

ELECTRIC GENERATING STATION
(SOLAR PHOTOVOLTAIC FACILITY)
(TITLE 30)

TECOPA SPRINGS RD/SR 160
(NORTHWEST COUNTY)

PUBLIC HEARING

APP. NUMBER/OWNER/DESCRIPTION OF REQUEST

UC-23-0424-USA:

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

WAIVER OF DEVELOPMENT STANDARDS for off-site improvements (curb, gutter, sidewalk, streetlights, and paving).

DESIGN REVIEWS for the following: **1)** electric generating station (solar photovoltaic facility) **2)** electrical substation; **3)** overhead power transmission line; **4)** maintenance and operations building; **5)** public utility structures with all accessory/ancillary structures and uses; **6)** final grading for a hillside development (slopes greater than 12%); and **7)** finished grade on a 4,457 acre portion of a 9,487.7 acre site in an R-U (Rural Open Land) Zone.

Generally located 2,800 feet southwest of SR 160 and the north side of Tecopa Springs Road (alignment) within the Northwest County Planning Area. JJ/md/syp (For possible action)

RELATED INFORMATION:

APN:

171-00-001-004; 171-00-001-005; 171-00-001-009 through 171-00-001-012; 171-00-001-017 through 171-00-001-020; 171-00-002-001 through 171-00-002-003; 171-00-002-011 through 171-00-002-012

USE PERMITS:

1. A 400 MW electric generating station (solar photovoltaic facility) in an R-U zone.
2. A 230 kV electrical substation in an R-U zone.
3. A 230 kV overhead transmission line.
4.
 - a. Increase the height of public utility structures (overhead power transmission lines) up to 200 feet where 35 feet is the maximum height permitted within an R-U zone per Table 30.40-1 (a 471.5% increase).
 - b. Increase the height of electrical substation equipment up to 90 feet where 35 feet is the maximum height permitted within an R-U zone per Table 30.40-1 (a 157.2% increase).
5. Permit public utility structures with all accessory structures.

6. a. Waive all landscaping and screening requirements adjacent to street frontage (Tecopa Springs Road, Cathedral Canyon Road, and Front Sight Road and rights-of-way) and undeveloped parcels where required per Chapter 30.64.
6. b. Waive parking lot landscaping requirements where required per Figure 30.64-14.
7. Eliminate trash enclosures where required per Section 30.56.120.
8. Waive noise standards where required per Section 30.68.020.
9. Allow signage in an R-U zoning district where not permitted per Chapter 30.72.

WAIVER OF DEVELOPMENT STANDARDS:

Waive off-site improvements (curb, gutter, sidewalk, streetlights, and paving) along Tecopa Springs Road, Cathedral Canyon Road, and Front Sight Road and rights-of-way where required per Chapter 30.52.

DESIGN REVIEWS:

1. Electric generating station (solar photovoltaic facility).
2. Electrical substation.
3. Overhead power transmission lines.
4. Maintenance and operations building.
5. Public utility structures with all accessory/ancillary structures and uses.
6. Final grading plan for a hillside development (slopes greater than 12%) where required per Section 30.56.100.h.
7. Increase finished grade up to 86 inches where a maximum of 36 inches is the standard per Section 30.32.040 (a 138.9% increase).

LAND USE PLAN:

NORTHWEST COUNTY - OPEN LANDS

BACKGROUND:

Project Description

General Summary

- Site Address: N/A
- Site Acreage: 4,457 (project site)/9,487.7 (entire site)
- Project Type: Electric generating station (solar photovoltaic facility)
- Number of Stories: 1 (maintenance and operations building & control enclosure)
- Building Height (feet): 20 (maintenance and operations building)/200 (overhead power transmission line)/90 (electrical substation equipment)/12 (control enclosure)
- Square Feet: 3,400 (maintenance and operations building)/1,452 (control enclosure)
- Parking Required/Provided: 6/6

History & Request

A portion of this project site consisting of APNs 171-00-001-004 and 171-00-001-005 was previously approved for an electric substation and an overhead transmission line via UC-21-0302 by the Board in August 2021. The purpose of this application is to connect a proposed 400 MW electric generating station (solar photovoltaic facility), along with a proposed 230 kV electrical substation and a 230 kV overhead transmission line to the previously approved electric

generating station, Trout Canyon (UC-21-0302), that also included a 230kV electrical substation and transmission line.

The applicant is now requesting use permits for an electric generating station (solar photovoltaic facility), electric substation, and an overhead transmission line on a project site consisting of 4,457 acres. The request is comprised of the following main elements: 1) photovoltaic (PV) solar modules; 2) fixed solar panels mounted on driven steel pile foundations; 3) power inverters; 4) transformers that convert the power of each inverter; 5) battery energy storage system (BESS); 6) overhead power transmission lines; 7) security fence; and 8) site access from Tecopa Springs Road. The electric generation station is located immediately west of Tecopa Springs Road on the north and south sides of Front Sight Road. The electrical substation is located at the northeast corner of the site. The 230kV overhead transmission line, that connects to the electric generating station, extends approximately 2.1 miles in length along the west side of Tecopa Springs Road, connecting to the previously approved Trout Canyon electric substation northeast of the project site.

Site Plan

This is a project of regional significance as defined by Title 30 as the development proposal is located within a half mile of a local government's jurisdiction (Nye County). The plans depict a 400 megawatt electric generating station (solar photovoltaic facility), electrical substation, maintenance and operations building with a BESS, an overhead power transmission line. The proposed development is divided into 2 components with the first part (west portion of the project site) consisting of an electric generating station, electrical substation, maintenance and operations building with a BESS, and associated equipment. Access to the project site will be granted via a private access road, secured by a 30 foot wide, 7 foot high, rolling access gate, on the west side of Tecopa Springs Road. The private access road is located immediately to the south of the electric substation. The electric generating station consists of a photovoltaic (PV) technology mounted on fixed-tilt structures consisting of PV modules. A module is a series of interconnected solar cells that creates panels. The linked assembly of PV modules and fixed-tilt structures are referred to as arrays. The fixed-tilt structures have a maximum height of 11 feet. The arrays are located within a field of standard solar blocks within the project site. Each standard solar block measures 99,856 square feet in area (316 feet wide by 316 feet deep), or 2.3 acres. Each standard solar block also contains transformers and power inverters. The rows of arrays within the standard solar blocks include multiple north/south and east/west interior service drive aisles, measuring 20 feet in width consisting of compacted native material. The setbacks to the arrays vary substantially based on plans with all required setbacks per the Development Code being met along all perimeter boundaries. The electric substation is situated at the northeast corner of the project site in an area measuring 180,625 square feet, or 4.2 acres. The maintenance and operations building, battery energy storage system, substation and control building with associated equipment are located within this area and are secured by a 7 foot high chain-link fence with barbed wire. A control enclosure building is located immediately to the north of the maintenance and operations building. Six parking spaces are located immediately to the east of the maintenance and operations building. Access to the substation is granted through the interior of the site via a network of service drive aisles. After construction is complete, vehicular access to the site will be limited to private vehicles necessary for the maintenance of the solar facility equipment. No public access to the project site is permitted; therefore, on-site

paving is not required. Tecopa Springs Road is presently constructed as a fully functional roadway providing a single paved travel lane in each direction. The proposed electric generating facility will not generate a high volume of traffic; therefore, widening of the road is not anticipated to be required. The landscaping and buffering to the less intensive uses, along the north, south, east, and west properties, is primarily undeveloped land owned by the Bureau of Land Management (BLM) and not subject to any development plans in the future. A final grading plan has also been submitted to clearly identifying the topography of the land and how it relates to the proposed development of the facility. The final grading plan demonstrates that slopes greater than 12 percent will not be disturbed. A design review to increase finished grade up to a maximum of 86 inches is part of the proposed development. The plans indicate the increase to finished grade will occur at various locations throughout the site to smooth out hills and washes to ensure positive drainage. Furthermore, the installation of the solar arrays may require grading at certain locations throughout the site. However, for the majority of the site, the final grade will match the existing grade.

The second component of the development, as depicted on the plans, consists of an overhead power transmission line located on the west side of Tecopa Springs Road, extending approximately 2.1 miles in linear length, connecting the proposed electrical substation to the previously approved Trout Canyon electrical substation (APNs 171-00-001-004 and 171-00-001-005) that was approved via UC-21-0302 by the BCC in August 2021. The transmission line will cross BLM property and will not cross any privately owned property. The area of the proposed transmission line infrastructure measures up to 420 feet in width and consists of steel poles and lattice structures measuring up to 200 feet in height.

Landscaping

No landscaping is provided with this request. The maintenance and operations building, battery energy storage system, substation and control building with associated equipment are located within this area and are secured by a 7 foot high chain-link fence with barbed wire.

Elevations

The plans depict a 19.5 foot high maintenance and operations building with prefabricated building materials consisting of metal, also enclosed by a metal roof. The building will be painted with neutral, earth tone colors. The control enclosure building measures 12 feet in height and consists of a metal exterior and metal roof. The overhead power transmission lines have an overall height of 200 feet. The equipment within the electric substation measures up to 90 feet in height.

Floor Plans

The plans depict a maintenance and operation building measuring 3,400 square feet consisting of a storage area, open office areas, restrooms, IT room, mechanical and electrical room, breakroom, and a workshop. The control enclosure building measures 1,452 square feet.

Signage

Signage is not a part of this request; however, a special use permit is requested to allow future signs in conjunction with the solar facility in an R-U zoning district.

Applicant's Justification

The applicant states that the proposed development complies with multiple goals and policies from the Master Plan including clean energy, facility siting, energy consumption, emerging technologies, and sustainable development policies. The applicant indicates perimeter and interior parking lot landscaping are not necessary as the site is surrounded by rural, vacant lands to the north, south, and west that are primarily owned by the BLM. It is anticipated that parking will only be for the minimal staff and the area for parking will only be compacted gravel for the operations and maintenance building. The proposed parking lot is not visible to public traffic and a waiver of on-site landscaping is consistent with similar projects in Clark County. The solar facility once in operation will have minimal staff that will be on-site daily, and any trash will be taken off-site daily by the maintenance and operations crews. Dumpster service is not anticipated for the project. The proposed overhead transmission line pole structures will be a maximum height of 200 feet and will be consistent with existing overhead transmission line pole heights that are adjacent. The battery energy storage system results in an intermittent sound that may slightly exceed the maximum decibels permitted by Code. The decibel exceedance is minor and occasional. The location to the state highway and Tecopa Springs Road produces greater noise than the project. Adjacent uses to the project are all energy projects, or open, undeveloped federal land, with no residential or commercial uses. A final grading plan has been included to demonstrate that the slopes greater than 12 percent will not be disturbed.

Prior Land Use Requests

| Application Number | Request | Action | Date |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------|
| UC-21-0302 | Electrical substation, increased the height of utility structures; an overhead power transmission line, waived landscaping and screening requirements, eliminated trash enclosure, and allowed signage in conjunction with the proposed electric generating station, waivers for off-site improvements (curb, gutter, sidewalk, streetlights, and partial paving), and design reviews for public utility structures, electrical substation, maintenance building, and all ancillary structures and facilities | Approved by BCC | August 2021 |
| UC-20-0360 | Alternating current electric generating station (solar photovoltaic facility) and all ancillary structures, increased the height of utility structures, electrical substation, overhead power transmission line corridor, waived landscaping and buffering, waived trash enclosure, waived on-site paving requirements, allowed signage in conjunction with the proposed electric generating station with design reviews for electric generating station (solar photovoltaic facility) with all ancillary structures and uses, public utility structures, electrical substation, office and maintenance buildings, and all ancillary structures and facilities | Approved by BCC | October 2020 |

Surrounding Land Use

| | Planned Land Use Category | Zoning District | Existing Land Use |
|-------------------------|----------------------------------|------------------------|-----------------------------|
| North, South, & East | Open Lands | R-U | Undeveloped |
| West | Open Lands | R-U | Undeveloped & Nye County |

Related Applications

| Application Number | Request |
|---------------------------|-----------------------------------------------------------------------------------------------------------------|
| UC-23-0401* | A use permit for an electric generating station (solar photovoltaic facility) is a related item on this agenda. |

*The proposed overhead transmission line will connect to the previously approved Trout Canyon (UC-21-0302) electrical substation on APN 171-00-001-004.

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.

Staff finds the request to be consistent and in harmony with the purpose, goals, and objectives of the Master Plan. The proposed development, a solar energy facility, is consistent with Clark County sustainability initiatives related to the exploration of greener technologies and alternative energy. Staff finds the request is consistent and compliant with the following Countywide Goals and Policies from the Master Plan:

- Goal 3.2, which supports County and state efforts to expand the use of clean energy and achieve GHG reduction targets.
- Policy 3.2.1, which encourages the use on non-fossil fuels and renewable sources of energy in new developments and pursues a variety of strategies to reduce energy consumption in existing developments.
- Policy 3.2.2, which supports 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.
- Policy 3.2.3, which supports implementing measures for the reduction of energy consumption and promotion of energy conservation in Clark County operations, as identified in the County's *All-In Sustainability and Climate Action Plan*.

- Policy 3.2.4 which encourages facilitating the expanded use of electric and alternative fuel vehicles and other emerging technologies that support the County's sustainability goals.
- Policy 3.2.5 which encourages growth that is sustainable for the region, in alignment with GHG reduction targets, and takes future climate impacts into consideration.

Staff finds the proposed project is consistent with Goal 5.1 of the Master Plan that encourages diversification of the economic base. The proposed facilities are located within a zoning district which is planned for very low density residential uses and other appropriate uses of the vast areas of rural land. The proposed electric generating station, electrical substation, maintenance building, and overhead power transmission lines are located within an area where no services are available, such as water and sanitation. Therefore, staff recommends approval of the use permits for the proposed facilities and supports waiving the various requests associated with this development.

Waiver of Development Standards

According to Title 30, the applicant shall have the burden of proof to establish that the proposed request is appropriate for its existing location by showing that the uses of the area adjacent to the property included in the waiver of development standards request will not be affected in a substantially adverse manner. The intent and purpose of a waiver of development standards is to modify a development standard where the provision of an alternative standard, or other factors which mitigate the impact of the relaxed standard, may justify an alternative.

Design Reviews #1 through #5

Staff finds that the site design of the proposed facility, including all associated 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. The proposed facility complies with several goals and policies from the Master Plan; therefore, staff recommends approval.

Design Review #6

The purpose of the hillside development restrictions is to provide for the reasonable, safe and aesthetic use of the steep and inconsistent topography of natural hillsides within unincorporated Clark County. Staff finds the final grading plan complies with the development restrictions as the drawings indicate that slopes greater than 12 percent will not be disturbed by the proposed development. Therefore, staff recommends approval of the final grading plan.

Public Works - Development Review

Waiver of Development Standards

Staff has no objection to the request to not install full off-sites on Tecopa Springs Road, Cathedral Canyon Road and Front Sight Road. The parcels lie within a rural open land district with no immediate neighbors, resulting in the existing non-urban standards for the roadway.

Design Review #7

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 this site is located within a Special Flood Hazard Area (SFHA) as designated by the Federal Emergency Management Agency (FEMA).

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: NOBLE SOLAR, LLC

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