exhibit 4              | Cheyenne Light 2019 Annual Report           |
| Exhibit 5              | Campstool Substation Layout                 |
| Confidential Exhibit 6 | Right of Way Status                         |
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BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF WYOMING

IN THE MATTER OF THE APPLICATION OF )  
CHEYENNE LIGHT, FUEL AND POWER COMPANY, )  
d/b/a BLACK HILLS ENERGY FOR A CERTIFICATE )  
OF PUBLIC CONVENIENCE AND NECESSITY TO ) Docket No. 20003-\_\_\_\_-EN-21  
CONSTRUCT AND OPERATE A 115 KV SUBSTATION ) (Record No. \_\_\_\_\_)  
AND ASSOCIATED TRANSMISSION LINES, AND )  
RELATED FACILITIES IN LARAMIE COUNTY, )  
WYOMING )

Cheyenne Light, Fuel and Power Company, d/b/a Black Hills Energy (“Cheyenne Light”), hereby submits this Application for a Certificate of Public Convenience and Necessity (“CPCN”) pursuant to Wyo. Stat. § 37-2-205 and Chapter 3, Section 21 of the Rules of the Public Service Commission of Wyoming (the “Commission”).

Cheyenne Light is incorporated under the laws of Wyoming with a principal place of business at 1301 West 24<sup>th</sup> Street, Cheyenne, Wyoming. Cheyenne Light is a public utility as defined by Wyo. Stat. § 37-1-101 and has been granted authority by this Commission to provide electric utility service in Wyoming.

**Summary of Proposed Project**

Microsoft, Inc. (“Microsoft”) has been growing its operations in Cheyenne since 2012. Recently, Microsoft secured property in the Cheyenne Business Parkway, commonly referred to as the East Business Park, to expand their data center operations in Cheyenne to a second data center campus location. In consultation with Microsoft regarding its electric service and facility needs for the planned expansion, Cheyenne Light determined the Campstool Substation Project is necessary to extend service to Microsoft’s new data center campus. The Campstool Substation

Project includes a new 115 kV and 24.9 kV substation, the addition of two new transmission lines approximately 1.5 miles in length, and an expansion of the existing East Business Park Substation and associated facilities.

In order to alleviate risk to other Cheyenne Light customers, Microsoft has agreed pay for the costs of the Campstool Substation Project over a 15-year period. *See Confidential Exhibit 3 – Facility Expansion Agreement.* This contract contains provisions to protect Cheyenne Light and its other customers from the risk of a stranded asset if Microsoft were to discontinue service before the Campstool Substation Project is fully paid for during the 15-year term. Depreciation of the facilities included in the project coincide with the 15-year term and if Microsoft were to leave the system prior to the end of that term, the net book value of the facilities will be immediately due from Microsoft.

The Campstool Substation Project has an estimated cost of \$15,415,822 and a proposed construction timeline beginning in the third quarter of 2021 with a planned in-service date in the second quarter of 2022. The project is explained in further detail below and in the Direct Testimony of Eric Egge, Exhibit 1 to the Application.

### **Statutory and Regulatory Required Information**

Pursuant to Wyo. Stat. § 37-2-205 and Chapter 3, Section 21(c)(i) of the Commission Rules, Cheyenne Light provides the following in support of the Campstool Substation Project:

#### **Chapter 3, Section 21(c)(i):**

##### **A. Name and Address of Applicant:**

Cheyenne Light, Fuel and Power Company, 1301 West 24<sup>th</sup> Street, Cheyenne, Wyoming.

Cheyenne Light is an electric utility as described in Wyo. Stat. § 37-1-101, engaged in the

generation, transmission, distribution, purchase and sale of electric power and energy through an interconnected transmission network.

**B. Type of Facility Proposed to be Constructed:**

Cheyenne Light will design and construct a new 115 kV substation named the Campstool Substation, two associated 115 kV transmission lines, and an expansion of the existing East Business Park Substation and associated facilities, all of which is referred to as the Campstool Substation Project. The substation will be constructed of open air bus work with standard 115 kV rated equipment. The two transmission lines will share double circuit structures approximately 1.5 miles long and will interconnect to the existing Cheyenne Light 115 kV transmission system at the East Business Park Substation. The lines will be constructed with steel, direct-embedded, monopole structures. The existing East Business Park substation will be expanded to accommodate the new double circuit transmission lines.

**C. Complete Description of Facilities-Engineering Drawings and Specifications:**

The Campstool Substation construction will consist of:

- Terminals for four (4) 115 kV transmission tie lines from Cheyenne Light's transmission system.
- Three (3) 115/24.9 kV, 67 MVA (top rated)  $\Delta$ -Y distribution transformers.<sup>1</sup>
- Eleven (11) 115 kV, 2000 Amp circuit breakers and associated disconnect switches, potential transformers, and bus infrastructure arranged in a breaker and one-half bus configuration.

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<sup>1</sup> The transformer MVA rating is based upon 55° C temperature rise above ambient.

- The substation's 24.9 kV facilities include three (3) low side 24.9 kV main breakers connected to a riser pole to accommodate the customer's 24.9 kV distribution feeder cables.
- Substation facility design includes all standard utility common equipment, including control house, fence, SCADA, metering, station service power, security, and operational support equipment.

The transmission lines construction will consist of:

- 795 ACSR conductors
- Self-supporting steel monopole dead-end structures on reinforced concrete drilled pier foundations
- Direct embedded steel monopole tangent structures
- One (1) shield wire and one (1) OPGW shield wire

The East Business Park Substation expansion construction will consist of:

- Two (2) 115 kV breakers installed on existing foundations
- Two (2) dead-end structures with 115 kV line switches
- All protection, control, and communications equipment for the project will be field installed in the existing relay panels located in the existing substation control enclosure.

#### **D. Rates Proposed to be Charged for the Service Rendered Due to**

##### **Construction:**

The Campstool Substation Project is designed to serve an expansion of Microsoft's operations in Cheyenne and Microsoft will pay for the costs of the project over a 15-year period.

*See Confidential Exhibit 3 – Facility Expansion Agreement.* The cost of construction of the

Campstool Substation Project capital additions will not impact the rates charged to Cheyenne Light's other customers. The capital additions for the Campstool Substation Project will be recorded on the books of Cheyenne Light in the Plant In Service accounts and will be reflected in the Rate Base value. The recovery of the funds from Microsoft over the 15-year period for the Campstool Substation Project will be recorded on the books of Cheyenne Light in FERC account 451 – Miscellaneous Service Revenues and will be reflected in the Utility Operating Income.

**E. Estimated Total Cost of Construction:**

The total estimated cost of the Campstool Substation Project, including the associated transmission lines and expansion of the East Business Park Substation, is approximately \$15,415,822. *See Confidential Exhibit 2 for a detailed construction cost estimate.*

**F. Manner by Which the Proposed Construction will be Financed:**

Financing for construction of the Campstool Substation Project will be funded by internally generated funds and short-term borrowing from the Black Hills Corporation utility money pool. Cheyenne Light will recover funds from Microsoft after the project is placed in service under the terms of the contract included as Confidential Exhibit 3 – Facility Expansion Agreement.

**G. Financial Condition of Cheyenne Light:**

Cheyenne Light is financially sound. Cheyenne Light files an annual report with the Commission which indicates financial soundness. *See Cheyenne Light's 2019 Annual Report, Exhibit 4.*

**H. Estimated Annual Operating Revenue and Operating Expenses:**

Cheyenne Light used a standard declining cost curve rates model to determine the revenue requirement for the Campstool Substation Project, which is incorporated into the fixed-



cost recovery contract with Microsoft. The net present value of the annual revenue requirements from the model is levelized over a 15-year period. This results in a levelized fixed charge rate of 12.317 percent per year for recovery of the Campstool Substation Project. Fixed expenses are incorporated and include Operations and Maintenance expense and Ad Valorem Taxes.

The table below lists the estimated recovery for the first six years of operation of the Campstool Substation Project.

|                   | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|-------------------|--------|--------|--------|--------|--------|--------|
| Operating Revenue | \$2.0  | \$2.0  | \$2.0  | \$2.0  | \$2.0  | \$2.0  |

These values are provided for illustrative purposes only as Cheyenne Light will recover funds from Microsoft based upon actual projects costs after the project is placed in service. The recovery of these funds will be recorded on the books of Cheyenne Light in FERC account 451 - Miscellaneous Service Revenues. These values are included in Confidential Exhibit 3 – Facility Expansion Agreement, page 4.

**J. Estimated Start and Completion Date of Construction:**

Cheyenne Light plans to have the Campstool Substation Project in-service in the second quarter of 2022. The following are estimated start and completion dates for phases of the project:

| <b>Task/Topic</b>              | <b>Expected Completion Date</b> |
|--------------------------------|---------------------------------|
| Easements/Landowner Agreements | Q1 2021                         |
| Environmental Permits          | Prior to start of construction  |
| Start of Construction          | Q3 2021                         |
| In-Service Date                | Q2 2022                         |

Cheyenne Light will update the Commission in this Docket when phases of the project are completed pursuant to the Commission's construction reporting requirements.

**Chapter 3, Section 21 (c)(ii) - Major Facilities:**

Cheyenne Light has determined the Campstool Substation is a major facility under the Commission rules, as the substation and lines will operate at 115 kV.

**A. Site Description**

The Campstool Substation Project and related facilities will be located in southeastern Wyoming, on the east end of Cheyenne. The project site consists of the following three pieces:

1. An irregular-shaped westernmost parcel of land totaling approximately 34 acres in size (location of future Campstool Substation), located at the northwest corner of Commerce Circle and Christensen Road;
2. An approximately 1.5-acre easternmost parcel, located on the north end of the existing Cheyenne Light East Business Park Substation; and
3. A proposed transmission line easement situated on the south side of the Union Pacific Railroad (UPRR) right of way, to connect the westernmost and easternmost parcels.

Based on review of information obtained from the Laramie County Assessor's Office, the westernmost parcel is identified as parcel #14653120900200, and is generally described as Lot 1, Block 1 of the Cheyenne Business Parkway, situated in a portion of the NE1/4 of Section 36, Township 14 North, Range 66 West, and a portion of the NW1/4 of Section 31, Township 14 North, Range 65 West, of the 6th P.M. The easternmost parcel is located within the larger 10.72-acre Cheyenne Light-owned East Business Park Substation, situated in a portion of the SW1/4 of Section 29, Township 14 North, Range 65 West, of the 6th P.M. The site is located in a sparsely vegetated pasture with rolling terrain.

Based on site reconnaissance and review of the USGS Archer, Wyoming 7.5-minute Topographic Quadrangle, dated 2015, the Subject Site's westernmost parcel is situated in a portion of the NE1/4 of Section 36, Township 14 North, Range 66 West, and a portion of the NW1/4 of Section 31, Township 14 North, Range 65 West; the proposed transmission line easement largely traverses the S1/2 of Section 30, Township 14 North, Range 65 West; and the easternmost parcel is situated in a portion of the SW1/4 of Section 29, Township 14 North, Range 65 West. The elevation of the Subject Site's westernmost parcel ranges from approximately 5,980 feet above mean sea level (amsl) at the northeast corner, to approximately 5,940 feet amsl along the southernmost border; the elevation of the easternmost parcel ranges from 6,005 feet amsl to approximately 5,990 feet amsl, north to south.

The elevation of the proposed transmission line easement varies, with an approximate low of 5,970 feet amsl to an approximate high of 6,040 feet amsl. The overall site regional topographic slope trends downward to the south/southwest towards the confluence of Dry Creek and Crow Creek, approximately one mile to the south/southwest.

Surface water runoff in the area of the Subject Site parcels will vary widely, but is largely anticipated to percolate into unpaved site surface soils or flow overland to the south/southwest following the general surface topography.

**B. and C. Scenic, Historical, Archeological, and Recreation Areas -  
Environmental**

• **Environmental Assessments:** A Phase I Environmental Site Assessment on the proposed Project site was completed on September 17, 2020. *See* Exhibit 8 – Phase 1 Environmental Report.

No Recognized Environmental Conditions were identified in the report.

• **Geological Report:** The area surrounding the proposed substation location can be described as undulating and rolling and is typical of the high plains and grasslands located in southeastern Wyoming.

Based on information obtained from the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey for Laramie County, Wyoming, surface soils at the Subject Site consist largely of the Urban land-Ascalon complex (0 to 6 percent slopes), and to lesser extent the Manter sandy loam (0 to 6 percent slopes) and Altvan-Dix complex (6 to 10 percent slopes). The parent material of the Urban land-Ascalon complex consists of urban land and/or alluvium derived from sandstone, formed on alluvial fans or remnants. The parent material of the Manter sandy loam consists of eolian deposits and/or alluvium derived from sedimentary rock, formed on alluvial fans, knolls, or terraces. The parent material of the Altvan-Dix complex consists of loamy alluvium over tertiary aged sandy and gravelly alluvium, formed on interfluves or alluvial fans. Based on review of geologic information obtained from the Wyoming State Geological Survey, and the ERIS Physical Setting Report (PSR), the Subject Site soils are underlain by Upper Miocene Age Rocks, comprised primarily of sandstone, claystone, and conglomerate. Cheyenne Light is not aware of the presence of operating mineral deposits within the project site or within a one-mile radius. It is not expected that mineral deposits on or under the project site will adversely affect the operation of the proposed substation.

• **Natural Resources, and Plant and Animal Life:** The study area is on the edge of the city limits of Cheyenne, Wyoming, and consists of industrial development, with undeveloped areas along the alignment. The undeveloped areas are primarily grassland. Locations within the study area that have not been developed could potentially provide habitat for wildlife. 224 wildlife species have the potential to occur within the study area based on an analysis utilizing the

Species of Concern and Habitat Analysis Tool for the Wyoming State Wildlife Action Plan. The project would not occur within any areas identified as Crucial Range or Seasonal Range, such as those identified for antelope and white-tailed deer (NREX 2020). It is anticipated that due to the project being located in a developing area with active construction, the probability of the study area containing any state-listed species is low. However, a field survey should be conducted prior to construction for the proposed routes to determine if suitable habitats for listed species are present.

**D. Potential Safety Hazards:**

Safety hazards associated with demolition of existing structures as well as the installation of new structures will be addressed by following company, state, and federal safety regulations and policies. Solid and hazardous waste will be hauled off-site by a third-party contractor and disposed of appropriately per state and federal waste regulations. During construction, all underground and overhead utilities will be located to prevent interference with service and potentially hazardous work conditions. General industry safety practices will be followed during the construction work with routine safety briefings to identify hazardous conditions. Best available control technology will be used on site to ensure water and air quality as well as potential safety concerns are mitigated and protected.

**E., F., G. and H. Land, Mineral and Water Requirements - Status of Land Acquisitions**

Negotiations are in progress to acquire land and easements from private landowners. No fuel or water transport is needed for the Campstool Substation Project. No mineral rights are needed for the Campstool Substation Project.

**J. Statement of Need for the Project:**

Cheyenne Light has been in discussions with Microsoft regarding an expansion of their operations to a second data center campus location within the Cheyenne Light service territory. This business expansion includes establishing a new campus with energy supply needs requiring new transmission and distribution facility capabilities near the site. The proposed transmission lines and substation will extend service to supply Microsoft’s power needs at their new data center location. The proposed system additions will accommodate the customer’s power requirements without negatively impacting reliability to other Cheyenne Light customers while continuing to maintain transmission reliability criteria.

**K. Description of Commodity Service to be Provided:**

Cheyenne Light will provide electricity for the expanded operations of an existing customer with the Campstool Substation Project.

**L. Effect of Project on Cheyenne Light and Other Utility System Stability:**

The addition of the Campstool Substation Project will not affect the reliability of the Cheyenne Light transmission or distribution systems.

**M. List of Local, State, Indian, or Federal Agency Requirements:**

Cheyenne Light has determined the following local, state, or federal government agencies may have requirements that must be met in connection with the construction or operation of the Campstool Substation Project:

| <b>Agency</b>                     | <b>Requirement</b>               |
|-----------------------------------|----------------------------------|
| Wyoming State Lands               | Temporary Use Permit             |
| Western Area Power Administration | Line Crossing Application        |
| Federal Aviation Administration   | Aeronautical Study of Structures |

|   |  |
|---|--|
| City of Cheyenne                            | Grading Permit                         |
| Wyoming Department of Environmental Quality | General Construction Stormwater Permit |
| Laramie County Planning                     | Notification of Project                |
| City of Cheyenne                            | Notification of Project                |

**Chapter 3, Section 21(d) - Authority to Serve:**

The facilities required for approval under this CPCN will be located within Cheyenne Light’s existing service area or within Cheyenne Light existing right of way. Cheyenne Light possesses requisite Commission authority and currently provides service to communities and does not require additional certification for service to customers outside of Cheyenne Light’s certificated service area.

**Exhibits**

Cheyenne Light provides the following exhibits in support of the Campstool Substation Project Application:

- Exhibit 1                      Direct Testimony of Eric Egge
- Confidential Exhibit 2      Campstool Substation Detailed Cost Estimate
- Confidential Exhibit 3      Facility Expansion Agreement
- Exhibit 4                      Cheyenne Light 2019 Annual Report
- Exhibit 5                      Campstool Substation Layout
- Confidential Exhibit 6      Right of Way Status
- Exhibit 7                      Transmission Line Layout
- Exhibit 8                      Phase 1 Environmental Report
- Exhibit 9                      Geotechnical Report

## Notices

Notices regarding this Application should be sent to:

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## Request for Approval

The Campstool Substation Project is a necessity and in the public interest. This Application and the supportive exhibits demonstrate that public convenience and necessity requires the granting of the Application.



WHEREFORE, Cheyenne Light, Fuel and Power Company respectfully requests that the Public Service Commission of Wyoming enter an order granting the following:

- A Certificate of Public Convenience and Necessity authorizing the construction and operation of a 115 kV substation and related facilities in Laramie County, Wyoming as described above and proposed herein; and
- A determination that the proposed facilities will, when completed, be used and useful in its operations and service to its customers.

Dated this 7th day of January, 2021.

CHEYENNE LIGHT, FUEL AND POWER COMPANY

By:   
Kyra Coyle  
Manager- Regulatory and Finance

**Address of Applicant:**

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