SUBJECT: CASE NO. UASI25-001 – CANYON PEAK POWER STATION - USE BY SPECIAL REVIEW

MOLLY ORKILD-LARSON, PRINCIPAL PLANNER

Location and Vicinity Map

The proposed Use by Special Review (USR) is located at 5050 S. County Road 129 (CR129). The subject property is situated in Commissioner District No. 3 and zoned Agricultural - One (A-1).



Subject Property (shown in red above)

ADJACENT SUBDIVISIONS, ZONING, AND LAND USE

- North Solar farm, zoned A-1
- Northeast Kiowa Creek Sporting Club, zoned Open (O)
- South Solar farm, zoned A-1
- East Solar farm, vacant, zoned A-1, further east Single family residential, agricultural, zoned A-1
- West Single-family residential, agricultural, zoned A-1

PURPOSE AND REQUEST

The applicant, Canyon Peak Power LLC (an affiliate of Kindle Energy LLC), on behalf of the property owner, CORE Electric Cooperative (CORE), is seeking approval of a USR application on a 20.009-acre parcel to build a natural gas combustible power generation facility. The property and the existing substation (Brick Center Substation) on-site are owned by CORE, and 10.994 acres of the site will be leased to the applicant. This approval also includes 3.9 miles of a 10-inch natural gas supply line to provide gas to the power generation facility. This project will support CORE's transition from previous power providers to more renewable-based power sources.

The natural gas simple-cycle combustible power generation facility will be comprised of six electric power generation units with a cumulative generating capacity of 156 megawatts (MW). This facility is to generate electricity for the Brick Center Substation and is to exclusively serve CORE's members. The project also intends to construct an administrative/maintenance building (control trailer), a stormwater detention pond, drive aisles and employee parking, a fire water tank, and a fire suppression loop. The facility will be staffed with two employees per shift, with two shifts of 12 hours.

As mentioned above, the project will install a natural gas supply pipeline to provide gas fuel to the proposed facility. The pipeline will be located along the east side of County Road 129 (CR 129) within the road right-of-way. At the north end of the pipeline, it will connect to an existing Colorado Interstate Gas (CIG) pipeline in a fenced meter yard north of E. Iliff Trail. The south end of the pipeline will connect to the proposed gas facility.

The gas facility is to have a 25-year design life, but with proper maintenance, the plant life will likely be extended beyond the design life.



Subject Property (shown in red, and the facility area shown by a dashed line above) Canyon Peak Power Station – Use by Special Review Page 2 of 27



Subject Property (in blue) and Pipeline (in red)

CORE wishes to transition to a more renewable-based power generation for its source of electrical power. Renewable-based power generation, such as solar or wind, is an intermittent resource, subject to weather conditions and power demands placed on the grid, and can be complemented by alternative resources such as gas to provide reliability and stability to the grid. Natural gas-fired power plants are flexible and reliable and can provide a solution for Colorado's evolving energy grid. The applicant has indicated that this type of power plant is known for having fast start capabilities (10 minutes or less), only runs when energy demand is high, and when the grid requires additional power resources. The facility will run for less than 20 percent of the hours in a single year and is capped at approximately 32 percent capacity factor on a consolidated basis as allowable per the Colorado Department of Public Health and Environment (CDPHE) issued synthetic minor source air permit. The 32 percent capacity factor means that the facility, if all six units were fully dispatched in unison, could run for 2,803 hours during the year.

Collectively, these units making up the facility will not run 24 hours a day, seven days a week, and 365 days per year.

The applicant also stated that this facility can act as a safety net when intermittent renewable energy sources (solar and wind) can't fully meet power grid electricity needs and ensure grid stability as more renewable energy resources are integrated into the system.

Gas Facility Design

Connection to Brick Center Substation: The project will connect to CORE's existing 115 kV transmission system on the site with no additional infrastructure required outside of the parcel's boundaries. Each combustion turbine generator produces power at 13.8 kV, which is fed to a generator step-up transformer that converts the power to 115 kV. This 115 kV power is then connected to CORE's existing Brick Center Substation, which supplies CORE's 115 kV transmission system. The connection to the 115 kV transmission system will occur on the north side of the existing Brick Center Substation with new high-voltage disconnects and circuit breakers.

Combustion Turbine Generator (CTG): The facility is powered by generation units outfitted with selective catalytic reduction (SCR) and oxidation catalysts to control nitrogen oxide (NOx) and carbon monoxide (CO) emissions. Six combustion turbine generators are proposed, and each generator is considered a unit. Each CTG uses a dry low-NOx emission oxidation combustion system to reduce NOx emissions during natural gas combustion. In addition to the dry low NOx combustion technology, each CTG unit will be equipped with an SCR system that will further reduce NOx emissions from the flue gas before exiting the CTG stack. The SCR utilizes 19% aqueous ammonia as the reagent in the catalytic conversion of NOx emissions to nitrogen and oxygen. The 19% aqueous ammonia is supplied by an on-site 20,000-gallon ammonia storage and forwarding system with containment (at least 110% of the tank's volume) and a truck unloading pad. The aeroderivative-based combustion turbine generator is designed with considerations for both efficiency and emissions.

The facility will implement effective containment measures into the design to mitigate the effects This design allows the power turbine to operate at a continuous speed, allowing for startup to full load in less than 10 minutes. The turbines will use natural gas from the pipeline.

CRS Exhaust Stack: Each unit is equipped with an 80-foot exhaust stack. Each exhaust stack includes a selective catalytic reduction to control nitrogen oxides (NOx) and catalytic oxidation (CatOx) to control CO and Volatile Organic Compound (VOC) emissions. Each exhaust stack will be equipped with an emissions monitoring system that monitors CO emissions, NOx emissions, and fuel flow.

Fire Water System: A 165,000-gallon water storage tank and fire suppression loop are located on-site for fire protection. An underground water line will encircle the plant and have fire hydrants spaced as per the National Fire Protection Association standards. A 165,000-gallon water tank will supply water to this system and will be filled by a certified water supplier. See the attached will serve letter.

Control Trailer: The gas plant operations will be monitored and controlled from a building centrally located on the subject property. The control trailer will house two employees monitoring the facility and operations. This building will include operator offices, conference and break rooms, bathrooms, and critical network and control system hardware and infrastructure for the facility's operations.

Fencing: The lease area of the gas facility will be fenced. The fence will be seven feet tall with one foot of three strands of barbed wire at the top. This fence does not comply with Colorado Division of Wildlife (CPW) fencing standards. However, after discussions with CPW, this agency felt that this facility was small, and the allowance of animals within the facility should be avoided and therefore would not object to the proposed fence design.

Lighting: The applicant indicates that the site lighting will be directed inward, downward, and shielded. The height of the light poles on-site shall be a maximum of 25 feet in the parking area and 20 feet elsewhere on-site. The facility shall comply with the Land Development Code regulations. This shall be made as a condition of approval.

Access: The gas facility will obtain access from E. Belleview Avenue.

Water and Sanitary Sewer: A potable water tank will be installed next to the control trailer, and an On-site Wastewater Treatment System (OWTS) will be located east of this building.

Stormwater: A detention pond is proposed in the southeast corner of the lease area.

Construction: During the construction of the facility, the applicant will be using the eight acres west of the substation as a laydown yard, equipment storage, employee parking, and the location of construction trailers.

BACKGROUND

The subject parcel contains the existing Brick Center Substation, which is located in the central portion of the parcel. The substation was reviewed and approved through a Location and Extent application (L17-001).

The subject parcel has been subdivided through a Subdivision Exemption plat (X07-001).

ANALYSIS OF THE USE BY SPECIAL REVIEW APPLICATION

Staff review of this application included a comparison of the proposal to: 1) applicable policies and goals outlined in the Comprehensive Plan; 2) Use by Special Review Regulations in the Land Development Code; 3) 1041 Regulations Governing Areas and Activities of State Interest; and 4) analysis of referral comments.

1. <u>The Comprehensive Plan</u>

The subject property is Tier 3 of the Comprehensive Plan and is zoned A-1. A Major Electrical, Natural Gas, and Petroleum-Derivative Facilities of a private company can be reviewed through a Use by Special Review process (LDC section 5-3.4.B.3).

This proposal complies with the Comprehensive Plan as follows:

The Comprehensive Plan calls for supporting "the use of alternative energy . . ." in order to foster "a safe and resilient natural and built environment" (see Comp. Plan at p. 13).

Policy GM 3.1 – Direct Future Development to Areas with Low Risks from Natural and Manmade Hazards

The subject facility and pipeline corridor are outside the 100-year floodplains of Kiowa Creek. No man-made hazards are on-site.

GOAL PFS 7 – Ensure Existing and New Development have Adequate Police and Fire Protection Utilities in Existing and New Development

The Arapahoe County Sheriff's Office and Bennett-Watkins Fire Rescue will serve the property. The Sheriff's Office had no comments, and the fire district has no objections provided the applicant complies with their requirements and considerations. A condition of approval has been set to address this request.

Policy NCR 6.2 – Encourage the Development and Use of Alternative Energy Sources

The applicant is proposing a gas facility that will support renewable energy by providing electricity for the grid when it's needed.

Policy PFS 12.3 - Require Land Use Compatibility when Siting Local and Regional Utility Facilities

The proposed location of the gas facility is next to a substation and solar farms, which assist in minimizing its visual impact.

2. Land Development Code Review

Section 5- 3.4. B. 1 of the Land Development Code allows Use by Special Review to be approved if the proposal meets all of the following criteria:

A. Recognize the limitations of existing and planned infrastructure by thoroughly examining the availability and capability of water, sewer, drainage, and transportation systems to serve present and future land uses.

The facility will be staffed with two employees per shift, with two shifts of 12 hours.

Water: A potable water tank is provided to serve the restrooms within the building and will be filled by a certified water supply company. Drinking water will be bottled and provided for the employees.

Sewer: Sewage from the restrooms will be treated by an OWTS located east of the building.

Drainage: A detention pond is proposed in the southeast portion of the property and will contain stormwater from the site.

Transportation: Access to the facility is from E. Belleview Avenue. Traffic will be increased during construction, but once the project is operating, the traffic generated will be eight daily trips, which is minimal. Visits to the site will be by employees, and deliveries (water, lubricants, and ammonia).

B. Assure compatibility between the proposed development, surrounding land uses, and the natural environment.

Surrounding Land Uses: The proposed land use is compatible with the surrounding uses in the area in that the gas facility is adjacent to a substation and two large solar farms. There are two single-family homes located to the west and east of the facility. The substation will minimize the views to the east of the proposed facility, and the solar farm and vacant land will reduce the visual impact looking west. The gas pipeline will be located underground within the right-of-way of CR 129 and will cross several roads and driveways. The pipeline will be compatible with the surrounding area.

Ground Nesting Birds: The gas facility site and pipeline alignment contain a variety of grasses and forbs. The applicant's consultant did not observe any ground nests at the gas facility site or pipeline alignment. However, since ground-nesting birds may be present during the migratory bird nesting season (April 1 through August 30), CPW recommends starting construction of the facility outside of the migratory bird breeding season to reduce the likelihood of ground-nesting birds nesting in the project area. This has been set as a condition of approval.

Raptor Nests: Two raptor nests were observed within 0.5 miles of the pipeline alignment. Both nests were not active, therefore, no limitations to the timing of construction are necessary.

Burrowing Owls: Burrowing Owls establish their nests in prairie dog burrows. No prairie dogs were present on the gas facility site or within the pipeline alignment. No action is necessary.

Pronghorn Winter Concentration High Priority Habitat: This project occurs within the mapped Pronghorn winter concentration area. CPW recommends construction outside of the winter season from January 1 - April 30. This has been set as a condition of approval.

Wetlands: No wetlands are present on the facility site. The two drainageways the pipeline crosses will not be impacted since boring or horizontal directional drilling under these areas will be used. No jurisdictional determination is required by the U.S. Army Corps of Engineers since the pipeline will not be impacting any wetlands or waterbodies in the pipeline corridor.

C. Allow for the efficient and adequate provision of public services. Applicable public services include, but are not limited to, police, fire, schools, parks, and libraries.

The development can be served by the applicable public services, including the Bennett-Watkins Fire District and the Arapahoe County Sheriff's Office. The sheriff's office has no comments, and the fire district has no objections provided their comments are addressed. A condition of approval has been set regarding this request.

Since this development contains no residential units, services for schools, parks, and libraries are not applicable.

D. Enhance convenience for the present and future residents of Arapahoe County by ensuring that appropriate supporting activities, such as employment, housing, leisure time, and retail centers, are in close proximity to one another.

It is anticipated that Arapahoe County's economy will benefit through the creation of jobs during and after the construction of the facility. There will be increased revenues for local businesses that provide goods and services to the project and employees. After construction, operators monitoring the gas facility will be hired, who may continue to add to the County's economy through food, services, and possibly housing.

E. Ensure that public health and safety are adequately protected against natural and manmade hazards, which include, but are not limited to, traffic noise, water pollution, airport hazards, and flooding.

The subject parcel and pipeline are not within the 100-year floodplain, earthquake or fault zones, or airport-influence area.

The project is expected to cause minor nuisances, such as increased traffic, dust, and noise, during construction. The applicant believes that no major sources of noise, dust, glare, fumes, vibration, or odors will be generated from this facility and pipeline after construction.

During construction, dust suppression techniques, such as watering, will be implemented by watering roads and site construction areas. All construction will occur during the day; no nighttime construction is expected.

The applicant has indicated that there will be no significant increase in ambient air pollutant concentrations and has received a Minor Stationary Air Permit (Permit Number: 24AR0822 (Issuance 1), Plant AIRS ID: 005-1804) from the Colorado Department of Public Health and Environment (CDPHE). Any potential impacts from construction equipment (exhaust from diesel or gas-fueled) will be minimized by federal design standards imposed at the time of manufacture that comply with the Environmental Protection Agency. The fuel purchased will comply with regulations established by federal and state air pollution control regulations.

The project will not impact access to nearby residences during construction of the site and pipeline. Temporary safety fences will be erected along the construction right-of-way in areas where construction activities will occur near public roads or near residences. Following construction, areas will be restored to preconstruction conditions.

Once the gas facility is in operation, the applicant anticipates that there will be no increase in glare, dust, fumes, vibration, or odors. The equipment purchased for the project will include provisions for noise attenuation to the greatest extent possible and specifications to meet specific CRS industrial noise limits, which are: 80 decibels (dB(A)) from 7:00 a.m. to 7:00 p.m. and 75 dB(A) from 7:00 p.m. to 7:00 a.m. As per the Noise Study, the maximum noise generated at the property is 72 dB(A), which conforms to the state's noise standards.

F. Provide for accessibility within the proposed development, and between the development and existing adjacent uses. Adequate on-site interior traffic circulation, public transit, pedestrian avenues, parking, and thoroughfare connections are all factors to be examined when determining the accessibility of a site.

The proposed facility is accessed from E. Belleview Avenue, and CR 129 will provide access for a temporary laydown yard that is needed for the construction stage of the facility. A 20-foot-wide road is proposed to provide internal circulation, and employee parking is provided.

The project is remote and is not on a public transit route or near any pedestrian pathways.

G. Minimize disruption to existing physiographic features, including vegetation, streams, lakes, soil types, and other relevant topographical elements.

The existing property has the Brick Center substation located in the center of the subject property. To the east and west of this facility, the landscape consists of grasses and forbs. There are no wetlands, streams, lakes, or topographic features on the property. The pipeline is located within the right-of-way of CR 129 and contains mainly grasses. The pipeline does cross two drainageways that will not be impacted since the pipeline will be installed by either boring or horizontal directional drilling.

The gas facility contains Hydrologic Soil Group C. Type C soils have moderate infiltration rates and moderate to high runoff potential. The geotechnical investigative report provides design and construction methods to reduce any risk or hazards associated with subsurface conditions, including expansive soils. The use of deep foundations (drilled piers) for the large equipment, such as the CTGs, should reduce any effects that the expansive soil conditions would have.

The pipeline alignment contains Fondis silt loam, 3 to 5 percent slopes, (well drained and derived from loamy and silty parent material soils), Weld-Deertrail silt loams, 0 to 3 percent slopes (well drained and derived from loam silty and clayey eolian deposits), Renohill-Buick loams, 3 to 9 percent slopes (are well drained and derived from loam silty and clayey alluvium). The remaining soils consist of loams, clay loams, and silt loams,

generally found on drainageways, and terraces derived from loam clayey materials, as well as alluvium and eolian deposits. Soils within the pipeline alignment have a low corrosion of concrete potential and a moderate to high corrosion of steel potential. Although the majority of the soil types within the corridor are listed as either having a moderate or high corrosion potential, these ratings are only applicable to uncoated steel. The buried pipeline would be coated, and cathodic protection would be implemented to ensure corrosion protection.

H. Ensure that the amenities provided adequately enhance the quality of life in the area, by creating a comfortable and aesthetically enjoyable environment through conventions such as the preservation of mountain views, the creation of landscaped open areas, and the establishment of recreational activities.

The areas and properties around the project site consist of agricultural and large solar facilities. There are two residents within the vicinity of the gas facility, one to the west and another to the east. The existing substation with its transmission towers will provide a backdrop for the proposed gas plant's 80-foot towers, which will assist in reducing the visual impact of the facility. See below. The stacks are required to be at least 80 feet in height to meet the air permit mitigation requirements. The pipeline will be underground and will not have any impact on the views in the area.



Looking East



Looking West

Canyon Peak Power Station – Use by Special Review Page 10 of 27 This project does not propose any open space or recreation areas to be enjoyed by the public. The public will not be allowed on the gas facility site.

I. Enhance the usable open spaces in Arapahoe County and provide sufficient unobstructed open space and recreational area to accommodate the project's residents and employees.

Open space areas surrounding the facility will serve as a buffer to the plant. No recreational uses are proposed on the parcel.

3. Application of 1041 approval criteria.

The approval criteria of the 1041 Regulations, set forth at Section V, Parts A and C therein, apply to this application for a Use by Special Review for a Major Electrical Facilities of a Private Company pursuant to the Arapahoe County Land Development Code Section. 5-3.4.B.3.

A. General Approval Criteria

1) Documentation that prior to site disturbance associated with the Proposed Project, the applicant can and will obtain all necessary property rights, permits, and approvals. The Applicant is the contract purchaser of the subject property and is pursuing this application with the consent of the property owner. The Board may, at its discretion, defer making a final decision on the application until outstanding property rights, permits, and approvals are obtained.

The applicant will obtain the necessary permits and approvals to construct and operate the proposed gas facility and the pipeline (see Appendix B13). The applicant will obtain the following permits:

State

Colorado Department of Public Health: Minor Stationary Air Permit, Construction Stormwater General Permit, Hydrostatic Testing Permit.

County

Grading, Erosion, and Sediment Control Permit, Right-of-Way Use Permit, Truck and Traffic Permits

Other

Colorado Division of Oil and Public Safety: Underground Storage/Aboveground Storage Tanks

2) The Project considers the relevant provisions of the regional water quality plans.

The subject site is located within the South Platte River Watershed, with no streams, lakes, or surface water features within or near the area. Runoff from the facility site flows into an on-site detention pond and is then released into a ditch along the south property line of the property. Eventually, this water will reach Kiowa Creek. The detention pond is designed to handle up to a 100-year, 1-hour storm, in compliance with Arapahoe County and CDPHE stormwater requirements. The site is not within a

floodplain, and Best Management Practices, including a Stormwater Pollution Prevention Plan (SWPPP) and Grading, Erosion, and Sediment Control (GESC), will minimize impacts during construction and operation.

3) The applicant has the necessary expertise and financial capability to develop and operate the Proposed Project consistent with all requirements and conditions.

Canyon Peak Power is an owned subsidiary of Kindle Energy LLC (Kindle), and Kindle is an owned portfolio company of Blackstone Inc., one of the world's leading investment firms. Blackstone seeks to create a positive economic impact and longterm value for its investors, the companies it invests in, and the communities in which it works. Founded in 1985 and publicly listed since 2007, Blackstone is a leading global alternative asset manager with over one trillion dollars of total assets under management.

Kindle invests, operates, and manages power generation assets in North America and currently manages and operates 8.7 gigawatts (GW) of generation located in the Midwest that is capable of powering approximately 6.9 million homes. Kindle also has another project (Mountain Peak Power Station) similar to this application, located in Weld County, Colorado. This project has been approved by Weld County and is currently under construction.

4) *The project is technically and financially feasible.*

Kindle is a wholly owned portfolio company of Blackstone Inc., one of the world's leading investment firms. Blackstone is a leading global alternative asset manager with over one trillion dollars of total assets under management. Kindle is developing, managing, and operating assets both internationally and domestically, and has over 25 years of experience in the power generation industry.

Kindle is developing over 6.6 GW in projects. Currently, Kindle is overseeing the construction of two facilities that it developed, contracted, and financed. These projects are the Magnolia Power Generating and Mountain Peak Power Stations. These projects represent almost 900 MW of greenfield development and over one billion dollars of total investment, with expected commercial operation in 2025. Kindle also has experience managing power generation facilities in Ohio, Indiana, Louisiana, and Texas.

Canyon Peak Power has employed consultants who have legal and technical expertise to develop the project. The consultants are industry professionals with backgrounds in developing projects that are similar to this project, enabling the project to meet or comply with all national codes, industry standards, and federal, state, and local requirements.

The applicant has an existing project very similar to Canyon Peak Power Station, the Mountain Peak Power Station, currently under construction in Weld County. The Mountain Peak Power Station uses the same technology and equipment to generate power for an existing electric cooperative in Weld County. Similarly with CORE, this other project is enabling a Colorado electrical cooperative to increase its renewable power generation capabilities while also increasing its power grid reliability.

5) The Proposed Project is not subject to significant risk from natural hazards.

There are no known significant risks from natural hazards on the facility property or pipeline. Neither are located within the 100-year floodplain or has topography constraints.

6) *The Proposed Project is in general conformity with the applicable comprehensive plans.*

See Analysis of the Use by Special Review Application, 1. Comprehensive Plan of this report.

7) The Proposed Project will not have a significant adverse effect on the capability of local government to provide services or exceed the capacity of service delivery systems.

The facility and pipeline will not require expansion of local government services. The project will not have a significant adverse effect on the capability of local government to provide services and will not exceed the capacity of service delivery systems. This includes no adverse impacts on or increase capacity or demand for roads, schools, water and wastewater treatment, water supply, transportation, infrastructure, or housing, and law enforcement to accommodate development.

Traffic after construction and during normal operations will have a negligible impact on current County traffic loads; therefore, operation of the project will not impact the existing transportation network in Arapahoe County. The limited number of operators for the power plant will also not adversely impact local traffic. This includes deliveries for plant operations.

8) The Proposed Project will not create an undue financial burden on existing or future residents of the County.

This project will not place a financial burden on the existing or future residents of Arapahoe County. Public funding for the project is not required and will be financed by the applicant or affiliated entity. The project will result in increased tax revenues for Arapahoe County.

This project will increase the availability and reliability of electrical service provided by CORE. This is a direct benefit to the cooperative members, including residential, commercial, and industrial developments within Arapahoe County. This project will also provide firm pricing of electric power when renewable power is unavailable to CORE. Rather than having to import power at high market prices during periods of increased demand, CORE will have Canyon Peak available to maintain reliable and cost-effective power to its cooperative members.

9) The Proposed Project will not significantly degrade any substantial sector of the local economy.

The project will provide reliability to CORE's service area within the Town of Bennett and throughout Arapahoe County and Douglas County. Additionally, the project will facilitate a transition to more renewable energy consumption by local businesses, residents, and public facilities.

The project will benefit Arapahoe County's economy through the jobs that are created during construction and the increased revenues to local businesses that provide goods and services to the project, as well as its contractors and employees. This includes goods and services used by employees and contractors throughout the development and construction of the project.

The proposed facility will enhance the local economy by improving the reliability of the power grid, facilitating the transition to reliable renewable power, and making the County more attractive to companies that are working to reduce their carbon footprints or improve their access to reliable electricity.

10) The Proposed Project will not unduly degrade the quality or quantity of recreational opportunities and experience.

There are no hiking or biking trails located on the site or near the project. The Kiowa Creek Sporting Club is located approximately 0.5 miles northeast of this project but is not accessed or impacted by this proposal. The project location does not currently provide any recreational opportunities; therefore, it will not negatively impact any recreational uses.

11) The planning, design, and operation of the Proposed Project will reflect principles of resource conservation, energy efficiency, and recycling or reuse.

The project is to provide reliable electrical capacity to support CORE and Colorado's transition to renewable energy resources. The project proposes combustion turbine generator technology to produce efficient power generation, and the design is to employ industry standards for energy preservation, so that no heat or energy sources are wasted.

The project enables CORE to transition to cleaner energy sources while maintaining power grid reliability. Specifically, Canyon Peak Power Station is designed to be available when renewables cannot meet CORE's electrical demand. Natural gas is cleaner burning than many traditional fuel sources, such as coal, and is considered a "bridge" fuel between coal and renewable energy sources (e.g., wind and solar resources) that are currently unable to meet demand without supplementing other energy sources. Furthermore, the project's pipeline transporting natural gas to the plant will reduce vehicle trips to the site, thus reducing air emissions.

The project is also proposing to minimize scrap materials to the maximum extent possible at the end of the operating lifespan (25 years), but could operate for longer if commercially needed. Decommissioning the facility will include dismantling and removing equipment, structures, and construction materials. Where possible, the resale of equipment will be pursued depending on its useful life. Otherwise, equipment and materials will be recycled to the greatest extent possible. The site will be rehabilitated and restored with vegetation to restore the site.

12) The Proposed Project will not significantly degrade the environment.

a. Air quality.

The facility is situated in the Denver Metropolitan/North Front Range, an area that struggles with ozone pollution. Current ozone levels are already above acceptable limits. The project will implement various emission controls and mitigation measures to reduce environmental impacts, including Dry Low Emission technology, selective catalytic reduction, and catalytic oxidation (CatOx) systems on combustion turbines to limit NOx, VOCs, and other pollutants. Additionally, the project will monitor emissions, control construction dust, and use Best Management Practices like equipment maintenance, low-sulfur fuel, and minimizing engine idling to mitigate air quality impacts. To the extent the proposed facility supports the development of renewable power resources (principally solar and wind), it will reduce emissions related to power generation elsewhere in Colorado and implement Xcel's state-approved clean energy plan.

The applicant believes the facility supports the state's clean energy plan as follows:

- In 2023, CORE submitted a Clean Energy Plan to CDPHE. The plan outlined a path to an 80% reduction in greenhouse gas emissions from a 2005 baseline by 2030, consistent with the requirements of CRS 25-7-105. A portfolio of wind and solar generation, along with battery storage technology and natural gas backup, is needed to provide a flexible and responsible portfolio in a rapidly evolving energy landscape to meet these state requirements.
- CORE's Clean Energy Plan lays out separate, though similar, emissions reductions associated with the resources used to supply CORE's retail electric load.
- The majority of the energy used to serve CORE's retail load is expected to come from renewable resources, including solar, wind, and hydroelectric generation, by 2030.

During construction, dust control measures will be taken to prevent dust from becoming airborne.

The facility has received from CDPHE a Minor Stationary Air Permit (Permit Number: 24AR0822 (Issuance 1), Plant AIRS ID: 005-1804).

b. Visual quality.

The visual quality assessment found that the facility area consists of open high plains and herbaceous vegetation, with no tree canopy, streams, or lakes nearby. The flat landscape lacks scenic vistas.

The facility is surrounded and buffered by solar array development to the north, east, and south, and the existing Brick Center Substation to the west. The view of the proposed 80-foot-tall stacks will be less impactful with the surrounding land uses in the area. Additionally, the project is situated away from residential areas, minimizing visibility and impacts on the public. The stack's height is necessary in order to meet the state's air permit mitigation requirements.

The underground pipeline will not have any visual impacts on the surrounding area.

c. Surface water quality.

A detention pond is proposed on the subject site. The GESC Plan will be implemented during construction to maintain water quality and sediment control.

d. Groundwater quality.

The facility will not require groundwater resources or wells, and trenching will be above any groundwater according to nearby wells. The pipeline will cross two waterbodies, and impacts to aquatic features will be avoided using boring or horizontal directional drilling methods to install the pipeline underneath these features. Best practices will be implemented to prevent contamination and spills in both the facility and pipeline areas. This project is expected to have no impact on groundwater quality or quantity.

e. Wetlands, floodplains, streambed meander limits, recharging areas, and riparian areas.

There are no wetlands, streams, recharging, or riparian areas on the facility site. The facility is also out of the 100-year floodplain.

Two water bodies were identified within the pipeline route. All mapped aquatic features will be avoided using either boring or horizontal directional drilling methods to install the pipeline underneath these features. The applicant's

environmental report has indicated that the pipeline will not impact any wetlands or riparian areas.

f. Terrestrial and aquatic animal life.

The facility area consists of degraded shortgrass prairie with mainly non-native grasses. Due to the site's vegetation, the applicant's environmental consultant suggested that construction activities should be scheduled outside the migratory bird breeding season (March to August). This consultant also observed a Monarch butterfly, but believed it was passing through the area since no food sources were present on the site.

The pipeline will be buried within the right-of-way of CR 129. Presently, the vegetation within the right-of-way is mainly grass. The pipeline will cross two waterbodies but will be bored or horizontally drilled to avoid impacts to these areas. Areas disturbed during construction will be reseeded with an approved seed mix. The pipeline will have minimal impacts on terrestrial and aquatic animal life.

See Section 2.B. for further discussion on animal life.

g. Terrestrial and aquatic plant life.

The applicant's environmental consultant indicates that the facility area does not support federal, or state threatened and endangered species or their associated habitat. The shortgrass prairie identified within the facility's area is heavily degraded and is expected to be impacted by the proposed project. Once site disturbance is complete, the consultant recommends using native seed mixes to stabilize the ground and provide habitat following construction.

The pipeline will be buried and located within the existing right-of-way of CR 129. The route corridor consists mainly of grasses. Two federally protected plant species, Ute-ladies' tresses and western prairie fringed orchid, are listed with the potential to occur within the pipeline corridor. Based on the applicant's consultant's field survey, the corridor lacks potentially suitable habitat for these species, and neither species is known to occur in Arapahoe County. Special status plant species are unlikely to occur in the corridor, and since the pipeline will be buried and reseeded, the pipeline is expected to have minimal impact on terrestrial and aquatic plant life.

h. Soil and geologic conditions.

See Section 2. G.

13) The Proposed Project will not cause a nuisance.

The project is expected to cause minor impacts and those will be addressed as follows:

<u>Traffic</u>: During construction, temporary safety fences will be erected along the construction right-of-way in areas where construction activities will occur near a public road or residence. Once the facility is operational, the traffic generated by two employees every 12 hours and deliveries will be minimal.

<u>Dust</u>: Dust suppression techniques, such as watering, will be implemented during construction. The key to dust control is through watering roads and site construction areas. Impacts from the use of heavy equipment will be minimized to the extent possible. All construction will occur during the day, no nighttime construction is expected.

<u>Noise</u>: The applicant commissioned a noise study for the proposed facility, see Appendix B17. The noise produced by the equipment used in the facility is anticipated to operate at 72 dB(A) or less at the property lines. This means that the facility is under the maximum permissible noise level for "industrial use" under C.R.S. § 25-12-103 ("Noise Statute"), which is the applicable noise standard. As per state statute, the industrial noise levels are 80 dB(A) from 7:00 a.m. to 7:00 p.m. and 75 dB(A) from 7:00 p.m. to the next 7:00 a.m.

<u>Air Pollution</u>: The Minor Stationary Air Permit issued by CDPHE has been obtained and will address air emission controls. Any potential impacts from construction equipment, exhaust from diesel or gas fuel, will be minimized by federal design standards imposed at the time of manufacture that comply with the Environmental Protection Agency. The fuel purchased will comply with regulations established by federal and state air pollution control regulations. Additionally, the Construction Stormwater Permit issued by the CDPHE will address fugitive dust mitigation.

<u>Lighting</u>: Lighting of the facility will be provided using shielded fixtures that comply with Arapahoe County illumination standards.

14) *The Proposed Project will not significantly degrade areas of paleontological, historic, or archaeological importance.*

Facility Area

The applicant has conducted a records search, and no cultural resources or prehistoric finds have been previously identified on the facility site. However, due to the presence of an archaeological site containing human remains within ½ mile, the applicant's consultant recommends an inadvertent discovery clause (see Appendix D), as well as archeological monitoring of earthworks during construction. A condition of approval has been set to address this matter.

Pipeline

The applicant's consultant conducted an official file search through the Colorado Office of Archaeology and Historic Preservation (OAHP) in November 2024. The

official OAHP file search results indicated that one cultural resource inventory has been previously completed within a small portion of the pipeline corridor. The file search also identified one previously recorded resource, the Brick Center School, present within the corridor. The school is visible on a historical aerial image and historical USGS quadrangles. However, later modern maps and aerial images indicate the school is no longer extant and the area has been converted into agricultural land. There are no historic properties listed in the National Register of Historic Places or the State Register of Historic Places, no National Historic Landmarks, Historic Monuments, or National Historic Trails are recorded within five miles of the Pipeline area. Historical maps and aerial imagery indicate that the majority of the pipeline corridor has historically remained agricultural land since at least the 1950s. Small portions of the corridor have experienced other disturbances, such as pipeline construction. Previous infrastructure developments paired with longterm agricultural use in the corridor and the surrounding area limit the potential for intact archaeological resources to be present on the ground surface or shallowly buried.

- 15) The Proposed Project will not result in an unreasonable risk of releases of hazardous materials.
 - a. Plans for compliance with federal and State handling, storage, disposal, and transportation requirements.
 - b. Use of waste minimization techniques.
 - c. Adequacy of spill prevention and response plans.

The project will implement a Spill Prevention, Control and Countermeasure Plan (SPCC) that will prescribe how hazardous materials are to be handled, stored, and transported during construction and facility operations. The SPCC will ensure there will not be an unreasonable risk of releases of hazardous materials during the construction of operation.

The facility will not have any buried tanks containing hazardous materials. All equipment at the plant that contains hazardous fluids will have secondary containment measures to prevent the release of any material. This includes special enclosures on equipment and pits/sumps in equipment foundations to collect and prevent the release of any hazardous materials. During operation, the facility will have a single location for storage of hazardous fluids: a storage shed with secondary containment for lubricating oils required for equipment maintenance. The shed will be located by the control trailer on the east side of the facility.

The facility will use aqueous ammonia (with a concentration of 19% or less by weight) in the SCR system to further reduce nitrogen oxide (NOx) emissions. The SCR system uses aqueous ammonia as a reagent to catalytically convert NOx emissions into nitrogen and oxygen. The 19% aqueous ammonia is regulated under the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard.

The facility will implement effective containment measures into the design to mitigate the effects of this hazardous material in the event of a leak or spill. The aqueous ammonia storage tank (20,000 gallons), the Truck Transfer Unit, and the ammonia forwarding pump skid are all situated within an ammonia containment volume that is at least 110% of the tank's volume. This containment is constructed below grade, leveraging the density of ammonia, which is greater than air, causing any released vapor to settle within the containment area rather than disperse. This design is critical for multiple safety and environmental reasons. In the event of a leak or spill, the below-grade containment ensures that ammonia remains confined to a controlled area, preventing its spread to other parts of the facility or the surrounding environment. By limiting dispersion, this design reduces the risk of contamination and mitigates potential hazards. Additionally, since ammonia is highly flammable, the containment provides an extra layer of protection by preventing the spread of vapors, thereby reducing the risk of ignition. This setup also enhances emergency response efforts by localizing any release within a designated, controlled area, facilitating safer and more efficient mitigation measures.

The potential for release of hazardous materials during operation of the existing pipelines (located west of the facility) will be minimized by constructing the project in accordance with all applicable federal and state safety regulations for pipelines. These underground pipelines will be left undisturbed.

During construction, appropriate measures will be taken to control or contain any spills, and in the unlikely event of a spill, the appropriate steps will be followed in accordance with federal, state, and local requirements. No hazardous or dangerous materials will be stored or released as a result of the development or operation of the facility.

The pipeline will be constructed in accordance with applicable federal and state safety regulations for pipelines to minimize the risk of spills of hazardous materials. Waste generated during construction activities will be properly disposed of. Enclosed containment will be provided for trash disposal. Construction waste, including trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials, will be removed and taken to a disposal facility authorized to accept such materials.

The applicant will develop an SPCC plan for the pipeline, as required, to minimize the potential for release of hazardous materials. The SPCC plan will be developed in accordance with the Oil Pollution Act of 1990, as applicable. The applicant will also develop a Stormwater Pollution Prevention Plan (SWPPP) for construction. The applicant will not have any buried oil storage tanks. In the event the project's aggregate aboveground oil storage capacity exceeds 1,320 gallons in containers with storage capacity equal to or greater than 55 gallons during commercial operations, the applicant will develop and implement an SPCC plan in accordance with 40 CFR 112. The applicant's GESC Report, including spill containment and control measures, was provided as Appendix B5 (1-Q24-063-GESC Report) to the 1041 Application. In compliance with the Colorado Department of Safety, the project must obtain a Construction Stormwater General Permit and will develop a Stormwater Management Plan, including a spill prevention and control plan, prior to commencement of construction activities.

16) The benefits accruing to the County and its citizens from the proposed activity outweigh the losses of any resources within the County or the losses of opportunities to develop such resources.

The project will benefit the County as a whole by allowing CORE to produce electricity through increased use of renewable power sources. The project provides CORE and its cooperative members with reliable electricity and is not subject to fluctuating electricity prices when renewable power is not available. CORE's ability to continue adding more renewable sources of power in the future will also accrue with the project in operation. The project only requires the use of natural gas to operate and generate electricity. No water or other resources are needed for the operation of the facility. No water well will be required, so the facility's operations will not affect the existing area aquifers. The only water required for the plant is firewater and potable water for the control trailer, which will be filled by permitted water suppliers. This will protect the aquifer for residents around and near the site. The project does not remove or restrict the ability to develop existing resources within the County.

The Project benefits the County and its citizens and poses no risk of losses of any resources within the County, or the opportunity to develop such resources.

17) *The Proposed Project is the best alternative available based on consideration of need, existing technology, cost, impact, and these regulations.*

The proposed location for the facility is optimal due to its adjacency to the existing Brick Center Substation and the need to interconnect with the electrical grid via a wired connection to a transmission-scale substation. The proposed location minimizes both costs and potential land use conflicts. The location on the east side of the existing substation and between solar facilities places the facility away from residences in the area.

18) The Proposed Project will not unduly degrade the quality or quantity of agricultural activities.

The facility and pipeline will be located on land where no current agricultural activities are occurring or will occur in the future. CORE is the owner of the property on which the facility will be located and does not participate in agricultural activities. The natural gas lateral portion of the project will be installed within the right-of-way of CR 129 and does not allow for any agricultural activities currently or in the future.

19) Cultural Resources. The Proposed Project will not significantly interfere with the preservation of cultural resources, including historical structures and sites,

agricultural resources, the rural lifestyle, and the opportunity for solitude in the natural environment.

The project does not expect to interfere with existing cultural resources, including historical structures and sites, agricultural resources, the rural lifestyle, and the opportunity for solitude in the natural environment. Any nuisances created by the project are expected to be temporary from construction activities or minor once the facility is operational. The pipeline will be buried underground, reclaimed to existing conditions, and not impactful to the surrounding area.

20) Land Use. The Proposed Project will not cause significant degradation of land use patterns in the area around the Proposed Project.

The proposed facility fits with the land use pattern of the area in which it is proposed. It is strategically located adjacent to a transmission-scale substation to which it will be connected and adjacent to existing solar farms.

21) Compliance with Regulations and Fees. The applicant has complied with all applicable provisions of these regulations and has paid all applicable fees.

The applicant has complied with all applicable provisions of the USR and has paid all applicable fees.

- C. Additional Criteria Applicable to Major Facilities of a Public Utility
 - 1. Areas around major facilities of a public utility shall be administered so as to minimize disruption of the service provided by the public utility.

The project is intended to increase the reliability of the services provided by a public utility. As such, the project will not disrupt the services provided by the public utility. Conversely, the project will enhance the services provided by CORE Electric Cooperative.

2. Areas around major facilities of a public utility shall be administered so as to preserve desirable existing community and rural patterns.

The project will be constructed on existing public utility land and will not reduce the desirability of existing communities and rural patterns. The project will not affect permanent traffic or transportation patterns.

3. Where feasible, major facilities of a public utility shall be located so as to avoid direct conflict with adopted local comprehensive, State, and regional master plans.

The project's location does not conflict with any adopted local, comprehensive, state, and regional master plans. This includes the Arapahoe County Comprehensive Plan.

4. Where feasible, major facilities of a public utility shall be located so as to minimize the dedication of new right-of-way and construction of additional infrastructure (e.g., gas pipelines, roads, and distribution lines).

The project will not affect future rights-of-way or the construction of additional infrastructure, as it will be located within the current right-of-way. Additionally, the pipeline portion of the project does not require any new above-ground infrastructure. The project will be located next to the existing Brick Center Substation, no new distribution lines will be required. The project also does not require the construction of additional permanent infrastructure such as roads, power lines, municipal water, or telecommunications facilities.

4. Referral Comments

Comments received during the referral process are summarized in the chart attached to this report. Any late responses will be conveyed verbally at the public hearing. No public comments were received regarding this application.

5. Neighborhood Meetings and Outreach

As part of the original application, the applicant was required to send out public outreach materials to inform the surrounding properties of the proposed gas facility and pipeline. A neighborhood meeting was held on November 12, 2024. Two individuals attended the meeting. The public's main concerns during the meeting are as follows:

• Whether the proposed project would generate sediment or waste that could affect the nearby solar project. Response: The project will have no waste generated during operations. There will be no

effect on the local land and adjacent properties around the project.

• Whether the proposed project would generate noise.

Response: The project uses combustion turbine generators with stacks that may produce noise during operations on the site. The project is performing a noise study to predict the anticipated noise levels during operations. The project will use the study results to have equipment vendors provide or install noise attenuation or dampening methods to reduce any noise from operations. This could be noise-dampening materials around equipment or baffles in the exhaust stack.

- Whether roads will be impacted by the proposed project.
- Response: The only impact on roads from the project will be elevated traffic levels during construction. This will mostly be construction personnel arriving and leaving the site. There will be trucks carrying materials but nothing different than what is seen around the area currently. There will be equipment deliveries that will require heavy haul transports, but this is limited to the deliveries of the combustion turbine generators.
- Whether there are hazardous materials associated with the project, and how those will be handled.

Response: The project will require the use of 19% aqueous ammonia for use in the exhaust stacks to reduce emissions. The project will have dedicated containment areas where the ammonia is unloaded into the ammonia storage tank. The unloading area will be lower than the typical grade, as ammonia is heavier than air, so it will collect in this lowered containment unloading area. Ammonia detectors and alarms will be installed.

The alarms will both be audible and will alarm in the control trailer to notify the facility operators. The only other hazardous material will be a limited amount of diesel fuel that will be stored in a tank inside the fire water pump skid, which contains an emergency diesel fire water pump.

- Whether there will be any frontage or vegetation at the proposed project site. Response: The project will be installed or erected on the east side of the property, which is east of the entrance and the existing Brick Center Substation. No changes to the frontage are anticipated. Areas that are disturbed during construction will be reclaimed and reseeded as much as possible to return areas to their existing state, where no new equipment or structures are located. There is no existing water source on site, and there is no need for water for plant operations, so no new water well will be drilled. Due to a lack of water, reseeding with native grass is the best option for vegetation.
- Whether the proposed project will create stable energy pricing. Response: The project will support CORE's main principles in sustainability, with the ability to increase the use of renewable energy sources, and investments in infrastructure to provide reliable service to members. CORE's mission is to provide reliable and stable power to its members. The ability to use increased renewable energy sources and have access to backup power with this project will allow CORE the ability to supply power at known costs to members without having to purchase power (when needed) from the spot market at unknown prices and times. Purchasing emergency power from the spot market creates uncertainty in pricing and increases financial risk to CORE. Kindle, CORE, and the members of the public discussed the above concerns. Kindle plans to continue discussion with the two members of the public who attended the Neighborhood Outreach Meeting.

No further follow-up occurred as public attendees did not contact Kindle or CORE. In addition to the members of the Neighborhood Outreach Meeting, Kindle has had phone calls from five individuals due to the property being posted with the neighborhood meeting signage. The majority of the phone calls received were questions similar to those above, along with calls in support of the project.

Staff believes the applicant has adequately fulfilled the requirement of neighborhood outreach.

STAFF FINDINGS

Staff have visited the site and reviewed the plans, supporting documentation, referral comments, and public input in response to this application. Based upon the review of applicable policies and goals in the Comprehensive Plan, review of the development regulations, and analysis of referral comments, our findings include:

- 1. The proposed UASI25-001, Canyon Creek Power Station Use by Special Review, generally conforms to the Arapahoe County Comprehensive Plan.
- 2. The proposed UASI25-001, Canyon Creek Power Station Use by Special Review, complies with the General Submittal Requirements contained in Section 2-4 of the Arapahoe County Development Application Manual and Section III, Parts C and E of the

Regulations Governing Areas and Activities of State Interest in Arapahoe County - 1041 Regulations.

- 3. The proposed UASI25-001, Canyon Creek Power Station Use by Special Review, complies with the approval criteria in Section V, Parts A and C of the Regulations Governing Areas and Activities of State Interest in Arapahoe County 1041 Regulations.
- 4. The proposed UASI25-001, Canyon Creek Power Station Use by Special Review, meets the Arapahoe County Land Development Code, including those stated in Section 5-3.4.

STAFF RECOMMENDATION

Considering the findings and other information provided herein, the staff recommends approval of Case No. UASI25-001, Canyon Creek Power Station - Use by Special Review, subject to the following conditions of approval listed under the Planning Commission's Conditional Recommendation to Approve.

CONCURRENCE

The Public Works and Development Planning and Engineering Services Divisions have reviewed the application, and the Arapahoe County Public Works and Development Department is recommending approval of this case.

The Planning Commission has alternatives that include the following:

- 1. Recommend to approve the proposed Use by Special Review.
- 2. Continue to a date certain for more information.
- 3. Recommend to deny the proposed Use by Special Review.

PLANNING COMMISSION DRAFT MOTIONS -UASI25-001, CANYON CREEK POWER STATION

Conditional Recommendation to Approve

In the case of UASI25-001, Canyon Creek Power Station - Use by Special Review, I have reviewed the staff report, including all exhibits and attachments, and have listened to the applicant's presentation and any public comment as presented at the hearing, and hereby move to recommend approval of this application based on the findings in the staff report, subject to the following conditions:

- 1. Prior to the signature of the final copy of these plans, the applicant must address Public Works and Development staff's comments and concerns.
- 2. Prior to the signature of the final copy of these plans, the applicant shall dedicate the proposed drainage easement to the County and vacate the existing drainage easement.
- 3. The applicant shall develop a wildfire mitigation plan acceptable to the local fire district before the issuance of a building permit.

- 4. The applicant shall obtain approval of the firefighting water supply plans from Bennett Watkins Fire Rescue before the issuance of a building permit.
- 5. The Decommissioning Plan Agreement shall be signed and financial assurance provided before the issuance of a Certificate of Completion by the County. The Decommissioning Plan cost estimate shall be reviewed every five years by the Planning and Building Divisions, commencing from the year of the issuance of the Certificate of Completion. This cost estimate shall be submitted by December 31st every five years.
- 6. The applicant shall comply with an inadvertent discovery clause and conduct archaeological monitoring during construction of the facility and pipeline.
- 7. The applicant shall sign a County Agreement to repair any county roads that may be damaged during construction.
- 8. The facility shall comply with the lighting standards of the Land Development Code. The lighting for the gas facility shall be directed inward, downward, and shielded. The height of the light poles shall be a maximum of 25 feet in the parking area and 20 feet elsewhere on-site.
- 9. If grading and/or construction is to occur on the project (facility site and pipeline alignment area) between April 1 through August 30, the applicant shall conduct a survey to determine if any ground-nesting birds are present during the migratory bird nesting season. The results of the survey shall be submitted to Colorado Parks and Wildlife (CPW) and the Planning Division for their review and approval. If nesting birds are present, no construction/grading is permitted during those dates without prior CPW authorization.
- 10. If grading and/or construction is to occur on the project (facility site and pipeline alignment area) between January 1 through April 30, the applicant shall conduct a survey to determine if Pronghorn are present. The results of the survey shall be submitted to CPW and the Planning Division for their review and approval. If Pronghorn are present, no construction/grading is permitted during those dates without prior CPW authorization.

Staff provides the following Draft Motions listed below as general guidance in preparing an alternative motion if the Planning Commission reaches a different determination:

Recommendation to Deny

In the case of UASI25-001, Canyon Creek Power Station - Use by Special Review, I have reviewed the staff report, including all exhibits and attachments, and have listened to the applicant's presentation and any public comment as presented at the hearing and hereby move to recommend denial of this application based on the following findings:

1. State new findings in support of denial as part of the motion.

Continue to Date Certain

In the case UASI25-001, Canyon Creek Power Station - Use by Special Review, I move to continue the hearing to [*date certain*], 6:30 p.m., to obtain additional information and to further consider the information presented.

Attachments: Engineering Staff Report Referral Comments and Applicant's Response Approval Criteria Water service email Exhibit Appendices