

ELECTRICAL SUBSTATION
(TITLE 30)

TROUT CANYON RD/SR 160
(NORTHWEST COUNTY)

PUBLIC HEARING

APP. NUMBER/OWNER/DESCRIPTION OF REQUEST

UC-23-0401-USA:

USE PERMITS for the following: **1)** electric generating station (solar photovoltaic facility); **2)** electrical substation; **3)** generation intertie transmission line; **4)** allow public utility structures with all accessory/ancillary structures; **5)** eliminate landscaping and screening requirements; **6)** eliminate trash enclosure; **7)** increase the height of utility structures; **8)** noise limits; and **9)** allow signage.

DESIGN REVIEWS for the following: **1)** electric generating station (solar photovoltaic facility); **2)** electrical substation; **3)** generation intertie transmission line; **4)** public utility structures with all accessory/ancillary structures; **5)** maintenance building and all ancillary structures and facilities; and **6)** finished grade in conjunction with a proposed electric generation station, substation, and intertie transmission line on 2,400 acres in an R-U (Rural Open Land) Zone.

Generally located on the south side of SR 160 and south of Trout Canyon Road within the Northwest County Planning Area. JJ/jor/syp (For possible action)

RELATED INFORMATION:

APN:

168-00-001-025; 168-00-002-001; 168-00-002-003; 168-00-002-017; 168-00-002-019; 168-00-002-021; 168-00-002-022; 168-00-002-026; 168-00-002-028; 171-00-001-004

USE PERMITS:

1. Allow a 400 megawatt, alternating current, solar photovoltaic electric generating facility with a Battery Energy Storage System (BESS) in an R-U zone.
2. Allow a 230 kilovolt (kV) electrical substation in an R-U zone.
3. Allow a 230 kV generation intertie transmission line (gen-tie) in an R-U zone.
4. Allow public utility structures with all accessory/ancillary structures.
5. Eliminate all landscaping, parking lot landscaping, and screening requirements adjacent to street frontage (SR 160) and undeveloped parcels where required per Chapter 30.64 and Table 30.44-1.
6. Eliminate trash enclosure where required per Section 30.56.120.
7. Increase the height of public utility structures (overhead power transmission lines) up to 120 feet where 35 feet is the maximum height permitted within an R-U zone per Table 30.40-1 (a 243% increase).
8. Allow for noise exceedance (intermittent sound).
9. Allow signage in an R-U zoning district where not permitted per Chapter 30.72.

DESIGN REVIEWS:

1. Electric generating station (solar photovoltaic facility).
2. Electrical substation.
3. Generation intertie transmission line.
4. Public utility structures with all accessory/ancillary structures.
5. Maintenance building and all ancillary structures and facilities.
6. Increase finished grade to 121 inches where a maximum of 36 inches is the standard per Section 30.32.040 (a 236% increase).

LAND USE PLAN:

NORTHWEST COUNTY - OPEN LANDS

BACKGROUND:**Project Description****General Summary**

- Site Acreage: 2,400
- Project Type: Electrical substation with solar photovoltaic facility and overhead power transmission line
- Number of Stories: 1
- Building Height (feet): 20 (operations and maintenance building)/120 (monopole for transmission line)
- Square Feet: 800 (operations and maintenance building)
- Provided Parking: 5

History & Request

Assessor's Parcel Numbers (APNs) 168-00-002-026, 171-00-001-004, and 171-00-001-005 were previously approved for an electric generating station (solar photovoltaic facility - Yellow Pine 2), electrical substation, and an overhead power transmission via UC-20-0360 by the Board of County Commissioners (BCC) in October 2020.

UC-21-0302 was approved by the Board in August 2021 to construct and interconnect the previously approved electric generating station, Yellow Pine 2, to a new 230kV electrical substation and transmission line. The APNs for UC-21-0302 included the following: 168-00-002-026; 168-00-002-027; 171-00-001-004; and 171-00-001-005.

Today, the applicant is requesting an additional electric generating station (solar photovoltaic facility), a new electrical substation, and a new generation intertie transmission line. This application now includes the following APNs: 168-00-001-025; 168-00-002-001; 168-00-002-003; 168-00-002-017; 168-00-002-019; 168-00-002-021; 168-00-002-022; 168-00-002-026; 168-00-002-028; and 171-00-001-004.

Site Plan & Request

The plan depicts a proposed 400 megawatt, alternating current, solar photovoltaic electric generating facility with a Battery Energy Storage System (BESS). This project also includes a 230 kilovolt (kV) electrical substation. Lastly, a 230 kV generation intertie transmission line (gen-tie) is also a part of the site plan. The site is located on the south side of SR 160, immediately south of Trout Canyon Road. The 2,400 acre triangular shaped site includes solar module panels throughout the majority of the site. The site plan shows that a 12 foot wide access road grid like system will be implemented on-site to ensure proper access and maintenance to all ancillary structures. An internal 20 foot wide facility access road will be constructed along the north property line, parallel to SR 160. Similarly, the extension of the generation intertie transmission line (gen-tie) will also run parallel to SR 160 and will connect to the transmission line to the northwest (previously approved via UC-21-0302).

A portion of the southeast corner of the triangular shaped project site includes the following equipment and structures: a proposed wildlife and tortoise crossing area and fencing, a security fence, the proposed substation, 5 parking spaces, and the operations and maintenance building. Security fencing up to 8 feet is provided by the applicant where 15 feet is the maximum allowed per Table 30.44-1.

The applicant is requesting use permits and design reviews for the overall site, proposed structures, ancillary equipment, increased height to 120 feet (where 35 feet is the maximum in the R-U zone) for the monopoles related to the transmission line extension, increase finished grade to 121 inches which is located below the operations and maintenance building/substation area, and potential signage for the facility. Lastly, the applicant is requesting a use permit to allow noise exceedance (intermittent sound) at the property line. Per the applicant, the Battery Energy Storage System located within the substation creates a brief and minor intermittent sound that may slightly exceed County noise ordinance at the property line. There are no residential or commercial uses where this sound would create any negative ramifications.

Landscaping

No landscaping is being provided with this request.

Elevations

The plans depict a 20 foot high prefabricated maintenance building with a pitched roof panels. Lastly, the overhead transmission line poles have an overall height of 120 feet. Typical solar panel modules have an overall height of 12 feet when the panels are at a maximum tilt angle.

Floor Plans

The plans depict an 800 square foot maintenance building with an open floor plan. The building will include future storage and areas for the continued maintenance of the electrical substation.

Signage

Signage plans are not provided at this time; however, a special use permit is requested to allow future signs in conjunction with the solar facility in an R-U zoning district is requested.

Applicant's Justification

The project consists of a 400 megawatt alternating current solar photovoltaic electric generating facility, a Battery Energy Storage System (BESS), a 230 kilovolt substation, a 230 kV Generation Intertie Transmission Line (Gen-tie) that is approximately 1.5 miles and ancillary components. The project is located on approximately 2,400 acres of federal land managed by the Bureau of Land Management (BLM) located in Clark County, Nevada. The project is located approximately 38 miles west of Las Vegas and southeast of the Town of Pahrump and is bordered by Nevada SR 160. The project supports Goal 3.2 which in part states that there should be county efforts to expand the use of clean energy and achieve greenhouse gas reduction targets. Lastly, the project also supports Policy 3.2.2: Facility Siting: which states that projects may encourage the expansion of locally produced renewable/alternative energy to serve Southern Nevada by allowing for the construction and expansion of clean power generating and distribution facilities at a variety of scales.

Prior Land Use Requests

Application Number	Request	Action	Date
UC-21-0302	Allowed an electrical substation, increased the height of utility structures, allowed an overhead power transmission line, waived landscaping and screening requirements, eliminated the trash enclosure, allowed signage in conjunction with the proposed electric generating station	Approved by BCC	August 2021
UC-20-0360	Alternating current electric generating station, electrical substation, overhead power transmission line, and maintenance building	Approved by BCC	October 2020
UC-1972-94	90 mile long overhead power line that crossed portions of this site	Approved by PC	January 1994

Surrounding Land Use

	Planned Land Use Category	Zoning District	Existing Land Use
North, South, East, & West	Open Lands (open space/grazing/vacant land) & Residential (up to 1 du/10 ac)	R-U	Undeveloped

Related Applications

Application Number	Request
UC-23-0424	A use permit for an electric generating station (solar photovoltaic facility) is a related item on this agenda.

STANDARDS FOR APPROVAL:

The applicant shall demonstrate that the proposed request meets the goals and purposes of Title 30.

Analysis

Comprehensive Planning

Use Permits

A use permit is a discretionary land use application that is considered on a case by case basis in consideration of Title 30 and the Master Plan. One of several criteria the applicant must establish is that the use is appropriate at the proposed location and demonstrate the use shall not result in a substantial or undue adverse effect on adjacent properties.

The proposed project complies with the following policies from the Public Facilities and Services Element from the Master Plan: 1) encourage the development of transmission capability and interconnectivity for distributed energy, cogeneration, and alternative energy sources; 2) support the development of regional and state wide infrastructure that will efficiently deliver energy to citizens of Clark County; and 3) support the development of local alternative energy resources, providing opportunities for regional economic expansion.

The proposed electric generating station is located within the R-U zoning district, which provides for very low density residential use and other appropriate uses of the vast areas of rural land. The proposed electrical substation, maintenance building, and overhead power transmission lines are located in an area where no services are available, such as water and sanitation. Therefore, staff can support waiving the various requests associated with this development.

Design Reviews #1 through #5

Staff finds that the site design and proposed electrical substation, including the maintenance building and ancillary structures, are consistent with the requested use permit and within the guidelines established by Code. The facility is designed with consideration of protecting and minimizing any negative impact to the environment, for example, approved desert tortoise exclusion fencing will be installed and utilized outside the perimeter security fence. The tortoise proof fencing is intended to prevent federally listed endangered species (desert tortoises) from entering the solar field. The proposed facility complies with several goals and policies from the Master Plan; for example Policy 3.2.1 states, in part, that clean energy encourages the use of non-fossil fuels and renewable sources of energy. Therefore, staff is in support of these requests.

Public Works - Development Review

Design Review #6

This design review represents the maximum grade difference within the boundary of this application. This information is based on preliminary data to set the worst case scenario. Staff will continue to evaluate the site through the technical studies required for this application. Approval of this application will not prevent staff from requiring an alternate design to meet Clark County Code, Title 30, or previous land use approval.

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;
- Signage permitted as it relates to the project only.
- Applicant is advised that the installation and use of cooling systems that consumptively use water will be prohibited; that off-premise signage is not permitted; compliance with all air quality rules and regulations required by the Department of Environment and Sustainability; the County is currently rewriting Title 30 and future land use applications, including applications for extensions of time, will be reviewed for conformance with the regulations in place at the time of application; 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; and that this application must commence within 2 years of approval date or it will expire.

Public Works - Development Review

- Drainage study and compliance;
- Drainage study must demonstrate that the proposed grade elevation differences outside that allowed by Section 30.32.040(a)(9) are needed to mitigate drainage through the site.
- Applicant is advised that approval of this application will not prevent Public Works from requiring an alternate design to meet Clark County Code, Title 30, or previous land use approvals; and that Nevada Department of Transportation (NDOT) permits may be required.

Fire Prevention Bureau

- No comment.

Clark County Water Reclamation District (CCWRD)

- Applicant is advised that there are no public sanitary sewer facilities available in the vicinity of the parcel and none are planned within the next 5 years.

TAB/CAC:

APPROVALS:

PROTESTS:

APPLICANT: ENERGY PROJECT SOLUTIONS

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