2017 Pinal County
Major Comprehensive Plan Amendments

Pinal County
31 North Pinal Street,
Building F, EOC Room
Florence, AZ 85132
www.pinalcountyaz.gov

Board of Supervisors
(11/15/2017 @ 9:30 AM)
2017 Major Comprehensive Plan Recommended Motions

PZ-PA-002-17

1. **Changing one land designation to another land use designation on a specific site:** I move by Board Resolution PZ-PA-002-17 to amend the 2009 Pinal County Comprehensive Plan by changing the land use designation from Moderate Low Density Residential (1-3.5 du/ac) to Green Energy Production on 2,726.31± acres situated in a portion of Sections 25, 26, 27, 28, 33, 34, 35 & 36, T09S, R10E G&SRB&M, located northeast of the intersection of Interstate 10 (I-10) and Park Link Drive in the Picacho Area.

2. **Denial:** I move to deny PZ-PA-002-17

3. **Continuance:** I move to continue Case No. PZ-PA-002-17 to *(give specific date and time).*

4. **Continuing public hearing and remanding proposed change to the Planning and Zoning Commission:** I move to continue Case No. PZ-PA-002-17 to *(insert date and time)* and remand this case to the Planning and Zoning Commission for its recommendation on *(describe board’s proposed change to the requested amendment).*
MEETING DATE: November 15, 2017

TO: PINAL COUNTY BOARD OF SUPERVISORS

CASE NO.: PZ-PA-002-17 (Picacho Solar Facility)

CASE COORDINATOR: Enrique Bojorquez

Executive Summary:

This is a major amendment to the Pinal County Comprehensive Plan to re-designate 2,726± acres of land from Moderate Low Density Residential (1-3.5 du/ac) to Green Energy Production in the Picacho area.

If This Request is Approved:

If this major amendment to the Pinal County Comprehensive Plan is approved, the action will allow the applicant to begin the process of re-zoning the property to develop a photovoltaic energy production facility.

Staff Recommendation/Issues for Consideration/Concern:

Staff recommends approval of the request. The amendment’s location and accessibility to existing transmission line infrastructure and an electrical substation appears appropriate for energy production land uses.

LEGAL DESCRIPTION: 2,726± acres situated in a portion of Sections 25, 26, 27, 28, 33, 34, 35 and 36, T09S, R10E G&SRB&M (legal on file)

TAX PARCELS: 410-06-7000

LANDOWNER/APPLICANT: Arizona State Land Department, Landowner; SunPower Corporations Systems, Lessee, 77 Rio Robles, San Jose, CA 95134

AGENT: Tetra Tech, Inc. 2435 E. Taxidea Way, Phoenix, AZ 85048

REQUESTED ACTION & PURPOSE: A major amendment of the Pinal County Comprehensive Plan to amend the Land Use Plan from Moderate Low Density Residential (1-3.5 du/ac) to Green Energy Production on approximately 2,726± acres to develop a photovoltaic energy production facility.

LOCATION: Located northeast of the Interstate 10 (I-10) and Park Link Drive intersection, in the Picacho area.

SIZE: 2,726± acres.
STAFF FINDINGS:

Public Comment: To date, no comments in writing have been received

Public Participation:
- P&Z Work Session: 7/20/17
- BOS Work Session: 8/09/17
- Web posting and 60 day review: week of June 16, 2017
- Neighborhood Meeting: none
- CAC: 9/7/17
- P&Z: 9/21/17 (case continued)
- P&Z: 10/19/17

Other Review Agency Comments:

The State of Arizona Game and Fish Department provided comments which are attached to the correspondence section of this report.

The U.S. Bureau of Reclamation provided comments which are attached to the correspondence section of this report.

The Central Arizona Project provided comments which are attached to the correspondence section of this report.

The Picacho Peak State Park reviewed the proposal and had no comments.

The Coronado National Forest reviewed the proposal and had no comments.

The City of Apache Junction reviewed the proposal and had no comments.

The Town of Queen Creek reviewed the proposal and had no comments.

Plan Amendment Discussion: The applicant is requesting a major amendment of the Pinal County Comprehensive Plan to amend the Land Use Plan from Moderate Low Density Residential (1-3.5 du/ac) to Green Energy Production on approximately 2,726± acres. The property is currently zoned General Rural (GR) and according to the applicant is being used for grazing. The adjacent properties are zoned General Rural (GR) and also appear to be used for agricultural purposes. There are some scattered homes sites in the surrounding area along the northwest and southeast portions of the site.

The applicant is proposing to construct and operate a photovoltaic (PV) solar generation facility with an energy output of approximately 400 megawatts. An energy battery storage facility is proposed with the photovoltaic solar field. Again, the Green Energy Production designation proposed specifically allows exclusively for the location of large scale photovoltaic solar panel power generation facilities.

There are various designations within the Comprehensive Plan for adjacent properties to the site. Immediately along the north, the Comprehensive Plan has designated the area as Moderate Low Density Residential. Immediately to the south, the Comprehensive Plan has
designated the site as Moderate Low Density Residential, and High Intensity Activity Center to the southwest. Immediately to the east, the designation is Proposed Regional Park and Very Low Density Residential. To the west, the designation is Moderate Low Density Residential and High Intensity Activity Center at the intersection of Park Link Drive and the I-10. The High Intensity Activity Center designation would support a mix of uses such as professional office, business park, and industrial often in a campus-like setting, as well as high and medium density residential uses.

Approximately a half mile to the west of the site is a strip of land parallel to the I-10 designated as Employment. The Employment designation would also support uses such as industrial, office, business park, warehousing, and power plants such as electrical generation facilities. Approximately two miles south of the subject property, west of the I-10, is an area designated as General Public Facilities/Services which allows for large public and quasi-public facilities that require significant space such as power plants, landfills, solid waste transfer stations, wastewater facilities, water campuses, and concentrations of public buildings.

In the area of the proposed map amendment designation change there is infrastructure such as 115 and 500 kV lines. The Tortolita Substation is located approximately 3 miles south of the subject property. Due to proximity of the current electrical infrastructure, road infrastructure, proposed land area, and the area being sparsely populated this proposed designation change along with the use being proposed may work well in this area.

STAFF RECOMMENDATION:

After a detailed review of the request, Pinal County Comprehensive Plan and the Pinal County Development Services Code, Staff recommends approval of this request. However, in addition to staff recommendations, should the Planning and Zoning Commission find, after the presentation of the applicant and together with the testimony and evidence presented at the public hearing, that this Major Comprehensive Plan amendment is needed and necessary at this location and time, will not negatively impact adjacent properties, will promote orderly growth and development of the County and will be compatible and consistent with the applicable goals and policies of the Pinal County Comprehensive Plan, then staff recommends that the Planning and Zoning Commission forward PZ-PA-002-17, to the Board of Supervisors with a favorable recommendation. If the Planning and Zoning Commission cannot find for all of the factors listed above, then staff recommends that the Planning and Zoning Commission forward this case to the Board of Supervisors with a recommendation of denial.

Citizens Advisory Committee Action: On 9/7/17 the Citizen’s advisory committee (CAC) reviewed the proposal and forwarded a recommendation of Approval. The committee voted 11-0, all (eleven) in favor. Members McNutt, Sutton, Moore and Sable were absent. At the citizen’s advisory committee meeting, the main topics of discussion on the project included environmental concerns from the letter sent by the Arizona Game and Fish Department regarding the impacts of this proposal on the wildlife linkage area to the southeast of the project area. Planning Division staff has been in touch with Arizona Game and Fish Department representatives, and will be engaging in further communication if this case is approved. Furthermore, staff will be anticipating mitigation of this linkage area at the rezoning stage, again if this land use amendment is approved. A second item of discussion by the CAC included the potential tax revenue generated by this project. Following the CAC meeting, staff contacted the Pinal County Assessor’s office and confirmed that the Arizona Real Estate Department would evaluate any improvements on Arizona State Land and that information would be evaluated by the Pinal County Assessor’s office to determine a taxation amount on the subject property.
Apart from any taxation on the land, Pinal County would receive permitting fees when the applicant applies for these if the amendment and following rezoning is approved.

A third item of discussion at the CAC meeting involved economic impact to the county by the proposal, which anticipated to generate construction jobs, permanent jobs at the project site for operation, and other indirect jobs.

Planning and Zoning Commission Action: On September 21, 2017 the Planning and Zoning Commission voted unanimously (10-0) to continue case PZ-PA-002-17 to the October 19, 2017 hearing. The Planning and Zoning Commission requested more information on the proposed mitigation to screen the project along Park Link Drive and mitigation within the Ironwood-Picacho linkage wildlife corridor. On October 19, 2017, the Planning and Zoning Commission heard the case a second time, receiving an updated letter from the Arizona Department of Game and Fish describing an agreement with the applicant to leave a portion of the wildlife corridor unobstructed. The Commission voted 7-0 in favor, and the minutes are included in this report.

Date Prepared: 11/2/17 – ebg
Revised: 11/2/17 – ebg
The Planning and Zoning Commission Hearing Minutes were not complete as of the writing of this report. Staff will have the Commission hearing minutes available for review at the time of the Board of Supervisors hearing date, November 15, 2017.
MEETING DATE: October 19, 2017

TO: PINAL COUNTY PLANNING AND ZONING COMMISSION

CASE NO.: PZ-PA-002-17 (Picacho Solar Facility)

CASE COORDINATOR: Enrique Bojorquez

Executive Summary:

This is a major amendment to the Pinal County Comprehensive Plan to re-designate 2,726± acres of land from Moderate Low Density Residential (1-3.5 du/ac) to Green Energy Production in the Picacho area.

If This Request is Approved:

If this major amendment to the Pinal County Comprehensive Plan is approved, the action will allow the applicant to begin the process of re-zoning the property to develop a photovoltaic energy production facility.

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LEGAL DESCRIPTION: 2,726± acres situated in a portion of Sections 25, 26, 27, 28, 33, 34, 35 and 36, T09S, R10E G&SRB&M (legal on file)

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AGENT: Tetra Tech, Inc. 2435 E. Taxidea Way, Phoenix, AZ 85048

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LOCATION: Located northeast of the Interstate 10 (I-10) and Park Link Drive intersection, in the Picacho area.

SIZE: 2,726±/- acres.
PZ-PA-002-17

FROM:
Moderate Low Density Residential (1-3.5 du/ac)

TO:
Green Energy Production
STAFF FINDINGS:

Public Comment: To date, no comments in writing have been received

Public Participation:

P&Z Work Session: 7/20/17
BOS Work Session: 8/09/17
Web posting and 60 day review: week of June 16, 2017
Neighborhood Meeting: none
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the southwest. Immediately to the east, the designation is Proposed Regional Park and Very Low Density Residential. To the west, the designation is Moderate Low Density Residential and High Intensity Activity Center at the intersection of Park Link Drive and the I-10. The High Intensity Activity Center designation would support a mix of uses such as professional office, business park, and industrial often in a campus-like setting, as well as high and medium density residential uses.

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Date Prepared: 9/13/17 – ebg
Revised: 10/12/17 – ebg
PRESENT: Mr. John Enright, Chair  Mr. Ted Yocum, Vice Chair
Ms. Pamela Rabago           Mr. Daren Schnepf
Ms. Shirley Ann Hartman      Mr. Reymundo Torres
Ms. Joy Eveland             Ms. Colleen Bechtel
Mr. John Benavidez          Mr. David Mellado
Mr. Chester Burgess

ABSENT: Mr. Cliff McNutt      Ms. Patt Moore
Ms. Cindy Sutton             Mr. Paul Sabel

PLANNING STAFF PRESENT:

Mr. Steve Abraham, Planning Manager
Mr. Enrique Bojorquez, Planner I

The meeting was called to order at 6:08 p.m., this date by Chairman John Enright in the Emergency Operations Center (EOC) Hearing Room, Building F, Florence, Arizona. Member Weaver called in for meeting.

Elect Chair and Vice Chair

Member Hartman made a motion to elect Member Enright as Chairman and Member Yocum as Vice-Chairman. Member Burgess seconded the motion. Motion passed unanimously.

PZ-PA-002-17: SunPower Corporation System, applicant/lessee, Tetra Tech Inc., agent, requesting approval to amend the 2009 Pinal County Comprehensive Plan by changing the land use designation from Moderate Low Density Residential (1-3.5 du/ac) to Green Energy Production on approximately 2,726.31± acres, situated in a portion of Sections 25, 26, 27, 28, 33, 34, 35, 36, T09S, R10E, G&SRB&M, tax parcels 410-06-7000 (legal on file)(located northeast of the intersection of Interstate 10 (I-10) and Park Link Drive in the Picacho area).

Mr. Bojorquez gave a PowerPoint presentation. He asked the Members if they had any questions.

Chairman Enright inquired on the ownership of the land and asked for clarification on the current land use in the site. Mr. Bojorquez stated that the land was being leased from the state and the current zoning on the site was General Rural, which could allow for the site to develop residentially with agricultural uses, although the site is presently vacant.

Member Hartmann inquired on the length of the lease. Mr. Bojorquez stated that the applicant is present and is able to answer that question.

Member Yocum inquired on the tax advantage of the land being developed. Mr. Abraham stated that state land is generally not taxed, however the tax assessor would review the lease and may impose a tax based on improvements.
Member Yocum inquired on the economic impact of the project, and if it aligned with Pinal County’s Comprehensive Plan. Mr. Abraham stated that staff’s perspective on the project is from a green energy production standpoint, but construction jobs can be expected, the applicant can elaborate more on the economic impacts. Member Yocum inquired if the electrical output will be leaving the county for Tucson. Mr. Abraham stated that the power would enter the power grid and would be differ to the applicant for further clarification.

Ms. Krista Dearing from Tetra Tech Inc. and Jon Bortle with Sun Power gave their presentation and talked about the Picacho Solar Facility. Mr. Bortle went over the background of Sun Power, current solar panel technology proposed, other projects within Pinal County, expected number of jobs created, the siting of the project, and the duration of the lease with state land department. Ms. Dearing went over the biological and cultural studies being conducted on the site. Ms. Dearing went over preliminary findings of the studies.

Member Torres inquired on the permitting through the Arizona Corporation Commission. Ms. Dearing and Mr. Bortle responded that the final design and alignment of the gen-tie has not been finalized yet but will seek approval after the completion of the studies. Member Torres inquired on the revenue generation of the operation and if any revenue shared with the County. Mr. Abraham responded that no revenue was to be shared with the County, apart from permitting revenue.

Member Yocum inquired on when the Class III Cultural Survey is to be completed and if action plans are to be identified. Ms. Dearing responded that further activities are needed before the Class III is completed and no action plan is anticipated based on the findings.

Member Hartman inquired on the length of the lease. Mr. Bortle responded that 25-30 years is the expected length of the lease. Mr. Bortle added that the solar panels could remain fully operational for a longer period of time, upgraded with new technology or the site be decommissioned. Member Hartman inquired if the funds from the lease would specifically fund schools in Pinal County or go into a general fund. Mr. Abraham stated that the funds would enter a general fund with the state. Member Hartman inquired if other land uses could be sited on the site after the lease was ended. Mr. Bojorquez stated that if the current designation was approved, it would limit the use of the land for solar production only.

Member Yocum asked if there was going to be an action plan proposed to mitigate the impact on the animal species found on the site. Ms. Dearing stated that the species listed by AZ Game and Fish were species that “could” be on the site, and the applicant plans to sit down with AZ Game and Fish to go over the findings of the studies. Ms. Dearing added that wildlife friendly fence design would allow for wildlife to pass under the fences, and AZ Game and Fish is working to develop a mitigation plan for the applicant in order to avoid impacts on the Picacho Wildlife Linkage that crosses the southeast of the site. Member Yocum asked that if the findings were not to be completed when the project goes in front of the Planning and Zoning Commission and Board of Supervisors, if there be a follow up report with actions to be taken. Ms. Dearing confirmed.
Member Rabago asked if the fence design would allow for javelina to get through. Mr. Bortle responded that the javelina tracks were mostly found within the drainages of the site, the applicant intends to avoid the drainages and not fence across these. Mr. Bortle stated that the fencing would not allow for javelina or deer to get across, but other sensitive species would be able to get across.

Member Yocum asked the applicant for clarification on the letter from U.S. Department of the Interior’s comments on wildlife connectivity and the CAP Canal. Ms. Dearing stated that the latest narrative reflects revisions to one of the comments, and the other comment is in reference to a gap in the CAP Canal that goes underground which is used as a wildlife linkage. Ms. Dearing stated that the washes are going to be left undeveloped since these serve as the primary corridors for wildlife. Member Yocum stated that the applicant actions appear to be heading in the right direction.

Member Torres inquired on the type of job positions to be created by the project. Mr. Bortle stated that there would typically be two managerial positions, and the rest technician support positions.

Member Yocum inquired on the type and design of the fence proposed. Mr. Bortle stated that metal slats would be added as necessary to the fence for visual purposes, but chain link fence is a Federal Energy Regulatory Commission requirement along with three strands of barbed wire along the top.

Member Hartman inquired on the comments of concern from CAP. Ms. Dearing stated that after meeting with CAP, the applicant would construct a bridge above the CAP to protect any underground infrastructure. Member Hartman asked if the applicant has considered replanting salvageable plants from the site along the buffer zone proposed. Ms. Dearing stated that salvageable plants would be offered to nurseries at no cost, and salvageable plants would be reused on site. Member Hartman asked if the length of the buffer zone has been finalized. Ms. Dearing stated that the applicant has not finalized this.

Member Yocum asked if the concerns of the Arizona Water Conservation District concerns have been addressed. Ms. Dearing stated that the applicant communicated with them in early July, and after that communication the applicant proposed the ramp/bridge over CAP pipeline, with two other potential entrances in-lieu. Ms. Dearing stated that they would be meeting with the Bureau of Reclamation in the morning to discuss this.

Member Schnepf asked if there was a specific contract with an electrical company for the power to enter the grid. Mr. John Bortle stated that the applicant is seeking a power purchase agreement with APS and TEP. Member Schnepf asked if the applicant has reached out to CAP for connecting to water from them and not digging a well. Ms. Dearing stated that they have not reached out to CAP yet and are awaiting to finalized design of the project along with phases. Ms. Dearing stated that the water use would be low, and that for the initial phase they may haul water to the site. Ms. Dearing added that the water must be clean, used to for drinking and panel cleaning purposes.

Member Yocum asked if the applicant has considered the comments on water hydrology from the Bureau of the Interior. Ms. Dearing stated that all washes will remain natural and undisturbed.
Chairman Enright inquired on the number of homes that could be powered by this facility. Mr. Bortle stated that 170 homes could be powered with one megawatt of power, for a total of 68,000 homes approximately for the site. Member Enright inquired on the amount of water to be used for the solar panels and battery facilities. Mr. Bortle stated that water would be used for dust control purposes during construction, amount yet to be determined, but solar panels are planned to be cleaned twice per year but will double check with team. Member Enright inquired on the number of panels to be cleaned and if half-a-cup of water is to be used per panel, considering dust storm conditions in the area. Mr. Bortle stated that panels are cleaned twice per year typically, but will check on the figures for the Sun Power Boony Brooke facility outside of Florence to see how often panels are cleaned.

Member Enright stated that the project does not appear to fit the Pinal County Comprehensive Plan elements. Ms. Dearing stated that Arizona has a need for power to allow for further growth.

Member Bechtel inquired on the land ownership of the two other projects by Sun Power in the state. Mr. Bortle stated that the Boony Brooke site is privately owned land. Member Bechtel stated that the design of the project expanding along Park Link Drive is of concern and inquires why the configuration of the project expands along both sides of Park Link Drive. Mr. Bortle was unable to answer the question since his colleague was involved in the preliminary stages of the project siting with Arizona State Land Department. Member Bechtel asked if the applicant had reached out to the property owners along the northwest corner of the project whose boundaries border the project on three sides. Ms. Dearing stated that this property owner has no contact information listed in the Pinal County Assessor’s page and the property owner has not reached out to them. Ms. Dearing added that the project will have a setback from the right-of-way.

Member Torres asked if approval had to be renewed for the project by the applicant. Mr. Bojorquez stated that if approved, the designation would remain.

Member Bechtel inquired on the location, design and number of battery storage units to be located. Mr. Bortle stated that the exact megawatts for battery storage are still to be determined and the units are similar to electricity transformers, 8-feet wide, 15-feet long, 6-feet high or something similar to that.

Chairman Enright inquired on the type of chemicals found inside the battery storage units. Mr. Bortle stated that lithium ion batteries are found in the storage units.

Member Schnepf inquired on what happens after the site is zoned and if the lease expires, what is the likelihood of the applicant staying. Mr. Bortle stated that technology is constantly evolving, but he could envision the site as being repurposed with higher efficiency panels.

Member Torres inquired on the location of the R&D headquarters for the company. Mr. Bortle stated that in San Jose, California and Davis, California. Member Torres inquired on the potential to involve Community Colleges and the community. Mr. Bortle stated that this is a possibility and can be explored.
Chairman Enright inquired if the solar panels to be installed would become obsolete years into the future. Mr. Bortle stated that the panels will keep their current efficiency and power output is guaranteed through the power purchase agreement for the life of the project.

Member Eveland inquired on the effect of the solar panels on migratory birds. Mr. Bortle stated that this facility will not be using mirror technology. Ms. Dearing added that their agreement with AZ Game and Fish is that they will not be required to report the number of dead birds, but the employees on site will do so as a good steward if it happens.

Chairman Enright inquired on the feasibility of relocating the site. Mr. Bortle stated that relocating the site would re-start the clock for them, making their commercial operation date of 2020 not feasible. Ms. Dearing stated that another site was explored west of the I-10, southwest of Red Rock, due to hurdles in the permitting process with the Rail Road.

Member Bechtel inquired on the visibility from Park Link Drive to the solar field. Ms. Dearing stated that low-water use vegetative cover will shield the solar farm from traffic, pedestrians, and along the CAP canal trail from view. Member Bechtel inquired of the power lines would be placed underground. Mr. Bortle stated that the two options would be placing the lines overhead or underground, with underground boring done at a higher cost.

Member Yocum inquired on the landscaping plan proposed, one plant per 500-feet not acceptable. Ms. Dearing stated that the design included was theoretical, but the applicant intends to provide a schematic of the landscaping plan at the time of P&Z or Board of Supervisors.

Member Enright inquired on the possibility of using on site vegetation for screening. Ms. Dearing stated that some native plants on site would be used, using more of the plants that use the least amount of water.

Chairman Enright opened the public hearing for comment seeing none, Chairman Enright closed the public hearing.

MOTION
Chairman Enright asked for a motion. Member Yocum motioned to recommend PZ-PA-002-17 for approval. Member Torres seconded the motion. Members continued the discussion. Motion passed in favor (11-0).

DISCUSSION ON THE SAN TAN VALLEY AREA PLAN
Mr. Abraham gave a PowerPoint presentation. He asked the Members if they had any questions.

Meeting adjourned at 8:02pm.
PICACHO PHOTOVOLTAIC (PV) PLANT

Project Overview
- Photovoltaic (PV) solar facility being developed by SunPower. Expected to come online in 2020 and generate up to 400 megawatts of electricity.

Project Site
- Approximately 2,726.3 acres of Arizona State Land Dept. managed land
- Current land use is Moderate Low Density Residential
- Bordered to the west and south by CAP canal

County Process
- Requesting a Major Land Use Amendment change from Moderate Low Density Residential to Green Energy Production

Site Development
- Site will include an operations and maintenance building and on-site interconnection facilities
- Interconnected to the APS or TEP substations located approximately 3 miles south of the site
SunPower Solar Panels

- Highest efficiency panels – most energy per panel in the industry, reduces land area required for projects
- Highest quality – fewer replacements needed over time
- Low to ground – never taller than 15 feet
- Quiet – the panels are silent, with minimal noise coming from inverter stations

Solar Power Plant – “Oasis”

- Uses SunPower panels and single axis trackers
- Pre-designed “blocks” that fit together easily in the field
- Reduces construction time and cost
Single Axis Trackers

- Follows the sun’s path across the sky
- Captures up to 25% more of the sun’s energy than fixed-tilt systems
- Each tracker driven by small 1/2-horsepower, bi-directional motor
- Piers driven directly into soil to limit grading and poured concrete

COMMUNITY BENEFITS

- Up to 300 direct construction jobs
- Economic lift to local business
- Tax benefits to local community
- Commitment to environmental stewardship
- Consistent with the County’s Land Use Plan goals and vision for this area

For additional information, comments, or questions, please contact:

Jonathan Bortle, Permitting Manager
SunPower Corporation, Systems
Phone: 928.699.2090
Email: Jonathan.Bortle@sunpower.com
Mail: 77 Rio Robles, San Jose, CA 95134
Picacho Solar Facility

Application for a
Major Comprehensive Plan Amendment
To Allow a Photovoltaic Power Generation Facility

PZ-PA-002-17

Prepared for
Pinal County

Submitted by
SUNPOWER

Prepared by
TETRA TECH

May 31, 2017
(Revised June 8 & 30, July 12, and August 15, 2017)
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1.0 EXECUTIVE SUMMARY

SunPower Corporation, Systems (SunPower) is requesting an amendment to the 2009 Pinal County Comprehensive Plan (Comprehensive Plan, or Plan) in order to construct and operate the proposed Picacho photovoltaic (PV) solar facility (Project) on approximately 2,726.31 acres of vacant land managed by the Arizona State Land Department (ASLD) (Figure 1). The Project site is located on parts or all of Sections 25, 26, 27, 28, 33, 34, 35, and 36 of Township 9 South, Range 10 East with Parcel Number 410067000 (Appendix A).

The proposed Project will include a PV field with an expected electrical output of 400 megawatts (MW). The Project will require generation intertie (gen-tie) transmission lines and additional infrastructure including battery storage.

Paved rural roads provide access to the site and adjacent properties. East Park Link Drive divides the site while East Mona Road runs along the south side of the site. Interstate 10 (I-10) is located approximately 0.3 mile west of the site.

The amendment is needed to change the Comprehensive Plan land use designation for the site from Moderate Low Density Residential to Green Energy Production Services for the Project site. Subsequently, granting a zoning district change from General Rural (GR) to Industrial (I-3) would allow development of the Picacho facility in a prime power generation area, which would provide power import to assist Arizona Public Service (APS) and Tucson Electric Power (TEP) in meeting their current and projected electrical demand of southeast Arizona and the Tucson metropolitan area. Because the regional grid has been operating at near capacity, additional infrastructure is needed to accommodate future electrical demand.

The Project will tie into the grid as early as 2020, and 2 to 4 years are expected to be needed for the scheduling, planning, design, and construction of the facility in several phases of build-out.

1.1 PROPOSED LAND USE

The Project site and land surrounding the Project site are currently designated as Moderate Low Density Residential. This application for proposed amendment is requested to change the land designation from Moderate Low Density Residential (Figure 3) to Green Energy Production (Figure 4). The land use change would be consistent with supporting public utility infrastructure and energy uses including the APS Saguaro and TEP Tortolita Substations south of the Project site, and high-voltage transmission lines located near the eastern boundary of the site.

1.2 LOCATION AND ACCESSIBILITY

The Project site is located in the Sonoran Desert in west-central Pinal County (also referred to herein as “the County”) approximately 32 miles northwest of Tucson. The site consists of relatively flat, undeveloped Arizona State Trust land that is administered by the ASLD (Appendix A).
The Project site can be accessed from the I-10 frontage road via East Park Link Drive and East Mona Road. I-10 and the Union Pacific Railroad are located approximately 0.3 mile to the southwest of the site.

1.3 SITE SUITABILITY
Both the Project site and the region are well suited for the proposed changes to the Comprehensive Plan. The primary criteria for determining the location of the power generation facilities include the existence of compatible adjacent and nearby land uses, minimal topographic variability, and the proximity to existing electrical infrastructure, major transportation corridors, utility corridors, and electrical load centers.

1.4 PUBLIC SERVICES/UTILITIES
There are numerous electrical distribution lines, communication cables, and canals within the vicinity of the site (Figure 1). The Project site is less than 3 miles north of the current APS Saguaro Gas and Solar Power Plant and the TEP Tortolita Substation adjacent to the east side of I-10 and Union Pacific rail facilities. Immediately east of the site is a 500-kV transmission line.
2.0 PROJECT NARRATIVE

2.1 INTRODUCTION

This narrative report provides the required information to support the request for a Major Comprehensive Plan Amendment (MCPA) for the Project located in west-central Pinal County.

SunPower is requesting this amendment in order to construct and operate a solar power generating facility on the Project site. The proposed Project is expected to include a PV solar field with an expected electrical output of up to 400 MW. The Project will also require gen-tie transmission lines and additional project infrastructure including battery storage.

Should the MCPA receive approval from Pinal County, SunPower will apply for a zoning change from the Project site’s current GR zoning district to an Industrial (I-3) zoning district in order to allow for the development and operation of the solar generating facility.

Transmission lines of 115 kilovolts (kV) or greater are subject to Arizona’s Power Plant and Transmission Line Siting Law, codified in Title 14, Chapter 3, Article 2 (R14-3-219) of the Arizona Revised Statutes (ARS) §40-360 et seq. An Arizona Corporation Commission (ACC) Certificate of Environmental Compatibility (CEC) will be required to allow construction and operation of Project because the proposed gen-tie lines connecting the solar facility to the existing substation will be greater than 115 kV. All required environmental studies and public scoping activities for the proposed Project will be incorporated into a CEC application pursuant to the requirements of ARS §40-360 et seq.

Consistency with the Comprehensive Plan will be necessary in order for ACC to grant the CEC. Completing Pinal County’s Comprehensive Plan Amendment process ensures Pinal County’s authority and opportunity for review prior to the CEC process. The public scoping process conducted as part of the Pinal County zoning district change application process will supplement the CEC public involvement requirements.

Changing the Comprehensive Plan land use designation for the site from Moderate Low Density Residential to Green Energy Projection for the Project site, and subsequently granting a zoning district change from GR to I-3, would allow development of the Picacho facility in a prime power generation area, which would provide power import to assist APS and TEP in meeting their current and projected electrical demand of southeast Arizona and the Tucson metropolitan area. The regional grid has been operating at near capacity, and additional infrastructure is needed to accommodate future electrical demand.

Both the Project site and the region are well suited for the proposed changes to the Comprehensive Plan. The primary criteria for determining the location of the power generation facilities include the existence of compatible adjacent and nearby land uses, minimal topographic variability, and the proximity to existing electrical infrastructure, major transportation corridors, utility corridors, and electrical load centers.
The Project site location and layout are provided in Figures 1 through 4. The site is generally level and located less than 3 miles north of the current APS Saguaro Gas and Solar Power Plant and TEP Tortolita Substation adjacent to the east side of I-10 and Union Pacific rail facilities.

2.2 PHYSICAL SETTING, EXISTING USES, AND RELATIONSHIP TO SURROUNDING LAND USES

The Project site is located in the Sonoran Desert in west-central Pinal County approximately 32 miles northwest of Tucson (Figure 1). The site consists of relatively flat, undeveloped Arizona State Trust land that is administered by the ASLD.

The Project area consists of land managed by the ASLD, the Bureau of Reclamation (BOR), and private land under the jurisdiction of Pinal County (Figure 2). Major features in the site area include the Central Arizona Project (CAP) Canal, I-10, Picacho Mountains, Picacho Peak State Park, Union Pacific Railroad, Saguaro Power Plant, a military training facility, and several existing transmission lines and local utilities (Figure 1). The area is a mixture of flat agricultural and desert/scrub land, small mountains (including the Picacho Mountains), and several ephemeral washes.

The Project site can be accessed from the I-10 frontage road via East Park Link Drive and East Mona Road. Immediately adjacent to the site in all directions is undeveloped land except for the CAP Canal that forms the southern and western boundaries of the site (Figures 1 thru 4). Agricultural areas are located to the north of East Park Link Drive. I-10 and the Union Pacific Railroad are located approximately 0.3 mile to the southwest of the site. On the west side of I-10 is the unincorporated residential community of Red Rock. Picacho Peak State Park is located approximately 5 miles northwest of the site. There are no areas designated as Open Space within the proposed Project site, and the proposed Project would not impact known recreational areas.

The Ironwood-Picacho Wildlife Linkage crosses the southeastern section of the Property (Figure 5). SunPower will exclude the wildlife linkage area from the Project footprint, and will consult with Arizona Game & Fish to establish a buffer between the facility and the corridor.

The Project site is located in an area designated by the Comprehensive Plan as Moderate Low Density Residential. This designation intends to “provide for a larger lot development pattern with options for suburban residential pattern. Suitability is determined by location access, existing land use patterns and natural and man-made constraints” (Pinal County 2009). Areas designated as Moderate Low Density Residential are intended as suburban residential areas with an expected one to 3.5 dwelling units per acre.

As an alternative to the proposed Picacho site, SunPower evaluated the General Public Facilities/Services area located south of the community of Red Rock on the west side of I-10 and the railroad. The alternative site was not selected because of the following reasons related to spanning the gen-tie line across I-10 and the railroad to tie into the Tortolita Substation:

- The lengthy and costly consultation and permitting process required by the Federal Highway Administration for utility crossings and encroachments on the National Highway System and/or the Interstate Highway System.
• The fact railroad companies enact their own rules regarding the issuance of permits for transmission line crossings of railroad tracks while being immune to statutory deadlines to act on permit requests; SunPower is reluctant to work within a permitting process in which there is little control over schedule.

• The logistics and costs of traffic control on both I-10 and the railroad during construction and maintenance of the gen-tie line.
3.0 COMPREHENSIVE PLAN AMENDMENT CRITERIA

The SunPower-proposed amendment request conforms to the goals, objectives, and policies of the current Comprehensive Plan by meeting the criteria outlined in the Plan’s compliance checklist (Pinal County 2009, Appendix A). The following sections are written in response to the Plan’s compliance checklist:

- Consistency with Pinal County’s Vision Components, and
- Consistency with the Plan’s Key Concepts

3.1 CONSISTENCY WITH PINAL COUNTY’S VISION COMPONENTS

The vision components of the Comprehensive Plan include Sense of Community; Mobility and Connectivity; Economic Sustainability; Open Spaces and Places; Environmental Stewardship; Heathy, Happy Residents; and Quality Educational Opportunities.

Sense of Community

Is the proposal consistent with the Sense of Community vision component?

The proposed amendment is consistent with the Sense of Community vision component. The Project site is located with the Moderate Low Density Residential land use (Pinal County 2009, Chapter 3). This designation allows medium to high density residential, commercial, and employment (office and light industrial) land uses. Adjacent parcels to the Project site are vacant except for the CAP Canal west and south of the site, and a transmission line along the east boundary of the site that ties into the Saguaro Gas and Solar Power Plant approximately 3 miles south of the site. The proposed amendment would be consistent with the Sense of Community vision described in the Plan by consolidating energy facilities in an area that contains similar and compatible land uses, as well as vacant land.

Mobility and Connectivity

Is the proposal consistent with Mobility and Connectivity vision component?

The proposed amendment is consistent with the Mobility and Connectivity vision component. Under the goals, objectives, and policies outlined in Chapter 4 of the Plan, the County will evaluate the transportation impacts of all proposed Plan amendments and rezoning on Pinal County’s regional transportation system. The proposed Project would have minimal impact on planned land uses from traffic because the operation of the solar facility will require fewer than six employees. There would be a temporary increase in traffic volume during the construction phases due to delivery of equipment and supplies, and commuting construction workers. Existing roads and railroads are sufficient to accommodate the anticipated construction traffic.

Economic Sustainability

Is the proposal consistent with the Economic Sustainability vision component?

The proposed amendment is consistent with the Economic Sustainability vision component. The central theme of the Economic Development element of the Comprehensive Plan (Pinal County
2009, Chapter 5) focuses on the County’s ability to provide quality employment opportunities for its residents by setting specific goals, objectives, and policies. Two main goals that address this vision are:

1. Encourage a full range of quality jobs for County residents, and increase the jobs per capita ratio.
2. Encourage sustainable development consistent with the County’s environmental preservation philosophy.

The SunPower proposed amendment would promote economic diversity and employment opportunities in the area by providing direct and indirect employment during the construction and operation of the proposed Project. Additionally, power generated by the proposed facility could potentially support residential growth and job creation by providing clean, safe, affordable, efficient, and sustainable electricity to local communities and the region.

Open Spaces and Places

Is the proposal consistent with the Open Spaces and Places vision component?

The proposed amendment is consistent with the Open Spaces and Places vision component. The purpose of the Comprehensive Plan Open Spaces and Places (Pinal County 2009, Chapter 6) is to promote the County’s quality of life by providing passive and active recreational opportunities, conserving existing natural and cultural resources for the benefit of present future generations.

There are no existing dedicated open spaces or recreational opportunities with the Project area. However, the Comprehensive Plan and Pinal County Open Space and Trails Master Plan (LSD 2007) (also referred to herein as “Master Plan”) indicate that the BOR intends to include a 10-foot-wide paved, non-motorized path adjacent to the CAP Canal located on the west and south boundary of the Project site. The proposed amendment is not expected to conflict with the proposed BOR trail, and would not be in conflict with the planned land use. During site development, SunPower would coordinate with the BOR to ensure that SunPower complies with all required setbacks from the canal. If necessary after discussions with the BOR, SunPower would also incorporate construction mitigation measures to ensure that construction activities do not interfere with the operation of the canal or visitor experience along the proposed pedestrian path.

Environmental Stewardship

Is the proposal consistent with the Environmental Stewardship vision component?

The proposed amendment is consistent with the Environmental Stewardship vision component. Having developed other solar projects in Pinal County, SunPower takes pride in incorporating environmental stewardship and conservation practices throughout the construction and operation phases of their projects and is committed to minimizing impacts to natural and cultural resources resulting from the proposed Project. SunPower places a high priority on intergovernmental and interagency communication and cooperation, and will develop the proposed Project in compliance with all county, state, and federal laws, regulations, and guidelines.

Solar energy generation conserves natural resources and minimizes water use. The conversion of open-range grazing to solar power generation protect the xeroriparian habitat lining the washes on
the Property site from over-grazing, and would reduce water use. The proposed PV panels will be cleaned using SunPower’s panel cleaning robot that uses 75-percent less water than manual cleaning methods. The robotic cleaning method uses approximately ¼ cup of water per panel. Protecting habitat, the minimization of water use, and the use of renewable energy sources are both vision elements of the Comprehensive Plan (Pinal County 2009, Chapter 7). The addition of 400 MW of solar energy to the overall energy supply in the region will help to fulfill renewable energy goals.

Happy, Healthy Residents

Is the proposal consistent with the Happy, Healthy Residents vision component?

The proposed amendment is consistent with the Happy, Healthy Residents vision component. The vision articulated by county residents stresses Economic Sustainability, Sense of Community, Environmental Stewardship, Mobility, and Connectivity, and Healthy, Happy Residents as key components (Pinal County 2009, Chapter 8).

The proposed amendment would be consistent with this vision and would contribute toward the County’s goal of maintaining long term financial stability by generating revenues and contributing to the tax base, while providing clean, safe, affordable, and sustainable energy to the region.

3.2 CONSISTENCY WITH THE PLAN’S KEY CONCEPTS ILLUSTRATED ON LAND USE, ECONOMIC, AND CIRCULATION GRAPHICS

The Comprehensive Plan includes Key Concepts (Pinal County 2009, Appendix A) that are illustrated on the Land Use, Economic, and Circulation maps.

Consistency with the Land Use Designation Shown on the Graphics

Land uses in the area surrounding the Project site are designated as Moderate Low Density Residential as indicated on the Land Use and Economic Development graphic (Pinal County 2009, Pg. 57). This application for proposed amendment is requested to change the land designation from Moderate Low Density Residential to Green Energy Production. The land use change would be consistent with supporting public utility infrastructure and energy uses including the Saguaro and Tortolita substations south of the Project site, and high-voltage transmission lines located near the eastern boundary of the site.

Consistency with the Mixed Use Activity Center Concept

The Project site is immediately adjacent to a High Intensity Activity Center. The Project is consistent with the Mixted Use Activity Center Concept by providing a tax base and an employment center.

Consistency with the Planning Guidelines Described in the Land Use Element

The Project is located within the West Pinal Growth Area, which is described in the Comprehensive Plan as the “heart of the Sun Corridor Megapolitan Area”, planned for urbanization bordering Native American communities with expansion of new housing and
commercial development (Pinal County 2009, Pg. 3). The proposed amendment would contribute additional power generation and infrastructure within this Growth Area.

**Quality Employment Opportunities County-Wide**

The proposed amendment is consistent with the Economic Development element by providing quality jobs during the construction and operation of the facility.

**Viable Agriculture, Equestrian and Rural Lifestyle**

The proposed amendment would cluster utility development in an area that now supports existing utility uses, thus limiting impacts to agriculture, or sprawl. The site contains vacant land used for grazing.

Researchers have found that solar facilities can raise temperatures in their immediate environments by as much as 5.4 to 7.3 degrees Fahrenheit. The degree of this effect varies depending on the season. While the PV heat island effect is detectable during the day, significant warming was primarily during the evening hours because the PV panels require time to cool down after sunset. However, studies have indicated that the heat island effect is highly localized to within a 90-foot radius, beyond which the heat dissipates (Barron-Gafford, et al. 2016).

**System of Connected Trails and Preservation of Open Space**

The proposed amendment is consistent with the Comprehensive Plan (Pinal County 2009, Chapter 6) and the Pinal County Open Space and Trails Master Plan (LSD 2007). The Comprehensive Plan’s vision is to site specific proposed open space and trails based on the suitability of activities, surrounding land uses, ecological factors, topography, viewsheds, and cultural resources. The Master Plan promotes quality of life of the region by providing areas of passive and active recreational opportunities, while conserving existing resources such as natural scenic beauty, view corridors, wildlife habitat, agricultural resources designated at risk, and cultural heritage for the benefit of present and future generations.

There are no existing dedicated open spaces, designated scenic resources, or designated view corridors within the Project area. However, in November 2015, the Pinal County Board of Supervisors approved the Master Plan for the Pinal County segment of the CAP National Recreational Trail (Pinal County 2016). Pinal County is currently working on an agreement with the BOR to implement the plan to construct the non-motorized, multi-use trail adjacent to the BOR Canal that bounds the site to the west and south.

The visual sensitivity of a landscape is affected by the viewing distances at which it is seen, such as up close or far away. The visual sensitivity of a landscape is also affected by the travel speed at which a person is viewing the landscape (high speeds on highway, low speeds on a trail, or stationary at a residence).

Highway and roadway users are primarily drivers of vehicles; at standard roadway speeds, their views are of moderate duration and they are fleetingly aware of their immediate surroundings. Roadway users would have low sensitivity to changes in the project area because passing landscape becomes familiar and their attention is typically focused on the roadway and traffic rather than on passing views.
The proposed Project will be visible from the summit of Picacho Peak, which is at an elevation of 3,370 feet above mean sea level (msl) (the site is at approximately 1,950 msl), and at a distance of approximately 4 miles northwest of the site. The developed recreational facilities of the park (campgrounds, trailheads, and trail to summit) are located on the northeast side of the peak approximately 6 miles northwest from the Project site. The current view of the Project site from the summit of Picacho Peak shows a flat area of the desert that has been disturbed by grazing. Man-made features including I-10, the railroad, developed agricultural land, and an ostrich farm are located between Picacho Peak and the proposed facility. The proposed solar facility would be visible from the summit of Picacho Peak, and would contrast with adjacent vegetation. There are no feasible mitigation measures that can be implemented to preserve the existing landscape character while developing the proposed solar facility. However, SunPower will develop the Project using Oasis Series PV panels that are coated with advanced anti-reflection material that results in low glare. The panels will also be designed to track the sun from east to west, which will cut down on their visual impact from viewers at Picacho Peak located north of the site.

The Project’s facility lighting will be designed to provide the minimum illumination needed to achieve safety and security objectives. Lights will be used only on the maintenance building and the switchyard. The lights will be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass into adjacent areas. Lenses and bulbs will not extend below the light shields.

Pedestrians on the proposed CAP National Recreational Trail would be traveling at a slow pace and would be highly sensitive to changes in views. SunPower will install wildlife-friendly fences with slats or similar view-screening materials as approved by Pinal County in all perimeter fencing adjacent to the CAP National Recreational Trail. Additionally, drought-tolerant plants, species to be determined through consultation with landscape experts and approval by Pinal County, will be planted along the fence at 500-foot intervals in areas adjacent to the CAP National Recreational Trail (Figure 5).

Site infrastructure related to the proposed Picacho Solar Project would consist of the PV panel arrays, a small (i.e., 20-foot by 30-foot) metal maintenance and office building, battery storage, a potential groundwater well, the gen-tie line, and a site boundary fence. Photographs and an energy production diagram of a typical PV solar facility are presented in Appendix C. While the precise design of panel systems varies by manufacturer and model and is subject to modification as technologies evolve, the photographs provide an accurate indication of the system that would be operated on the Project site. Panels would not exceed 10 feet in height; this gives the project a much lower profile than that of a single-story building. Rows of panels are spaced nearly 18 feet apart, allowing continued wildlife movement between rows.

The site boundary fence will be designed with small openings and/or a gap between the fence and the ground to allow reptiles and small mammals to move about.

**Natural Resource Conservation**

SunPower has considered potential impacts of the proposed Project, and will mitigate any potential impacts to natural or cultural resources by minimizing ground disturbance where possible.
Construction and operation of the Project will be compliant with all county, state, and federal laws, regulations, and guidelines.

SunPower is conducting detailed environmental studies, including pedestrian biological, cultural, and wetlands surveys for the site, and is in progress of preparing comprehensive reports. Results of the preliminary review of the Project site are described below.

**Biological Resources**

Vegetation at the site is characteristic of the Lower Colorado River Subdivision of the Sonoran Desert Desertscrub biome (Turner and Brown 1982). The CAP Canal has influenced the vegetation conditions. Mesquite (*Prosopis velutina*) and creosote bush (*Larrea tridentate*) account for a large portion of the cover upslope of the canal.

Wildlife in the Project area is likely characteristic of the Desertscrub biome. Open areas with sparse or no vegetative cover, including those that have been disturbed or altered (the site is currently heavily grazed), can also be important to some species of wildlife, notably the burrowing owl (*Athene cunicularia*). The CAP Canal, I-10 and the frontage road, and the Union Pacific Railroad form adverse effects on wildlife movement as these features are significant obstacles to movement. However, the Ironwood-Picacho Wildlife Linkage located along the southeast section of the Project and across the 1.5-mile underground segment of the CAP that allows for unimpeded wildlife movement through the area. SunPower will consult with AZGFD and CAP to design the solar facility to avoid potential impacts to the wildlife linkage.

Riparian habitat in the Project area is *xeroriparian* (extremely dry and lacking humidity and water). These riparian habitats are generally associated with an ephemeral water supply and are important habitat for migratory birds.

Sensitive species lists from the U.S. Fish and Wildlife Service (USFWS) IPaC (Information for Planning and Consultation) were reviewed to determine if the site is within range of listed species. Table 1 provides a summary of the species that may occur at the Project site.

**Table 1. Listed Species Act that May Occur in the Project Area**

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Taxonomic Name</th>
<th>ESA Listing</th>
<th>Potential to Occur Near Site</th>
<th>Potential Effects of Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesser Long-nosed Bat</td>
<td><em>Leptonycteris curasoae yerbabuena</em></td>
<td>FE</td>
<td>Possible, though key food species sparse or lacking</td>
<td>Negligible</td>
</tr>
<tr>
<td>Yellow-billed Cuckoo</td>
<td><em>Coccyzus americanus</em></td>
<td>FT</td>
<td>No habit – riparian species</td>
<td>None</td>
</tr>
<tr>
<td>Mexican Spotted Owl</td>
<td><em>Strix occidentalis lucida</em></td>
<td>FT</td>
<td>No habitat – prefers old growth forests</td>
<td>None</td>
</tr>
<tr>
<td>Sonoran Pronghorn</td>
<td><em>Antilocapra americana sonoriensis</em></td>
<td>FE</td>
<td>Possible – very rare species</td>
<td>Negligible, range limited to southwest Arizona</td>
</tr>
<tr>
<td>Colorado Pikeminnow</td>
<td><em>Ptychocheilus lucius</em></td>
<td>FE</td>
<td>No habit – riparian species</td>
<td>None</td>
</tr>
</tbody>
</table>

ESA = Endangered Species Act  
FT = Federal threatened  
FE = Federal endangered
Starting on August 15, 2017, SunPower will conduct a biological assessment at the site, and will prepare a Biological Evaluation (BE) report to summarize findings for the Project. The BE will summarize any state or federally protected species that may occur or have the potential to occur within the Project area including the Tucson shovel-nosed snake, Sonoran desert tortoise, western burrowing owl, Gila monster, and the Kit fox.

The BE will provide narrative descriptions of all protected species investigated and report whether suitable habitat was identified. SunPower will report any direct observations or evidence of protected species using the Project area, and all final determinations for each species will be based on expert opinion. SunPower will describe the dominant overstory and understory vegetation communities observed within the Project area and provide a plant list of common species observed within the project limits, including any non-natives. The BE will provide appendices for the following:

- A summary of AGFD’s Species of Greatest Conservation Need (SGCN) and recommendations,
- A plant evaluation to summarize plant species present within the Project area that are protected under Arizona Department of Agriculture’s Native Plant Law, and
- A bird evaluation to summarize birds protected under the Migratory Bird Treaty Act and Birds of Conservation Concern that may have potential to be present within or use the Project area.

The Project will require clearance of select vegetation within the footprint of the facility. The ASLD does not require mitigation for development projects that disturb Arizona State Trust Lands (Moore 2017). However, SunPower will tag all listed plants located within the footprint of the facility and file a Notice of Intent with the AGFD. SunPower will arrange to have all protected under the listed native plants that are located in the construction area to be either salvaged or moved to an undisturbed location on the Project site.

**Cultural Resources**

In compliance with the National Historic Preservation Act and State Historic Preservation Act, SunPower conducted a Class III cultural resources survey of the Project site from August 1 to 15, 2017.

SunPower examined the AZSITE online database, which includes recorded from the Arizona State Museum (ASM) and Arizona State University, to determine the location of any previously conducted archaeological surveys or previously recorded archaeological sites within a 1-mile radius of the Project area. Approximately 24 previously recorded sites are located within or very close to the Project site.

Archaeologists conducted a full pedestrian survey of the solar facility following ASM and State Historic Preservation Office (SHPO) inventory standards and guidelines. Archaeologists walked parallel transects spaced not more than 20 feet apart, recording all isolated occurrences and mapping and recording archaeological sites identified in the Project area. A Registered Professional Archaeologist (RPA) who meets the National Secretary of the Interior’s professional
standards led the fieldwork. The findings of the archaeology survey will be included in a Class III survey report.

**Wetland Resources**

SunPower conducted a preliminary jurisdictional delineation within the proposed disturbance corridors associated with the solar facility and access roads (Figure 5). Scientists trained and experienced in the U.S. Army Corps of Engineers (USACE) protocols for conducting routine wetland delineations assessed the Project area to determine the extent of wetlands and other Water of the U.S.

The National Hydrography Data, National Wetlands Inventory, aerial photography, and topographic maps were used to prioritize locations of potential wetland areas for field assessment and to identify the connectivity of area drainage systems. The regional USACE Arid Supplement was used to document characteristics of wetland hydrology, hydrophytic vegetation, and hydric soils. No wetlands or other Waters of the U.S. were delineated during the preliminary jurisdictional delineation. A letter of No Effect will be prepared and submitted to the USACE.

**Water Resources, Public Facilities/Services, and Infrastructure Support**

Planned utilities and services on the site would include water and electricity. The Project is anticipated to use substantially less water than typical farmlands within the region. As stated earlier, the proposed PV panels will be cleaned using SunPower’s robotic cleaning method that uses approximately ¼ cup of water per panel.

SunPower intends to either install a groundwater well or transport water to the site from a local source for the minimal site water demands and uses.

The Project is located in the northern part of the Avra Valley Sub-basin of the ADWR Tucson Active Management Area. If SunPower decides to install a groundwater well at the site, available hydrogeologic data will be assessed, including but not limited to:

- ADWR 55- and -35 well records database
- ADWR Groundwater Site Inventory (GWSI) (water level and water quality)
- ADWR hydrographic maps and survey reports
- USGS National Water Information System (NWIS) (publications, water level and water quality)
- Arizona Geological Survey (AZGS) maps and reports

Available hydrogeologic data will be reviewed to identify local aquifer conditions including:

- Depth and direction of water movement
- Lithology and aquifer parameters
- Well yields
- Water quality

SunPower will also assess and identify all applicable groundwater supply permits and certificates required for the Project. Since the Project area is located on ASLD land within the boundaries of
the ADWR Tucson Active Management Area, SunPower will be required to comply with ASLD and ADWR statutes and rules for developing a groundwater supply.

Development of the Project would not impact existing water quality or drainage features. The site would be designed to pass stormwater through or around the site and release it in a manner similar to existing conditions. SunPower will prepare a hydrologic analysis and hydraulic design for watersheds and drainage structures on the Project site that will include:

- Site Hydrology – Develop site hydrology to determine flood peaks.
- Existing and Future Conditions Hydraulic Analyses and Mapping – Calculate the ponding depth upstream of the CAP Canal using either 1-Dimensional or 2-Dimensional floodplain analyses.
- Erosion Hazard Investigation – Identify locations where local vertical or lateral erosion is likely to occur and provide mitigation measures to reduce risks associated with such hazards.

Based on the results of the hydrologic analysis, SunPower will coordinate with Pinal County staff to determine the need for a Floodplain Use Permit application.

The Pinal County Sheriff’s Office provides law enforcement services in the Project area. Both the Red Rock and Avra Valley Fire Departments serve the Project area. No new or additional public services resulting from the proposed amendment are anticipated.
4.0 REFERENCES


Figures
APPENDIX A

ALTA SURVEY
LEGAL DESCRIPTIONS OF LEASEHOLD ESTATES

SECTION 20
A PARCEL OF LAND LOCATED IN SECTION 20, TOWNSHIP 9 SOUTH, RANGE 11 EAST, T11E., R25, PROTOVILLE, Pinal County, Arizona, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 20;
THENCE SOUTH 027°45'00" EAST ALONG THE WEST LINE OF SAID SECTION 20, A DISTANCE OF 200.00 FEET TO THE POINT OF BEGINNING;
THENCE LEAVING SAID WEST LINE, SOUTH 89°04'57" WEST, A DISTANCE OF 206.54 FEET TO SAID WEST LINE;
THENCE SOUTH 017°25'00" EAST, A DISTANCE OF 495.72 FEET;
THENCE SOUTH 72°47'18" WEST, A DISTANCE OF 264.34 FEET TO SAID WEST LINE;
THENCE ALONG SAID WEST LINE, NORTH 027°45'00" WEST, A DISTANCE OF 167.82 FEET TO THE POINT OF BEGINNING; CONTAINING 2,084,435 SQ. FT. (48.80 ACRES), MORE OR LESS.

SECTION 21
A PARCEL OF LAND LOCATED IN SECTION 21, TOWNSHIP 9 SOUTH, RANGE 11 EAST, T11E., R25, PROTOVILLE, Pinal County, Arizona, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 21;
THENCE SOUTH 027°45'00" EAST ALONG THE WEST LINE OF SAID SECTION 21, A DISTANCE OF 200.00 FEET TO THE POINT OF BEGINNING;
THENCE LEAVING SAID WEST LINE, NORTH 89°04'57" EAST, A DISTANCE OF 206.54 FEET TO SAID WEST LINE;
THENCE SOUTH 017°25'00" EAST, A DISTANCE OF 495.72 FEET;
THENCE SOUTH 72°47'18" WEST, A DISTANCE OF 264.34 FEET TO SAID WEST LINE;
THENCE ALONG SAID WEST LINE, NORTH 027°45'00" WEST, A DISTANCE OF 167.82 FEET TO THE POINT OF BEGINNING; CONTAINING 2,084,435 SQ. FT. (48.80 ACRES), MORE OR LESS.

SECTION 22
A PARCEL OF LAND LOCATED IN SECTION 22, TOWNSHIP 9 SOUTH, RANGE 11 EAST, T11E., R25, PROTOVILLE, Pinal County, Arizona, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 22;
THENCE SOUTH 027°45'00" EAST ALONG THE WEST LINE OF SAID SECTION 22, A DISTANCE OF 200.00 FEET TO THE POINT OF BEGINNING;
THENCE LEAVING SAID WEST LINE, NORTH 89°04'57" EAST, A DISTANCE OF 206.54 FEET TO SAID WEST LINE;
THENCE SOUTH 017°25'00" EAST, A DISTANCE OF 495.72 FEET;
THENCE SOUTH 72°47'18" WEST, A DISTANCE OF 264.34 FEET TO SAID WEST LINE;
THENCE ALONG SAID WEST LINE, NORTH 027°45'00" WEST, A DISTANCE OF 167.82 FEET TO THE POINT OF BEGINNING; CONTAINING 2,084,435 SQ. FT. (48.80 ACRES), MORE OR LESS.
APPENDIX B

PHOTOGRAPHS AND ENERGY FLOW DIAGRAM
OF A TYPICAL PV SOLAR FACILITY
Photo 1: Typical photovoltaic panels.

Photo 2: Average spacing between panel arrays.
Photo 3: Typical Gen-Tie line.

Photo 4: Typical groundwater well.
October 6, 2017

Mr. Enrique Bojorquez
Pinal County Planning and Development Department
31 North Pinal Street, Building F
Florence, AZ 85132

Re: Picacho Solar Coordination for Proposed 2017 Pinal County Major Comprehensive Plan Amendment: PZ-PA-002-17

Dear Mr. Bojorquez:

SunPower submitted an application to the Pinal County Planning and Development Department (County) for a major comprehensive plan amendment for the 2,776-acre Picacho Solar Project. The Department determined it would adversely impact the Ironwood-Picacho Wildlife Linkage. This letter outlines the coordination between the Arizona Game and Fish Department (Department), SunPower, and the County to address these impacts.

The Department received the major comprehensive plan amendment on June 16, 2017. We submitted comments on the project on August 3, 2017 that identified project would impact the Ironwood-Picacho Wildlife Linkage. SunPower contacted the Department to set up a meeting. We met with SunPower on September 7, 2017 to discuss the project and the limitations for moving the solar facility. We informed them of the importance of the wildlife corridor and how it was designed. We ended the meeting with both parties committed to finding alternatives that would lessen impacts to the project and the wildlife corridor. Further, a site visit was conducted on September 26, 2017, so both parties are aware of the current conditions at the site.

On September 27, 2017, the County, SunPower, and the Department had a conference call to discuss the wildlife linkage and the request of the Pinal Commission to resolve the conflict between the wildlife corridor and the project. The Department requested a meeting the following week to include Department biologists that specialize in wildlife corridors. On October 4, 2017, the Department, SunPower, and the County met to discuss some alternatives the Department had developed. After some discussion, an agreement was reached that would satisfy both the project and the wildlife linkage at this time. These solutions include minor modifications to the project design that would salvage portions of the wildlife corridor. In addition, the Department asked for pre- and post-construction wildlife surveys to ensure the linkage is working. We are still working out the details of the alternative and the monitoring that will need to occur but are hopeful we have found a way forward for both the project and wildlife. We have been encouraged by SunPower’s willingness to reach solutions for all parties moving forward.