

## 04/16/25 BCC AGENDA SHEET

### PUBLIC HEARING

#### APP. NUMBER/OWNER/DESCRIPTION OF REQUEST

#### **UC-25-0179-USA:**

**USE PERMIT** for public utility structures (BESS facility, electric substation, and overhead transmission lines) and associated equipment.

**WAIVER OF DEVELOPMENT STANDARDS** to increase structure height.

**DESIGN REVIEW** for a proposed public utility structures and associated structures and equipment on a 49.93 acre portion of 637.36 acres in an OS (Open Space) Zone.

Generally located on the northwest side of Las Vegas Boulevard North, 4.23 miles southwest of Valley of Fire Road within the Northeast County Planning Area. MK/hw/kh (For possible action)

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#### RELATED INFORMATION:

##### **APN:**

083-16-000-001

##### **WAIVER OF DEVELOPMENT STANDARDS:**

Increase the height of public utility structures to 155 feet where 35 feet is the maximum height permitted per Section 30.02.22B (a 343% increase).

##### **LAND USE PLAN:**

NORTHEAST COUNTY - OPEN LANDS

##### **BACKGROUND:**

###### **Project Description**

###### General Summary

- Site Address: 18885 Las Vegas Boulevard North
- Site Acreage: 49.93 (site)/637.36 (overall parcel)
- Project Type: Public Utility Structures (BESS facility, electric substation, and overhead transmission lines)
- Building Height (feet): 155 (transmission line tower)/12 (control building)

###### Site Plans

The plans depict a 637.36 acre site located on the northwest side of Las Vegas Boulevard North, approximately 4.23 miles southwest of Valley of Fire Road. Existing railroad tracks are located between the project and I-15. The plans show the site will be developed into a proposed 37 acre battery energy storage system (BESS) facility with an accessory substation and overhead transmission lines on a 49.93 acre buildable site. The project site is primarily located in the northeast portion of the overall parcel generally set along Las Vegas Boulevard North. Additionally, the project site is shaped around the structures on the site with additional area on either side. The BESS facility portion of the site will encompass a majority of the eastern portion

of the project site and will be set back 100 feet from Las Vegas Boulevard North. The BESS facility will generally consist of 8 blocks of battery container structures and augmentation inverters with a total of 456 battery enclosures and 152 inverters. The blocks will consist of 1 to 2 rows and between 2 to 17 columns of 2 to 4 battery enclosure units with inverter/transformers units at the north and south end of each set of battery enclosure units. The eastern portion of the BESS facility will contain 3 blocks of BESS structures with 2 blocks containing double rows and 1 block being a single row. The double row blocks will have 17 columns of battery structures, and the single row block will have 13 columns. The western portion of the site will contain 5 blocks with these blocks generally smaller than the blocks in the east. Three of the blocks will be double rowed with 6 to 12 columns of battery structures and 2 of the blocks will be single rowed with 2 to 9 battery structure columns. Overall, the closest battery system structure will be 250 feet from the eastern property line of the parcel with the project site setback 107 feet from the east property line of the parcel. Additionally, the closet battery structures will be 148 feet from Las Vegas Boulevard North.

The proposed electric substation is located in the central portion of the project site and consists of 2 main circuits and a control building. The substation area will be 270 feet by 270 feet for a total area of 72,900 square feet (1.67 acres), with the circuits running north to south and located in the central portion of the substation area and the control building located in the western portion of the substation area. The substation equipment is shown to be set back 30 feet to 50 feet from the exterior of the substation area and the control building is set back 15 feet from the western exterior of the substation area. The plans also show 230kV overhead transmission lines will be used to connect the BESS facility and substation to a proposed NV Energy switchyard that will be located to the west of the proposed site. One transmission line will branch to the north from the northern exterior of the substation area wrapping 650 feet around to connect to the northeastern portion of the proposed switchyard. The other transmission line will start from the southern portion of the substation and run 495 feet south along the western extent of the BESS facility, then will run 780 feet to the west, approximately 80 feet from the southern boundary of the future switchyard, then will run north 1,030 feet, just to the west of the future switchyard, and will wrap around to connect with the northwestern corner of the future switchyard.

The site will be completely enclosed by a meshed screened 9 foot tall chain-link security fence with an additional line of such fencing located in the interior of the site to separate the BESS portion of the site from the substation. The security fencing will have barbed wire starting 8 feet above the ground and set back 100 feet from Las Vegas Boulevard North. Access to the site is provided by one, 24 foot wide driveway along the Las Vegas Boulevard North frontage located in central portion of the BESS portion of the site. The driveway will be gated with a 9 foot tall chain-link security gates that will be set back 85 feet from the edge of the improved portion of the right-of-way. The central driveway serving the BESS facility will connect to a network of 24 foot wide drive aisles that will connect with and encircle both sets of battery units. The drive aisles will also access 2 gated access points in the northeast and southwest corners of the substation area.

#### Landscaping

No landscaping is being proposed with this application and no landscaping is required.

### Elevations & Floor Plans

The elevations show each battery structure will consist of a painted metal exterior with latched doors on 1 of the long sides of the enclosure and 5 access panel doors on the long side of the enclosures. The battery structures will generally be 9.5 feet tall, 20 feet long, and 8 feet wide. The inverter units are shown to have a similar painted metal exterior with swing doors on 1 of the short end sides with small access panel doors on the long sides and opposite short end sides. The inverter units will generally be 7 feet tall, 22 feet long, and 6.5 feet wide. The substation equipment is shown to be constructed of painted metal and will vary in height from the main transformer circuit at 24 feet tall up to the overhead transmission line tower that will reach 155 feet tall. The control building is shown to be 1,452 square feet and 12 feet tall with painted grooved metal exteriors and gabled roof. The interior of the control building is open and will store various control equipment for the substation.

### Applicant's Justification

The proposed project meets several Master Plan Goals and Policies. The project will require transmission structures up to 155 feet in height to interconnect to the electric grid. The proposed project along with the proposed waiver of development standards is appropriate as the project is located within an area the Bureau of Land Management has prioritized for solar energy development and there are no adjacent land uses that would be negatively impacted by the requested height waiver.

### **Prior Land Use Requests**

<b>Application Number</b>	<b>Request</b>	<b>Action</b>	<b>Date</b>
ADR-22-900824	Allowed the development of 500kV overhead transmission power lines and associated equipment within an aboveground utility corridor	Approved by ZA	February 2023
ADR-19-900913	Permitted the construction of 500kV overhead transmission power lines and associated equipment within an aboveground utility corridor	Approved by ZA	January 2020
UC-18-0417	Allowed the expansion of a utility corridor and new overhead electric power lines and towers/poles	Approved by PC	July 2018
UC-1249-01	Permitted the development of a 500kV power transmission line corridor	Approved by PC	November 2001
UC-0498-01	Allowed the construction of a 500kV switchyard	Approved by PC	June 2001
UC-1346-98	Permitted the construction of a fiber optic regeneration facility	Approved by PC	September 1998
UC-0901-97	Allowed the development of 2 substations and power transmission lines up to 500kV	Approved by PC	June 1997

**Surrounding Land Use**

	<b>Planned Land Use Category</b>	<b>Zoning District (Overlay)</b>	<b>Existing Land Use</b>
North	Open Lands	OS	Public utility towers, substation, & undeveloped
South	Open Lands	OS	Union Pacific Railroad & I-15 rights-of-way & undeveloped
East	Open Lands	OS	Union Pacific Railroad & I-15 rights-of-way, public utility towers, & undeveloped
West	Open Lands	OS	Public utility towers & undeveloped

**STANDARDS FOR APPROVAL:**

The applicant shall demonstrate that the proposed request is consistent with the Master Plan and is in compliance with Title 30.

**Analysis****Comprehensive Planning**Use Permit

A special use permit is considered on a case by case basis in consideration of the standards for approval. Additionally, the use shall not result in a substantial or undue adverse effect on adjacent properties, character of the neighborhood, traffic conditions, parking, public improvements, public sites or right-of-way, or other matters affecting the public health, safety, and general welfare; and will be adequately served by public improvements, facilities, and services, and will not impose an undue burden.

The purpose of reviewing the use and location of public utility structures and facilities like BESS facilities is to assure they are located within existing utility corridors and near electric generation facilities and to assure their placement will not cause any safety and visual burdens. Staff finds there are existing and operating solar photovoltaic electric generation facilities to the north, east, and southwest of the subject site, as well as other public utility structures and an overhead transmission line corridor nearby. Given the overall visual and environmental impacts such facilities can cause, staff finds to reduce potential impacts resulting from facilities of this nature it is best to concentrate these types of structures in certain areas, which appears to be the case in this instance. Additionally, the overall use of the surrounding land is either undeveloped land or dedicated to utility equipment and power generation. Staff finds the surrounding land uses will support the proposed facility and the proposed facility would mostly likely not cause any undue impacts on the surrounding area beyond what currently exists. In terms of access, the proposed facility appears to have proper legal access from Las Vegas Boulevard North and the site will generally be unmanned, so there should be limited impact on the traffic to this lightly traveled portion of the Las Vegas Boulevard. Finally, staff finds the proposed facility will support Master Plan Policies 3.2.1, 3.2.2, and 3.5.1, which support the development of facilities which support green energy production, particularly those that will serve Southern Nevada. For these reasons, staff can support this use permit.

### Waiver of Development Standards

The applicant shall have the burden of proof to establish that the proposed request is appropriate for its proposed location by showing the following: 1) the use(s) of the area adjacent to the subject property will not be affected in a substantially adverse manner; 2) the proposal will not materially affect the health and safety of persons residing in, working in, or visiting the immediate vicinity, and will not be materially detrimental to the public welfare; and 3) the proposal will be adequately served by, and will not create an undue burden on, any public improvements, facilities, or services.

The proposed utility structures come in a variety of shapes and heights but are similar to structures that are currently found in the area. Staff finds that the number of additional towers and their heights should not create any undue burdens in the area given such towers already exist. Furthermore, the scale of the towers in relation to the site should not increase any visual burden. For these reasons, staff can support this request.

### Design Review

Development of the subject property is reviewed to determine if 1) it is compatible with adjacent development and is harmonious and compatible with development in the area; 2) the elevations, design characteristics and others architectural and aesthetic features are not unsightly or undesirable in appearance; and 3) site access and circulation do not negatively impact adjacent roadways or neighborhood traffic.

Overall, staff finds the design of the proposed substation, BESS facility, and utility towers are consistent and compatible with other public utility developments in the area, particularly those associated with electric power generation and battery storage. The proposed structures properly account for existing topographical features and will be integrated into the existing solar generation facilities nearby and the local power grid. The proposed facilities are concentrated in areas with existing electric generation far from any existing residential. Additionally, the structures should blend into the surrounding areas and will be screened from the right-of-way as needed by meshed fencing. Finally, the placement of the structures is orderly, and the overhead transmissions lines are placed in efficient and logical locations. For these reasons, staff can support this design review.

### **Staff Recommendation**

Approval.

If this request is approved, the Board and/or Commission finds that the application is consistent with the standards and purpose enumerated in the Master Plan, Title 30, and/or the Nevada Revised Statutes.

### **PRELIMINARY STAFF CONDITIONS:**

#### **Comprehensive Planning**

- Prior to the issuance of building and grading permits, or subdivision mapping, mitigate the impacts of the project including, but not limited to, issues identified by the technical reports and studies, and issues identified by the Board of County Commissioners or

commit to mitigating the impacts of the project by entering into a Development Agreement with Clark County;

- Prior to the issuance of building and grading permits, enter into a Performance Agreement with Clark County or provide evidence of an agreement with the Bureau of Land Management which includes a Decommissioning Plan specifying the actions to be taken by the Developer or County in the event construction of the project is stopped or abandoned;
- Bond or other form of financial security, acceptable to Clark County or the Bureau of Land Management, shall be provided with the Performance Agreement as security of the full and complete fulfillment of the decommissioning actions identified in the Decommissioning Plan.
- Applicant is advised within 2 years from the approval date the application must commence or the application will expire unless extended with approval of an extension of time; a substantial change in circumstances or regulations may warrant denial or added conditions to an extension of time; the extension of time may be denied if the project has not commenced or there has been no substantial work towards completion within the time specified; changes to the approved project will require a new land use application; and the applicant is solely responsible for ensuring compliance with all conditions and deadlines.

**Public Works - Development Review**

- Drainage study and compliance.

**Clark County Water Reclamation District (CCWRD)**

- Applicant is advised that there are no public sanitary sewer facilities available within the proposed development and none are planned within the next 5 years.

**TAB/CAC:**

**APPROVALS:**

**PROTESTS:**

**APPLICANT:** OPAL ENERGY STORAGE, LLC

**CONTACT:** ENERGY PROJECT SOLUTIONS, 4675 W. TECO AVENUE, SUITE 230, LAS VEGAS, NV 89118