



PLANNING & ZONING STAFF SUMMARY REPORT

MEETING DATE: December 27, 2022

CASE # ETZ 2022-22

REVIEWING BOARD	ROSWELL-CHAVES COUNTY EXTRATERRITORIAL ZONING AUTHORITY
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ACTION REQUESTED:	<p>Per Section 2.1.4 of the Roswell-Chaves County Extraterritorial Zoning Ordinance #80-1 and State Statute 3-21-8 NMAC.</p> <p>An Appeal of the Roswell-Chaves County Extraterritorial Planning and Zoning Commission decision to DENY Case ETZ 2022-22- <u>Rezone from R-S Rural Suburban District to I-1 Industrial District for a Community Solar Facility.</u></p> <p>Per State Statute 3-21-8.C.2 The Roswell-Chaves County ETZ Authority may, by a majority vote of all its members(3):</p> <ul style="list-style-type: none"> • Reverse any order, requirement, decision, or determination of an administrative official or commission; • Decide in favor of the appellant; or • Make any change in any order, requirement, decision, or determination of an administrative official or commission.
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LAND OWNERS & AGENT:	Mandi E. and Michael Nappier Desert Cactus Solar LLC
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LOCATION:	5307 W. 2 nd Street (Reference Only) A portion of land in the E2SW4 Sec. 34, T.10S, R.23E
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ITEM SUMMARY	<p>Staff gave a brief summary of the case at the November 15, 2022 Roswell-Chaves County ETZ Commission public hearing. Zac Gordon, of Desert Cactus Solar LLC, presented his case and answered questions from the Commission. Randy Doerhoefer, Edward Williams, Corey Hubbard, Jack Harrelson, Jon Scott and George Harris spoke against the case due to health concerns and site obstruction. The City of Roswell gave no opinion on the case. Commissioner Doerhoefer recused herself from the vote. Staff informed the Commission that there were no protests from the surrounding property owners.</p> <p>The final vote was 2-3 to approve ETZ Case 2022-22. Finding of Facts-1. Not in the best interest of the surrounding residents base on public testimony.</p> <p>Staff is in favor of the rezone. The rezone fulfills the 2016 Comprehensive Master Plans recommendations 1. It encourages new commercial or industrial uses be located in areas that are not injurious to residential neighborhoods; 2. when possible, along major highways and arterial roads. (Land Use 4.3); 3. That new solar energy facilities should be located and designed to mitigate negative impacts on surrounding residential neighborhoods (Physical Appearance 4.4). The nearest residential area consists of commercial lots, an abandoned junk yard and vacant lots.</p>
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STAFF'S REPORT

CASE # ETZ 2022-22

Mr. and Mrs. Nappier and Desert Cactus Solar LLC are requesting a rezone to I-1 Industrial for the operation of a 4.99 MW community solar facility. The owner and agent have chosen to rezone the property rather than ask for a Special Use Permit for this property so that the owner may sell the property in the future. Per Section 14.2.23, of the Roswell-Chaves County ETZ Ordinance 80-1, the ETZ Commission has determined that Solar Facilities may be permitted in the Industrial District with Conditions of Approval. The proposed solar facility would be located along West 2nd St. on the north side at approximately 5307 W. 2nd St. This address is for reference only and has not been officially assigned to the site by Staff. The proposed site is located on a very odd shaped lot. The agent has proposed to place the solar panels in two different areas of the lot with the majority of the panels on the northern part. The agent has made accommodation for the required 24-foot service, as well.

Desert Cactus Solar LLC has provided a development plan that is included in Staff's Report. The solar facility will be fenced in for security purposes. (See Project Description for details.) The facility will tie into the overhead electric line that runs along W. 2nd St. to the substation located at Eisenhower Road and 2nd St. Xcel Energy has not stated if their distribution line is sufficient for the 4.99- megawatt community solar facilities.

The properties to the west, south-southeast, north, northwest and northeast are zoned Rural Suburban District. All of the surrounding properties are vacant with the exception of the property to the west that has a residential house located on the southeast corner of the lot. The property was addressed incorrectly years ago by Staff. The property to the south-southeast is owned by the City of Roswell. The small property to the south, along W. 2nd St., is zoned C-1 Commercial.

Staff has reviewed Mitchell A. Pavao-Zuckerman's (2016 assistant professor University of Maryland) report which states that the measured ambient air temperature over a solar facility was warmer than the surrounding area by 5-7-degrees F (3-4 C), at night and that the added heat was unmeasurable and dissipated within 100 feet of the facility. The report also states the heat effect may be caused by the natural ground's, underneath the solar panels, inability to cool off as quickly as the surrounding area. (See attachment).

The 2016 Comprehensive Master Plan encourages new commercial or industrial uses be located in areas that are not injurious to residential neighborhoods and, when possible, along major highways and arterial roads. (Land Use 4.3) It also notes that new solar energy facilities should be located and designed to mitigate negative impacts on surrounding residential neighborhoods (Physical Appearance 4.4). The Future Land Use Scenario map recommends this area as Mid-Density Residential (5-10 residential homes per acre) use which is really not possible in the ETZ area due to the 5-acre minimum lot size in the ETZ area.

Because of the odd shape of the lot, the proposed zone change covers a large portion of land north of the W.2nd St. (US 70/380). The lot is slightly less than half a mile in size from south to north. The 2016 Comprehensive Master Plan does recommend Commercial and Industrial Districts along major corridors like US 70/380.

Staff is in favor of the zone change to I-1 Industrial and recommends the following Conditions of Approval:

1. Desert Cactus Solar LLC shall apply for any necessary building and electrical permits for construction of the community solar facility within one year of being awarded the solar project by the State.
2. The location and development of the community solar facility shall conform to the presented and approved site plan, included in this report. Any modification to the location or an increase in size of the facility shall require ETZ Commission's approval.
3. Desert Cactus Solar LLC shall utilize the existing electric transmission lines in the area.
4. Desert Cactus Solar LLC shall provide a de-commissioning and restoration plan for this property.
5. All lighting used on-site shall be shielded from traffic, surrounding properties and shall comply with the NM Night Sky Act.
6. An access/ driveway permit from NM Department of Transportation will be necessary for access to the proposed site.
7. All solar panels and their foundations shall be setback from all side property lines a minimum of forty (40) feet and from the front and rear property lines a minimum of eighty (80) feet.
8. A minimum six-foot security fence is required around the facility.
9. A twenty-four (24) feet wide hard pack, weather proof, service road shall be required within the facility along with an adequate turn around area at the midway point of the facility and at the further northern end of the facility for fire and other emergency vehicles.



ROSWELL- CHAVES COUNTY EXTRATERRESTRIAL ZONE

APPEAL APPLICATION

Case Number: _____ Date Received: _____ Fee: \$100 _____

Type of Request: Rezone Special Use Variance Change of Use
Appellant's Name: Mandi E. Nappier & Michael J. Nappier

Mailing Address: 512 New Mexico Drive
Roswell, NM 88203

Email (Agent: Zac Gordon, zgordon@emienergy.com) Phone Number: (Agent: Zac Gordon, 617.869.7987)

ETZ COMMISSION'S DECISION ON THIS DATE:

APPROVED on _____

DENIED on November 15, 2022

Reason for the Appeal: (Attach Letter if necessary)

We believe the rezoning application for the property should be approved because the property is not near a residential neighborhood, would not affect the growth of Roswell to the west, and is within the Commercial and Industrial Corridor. Additionally, no abutters or near neighbors opposed the application prior to or at the ETZ Commission meeting held on 11/15/2022. All of the comments in opposition were made by folks who did not live or work anywhere near the property. It appeared that those who made public comments in opposition were actually at the meeting to oppose a different project in a more residential area later on the meeting agenda.

PLEASE INCLUDE ALL DOCUMENTS, PLANS, & LETTERS.

I OR MY AGENT SHALL ATTEND THE PUBLIC HEARING IN ORDER TO FULFILL THE REQUIREMENTS OF THIS APPLICATION. FAILURE TO ATTEND MAY RESULT IN THE TERRIMINATION OF THIS APPEAL.

M Nappier Michael Nappier
Appellant's Signature

11/27/22
Date



ROSWELL- CHAVES COUNTY ETZ/ CHAVES COUNTY ZONING APPLICATION

Case Number: ETZ 2022-22 Date Received: Fee: \$ 350.00

Type of Request: [x] Rezoning [] Special Use [] Variance [] Change of Use
Owner's Name: Mandi E. Nappier & Michael J. Nappier
Mailing Address: 512 New Mexico Drive Roswell, NM 88203 Phone Number: 575-637-9955
Agent's Name: Zac Gordon
Mailing Address: 20 Park Plaza, Suite 1101 Boston, MA 02116 Phone Number: 617-869-7987

[x] Roswell-Chaves County ETZ [] Chaves County
Case Address: Parcel does not currently have an address
Legal Description: See attached recorded Notice of Option
Parcel Number: 4-131-061-225-350-000000
Present Land Use: Vacant
Intended Land Use: 4.99 MW-AC Solar Photovoltaic Facility
Present Zoning: Rural Suburban Requested Zoning: Industrial - Solar Facility
Reason for Requested: (Attach Letter if necessary) Desert Cactus Solar, LLC intends to install a 4.99 MW-AC solar photovoltaic facility to participate in the New Mexico Community Solar program. Please refer to the attached Project Narrative and Preliminary Site Plan for more information.
PLEASE INCLUDE ALL DEVELOPMENT PLANS, SITE PLANS, AND /OR BUSINESS PLANS

I ACKNOWLEDGE THAT I HAVE BEEN INFORMED OF THE DATES, TIMES, AND LOCATIONS OF THE PUBLIC HEARINGS FOR WHICH I OR MY AGENT SHALL ATTEND IN ORDER TO FULFILL THE REQUIREMENTS OF THIS APPLICATION.
Michael Nappier MICHAEL NAPPIER 10/12/2022
Owner's Signature Date

Desert Cactus Solar, LLC

Supplemental Information for Chaves County Rezoning & Special Use Permit

1. Narrative indicating the reason for the request, the purpose and use of the property.

Desert Cactus Solar, LLC, a New Mexico limited liability company (“Desert Cactus Solar”), which is a special purpose entity controlled by principals of Energy Management, Inc. (“EMI”), proposes to develop, own and operate an approximately 4.99 MW AC, 17-acre solar facility and related amenities and improvements (collectively, the “Facility”) in Chaves County, New Mexico. The facility will be located on U.S. Highway 380 in the Roswell-Chaves County ETZ, on approximately 24.5 acres of land (the “Project Site”). Desert Cactus Solar controls the Project Site through an Option to Lease with the landowner, pursuant to which Desert Cactus Solar has the unilateral right to lease the Project Site. Desert Cactus Solar intends for the Facility to be incorporated into New Mexico's forthcoming “Community Solar” initiative, a program that will allow New Mexico individuals and business to benefit from clean, renewable energy created by small-scale solar projects like the Facility. The New Mexico legislature passed the legislation authorizing Community Solar in 2021, and a Request for Proposals to participate in the program is expected to be released before the end of 2022. Desert Cactus Solar is therefore pursuing this project “at risk,” meaning that it is expending funds and performing due diligence and permitting activities prior to being awarded a capacity allocation in the Community Solar program, thus demonstrating Desert Cactus Solar's commitment to bringing solar energy to New Mexico. Desert Cactus Solar is confident that with EMI's long, broad experience in the energy sector, together with robust capital support, Desert Cactus Solar is well positioned to be successful.

Once fully permitted and awarded an allocation in the Community Solar program, Desert Cactus Solar will begin construction. Construction duration for a project of this size is expected to be approximately six months. Construction and operating activities will only occur during daylight hours.

2. Impact on Surrounding Community and Infrastructure

- i. **Potential traffic flows and impacts;**
During construction, the Project will temporarily increase traffic on county roads, but these effects will be temporary in nature and relatively minor. Project operations will contribute very little traffic, and overall the Project is anticipated to have *de minimis* effects on county services.
- ii. **Potential water and sewer needs;**
The site will be unmanned, so water and sewer service will not be needed.
- iii. **Existing infrastructure capacities and the ability of existing systems to accommodate new development;**

There is an existing U.S. Highway (US 380) adjacent to the project site. Desert Cactus Solar plans to interconnect into Southwestern Public Service Company's distribution system through an existing circuit proximate to the Project Site.

EMI through its consultant has contacted the New Mexico Department of Transportation ("NMDOT") to discuss the project and the access from US 380. Desert Cactus Solar will apply for and receive an access permit from NMDOT prior to the start of construction.

- iv. **Environmentally sensitive areas in the vicinity, areas of historical significance, or areas that contain endangered or rare species of animal and plant life;**
None noted by environmental consultant contracted by Desert Cactus Solar (SWCA Environmental Consultants)
- v. **Electric and Magnetic Fields**
Low-level electric and magnetic fields ("EMFs") are a normal part of daily life. Humans come in contact with EMFs through household appliances, distribution power lines, and many other components of our environment. The EMFs emitted by this Facility will constitute very low levels and are no different than the EMFs emitted by household appliances or the distribution power lines on US 380. The EMFs emitted by the Facility are at a very low level and dissipate quickly. Due to the dissipation qualities of EMFs there will be no change in EMF exposure to residents located in proximity to the Facility.
- vi. **Glare**
Solar panels operating at their highest efficiency will absorb as much light as possible and reflect very little light. The reflection is what causes glare, so panels are engineered to minimize reflection/glare. Any solar panel Desert Cactus Solar will utilize will include anti-reflective coating ("ARC") to minimize reflection/glare from the panel.
- vii. **Heat Islanding**
Small-scale solar projects like Desert Cactus Solar result in negligible increases in daytime ambient air temperature immediately above the panels. Such increases, if any, will dissipate rapidly beyond the perimeter of the solar array. Additionally, the panels will completely cool off in the evening. Any heat generated by the project's solar panels will therefore not present a public health burden nor will it have measurable ecological effects.
- viii. **Other Facility Details**
The Desert Cactus Solar will only utilize "Tier 1" solar panels. The panels that will be used for the Facility will hold the following environmental and safety certifications. Information regarding all of these certifications are readily available online¹

¹ <https://www.iecee.org/>; https://standardscatalog.ul.com/standards/en/standard_1703_3; <https://www.iso.org/iso-9001-quality-management.html>; <https://www.iso.org/iso-14001-environmental-management.html>; <https://www.nqa.com/en-us/certification/standards/ohsas-18001>

- IEC 61215
- IEC 61730
- UL 1703
- ISO 9001
- ISO 14001
- OHSAS 18001

These environmental and safety certifications represent the highest level of environmental responsibility and safety and are earned through quality design and rigorous testing.

3. Economic Impact

Desert Cactus Solar will provide direct economic impact during the construction period and ongoing positive impact during operation through its participation in the State of New Mexico's Community Solar program.

Construction of Desert Cactus Solar is expected to provide employment for approximately 50 craftspeople and operators during the six-to-nine-month construction period. Additionally, Desert Cactus Solar will prioritize the use of local contractors, labor, and materials adding significant direct benefit to the local economy.

Desert Cactus Solar intends to participate in the State of New Mexico's Community Solar program, which will reduce the electric bills of electric utility ratepayers in New Mexico. Community Solar programs are structured to incentivize private developers to build new solar photovoltaic projects to generate electricity. The electricity goes onto the utility grid and is counted as "credits" by the electric utility. The developer allocates these credits to individual ratepayers, and the credits offset some amount of the ratepayer's monthly electric bill. The ratepayer pays the developer the value of the credits less a negotiated discount and pays the electric utility whatever portion of their electric bill that was not offset by the credits. The credit discount is the ratepayer's savings and can be a material economic benefit over the months and years of participation in the program. New Mexico has wisely focused much of the Community Solar benefits on low-moderate income residents, so the economic impacts will disproportionately benefit these communities.

There will also be a material benefit to the applicable taxing authorities through new receipts.

4. Implementation of Best Management Practices for the development

- i. Develop and implement a SWPPP as required by the NMED Surface Water Quality Bureau and obtain coverage under a National Pollution Discharge Elimination System (NPDES) Construction General Permit from the U.S. Environmental Protection Agency (EPA) pursuant to Section 402 of the Clean Water Act, 33 U.S.C. § 1342. The SWPPP may include measures such as: silt

barrier fences to control runoff, sediment traps and basins, and minimizing exposed soils by using temporary and permanent seeding and mulching.

- ii. Equipment will be properly maintained for fluid leaks.
- iii. Employ wildland fire prevention measures during construction, including limiting vehicle travel to and within construction areas to only essential vehicles, establishing parking guidelines in remote areas, and establishing safety guidelines for construction flame and spark sources.
- iv. Desert Cactus Solar and its contractors, as appropriate, will initiate discussions with local fire districts and regional fire prevention staff prior to construction to discuss emergency procedures.
- v. As appropriate, vehicles will be equipped with fire suppression tools and equipment. Fire suppression equipment may include, but will not be limited to, shovels, buckets, and fire extinguishers.
- vi. In the unlikely event that previously undocumented cultural burial sites are identified during project construction and implementation, the New Mexico Historic Preservation Division (HPD) would be notified immediately and all work would cease within the immediate discovery footprint until a qualified archaeologist has documented the discovery and evaluated its eligibility for the National Register of Historic Places.
- vii. Follow a project-specific Unanticipated Discoveries Plan
- viii. Develop and implement a Noxious Weed and Control Management Plan for the control of noxious weeds and invasive species which could occur as a result of new surface disturbance activities at the site.
- ix. Desert Cactus Solar will comply with fugitive dust rules contained in 20.2.23 NMAC and 20.2.23.108(A)(1) NMAC. NMED's fugitive dust rules require a developer to:
 - a. prevent visible emission from fugitive dust sources that pose a threat to public health or interfere with public welfare (20.2.23.109 NMAC);
 - b. prevent visible emissions from construction or bulk material handling or storage from crossing the property lines from which it originates (20.2.23.110 NMAC);
 - c. use one or more fugitive dust control measures in accordance with 20.2.23.111 NMAC; and
 - d. develop and maintain a fugitive dust control plan in accordance with 20.2.23 NMAC, which must be available to NMED upon request.

5. Decommissioning/Reclamation/Removal/Recycling/Disposal

It is important to note that the lifecycle of the facility will likely be 30-50 years.

At the end of its useful life the facility will be decommissioned by completing the following major phases: Dismantlement, Demolition, Disposal or Recycle, and Site Stabilization, as further described below.

Dismantlement, Demolition, and Disposal or Recycle

A significant portion of the components that comprise the Facility will include recyclable or re-saleable components, including copper, aluminum, galvanized steel, and modules. Due to their re-sale monetary value, these components will be dismantled, disassembled, and recycled rather than being demolished and disposed of.

Following coordination with the local electric utility regarding timing and required procedures for disconnecting the facility from the utility distribution network, all electrical connections to the system will be disconnected and all connections will be tested locally to confirm that no electric current is running through them before proceeding. All electrical connections to the PV modules will be severed at each module, and the modules will then be removed from their framework by cutting or dismantling the connections to the supports. Modules will be removed and sold to a purchaser or recycler. In the event of a total fracture of any modules, the interior materials are silicon-based and are not hazardous. Disposal (should it be necessary) of these materials will adhere to all applicable regulations.

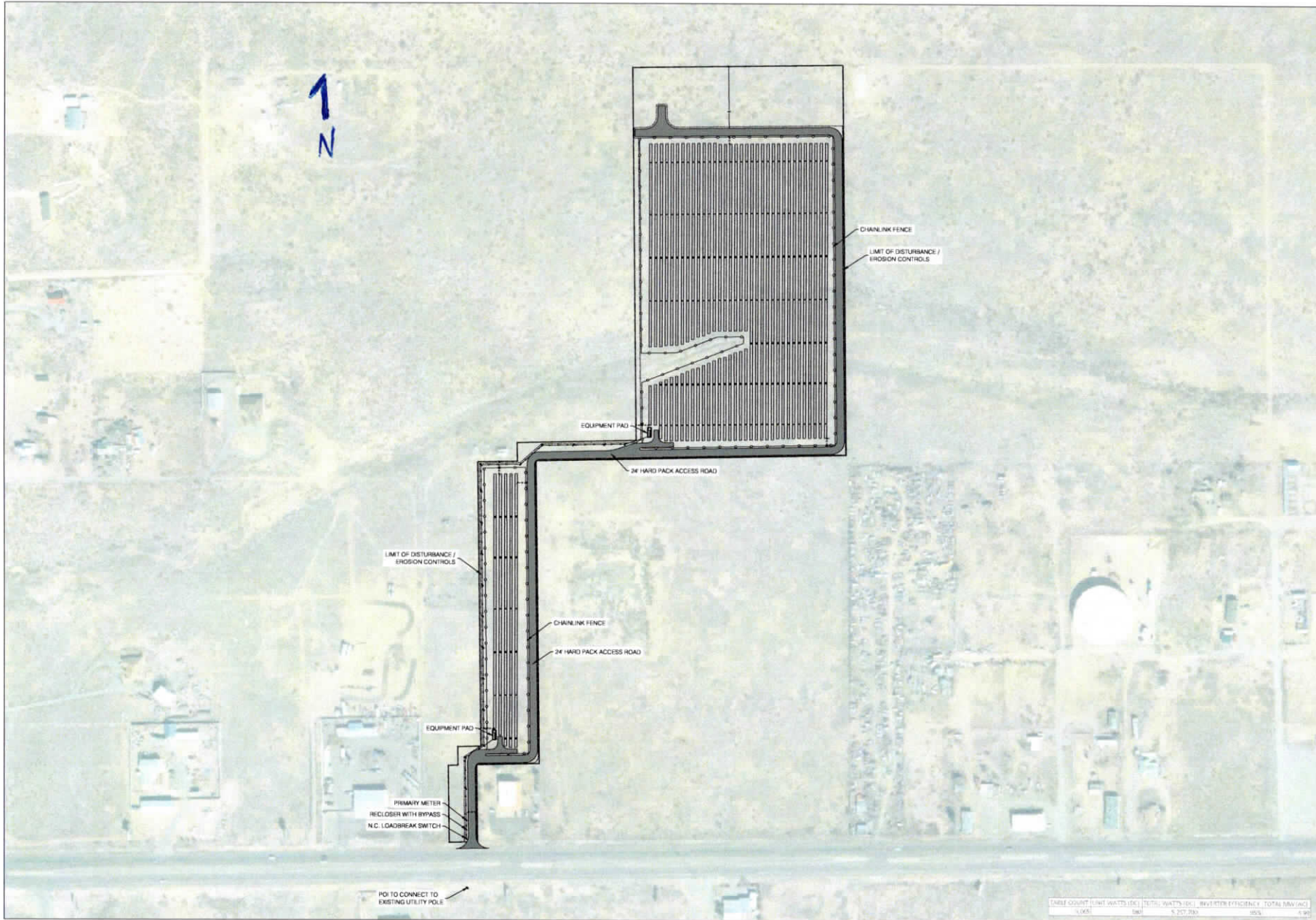
The PV mounting system framework will be dismantled and recycled. The metal support systems will be removed and recycled. All other associated structures will be demolished and removed from the site for recycling or disposal. This will include the site fence and gates, which will likely be reclaimed or recycled.

Any overhead wires will be removed from the facility and will terminate at the utility-owned connection. The access road will remain in place.

A final site walkthrough will be conducted to remove debris and/or trash generated during the decommissioning process and will include removal and proper disposal of any debris that may have been wind-blown to areas outside the immediate footprint of the facility. Sanitary facilities will be provided on-site for the workers performing the decommissioning of the Facility.

Site Stabilization

The areas of the Facility that are disturbed during decommissioning will be re-graded to establish a uniform slope and stabilized.



Prepared by
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Prepared for
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LEGEND

---	PROPOSED PANEL LINES
---	EXISTING WEIR CONTOUR OF TERRAIN
---	PROPOSED WEIR CONTOUR OF TERRAIN
---	PROPOSED ROW (50')
---	LIMIT OF DISTURBANCE & EROSION CONTROL BOUNDARY
---	CHAINLINK FENCE LINE
---	UNDISTURBED CONCRETE DRIVE
---	INTERNAL ACCESS DRIVE

GRID 10 (20'x20') SCALE: 1"=140'
 TABLE 05 (11'x17') SCALE: 1"=200'

DRAFT

Project Title
**DESERT CACTUS
 COMMUNITY SOLAR FACILITY
 PERMITTING PLAN SET**

Sheet Title
**COMMUNITY SOLAR FACILITY
 LAYOUT PLAN**

Date:	10/1/2022
Scale:	As Shown
Drawn by:	TS
Checked by:	AP
File #:	12411.00

REVISIONS		
Date	By	Note

Sheet No.
1.0

CABLE COUNT (L1-N1) WATTS (DC) | DC/AC WATTS (DC) | INVERTER EFFICIENCY | TOTAL MW (AC)
 13,000 | 100 | 97.5% | 10.0

— INDUSTRIAL ZONE

— COMMERCIAL ZONE



MARK RD.

DAYFLOWER RD.

US 70/380

RANSOM RD.

SERVANTEZ

VALENZUELA

FEATHERSTONE

CHISUM

VALENZUELA

OROZCO

CITY OF ROSWEL

CISNEROS

