



TOWN COUNCIL NOTICE & AGENDA

SPECIAL MEETING
MONDAY, MARCH 17, 2025
5:30 PM

GRACE CHURCH | 2010 AZ-89 | CHINO VALLEY, ARIZONA 86323

***AMENDED* AGENDA – Executive Session language added**

1. CALL TO ORDER, PLEDGE OF ALLEGIANCE, ROLL CALL

2. ACTION ITEM

The Council may vote to recess the public meeting and hold an executive session on any item on this agenda pursuant to A.R.S. § 38-431.03(A)(3) for the purpose of discussion or consultation for legal advice with the Town Attorney. Executive sessions are not open to the public and no action may be taken in executive session.

- a. Public hearing, consideration, and possible action on Ordinance No. 2025-949, amending the Town of Chino Valley Unified Development Ordinance, regarding utility-scale solar facilities.

3. ADJOURNMENT

Dated this 10th day of March, 2025.

By: *Erin N. Deskins, Town Clerk*

The Town of Chino Valley endeavors to make all public meetings accessible to persons with disabilities. Please call 928-636-2646 (voice) or 711 (Telecommunications Arizona Relay Service) 48 hours prior to the meeting to request reasonable accommodation to participate in this meeting.

Council meetings are live-streamed on the Town of Chino Valley website, www.chinoaz.net.

CERTIFICATION OF POSTING

The undersigned hereby certifies that a copy of this notice was duly posted at Chino Valley South Campus, Chino Valley Post Office, and Chino Valley North Campus in accordance with the statement filed by the Town Council with the Town Clerk.

Date: _____

Time: _____

By: _____

Erin N. Deskins, Town Clerk



TOWN COUNCIL AGENDA ITEM STAFF REPORT

AGENDA ITEM # 2a
MEETING DATE: 3/17/2025
CONTACT PERSON: Laurie Lineberry, Development Services Director, Will Dingee, Assistant Development Services Director
ITEM TYPE: Action Item

AGENDA ITEM TITLE:

Public hearing, consideration, and possible action on Ordinance No. 2025-949, amending the Town of Chino Valley Unified Development Ordinance, regarding utility-scale solar facilities.

SUMMARY:

A request to amend the Town of Chino Valley Unified Development Ordinance, Chapter 4 General Regulations, to add Section 4.33 Utility-Scale Solar Photovoltaic Facilities.

PREVIOUS ACTION:

On November 5, 2024, Staff presented this item to the Planning and Zoning Commission, who continued the item to January 7th in order for Staff to address concerns brought up by the Public and the Commission. See attached minutes for a detailed dialog along with Planning & Zoning Commission (P & Z) Staff Report.

On January 7, Staff presented this item, with the changes requested, identified in blue in the language, to P & Z, who forwarded a recommendation of approval to the Town Council with a vote of 6-1. See attached minutes for detailed dialog along with P & Z Staff Report.

STAFF RECOMMENDATION:

Planning Commission Recommendation - Approve Ordinance No. 2025-949 to amend the Town of Chino Valley Unified Development Ordinance, Chapter 4 General Regulations, to add Section 4.33 Utility-Scale Solar Photovoltaic Facilities.

FISCAL IMPACT?

N/A

ATTACHMENTS:

1.	Final - Agenda Item Staff Report 3-17-25 v.4 (1)
2.	ORD - 2025-949 - UDO Amendment - Utility-Scale Solar Facilities
3.	CODE - Utility Scale Solar



TOWN COUNCIL AGENDA ITEM EXECUTIVE SUMMARY

AGENDA ITEM # 2025-26
MEETING DATE: 3/17/2025
CONTACT PERSON: Will Dingee, Assistant Development Services Director
ITEM TYPE: Action Item

PROJECT DESCRIPTION:

A request to amend the Town of Chino Valley Unified Development Ordinance, Chapter 4 General Regulations, to add Section 4.33 Utility-Scale Solar Photovoltaic Facilities

THE PURPOSE OF THE ORDINANCE

The ordinance sets out a clear process and rules for any potential utility-scale solar proposal to follow.

Approval of the ordinance does not automatically approve any project but instead creates a framework for evaluating proposals and ensuring that each project both protects and benefits the Town of Chino Valley. Town Council retains the ability to approve projects in their sole and absolute discretion.

Since Chino Valley does not collect property tax, the ordinance introduces a payment-in-lieu-of-tax system, ensuring the town gets a direct financial benefit from these projects. The Town Council will determine the appropriate community benefit fee for each project, expected to range between \$500 and \$1,000 per acre per year, with all funds going directly to road maintenance and improvements. The ordinance, as proposed, caps the total utility-scale solar acreage at 3,800 acres, meaning if all acreage is approved and fully developed (minus the current 290-acre APS site), it could generate between \$1.75 million and \$3.5 million annually for infrastructure, over the life of the project. This will be formalized through a required Development Agreement with any proposed solar project.

PROTECTIONS FOR THE TOWN

- **Development Agreement Requirement:** All protections, including community benefit fees, must be included in a Town Council-approved development agreement. If any part is unsatisfactory, the project is denied.
- **Site Grading:** Limit grading to 20% of the area, prohibit solar panels on slopes over 5%, and ban blasting.
- **Wildlife Protection:** Submit an AZGF-approved **Wildlife Protection Plan**, maintain corridors, install wildlife-friendly fencing, and support conservation efforts.
- **Public Safety & Fire Mitigation:** Annex into a fire district and provide **Fire and Natural Disaster Mitigation Plans**. The Fire Mitigation Plan must be approved by CAFMA. Battery Energy Storage Systems (BESS) must be at least one mile from residential areas or centrally located, complying with 2024 Building Codes.
- **Water Usage Protections:** Submit a **Water Usage Plan** to assess sources, limit consumption, and incorporate fire suppression strategies.

- Environmental Protections: Implement a **Storm Water Pollution Prevention Plan** (SWPPP) to manage runoff and aquifer recharge. A **Property Maintenance Plan** must control vegetation and limit herbicide use. Cumulative development is capped at 3,800 acres with a 3-mile minimum separation between projects.
- Traffic & Roads: Conduct a **Traffic Impact Analysis** and create a **Road Improvement Plan** for both construction and operation.
- Screening & Setbacks: Use a 7-foot masonry wall for storage areas, conduct a **Viewshed Analysis**, and submit a **Fencing Master Plan**. Maintain a 1/4-mile buffer from developed residential areas and the Peavine Trail.
- Glare & Panel Safety: Use low-reflective materials, ensure durability, and promote panel recycling.
- Noise & Light Pollution Controls: Limit construction hours (weekdays 8 AM–5 PM), conduct noise studies, and maintain post-construction noise levels below 55 dB (day) and 40 dB (night). Lighting must comply with Dark Sky regulations.
- Drones: If used, submit a **Drone Utilization Plan** covering flight paths, noise, and regulatory compliance.
- Decommissioning & Reclamation: Developers must submit a long-term **Site Restoration Plan**, financially updated every three years, ensuring financial accountability.
- Public Engagement: Developers must provide a Town-approved **Public Outreach Plan** and conduct public outreach before project approval, to maintain transparency.

UTILITY-SCALE SOLAR HISTORY (FOR COMPLETE HISTORY SEE 11/5/24 P&Z STAFF REPORT)

2011

- APS Facility (1900 East Road 4 South)
 - Approval: CUP approved by Town Council on May 24, 2011, under Ordinance 11-747. The CUP remains valid until May 24, 2041. Project was a collaboration between Sun Edison LLC and APS, later sold to APS after construction November 2012.

2013

- RES America Development/Wilkinsons Investments (3245 Jerome Junction)
 - Approval: CUP approved by Town Council on January 14, 2013 (CUP13-003), with one year allowed for construction to commence. Construction never started, and the CUP expired on January 14, 2014.

2020

- Draconis – LightSource BP (Landowner: Perkins)
 - Action: Initiated discussions with the Town. Submitted an incomplete application for rezoning to Industrial. Rezone application expired in October 2021.

2022

- Atlas Renewable Power – Clean Energy (Eagle Solar Project)
 - At Pre-Application Meeting, directed to wait for a forthcoming text amendment.
- YA-Jerome – ERM
 - Attempted to revive the expired CUP from 2013 (CUP13-003) but was also directed to wait for the text amendment.
- Solar and Wind Farm Text Amendment (TA-2022-09)

- April: Town staff began preliminary research.
- May: Concept presented to Town Council, which directed staff to draft language.
- November: Draft Text Amendment presented to Planning and Zoning Commission for discussion.
- Outcome: The Commission recommended addressing utility-scale solar issues through the General Plan instead of a stand-alone ordinance.

2023

- November:
 - Town ratified the 2040 General Plan, including goals and policies for solar energy.
- December:
 - Staff requested Council authorization to form a Staff Advisory Committee for the development of a utility-scale solar ordinance.

2024

- January:
 - Department advertised for staff advisory group applications.
 - One applicant was not accepted due to a direct connection to a proposed solar project land owner.
- February – October:
 - Solar Advisory Group Meetings: Monthly meetings (except July) culminating in a review of the draft ordinance provisions in October.
- November and January:
 - Planning Commission held two public hearings and recommended approval of the draft ordinance to the Town Council.

WHAT IS THE PROCESS?

Step 1 – Rezoning, if required.

Step 2 – Preliminary Solar Facility Use Permit, which is confirmation of the Siting Requirements as outlined in the ordinance.

Step 3 – Final Solar Facility Use Permit, which includes all of the studies that confirm Project Standards, as outlined in the ordinance.

PREVIOUS ACTION

On November 5, 2024 Staff presented this item to the Planning and Zoning Commission who continued the item to January 7th in order for Staff to address concerns brought up by the Public and the Commission. See attached minutes for a detailed dialog along with P&Z Staff Report

On January 7, Staff presented this item, with the changes requested identified in blue in the language, to the Planning and Zoning Commission who forwarded a recommendation of approval to the Town Council with a vote of 5-1. See attached minutes for detailed dialog along with P&Z Staff Report.

PLANNING AND ZONING COMMISSION RECOMMENDATION TO COUNCIL

Approve Ordinance No. 2025-XXXX to amend the Town of Chino Valley Unified Development Ordinance, Chapter 4 General Regulations, to add Section 4.33 Utility-Scale Solar Photovoltaic Facilities

ATTACHMENTS

1. Ordinance 2025-949 - UDO Amendment (Separate Document)
2. Ordinance 2025-949 – Mark Up
3. Ordinance 202X-000 – With 11/5/24 P&Z Changes in Blue
4. Planning and Zoning Meeting Minutes - 1/7/2025
5. Planning and Zoning Meeting Minutes – 11/5/2024
6. Planning and Zoning Memo – 1/7/2025 Meeting
7. Planning and Zoning Staff Report – 11/5/2024 Meeting
8. Written Public Comment Received by Development Services

Attachment 2
Ordinance 2025-949 – Mark Up

~~202~~2025 AMENDMENTS TO CHINO VALLEY TOWN CODE
CHAPTER 154
REGARDING
UTILITY-SCALE SOLAR PHOTOVOLTAIC FACILITIES

SECTION 1. Chino Valley Town Code, Title XV, Land Usage, Chapter 154, Unified Development Ordinance (the “UDO”), Section ~~4.9, Review and Approval Processes, is hereby amended by adding the following section.~~

~~1.9.3.1 Conditional Use Permits – Utility-Scale Solar Photovoltaic Facilities~~

~~A. Authorization~~

- ~~1. Conditional Use Permit for Utility-Scale Solar Photovoltaic Facilities (“Solar Facility Use Permit”) may be granted only after the Planning and Zoning Commission (“Commission”) has made a recommendation, and the Town Council (“Council”) has approved the request.~~
- ~~2. Approval of a Solar Facility Use Permit shall be based upon findings that the proposed use:~~
 - ~~a. Will not be materially detrimental to persons residing or working in the vicinity, the neighborhood, or the public welfare;~~
 - ~~b. Is reasonably compatible with uses permitted in the surrounding area;~~
 - ~~c. Complies with the siting requirements, development standards, and operational requirements outlined in UDO Section 4.33~~

~~B. Application Requirements~~

- ~~1. Applications for a Solar Facility Use Permit shall be filed on forms provided by the Development Services Department and accompanied by:~~
 - ~~a. Appropriate fees;~~
 - ~~b. A Site Plan;~~
 - ~~c. A Public Outreach Program as required by UDO Sec 4.33 G.1;~~
 - ~~d. Any additional studies, plans, maps, analyses, or programs required by Section 4.33 and determined during the Pre-Application Meeting.~~
- ~~2. The Preliminary Solar Facility Use Permit process must be completed prior to the submission for the Final Solar Facility Use Permit.~~

~~C. Notice and Hearing Requirements~~

- ~~1. A public hearing shall be conducted by the Planning Commission prior to forwarding a written recommendation to the Town Council.~~
- ~~2. Notice of the public hearing shall adhere to the Public Outreach Plan (Sec.4.33 G.1).~~

~~D. Specific Conditions for Utility-Scale Solar Photovoltaic Facilities~~

- ~~1. The Planning Commission may recommend, and the Town Council may impose, conditions or requirements specific to the Solar Energy Facility, which may include but are not limited to:~~

- a. ~~Compliance with the siting requirements outlined in Section 4.33;~~
- b. ~~Approval of a development agreement detailing financial commitments, including community benefit payments and decommissioning assurances;~~
- c. ~~Submission and approval of all required studies, plans, maps, analyses, and programs;~~
- d. ~~Adherence to a timeline requiring final approval within three years from Preliminary Permit issuance;~~
- e. ~~Mitigation measures for visual impact, noise, and other potential disturbances to surrounding properties.~~

E. Preliminary and Final Solar Facility Use Permits

1. Preliminary Solar Facility Use Permit, Outlined in Section 4.33D:

- a. ~~Identifies project feasibility and compliance with siting requirements.~~
- b. ~~Establishes the scope of required documentation for final approval.~~
- c. ~~Valid for three (3) years, after which it expires if required items are not submitted.~~

2. Final Solar Facility Use Permit, Outlined in Section 4.33D:

- a. ~~Requires submission of all documentation identified in the Preliminary Permit stage.~~
- b. ~~Includes a development agreement formalizing financial commitments and obligations.~~
- c. ~~Final Permit applications must be submitted before the Preliminary Permit expires, with corrections or amendments completed within six (6) months of submission.~~

SECTION 2. ~~Chino Valley Town Code, Title XV, Land Usage, Chapter 154, Unified Development Ordinance (the “UDO”), Section 2.2, Meaning of Words and Terms, is hereby amended by adding the following definitions~~ and making conforming changes:

UTILITY-SCALE SOLAR PHOTOVOLTAIC FACILITY. A ground-mounted solar facility that has a solar project area exceeding 275 acres and that generates electricity for distribution to the public through a utility grid.

SECTION 32. ~~Chino Valley Town Code, Title XV, Land Usage, Chapter 154, Unified Development Ordinance (the “UDO”), Section 2.2, Meaning of Words and Terms, is hereby amended by amending the following definition and making conforming changes~~as follows (deletions; additions):

SOLAR FACILITY USE PERMIT:- A ~~permit issued through the conditional use permit process that signifies~~indicating that the developer applicant has completed, or agreed to complete, through a development agreement, all project conditions and requirements ~~of the project, per UDO 4.33. This permit must be issued.~~ A solar facility use permit is required before the ~~project is deemed approved by the Town~~Town can approve a utility-scale solar photovoltaic facility project.

SECTION 43. UDO Section 3.6, “AR-5” Agricultural/Residential, is hereby amended by adding Subsection (C)(17) to read as follows:

17. Utility-scale solar photovoltaic facilities, subject to Section 4.33.

SECTION 54. UDO Section 3.7, “AR-4” Agricultural/Residential, is hereby amended by adding Subsection (C)(17) to read as follows:

17. Utility-scale solar photovoltaic facilities, subject to Section 4.33.

SECTION 65. UDO Section 4, General Regulations, is hereby amended to add the following as Section 4.33, Utility-Scale Solar Photovoltaic Facilities:

4.33 UTILITY-SCALE SOLAR PHOTOVOLTAIC FACILITIES

- A. PURPOSE. The purpose of this Section 4.33 is to establish reasonable requirements and conditions for the permitting, placement, design, development, and eventual decommissioning of utility-scale solar photovoltaic facilities, and for consideration of a solar facility use permit, in a manner that:
 1. Ensures public health, safety, welfare, and convenience as enumerated in Section 1.9.2(A) ~~of this code.~~
 2. Ensures such facilities protect the natural environment and native wildlife.
 3. Ensures such facilities directly benefit the Town.
 4. Ensures such facilities are compatible with neighboring land uses.
 5. Ensures safety during such facilities’ entire life cycle.
- B. APPLICABILITY. All utility-scale solar photovoltaic facilities constructed after **[EFFECTIVE DATE]** shall comply with the requirements of this section.

C. CONDITIONAL USE PERMIT.

1. No utility-scale solar photovoltaic facilities may be constructed without a solar facility use permit, which ~~may be granted by the Town Council upon satisfaction of~~ may grant in its sole and absolute discretion upon meeting the requirements and conditions of this section and other applicable sections of this code.
2. Except as otherwise provided in this section, applications for solar facility use permits are subject to UDO procedures and requirements, including the conditional use permit requirements in Section 1.9.3.
3. The solar facility use permit process includes preliminary and final permits. A preliminary solar facility use permit is required before an applicant can apply for a final solar facility use permit. Securing a preliminary permit does not guarantee that an applicant will secure a final permit.
 - a. Preliminary Permit. A preliminary solar facility use permit establishes a public outreach program, ensures compliance with applicable siting requirements, outlines requirements, and establishes a timeline.

~~D. PROCESS.~~ Pre-Application Meeting.

Preliminary Solar Facility Use Permit – Confirmation of Siting Requirements

- (a) Before applying for a preliminary solar facility use permit, the applicant shall schedule a pre-application meeting with staff. The applicant schedules a Pre-App meeting with Town staff and affected agencies. ~~The Pre-App meeting to~~ ensures ~~that~~ the proposed project complies with the siting requirements ~~identified in 4.33. If the site needs to be rezoned, the rezoning application is submitted and moves forward in the standard rezone process, to the Planning and Zoning Commission and then to Town Council. Next, the applicant develops and proposes their~~ set forth in Section 4.33(D) and to establish a public outreach program, ~~per as set forth in~~ Section 4.33. Staff reviews, and either approves the submitted Public Outreach Program or recommends changes. ~~The (F).~~
- (b) Staff will review the proposed public outreach program and either approve it or recommend changes. The applicant may resubmit for further review after making such changes, and the process will continue until staff approves the program.
- (c) Confirmation of siting requirements ~~does will~~ not ~~move forward~~ proceed until the public outreach program is approved by the Town. If a rezoning is needed, the applicant may pursue that per Section 1.9.2.

ii. Preliminary Permit Application.

- (a) After receiving approval for the public outreach program and confirmation of siting compliance, the applicant may apply for a preliminary solar facility use permit pursuant to Section 1.9.3 and this section.

~~The properly rezoned site(s) move on to the Planning and Zoning Commission and Town Council in the form of a Preliminary Solar Facility Use Permit, to conceptually approve the solar project which meets the Siting Requirements, as outlined in the adopted ordinance.~~ (b) The preliminary solar facility use permit will identify all of specify the studies programs, plans, maps, analyses, and programs required of the project, to be completed in order to submit lists, studies, and analyses needed to apply for the final Solar Facility Use Permit process. The Preliminary Solar Facility Use Permit is permit and will remain valid for three years.

~~If the applicant has not submitted all the required studies, plans, maps, analyses, and programs from the Preliminary Solar Facility Use Permit approval by the 3rd anniversary of the council approved Preliminary Solar Facility Use Permit, the Preliminary Solar Facility Use Permit becomes null and void.~~

- (c) If the applicant does not submit all required materials under the preliminary permit within three years of its approval by the Council, the permit will become invalid. Submission of all required materials does not guarantee that an applicant will secure a final permit.

b. Final **Solar Facility Use** Permit – **Project Standards**.

~~In order to submit all required studies, plans, maps, analyses, and programs required of the project, the Applicant shall schedule a Pre-App Meeting with staff. The developer is also required to submit a development agreement that contains financial commitments identified in Section 4.33. All of the approved/required studies, plans, maps, analyses, and programs will become a part of the Development Agreement as attachments, outlining the commitments being made by the developer~~

i. Pre-Application Meeting.

- (a) Before applying for a final solar facility use permit, the applicant must schedule a pre-application meeting with Town staff to review the project's public outreach program, proposed development agreement, and project standards, including all applicable programs, plans, maps, lists, studies, and analyses, all of which will become part of the development agreement as attachments, outlining the commitments to be made by the applicant.

- (b) If the applicant submits all ~~the required~~such items, ~~through a Pre-App Meeting~~ before the ~~3-year time deadline~~expiration of the preliminary solar facility use permit, the tolling clock stops, marking the date of complete application submittal, and the review for all submitted items begins. ~~The Staff and subject matter experts hired at the applicant's expense, if needed,~~ will review all submitted items; ~~hiring experts on each subject for specialized reviews, at developer's expense, if necessary. Any item submitted that needs changes/amendments/corrections, must be updated. Any changes required must be sub~~ within ~~6~~six months of the date of complete submittal ~~of required items~~.

~~Once all the submitted items are reviewed and accepted as complete and accurate, they are attached to the Final Solar Facility Use Permit to process to Planning and Zoning Commission for recommendations to Council. The Council will receive all the approved/required studies, plans, maps, analyses, and programs with Planning and Zoning Commission recommendation, along with the Development Agreement, containing financial obligations of the developer/property owner, for their review and action.~~

ii. Review and Approval.

- (a) After all the submitted items are reviewed and accepted as complete and accurate, they will be attached to the final solar facility use permit and transmitted for review and possible approval by the Commission and the Council in public hearings, with the final decision made by the Council in its sole and absolute discretion. The Commission may recommend, and the Council may impose, requirements and conditions as set forth in this section and other applicable sections of this code.
- (b) In addition to the notice required under Section 1.9.3, notice of the public hearings shall adhere to the approved public outreach program.

ED. SITING REQUIREMENTS. The following siting requirements shall apply for the permitting, construction, and operation of utility-scale solar photovoltaic facilities:

1. Zoning.
 - a. Utility-scale solar photovoltaic facilities may, with a solar facility use permit, be permitted as a conditional use on properties zoned AR-4 or AR-5.
2. Siting Criteria.
 - a. Solar project areas must:
 - i. Maintain a minimum separation of three miles.
 - ii. Be at least 1,320 feet (¼ mile) to the east of the Peavine Trail.

- iii. Have 50-foot setbacks from all property lines.
 - b. Battery energy storage systems (BESS) must be centrally located within the solar project area or maintain a minimum separation of one mile from any developed residential property, whichever is greater.
 - c. All solar panels and equipment must maintain a minimum separation of 1,320 feet (¼ mile) from any developed residential property.
3. Limitations.
- a. The cumulative maximum acreage for all solar project areas within the Town is 3,800.
 - b. If a utility-scale solar photovoltaic facility comprises multiple parcels or portions of parcels, such parcels must not be separated by over 2,640 feet (½ mile).

E. PROJECT STANDARDS.

1. General Requirements.

~~F. PROJECT STANDARDS.~~ a. Utility-scale solar photovoltaic facilities ~~must comply with the following~~ shall meet the project standards, ~~F.1 set forth in this section.~~

~~through F.12.~~ b. All project standards ~~shall~~ will be reviewed ~~by experts in the field,~~ at the applicant's expense, by subject matter experts. The review period for plans shall not exceed 180 days.

c. If ~~the~~ such review ~~identifies necessary corrections~~ determines that changes are needed, the applicant must ~~make the required~~ implement those changes and resubmit ~~the plans for subsequent~~ further review. This process will continue until the plans ~~meet~~ fulfill all requirements and are ~~deemed~~ considered satisfactory.

d. Any information of an engineering nature that the applicant submits, whether civil, mechanical, or electrical, must be certified by an Arizona-licensed professional engineer.

42. Site Grading and Drainage.

a. The ~~developer~~ applicant shall provide a site grading plan, ~~identifying that outlines proposed slope~~ changes ~~of slopes~~ and ~~amounts~~ the volume of earth ~~proposed to be moved,~~ and A post-graded elevation map is also required for comparison.

- i. Completed grading shall be in reasonably close conformity to the grades shown in the site grading plan. The Public Works Director shall determine the limits of reasonably close conformity in each individual case, and the Public Works Director's judgment shall be final and conclusive.
- ii. Project site grading must not exceed 20% of the total acreage.
- iii. Existing property features with a slope of 5% or greater cannot be graded.
- iv. Solar panels are not allowed on grades over 5%.

~~b. Blasting is not permitted.~~

~~eb.~~ The ~~developer~~applicant shall provide a drainage plan, ~~identifying any storm water concerns pre-construction that addresses stormwater issues before, during, and post~~after construction. This ~~will also include a Storm Water~~includes stormwater reclamation and recharge components, if necessary, as well as a stormwater pollution prevention (SWPP) plan.

~~i. If determined necessary the drainage plan may include a stormwater reclamation and recharge component.~~

c. Blasting is not permitted.

23. Wildlife.

- a. The ~~developer~~applicant shall provide a wildlife protection plan developed in concert with and approved by the Arizona Game and Fish Department (AZGF) that includes a complete and accurate list of all wildlife and plant species that exist in, on, and within five miles of the solar project area, and identifies and plans for the necessary placement and maintenance of functional wildlife corridors and wildlife-friendly fencing. The ~~developer~~applicant shall provide proof of consultation with and approval by AZGF. Any reports, agreements, and review documentation shall be included.
- b. If AZGF determines that a utility-scale solar photovoltaic facility may detrimentally impact wildlife, the wildlife protection plan must address participation in and support for AZGF wildlife protection programs. This may include funding wildlife studies or providing pronghorn collaring to study impacts before, during, and after construction.
- c. The ~~developer~~applicant shall place and maintain functional wildlife corridors and wildlife-friendly fencing as identified in the wildlife protection plan.

34. Public Safety.

- a. The utility-scale solar photovoltaic facility must be annexed into a fire district.

- b. The ~~developer~~applicant shall provide a fire mitigation plan developed in concert with the Central Arizona Fire and Medical Authority (CAFMA) for the entire solar project area.
 - i. The battery energy storage systems (BESS) area of the project requires a specific section in the fire mitigation plan to ensure timely and effective extinguishment of any fire in the BESS, with minimal environmental impact.
 - (a) This portion of the plan is required to be reviewed and updated with the latest fire suppression techniques every three years.
 - (b) The updated plan will receive public review and comment ~~at~~by the ~~Planning and Zoning~~ Commission and ~~Town~~the Council, and will also be required to receive CAFMA review and approval.
 - (c) The ~~developer~~applicant shall provide proof of CAFMA's review and approval and include any reports, agreements, and review documentation.
- c. A natural disaster mitigation plan is required to ensure appropriate and timely response in the event of a natural disaster.

45. Traffic and Roads.

- a. The ~~developer~~applicant must conduct traffic impact analyses to assess traffic impacts during the construction and operation of the facility, and provide a road improvement plan for all roads impacted and created by the project.
- b. The road improvement plan shall reflect continued access to existing Forest Service Roads, if applicable.

56. Screening Requirements.

- a. All utility buildings and equipment storage areas shall be screened with a concrete masonry unit (CMU) wall at least seven feet high.
- b. The ~~developer~~applicant shall provide a viewshed analysis and protection plan of higher elevation and slope areas to determine suitable project screening. Determination of additional screening requirements may be made by the Town based on such analysis.
- c. Perimeter fencing around the project is required. Specifics such as height, construction type, screening, ingress and egress, and security measures must be outlined in a fencing master plan.

67. Glare and Panel Safety.

- a. All solar panels, support structures, and equipment must be constructed to minimize glare or reflection onto adjacent properties and roadways, and have a sufficiently low light reflective value (LRV) to not interfere with traffic, including air traffic, or create a safety hazard.
- b. Utility-scale solar photovoltaic facilities shall be maintained in good condition and repair and comply with applicable local, state, and federal regulations. Except during periods of regular maintenance and planned curtailments, such facilities must remain functional and operational until decommissioning is initiated pursuant to the approved decommissioning plan.
- c. Panels shall use the latest construction materials and technology for environmental safety and shall react automatically to potential panel-damaging weather to avert broken panels and other environmental issues.
- d. Solar panel height shall not exceed 15' when oriented at maximum tilt (perpendicular to the ground). Such height is measured from the foundation.
- e. To the greatest extent possible, all solar panels and other materials removed due to damage or through the decommissioning process must be recycled.

78. Outdoor Lighting.

- a. All lighting on-site before, during, and after construction must comply with dark sky regulations.
- b. The ~~developer~~applicant shall provide a lighting plan that includes, at a minimum, fixture cut sheets, numbers, locations, and types of lights; a schedule ~~of which~~detailing lights used and their hours of operation; the purpose of the lighting; the lumens ~~of~~for each light; and a photometric plan ~~of~~for the project area.

89. Drones.

- a. If the project utilizes drones ~~for inspections or security~~, the ~~developer~~applicant shall provide a drone utilization plan that ~~outlines~~ing their usage, flight heights, noise levels, hours of operation, travel routes, and lighting, ~~and providing~~along with proof of compliance with all applicable federal and state regulatory requirements.

910. Noise.

- a. Construction is ~~limited to~~allowed only between ~~the hours of~~ 8:00 AM and 5:00 PM (Arizona time) Monday through Friday. A construction noise contour impact study map is required for the construction phase of the project.

- b. Post-construction noise levels must not exceed 55 dB ~~during the day (between 8:00 AM to and 5:00 PM)~~ and 40 dB ~~during the night (between 5:00 PM to and 8:00 AM)~~. A ~~Post-post~~ construction/operational facility noise contour impact study map is required.

~~40~~11. Property Maintenance.

- a. ~~The developer shall prepare and submit a~~ **Property Maintenance Plan** ~~for the solar project area. The Property Maintenance Plan shall include the following elements:~~
 - i. ~~Landscaping~~
 - ii. ~~The applicant shall provide a property maintenance plan for the solar project area that addresses landscaping; weed control and abatement, including herbicide applications (types, amounts, and frequency); site infrastructure maintenance; panel cleaning and repair; fencing; drainage systems; access roads; and waste management.~~
 - iii. ~~Site infrastructure maintenance~~
 - iv. ~~Panel cleaning and repair~~
 - v. ~~Fencing~~
 - vi. ~~Drainage system~~
 - vii. ~~Access roads~~
 - viii. ~~Waste management~~

~~44~~12. Water Usage.

- a. The ~~developer~~applicant shall ~~prepare and submit~~provide a water usage plan for the solar project area. ~~The Water Usage Plan shall that includes the following:~~
 - i. ~~Water Source Assessment~~
 - (a) ~~Source identification~~
 - (b) ~~Permitting and Rights, if needed from the State~~
 - (c)i. A water source assessment that addresses sources, permits, and rights and includes a sustainability report showing that the water required for the project can be provided from the source.
 - ii. A water usage assessment detailing (a) Determination of the volume of water needed for during construction and operation.

~~(b) Determination of the volume of water needed for post construction operation.~~

iii. A water recycling and reuse plan

that outlines ~~(a) Outline~~ what equipment and policies are in place to ensure the ~~development is project~~ recyclinges and ~~reusing~~reuses water as efficiently as possible.

~~12~~13.Decommissioning Plan.

- a. The ~~developer~~applicant shall prepare and submit a detailed decommissioning plan for the solar project area. The decommissioning plan must contain:
 - i. A description of the project components and a sequence and description of the activities required to remove the same in compliance with this section within one year of decommissioning. The decommissioning plan shall ensure the removal of all poles, concrete, and other items placed below grade, the remediation of any environmental issues caused by the project, and the restoration of the land to its original pre-project condition. The decommissioning plan shall also ensure that all decommissioned equipment and solar panels are recycled to the greatest extent possible.
 - ii. Assurances that the ~~developer~~applicant has included the Town as an additional insured party (amount to be determined) and that all project owners, developers, and successors shall be bound to the decommissioning plan.
 - iii. A report prepared by a qualified ~~third-party~~third party (to be approved by the ~~Town~~ Council in advance) setting forth the procedures and estimated net costs associated with decommissioning the project as set forth in the decommissioning plan.
 - iv. Cash, an irrevocable letter of credit, or performance bond running in favor of the Town in an amount not less than the total estimated net costs identified in the above report.
 - (a) Such security shall be in place when project construction commences and remain in effect until decommissioning is completed.
 - (b) No such security shall be canceled without notice to the Zoning Administrator and approval by the ~~Town~~ Council.
 - (c) Each year, the ~~developer~~applicant shall provide proof that such security is in effect.

- (d) The ~~developer~~applicant shall have the above report updated and provide the updated report to the Town at least every three years and upon any proposed transfer of the solar facility use permit. Should any update indicate a change in the decommissioning costs, the security required above shall be adjusted accordingly.

~~G~~F. ADMINISTRATIVE REQUIREMENTS.

1. Public Outreach.

- a. An applicant for a solar facility use permit shall propose a written public outreach program for staff approval. The program must address how the ~~developer~~applicant will, from the commencement of the utility-scale solar photovoltaic facility project, work with the Town to ensure effective public outreach and keep the public informed about the project.
- b. The ~~developer~~applicant shall pay all costs for required notifications, facility rentals, and community meetings.

2. Development Agreement.

- a. Issuance of a solar facility use permit is strictly conditioned on the ~~developer~~applicant executing a development agreement setting forth the ~~developer's~~applicant's requirements to construct, operate, and eventually decommission a utility-scale solar photovoltaic facility in compliance with this section. The development agreement must:
 - i. Be prepared and executed in accordance with A.R.S. § 9-500.05 and any applicable requirements of this code.
 - ii. Set forth the ~~developer's~~applicant's requirements under this section.
 - iii. Address and include as exhibits all applicable programs, plans, maps, lists, studies, and analyses required under this section.
 - iv. Include an annual payment-in-lieu-of-tax (PILT) to provide a community benefit to the Town for the sole purpose of road maintenance. The benefit amount shall never be less than the initial amount determined in the agreement and shall be adjusted every three years based on the average CPI for the previous three-year period.
- b. Nothing in this section obligates the town to enter into any development agreement.
- c. It is the intent of this section that the development agreement not reduce, waive, or otherwise exempt the ~~developer~~applicant from the requirements of this section.

3. ~~Review and Approval.~~

- a. ~~The project's site plan and, if applicable, rezone must be reviewed by the Planning and Zoning Commission and the Town Council to ensure compliance with the siting requirements. If the Town Council approves the site plan and rezone, the applicant shall have three years to satisfy the remaining requirements of this section.~~
- b. ~~The project's public outreach program, development agreement, and project standards, including all applicable programs, plans, maps, lists, studies, and analyses must be reviewed by staff. After staff reviews all the same and deems them complete, the proposed development agreement will be transmitted for review and possible approval by the Planning and Zoning Commission and the Town Council in public hearings, with the final decision made by the Town Council.~~

Summary report: Litera Compare for Word 11.3.1.3 Document comparison done on 3/10/2025 8:23:19 AM	
Style name: MG2 Readability	
Intelligent Table Comparison: Active	
Original filename: Draft Ord TO BE REMOVED WHEN FINAL IS ADDED-Utility Scale Solar January 2025 v.6.docx	
Modified DMS: iw://cloudimanager.com/PHOENIX/6332507/5	
Changes:	
<u>Add</u>	177
Delete	206
Move From	10
<u>Move To</u>	10
<u>Table Insert</u>	0
Table Delete	0
<u>Table moves to</u>	0
Table moves from	0
Embedded Graphics (Visio, ChemDraw, Images etc.)	0
Embedded Excel	0
Format changes	0
Total Changes:	403

Attachment 3
Ordinance 202X-000 With 11/5/24 P&Z Changes in Blue

SECTION 1. Chino Valley Town Code, Title XV, Land Usage, Chapter 154, Unified Development Ordinance (the “UDO”), Section 1.9, Review and Approval Processes, is hereby amended by adding the following section.

1.9.3.1 Conditional Use Permits – Utility-Scale Solar Photovoltaic Facilities

A. Authorization

1. Conditional Use Permit for Utility-Scale Solar Photovoltaic Facilities (“Solar Facility Use Permit”) may be granted only after the Planning and Zoning Commission (“Commission”) has made a recommendation, and the Town Council (“Council”) has approved the request.
2. Approval of a Solar Facility Use Permit shall be based upon findings that the proposed use:
 - a. Will not be materially detrimental to persons residing or working in the vicinity, the neighborhood, or the public welfare;
 - b. Is reasonably compatible with uses permitted in the surrounding area;
 - c. Complies with the siting requirements, development standards, and operational requirements outlined in UDO Section 4.33

B. Application Requirements

1. Applications for a Solar Facility Use Permit shall be filed on forms provided by the Development Services Department and accompanied by:
 - a. Appropriate fees;
 - b. A Site Plan;
 - c. A Public Outreach Program as required by UDO Sec 4.33 G.1;
 - d. Any additional studies, plans, maps, analyses, or programs required by Section 4.33 and determined during the Pre-Application Meeting.
2. The Preliminary Solar Facility Use Permit process must be completed prior to the submission for the Final Solar Facility Use Permit.

C. Notice and Hearing Requirements

1. A public hearing shall be conducted by the Planning Commission prior to forwarding a written recommendation to the Town Council.
2. Notice of the public hearing shall adhere to the Public Outreach Plan (Sec.4.33 G.1).

D. Specific Conditions for Utility-Scale Solar Photovoltaic Facilities

1. The Planning Commission may recommend, and the Town Council may impose, conditions or requirements specific to the Solar Energy Facility, which may include but are not limited to:
 - a. Compliance with the siting requirements outlined in Section 4.33;
 - b. Approval of a development agreement detailing financial commitments, including community benefit payments and decommissioning assurances;
 - c. Submission and approval of all required studies, plans, maps, analyses, and programs;
 - d. Adherence to a timeline requiring final approval within three years from Preliminary Permit issuance;
 - e. Mitigation measures for visual impact, noise, and other potential disturbances to surrounding properties.

E. Preliminary and Final Solar Facility Use Permits

1. Preliminary Solar Facility Use Permit, Outlined in Section 4.33D:

- a. Identifies project feasibility and compliance with siting requirements.
- b. Establishes the scope of required documentation for final approval.
- c. Valid for three (3) years, after which it expires if required items are not submitted.

2. Final Solar Facility Use Permit, Outlined in Section 4.33D:

- a. Requires submission of all documentation identified in the Preliminary Permit stage.
- b. Includes a development agreement formalizing financial commitments and obligations.
- c. Final Permit applications must be submitted before the Preliminary Permit expires, with corrections or amendments completed within six (6) months of submission.

SECTION 2. Chino Valley Town Code, Title XV, Land Usage, Chapter 154, Unified Development Ordinance (the “UDO”), Section 2.2, Meaning of Words and Terms, is hereby amended by adding the following definitions and making conforming changes:

Utility-Scale Solar Photovoltaic Facility. A ground-mounted solar facility that has a solar project area exceeding 275 acres and that generates electricity for distribution to the public through a utility grid.

SECTION 3. Chino Valley Town Code, Title XV, Land Usage, Chapter 154, Unified Development Ordinance (the “UDO”), Section 2.2, Meaning of Words and Terms, is hereby amended by amending the following definition and making conforming changes:

Solar Facility Use Permit: A permit issued through the Conditional Use Permit process that signifies that the developer has completed or agreed to complete through a Development Agreement, all conditions and requirements of the project, per UDO 4.33. This permit must be issued before the project is deemed approved by the Town.

SECTION 4. UDO Section 3.6 “AR-5” Agricultural/Residential, is hereby amended by adding Subsection (C)(17) to read as follows:

17. Utility-scale solar photovoltaic facilities, subject to Section 4.33.

SECTION 5. UDO Section 3.7 “AR-4” Agricultural/Residential, is hereby amended by adding Subsection (C)(17) to read as follows:

17. Utility-scale solar photovoltaic facilities, subject to Section 4.33.

SECTION 6. UDO Section 4, General Regulations, is hereby amended to add the following as Section 4.33, Utility-Scale Solar Photovoltaic Facilities:

4.33 UTILITY-SCALE SOLAR PHOTOVOLTAIC FACILITIES

A. **PURPOSE.** The purpose of this Section 4.33 is to establish requirements for the permitting, placement, design, development, and eventual decommissioning of utility-scale solar photovoltaic facilities, and for consideration of a Solar Facility Use Permit, in a manner that:

1. Ensures public health, safety, welfare, and convenience as enumerated in Section 1.9.2(A) of this code.

2. Ensures such facilities protect the natural environment and native wildlife.
 3. Ensures such facilities directly benefit the Town.
 4. Ensures such facilities are compatible with neighboring land uses.
 5. Ensures safety during such facilities' entire life cycle.
- B. **APPLICABILITY.** All utility-scale solar photovoltaic facilities constructed after **EFFECTIVE DATE** shall comply with the requirements of this section.
- C. **CONDITIONAL USE PERMIT.** No utility-scale solar photovoltaic facilities may be constructed without a Solar Facility Use Permit, which may be granted by the Town Council upon satisfaction of the requirements of this section and other applicable sections of this code.
- D. **PROCESS.**

Preliminary Solar Facility Use Permit – Confirmation of Siting Requirements

Pre-Application Meeting with staff. The applicant schedules a Pre-App meeting with Town staff and affected agencies. The Pre-App meeting ensures that the proposed project complies with the Siting Requirements identified in 4.33. If the site needs to be rezoned, the rezoning application is submitted and moves forward in the standard rezone process, to the Planning and Zoning Commission and then to Town Council. Next, the applicant develops and proposes their Public Outreach Program, per Section 4.33. Staff reviews, and either approves the submitted Public Outreach Program or recommends changes. The Confirmation of Siting Requirements does not move forward until the Public Outreach Program is approved by the Town.

The properly rezoned site(s) move on to the Planning and Zoning Commission and Town Council in the form of a Preliminary Solar Facility Use Permit, to conceptually approve the solar project which meets the Siting Requirements, as outlined in the adopted ordinance. The Preliminary Solar Facility Use Permit will identify all of the studies, plans, maps, analyses, and programs required of the project, to be completed in order to submit for the Final Solar Facility Use Permit process. The Preliminary Solar Facility Use Permit is valid for three years.

If the applicant has not submitted all the required studies, plans, maps, analyses, and programs from the Preliminary Solar Facility Use Permit approval by the 3rd anniversary of the council approved Preliminary Solar Facility Use Permit, the Preliminary Solar Facility Use Permit becomes null and void.

Final Solar Facility Use Permit – Project Standards

In order to submit all required studies, plans, maps, analyses, and programs required of the project, the Applicant shall schedule a Pre-App Meeting with staff. The developer is also required to submit a development agreement that contains financial commitments identified in Section 4.33. All of the approved/required studies, plans, maps, analyses, and programs will become a part of the Development Agreement as attachments, outlining the commitments being made by the developer

If the applicant submits all the required items, through a Pre-App Meeting before the 3-year time deadline of the Preliminary Solar Use Permit, the tolling clock stops, marking the date of complete submittal, and the review for all submitted items begins. The staff will review all submitted items, hiring

experts on each subject for specialized reviews, at developer's expense, if necessary. Any item submitted that needs changes/amendments/corrections, must be updated within 6 months of the date of complete submittal of required items.

Once all the submitted items are reviewed and accepted as complete and accurate, they are attached to the Final Solar Facility Use Permit to process to Planning and Zoning Commission for recommendations to Council. The Council will receive all the approved/required studies, plans, maps, analyses, and programs with Planning and Zoning Commission recommendation, along with the Development Agreement, containing financial obligations of the developer/property owner, for their review and action.

- E. **SITING REQUIREMENTS.** The following siting requirements shall apply for the permitting, construction, and operation of utility-scale solar photovoltaic facilities:
1. **Zoning.**
 - a. Utility-scale solar photovoltaic facilities may, with a Solar Facility Use Permit, be permitted as a conditional use on properties zoned AR-4 or AR-5.
 2. **Siting Criteria.**
 - a. Solar project areas must:
 - i. Maintain a minimum separation of three miles.
 - ii. Be at least 1,320 feet (¼ mile) to the east of the Peavine Trail.
 - iii. Have 50-foot setbacks from all property lines.
 - b. Battery Energy Storage Systems (BESS) must be centrally located within the solar project area or maintain a minimum separation of one mile from any developed residential property, whichever is greater.
 - c. All solar panels and equipment must maintain a minimum separation of 1,320 feet (¼ mile) from any developed residential property.
 3. **Limitations.**
 - a. The cumulative maximum acreage for all solar project areas within the Town is 3,800.
 - b. If a utility-scale solar photovoltaic facility comprises multiple parcels or portions of parcels, such parcels must not be separated by over 2,640 feet (½ mile).
- F. **PROJECT STANDARDS.** Utility-scale solar photovoltaic facilities must comply with the following project standards, F.1. through F.12. All Project Standards shall be reviewed by experts in the field at the applicant's expense. The review period for plans shall not exceed 180 days. If the review identifies necessary corrections, the applicant must make the required changes and

resubmit the plans for subsequent review. This process will continue until the plans meet all requirements and are deemed satisfactory.

1. Site Grading.

- a. The developer shall provide a **Site Grading Plan**, identifying changes of slopes and amounts of earth proposed to be moved, and a **Post-Graded Elevation Map** for comparison.
 - i. Completed grading shall be in reasonably close conformity to the grades shown in the **Site Grading Plan**. The Public Works Director shall determine the limits of reasonably close conformity in each individual case and the Public Works Director's judgment shall be final and conclusive.
 - ii. Project site grading must not exceed 20% of the total acreage.
 - iii. Existing property features with a slope of 5% or greater cannot be graded.
 - iv. Solar panels are not allowed on grades over 5%.
- b. Blasting is not permitted.
- c. The developer shall provide a **Drainage Plan**, identifying any storm water concerns pre-construction, during, and post construction. This will also include a **Storm Water Pollution Prevention (SWPP) Plan**.
 - i. If determined necessary the drainage plan may include a stormwater reclamation and recharge component.

2. Wildlife.

- a. The developer shall provide a **Wildlife Protection Plan** developed in concert with and approved by the Arizona Game and Fish Department (AZGF) that includes a complete and accurate list of all wildlife and plant species that exist in, on, and within five miles of the solar project area, and identifies and plans for the necessary placement and maintenance of functional wildlife corridors and wildlife-friendly fencing. The developer shall provide proof of consultation with and approval by AZGF. Any reports, agreements, and review documentation shall be included.
- b. If AZGF determines that a utility-scale solar photovoltaic facility may detrimentally impact wildlife, the **Wildlife Protection Plan** must address participation in and support for AZGF wildlife protection programs. This may include funding wildlife studies or providing pronghorn collaring to study impacts before, during, and after construction.
- c. The developer shall place and maintain functional wildlife corridors and wildlife-friendly fencing as identified in the **Wildlife Protection Plan**.

3. Public Safety.

- a. The utility-scale solar photovoltaic facility must be annexed into a fire district.

- b. The developer shall provide a **Fire Mitigation Plan** developed in concert with the Central Arizona Fire and Medical Authority (CAFMA) for the entire solar project area.
 - i. The Battery Energy Storage Systems (BESS) area of the project requires a specific section in the **Fire Mitigation Plan** to ensure timely and effective extinguishment of any fire in the BESS, with minimal environmental impact.
 - (a) This portion of the plan is required to be reviewed and updated with the latest fire suppression techniques every three years.
 - (b) The updated plan will receive public review and comment at the Planning and Zoning Commission and Town Council, and will also be required to receive CAFMA review and approval.
 - (c) The developer shall provide proof of CAFMA's review and approval and include any reports, agreements, and review documentation.
 - c. A **Natural Disaster Mitigation Plan** is required to ensure appropriate and timely response in the event of a natural disaster.
4. Traffic and Roads.
- a. The developer must conduct **Traffic Impact Analyses** to assess traffic impacts during construction and operation of the facility, and provide a **Road Improvement Plan** for all roads impacted and created by the project.
 - b. The **Road Improvement Plan** shall reflect continued access to existing Forest Service Roads, if applicable.
5. Screening Requirements.
- a. All utility buildings and equipment storage areas shall be screened with a concrete masonry unit (CMU) wall at least seven feet high.
 - b. The developer shall provide a **Viewshed Analysis and Protection Plan** of higher elevation and slope areas to determine suitable project screening. Determination of additional screening requirements may be made by the town based on such analysis.
 - c. Perimeter fencing around the project is required. Specifics such as height, construction type, screening, ingress and egress, and security measures must be outlined in a **Fencing Master Plan**.
6. Glare and Panel Safety.
- a. All solar panels, support structures, and equipment must be constructed to minimize glare or reflection onto adjacent properties and roadways, and have a sufficiently low Light Reflective Value (LRV) to not interfere with traffic, including air traffic, or create a safety hazard.
 - b. Utility-scale solar photovoltaic facilities shall be maintained in good condition and repair and comply with applicable local, state, and federal regulations. Except during periods of regular maintenance and planned curtailments, such facilities must remain

functional and operational until decommissioning is initiated pursuant to the approved **Decommissioning Plan**.

- c. Panels shall use the latest construction materials and technology for environmental safety and shall react automatically to potential panel-damaging weather to avert broken panels and other environmental issues.
 - d. Solar panel height shall not exceed 15' when oriented at maximum tilt (perpendicular to the ground). Such height is measured from the foundation.
 - e. To the greatest extent possible, all solar panels and other material removed due to damage or through the decommissioning process must be recycled.
7. Outdoor Lighting.
- a. All lighting on-site before, during, and after construction must comply with Dark Sky regulations.
 - b. The developer shall provide a **Lighting Plan** that includes, at a minimum, fixture cut sheets, numbers, locations, and types of lights, schedule of which lights used and their hours of operation, the purpose of the lighting, the lumens of each light, and a photometric plan of the project area.
8. Drones.
- a. If the project utilizes drones for inspections or security, the developer shall provide a **Drone Utilization Plan** outlining their usage, flight heights, noise levels, hours of operation, travel routes, and lighting, and providing proof of compliance with all applicable federal and state regulatory requirements

9. Noise.

- a. Construction is limited to between the hours of 8:00 AM and 5:00 PM (Arizona time) Monday through Friday. A **Construction Noise Contour Impact Study Map** is required for the construction phase of the project.
- b. Post-construction noise levels must not exceed 55 dB during the day (8:00 AM to 5:00 PM) and 40 dB during the night (5:00 PM to 8:00 AM). A **Post Construction/Operational Facility Noise Contour Impact Study Map** is required

10. Property Maintenance

- a. The developer shall prepare and submit a **Property Maintenance Plan** for the solar project area. The Property Maintenance Plan shall include the following elements:
 - i. Landscaping
 - ii. Weed control and abatement including herbicide applications (types, amounts, and frequency)
 - iii. Site infrastructure maintenance
 - iv. Panel cleaning and repair
 - v. Fencing
 - vi. Drainage system
 - vii. Access roads
 - viii. Waste management

11. Water Usage

- a. The developer shall prepare and submit a **Water Usage Plan** for the solar project area. The Water Usage Plan shall include the following
 - i. Water Source Assessment
 - (a) Source identification
 - (b) Permitting and Rights, if needed from the State
 - (c) A **Sustainability Report** showing that the water required for the project can be provided from the source.
 - ii. Water Usage Assessment
 - (a) Determination of the volume of water needed for during construction.
 - (b) Determination of the volume of water needed for post construction operation.
 - iii. Water Recycling and Reuse Plan
 - (a) Outline what equipment and policies are in place to ensure the development is recycling and reusing water as efficiently as possible.

12. Property Maintenance

- a. The developer shall prepare and submit a **Property Maintenance Plan** for the solar project area. The Property Maintenance Plan shall include the following elements:
 - i. Landscaping
 - ii. Weed control and abatement including herbicide applications (types, amounts, and frequency)
 - iii. Site infrastructure maintenance
 - iv. Panel cleaning and repair
 - v. Fencing
 - vi. Drainage system
 - vii. Access roads
 - viii. Waste management

13. Water Usage

- a. The developer shall prepare and submit a **Water Usage Plan** for the solar project area. The Water Usage Plan shall include the following
 - i. Water Source Assessment
 - (a) Source identification
 - (b) Permitting and Rights, if needed from the State
 - (c) A **Sustainability Report** showing that the water required for the project can be provided from the source.
 - ii. Water Usage Assessment
 - (a) Determination of the volume of water needed for during construction.
 - (b) Determination of the volume of water needed for post construction operation.
 - iii. Water Recycling and Reuse Plan
 - (a) Outline what equipment and policies are in place to ensure the development is recycling and reusing water as efficiently as possible.

14. Decommissioning Plan.

- a. The developer shall prepare and submit a detailed **Decommissioning Plan** for the solar project area. The **Decommissioning Plan** must contain:
 - i. A description of the project components and a sequence and description of the activities required to remove the same in compliance with this section within one year of decommissioning. The **Decommissioning Plan** shall ensure the removal of all poles, concrete, and other items placed below grade, the remediation of any environmental issues caused by the project, and the restoration of the land to its original pre-project condition. The **Decommissioning Plan** shall also ensure that all decommissioned equipment and solar panels are recycled to the greatest extent possible.

- ii. Assurances that the developer has included the Town as an additional insured party (amount to be determined) and that all project owners, developers, and successors shall be bound to the **Decommissioning Plan**.
- iii. A report prepared by a qualified third-party (to be approved by the Town Council in advance) setting forth the procedures and estimated net costs associated with decommissioning the project as set forth in the **Decommissioning Plan**.
- iv. Cash, an irrevocable letter of credit, or performance bond running in favor of the Town in an amount not less than the total estimated net costs identified in the above report.
 - (a) Such security shall be in place when project construction commences and remain in effect until decommissioning is completed.
 - (b) No such security shall be canceled without notice to the Zoning Administrator and approval by the Town Council.
 - (c) Each year, the developer shall provide proof that such security is in effect.
 - (d) The developer shall have the above report updated and provide the updated report to the Town at least every three years and upon any proposed transfer of the Solar Facility Use Permit. Should any update indicate a change in the decommissioning costs, the security required above shall be adjusted accordingly.

G. ADMINISTRATIVE REQUIREMENTS.

1. Public Outreach.

- a. An applicant for a Solar Facility Use Permit shall propose a **written Public Outreach Program** for staff approval. The program must address how the developer will, from the commencement of the utility-scale solar photovoltaic facility project, work with the Town to ensure effective public outreach and keep the public informed about the project.
- b. The developer shall pay all costs for required notifications, facility rentals, and community meetings.

2. Development Agreement.

- a. Issuance of a Solar Facility Use Permit is strictly conditioned on the developer executing a development agreement setting forth the developer's requirements to construct, operate, and eventually decommission a utility-scale solar photovoltaic facility in compliance with this section. The development agreement must:
 - i. Be prepared and executed in accordance with A.R.S. § 9-500.05 and any applicable requirements of this code.
 - ii. Set forth the developer's requirements under this section.
 - iii. Address and include as exhibits all applicable programs, plans, maps, lists, studies, and analyses required under this section.

- iv. Include an annual payment-in-lieu-of-tax (PILT) to provide a community benefit to the Town for the sole purpose of road maintenance. The benefit amount shall never be less than the initial amount determined in the agreement and shall be adjusted every three years based on the average CPI for the previous three-year period.
 - b. Nothing in this section obligates the town to enter into any development agreement.
 - c. It is the intent of this section that the development agreement not reduce, waive, or otherwise exempt the developer from the requirements of this section.
3. Review and Approval.
- a. The project's site plan and, if applicable, rezone must be reviewed by the Planning and Zoning Commission and the Town Council to ensure compliance with the siting requirements. If the Town Council approves the site plan and rezone, the applicant shall have three years to satisfy the remaining requirements of this section.
 - b. The project's public outreach program, development agreement, and project standards, including all applicable programs, plans, maps, lists, studies, and analyses must be reviewed by staff. After staff reviews all the same and deems them complete, the proposed development agreement will be transmitted for review and possible approval by the Planning and Zoning Commission and the Town Council in public hearings, with the final decision made by the Town Council

Attachment 4
Planning and Zoning Meeting Minutes
01/07/2025

PUBLIC HEARING #D.1 – TA-2024-04 — Utility Scale Solar – A request to amend the Town of Chino Valley Unified Development Ordinance, Chapter 4 General Regulations, to provide requirements for the consideration of placement, design, development criteria, and ultimate removal of large Utility Generation Facilities, to ensure that such facilities protect the natural environment and native wildlife of Chino Valley, provide a direct benefit to the Town of Chino Valley, are compatible with the neighboring uses/land owners, and are safely operated during their life cycle.

Chair Merritt asked if anyone on the Commission had a disclosure to declare regarding this item. **Merritt** shared he had spoken to Councilmember Switzer regarding this item.

Will Dingee, Assistant Director, stated that this was part two of TA-2024-04. It had been brought before the Commission at the November 5, 2024, meeting. He clarified that the meeting was not a request for a zone change, nor to approve any solar project. It was to review a proposed Ordinance. He shared the changes that were proposed to the draft Ordinance based on the Commission and public concerns. He stated that Town staff had received three letters from developers within the solar community with concerns and brought up a slide that showed their concerns. **Dingee** explained that no changes recommended by developers were incorporated into the revised draft Ordinance. He recapped the changes made by Town staff and shared slides of these changes to the draft Ordinance. Staff recommended that the Commission forward a recommendation of “something” to the Town Council for Text Amendment TA-2024-04 as presented in the staff report subject to changes made at the meeting.

Merritt asked the Commission if they had any questions for staff.

Pasciak asked where in the draft Ordinance the stormwater prevention plan could be found.

Dingee responded F. Project Standards - Section 1C

Penn asked what the dollar benefit to the Town would be if a project were to get approved.

Dingee replied it would be subject to the project acre size, approximately 2-3 million dollars per year to the Town of Chino Valley.

Lineberry explained it would be between \$500 to \$1,000 per acre, per year.

Merritt clarified it would be for the life of the project, through decommissioning.

Merritt opened the meeting for public comments and shared the rules for speaking to the Commission.

Rhonda Ceremony, Firesky Lane, Chino Valley – *“Good evening, my name is Rhonda Ceremony, I live in Firesky Lane in Chino Valley. I have five points of concerns. The land use Chino Valley General Plan approved on June 27, 2024, designates Ranch Agricultural and open space areas as suitable for solar development under the land use clarification. Utility scale solar projects given the size infrastructure requirements and potential impacts on surrounding communities should be classified as commercial land use. Water concerns - a critical issue on the source of water from these utilities scale projects. Additionally, there is no clear plan to address the financial responsibility if wells go dry due to the significant aquifer withdraws on a solar, utility scale solar. The concern is especially pertinent given that such issues already exist in Chino Valley and the Tri, greater Tri City area, since Prescott and Prescott Valley get water from Chino. It is imperative that the Ordinance includes provisions to ensure that future property owners are legally bound to adhere to the conditions agreed upon by the original project owner, because a lot of these sites get sold once they're completed. This should be explicitly covered, long-term maintenance and decommissioning responsibilities of the new owners. It is unclear whether a consultation with CAFMA (Central Arizona Fire and Medical Authority) has been conducted regarding fire suppression measures and other public safety concerns associated with the solar project. Such consultation should be required before the Ordinance is approved rather than reactive to public safety planning. The Ordinance appears to me to have been written with a specific project in mind, which raises concern about fairness and transparency in the process. It is critical to establish a clear and equitable framework and prioritize long-term interests of the community over individual commercial entities. Thank you.”*

Karen Estorez, 1775 S. Johnson Lane, unincorporated County – *“I’m Karen Estorez and I live at 1775 S. Johnson Lane in Chino Valley. I’m diametrically opposed to this whole project, and I totally concur with the woman before me just said and didn’t move here to have all this implode on us. Thank you.”*

Doris Fossen, 1820 W Road 1 South, Chino Valley – *“I’m Doris Fossen, 1820 W Road 1 South, Chino Valley, Arizona. I concur with everything Rhonda said, she summed it up pretty well. We’ve got those same discussions especially with the wells, and the wells in southern area of Chino going dry, and we don’t need any more of that.”*

Cara Hamer, 210 Cottontail Drive, Chino Valley – *“Hi there, good evening, that’s my alias. My name is Cara Hamer. I live off Cottontail Road in Chino Valley, Arizona. Wasn’t really anticipating to talk tonight, but there’s so many different points to hit. First off, you mentioned staff a lot in the who recommends. I don’t know who the staff is, but maybe they’re not the people that bought those homes that overlook the beautiful fields with the pronghorn. You know how you talk about oceanfront property in Arizona, well that’s it. Those beautiful pronghorns, the big grass fields. People buy those properties so that they have those views. To live there and then have it change and have solar farms kind of sucks. And for someone to say that it’s not going to affect the property value, okay let’s maybe not say it doesn’t affect it. But let’s say you have one house that looks one way on a property with pronghorn in open fields where they purchased, and then another property with all the solar farms, which one’s going to sell first, which one’s going to sell for more money, right. That’s part of the beauty of Arizona and Chino is the views, the pronghorns, the big open fields. So, if you’re going to go forward, be respectful and allow people their views and maybe hide the solar panels behind one of our beautiful rolling hills, you know. Give people that honor and I concur with everyone else. I didn’t know again I was going to talk tonight, but I was just thinking of the views and why people move here and that’s definitely one of the reasons I moved here. So, thank you everybody for listening to everyone tonight.”*

Bev Wilson – 1777 W Road 2 North, Chino Valley – *“I’m Bev Wilson and I live at Road 2 North here in Chino Valley. I love it here, I’ve seen you before, hi. It’s rural and I agree with the lady who just spoke. We moved here for the beauty of it. If we put those solar farms in there, it changes everything. I’m not sure, I’m not up on this and I hadn’t planned on speaking either but has there been an environmental study done on what this is going to affect, actually affect. I agree with the first lady, she was very well prepared. I respect that. Anyway, I am adamantly opposed to this because I do believe it will affect our lifestyle here and the value of the lives that we live. I think there are other ways to have solar power that doesn’t have to destroy the community, the views, the animals, the water, doesn’t have to jeopardize it. And even if we make three million dollars a year in the community, is that worth it? Three million dollars in today’s society is nothing, we can make it another way. Thank you.”*

Stacey Wagner – 9160 E. Twilight Ridge Road, unincorporated County – *“My name is Stacey Wagner, I live in Mingus Meadows, which is part of unincorporated Yavapai County, and I agree with everyone that has spoken. We lived in Prescott, up on the mountain. We could see everything, and we moved out to Prescott Valley for the wide-open land and the wide-open spaces. And this project is supposed to be right next to our property, with the power lines going right behind our property. So, it will ruin our dream of having this beautiful place. And another thing I want to say is my husband and I drove to California a couple of months ago and back, and I notice that all of their solar farms are out in the middle of nowhere. Not by properties, not by residential areas. And even their windmills are not by residential properties or anything. So, if you get approached, I would like you to consider all of those facts when it comes to solar farms. Thank you.”*

Pasciak reiterated that the Commission was looking at a draft Ordinance to be able to make a recommendation to the Town Council. The Commission was not looking at any solar project, and that no projects have applied to the Town at this time. He stated that everyone said how much they like the views, and that views stop at their property lines. If someone wanted to continue to enjoy the view, then they would need to buy that land, that was reality.

Richard Huck – 12960 N. Bent Spur Court, unincorporated County – *“Hi, my name is Richard Huck, I live in unincorporated Yavapai. Excellent point about what we’re talking about here. What I’m after here is setbacks. Yavapai County went for a mile from a residential house. They’ve got their, Yavapai County is larger than four individual states, so you guys don’t have the scale that they have to be able to say that. But yet the intent should be there to try to keep this stuff away from the residents. Everyone who spoke so far was absolutely correct in that they want to look over that beautiful view and not see solar panels. Quarter mile is not far enough, please consider half mile at a minimum. If they, if you need a waiver because that half mile ruins a project, then let’s do that at the*

waiver state. Let's not do that at the Ordinance state. Half mile, three-quarter, Yavapai said a mile, I like that a lot. Thank you for your time."

Ann Yoshinaga – 9050 E. Pueblo Libre Road, unincorporated County – "Good evening, Ann Yoshinaga, Mingus Meadows, unincorporated Yavapai County. So my issues, I have a few. I don't know if you just saw in the news that LaPaz County just approved a 3500-acre solar farm, but it's far away from any residence. It's against, it looks like it, from what I could tell from google maps, it looks like it's by the 10 freeway. So, when the BESS catches on fire, then they're going to shut down the 10 for a couple of days, couple weeks, who knows. If you looked at the review, of the analysis of the Peoria BESS fire, it brings up some very concerning issues that I think need to be considered when looking at an Ordinance. To protect the community, the, our personnel and the citizens. The General Plan does not really, doesn't specify utility-scale solar farms, it talks about microgrids and solar, whatever you want to call it, that support the community, not states, not looking at regional states but regional area. So, I really think we need to look at that. Kind of on a side note, if you ever saw Landman, the Taylor Sheridan, just came out. I just happened to watch it the past weekend. It's interesting because the first five minutes of that kind of gave me a preview of what's going on here, except instead of oil fields, we're talking about solar farms and huge enterprises. Unfortunately, this has to, may have to do with foreign entities capturing all this money, millions if not billions of dollars at the expense of the community. I think we really need to look at that. People moved here, we need to listen to the community, not so much big business. Big business does not live here. Thank you."

Keng Chan – 9060 E. Twilight Ridge Road, unincorporated County – "Keng Chan, unincorporated Yavapai County. I'm going to start by pointing out something from your General Plan, okay. We are committed to preserving our community's expansive vistas, endless grasslands, and stary nights, while supporting limited unsustainable growth. Maybe they should have changed that to say unlimited solar panels and expansive vistas of glass. Well, we keep hearing that Yavapai County or Chino Valley is promoting the health, safety, convenience, and welfare of the Town of Chino. There is nothing in the draft at all, and there's not been any mention anywhere about the dust that's produced during construction. We brought up the issue of water before. Guess what, what does industry always tell you, oh we don't use water to clean these panels, oh this water goes back right into the dirt, it's not a big deal and there's no contaminations. Let me tell you what it does do. We've already found, and CDC and NIH have already come out and said dust is an issue, valley fever is an issue. Look up the studies, it's there folks. Did they look at it, have they actually looked at any of the negatives or did we just talk to solar industry. Guess what, there was a solar farm that was only a thousand acres, not 3,800, a thousand acres. They used 20 million gallons of water in two months. That's 10 million gallons per month for a thousand acres to keep the dust abatement down. And that was after they were fined \$3 million for keeping, not preventing the dust, okay. So, we keep talking about where applicants are going to be required to submit a usage plan or whatever else. Well, let's look at what they're going to be submitting. Look right at Prospect 14, the paperwork you got tonight. They actually refer to a report from their expert, Ryberg Power. Well, who's Ryberg Power, look at their own webpage. They do design and consulting specializing in power and PV solar engineering, design interconnections, and land development consulting. Well, we talk about Darren Coffee who says there's no impact to property value. What size project did Darren look at? When you look at any of this research that they've done, they've done research on projects of several hundred acres, not 3,800 acres. AriSEIA (Arizona Solar Energy Industries Association), let me give you a quote directly out of their information, which is public knowledge and it's available publicly. They look at the reliability and economics. Oh, let's go back to the Ryberg Power report, it says right here in their own report, for them to operate profitably. So, when we look at what these experts are telling us, why are we allowing only experts who are pro-industry. How about we look at the experts who tell us what's real. How about we look at the experts who tell us people in this area are going to get sick. Thank you."

Laura Chan - 9060 E. Twilight Ridge Road, unincorporated County – "Hello, thank you for your time to speak. My name is Laura Chan, I live in unincorporated Yavapai County. And but I'm a lover of Chino and Yavapai County and why we all live here. I would like to say, I never thought I would say this cuz I'm not anti-solar, but I believe this Ordinance need to, needs to say no utility-scale solar in Chino Valley. We need to grandfather in the existing solar facility with no expansion. The reason I say this is when we talk about that 9.5% of grassland, that's on top of everything that we already have, that's our city. If we love our, I'm not, I don't even care about a view, I care about our way of life. If that can't be, then this Ordinance must be specific. It must provide requirements. An example, I'm running out of time, example I want to put a shed on my house, it needs to be so far. Well, I know that, I get a waiver. But in this solar, in this solar Ordinance, I want, what is it 50 feet, 200 feet, I can't even remember what it is. But, all right, they can do that, 50 feet, quarter mile off a property. Well how do you then go back and say, I'm sorry it's not appropriate for this area. It needs to be a mile and grant a waiver. Things matter, when you expect a

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proposal, I build a proposal based on what do I, you know, how, what I can get away with. It's economics, it's money, it's the bottom dollar. And so that's where I'm like, I'm really confused with this Ordinance. Chino, we don't need to be, our valley doesn't need to be solar fields. NIMBY, oh sorry, NIMBY (Not In My Backyard), but when I was going around and asking questions, when you ask someone do you want large-scale solar, they'll say yes. And then when you turn around and you ask, but okay, do you want it in your backyard, you know what their first response is, no, or they're silent. Let's keep Chino Valley, Chino Valley, and Yavapai County, Yavapai County. Thank you so much for your time.

John Gillespie – 7144 E. Stetson Drive, Scottsdale, Solar Development Team - Rose Law Group – “Chair Merritt, members of Commissioners, my name is John Gillespie. I’m a land use attorney with the Rose Law Group, 7144 E. Stetson, and our firm works on energy projects throughout the state and these projects certainly provide a general benefit to Arizona. But they can also provide a direct benefit to local municipalities where they’re developed. Some of these solar developers are among the largest companies in the entire world, and they no doubt can do a lot of good for this town. We found that utility-scale solar development can yield great benefits to communities including construction job creation, economic boost to local businesses, significant increases in tax revenue, and investment in local public services. It also yields a land use which doesn’t create noise, has minimal impact on water uses, doesn’t create traffic or increase population, and ultimately is decommissioned in a way that allows the community to utilize that land differently in 30 to 40 years, when the land needs have evolved. Compliments to staff and the Commission for preparing an Ordinance which is as comprehensive as any other Ordinance in the entire State. The reports being required will ensure that potential developments are addressing fire, water, road improvement, wildlife protection, decommissioning, views, and financial resource considerations among others, which will ensure that each proposed project yields significant information to guide good decision making. I know many people have expressed some concerns about impacts to water, but I suggest that a lot of that is the result of misunderstanding. First, solar uses almost no water, and certainly uses less, significantly less than farming, residential, or commercial uses. Next, solar does not result in the kind of chemical run, in chemical runoff. Researchers right here in Arizona have been farming and growing crops right underneath panels. The University of Arizona in Tucson has been one of the world leaders in doing this testing and research, and they have found that there are no soil contamination issues from solar, and there are actually numerous benefits of growing food, food that can be eaten, right underneath the panels. I know my time is limited here, but I think this is the kind of thing that the Town can make developers demonstrate when they consider each individual project. And, if the developer cannot make the Town comfortable at that time, then you cannot approve that proposed project. If we were drafting this Ordinance based on our experience in other jurisdictions, then we would likely have proposed some differences and standards, such as lowering setback requirements and different project separation standards. But what is being proposed does appear to align with the Town’s General Plan and will at least provide the opportunity for projects to be proposed. The Town should have all the tools at its disposal to reject specific projects that it doesn’t feel provide a community benefit and accept projects that do provide enough benefit. Ultimately, having this Ordinance in place as presented will ensure that the Town can reject proposals that don’t meet the community needs, and that it accepts only the best projects that will show a significant benefit to the Town. Thank you.”

Cyndi O’Daly - 8055 E. Dog Ranch Road, unincorporated County – “Hi there, my name is Cyndi O’Daly, I live Coyote Springs, unincorporated Yavapai County. I just want to say I do concur with both Rhonda and Mr. Chan. They had some great talking points. Our community out there, we’re a very big equine community, so we have a huge concern with, there’s many of us that ride out in the state land out there, and use that to ride our horses. Water contamination for our horses is a huge concern, and we’re just like to keep our land our land. Thank you.”

Yolanda Moneglia - 870 Sycamore Vista Drive, Chino Valley – “I’m not a speaker, but just want to let you guys know, been here since the 80’s, and I have a filter on my well that comes, that’s connected to, how can I say it, where you store the water (pressure tank). Just recently it’s gray, it’s brown. I was going to let you guys know, but something’s going on with the wells, and is just now happening. I don’t know, and where my property’s located, the water is excellent, like 250, but I’m concerned, and I was a part of the adjudication for the water, and I’m not on the adjudication anymore, but we do have problems with water. So, I don’t know much about the reasoning for you guys wanting to do the solar, but I think we do need more information because I just found out last minute. My daughter called me and this, everything’s live right now, what you guys are talking about. And don’t know much about solar, but I would like to know more reasoning behind, the reason why you guys want the solar, not just because of money, or you’re getting a grant. Yeah, I understand that our view stops at our property line, but I like to look out of my property line too. So, I heard somebody in here when I was on my way here make a comment about that. Just remember who elects you, I didn’t like that comment either. So, but yeah something’s going on with the

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water, y'all need to find out. Another thing too, we got a lot of potholes in Chino. I would like to know what's going on with that before the solar comes in. But yeah, I just like to know more about it, not it do, does the Town want to put it in for the pot farms, the weed farms. What's the reasoning behind it, I don't know much about it. Tonight's the first night I heard about it, so, but we do have a water problem, and we ain't got no rain this year y'all. So, I worry about the fires that are coming, California is burning up right now, it's not even on any of our news channels here in Arizona, but my mother called me, the Palisades. I'm talking about millions of dollars of homes. So, I think we need to put our priorities in order. Thank you. Oh yeah, and I watched the Landman, that's a good movie. And you know what they were talking about, they're talking about gas and solar, and them windmills in California, they were talking about how expensive that is, the concrete, what to put in, gas is cheaper.

Merritt clarified that the Commission was not elected nor were they paid, that they volunteered to serve the community to the best of their efforts. He reiterated that the Commission was reviewing and discussing a draft Ordinance, and that no specific solar projects had been presented to the Town. He stated that the solar developers had been politicking the Town to get an Ordinance written, not for a current, specific project, but for the possibility in the future. The only input the solar developers gave to the Town staff was when the staff sought them out to share their expertise, not for their position in a solar business. The Town staff had put together the best draft Ordinance possible, which far exceeded Yavapai County's Ordinance.

Brian Lantero – 9210 E. Twilight Ridge Road, unincorporated County – “Thanks for pronouncing my name so well, that's fantastic. Brian Lantero and I live in Mingus Meadows, unincorporated Yavapai County, and I'm really, I'm not going to dive into, you know, detailed numbers and facts because we just don't have enough time. So, I'm a CPA by trade so I'm just trying to give, first of all, I know this Council is not here, or this Zoning Commission is not here to decide whether or not you do utility-scale solar projects, but let's just think about solar in general, utility size scale. Do they make money, no they don't make money. So, how's this whole business, you think about it, if they make money, we'd have a lot more than one percent of all of our energy from solar and renewables, etc. But they get large tax breaks, and it's all, without going into a lot of detail, it's a very much of a balance sheet trick. We're getting big liability, we're going to pay a couple of million a year to the Town, but on the other hand we're going to have this big tax credit that we're getting from the state, from the feds, and this grant, so we're going to pay off that liability with this credit. But just to get to the Ordinance itself, I'm a big believer that we read the General Plan. This is not what they had in mind, and I believe the Ordinance should be amended and adjusted for the kind of solar power that the plan describes, which is the way that Ann mentioned earlier, microgrids, the microgrids which would in an emergency supply energy for the Town of Chino Valley. And I did just want to bring up one point about the impact to the value of the properties, and I want to point the staff to the study that was done called the “Primary source of chronic methodology regarding damage studies”, third edition of Real Estate Damages published by Randell Bell, PhD. And just to give you a quick idea, the results of this study, which I can provide, show between a negative eight to a negative 30 percent decline in value of real estate adjacent or near solar energy generation power systems. And, if you still don't believe that property values are impacted negatively, look at some of these plants that are out there right now. Lighthouse BP has something called the neighbor agreement, where they will pay neighboring properties anywhere from \$30,000-\$60,000 to go along with a plan, or something similar, to be a good neighbor and say that they're in, they're in agreement with the plan. Thank you”

James LeStrange – Solar Development Team, Lightsource BP for Draconis Energy Project – “Good evening everyone, James LeStrange from Lightsource BP on behalf of Draconis Energy Project. Thank you for the opportunity to speak tonight, my name is James LeStrange and I'm a developer at Lightsource BP, where we build and operate solar projects throughout the United States. Our mission is to develop projects designed with the community in mind, contributing to energy independence while aligning with local values and priorities. At Lightsource BP we respect Chino Valley's local land use authority and greatly appreciate the thoughtful effort that went into drafting this Ordinance. We believe establishing clear community-centered guidelines is crucial to fostering responsible growth. We are evaluating bringing a solar energy project to Chino Valley, and it would bring significant benefits to Chino Valley. During construction, it would create 450-500 jobs offering substantial economic opportunities for local workers and businesses. Over the long term, the project is expected to generate tens of millions of dollars in new property tax revenue, which will directly support the Chino Valley School District, public services, and infrastructure, without increasing taxes for existing residents. Additionally, with an annual operations budget of several million dollars, largely spent within the region, the project will provide sustained support for the local economy. We'd also like to address some of the concerns that have been expressed regarding utility-scale solar. One – water contamination – Lightsource BP requires all of its solar panels to pass strict testing protocols established by the EPA to ensure they are not hazardous to people or the environment. Lightsource BP does not buy panels from any

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manufacturers whose panels have not passed this rigorous testing process. Protecting wildlife – environmental stewardship is a top priority; our team conducts thorough studies to minimize impacts and works with experts to implement protective measures for local wildlife and habitats. Proximity to homes – We carefully design projects with appropriate setbacks, screening and buffering, to ensure harmony with surrounding neighborhoods, and maintaining the area’s rural character. At Lightsource BP we take pride in developing projects that not only deliver clean, reliable energy, but also enhance the communities where we work. We’re committed to collaborating with Chino Valley and regional partners to ensure this project respects local values, drives economic growth and supports energy independence. In closing, we feel that solar development is one of the best uses of the available land for several reasons, to include quiet for neighbors, improved power grid reliability, minimal water use, designated migration corridors especially for big games such as pronghorn, little to no strain on Town infrastructure, and the added benefits to the School District and other public services. Thank you again for your time, and we look forward to continuing our work with the community.”

Merritt closed the public portion of the meeting.

Merritt led a discussion with the Commission and Town staff clarifying key points of the draft Ordinance. The discussion included:

- Setbacks, buffers and the distance requirements between projects
- Property owner’s views and the possible impact to property values
- CAFMA, fire mitigation, and the placement of battery storage
- Water usage and noise levels during construction
- Benefits to the Town and financial responsibility if project site is sold
- The section of the General Plan which identified the need to look at guidelines and regulations for regional-scale solar

Lineberry explained that the General Plan had a series of policies under the goal CSF-7 – Resiliency -which talked about resiliency in redundant power sources, which specifically called out regional, aka utility-scale solar. It identified that the Town needed to look at developing guidelines and regulations. **Lineberry** reiterated that it meant that the Town Council did not necessarily have to approve a project when it came in, what the General Plan stated was the need to put some regulations in place.

The Commission concluded that the draft Ordinance, as written, was the best it could be, and no further changes were required.

Merritt closed the public hearing.

Motion was made by Pasciak, seconded by Zamudio, to approve TA-2024-04, as presented, subject to the staff report, and information provided during the hearing. A roll-call vote was taken, and the motion passed with a 5-1 vote, with Merritt voting no.

Merritt explained his no vote. He stated he appreciated the Town staff, and they did an excellent job producing the draft Ordinance. He did not believe solar belonged in Chino Valley, that there were many other places that it could be done.

Merritt asked the Commissioners who voted yes to explain their votes.

Meadors stated she did not believe solar should be built in Chino, that there was plenty of land between here and California. She stated she understood that property owners had a right to request this for their land, and if the Town were to deny it, the Town would be liable for years’ worth of lawsuits. She suggested that the Town Council should decide.

Zamudio stated he did not want solar in the Town, but projects would come before the Commission. He reiterated that the people who own land had a right to bring in a proposal, and that having an Ordinance would protect the Town from a lawsuit.

Welker concurred.

Penn stated that he is against the idea of a project, but the reality was solar companies had untold sums of money

to tie the Town up in litigation, and that would be very costly to the Town of Chino Valley.

Pasciak stated that right now the Town and staff had absolutely nothing to say what would be required for a project to come into the Town. So, if a project were to come in and the Town did not have this Ordinance, every point would have to be negotiated. These solar companies had more money than the Town, and they would debate it infinitum until they got what they wanted. Arizona Solar Energy Industries Association's letter sent to the Town was a two-page letter with a 36-page attachment, just to comment on the Town's proposed Ordinance. The proposed Ordinance would give the Town something to stand on, which was why he voted yes.

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PUBLIC HEARING #D.1 – TA-2024-04 — Utility Scale Solar – A request to amend the Town of Chino Valley Unified Development Ordinance, Chapter 4 General Regulations, to provide requirements for the consideration of placement, design, development criteria, and ultimate removal of large Utility Generation Facilities, to ensure that such facilities protect the natural environment and native wildlife of Chino Valley, provide a direct benefit to the Town of Chino Valley, are compatible with the neighboring uses/land owners, and are safely operated during their life cycle.

Chair Merritt asked if anyone on the Commission had a disclosure to declare regarding this item. Commissioner **Switzer** and Commissioner **Zamudio** both stated they were on the Solar Committee. Chair **Merritt** shared he had spoken to Switzer and the Town staff regarding this item.

Assistant Director, **Will Dingee**, informed the Commission about the expected public turn out for the item and that staff had implemented a system to ensure that everyone who wanted to speak had the opportunity to do so without exceeding the occupancy of the Chambers.

Dingee began his presentation by explaining that the draft Ordinance did not approve any specific project. The Ordinance established requirements that must be met in order for the Town of Chino Valley Town Council to consider a project. The Town Council held the final decision on not only the Ordinance language, but also on any projects proposed in the Town limits.

Dingee continued with providing a history of utility-scale solar in Chino Valley and explained that the first facility came to Chino Valley in 2011 with the Sun Edison (now APS) facility on East Road 4 South. This 290-acre facility, zoned AR-5, received a Conditional Use Permit (CUP) from the Chino Valley Town Council in May 2011. The facility began construction in early 2012 and was completed in 2013. Subsequently, RES America Development obtained a CUP from the Town Council in January 2013 for a 200-acre facility, zoned AR-4, located on East Road 4 North; however, their permit expired in 2014 as construction never began.

Dingee explained that both facilities that were granted CUPs were based on interpretations by previous Zoning Administrators of how the Zoning Code defines “Public Utility.” The current Zoning Administrator, however, does not agree with the prior interpretations and does not apply the code in the same way.

Dingee continued and explained that three separate developers had presented proposals to town staff. The Draconis proposal under landowner Perkins initiated discussions with the Town in 2020. Following the direction of the then-Director, Draconis submitted an incomplete application to rezone the project area to Industrial to meet APS’s interconnection requirements. This application, however, did not advance and ultimately expired in October 2021. In 2022, Clean Energy, under landowner Arizona Eco Development, proposed the 1,600-acre Eagle Solar project. Similarly, YA-Jerome – ERM, under landowner Wilkinson, proposed the 642-acre Prospect 14 project, which aimed to revive the expired 2013 Conditional Use Permit (CUP). Each of these proposals were advised to wait for the completion of the General Plan.

Dingee explained that in November of 2023, the Town received a legal challenge regarding the interpretation of the definition of “Public Utility” and that the challenge was intended to force the Town to accept a CUP application like had been done in 2011 and 2013.

Development Services Director, **Laurie Lineberry**, then discussed why the Utility-Scale Solar Ordinance was necessary, explaining that it provided protections to the town that a Conditional Use Permit process would not provide. She then shared the policy information provided in the General Plan about solar energy.

Lineberry then outlined the process taken by the Town, from the seating of the Solar Committee members by staff through a staff-generated process, through 9 months of staff advisory committee meetings, to the generation of the draft ordinance.

Next, **Lineberry** addressed the Siting Requirements contained in the draft Ordinance.

Dingee explained the following Project Standards outline in the Ordinance:

- Site Grading Plan
- Post Graded Elevation Map

- Wild life Protection Plan
- Fire mitigation plan
- Natural Disaster Mitigation Plan
- Traffic Impact Analyses
- Road Improvement Plan
- Viewshed analysis and protection Plan
- Fencing Master plan
- Decommissioning Plan
- Lighting Plan
- Drone Utilization Plan
- Construction Noise contour impact study map
- Post Construction/Operational facility Noise Contour Impact Study Map
- Public Outreach Program

Dingee continued with explaining how the project standards would be a part of a Development Agreement that would prohibit any waivers to the standards.

Dingee explained that another part of the Development Agreement was the Community Benefit provision which would be an annual payment made directly to the Town of Chino Valley solely for road maintenance.

Dingee continued with explaining how the Town of Chino Valley did not have a property tax. One was on the ballot in 2019 specifically for funding road maintenance. The measure failed overwhelmingly with the feedback from the community being “The Town needs to find a way to fix Chino’s roads without raising taxes on current residents or triggering explosive growth.”

Dingee explained that the intent of the community benefit payment would be to off-set the town’s road maintenance fund shortfall which has been made larger by diminishing federal funds. The annual contribution amount expected would be between \$1.9 million and \$ 3.8 million across all projects.

Lineberry concluded with outlining the Process for Review of solar projects.

Merritt asked the Commission if they had any questions for staff.

Switzer asked staff to bring up on the screen Section 6 Page 22 of the General Plan. He stated he felt that nothing in the General Plan stated allowing for large scale solar utility supplying power outside of Chino Valley. His interpretation was that if utility scale solar were wanted in the Town, it would have been included in the General Plan as a section and not under resiliency.

Lineberry replied that each of the policies in the General Plan were not necessarily intertwined with all of the others, that they could be stand-alone policies. She stated that in the General Plan, Section CFS-7.4 did include regional-scale solar energy development proposals.

Meadors asked if the decommissioning plan and fire mitigation plan would require the developer to put money in an escrow account and would it accumulate interest.

Dingee replied yes, in a bond, escrow account, or a letter of credit, to be updated every three years to ensure it is an accurate sum.

Lineberry added interest would accumulate in the escrow account, and reiterated the amount would be reviewed every three years to ensure there is enough for the decommissioning process as costs increase over time.

Pasciak pointed to an administrative correction to Section 2, to include UDO Section 3.7, "AR-4" to the section and the draft Ordinance. He felt it was a well-presented draft Ordinance.

Meadors asked about larger zoning, AR-40, AR-60 and open spaces.

Dingee replied that AR-36 was not a current zone, that AR-5 was the largest zoning district currently in the Town. He stated staff considered making open space a reserved zoning district, however, under State legislation, open space has a minimum home requirement of one per acre.

Zamudio stated he felt the fire mitigation plan was inadequate, he understood that CAFMA would review it and asked what recourse the Town had to ensure it would be implemented properly going forward.

Lineberry replied that staff would reach out to California and/or Texas Fire Departments, who have a large number of solar fields and have had to deal with various issues that come with them. Currently CAFMA was who the Town relied on for fire suppression. Staff would consult with other experts to bring in the latest knowledge based on experience from other places.

Merritt stated that Commission Switzer brought up the General Plan and asked if the General Plan required a Solar Ordinance to be adopted to allow for large-scale solar facilities.

Lineberry replied no.

Pasciak asked if the Town Council directed the staff to write the draft Ordinance.

Lineberry replied it was directed by the General Plan and Town Council, and staff had been working on it for over a year.

Merritt opened the meeting for public comments and shared the rules for speaking to the Commission.

Cathy Middlested, 380 Lauren Lane, Chino Valley - *"Cathy Middlested, resident of the Town of Chino Valley. My personal opinion is I am not for large scale solar plans, especially four of them that are identified on the map. When I was working on the Steering Committee for the General Plan, public outreach said that they wanted to keep Chino Chino, they wanted to keep the ruralness of Chino. We did not foresee anything large scale like this, and I am not for it. I know you are not approving or denying it tonight, my only question to you is, at the point that you review some of these numbers, and some of the acreages and the amount of money that the Town, that is the only benefit to the Town is the money that they would receive. I would ask you that you consider raising some of the money value if the project is approved, whenever a project comes in and hopefully lessening the square footage or the miles, and a little bit more distance from the Peavine Trail and residences. I think a quarter acre is just not near long enough, but that's my personal opinion. Thank you."*

Tim Smith, 12925 N Bent Spur Court, unincorporated County - *"Tim Smith, Mingus Meadows, right on the Chino boundary. I would urge you to table this utility scale thing until it has been fully vetted by the public. There are so many issues in here. This affects property values, it can negatively affect property values, views, and many of the other things that have been mentioned, and I would just urge you to table it so that the public can give input, and as you brought up, Commissioner, I think it needs to be looked at thoroughly. And thank you for your time."*

Clinton Skeens, 3745 Old Home Manor Drive, Chino Valley - *"Hello folks, my name is Clinton Skeens and I live in the Town of Chino. Ten years ago, my mother, Vickie Wilkenson, started working on her solar project, and I wanted to quickly mention some of the reasons why we chose solar over some of the other types of development on our land. The main one being it doesn't create a strain on our infrastructure like most developments do. For example, solar projects do not need water to operate. Solar projects do not increase traffic or have long-term wear and tear on our roads. Actually, they help build the roads by the money they create. They do not increase population density like a development would. Finally, solar projects do not increase light pollution. In fact, keeping tracts of land like this intact and not subdivided will help preserve the dark, open skies of Chino Valley. Instead, these projects will*
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quietly bring in taxes to improve our utilities, fund our schools and support our emergency services departments. Thank you."

Bud Woodhurst, 3245 Jerome Junction, Chino Valley – *"Good evening, Bud Woodhurst, Town of Chino Valley. Mr. Chair, Mr. Co-Chair, I would like to thank you for putting this Committee together, spending all the time. I know that it has been almost a year, it's a lot of work that these people went through to put this together. A lot of information. I moved here in 1972; I wanted to keep Chino Chino. Obviously, that didn't happen. Everybody else came here too. We're going to need power, that's just a fact of life. Would you rather look at solar panels or apartments, Lowes, Home Depots? You know, when the project is over and done, the next generation gets to figure out what they are going to do with the land. So, my vote's for solar, thank you for your time."*

Gary Beverly, 1219 Granite Creek, Chino Valley – *"My name is Gary Beverly, I lived in Chino Valley for 50 years and things have changed a lot already. I am speaking as the Chair of the local Sierra Club group, the Yavapai group. The Sierra Club representing over 700 paying members in west Yavapai County. The Sierra Club has a national policy on Siting Renewable Energy Facilities. I have given a copy of that to Will. Basically, this Ordinance that you're looking at fits within those guidelines well. And so, the Sierra Club encourages renewable energy projects when they can be done in an environmentally conscious manner and when they consider the needs of the people in the area. So, I'm pleased to see that you have a requirement for a public process, and that you've had a stakeholder group, that you've developed this in a rational way. Yavapai County can learn a couple of things from you here. So, I'm also pleased to see the dark sky limitation restrictions in there. And we are also pleased to see the setback from the Peavine Trail, which is a really important recreational facility. So, I think this Ordinance gets a lot of things right. I don't understand the need for a three-mile separation between different projects and there is no justification for that, so I'd be interested in hearing the rationale behind that. And I have one suggestion for things you might add. There is no consideration in the Ordinance for storm water management, so the glass surface panels are going to have pretty quick run-off, and precipitation is going to hit the ground. Now what would be really great to do would be to have a requirement for detention ponds that would recharge water, not evaporate water, that is my suggestion. Thank you."*

Susan Anderson, 9990 N. Coyote, Springs Road, unincorporated County – *"Hi, my name is Susan Anderson and I live on Coyote Springs since 2014. One of the things that I witnessed that brought to my mind was the fire that we had over in Viewpoint. Trying to get animals out of that was a disaster. People had their, you know you couldn't just drive over, and you couldn't take your animals out. They shut the road down, and Coyote Springs is one way in and one way out. Which is kind of dangerous when you think about a disaster when nobody wants a disaster. I didn't think we would have had that one, it was two miles from our house. We had 17 animals at our house, and it was hard getting them out. I had airplanes flying over us and I don't think that our fire, the Central Arizona Fire, is adequate taking care of a fire. We all saw what happened in Missouri with the lithium batteries and we have wind. So, I was concerned about the wind. I'm not a person that thinks about natural disasters too much, but I do think about if something happens and that's a big concern. Lithium batteries and getting my animals out safely and having another way to get out. Thank you."*

Keng Chan, 9060 E. Twilight Ridge Road, unincorporated County – *"My name is Keng Chan and I live in unincorporated Yavapai County. I reviewed the draft Ordinance. I do appreciate the work that staff and the Committee have put into it, but I think there is a lot of holes that potentially leave it industry based, and that is a significant concern for me. I want to give you a couple of examples. 4.33 A1 refers to Section 1.92A, ensures public safety, welfare and convenience. How? Let's look at 1.9.2A, what does it say? Ensures public health, safety, welfare and convenience. Wait a minute, how does that work? Where do we actually define how it does that? 4.33 C1 states that all utility scale solar photovoltaic facilities must be zoned AR-4 and AR-5. At the last Council meeting, just a week and a half ago, there was an agenda item where staff actually said that there is a need for housing for the proposed business park that is going to go on Old Home Manor. Wait a minute, we need housing, yet we are talking about possibly building over 3,000 acres and taking that out of potential for residences. On top of that, let's look at it. Separation. It's important that we have three-mile separation between solar facilities, but yet you can put it a quarter of a mile off of my fence line. How does that work? I'm a little concerned about a little bit of transparency going on here. We're part of the trust in government, we're required to trust in Committees. We keep hearing that we kept this Solar Ordinance simple so that we can actually specify things in the Development Agreement. But yet we've actually have problems with this, ok. I believe there has been a lack of transparency with this Solar Energy Committee. I believe that is actually a violation of the Arizona Open Meeting Act. Where*

were these meetings announced? Where were the agendas? Where were the minutes to them? I know there was presentations from two solar companies and APS."

Merritt asked the audience to please not applaud.

Laura Chan, unincorporated County – *"Hi, my name is Laura Chan. I live in unincorporated Yavapai County. I had prepared a presentation, and I just have to say I am floored to hear one comment about this Ordinance and the development of it. And I might have it slightly off cuz I was so upset, and it said we did not write out any of the projects. Basically, this Ordinance as written, there is no defense and there is nothing for the residents of Yavapai County. You don't write it out? Wait a minute, this isn't about solar industry, we heard about all the solar industry and approved solar groups. What did we hear about? What about the responsible solar industry? What about water safety? What about protections for the people who are already here? Chino, Yavapai matter. This solar Ordinance is not for the solar industry, or for utility. This Solar Ordinance is for us and the people. It matters, and it's, you can't just have one group walk in and say ok, here it is. We are going to fit this together. There is nothing in the General Plan. I'm sorry, I had a plan. I apologize for being so upset, but that should have never happened. And my recommendation is you transparent. I would like to see the minutes, who came in, who attended these meetings, and I want to see representation from the people to be heard. Thank you."*

Ann Yoshinaga, 9050 E. Pueblo Libre Road, unincorporated County – *"Good evening, Ann Yoshinaga, Mingus Meadows unincorporated area. Your vision statement says that Chino Valley is a peaceful, rural community that supports recreation and regional tourism. We are committed to preserving our community's expansive vistas. So, a part of my thing is, if you are allowing 3,800 acres total for this City, 300 is already taken up, so conceivably one company could come in 3,500 acres of expansive vistas? To me that is not a very nice thing to see. Anyways, my concern is that I think that we should really look at our water source. There have been issues with vast facilities catching fire, exploding. The water that is going to need to protect the other batteries areas, it's going to take a lot of water, the contaminates from the batteries that are on fire. Where is that going to go. It's going to go into our groundwater. And something in the Ordinance needs to say that no solar facility or vast facility can be over our aquifers or any other groundwater source that the residents of this community use. Another thing that I have issue with is, why is this solar facilities on residential property? This is a commercial investment, why isn't it over on commercial areas. Why are you taking residential areas for this type of a facility? Those are my big things, thank you."*

Karen Estorez, 1775 S. Johnson Lane, unincorporated County – *"Karen Estorez, I live on Johnson Lane, (Chino Vally). I haven't been here 100 years like a lot of people, but the reason I moved here is because of the recreation, the open space. I have horses, I have friends. We do side-by-sides, we get to enjoy this lovely area and for what you're proposing is absolutely disgusting. Trying to turn us into something in California or Texas is horrible, it absolutely upsets me beyond belief that this would even be proposed for these horrible things coming to us. We don't need it, everything that it'll do is destroy our way of life. It will destroy the animals. It will cause fires we can't deal with, again what she said about the groundwater. It's despicable, thank you."*

Brian Lantero, 9210 E. Twilight Ridge Road, unincorporated County – *"Brian Lantero, Mingus Meadows unincorporated Yavapai County. I can see the corner of Chino Valley just out my back yard. So, kind of took my thunder, had it all written out and everything, but I did want to touch also on the transparency issue. I only know what I read and I was surprised to see that there was immediately after the Town plan was approved that for a year there was a subsidiary committee ongoing that have been meeting with selected individuals that they brought to their meeting, which I'm sure was under the best intentions. Like, you know, the people who know this how to build this, how to build a solar project utility scale solar project the best are utility sale, utility scale solar companies, right? What they are not going to tell you is any of the downside, it's a for-profit company, it's not a non-profit or even a public utility company. This is a for-profit company. We're not going to talk to you about asset retirement obligations, what this is a personal property tax and 20% of this depreciated over 40 years is really what you're going to get tax revenue. So, I was hoping that, you know in the sense of fair play, and maybe you did, maybe I'm just not aware, but had some environmental groups that come in and could talk to you about the danger of putting a solar utility scale solar field over an aquifer or fire hazards, and a place like you know, our plains out there and how windy it is. I'm going to go ahead and go over this anyway because I wrote it out, so what the heck. The Chino Town Plan, as I read it, said specifically that has goals related to solar, but they are not related to utility scales size ups. Those are my notes. And you said that it was only general policies in general, ideas, but right here it says on November 7, 2023, they ratified the 2024 General Plan explicit goals. If this is taken verbatim from the Town Plan, it*

says explicit goals and policies, which does not sound like General Plan. So, thank you for letting me speak, appreciate it."

Silver Stapleton, 9015 E. Twilight Ridge Road, unincorporated County - *"Good evening, madam, gentlemen. My name is Silver Stapleton, I reside at 9015 E. Twilight Ridge Road (Prescott Valley). Because of a physical condition, you will see a lot of shaking going on up here, my voice gets weak, and I have to stop and take deep breathes occasionally, but I'm just fine. First, thank you each for your service to community and thank you for hearing our concerns and our comments. My main concern is not the possibility but the probability of contamination of our underground water caused by solar farms. Surely you are informed, or should be, about lithium battery fires. Those fires are very difficult to extinguish, water and chemicals are used to put them out. Where do you think that water and those chemicals will go? Even if there is not a fire, what about the fact the entire area under solar farm is kept completely free of weeds with pre-emergent and chemical sprays. What about that concentration of chemicals? Where will those go? Bayer Monsanto have paid out more than 11 billion dollars in settlements for people who have been diagnosed with non-Hodgkins lymphoma and other cancer related illnesses due to glyphosate spray which likely they would be using. Note, that was not from consumption, those settlements. That was from physical contact. How much worse could consumption, consuming it in our water be? Can you promise us they won't be using harmful chemicals to debride the area of weeds? Information shows that keeping the ground free of weeds under and around solar farms is constant and ongoing. If solar farms are placed over local aquifers, where do you think that poison will go when it rains or worse, if they do have to put out a fire, where will that lithium and the accumulated carcinogens go? If our local aquifers are polluted, how far will that reach. We have hundreds or maybe thousands of wells, water wells in the near proximity to the proposed project. Beyond that, how many communities or towns downstream from our local aquifers could be affected. You are responsible for laying the groundwork. You must make sure when you plan for construction of a solar farm, that in five to ten years from now, we don't find out there's a new environmental disaster."*

Christopher Pirone, 12960 N. Lodestar Road, unincorporated County – *"Good evening, I just have a few questions. I live in Antelope Meadows at the far back, Chino Valley is my back fence where it is proposed currently that you are maintaining a 50-foot setback. That will actually put solar panels in my backyard, 15 feet tall, making a complete obstruction. It also will be 100 feet from my well head which brings me quite concern for runoff chemicals, things of that nature. Things that I'd like for you to consider before passing this is, has there been any impact studies done with the EPA or any environmental on weather changes over large-scale solar facilities. What is the effect of the Big and Little Chino aquifers, a lot of people have touched on that but when you have a 20-acre lithium battery facility that requires water to keep it cool, they're going to be taking a lot of water from those aquifers. Also are they going to train in hazmat for God forbid there is a lithium fire, because it doesn't just take water and hundreds of thousands of gallons of it, but it also takes hazmat materials to put them out. And just so you also know, this large-scale facility is, from what I am to understand, what Draconis has proposed is over 5,000 acres, not 3,200. And, according to their attorney, the power is going to Nevada and California. It is not going to benefit Chino, Prescott Valley, Yavapai County, at all. And then, of course, me, being my fence is directly behind where they want to put approximately a thousand panels, do you know what that'll do to my property value, I won't be able to sell it along with all of the people that run that fence line. I think the setbacks need to be changed. It should never be 50 feet from a residential area. I think that really needs to be touched on, it needs to be minimally a quarter to a half a mile minimally. But the impacts on that alone, what is the length of time that Draconis is planning on having this facility, because when it decommissions, do we have any answers to any of this. Thank is all I have, thank you."*

Valerie James, 9220 E. Circling Hawk Road, unincorporated County – *"Hi, I'm Valerie James, I live in unincorporated Yavapai County in Mingus Meadows and many of these things have been touched upon but I am disappointed that better research wasn't done regarding the battery fires. That's a huge risk, we've seen some that have been burning in other parts of the country. That there was no mention of water contamination or the use of water for cleaning the panels and all of the other things that they plan to do with water. The fact that the General Plan does not have large scale solar is an important factor, I believe. I don't think that's what the people of Chino Valley and one of the ladies who was spoke before said that she was around when the plan, the General Plan was made, and that was not the intent of it. I don't think people understand that the power does not stay in this area. And I would, I, you know, we have plenty of rooftops, the rooftop solar technology is not quite as, doesn't sound quite as dangerous as the lithium batteries and all of those storage units. So, I am definitely, I was originally for solar, oh how bad can it be. It's going to be clean, you know it's not going to bring in more people or more cars. But now when I've done my research, I have found out that it can be very toxic, and we're in the land of wildfires. We don't need that added danger for power that is not even going to be generated here. So, thank you for listening."*

Sarah Rypkema, 3745 Old Home Manor Drive, Chino Valley, Solar Development Team - YA-Jerome – *“Sarah Rypkema, I work for Prospect 14, I’ll be speaking on behalf of the Jerome Project. Good evening, great to see some of you again. We at Prospect 14 greatly appreciate the work that went into creating the Town of Chino Valley’s Ordinance for utility scale solar facilities. These projects can actually bring in a lot of benefits to the Town, and through this Ordinance the staff and the Solar Committee are ensuring that they will. A lot of ordinances don’t do that that we see. Our team has been and still is committed to being a constructive partner in this process, which is why I wanted to speak today. In our view, ordinances work best when they serve as adaptable guides. An overly prescriptive ordinance can hinder the Town’s ability to use common sense, good judgment, and capitalize on some of the potential benefits new opportunities can bring. We urge you to consider incorporating flexibility into the Ordinance. This will empower the planning staff, the Commission, and the Council to evaluate projects on a case-by-case basis, approving ones that they feel fit best in the community. Just one quick example that I wanted to bring up was the three-mile restriction. What if there’s a project that’s 2.5 miles away that might fit better with the surrounding land uses than if it were to be moved an extra half mile. Or, what if one day, you decide you’d rather all the solar be designated to one area. You should build in some language to allow you to bring in that discretionary review. The Ordinance as written is a great guide, but that’s what it should be, is a guide. If there aren’t any deviations allowed, the framework could severely limit the benefits, like tax revenue, clean reliable energy, and community improvement initiatives that these projects could otherwise bring to the Town. I think that this could just be handled with the simple sentence or two added to the Ordinance allowing for the variances at the discretion of the staff. This will allow Chino Valley to bring the same thought and care into every project review that you put into the General Plan update last year and put into this Ordinance. Thank you for your consideration.”*

Jack Steele, Solar Development Team - Draconis – *“Good evening, thank you for the opportunity to speak tonight. My name is Jack Steele, I’m not from the area, but I grew up in a small town in Montana that feels charming and quite similar to the area of Chino Valley. I’m a developer with Lightsource BP working on the Draconis project. We build and operate solar projects throughout the United States. Our goal is always to develop projects that are designed with the community in mind, and to put power on the grid that helps strengthen energy independence throughout the United States and also address the issue of climate change. At Lightsource BP we respect Chino Valley’s local land use authority and very much appreciate all the proactive work that’s gone into drafting this Ordinance. We believe it’s essential to create guidelines that foster growth while also respecting community’s values. We’ve reviewed the draft Ordinance and provided a few minor suggestions through written comment. We also want to share that our solar energy project, Draconis, will bring meaningful benefits to Chino Valley. Our project is expected to create around 450 to 500 jobs during construction, infusing the local economy with opportunity. The project will also bring long-term benefits to the community, including tens of millions in new property taxes paid directly from the project. This is a significant increase in what is currently being paid by the property we hope to utilize, and these funds will directly support local public services, schools and infrastructure without raising taxes on existing residents. Additionally, with an annual operating budget of several million primarily spent within the region, the project would provide ongoing economic support to local businesses. Additionally, we agree wholeheartedly with the city’s desires to improve roads and will work collaboratively to support this effort. We’re committed to working closely with Chino Valley to develop a project that enhances the local character, drives economic growth, and delivers clean, locally generated energy. Thanks again for your time tonight. We look forward to working with the community.”*

Samatha DeMoss, 7144 E. Stetson Drive, Scottsdale, Solar Development Team - Rose Law Group – *“Hi, my name is Samantha DeMoss, I live outside of the County now, but I originally grew up here. I am also a land use attorney, and I assist with development projects all over Arizona. So, I think I have a unique perspective on this, I think the Ordinance is very fair, and I compliment staff on its hard work. I think what bothers me is that there are so many false stories about solar and batteries being thrown out, and I don’t blame people for being concerned, but the truth is that many of the concerns currently are false. To name just a few, solar does not heat up surrounding area, it uses almost no water. Batteries are actually very safe, despite what you hear. There are also misconceptions and flat out mistakes that I keep hearing circulating about solar, and it’s clear that education would be the solution to that. If there is one thing I would recommend to the Town, it would be to judge each project on its own merits, and see what type of public benefits each project is willing to propose. Some of these solar developers are among the largest companies on Earth, and they can no doubt do a lot of good economically for the Town. These projects can be a great way to get things done in the Town without putting traffic in more residents on the road. Quiet neighbors with a lot to offer would be something to think about. I know that many are concerned about large solar projects, but you have to keep the alternatives in mind. For example, the one project that’s around 3500 acres, it*

under current SR-2 zoning could currently be 1,800 homes by right if they wanted to, and I think the community would benefit a lot more from a quiet solar project than more homes and more cars on the road. Additionally, at the end of a 30-year life of a solar project, the land is returned to its natural state through the decommissioning plan in the process by the developer, offering a way for the Town to receive benefits now while still knowing they'll have viable land in the future to meet the community's needs. I also want to bring to attention what the Commission is being asked to do here today, and that's not for approve any particular project, but to reserve for themselves and the community the discretion to review and approve a project that works for them on their terms in the future. For this reason, I would like to advocate for a reconsideration of the cumulative acreage limits and hard setback distances between solar projects, and suggest these elements be considered on a project specific basis at the time of review. This would allow the Town and the residents to make decisions on the project location and size appropriateness in the context, considering the needs of the Town at that time rather than having to estimate what would happen in the future. If you don't like the solar project, and they are not doing enough for the community, then you should definitely turn it down. I am just suggesting you keep the opportunity open to consider good and bad projects, and only approve the best. Thank you for the opportunity to speak."

Merritt stated that the next speaker request card was from Jon Gillespie, a representative of the Rose Law Group, and according to the rules, they've already had an opportunity to speak. He offered Ken Chan the opportunity to speak again as there was a timer issue prior.

Keng Chan – *"Again, I started off by saying that I believe that the Solar Committee actually was a violation of the Arizona Open Meetings Law, so I'd like to actually have a copy of all the agendas, the minutes, submitted documents that were sent through the Committee. I'd like a list of the people who actually were there and who they represent if a foyer is requested, I'd be happy to do that. The elephant in the room, the Draconis project. To my, the best of my knowledge, there has never been a project where a Solar Committee or governing body has been so shortsighted as to approve a utility scale solar project over or immediately adjacent to an aquifer. We've heard about chemical contamination, they keep telling us that there is no odds, there's no danger. Okay, let's just go pour a gallon of herbicide or pesticide or a pre-emergent on your bed and sleep next to it for a while. Why don't you tell us how well you like that. Don't damage our water source. Our water means more than your bottom dollar. Thank you."*

Merritt asked Dingee to explain the necessity for moving forward with this Ordinance at this point in time.

Dingee replied that the staff Solar Advisory Committee had completed its research, and staff had successfully drafted the proposed Ordinance and were presenting it to the Commission for its public discretionary review.

Merritt stated that the Committee and staff had been working on this for a year, he commended staff on an awesome job, and shared the Commission had one study session as well as meetings between himself, Laurie Lineberry and Will Dingee about this project. He felt it seemed staff and the Commission could talk about it a little bit more and asked why should it be nailed down at this point in time. He stated that the public had concerns about the separation between projects and setbacks, and asked Dingee to further explain them.

Dingee explained that there is a standard under the sighting criteria A-3, a 50-foot setback from all property lines as far as the beginning of any panels themselves. All solar panels and equipment must maintain separation of a quarter mile from any developed residential property. He stated that if a project is directly adjacent to a developed residential piece of land, it would preclude the 50-foot setback and would require a quarter mile separation from the property line of a residentially developed property.

Lineberry reiterated that the 50-foot setback requirement would be within the project property itself, the distance of the quarter mile would be from the project property to other properties. Therefore, it would require a quarter mile from residential properties plus the 50-foot setback, which is required according to the Industrial zoning setback code.

Merritt brought up a concern from the public regarding why a project would be allowed in residential zoning when clearly it was for commercial use.

Dingee explained that with a prior Development Service Director, Draconis wanted to rezone the entire acreage to Industrial. Although that recommendation had expired, staff presented the idea of a rezone for future projects to the staff Solar Advisory Committee and they recognized that these projects had a lifespan and at the end of their 20 to 30-year lifespan, you are left with anywhere from 200 to 3,500 acres of raw industrial land that could be used

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for anything within the Town's Industrial Zoning district or Commercial Zoning district. It was deemed an AR district was more suited because once decommissioning was completed, the land would still be zoned AR-4 or AR-5, which is one home per 4 or 5 acres with agricultural residential entitlements. Industrial zoning is the most intense, where slaughterhouses and junkyards could exist.

Merritt asked Lineberry to explain the transparency of the staff Solar Advisory Committee and how it functioned.

Lineberry replied that the Town's attorney confirmed that only the Town Council appointed Committees, Commissions, and Boards are required to meet Open Meeting Law. The Solar Advisory Committee was a staff advisory group, made up of people who live in the community. They gave staff advice, input or insights based on their living here in the community. The Committee did not dictate anything, they were guiding people for staff, they gave staff information and helped shape the draft Ordinance. The staff advisory group did not fall under the open meeting laws as they were not appointed by the Town Council.

Dingee responded to the public's concerns on water, that if the Commission wanted to add a water usage plan to the draft Ordinance, it could be included, which would add protections for the aquifer. The grading and drainage plans could be required to include runoff, reclaiming water, and solar panel cleaning. He explained the units were self-contained, that they recycled the water for cleaning, and were very low water usage for overall cleaning of the panels. Water usage would happen during construction but should diminish once construction was completed.

Switzer asked if staff knew for a large 360-megawatt project, what a vast facility of that size would use for cooling.

Dingee replied that the developer would need to provide that information as part of their proposal. He stated that the staff had conferred with the Town's water consultant, Mark Holmes, and in his opinion, chemicals used for weed control were not as detrimental as claimed.

Merritt stated that he felt the use of retention ponds to reclaim the storm water runoff would not be a good idea as pesticides used for weed control would be ongoing, and there would be a possibility of accumulation of glycate or other chemicals. He asked about the public's concern for possible fires and the gallons of water to be used putting a fire out and the toxic chemicals from the batteries and asked if staff had any idea of how much water would be required to put out a fire at a solar facility.

Dingee explained that it would be based on the scale of the project and would need to be outlined as part of their fire mitigation plan specifically within their BESS element. They would need to show how much water would be needed if the whole entire facility or a portion caught on fire, and what procedures they would have to contain and extinguish.

Zamudio stated that being with a Fire Department and familiar with fires, you would not want to put water on battery fires, it was the last thing you would want to do, it would only make it worse. A dirt and sand mixture would be better.

Merritt asked if CAFMA had the facilities, equipment, personnel and training to tackle something like this. He stated that the power from these projects would not stay in Chino Valley, but he understood it just goes into a power grid.

Dingee explained that part of CAFMA approval of the fire mitigation plan for one of these facilities would be to ensure that if CAFMA did not have the proper equipment, the developer would need to provide it, as well as provide proper training. The Town staff had a commitment from CAFMA that they could and were willing to perform fire mitigation on these projects. **Dingee** stated that where the power produced would be sent was not in the Town's control.

Merritt asked if anyone on the Commission had questions for staff.

Switzer asked if any research had been done on any large solar farms nationwide, what was the proximity to towns or residential areas on projects this size.

Dingee responded that staff did not have information on proximity to residential areas on other large projects nationwide.

Zamudio asked staff to explain what the detriment would be to not having an ordinance in place.

Lineberry reiterated it would be better for the Town to have an ordinance in place for protections.

Zamudio stated he felt that if the Town did not have an ordinance, it would be an opening for a project to come in, which could be ten times worse.

Merritt asked if the Town had an ordinance that excluded commercial solar production facilities in Chino Valley, where would that put us. He stated that if the Town did not have an ordinance, there would be lots of opportunities for large solar facilities to chisel there way in through a back door, and if the Town does put the ordinance in place, it would severely control the development of the solar project. If the Town puts an ordinance in place that said it does not allow solar, then there is a State Proposition that had been passed that if a government entity diminished property values to a person, they can sue because they planned on some things when they bought the property that they assumed were going to happen. So, there were several ways the Town could be sued, and the consequences for the Town could be brutal. He reminded the public that the solar companies had tremendous resources. He felt the draft Ordinance was extremely well written and left good flexibility for things to be decided that were a circumstance conditional to the project itself. Whether the Commission passed the draft Ordinance or not, it would be forwarded to the Town Council for final approval, or the Commission could ask staff to strengthen the draft Ordinance a little bit more or possibly the Town will decide not to have any solar commercial projects.

Zamudio asked if staff saw, based on the meeting tonight, anything that needed to be added or changed in the draft Ordinance. He felt the draft Ordinance was well written but wanted to make sure that it covered every concern that was shared at the meeting.

Dingee replied that based on valid concerns from the public, if the Commission was not comfortable forwarding the draft Ordinance to the Town Council, there would be an opportunity to amend the draft Ordinance, if that was what the Commission desired.

Switzer asked if all the proposed project sites required a zone change.

Dingee replied no, that the Jerome project was already within the AR-4 district. The other proposed sites would need to start with a zone change.

Switzer added that zone changes were not a property owner's right. A property owner had the right to apply for a zone change, but not the right to be approved for one. A zone change would be a privilege based on the General Plan and other factors in the Town.

Merritt closed the public hearing.

Motion was made by Meadors, seconded by Zamudio and Switzer to table TA-2024-04. Discussion was held by the Commission. **The Motion was rescinded by Meadors and seconded by Zamudio.**

Motion was made by Meadors, seconded by Zamudio to return TA-2024-04 back to staff to be amended, subject to the staff report that was presented tonight, information provided during the hearing, and the Planning and Zoning Commission discussion. A roll-call vote was taken, and the motion passed with a 5-2 vote, with Merritt and Switzer voting no.

Merritt asked the Commissioners who voted no to explain their votes.

Switzer explained that he was against putting forward a zoning ordinance for utility-scale solar in the Town of Chino Valley limits for several reasons. He believed it went against the General Plan and he was against this plan. He commended the staff Advisory Solar Committee and Town staff on all of their work, and felt staff did their job as they were told to do by the Town Council. He felt it was fantastic, staff did a great job, but felt utility-grade solar projects were not right for anywhere in the quad cities.

Merritt stated he thought the draft Ordinance was awesome, but he did not believe Chino Valley was a place to put large-scale solar facilities. He stated that there were a lot of places in the State that were barren property that didn't have large communities or small communities next to them where there were a bunch of aquifer and herds of different sorts of wild animals traversing them on a daily basis. He felt if there were no batteries involved with a project, solar would be appealing. He stated he firmly believed that the Town did not need large-scale solar in the Town, he voted for the smaller one on the south end of Town as a Conditional Use Permit with no batteries. It

Attachment 5 – Planning and Zoning Meeting Minutes – 11/05/2024

was ultimately circumvented through some things that the Town had to deal with, with their franchise through APS, and it showed in his mind that what the Commission did here could be undone by people who were more clever and had more money. He reiterated he felt the Town staff's draft Ordinance was excellent. It was his opinion, that if the draft Ordinance had passed, the Town would not get too hurt, but it was his hope to not have an ordinance, but going back to staff with all the good ideas heard here, which the extra time would be valuable, and should be the way the Commission did things.

Merritt asked the Commissioners who voted yes to explain their votes.

Zamudio stated that he felt that the Commission needed to hear the public's opinions and incorporate them into the draft Ordinance. He felt that if the Town did not have an ordinance, he saw major issues going forward, and it would cost the Town money. The draft Ordinance gave the Town a starting point or boundary where the Town did not want to go.

Meadors stated she felt the draft Ordinance should go back to staff to clarify some of the points brought up by the citizens of the Town and surrounding areas. She agreed that there were plenty of land between here and California to put their solar panels on, but the Commission needed to protect the Town from being sued into bankruptcy.

Welker stated that right now the Town did not have any teeth, but with an ordinance, it would.

Penn stated that he felt the public raised some valid points that needed to be looked into further. He personally did not think Chino Valley should even entertain a project of this size.

Pasciak stated he agreed with other Commissioners on sending the draft Ordinance back to staff, and also thought staff did a wonderful job on what was presented and the work they did. He agreed the solar companies had deep pockets, and the Town had one attorney versus the solar companies had many. He felt the Town needed something in place so we could state there were requirements to bring forth a project, and that maybe these requirements would make it not viable for a solar project.

Attachment 6
Planning and Zoning Memo
01/07/2025



TOWN OF CHINO VALLEY
Planning Commission Staff Report
January 7, 2025
File Number TA-2024-04
Utility Solar Ordinance

At the November 5, 2024, Planning and Zoning Commission meeting, the Commission and staff received public testimony regarding the proposed **Utility-Scale Solar Photovoltaic Facility Text Amendment (TA-2024-04)** to Section 4.33 of the Unified Development Ordinance (UDO). The testimony included **21 speakers**, as follows:

- **4** Town residents
- **10** County residents
- **3** Solar project team members

Commissioners raised several questions based on the testimony, and staff refined key items for inclusion in the revised ordinance. This memorandum summarizes the summary of concerns raised during the November 7, 2025 Planning and Zoning Commission meeting along with staff response points, revisions made to the draft ordinance, and discussion topics for the Planning Commission.

Summary of Concerns:

1. Fire Mitigation Plan

- Concerns regarding the adequacy of fire mitigation measures, particularly for **Battery Energy Storage Systems (BESS)**, and the need for enhanced protections. The 2024 Building Codes are currently under review. They will be adopted by the end of 2025. Those codes address some aspects of battery storage protections that will become law for the Town. Staff is further researching protections in place in other jurisdictions that could become part of the requirements for the Fire Mitigation Plan.
 1. As these mitigation measures will vary based on the specifics of the project submitted, staff is recommending that no changes be made to the ordinance as this will be addressed through the submittal process of each project.

2. Proximity of Solar Fields to Residential Areas and the Peavine Trail

- Requests have been made to reconsider the current **¼ mile setback requirements**, from the Peavine Trail to the project area and from developed residential land to the project area.
 1. Staff is recommending discussion with the Commission to evaluate the current ¼ mile setback proposed for developed residential land.
 2. Staff is recommending no changes to the ¼ mile setback from the Peavine Trail. Currently, land along the majority of the Peavine Trail is zoned industrial. Industrial zoning allows for the most intense uses within the Town, along with a maximum building height of 35 feet with a setback of only 50 feet from the edge

of the Peavine Trail. Any solar project is proposed to have a ¼ mile setback from the Peavine Trail. Staff believes that the ¼ mile solar setback provides much greater protection of the Peavine Trail than the existing industrial zoning setback of 50 feet along the trail.

3. Impact on Property Values

- Public concerns expressed about perceived property value impacts adjacent to utility-scale solar projects. From staff's research, in a 2019 article on Planning for Utility-Scale Solar Energy Facilities, Darren Coffey, AICP, shares that the impact of utility-scale solar facilities is typically negligible on neighboring property values.

1. Staff is recommending that no changes be made to the ordinance as this will be addressed through the submittal process of each project.

4. Cumulative Acreage Limits and Minimum Distances between Solar Facilities

- Solar project representatives requested reconsideration of the **cumulative acreage limit** (3,800 acres) and minimum **distance requirements** between solar facilities.
 1. Staff is recommending that the Commission discuss this topic during the January 7th 2025 meeting.
- Solar project representatives emphasized evaluating projects **on their individual merits** to allow for variances or adjustments in exchange for additional public benefits.
 1. Staff is recommending that the Commission discuss this topic during the January 7th 2025 meeting.

5. Water Usage

- Discussion about how much water the facilities actually use in day-to-day operations and its resulting impact the aquifer.
 1. Staff is recommending the creation of a Section F.11, Water Usage, as part of the required Project Standards. Within the section, the developer will be required to submit a Water Usage Plan for the project area that includes a water source assessment, sustainability report, Water Usage Assessment and Water Recycling and Resue Plan.
- What amount of water was estimated to be needed if a battery fire broke out.
 1. Staff's recommendation to create Section F.11, Water Usage, will address this in addition to the Fire Mitigation Plan that is required to be submitted with the project.

6. Weed Maintenance and Herbicide Usage

- Discussion about how the sites would address the weed growth with concerns about herbicides expected to be used. Specific concerns were brought up regarding potential contamination of the aquifer from herbicides.
 1. Staff is recommending the creation of Section F.10, Property Maintenance, as part of the required Project Standards. Within this section the developer will be

required to submit a Property Maintenance Plan that not only includes the element of weed control and herbicide applications but also the property as a whole including site infrastructure, solar panel cleaning, waste management, etc.

7. Drainage Issues

- Questions were raised about what happens to the additional runoff created with the projects. Additionally, the idea of recharge and reclaiming the runoff for aquifer recharge was also brought up.
 - 1. Staff is recommending the creation of section F.1.C, which establishes the requirement of a Storm Water Pollution Prevention Plan as part of the project submittal. If determined necessary, the projects drainage plan may also include a stormwater reclamation and recharge component.

8. Project Developers' Points of Concern

- Staff received comments at the meeting and **additional written comments** from project developers, (attached). Key themes from developer feedback include:
 - 1. The desire for **project-specific consideration** to allow flexibility in demonstrating public benefits.
 - 2. Reconsideration of **fixed limitations** on acreage and setbacks.
 - 3. Allowing variance requests to address unique project circumstances.

Revisions Made to the Draft Ordinance

The following items have been incorporated into the revised draft ordinance presented for discussion:

1. Refined Solar Facility Use Permit Process

- Clarifies application, review, and approval steps for both Preliminary and Final Solar Facility Use Permits.

2. Weed Maintenance Plan

- Requires developers to submit a Weed Maintenance Plan to ensure ongoing property maintenance and mitigate environmental impacts.

3. Water Usage Plan

- Mandates submission of a Water Usage Plan, including water source identification, usage estimates, and recycling strategies for construction and operational phases.

4. Drainage Plan

- Requires a comprehensive Drainage Plan, including a **Storm Water Pollution Prevention Plan (SWPPP)** to address pre-construction, construction, and post-construction stormwater management.

Discussion Points for the Commission

Staff recommends the Commission focus on the following discussion points during the January 7 meeting:

Attachment 6 – Planning and Zoning Memo – 01/7/2025

1. Adequacy of the revised Solar Facility Use Permit process.
2. Inclusion of **Fire Mitigation Plan enhancements** for BESS.
3. Potential adjustments to **setbacks** for residential areas and the Peavine Trail.
4. Policy considerations regarding **cumulative acreage limits** and variances based on project-specific merits.

Conclusion

The revised draft ordinance incorporates significant in response to the public comments and Commission feedback. However, several concerns remain for Commission discussion and potential policy guidance. Staff welcomes direction on these points to ensure the ordinance aligns with community needs, while providing a clear regulatory framework for utility-scale solar projects.

Attachment 7
Planning and Zoning Staff Report
11/05/2025



TOWN OF CHINO VALLEY
Planning Commission Staff Report
November 5, 2024
File Number TA-2024-04
Text Amendment

Project Description A request to amend the Town of Chino Valley Unified Development Ordinance, Chapter 4 General Regulations, to provide requirements for the consideration of placement, design, development criteria, and ultimate removal of large Utility Generation Facilities, to ensure that such facilities protect the natural environment and native wildlife of Chino Valley, provide a direct benefit to the Town of Chino Valley, are compatible with the neighboring uses/land owners, and are safely operated during their life cycle.

Staff Analysis:

Over the past several years, the Town of Chino Valley has seen increased interest in utility-scale solar energy projects, necessitating a comprehensive regulatory framework. The process to develop this framework has involved numerous steps, including the evaluation of previously approved and proposed projects, the creation of a Solar Advisory Committee, and efforts to incorporate relevant policies into the Town's 2040 General Plan.

Previously Approved and Proposed Projects in Chino Valley

Several solar energy projects have been approved or proposed in Chino Valley and started back in 2011:

1. APS Facility (1900 East Road 4 South)

- **Size:** 298 acres
- **Zoning:** AR-5
- **Approval:** A Conditional Use Permit (CUP) was approved by the Town Council on May 24, 2011, under Ordinance 11-747. The CUP remains valid until May 24, 2041.
- **Construction:** The building permit was issued on January 12, 2012, and construction was completed on November 13, 2012.
- **Development:** The project was a collaboration between Sun Edison LLC and Arizona Public Service (APS), later sold to APS after construction.

2. RES America Development/Wilkinsons Investments (3245 Jerome Junction)

- **Size:** 200 acres
- **Zoning:** AR-4
- **Approval:** A CUP was approved by the Town Council on January 14, 2013 (CUP13-003), with one year allowed for construction to commence.
- **Outcome:** Construction never started, and the CUP expired on January 14, 2014.

In addition to these projects, several other proposals have emerged over the past four years:

- **2020:** Draconis – LightSource BP, under landowner Perkins, initiated discussions with the Town and, at the direction of the Director at the time, submitted an incomplete application for rezoning to Industrial in order to meet APS interconnection requirements. The rezone application expired in October of 2021.
- **2022: Atlas Renewable Power – Clean Energy** proposed the Eagle Solar project but was directed to wait for a forthcoming text amendment. Similarly, **YA-Jerome – ERM**, which aimed to revive an expired CUP from 2013 (CUP13-003), received the same guidance.

Work by Town Staff on the Solar and Wind Farm Text Amendment (TA-2022-09)

In response to the rising interest in solar developments, town staff began preliminary research in April 2022 for a Text Amendment regulating utility-scale solar and wind farms. On May 10, 2022, staff presented the concept to the Town Council, which directed staff to draft language for the proposed amendment.

On November 1, 2022, the draft Text Amendment was presented to the Planning and Zoning Commission as a discussion item. After extensive dialog between the Public, Commission and Staff, the Commission recommended that utility-scale solar issues be addressed through the General Plan process instead of a standalone ordinance.

Incorporation into the 2040 “Make it Chino” General Plan

On November 7, 2023, the Town ratified its 2040 General Plan, which includes explicit goals and policies related to solar energy, reinforcing the need for a sustainable and resilient energy strategy for Chino Valley. The following goals and policies were established:

- **Goal CSF-7:** Enhance town resiliency by seeking redundant power sources to support stable utility systems and minimize service disruptions.
- **Policy CSF-7.1:** Evaluate community-scale solar policies and their potential benefits.
- **Policy CSF-7.2:** Ensure solar facilities do not disrupt wildlife movement.
- **Policy CSF-7.3:** Create guidelines for solar facilities addressing performance standards, distances from land uses, visual impact mitigation, and wildlife migration.
- **Policy CSF-7.4:** Require solar developers to submit reclamation plans.
- **Policy CSF-7.5:** Explore microgrid solar energy facilities in agricultural zones.
- **Policy CSF-7.6:** Review revenue mechanisms applicable to solar energy generation.

Staff Advisory Committee Work

In December 2023, staff asked the Council for authority to form a staff advisory committee to assist them on the development of a utility-scale solar ordinance. The Department advertised and received applications in January 2024, seating all but one applicant, who had a direct connection to one of the proposed solar projects in Town. The Solar Committee began meeting with staff in February, and met every month except July, culminating with a review of the provisions of the draft ordinance in October.

The meetings included presentations from two prospective solar companies interested in locating in Chino Valley, APS, Arizona Game and Fish and a discussion with the Town Attorney. In these meetings the group learned about, discussed, and challenged the following:

- Terms and definitions of various aspects of solar facilities, power generation, storage, and transmission.
- Best practices for utility-scale solar projects.
- Area wildlife and potential impacts to that wildlife from utility-scale solar projects, and how to mitigate potential impacts.
- Possible guidelines/regulations including: performance standards, minimum distances to existing uses, minimum distances from other land use categories, minimum/maximum acreage for utility-scale solar projects, taxation, visual impact mitigation, buffering requirements.
- Reclamation planning.
- Possible micro-grid usefulness in Chino Valley.
- Utility tax, fees, licenses, or other revenue mechanisms applicable for Solar Power Generation Facilities.

The Committee took a field trip to physically see the known proposed solar locations and the existing APS solar facility with battery storage. The committee's last meeting included final vetting of the provisions of the draft ordinance.

The Ordinance – A Two-Step Process

The ordinance outlines a two-step process. The **first step** addresses the following Siting Requirements:

- Utility-Scale Solar Photovoltaic Facilities are only allowed in the AR-4 and AR-5 zoning district, with a Conditional Use Permit (Solar Facility Use Permit).
- There is a minimum distance of 3 miles required between Utility-Scale Solar Photovoltaic Facilities.
- All facilities must be a minimum of ¼ mile (1320 feet) east of the Peavine Trail.
- All facilities must maintain a 50' setback from all property lines.
- Battery Energy Storage Systems must be centrally located within the project or maintain a separation of 1 mile from any developed residential property, whichever is greater,
- All solar panels and equipment must maintain a minimum separation of ¼ mile (1320 feet) from any developed residential property.
- The cumulative maximum acreage for all solar project areas within the Town is 3800 acres.
- If a Utility-Scale Solar Photovoltaic Facility comprises multiple parcels or portions of parcels, the parcels cannot be separated by more than ½ mile (2640 feet).
- The property must be rezoned to either AR-4 or AR-5.

The **first step** is review and approval of the site plan and rezone (if necessary) by Planning Commission and Town Council, ensuring that the Zoning, the Siting Criteria, the Limitations, and Spatial Buffers are met. Once the Town Council has approved the site plan and rezone of the property, the Applicant shall have three (3) years to satisfy the balance of the requirements outlined in the ordinance (and included as exhibits in the required Development Agreement).

The **second step** addresses Project Standards. Before any proposed project can move forward, it must meet the Project Standards identified in the ordinance. The Project Standards include the following:

- **Site Grading** - Developers must submit a Site Grading Plan, showing the proposed changes to the terrain, and a Post-Graded Elevation Map for comparison. Grading should not exceed 20% of the total area, and solar panels are prohibited on slopes greater than 5%; blasting is also not allowed.
- **Wildlife** - A Wildlife Protection Plan, approved by the Arizona Game and Fish Department (AZGF), must list all wildlife and plant species within five miles of the project area. The developer must maintain wildlife corridors, install wildlife-friendly fencing, and participate in AZGF protection programs, including funding studies if necessary.
- **Public Safety** - The solar facility must be annexed into a fire district, and the developer must provide a Fire Mitigation Plan, with a specific focus on Battery Energy Storage Systems (BESS). A Natural Disaster Mitigation Plan is also required to ensure the facility can respond appropriately to emergencies.
- **Traffic and Roads** - Developers must provide a Traffic Impact Analyses to evaluate the effects of construction and operation on traffic and create a Road Improvement Plan for any affected or newly built roads. These plans must address both the construction phase and the long-term operation of the facility.
- **Screening Requirements** - Utility buildings and storage areas must be screened by a seven-foot-high concrete masonry wall. A Viewshed Analysis will help determine the need for additional screening, and perimeter fencing must be outlined in a Fencing Master Plan detailing security measures and accessibility.
- **Glare and Panel Safety** - Solar panels and equipment must have a low Light Reflective Value (LRV) to prevent glare, be built to minimize reflection, and comply with local, state, and federal regulations. They must also utilize advanced materials and technology to withstand adverse weather, and recycling of damaged or decommissioned panels is encouraged.
- **Outdoor Lighting** - All lighting must adhere to Dark Sky regulations to minimize light pollution, and a Lighting Plan must be submitted. This plan should include fixture details, placement, lighting schedules, and a photometric map of the site to ensure compliance.
- **Drones** - If drones are used for inspection or security, a Drone Utilization Plan is required, detailing flight paths, noise levels, operational hours, and adherence to federal and state regulations. This plan ensures drones are used safely and without disruption to surrounding areas.

- **Noise** - Construction is limited to weekdays between 8:00 AM and 5:00 PM, and developers must submit a Construction Noise Contour Impact Study Map. Post-construction noise levels must not exceed 55 dB during the day and 40 dB at night, with a corresponding Post-Construction/Operational Facility Noise Contour Impact Study Map to monitor compliance.
- **Decommissioning/Reclamation** - The developer must provide a detailed Decommissioning and Reclamation Plan, outlining the process for dismantling the facility and restoring the land to its pre-project condition. This plan must be updated every three years, and financial security must be in place to cover the removal and restoration costs.

Once the above Project Standards work is complete by the developer, staff will review all their submitted components and required accompanying plans, maps, studies, lists, analyses, possibly consulting with experts in specialized areas to review some of the submittals. Along with all the Project Standards work, the developer is required to provide a Public Outreach Program, outlining how and when information should be disseminated to the public, ahead of their required Public Hearing. Staff will review and revise (if needed) that outreach plan.

All of this information will culminate in a Development Agreement, along with the Community Benefit amount that the developer agrees to pay annually to the Town. No deviations, waivers, or exceptions from this ordinance shall be allowed by the Development Agreement. All of this is addressed in the required CUP (Solar Facility Use Permit) that will be heard by the Planning Commission and Town Council at public hearings. The final decision on the project will be made by the Town Council.

It is important to note that approval of this ordinance does not guarantee approval of any submitted project. Having an ordinance in place is important as it requires thoughtful plans and studies produced by the developers, it puts limits on the size, number and location of solar developments, and it protects the Town of Chino Valley and residents in proximity to any proposed Utility-Scale Solar Photovoltaic Facilities.

Staff Recommendation:

Staff recommends **APPROVAL** of the text amendment to amend the Town of Chino Valley Unified Development Ordinance, Chapter 4 General Regulations, to provide requirements for the consideration of placement, design, development criteria, and ultimate removal of large Utility Generation Facilities, to ensure that such facilities protect the natural environment and native wildlife of Chino Valley, provide a direct benefit to the Town of Chino Valley, are compatible with the neighboring uses/land owners, and are safely operated during their life cycle.

Suggested Commission Motion:

Move to **APPROVE** Text Amendment TA-2024-04 as reflected in Attachment 1 as amended by the Commission, subject to the staff report,

information provided during this hearing, and the Planning Commission discussion.

Effect of the Approval:

By approving the Text Amendment, the Planning and Zoning Commission is recommending that the Town Council approve the text amendment to provide the ability to construct Utility Scale Solar Facilities with a Solar Facility Use Permit subject to Councils approval

Prepared By:

Date: October 23, 2024

Will Dingee

Assistant Director
Development Services

wdingee@chinoaz.net

(928)636-3472

Attachment 8

Written Public Comment Received by Development Services

Laurie Lineberry

From: Lisa Smith (via Google Docs) <ponyexpress@gmail.com>
Sent: Sunday, September 15, 2024 4:15 PM
To: Laurie Lineberry
Cc: Bob Schacherer; gwmiller@chinoaz.net; Tom Armstrong; Eric Granillo; John McCafferty; Sherri Phillips; Robert Switzer; Annie Perkins
Subject: Draconis APS Chino Valley letter of concern

Lisa Smith attached a document

Lisa Smith (ponyexpress@gmail.com) has attached the following document:

 Draconis APS Chino Valley form letter.docx

Snapshot of the item below:

Lisa Smith
12925 N Bent Spur Ct
Prescott Valley, AZ 86315
September 15, 2024

Council Member
Chino Valley Town Council

Subject: Environmental Impacts of Proposed Draconis Transmission Interconnection Project

Dear Council Member,

I am writing to express my concerns regarding the proposed Draconis Transmission Project in Chino Valley, AZ. As a resident of the community in Mingus Meadows who cares deeply about our environment and wildlife, I believe it is important to consider the potential impacts of this project on both wildlife and groundwater.

One of the primary concerns related to the establishment of a utility-scale solar farm and battery storage (BESS) in our area, is the potential disruption to local wildlife habitats. The Prescott Valley/Chino Valley is known for its diverse wildlife population. Here are some specific species that

could potentially be impacted by the solar farm/battery storage development in this area: birds, mammals, reptiles, insects, plants, and groundwater dependent species. (See attached list for more detailed identified species.) The construction and operation of a utility-scale solar farm can lead to habitat fragmentation, loss of biodiversity, and displacement of native species. It is crucial to conduct a thorough environmental impact assessment to identify any sensitive habitats and wildlife corridors that might be affected by the project.

Furthermore, the installation of solar panels and associated infrastructure may have implications for our groundwater resources. There is a risk of contamination from construction activities, as well as potential leakage of hazardous materials from solar panels over time. It is essential to implement proper mitigation measures to prevent any negative impact on groundwater quality and availability. Some chemicals used to make batteries may be hazardous. Even when the best safe handling practices are followed, accidents can happen—and any damage caused during the manufacturing, transportation, or disposal process can expose people working or living in or near the facility to harmful gasses or pollute the surrounding soil and groundwater.

The presence of a large-scale solar farm/battery storage facility near our residential areas will potentially cause a negative impact on our housing prices as it will definitely be an eyesore and will detract from the natural beauty of our surroundings.

Furthermore, the proximity of the transmission line to residential areas raises serious health concerns for residents, especially regarding exposure to electromagnetic fields and noise pollution.

I urge Chino Valley Town Council to reconsider the location of this project to an area that is not so close to a residential community. As a concerned citizen, I respectfully hope the Chino Valley Town Council takes into account the voices and concerns of local residents and environmental advocates in the decision-making process regarding this project. Our collective well-being, environmental sustainability, and quality of life depend on responsible and informed choices that prioritize the preservation of our community's values and resources.

Thank you for considering these important issues. I look forward to hearing more about the environmental impact assessment, mitigation strategies and possible alternative locations for the proposed Draconis Transmission Interconnection Project.

Sincerely,

Lisa L and Tim L Smith

Concerned Mingus Meadows Residents

According to the United States Fish and Wildlife IPAC Tool, the Yavapai County area near Prescott Valley and Chino Valley is known for its diverse wildlife population. Here are some specific species (of which many are on the threatened, endangered and conservation concern lists) that could potentially be impacted by a solar farm development in the region:

<https://ipac.ecosphere.fws.gov/location/QOZTLF2WY5D2XH4F7SCNURXT2M/resources#endangered-species>

1. ****Birds****: The area is a habitat for various bird species, including raptors such as hawks and eagles, migratory birds, and species like the burrowing owl and western bluebird as well as the bald eagle, the golden eagle. The presence of solar panels and associated infrastructure could disrupt nesting sites, foraging areas, and flight patterns of these avian species.
2. ****Mammals****: Mammals such as mule deer, javelina, bobcats, and coyotes inhabit the region. The construction and operation of a solar farm could result in habitat loss, fragmentation, and barriers to movement for these terrestrial animals, as well as contamination of their food sources. (See: "Plants" below)
3. ****Reptiles****: The area is home to reptile species like the western diamondback rattlesnake, Sonoran desert tortoise, and various lizard species. Solar farms may alter temperature gradients and vegetation cover crucial for their survival, impacting their behavior and reproductive success.
4. ****Insects****: Pollinators such as bees, butterflies, and beetles play a vital role in the ecosystem. The presence of solar panels could affect their access to native plants for nectar and pollen, potentially disrupting pollination processes.
5. ****Plants****: Several plant species endemic to the Yavapai County region could be impacted by the shading effects of solar panels, changes in water availability, and soil disturbances during construction activities. Toxic metals such as cadmium, known to leak from solar panels through weathering and breakage, are more readily taken up by grasses than other toxic metals.
6. ****Groundwater-dependent Species****: Groundwater extraction for the maintenance of a solar farm could impact groundwater levels, potentially affecting species dependent on water sources like springs, seeps, and riparian areas.

Google LLC, 1600 Amphitheatre Parkway, Mountain View, CA 94043, USA

You have received this email because ponyekspress@gmail.com shared a document with you from Google Docs.



PLEASE BE AWARE THIS MESSAGE CAME FROM A SENDER OUTSIDE THE TOWN!

Jeff and Alice Hardin
9274 E Dows Ranch Road
Prescott Valley, AZ 86315
September 15, 2024

Council Member
Chino Valley Town Council

Subject: Environmental Impacts of Proposed Draconis Transmission Interconnection Project

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Furthermore, the installation of solar panels and associated infrastructure may have implications for our groundwater resources. There is a risk of contamination from construction activities, as well as potential leakage of hazardous materials from solar panels over time. It is essential to implement proper mitigation measures to prevent any negative impact on groundwater quality and availability. Some chemicals used to make batteries may be hazardous. Even when the best safe handling practices are followed, accidents can happen—and any damage caused during the manufacturing, transportation, or disposal

process can expose people working or living in or near the facility harmful gasses or pollute the surrounding soil and groundwater.

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Furthermore, the proximity of the transmission line to residential areas raises serious health concerns for residents, especially regarding exposure to electromagnetic fields and noise pollution.

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Thank you for considering these important issues. I look forward to hearing more about the environmental impact assessment, mitigation strategies and possible alternative locations for the proposed Draconis Transmission Interconnection Project.

Sincerely,



Alice M. Hardin



Jeff Hardin

Concerned Mingus Meadows Residents

According to the United States Fish and Wildlife IPAC Tool, the Yavapai County area near Prescott Valley and Chino Valley is known for its diverse wildlife population. Here are some specific species (of which many are on the threatened, endangered and conservation concern lists) that could potentially be impacted by a solar farm development in the region:

<https://ipac.ecosphere.fws.gov/location/QOZTLF2WY5D2XH4F7SCNURXT2M/resources#endangered-species>

1. ****Birds****: The area is a habitat for various bird species, including raptors such as hawks and eagles, migratory birds, and species like the burrowing owl and western bluebird as well as the bald eagle, the golden eagle. The presence of solar panels and associated infrastructure could disrupt nesting sites, foraging areas, and flight patterns of these avian species.
2. ****Mammals****: Mammals such as mule deer, javelina, bobcats, and coyotes inhabit the region. The construction and operation of a solar farm could result in habitat loss, fragmentation, and barriers to movement for these terrestrial animals, as well as contamination of their food sources. (See: "Plants" below)
3. ****Reptiles****: The area is home to reptile species like the western diamondback rattlesnake, Sonoran desert tortoise, and various lizard species. Solar farms may alter temperature gradients and vegetation cover crucial for their survival, impacting their behavior and reproductive success.
4. ****Insects****: Pollinators such as bees, butterflies, and beetles play a vital role in the ecosystem. The presence of solar panels could affect their access to native plants for nectar and pollen, potentially disrupting pollination processes.
5. ****Plants****: Several plant species endemic to the Yavapai County region could be impacted by the shading effects of solar panels, changes in water availability, and soil disturbances during construction activities. Toxic metals such as cadmium, known to leak from solar panels through weathering and breakage, are more readily taken up by grasses than other toxic metals.
6. ****Groundwater-dependent Species****: Groundwater extraction for the maintenance of a solar farm could impact groundwater levels, potentially affecting species dependent on water sources like springs, seeps, and riparian areas.

Will Dingee

From: Lisa Smith <ponyekspres@gmail.com>
Sent: Thursday, October 31, 2024 8:52 AM
To: Bob Schacherer; Tom Armstrong; Eric Granillo; jmmcafferty@chinoaz.net; Sherri Phillips; Annie Perkins; robert.chino@outlook.com
Cc: Will Dingee; Laurie Lineberry; dpadmin; Terri Denemy; Clerks
Subject: No Vote on Solar Ordinance Nov 5
Attachments: Vote NONov5ChinoTC.pdf

Honorable Town Council, Mayor and Staff of Chino Valley

We are a coalition of homeowners and property owners whose investments and way of life will be negatively impacted by a yes vote on the solar ordinance. We urge a NO VOTE on the ordinance as written. The ONLY ordinance must be NO SOLAR FARMS or BESS FACILITIES in CHINO VALLEY. Arizona does NOT need the power. This has also been sent to the Yavapai Co BOS.

Attached is a small compilation of information in support of our position.

respectfully submitted
Tim and Lisa Smith
Property owners in Mingus Meadows

PLEASE BE AWARE THIS MESSAGE CAME FROM A SENDER OUTSIDE THE TOWN!

Vote NO. Do not pass the solar ordinance for utility-scale solar farms or BESS. There should only be an ordinance that says "No utility-scale solar farms or BESS facilities in Chino Valley. Only small scale as defined by the ordinance already in place. No revisions (unless more protective to our community) and no waivers to the existing ordinance." There is no pertinent document, let alone the enforcement thereof, that could protect our wells, the air, prevent soil contamination, protect our property values, views, schools, communities, our health, the eco-system, our animals or the environment. And no decommissioning document could ever mitigate the damage posed by any utility-scale solar farm project. There are many well document examples from across the country. A one-mile setback is ridiculous since there is example after example of mandatory evacuations of up to 4 miles in the event of an "incident". Now that the truth is out about what is being pushed and why, we as a community, have a much bigger responsibility to stand up and say NO to Utility-Scale Solar Farms and BESS facilities in Chino Valley. Period. Maybe the rest of the state will follow this example.

https://storagewiki.epri.com/index.php/BESS_Failure_Incident_Database#Stationary_Energy_Storage_Failure_Incidents

<https://www.fox10phoenix.com/news/lithium-battery-storage-facility-fire-chandler>

<file:///C:/Users/HP/Downloads/Opposition%20to%20Renewable%20Energy%20Facilities%20and%20BESS%20in%20the%20United%20States%20Columbia%20University%20Law%20School.pdf>

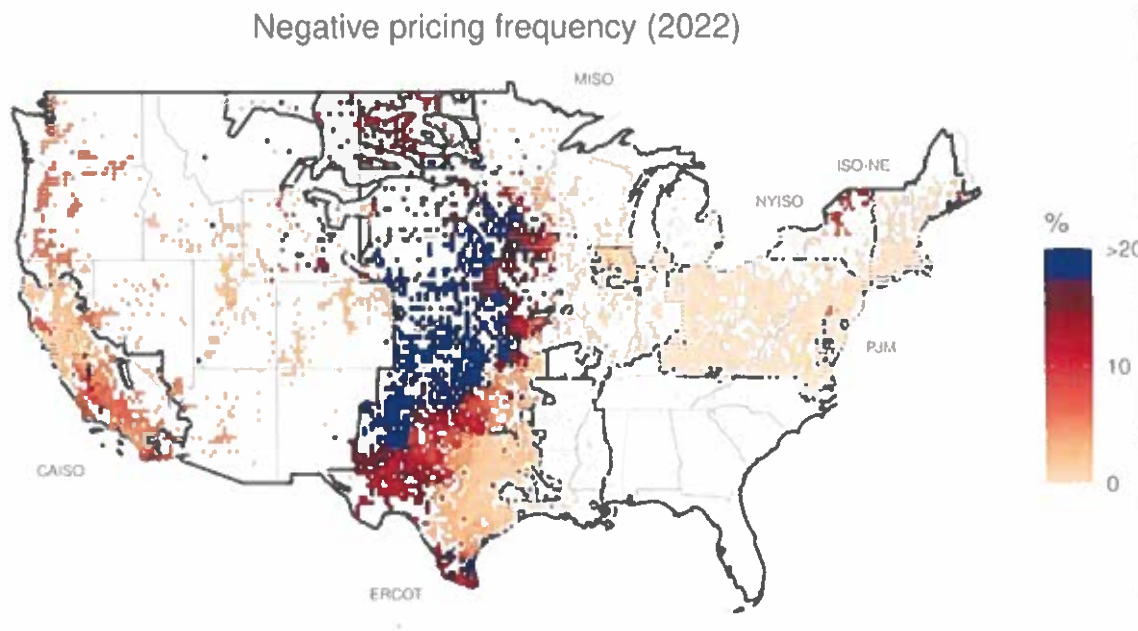
<https://www.firehouse.com/operations-training/news/55138200/fire-at-escondido-ca-battery-storage-facility-could-burn-for-two-days>

<https://www.noisemonitoringservices.com/battery-energy-storage-system-bess-noise-challenges-and-solutions/>

<https://www.msn.com/en-us/news/us/battery-storage-fires-prompt-county-supervisors-to-approve-safety-regulations/ar-AA1qq9Ps?>

"curtailment" (destroying unused/unsellable solar/wind energy- when there is an overabundance and the prices for electricity go negative- meaning utilities would have to pay someone to take the electricity....) *exactly like California currently does with Arizona.* They PAY AZ to take the power that is produced and would otherwise be 'wasted'.

This is a map of where and how often there is excess solar/wind power produced and forces the cost of electricity to go negative in electricity markets across the US...



https://www.nytimes.com/interactive/2024/05/07/climate/battery-electricity-solar-california-texas.html?partner=slack&smid=sl-share&hss_channel=tw-870436596

The problem then becomes storage. The story below may well be one big reason why smaller communities are being 'targeted and attacked' by predatory BESS developers.

<https://www.energy-storage.news/us-finalises-45x-advanced-manufacturing-tax-credit-for-batteries-solar/>

Arizona is among the least restrictive states in the US for BESS and large utility-scale solar farms.

<file:///C:/Users/HP/Downloads/Opposition%20to%20Renewable%20Energy%20Facilities%20and%20BESS%20in%20the%20United%20States%20Columbia%20University%20Law%20School.pdf>

Will Dingee

From: Suzi and Joe Palmer <jsnpalmer@msn.com>
Sent: Monday, November 4, 2024 1:36 PM
To: Will Dingee
Subject: Solar Ordinance Comments for Planning and Zoning Meeting

Hi Will,

I hope you can include my comments for tonights P& Z meeting.

I am writing in response to both Yavapai county and the Town of Chino Valley Solar Ordinances.

#1 - "Solar energy development" should not be allowed in the "Rural/Agricultural Land Use description in The Chino Valley General Plan. I ask the Planning and Zoning Committee and The Board to amend the General Plan Land Use and remove "Solar energy development" because Solar development is an Industrial Land Use not Agriculture. In addition, a Solar Energy Industrial Complex should not be re-zoned to Agricultural.

#2- "No Large Scale utility-scale solar Industrial Complexes in Yavapai County. It does not benefit our local Quad Cities. Only small scale solar uses for the onsite land owners should be allowed. The negative affects of these large facilities and fires of large battery storage facilities are both a major cause of concern that will damage our wells, the air, create soil contamination, significantly reduce our property values, ruin our views, ruin our health, the eco-system, and the environment of the Quad City area. No decommissioning document could ever mitigate the damage a project like Draconis and other large scale Solar Industrial Complexes. A 50 setback from property lines is ridiculous since there are many examples of mandatory evacuations of up to 4 miles. And recently in Escondido California where the evacuations lasted 3 days until the batteries burned itself out.

#3 Request a Moritorium on all Solar Utility Industrial Complexes and Ordinances for both Chino and the County. All these Ordinances are being pushed through without a majority of the community involvement. Although there have been "community meetings" and "public notices" for several months the majority of us in the Quad City area only found out about these Ordinances about 4 weeks ago. The "public notices" are not widely advertised so I ask for a Moritorium so we can discuss these Ordinances amongst those of us that will be most affected.

Suzanne Palmer
14620 E. Diamond Sky Trail
Prescott Valley, Yavapai County

PLEASE BE AWARE THIS MESSAGE CAME FROM A SENDER OUTSIDE THE TOWN!

November 4, 2024

Development Services Department
Town of Chino Valley
1982 Voss Drive #203
Chino Valley, AZ 86323

RE: Comments and Support for TA-2024-04 — Utility Scale Solar

Dear Planning & Zoning Commission,

Our team has been eagerly anticipating the results of the Town of Chino Valley's regulatory framework for reviewing potential Utility-Scale Solar Photovoltaic Facilities within the Town. We are very grateful for the efforts made by the Town in this regard and applaud the Town for creating a framework which is comprehensive and raises all the important considerations for this development type. After reviewing the proposed ordinance, we wanted to share our feedback on certain aspects of the ordinance and ask that the Planning & Zoning Commission consider these at their November 5th meeting.

We would like clarification that the “Step 1” Conditional Use Permit is a ministerial review criterion for Town Council to approve.

For already zoned AR-4 and AR-5 properties, the Step 1 criteria listed in the Solar Ordinance appears to be largely a function of measurement, lot size calculation, and zoning verification. Our hope is that Step 1 submittals can be expeditiously reviewed by Town staff, the Planning & Zoning Commission, and the Town Council.

Separating Solar Facilities by 3-miles should be measured between respective Solar Panels and Equipment not from the Solar Project Area.

It appears that the Town's intent for the three-mile separation requirement is to ensure that no single area is overly concentrated with solar and that desired setbacks to residential property and the Peavine Trail are accomplished. With that being the intent, we feel it is important to treat the separation distance criterion uniformly with how the separation distance from Developed Residential Property is currently stated in the proposed solar ordinance, namely, that “Solar Panels and Equipment” is the measurement point between solar arrays and not the “Solar Project Area”. The Solar Project Area could ostensibly be much larger than the actual area where solar facilities are located, because of buffering and grading requirements among other standards, and this could lead to scenarios where the distance requirement has no rational connection with the underlying purpose of the standard.

We therefore propose that Section 4.33(C)(2)(a) be substituted to read that “Solar Panels and Equipment must:” We note that this change would not change the Step 1 CUP process because that Step 1 process in Section 4.33(F)(1) requires submission of a site plan and that site plan would need to identify where solar panels and equipment could be located.

The Community Benefit requirement is a good requirement that will benefit the Town but we are seeking clarification as to what the expected Community Benefit Amount would be based on.

Solar development has shown to bring a variety of community benefits including increased tax revenue, road improvements, impact fee contribution, job creation, solar developers investing in local scholarships and workforce training, etc. We ask that the Town provide additional information regarding whether the Community Benefit has any direct relation to the Solar Developer’s impact on roads or other community benefits which solar projects typically bring.

Limiting construction to 8am to 5pm on weekdays will have the unintended outcome that construction will take longer.

We suggest removing this construction hours limitation and instead relying on the existing noise ordinance of the Town. If specific projects that are proposed are likely to disturb neighboring properties, then use the Use Permit process and Construction Noise Contour Impact Study Map to adjust the construction hours prior to approving a specific project. Alternatively, we request changing the construction hours to 6am to 7pm Monday through Saturday. Note, the shorter the construction hours, the longer the construction proceed will take overall.

Appropriate modifications to the Solar Ordinance should be allowed if justified by specific CUP proposals.

The Town Council needs to be equipped with the ability to appropriately modify the proposed requirements on a case-by-case basis. Currently the Town does not have a planning tool in place by which it could potentially lessen a setback requirement for a project that could have less impact on the community. Developers should be allowed to present the benefits which their specific project holds and get individual consideration before the Town. Rather than restricting the ability to bring great projects, the Town should be able to consider projects and say no to projects on their individual merits.

The Town Council should give itself flexibility to deviate from the framework of the solar ordinance. For instance, the solar ordinance requires that project site grading not exceed 20% of the total acreage. There may be a scenario where a parcel was previously disturbed in excess of 20%. Rather than reject a proposed project because of the specific conditions of the site, we propose language be added which could allow the Town Council to modify that condition, if warranted. Language such as the following could be added to Section D such as: “Modification to these Project Standards may be approved if modified standards are approved by the department in charge of reviewing the standard and if justified by submission of plans and studies showing the intent of this section is maintained.”

BESS placement requirement may result in additional safety concerns, rather than protect citizens against the very small risk of battery fire.

Please see attached opinion letter from one of our trusted electrical engineering partners on this matter.

In conclusion, these solar projects can bring a host of benefits to the Town and we appreciate the Town's work on drafting a well-conceived ordinance. We believe there is still work to be done in terms of informing residents regarding what these proposals entail and how they could benefit the Town. We are overall supportive of the ordinance and thank you for your consideration of the items raised in this letter.

Thank you,

Sarah Rypkema

Sarah Rypkema
Project Development Manager



40 E. Montgomery Avenue, Fourth Floor, Ardmore, PA 19003

843.469.4676 | sarah@prospect14.com | Prospect14.com

Technical Memo: Engineering Opinion on Large Scale Battery ESS Placement

Engineer: Roger DS Manzi | Roger.dsmz@rydbergpower.com | +1 949 466 2540

Date: 11/01/2024

Memo to:

To Whom It may concern,

Based on recent communications with a PV Solar + Battery Energy project developer with intentions to invest in a project in the Town of Chino Valley, Az — Rydberg Power, Inc. is pleased to offer our Engineering Expert opinion on ideal placements of Battery Energy Storage Systems (BESS).

Rydberg Power is an is an engineering consulting group focused on providing design & engineering services to renewable and sustainable commercial, utility scale photovoltaic (PV Solar) and BESS projects, whether during development and post-development stages. Our experience spans over 7.2+GWac (in-construction/constructed), 35.7+GWac (in development) of engineering & design experience, 422.5MWg/1538MWh of BESS, 11 EV Charging stations in 4-continent.

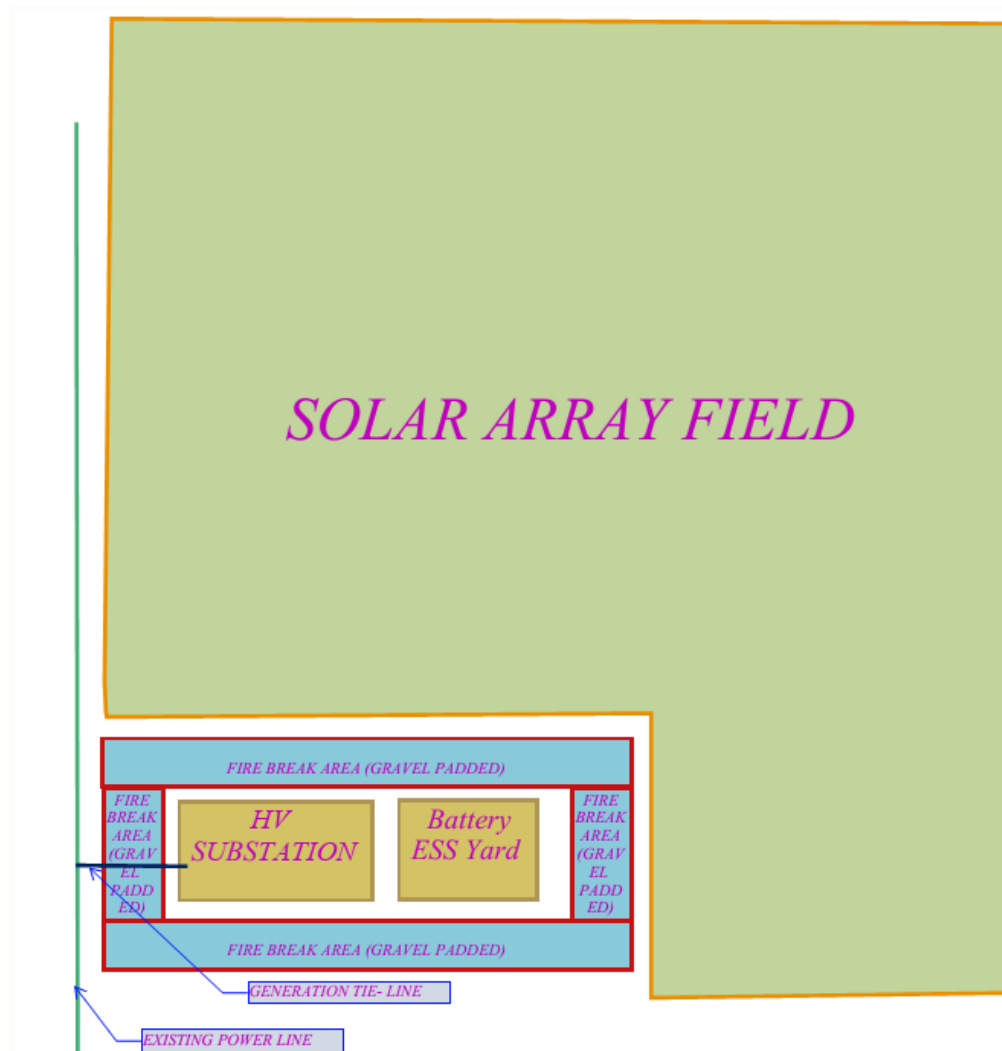
It is our understanding that the current draft of the Solar Ordinance states that: <<**Battery Energy Storage Systems (BESS) must be centrally located within the solar project area or maintain a minimum separation of one mile from developed residential property, whichever is greater.**>>

Although we understand the positive intentions of placing the BESS at the center of the solar array field, this placement creates further issues that need to be carefully considered.

- I. In case of a BESS Fire, if the BESS is located at the center of the solar array field, it would put the Fire Fighting agents at risk, as they would first have to drive through the solar field which could also catch fire anytime in case the BESS fire contaminates the array field. Important to note that Solar Panels are energized with High Voltage DC power (up to 1500Vdc) as the long as the solar irradiance is available (light).
- II. Generally, by putting the BESS near the substation, and further from the array fields (at a corner point of the site, or isolated point of the site) allows the following:
 1. Easier access by the fire department,
 2. Creating an immediate fire break around the BESS,
 3. Easy isolation of the BESS by removing the need to drive back and forth to the substation isolation point,

4. Removes the likelihood of fires/faults due to underground cables from the BESS to the substation,
 5. Allows to cover the BESS area + substation area + Gap between the BESS/Substation and the PV Field—with gravel, which would act as a fire-retardant/passive fire break in case of a fire event.
- III. Locating the BESS in the center of the solar field will increase length of underground High Voltage cable runs- increasing fire risk and rendering the projects nearly impossible to build and operate profitably. It would be a suboptimal design, and unsafe facility to operate.
1. The project would now need to run unnecessarily long High Voltage (34, 500Volts) Underground cables from the BESS at the center of the solar field, to the Substation/or Point of Interconnection. The Substation is usually located near an existing road, ROW/Transmission Line Corridor---which tend to be at the corner or edge of the array, and rarely located at the center of the array field due to the fact that the interconnecting utility companies insist on having unrestricted direct access to the substation and point of interconnection.
 - a) Now, the longer the High Voltage Underground cable runs, the higher the risk of someone accidentally hitting one during excavation/maintenance on site, risking causing a massive High Voltage triggered fire, which would almost certainly expand to the nearby DC Solar array field, creating a cascading effect.
 - b) If we put these High Voltage Cables overhead, we risk creating a cluster of power poles/multiple cables that can easily snap/pole s falling and risk causing a fire starting with nearby grass and having so many poles too close together certainly isn't visually appealing.
- IV. Shown below is an exhibit (Image 1) showing what an Ideal arrangement for the PV Solar and the Battery ESS facilities next to each other.

- ❖ Ideal placement of a PV Solar Facility and the Battery Energy Storage System relative to each other.



Should you have any questions, please contact me by email at Roger.dsmz@rydbergpower.com,

Kind Regards,

Roger DS Manzi
Director of Engineering | Partner,
Rydberg Power, Inc | +1 949 466 2540 | Roger.dsmz@rydbergpower.com

Dus Rog Manzi R

November 4, 2024

Development Services Department
Town of Chino Valley
1982 Voss Drive #203
Chino Valley, AZ 86323

RE: TA-2024-04 — Utility Scale Solar – Support Letter and Considerations for Proposed Solar Ordinance

Dear Planning & Zoning Commission,

We would like to first thank the Town of Chino Valley for undertaking the effort to create comprehensive regulatory guidelines for the development of Utility-Scale Solar Photovoltaic Facilities within the community. As a developer of 26 operating projects throughout the United States, Lightsource bp is committed to participating in community-based initiatives to facilitate quality projects that are harmonious with community goals and bring benefits to the areas where we operate.

We are grateful for the opportunity to work with the Town of Chino Valley to develop a future solar project that will deliver numerous benefits to the Town and its residents through job creation, enhanced local tax revenues and by creating locally generated energy.

We believe that a well-crafted solar ordinance will allow the Town to review future projects on a case-by-case basis, based on their merits and alignment with the ordinance. As with any type of development that will bring economic growth to a community, it is important that new regulations find the right balance between ensuring community safety, reasonable guidelines, and facilitating quality growth and economic investment into the community.

With that in mind, we offer brief comments and suggestions on the draft ordinance language:

1. **4.33.C.3.a (Limitations).** Limiting solar development to 3,800 acres also means that the potential public benefits are limited as well. Generally, Lightsource bp projects provide numerous benefits, while having minimal impact on public services, and generating little traffic, noise or other activity during operations. We believe that the other regulations within the ordinance, in concert with transmission and land limitations, will act as a natural limitation on development in the area. *Therefore, we recommend removing this section.*
2. **4.33.C.2.a.i (Siting Criteria – 3-mile separation).** Separating Solar Facilities by 3-miles from other similar facilities is contrary to regulations in other jurisdictions, where the emphasis has been on congregating the solar uses together. Such a large separation could cause projects to be spread throughout the community and move closer to residential areas. The other set-back criteria within this section would sufficiently address any concerns with proximity to adjacent land-uses. *Therefore, we suggest removing this section.*

3. **4.33.C.2.a.iii (Siting Criteria – setbacks from property lines).** We agree that a 50-foot setback from non-participating property lines is appropriate, and our project is including this as the minimum setback in all designs. The setback generally does not apply to parcels within the project site, as projects can be inclusive of multiple parcels. *Therefore, we suggest adjusting this section to state the setback is from non-participating parcels.*
4. **TC-2024-04 – Previously Approved definitions.** The previously approved definitions are logical and comprehensive. However, with respect to the “Solar Project Area” definition, we would like to share that Solar Projects often include areas that are under lease to the project, but that remain undisturbed or act as natural buffers and are outside of the project fence-line. In an area such as Chino Valley, we are striving to include appropriate corridors for wildlife migration and required setbacks and retain the ability to custom-design our site to minimize impacts to viewsheds. The current definition includes these as part of the project area, that then must be subject to an additional setbacks, which would lead to a potentially illogical layout. *Therefore, we suggest adjusting this definition as follows:*

Solar Project Area: The total acreage encompassed by a solar facility, including buffers, and wildlife corridors, and other areas that remain unfenced and undisturbed that are contained within the fenced project boundary.

We again thank the Town for the opportunity to comment on the draft ordinance, we look forward to working with the community to develop a quality project that will bring economic benefits to the community for many years to come.

Sincerely,

James Le Strange
Senior Manager, Project Development

Paulette Rush
Community Relations Manager

December 27, 2024

Town of Chino Valley
Development Services
1982 Voss Drive
Chino Valley, AZ 86323

RE: Request to Amend the Town of Chino Valley Unified Development, Chapter 4 General Regulations (Section 4.33, Utility Scale Solar Photovoltaics Facilities)¹ on the January 7, 2025 agenda as D.1.

Council, Commissioners, and Staff,

The Arizona Solar Energy Industries Association (AriSEIA) is the State's solar, storage, and electrification trade association. We are active on energy policy issues at every level of government in Arizona. We have previously engaged on the City of Eloy, City of Surprise, Mohave County, and Yavapai County solar/storage ordinances. We recently became aware of this pending ordinance draft and apologize that our comments were not provided to you earlier in your process. We very much hope to continue to be engaged with the City as this process progresses. **Our comments primarily highlight concerns with setbacks, acreage limits, the lack of a waiver provision, and a few other technical concerns.**

Acreage Caps and Setbacks

The cumulative maximum acreage cap and setback requirements will inhibit solar development. Chino Valley spans approximately 40,000 acres. The current proposed cap of 3,800 acres at E(3)(a) is only 9.5% of Chino Valley. For comparison, the City of Eloy's 2023 solar ordinance includes a cap at 16% of the city's incorporated area and introduces a process for increasing the cap.² **We recommend eliminating the cap, but at the very least increasing it.** The Chino Valley cap combined with other siting requirements such as three miles between facilities and Battery Energy Storage System (BESS) siting specifications would unnecessarily impair solar development.

The American Planning Association found the national setback average for BESS-specific setbacks used distances of 50-150' from property lines.³ The BESS setback requirement of one mile or more in E(2)(b) is significantly above BESS setback standards in other jurisdictions and will restrict clean energy development in the City.⁴ **We recommend a 150' BESS setback based**

¹ See Town of Chino Valley Unified Development Ordinance, Chapter 4.33 General Regulations (2024), available here <https://chinovalleyaz.portal.civicclerk.com/event/1231/files/agenda/14572>. [hereinafter Ordinance].

² Eloy, Az., Code of Ordinances Code § 21-3-1.39(B) (2024); see also AriSEIA's 4th Letter to Yavapai County on Solar Ordinance, Aug. 30, 2024, available here <https://www.ariseia.org/news/ariseia-sends-4th-letter-to-yavapai-county-on-solar-ordinance>.

³ American Planning Association, Zoning Practice, P.10 (Mar. 2024), available here https://planning-org-uploaded-media.s3.amazonaws.com/publication/download_pdf/Zoning-Practice-2024-03.pdf.

⁴ We have included our Yavapai County economic impact study as **Attachment B** and our water analysis as **Attachment C**.

on the Phoenix Regional Standard Operating Procedures Battery Energy Storage Systems policy.⁵ The American Clean Power Association (ACP) provides a helpful FAQ that covers questions about battery safety and air emissions.⁶ ACP also has a Claims v. Facts one-pager on battery safety, included here as **Attachment A**. “It should also be noted that the average emissions rates of equivalent masses of plastics exceed those of batteries.”⁷ Additionally, sampling was done by the Environmental Health Division and the U.S. Environmental Protection Agency (EPA) after the Moss Landing incident and “no threat to human health or the surrounding environment” was found.⁸ All electricity generation and energy storage creates some amount of risk. However, battery incidents represent only 2% of battery installations.⁹ Setbacks for batteries should not be more onerous than setbacks for other energy storage devices, such as those that contain fossil fuels.

The draft also states that solar panels must maintain a minimum of 1,320’ setback from any developed residential property in E(2)(c). **We recommend the same residential 100’ setback to adjacent dwelling structures as we recommended to Yavapai County and not residential property lines.**¹⁰

We are concerned about the implications of the three mile minimum distance between solar projects in E(2)(a)(i). Chino Valley is *only* ten miles wide. This setback is three times larger than the setback for Yavapai County. Larger setbacks have unintended consequences. Unnecessary setbacks can exacerbate visual impacts and zoning issues. If a particular area is closer to critical infrastructure, like transmission lines, arbitrary setbacks will impede ideal projects. There may be other projects that meet all other requirements and are ideal from a wildlife or residential perspective but are within closer proximity to other solar projects. **The setback between different utility scale solar projects should be 500’ or less.**

Waiver Provision

The Ordinance should include a waiver provision in the event a project proposal conflicts with some component of the Ordinance, but is otherwise an ideal site. The City of Eloy Solar and BESS Ordinance includes such a provision.¹¹ We recommend adding language such as that included in 21-3-1.39(B) of Eloy’s Ordinance.

⁵ City of Phoenix, Battery Energy Storage Systems, April 2023, *available here*

<https://www.phoenix.gov/firesite/Documents/205.20A%20Battery%20Energy%20Storage%20Systems.pdf>.

⁶ American Clean Power Association, Energy Storage: Safety FAQ, *available here* <https://cleanpower.org/wp-content/uploads/gateway/2023/07/ACP-ES-Product-4-BESS-Safety-FAQs-230724.pdf>.

⁷ Consolidated Edison and NYSEDA, Considerations for ESS Fire Safety, Feb. 9, 2017, at iii, *available here* <https://www.nyserda.ny.gov/-/media/Project/Nyserda/files/Publications/Research/Energy-Storage/20170118-ConEd-NYSEDA-Battery-Testing-Report.pdf>.

⁸ County of Monterey, Air Quality Testing Information and Process During Moss Landing Fire Incident, Sept. 30, 2022, *available here* <https://www.countyofmonterey.gov/Home/Components/News/News/9345/1336>.

⁹ California Public Utility Commission, Energy Storage Procurement Study: Safety Best Practices, 2023, *available here* https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/energy-storage/2023-05-31_lumen_energy-storage-procurement-study-report-atf.pdf.

¹⁰ AriSEIA, Yavapai County Solar Facilities Ordinance Draft Letter, June 10, 2024, F(2), *available here* https://www.ariseia.org/uploads/1/3/8/5/138583971/yavapai_solar_ordinance_letter_6.10.2024.pdf.

¹¹ Eloy Ordinance, 21-3-1.39, *available here* https://codelibrary.amlegal.com/codes/eloyaz/latest/eloy_az/0-0-0-9381.

Noise

The draft restricts noise post-construction below 55 dB during the day and 40 dB at night and requires developers to submit a noise study pre- and post-construction at F(9)(b). Manufacturer documentation showing BESS noise levels should be sufficient. This requirement is inconsistent with other land uses. Chino Valleys' Unified Development Ordinance, Title XIII, Chapter 131, Noise Generally, makes no mention of noise dB and Title XV, Land Usage, does not mention construction or post-construction noise limits.¹² We have recommended noise parameters for Yavapai County at 65 dB. Battery HVAC units usually emit 85 dB three feet away and can be in the 60/65 dB range at the boundary of the project.¹³ **We recommend that Chino Valley either eliminate the noise restriction or increase the dB limit to 65 dB.**

Slope and Panel Height

We recommend changing the maximum slope grade from 5% to 8%. Yavapai County's ordinance is 8% in F(1)(e)(5).¹⁴

We recommend increasing the fifteen foot height cap to twenty feet in D(6)(d). Yavapai County's height cap as seen in Section 608 Solar Facilities (F)(3)(a) is twenty feet. Restricting solar panel height negatively impacts agrivoltaics activities such as cattle grazing or crop cultivation.¹⁵

Other

There appears to be a typo in D(10)(a) creating confusion as to how many days or years a developer shall prepare and submit a decommissioning and reclamation plan. It currently says, "within one year days of decommissioning." Additionally, it is unclear why D(5)(a) requires all utility buildings and equipment to be screened by a seven foot concrete wall.

Thank you for your time and consideration and we look forward to continuing to engage with the City on this Ordinance as the stakeholder process progresses.

Respectfully,
Autumn Johnson
Executive Director
AriSEIA
(520) 240-4757
autumn@ariseia.org

¹² Chino Valley, Unified Development Ordinance, Title XIII, Chapter 131; Title XV Land Use, 2024, *available here* https://codelibrary.amlegal.com/codes/chinovalley/latest/chinovalley_az/0-0-0-3578.

¹³ AriSEIA, Yavapai County Solar Facilities Zoning Ordinance Amendment – Sections 501 & 608 Letter, July 26, 2024, F(10), *available here* https://www.ariseia.org/uploads/1/3/8/5/138583971/yavapai_county_letter_7.26.2024.pdf.

¹⁴ Yavapai County, Section 608 Solar Facilities, Dec. 04 2024, F(1)(e)(5), *available here* <https://www.yavapiaz.gov/files/sharedassets/public/v/1/development-and-permits/development-services/documents/news/sec-608-solar-facilities-approved-11-6-24-in-effect-12-4-24-watermarked.pdf>.

¹⁵ *Id.* at F(3)(a).

ATTACHMENT A

Energy Storage Leading on Safety

Utility-scale battery energy storage is safe and highly regulated, growing safer as technology advances and as regulations adopt the most up-to-date safety standards.

Background

Energy storage systems (ESS) are critical to a clean and efficient electric grid, storing clean energy and enabling its use when it is needed. Installation is accelerating rapidly—as of Q3 2023, there was seven times more utility-scale energy storage capacity operating than at the end of 2020. This growth is driving job creation, investment in American manufacturing, and is improving grid resilience and energy security.

However, because energy storage technologies are generally newer than most other types of grid infrastructure like substations and transformers, there are questions and claims related to the safety of a common battery energy storage technology, lithium-ion (Li-ion) batteries. All of these questions and claims can be addressed with facts. The industry continues to address these concerns to ensure community confidence in this increasingly essential electric grid infrastructure.

CLAIM: The incidence of battery fires is increasing.

FACTS: Energy storage battery fires are decreasing as a percentage of deployments.

- Between 2017 and 2022, U.S. energy storage deployments increased by more than 18 times, from 645 MWh to 12,191 MWh¹, while worldwide safety events over the same period increased by a much smaller number, from two to 12².
- During this time, codes and standards regulating energy storage systems have rapidly evolved to better address safety concerns.



CLAIM: Today's larger battery systems use tens of thousands of cells, so fires are inevitable.

FACTS: Cell failure rates are extremely low, and safety features in today's designs further reduce the probability of fires.

- One estimate from 2012 quotes a failure rate ranging from 1 in 10 million to 1 in 40 million cells³, and there are undoubtedly improvements from these levels.
- Lithium-ion batteries experience extremely low failure rates, as shown by electric vehicle data.
 - Tesla alone sold nearly 900,000 vehicles in the first half of 2023⁴. These sales of new vehicles represent around three-quarters of a billion cells, but safety events involving all EVs on the road globally, from all manufacturers, amounted to just a few dozen fires.
- Today's energy storage systems (ESSs) predominantly use safer lithium-iron phosphate (LFP) chemistry, compared with the nickel-manganese-cobalt (NMC) technology found in EVs.
 - LFP cell failure results in less energy release and a lower probability of fire.
- ESS designs incorporate features to avoid propagation of cell failure within the battery, contributing to improved safety.

1 US Energy Storage Monitor, Q1 2023 full report and 2022 Year in Review, Wood Mackenzie Power & Renewables/American Clean Power Association, <https://www.woodmac.com/industry/power-and-renewables/us-energy-storage-monitor/>

2 Electric Power Research Institute, BESS Failure Event Database, https://storagewiki.epri.com/index.php/BESS_Failure_Event_Database

3 D. Doughty, Vehicle Battery Safety Roadmap Guidance, National Renewable Energy Laboratory, October 2012, <https://doi.org/10.2172/1055366>.

4 EV sales: Hyundai overtakes GM, but Tesla's U.S. dominance continues

CLAIM: E-bike and e-scooter fires have resulted in deaths—so large batteries for energy storage may be even more deadly.

FACTS: No deaths have resulted from energy storage facilities in the United States. Battery energy storage facilities are very different from consumer electronics, with secure, highly regulated electric infrastructure that use robust codes and standards to guide and maintain safety.

- E-mobility devices have been lightly regulated in the past, and some products have used poor-quality battery cells and ineffective safety systems.
- They are also charged inside homes, sometimes along egress routes, creating a high level of risk.
- Like EV batteries, ESS battery systems are highly regulated and subject to stringent certification and testing requirements.
- The difference in regulation is evident in vehicle statistics. Worldwide, for the first half of 2023, EV FireSafe cites 500+ light electric vehicle (E-bike and E-scooter) battery fires, but only 44 passenger EV fires⁵.
- Additionally, utility-scale energy storage systems are located within secure facilities with site plans explicitly designed around maximizing safety of those operating the facilities and their neighbors.
- The ESS industry meets with and shares best practices with first responders and communities.
- Lessons learned from earlier ESS incidents have been reflected in the evolution of codes and standards. Often, companies go beyond mandatory testing to test more extreme failure scenarios.
- Altogether, like other electric grid infrastructure, energy storage systems are highly regulated and there are established safety designs, features, and practices proven to eliminate risks to operators, firefighters, and the broader community.
- The industry is committed to meeting these standards, such as NFPA 855, which are regularly updated to reflect the latest evidence-based best practices.



Photo credit: AES

CLAIM: Battery fires emit toxic fumes and pose a risk to the community

FACTS: Past incidents demonstrate that fires are contained within the facility, and air quality in neighboring areas remains at safe levels.

- Laboratory testing of emissions from Li-ion cells in thermal runaway shows that emissions are similar to those found in plastics fires⁶.
- During an ESS battery fire, only trace amounts of chemicals are detected in sampling around the event, and overall air quality remains at safe levels.
- During a fire at a Tesla Megapack at Moss Landing in California, air-quality testing showed no hazards to human health⁷.

CLAIM: Fire suppression systems should be mandatory for all lithium-ion battery systems.

FACTS: Regulations that aren't vetted by organizations like the National Fire Protection Association or are inconsistent with the International Fire Code may make projects less safe.

- Established national and international codes and standards already require BESS to incorporate the appropriate safety features to contain any potential fires or thermal events.
- Successful suppression of a fire does not guarantee that the underlying thermal runaway event has been terminated, so containing a fire is the best way to protect first responders and communities.
- The energy storage industry is working to avoid events such as the explosion at an installation in McMicken, Arizona, in which four firefighters were injured⁸. Prior to this event, the industry was focused on extinguishing fires as quickly as possible, but McMicken showed that explosion can be a greater hazard and fire containment is a better strategy.
- The accepted best practice for the rare ESS fires that do occur is to contain them, managing the burn of the limited affected unit in a controlled manner while protecting nearby structures and equipment. This strategy eliminates any explosion hazard, avoids issues with stranded energy and reignition, and minimizes contaminated runoff of firefighting water.
- Codes and standards are changing to reflect this practice, placing an emphasis on explosion prevention. One proposal for the 2026 edition of NFPA 855, *Standard for the Installation of Stationary Energy Storage Systems*, would forbid installation of traditional clean-agent or aerosol fire suppression systems unless testing demonstrates that use of such systems does not create an explosion risk.

⁵ EV FireSafe, All Electrified Transport LIB Fire Incidents, Global, 1st January to 30th June 2023, <https://www.evfiresafe.com/ev-battery-fire-overview>.

⁶ DNV-GL, *Considerations for ESS Fire Safety, Report for Consolidated Edison and NYSEERDA*, 2017

⁷ Air quality testing showed no hazards to human health amid battery fire in Moss Landing

⁸ Arizona ESS Explosion Investigation and Line of Duty Injury Reports Now Available

ATTACHMENT B

Yavapai County Solar (Example Project) Economic Impact and Tax Revenue Analysis



Prepared for:

Arizona Solar Energy Industries Association (AriSEIA)

July 2024

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Summary of Impacts

There is a common misconception that solar projects do not contribute to the economy nor generate tax revenues for local governments. However, solar projects across all counties in Arizona are subject to personal property taxes on equipment and, thus, generate significant revenue for local taxing jurisdictions as outlined in this report. In addition, solar projects can contribute to increased real property taxes as well as generate use taxes levied on non-exempt equipment for the State (but these additional State taxes are not included in this analysis).

This report estimates the impacts of a typical solar project to be located in Yavapai County. This example solar power generating facility would sit on an estimated 1,200 acres and produce up to 200 MW of power and includes the addition of 200 MW (4 hours) of battery storage. A facility of this size is generally in range with recent power purchase contracts announced by Arizona Public Service and Salt River Project, two of the state's largest electric utilities.

The taxable original cost of a project of this size is estimated at \$528.0 million. The taxable original cost is subject to personal property tax using a 30-year straight-line depreciation with a 10% floor for solar and 15-year straight-line depreciation with a 10% floor for battery storage. The full cash value of renewable energy equipment is 20% of the depreciated cost of the equipment per ARS 42-14155. This full cash value is subject to Arizona personal property taxes over the life of the project (40 years for the solar facility and 20 years for battery storage).

Impact Summary

During construction, an estimated \$888,800 in tax revenues and 301 jobs would be created in the local economy from this example project. In addition, over the life of the project, more than \$14.8 million in tax revenue would be generated by personal property tax on equipment. These taxes would directly benefit the county, its special districts (such as county fire, flood and library districts), and local school districts. Furthermore, employees working on the project generate an estimated \$1.0 million in tax revenues.

In total, this example Yavapai County Solar Project would generate an estimated \$16.8 million in tax revenues during the life of the project. The total economic output of the project over the life of the project is estimated at \$201.0 million.

Yavapai County Solar Project Summary Impact

Construction related jobs	301
Taxes generated during construction	\$888,800
Personal property tax generated during life of project	
Yavapai County and special districts	\$7.6 million
Local school districts	\$7.2 million
Tax revenues generated by employees	\$1.0 million
Grand total of taxes generated during life of Project	\$16.8 million
Total economic activity during life of project	\$201.0 million

Economic Impact and Tax Revenue Analysis

Economic Impacts

- Development would provide an immediate \$37.7 million in direct construction impact in the County, generating a direct, indirect and induced total of \$51.0 million in total economic impact from construction activity. This investment would create 301 construction and related jobs and \$16.4 million in wages over the projected construction schedule.
- Once operating, an estimated \$3.8 million in annual economic activity would occur within the County's economy each year.
- All totaled, the example solar project would create over \$201.0 million in economic activity within Yavapai County during construction and 40 years of operations for solar and 20 years of operations of the battery storage.

Economic Impact Summary			
Yavapai County Solar Project			
(2024 dollars)			
Construction			
Impact Type	Jobs	Wages	Economic Output
Direct	225	\$12,936,000	\$37,700,000
Indirect	33	\$1,685,000	\$6,295,000
Induced	43	\$1,825,000	\$6,958,000
Total	301	\$16,446,000	\$50,953,000
Ongoing Annual Operations			
Impact Type	Annual Jobs	Total Wages	Economic Output
Direct	4	\$448,000	\$2,836,100
Indirect	2	\$129,100	\$625,000
Induced	2	\$76,100	\$289,900
Total	8	\$653,200	\$3,751,000
Total economic output during construction and 40 years of operations:			\$200,993,000
Source: Elliott D. Pollack & Company; IMPLAN			

Tax Revenues Generated

Construction and operations of the solar project would create significant tax revenue for Yavapai County and other entities. While the project would be exempt from prime contracting transaction privilege tax (under ARS 42-5075(b)(7) and ARS 42-5061), there is still substantial value from solar equipment that would increase the personal property revenues for the County. Revenues would also be generated from secondary sources of employee generated revenue.

- Yavapai County would receive an estimated \$888,800 in cumulative tax revenue from construction related impacts. These impacts are generated by the share of employees that would spend within Yavapai County during the construction phase.

Tax Revenues during Construction Yavapai County Solar Project (2024 dollars)				
	Secondary Revenues			
Impact Type	Employee Spending Sales Tax	Resident Property Tax	State Shared Revenues	Total Revenues
Direct	\$145,000	\$521,100	\$2,350	\$668,450
Indirect	\$20,200	\$76,700	\$340	\$97,240
Induced	\$24,100	\$98,600	\$430	\$123,130
Total	\$189,300	\$696,400	\$3,100	\$888,800
<u>1/</u> The figures are intended only as a general guideline as to how the taxing jurisdictions could be impacted by the project. The above figures are based on the current economic structure and tax rates of the State of Arizona, county and other taxing jurisdictions. Source: EDPCo; IMPLAN; ADOR; ATRA				

Operations of the example solar project would create tax revenue for the County and local school districts.

- Yavapai County property taxes include taxing jurisdictions such as Yavapai County the fire district assistant tax, county flood and library, community college district and the vocational district. These jurisdictions would receive an average of \$191,200 per year in personal property taxes. The school districts would receive an average of \$180,300 in tax revenue each year.
- Average annual taxes generated for the County from employees total an estimated \$25,300 each year.

In total, the combined annual taxes generated for the County average an estimated \$396,800 each year.

Average Annual Tax Revenues Yavapai County Solar Project (2024 dollars)	
Average Annual Operating Taxes Generated	
Personal property tax	
County and Special Districts	\$191,200
Local School Districts	\$180,300
Tax revenues generated by employees	\$25,300
Total Operations Related Revenue	\$396,800
1/ The figures are intended only as a general guideline as to how the county could be impacted by the project. The above figures are based on the current economic structure and tax rates of the State of Arizona and county.	
Source: Elliott D. Pollack & Co.; IMPLAN; AZDOR; AriSEA; ATRA	

- Over the life of the project, the County and its school districts would receive an estimated \$16.8 million in total from construction and ongoing annual tax collections generated by the Yavapai Solar Project.
- If the site is located within an incorporated area, the property taxes for that area would be collected in addition to the County and School Districts. The following table also provides the projected taxes for each of those jurisdictions.

Tax Revenues: Life of Project Yavapai County Solar Project (2024 dollars)	
Construction related tax revenues	\$888,800
Operations Impact	
Personal property tax	
County and Special Districts	\$7,646,300
Local School Districts	\$7,210,700
Tax revenues generated by employees	\$1,012,000
GRAND TOTAL FISCAL IMPACT	\$16,757,800
Personal property tax for incorporated areas*	
Clarkdale	\$2,947,000
Prescott	\$525,000
Sedona	\$563,000
Wickenburg	\$968,000
*Collected if the site is located within the respective incorporated area.	
1/ The figures are based on a 40-year life and intended as a general guideline as to how the local governments could be impacted by the project. The above figures are based on the current economic structure and tax rates of the State of Arizona and other taxing jurisdictions.	
Source: Elliott D. Pollack & Co.; AriSEA; IMPLAN	

About Elliott D. Pollack & Company

Elliott D. Pollack & Company has been in business for more than 30 years and is headed by one of Arizona's most noted economists. The firm is known for its expertise in two primary areas – real estate and economics, with its primary practice in the State of Arizona. The firm has been employed by public institutions, state, county, and local governments, private entities, and Native American Communities, in a variety of assignments that include economic impact analyses, real estate market studies, forecasting, and public speaking at events around the State.

Assumptions & Methodology

The typical 1,200-acre solar power generating facility would produce up to 200 MW of power and includes the addition of 200 MW (4 hours) of battery storage. The total value of the example project is estimated at \$528.0 million including construction and equipment. A facility of this size is generally in range with recent power purchase contracts announced by Arizona Public Service and Salt River Project, two of the state's largest electric utilities.

Project Assumptions Yavapai County Solar Project (2024 dollars)	
Acres	1,200
Solar Facility (MW)	200
Battery Storage - 4 hours (MW)	200
<u>Taxable Original Cost of Equipment*</u>	
Solar Equipment	\$207,000,000
Battery Storage Equipment	\$321,000,000
Total value of project	\$528,000,000
*Taxable Original Cost is subject to personal property tax per the ADOR	
Source: AriSEA; Elliott D. Pollack & Company	

The following table outlines the weighted average tax rates used in estimating the property tax impacts of the example Yavapai County Solar Project. These rates are applied to every \$100 of net assessed value. The rates are current as of this report and are used for the entire duration of the estimated project life.

Average Property Tax Rates Yavapai County Solar Project	
DISTRICT	RATE
Yavapai County	1.715
Fire District Assistance Tax	0.083
County Flood	0.175
County Library	0.140
Community College	1.508
VIT	0.050
Local School Districts	3.462
Grand Total	7.133
Municipal Property Tax Rates	RATE
Clarkdale	1.4150
Prescott	0.2520
Sedona	0.2703
Wickenburg	0.4646
Source: County Assessor's Office	

Economic Impact Methodology

Economic impact analysis examines the economic implications of an activity in terms of output, earnings, and employment. For this study, the analysis focused on the construction impacts as well as the ongoing operations including direct expenditures by the residents.

The different types of economic impacts are known as direct, indirect, and induced, according to the manner in which the impacts are generated. For instance, direct employment consists of permanent jobs held by project employees. Indirect employment is those jobs created by businesses that provide goods and services essential to the operation or construction of the project. These businesses range from manufacturers (who make goods) to wholesalers (who deliver goods) to janitorial firms (who clean the buildings). Finally, the spending of the wages and salaries of direct and indirect employees on items such as food, housing, transportation and medical services creates induced employment in all sectors of the economy, throughout the region. These secondary effects are captured in the analysis conducted in this study.

Multipliers have been developed to estimate the indirect and induced impacts of various direct economic activities. IMPLAN developed the multipliers used in this study and were selected based on the land use type. The multipliers used for this project represent the construction of power and communication as well as electric power generation for ongoing operations.

The construction multipliers specific to Yavapai County are used in this study. For the solar generation multiplier, an average of similar economies was used, as the current multiplier set for Yavapai County does not exist.

The economic impact is categorized into three types of impacts:

- (1) **Employment Impact** – the total wage and salary and self-employed jobs in a region. Jobs include both part time and full-time workers.
- (2) **Earnings Impact** – the personal income, earnings or wages, of the direct, indirect and induced employees. Earnings include total wage and salary payments as well as benefits of health and life insurance, retirement payments and any other non-cash compensation.
- (3) **Economic Output** – also referred to economic activity, relates to the gross receipts for goods or services generated by the company's operations.

Economic impacts are by their nature regional in character. Such impacts are best illustrated when not assigned to a specific municipality or locality, although clearly the primary impact of job creation would be in the municipality and county where the project is located. Indeed, many communities in the surrounding region would also benefit from the operations of the project.

Fiscal Impact Methodology

Fiscal impact analysis studies the public revenues associated with a particular economic activity. The primary revenue sources of local, county, and state governments (i.e., taxes) are analyzed to determine how an activity may affect the various jurisdictions. This section would evaluate the impact of the project on State, county and local school districts.

The fiscal impact figures cited in this report have been generated from information provided by a variety of sources including the U.S. Bureau of the Census; the U.S. Department of Labor; the Internal Revenue Service; the State of Arizona; the Arizona Tax Research Association; and the U.S. Consumer Expenditure Survey. Elliott D. Pollack & Company has relied upon the estimates of operating revenues outlined in this study.

Fiscal impacts are categorized by type in this study, similar to economic impact analysis. The major sources of revenue generation for governmental entities are calculated based on ongoing operations. Employees would spend part of their salaries on local goods and services and pay taxes on the homes they occupy. This spending would contribute to revenues collected by the State that are ultimately shared with local governments.

The project would be exempt from prime contracting transaction privilege tax (under ARS 42-5075(b)(7) and ARS 42-5061). However, there is still substantial value from solar equipment that would increase the personal property revenues for the County. Revenues would also be generated from secondary sources of employee generated revenue. The following is a description of the applicable revenue sources that would be considered for this analysis.

Primary Taxes Generated by Project

- **Personal Property Tax**

Renewable energy projects are centrally assessed by the Arizona Department of Revenue. The total original cost is used to calculate the full cash value. The depreciation schedule is then based on straight-line depreciation over the useful life (currently 30 years capped at 90% of taxable original cost per ARS 42-14155). The full cash value factor for renewable energy is 20% and the assessment ratio of 15% is applied for a total taxable value each year.

Secondary Taxes Generated by Employees

The following tax rates are applied to the spending of direct, indirect and induced employees.

- Transaction Privilege Tax

The State, counties, and local cities in Arizona charge sales tax on retail goods and utility usage. The sales tax rate for the State is 5.6%. Portions of this tax are redistributed through revenue sharing to counties and cities throughout Arizona based on population. The weighted average tax rate for local governments is 2.83%. Based on data from the U.S. Consumer Expenditure Survey, the projected extent of retail spending and resulting sales tax receipts was calculated.

- Property Tax

Given that the location of the example project is unknown, the value of the land was not estimated and, thus, real property taxes for the land are not calculated in this report. However, the employees would be subject to residential property tax in Arizona with an assessment ratio of 10%. In order to estimate property taxes, the assessed full cash value of the occupied space along with the projected value of a typical housing unit has been calculated.

- State Shared Revenues

Each municipality in Arizona receives a portion of State revenues from four different sources - State sales tax (see description above), State income tax, vehicle license tax and highway user tax. The formulas for allocating these revenues are primarily based on population. Counties also share in the revenue sources of the State, with the exception of income tax.

State Income Tax

The State of Arizona collects taxes on personal income. The tax rate used in the analysis averages about 1.6% for earnings. These percentages are based on the most recently available income tax data from the State and the projected wage levels of jobs created by the construction and operations impact. This tax is applied to the wages and earnings of direct and indirect employment. Portions of this tax are redistributed through revenue sharing to cities throughout Arizona based on population.

HURF Taxes

The State of Arizona collects specific taxes for the Highway User Revenue Fund (HURF). Both the registration fees and the motor vehicle fuel tax (gas tax) are considered in this analysis. The motor vehicle fuel tax is \$0.18 per gallon and is calculated based on a vehicle traveling the Arizona statewide average of 12,000

miles per year at 16.6 miles per gallon. Registration fees average \$65 per employee in the State of Arizona. These factors are applied to the projected direct and indirect employee count. Portions of these taxes are distributed to cities and counties throughout Arizona based on a formula that includes population and the origin of gasoline sales.

Vehicle License Tax

The vehicle license tax is a personal property tax placed on vehicles at the time of annual registration. This factor is applied to the projected direct, indirect and induced employee count. The average tax used in this analysis is \$343 and portions of the total collections are distributed to the Highway User Revenue Fund. The remaining funds are shared between cities and counties in accordance with population-based formulas.

The above tax categories represent the largest sources of revenues that would be generated to the various jurisdictions. The revenue impacts do not include certain revenue sources such as corporate income taxes. All tax collections represented in this analysis are gross collections and do not take into consideration any incentives or development agreements that may occur.

APPENDIX 1: Annual Personal Property Tax Estimates by Jurisdiction

Personal Property Tax Impact from Operations Yavapai County Solar Project (2024 dollars)														
	Construction	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
Total taxable value	\$15,840,000	\$14,991,000	\$14,142,000	\$13,293,000	\$12,444,000	\$12,423,000	\$11,518,800	\$10,614,600	\$9,710,400	\$8,806,200	\$9,144,000	\$8,157,000	\$7,170,000	\$6,183,000
Yavapai County	\$271,624	\$257,066	\$242,507	\$227,948	\$213,390	\$213,030	\$197,524	\$182,019	\$166,514	\$151,009	\$156,801	\$139,876	\$122,951	\$106,026
Fire District Assistance Tax	\$13,084	\$12,383	\$11,681	\$10,980	\$10,279	\$10,261	\$9,515	\$8,768	\$8,021	\$7,274	\$7,553	\$6,738	\$5,922	\$5,107
County Flood	\$27,720	\$26,234	\$24,749	\$23,263	\$21,777	\$21,740	\$20,158	\$18,576	\$16,993	\$15,411	\$16,002	\$14,275	\$12,548	\$10,820
County Library	\$22,239	\$21,047	\$19,855	\$18,663	\$17,471	\$17,442	\$16,172	\$14,903	\$13,633	\$12,364	\$12,838	\$11,452	\$10,067	\$8,681
Community College	\$238,931	\$226,124	\$213,318	\$200,512	\$187,705	\$187,389	\$173,750	\$160,111	\$146,472	\$132,833	\$137,928	\$123,040	\$108,152	\$93,264
VIT	\$7,920	\$7,496	\$7,071	\$6,647	\$6,222	\$6,212	\$5,759	\$5,307	\$4,855	\$4,403	\$4,572	\$4,079	\$3,585	\$3,092
Yavapai County	\$581,518	\$550,350	\$519,181	\$488,013	\$456,844	\$456,073	\$422,878	\$389,683	\$356,488	\$323,293	\$335,695	\$299,460	\$263,225	\$226,990
Local School Districts	\$548,390	\$518,997	\$489,604	\$460,212	\$430,819	\$430,092	\$398,788	\$367,484	\$336,180	\$304,876	\$316,571	\$282,400	\$248,230	\$214,059
Grand Total	\$1,129,908	\$1,069,347	\$1,008,786	\$948,224	\$887,663	\$886,165	\$821,666	\$757,167	\$692,668	\$628,169	\$652,265	\$581,860	\$511,455	\$441,049
	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27
Total taxable value	\$5,517,000	\$6,414,000	\$5,986,200	\$5,558,400	\$5,130,600	\$4,730,400	\$4,357,800	\$1,863,000	\$1,656,000	\$1,449,000	\$1,242,000	\$1,035,000	\$828,000	\$621,000
Yavapai County	\$94,606	\$109,987	\$102,651	\$95,315	\$87,980	\$81,117	\$74,728	\$31,947	\$28,397	\$24,847	\$21,298	\$17,748	\$14,199	\$10,649
Fire District Assistance Tax	\$4,557	\$5,298	\$4,945	\$4,591	\$4,238	\$3,907	\$3,600	\$1,539	\$1,368	\$1,197	\$1,026	\$855	\$684	\$513
County Flood	\$9,655	\$11,225	\$10,476	\$9,727	\$8,979	\$8,278	\$7,626	\$3,260	\$2,898	\$2,536	\$2,174	\$1,811	\$1,449	\$1,087
County Library	\$7,746	\$9,005	\$8,405	\$7,804	\$7,203	\$6,641	\$6,118	\$2,616	\$2,325	\$2,034	\$1,744	\$1,453	\$1,163	\$872
Community College	\$83,218	\$96,749	\$90,296	\$83,843	\$77,390	\$71,353	\$65,733	\$28,101	\$24,979	\$21,857	\$18,734	\$15,612	\$12,490	\$9,367
VIT	\$2,759	\$3,207	\$2,993	\$2,779	\$2,565	\$2,365	\$2,179	\$932	\$828	\$725	\$621	\$518	\$414	\$311
Yavapai County	\$202,540	\$235,471	\$219,765	\$204,060	\$188,355	\$173,662	\$159,984	\$68,394	\$60,795	\$53,196	\$45,596	\$37,997	\$30,398	\$22,798
Local School Districts	\$191,002	\$222,056	\$207,246	\$192,435	\$177,624	\$163,769	\$150,870	\$64,498	\$57,332	\$50,165	\$42,999	\$35,832	\$28,666	\$21,499
Grand Total	\$393,542	\$457,527	\$427,011	\$396,495	\$365,979	\$337,432	\$310,853	\$132,893	\$118,127	\$103,361	\$88,595	\$73,829	\$59,063	\$44,298
	Year 28	Year 29	Year 30	Year 31	Year 32	Year 33	Year 34	Year 35	Year 36	Year 37	Year 38	Year 39	Total	
Total taxable value	\$621,000	\$621,000	\$621,000	\$621,000	\$621,000	\$621,000	\$621,000	\$621,000	\$621,000	\$621,000	\$621,000	\$621,000		
Yavapai County	\$10,649	\$10,649	\$10,649	\$10,649	\$10,649	\$10,649	\$10,649	\$10,649	\$10,649	\$10,649	\$10,649	\$10,649	\$3,571,500	
Fire District Assistance Tax	\$513	\$513	\$513	\$513	\$513	\$513	\$513	\$513	\$513	\$513	\$513	\$513	\$172,000	
County Flood	\$1,087	\$1,087	\$1,087	\$1,087	\$1,087	\$1,087	\$1,087	\$1,087	\$1,087	\$1,087	\$1,087	\$1,087	\$364,500	
County Library	\$872	\$872	\$872	\$872	\$872	\$872	\$872	\$872	\$872	\$872	\$872	\$872	\$292,400	
Community College	\$9,367	\$9,367	\$9,367	\$9,367	\$9,367	\$9,367	\$9,367	\$9,367	\$9,367	\$9,367	\$9,367	\$9,367	\$3,141,700	
VIT	\$311	\$311	\$311	\$311	\$311	\$311	\$311	\$311	\$311	\$311	\$311	\$311	\$104,100	
Yavapai County	\$22,798	\$22,798	\$22,798	\$22,798	\$22,798	\$22,798	\$22,798	\$22,798	\$22,798	\$22,798	\$22,798	\$22,798	\$7,646,300	
Local School Districts	\$21,499	\$21,499	\$21,499	\$21,499	\$21,499	\$21,499	\$21,499	\$21,499	\$21,499	\$21,499	\$21,499	\$21,499	\$7,210,700	
Grand Total	\$44,298	\$44,298	\$44,298	\$44,298	\$44,298	\$44,298	\$44,298	\$44,298	\$44,298	\$44,298	\$44,298	\$44,298	\$14,857,000	
NOTES														
1 Depreciation used to value "renewable energy equipment" is based on "straight-line depreciation over the useful life, as adopted by the department" per ARS 42-14155.														
2 Depreciation uses a 30 year straight line depreciation for solar and 15 year for battery storage in this analysis as advised by the Arizona Department of Revenue.														
3 Through 12/31/40 the full cash value of "renewable energy equipment" is 20% of the depreciated cost of the equipment per ARS 42-14155. This report assumes the statute will be extended to cover the life of the project.														
4 The total may not equal the sum of the impacts due to rounding. All dollar figures are in constant dollars. Inflation has not been included in these figures.														
5 The figures for the County as a whole are based on the current tax rates and assume the Project would not impact these rates.														
6 The forecasts are subject to uncertainty and variation. Accordingly, we do not represent them as results that will be achieved. Changes in rates would alter the findings of this analysis.														
Source: Elliott D. Pollack & Company; IMPLAN; Arizona Department of Revenue; Arizona Tax Research Association; ArISEA														

ATTACHMENT C

Arizona Water Demand Analysis by Land Use Category

Prepared for

**Arizona Solar Energy Industries Association
7144 E. Stetson Drive, Suite 300
Scottsdale, AZ 85251**

By

**WestWater Research, LLC
4747 N. 7th Street, Suite 412
Phoenix, AZ 85014**



October 9, 2024

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Most solar projects in the Southwest US are never washed during operation, however for this analysis, the NREL water use per MWh estimate was utilized to evaluate an example 200 MW solar project on 1,200 acres. A facility of this size is generally in the range with recent power purchase contracts announced by Arizona Public Service and Salt River Project, two of Arizona's largest electric utilities. According to FreeingEnergy, one MW of solar power produces 2,146 MWh of solar energy²⁰. In this example, the total water use of the facility would be equivalent to 32.9 AF. Over a 200 MW, 1,200-acre facility, this equates to an annual water use estimated to total **0.16 AF/MW** and **0.03 AF/acre**.

²⁰ FreeingEnergy. How many MWh of solar energy comes from a MW of solar panels?
<https://www.freeingenergy.com/math/solar-pv-gwh-per-mw-power-energy-mwh-m147/#:~:text=On%20average%2C%20across%20the%20US,of%20solar%20energy%20per%20year>.

Executive Summary

This report provides an analysis of water consumption of various land uses in Arizona, offering insight into how land use decisions impact water resource commitments in the arid Southwest. Understanding these differences is crucial for decision making in areas facing water scarcity and where efficient resource allocation is essential. The objectives of this analysis were to develop proxy water use estimates for land use types that might be considered alternative to the development of solar projects in Arizona, to highlight the differences in the water demands of each land use type and by power generation facility type, and to clarify the disparities in water demand to enable decision-makers to promote efficient water use and sustainable land development across the region.

In particular, this report summarizes the water demands of various land use categories in Arizona in comparison to the relatively low water demands of solar projects. Alternative land uses including irrigated agriculture, subdivision development, industrial, and commercial are found to consistently require larger volumes of water than solar. From a water conservation perspective, solar is a preferred land use in the arid Southwest because of its modest water footprint. To demonstrate the benefits of solar, this analysis quantifies the water demands of alternative land uses based on data from Arizona Department of Water Resources (ADWR or “the Department”) and other publicly available sources.

The results of the analysis clearly demonstrate that water use by solar facilities is significantly lower than that of potential alternative land uses in Arizona. Average water use across all sectors analyzed in this effort is 3.4 acre-feet¹ per acre (AF/acre), which is 100 times the use of solar (0.03 AF/acre). In particular, data centers were found to use 6.3 AF/acre on average, which is 200 times the amount used by solar. Metro Phoenix is the second-largest data center market in the nation in large part because of the availability of power and land². In conclusion, compared to other land use categories evaluated, water use by solar is negligible. When compared to water requirements of natural gas and nuclear power generation facilities, these power sources require 25-100 times the water requirements of solar facilities to produce one megawatt (MW) (4.3 AF/MW for natural gas and 18.7 AF/MW for nuclear compared to 0.16 AF/MW for solar).

¹ One acre-foot equals 325,851 gallons.

² H2 2023 North American Data Center Report. August 27, 2024. JLL. https://www.us.jll.com/en/trends-and-insights/research/na-data-center-report?utm_source=public-relations&utm_medium=ol&utm_campaign=am-us-industries-data-centers-outlook&utm_content=byline

Appendix A of this report summarizes the data and methodology to estimate water demands of the various sectors analyzed and details the findings of the data analysis.

Summary of Findings

Water use in Arizona is categorized under three main sectors: municipal, industrial, and agricultural. According to ADWR, 74%³ of the state's total annual water use is irrigated agriculture followed by municipal use at 20%⁴. Industrial water use accounts for only 6% of the state's total water use. Industrial use of land across Arizona is also minimal relative to other uses. In Maricopa and Pinal counties, industrial uses account for only 0.47% of total land use⁵. Solar generation projects are a type of industrial use that require a minimal volume of water⁶. Such low water requirements may be a reason there is no ADWR conservation program for solar facilities, programs that seek to regulate water use for a variety of facilities and water use types⁷. This analysis provides context on solar water use as compared to other water uses in Arizona.

WestWater compiled sector-level water use data reported to ADWR and from other sources within the state's Active Management Areas (AMAs) to develop and analyze proxy water demand estimates of annual average water use by relevant alternative land uses. Alternative land uses include agriculture, residential (subdivisions), manufacturing, data centers, and industrial uses. Industrial uses include large turf facilities, primarily golf courses, dairy operations, cattle feedlot operations, and power generation facilities.

Estimated water use for each sector by acre and MW (as applicable) is summarized in **Table 1**. The highest estimated water use across all AMAs during the 2019-2023 analysis period was attributed to data centers at 6.3 AF/acre, followed by turf and agricultural irrigation at 4.1 AF/acre, and manufacturing at 3.6 AF/acre. Natural gas and nuclear power facilities, for which water use data were reported to ADWR, require 4.3 AF/MW and 18.7 AF/MW, respectively. Solar facility water use is extremely low in terms of both a per acre and per MW

³ Agriculture, Conservation. Arizona Department of Water Resources <https://www.azwater.gov/conservation/agriculture#:~:text=Irrigated%20agriculture%20is%20the%20largest,of%20the%20available%20water%20supply>

⁴ Conservation. Arizona Department of Water Resources. <https://www.azwater.gov/conservation/public-resources#:~:text=About%2020%20percent%20of%20the,most%20of%20this%20is%20residential.>

⁵ Land Use Explorer (2022). Maricopa Association of Governments. <https://geo.azmag.gov/maps/landuse/>

⁶ Water Impacts of High Solar PV Electricity Penetration. National Renewable Energy Laboratory. September 2015.

⁷ Active Management Areas Management Plans (2023) <https://www.azwater.gov/ama/ama-management-plans>

comparison. Solar water use is estimated to be 0.03 AF/acre and 0.16 AF/MW. **Figure 1** and **Figure 2** provide additional summaries of water use from this analysis.

Table 1: Summary of Water Use in Arizona by Sector

Sector	Average Use
<i>AF/acre</i>	
Solar	0.03
Feedlots	1.4
Dairy	2.2
Subdivisions	2.3
Manufacturing	3.6
Irrigation	4.1
Golf Course	4.1
Data Centers	6.3
<i>AF/MW</i>	
Solar	0.16
Power (Natural Gas)	4.3
Power (Nuclear)	18.7

Figure 1: Arizona Water Use per Acre by Facility Type

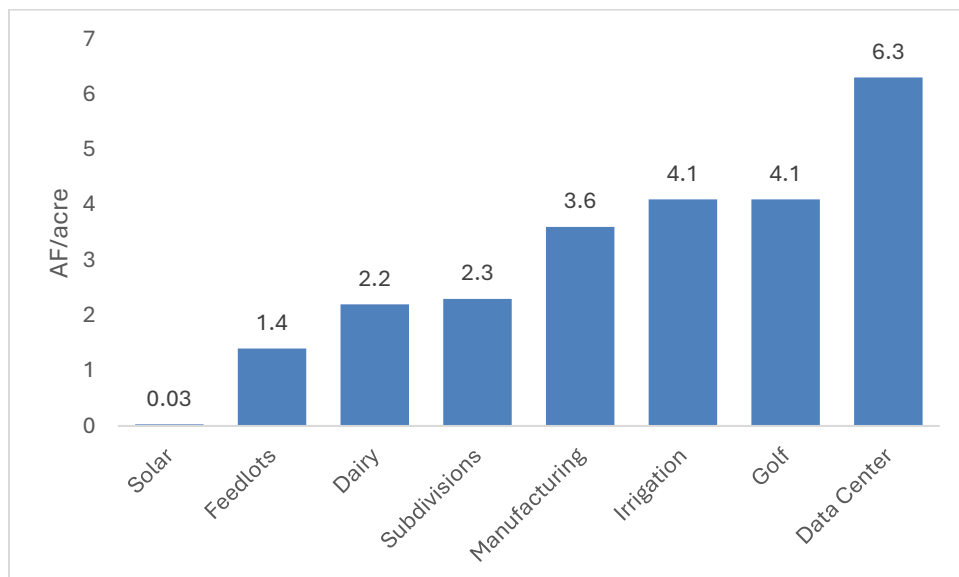
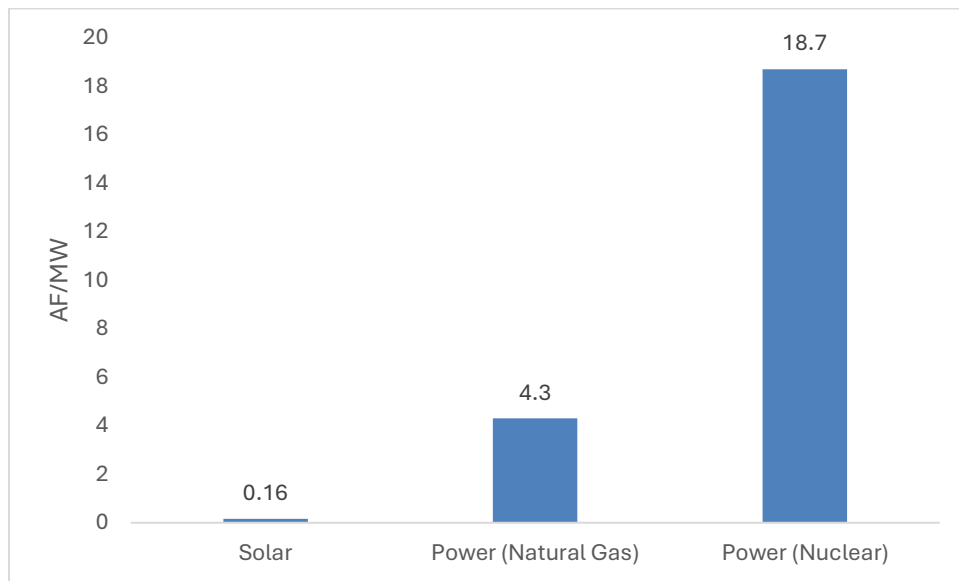


Figure 2: Arizona Water Use per MW – Solar, Natural Gas, and Nuclear

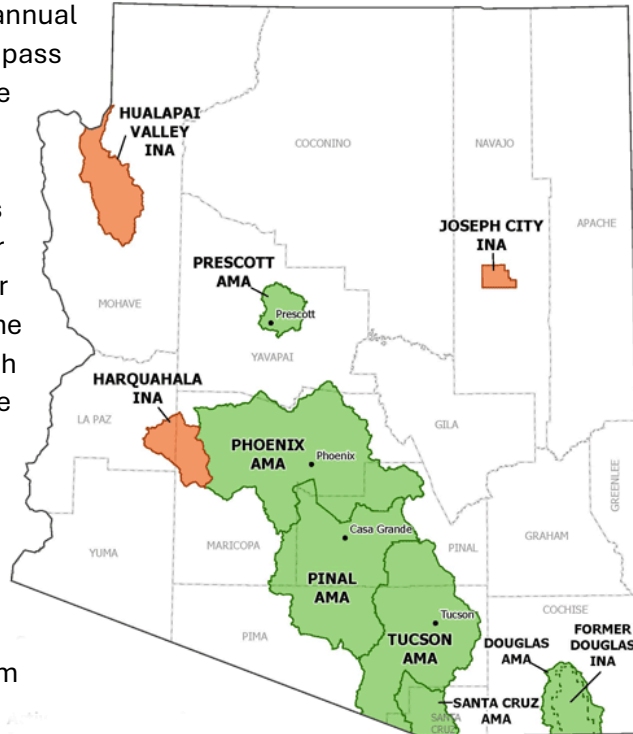


Conclusions

The results of this analysis clearly demonstrate that water use by solar facilities is significantly lower than that of potential alternative land uses. In fact, solar water use is virtually zero, which cannot be said of any other alternative land use. Other land uses utilized water at significantly higher rates than solar facilities. Average water use across the sectors analyzed for this effort is 3.4 AF/acre, which is 100 times the use of solar facilities (0.03 AF/acre). In particular, data centers were found to use 6.3 AF/acre on average, which is 200 times the amount used by solar. Nuclear power was found to use 18.7 AF/MW, which is 100 times the amount used by solar (0.16 AF/MW). As compared to the other water use estimates, solar facility water use is negligible.

Appendix A: Data and Methodology

This analysis primarily utilizes AMA annual report data from ADWR. AMAs encompass the most populated areas of the state and account for approximately 80% of statewide water use⁸. Within the AMAs, water use exceeding a certain volume is highly regulated and therefore water may only be utilized pursuant to a water right. For these reasons, AMAs are the only areas of the state for which comprehensive, up-to-date water use data are available. In addition, the management plans detail several mandatory conservation programs for various water use types. Water users within AMAs are required to annually report the water use, and facilities that fall into a required conservation program must report supplemental use information.



ADWR data include total use by irrigation rights and various industrial subsectors including golf courses, feedlots, dairy, and power. Supplemental data were also provided including, as applicable, associated irrigation acres, acres of landscaped area, number of animals, volume of product produced, and amount of power generated. Although ADWR data are only available for the AMAs, as it is the most robust water use dataset within Arizona, these values are used as a proxy for other water use in the same sectors in Arizona.

In addition, data from the Central Arizona Groundwater Replenishment District (CAGR) and Census Bureau (CB) were used to develop water use estimates for subdivisions⁹. This included 2018-2022 CAGR data on the number of new CAGR member land lots and their projected water demand. Lot size data from the CB Survey of Construction in 2021 were also used¹⁰. In addition to these sources, this analysis also utilized the ADWR Supply and Demand

⁸ Arizona Department of Water Resources, "Active Management Areas," Fact Sheet, (March 2016).

⁹ CAGR Reports and Information (2011-2022). Central Arizona Groundwater Replenishment District.
<https://cagrd.com/operations/cagrd-reports-and-information/>

¹⁰ Characteristics of New Housing (2021). United States Census Bureau.
<https://www.census.gov/construction/chars/sold.html>

Assessments methods appendix ¹¹ to develop water use sector demand estimates. Governmental reports and other publicly available information were referenced to develop manufacturing and data center water demands.

WestWater developed estimates of annual water use for the following sectors and subsectors: Irrigation, Golf Course, Feedlots, Dairy, Subdivisions, Manufacturing, Data Center, and Power. Solar water use can be captured in two ways: 1) volume by acre and 2) volume per amount of power produced. To develop water use estimates that are comparable to solar use, WestWater used two common units. For water use that is associated with the size of the land, water estimates are developed per acre. For the power sector, water use is not directly related to the size of the land where the facility is sited. Instead, the volume of water is expressed as AF/MW.

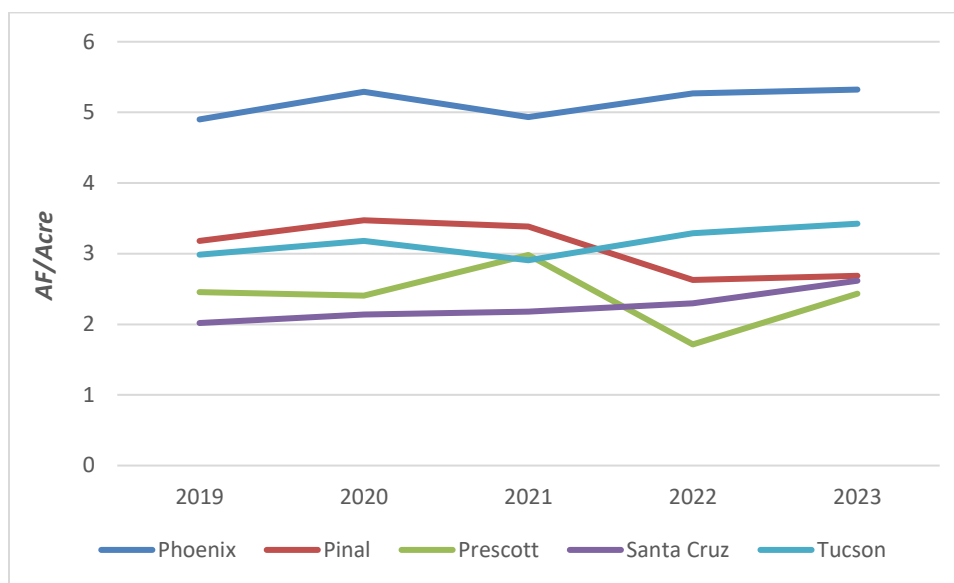
Irrigation

To develop estimates for irrigation water, ADWR annual report data were filtered to irrigation rights or rights that fall under the base or best management plans' conservation programs. Once the data were filtered, the total reported annual use in AF was divided by the number of acres associated with each right. Although some annual reports include irrigated acres, it is not required by the Department. As a result, this estimate does not necessarily represent water use per irrigated acre, although it may be representative of agricultural land.

Irrigation water use varies by AMA as summarized in **Figure 3**. The Phoenix AMA had the highest water use, averaging 5.1 AF/acre over the 5 years of reported data. The Santa Cruz and Prescott AMAs had the lowest use, with an average of 2.3 AF/acre and 2.4 AF/acre respectively. Overall, the average irrigation use across all years and AMAs was **4.1 AF/acre**.

¹¹ Supply and Demand Methods Appendix (2023). Arizona Department of Water Resources.
https://www.azwater.gov/sites/default/files/2023-12/2023_MethodsAppendix_1.pdf

Figure 3: Irrigation Average Water Use by AMA, 2019-2023 (AF/Acre)

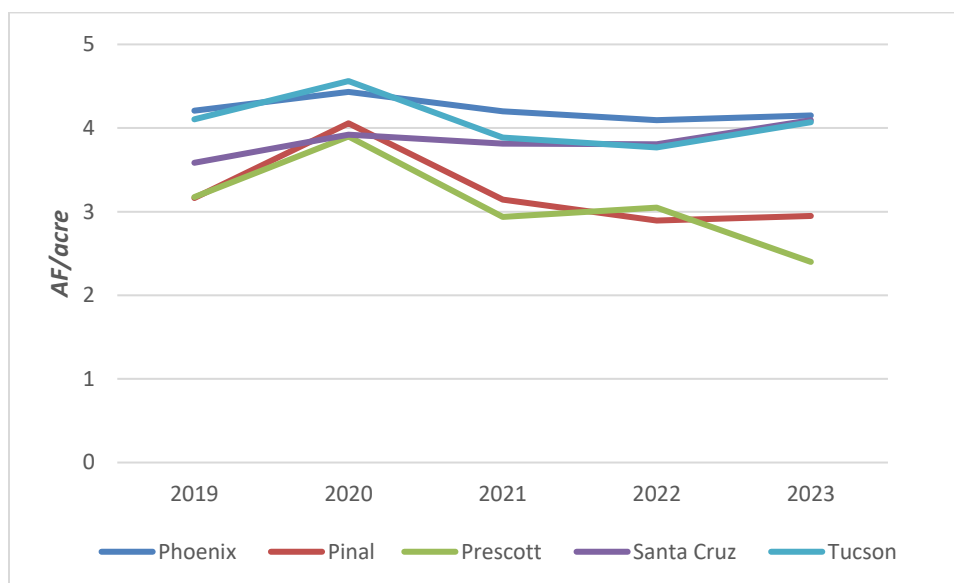


Golf Course

The industrial water use sector consists of various turf subsectors including golf. Turf related facilities are required to report up-to-date data on the number of turfed, low water use, and water surface acres present. These acres were summed to determine total acreage for golf. The total reported annual water use was then divided by the total number of acres for golf for an AF/acre estimate by facility.

Water use by golf courses is typically related to the amount of high intensity water use (turf and water features) and the efficiency of irrigation infrastructure. The 5-year average water use for golf courses ranges from 3.2 AF/acre to 4.2 AF/acre across the AMAs. Overall, golf course water use averages **4.1 AF/acre**. Golf water use is lower on courses in the Prescott AMA, where precipitation tends to be higher. Water use by turf for golf courses is summarized in **Figure 4**.

Figure 4: Golf Course Water Use by AMA, 2019-2023 (AF/Acre)



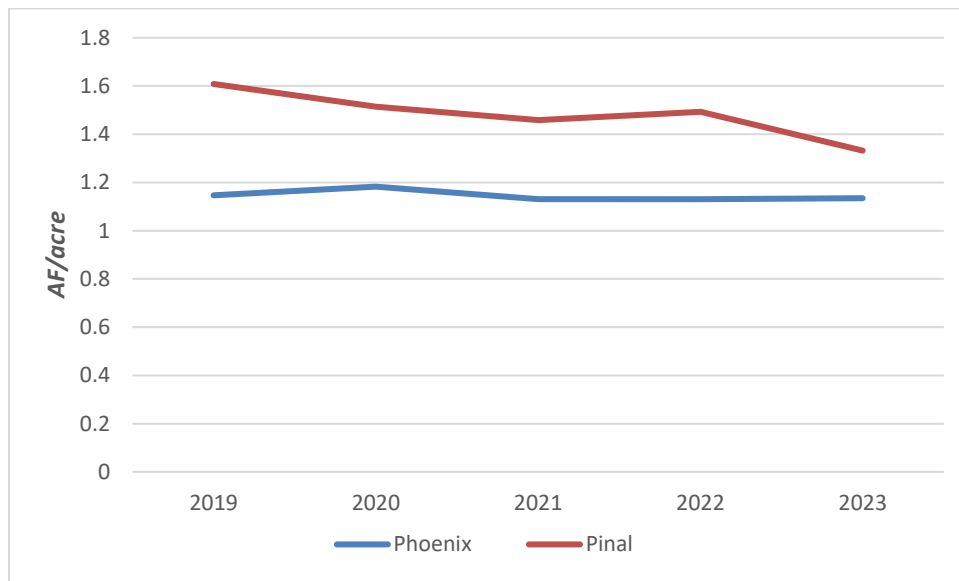
Feedlots/Dairy

ADWR annual reports for feedlots include data on the number of animals at each facility by month. These data were summed to develop an annual number of animals per facility. The total reported water use was then divided by the number of animals at each facility for an AF/animal estimate. Feedlot designs include one acre of land per 100 heads of cattle, which includes space for pens, alleys and feed roads¹². To determine a per-acre estimate for feedlots, the volume of AF per animal was multiplied by the number of animals per acre. ADWR data for feedlots were reported in the Phoenix and Pinal AMAs.

Feedlots use slightly more water in the Pinal AMA and average 1.5 AF/Acre, as compared to 1.1 AF/acre in the Phoenix AMA, as summarized in **Figure 5**. Across all facilities and all years, the average feedlot use is **1.4 AF/acre**.

¹² Planning and Designing Cattle Feedlots (2021). Kansas State University Agricultural Experiment Station and Cooperative Extension Service. https://bookstore.ksre.ksu.edu/download/planning-and-designing-cattle-feedlots_MF2316

Figure 5: Feedlot Average Water Use, 2019-2023 (AF/Acre)



Dairy use was estimated based on ADWR's Supply and Demand Assessments (SDA) methods. The ADWR SDA estimates a range of water use per type of cow, including water use for consumption, dust suppression, and other facility uses. The estimates range from 0.02 to 0.04 AF/animal/year, with lower water use representing calves and the highest water use reflecting use by lactating cows. The average water use among all animal types was 0.03 AF/animal/year. Dairy facilities require one acre per 75 heads of cattle¹³. Using the ADWR SDA method and assuming 75 animals per acre results in an estimated water use of **2.2 AF/acre**.

Subdivisions

CAGRD Annual Operations Reports from 2018-2022 were used as the basis for developing subdivision water use estimates. These reports include estimates of projected annual demand for new member lands, including the number of new subdivisions and lots by region (East Phoenix, West Pheonix, Pinal, and Tucson). The number of lots per subdivision varies widely and was not used to develop a per acre estimate. Average lot size is also variable, however, data from the CAGRD and CB were used to estimate average lot sizes in Arizona. CAGRD estimates average lot sizes of approximately 9,000 square feet (sq ft) and 12,000 sq ft in the Phoenix and Tucson areas respectively¹⁴. The CB conducts a Survey of Construction,

¹³ Relocation And Expansion Planning for Dairy Producers (1999). Kansas State University Agricultural Experiment Station and Cooperative Extension Service. <https://krex.k-state.edu/server/api/core/bitstreams/dd52978b-e561-41c5-95a4-19ab46eb0c63/content>

¹⁴ Central Arizona Groundwater Replenishment District Membership Water Demand Analysis (2020), Water Resource Consulting, Contract No. C85195

which includes data on lot size for new builds across several regions¹⁵. In the West region, new builds averaged approximately 10,000 sq ft. Given the range of average lot sizes, this analysis used a range of 9,000 to 12,000 sq ft. The annual water use per lot was divided by the average acres per lot to develop a subdivision per acre estimate.

Water use by subdivisions ranged from 1.5 AF/acre to 3.0 AF/acre. The highest water use was in east Phoenix. As the number of lots per acre decreased the water use per acre also decreased. Subdivision water use is estimated to range from 1.9AF/acre to 2.5 AF/acre and average **2.3 AF/acre**, as summarized in **Table 2**.

Table 2: Average Water Use by Lot Size (AF/Acre)

Average Lot Size (square feet)	East Phoenix	Pinal	Tucson	West Phoenix	Average
	AF/acre				
9,000	3	2	2.3	2.8	2.5
10,000	2.7	1.8	2	2.5	2.3
12,000	2.3	1.5	1.7	2.1	1.9

Manufacturing Facilities

Arizona is becoming a hub for manufacturing, in large part due to significant federal and state investment and favorable economic and geographic conditions. There are little to no annual water use report data on manufacturing facilities in publicly available datasets, such as those maintained by ADWR and relied upon in this analysis. Taiwan Semiconductor Manufacturing Company (TSMC) and Intel are two major companies with facilities in Arizona who have publicly provided estimates of their facility water usage. TSMC estimates using 4.75 million gallons per day (MGD) or 5,321 AF annually at its 1,100-acre facility, equivalent to 4.8 AF/acre. Intel estimates using 1.5 MGD or 1,680 AF annually at its 700-acre facility, equivalent to 2.4 AF/acre¹⁶. Together these facilities use an estimated **3.6 AF/acre** annually on average.

Data Centers

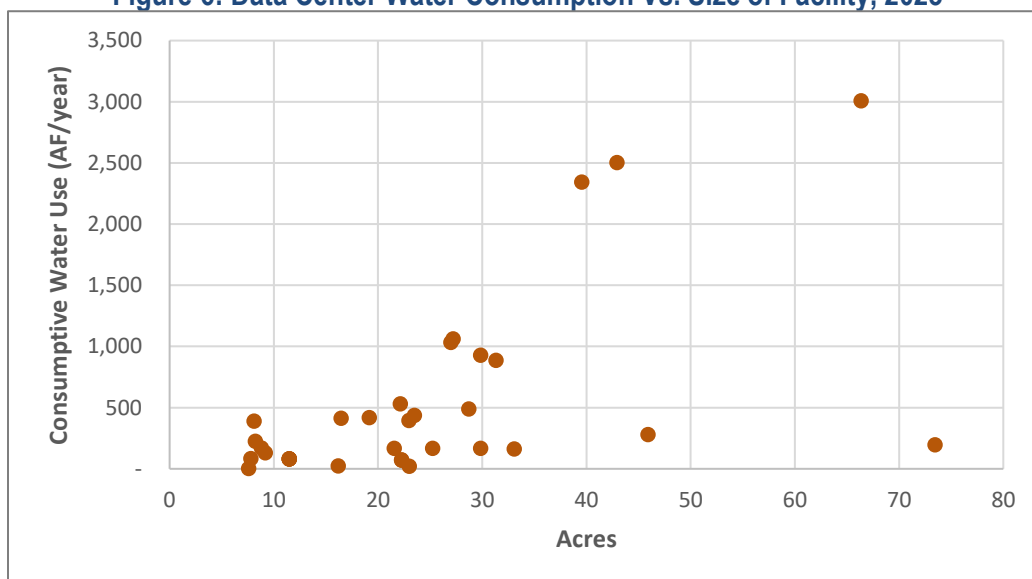
As data center facilities are relatively new in Arizona, ADWR does not collect annual reports from these water users. However, data can be collected from company sustainability reports, local water management plans, press releases, and news articles. Water use information for 30 facilities was collected by WestWater from across the United States. Of

¹⁶ AZ Central Article: *How much water will TSMC Arizona use? Probably a lot less than you think.* Joanna Allhands. June 12, 2024. [TSMC Arizona is on track to use a lot less water than you think \(azcentral.com\)](https://www.azcentral.com/story/news/local/arizona/2024/06/12/tsmc-arizona-water-use/7444444002/)

this dataset, two facilities are in Arizona. Data center water use is influenced primarily by size of the facility and the amount of power used at the facility. To develop a comparable water use estimate to other land uses, total water use for each facility was divided by size of the facility in acres.

Water use was correlated with total size at the facility as shown in **Figure 6**. Water use by size ranged from 0.5 AF/acre to 59.2 AF/acre, with an average of 18.6 AF/acre. The two facilities in Arizona had similar per acre water use, averaging **6.3 AF/acre**.

Figure 6: Data Center Water Consumption Vs. Size of Facility, 2023



Power

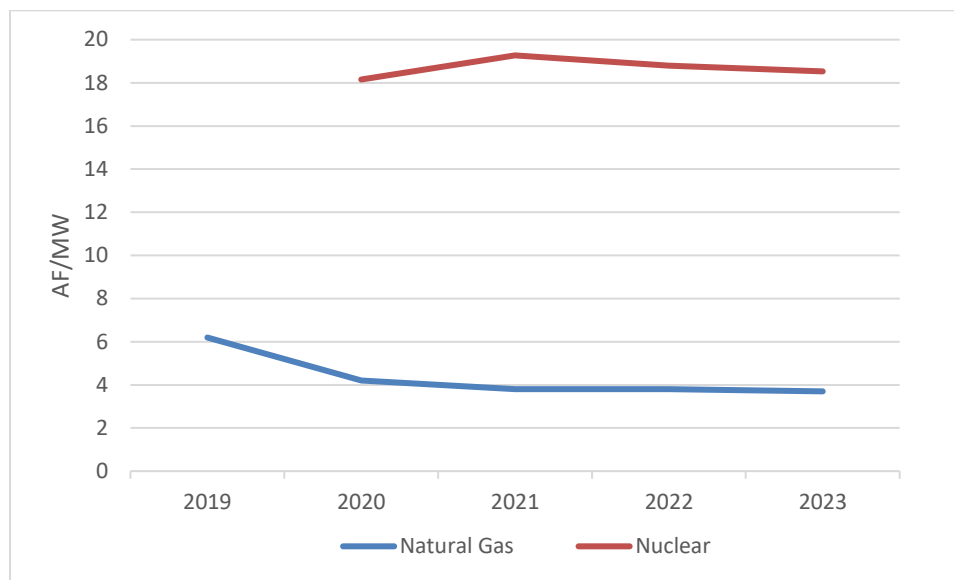
ADWR annual report data were used to estimate water use for the power subsector consisting of nuclear and natural gas. While there are other power generation facility types in Arizona outside the AMAs, this analysis only considers those AMA facilities whose water use is reported to ADWR. ADWR data also included information on power generated at each facility by month. However, these data were inconsistently reported and the units used were often unclear. To ensure a comparable unit, ADWR used publicly available information on each of the facilities to determine the MW capacity.¹⁷ The total water use was divided by the generating capacity of each facility to estimate an AF/MW.

ADWR collects annual report data for eight power facilities in the AMAs, including one nuclear and seven natural gas facilities. Water use was filtered to the type of facility as the difference in reported use across facility type was vast. Over the five-year analysis period,

¹⁷ SRP Power Generation Sources (2024). Salt River Project. <https://www.srpnet.com/grid-water-management/grid-management/power-generation-stations>

water use at Arizona natural gas power facilities ranged from 3.7 AF/MW to 6.2 AF/MW and averaged **4.3 AF/MW**. In contrast, the Arizona nuclear facility used more water, averaging **18.7 AF/MW**. Water use by power facilities is summarized in **Figure 7**.

Figure 7: Power Facility Average Water Use, 2019-2023 (AF/MW)



Solar

Because solar facilities use such a small amount of water, ADWR does not require annual water usage reporting and therefore data are limited. In general, ADWR-exempt uses account for less than 100 AF of water per year¹⁸.

The National Renewable Energy Laboratory (NREL) completed a study on water supply and demand conditions impacting the solar industry, which includes estimates of solar water use¹⁹. The study includes water consumption estimates for photovoltaic (PV) solar. PV is a non-thermal renewable energy technology that does not require water but can use a relatively small amount of water primarily for washing panels. This technology is commonly used in solar facilities because it is a renewable, non-polluting, and inexhaustible energy source. The estimated median water use rate for solar is 25 gallons per megawatt hours (MWh) or 0.0001 AF/MWh, which represents the volume of water per unit of electricity generation. NREL demonstrates that solar uses water at a rate of virtually zero to produce electricity.

¹⁸ Industrial Program | Arizona Department of Water Resources (azwater.gov)

¹⁹ Water Impacts of High Solar PV Electricity Penetration. National Renewable Energy Laboratory. September 2015.

ORDINANCE NO. 2025-949

AN ORDINANCE OF THE MAYOR AND COMMON COUNCIL OF THE TOWN OF CHINO VALLEY, ARIZONA, DECLARING AS A PUBLIC RECORD THAT CERTAIN DOCUMENT ON FILE WITH THE TOWN CLERK TITLED “2025 AMENDMENTS TO CHINO VALLEY TOWN CODE CHAPTER 154 REGARDING UTILITY-SCALE SOLAR PHOTOVOLTAIC FACILITIES”; ADOPTING THE SAME BY REFERENCE; AMENDING THE UNIFIED DEVELOPMENT ORDINANCE OF THE TOWN OF CHINO VALLEY AS SET FORTH THEREIN; PROVIDING FOR SEVERABILITY; AND PROVIDING PENALTIES FOR VIOLATIONS.

WHEREAS, the Mayor and Common Council of the Town of Chino Valley (the “Town Council”) desires to amend Chino Valley Town Code Title XV, Land Usage, Chapter 154, Unified Development Ordinance of the Town of Chino Valley (the “UDO”), regarding utility-scale solar photovoltaic facilities; and

WHEREAS, the Town Council has determined that the Amendment (defined below) is not in conflict with the Town of Chino Valley General Plan and any applicable specific area plan, neighborhood plan, or any other plan; and

WHEREAS, in accordance with Article II, Sections 1 and 2 of the Constitution of Arizona, the Town Council has considered the individual property rights and personal liberties of the residents of the Town before adopting this ordinance; and

WHEREAS, in accordance with A.R.S. § 9-462.01, the Town Council has considered a housing impact statement that includes the information required by A.R.S. § 9-462.01(J)(1)-(3); and

WHEREAS, the Town of Chino Valley Planning and Zoning Commission held a public hearing on the Amendment and recommended its approval; and

WHEREAS, the Town Council finds that the Amendment recommended by the Planning and Zoning Commission is appropriate and in the Town’s best interests.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Common Council of the Town of Chino Valley, Arizona, as follows:

SECTION 1. The above recitals are hereby incorporated as if fully set forth herein.

SECTION 2. That certain document titled “2025 Amendments to Chino Valley Town Code Chapter 154 Regarding Utility-Scale Solar Photovoltaic Facilities” (the “Amendment”), of which one paper copy and one electronic copy are maintained, in compliance with A.R.S. § 44-7041, on file in the office of the Town Clerk as required by A.R.S. § 9-802, and available for public use and inspection during normal business hours, is hereby declared to be a public record and said copies thereof are hereby ordered to remain on file with the Town Clerk.

SECTION 3. The UDO is hereby amended as set forth in the Amendment, which is hereby referred to, adopted, and made a part hereof as if fully set forth herein.

SECTION 4. If any section, subsection, sentence, clause, phrase, or portion of this ordinance or any part of the Amendment adopted herein is for any reason held to be invalid or unconstitutional by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 5. Any violation of the UDO shall be charged, filed, and prosecuted as a civil infraction as set forth in Section 1.10.2 of the UDO. Any person who violates the UDO after previously having been found responsible for committing two or more civil infractions of the UDO within any 36-month period, whether by admission, by payment of the fine, by default, or by judgment after hearing, shall be guilty of a criminal misdemeanor punishable as set forth in Section 1.10.3 of the UDO. The Town Prosecutor is authorized to file a criminal misdemeanor complaint in the Chino Valley Municipal Court against such habitual offenders who violate the UDO. For purposes of calculating the 36-month period under this paragraph, the dates of the commission of the offenses are the determining factor.

SECTION 6. The Mayor, the Town Manager, the Town Clerk, and the Town Attorney are hereby authorized and directed to take all steps necessary to carry out the purpose and intent of this ordinance.

PASSED AND ADOPTED by the Mayor and Common Council of the Town of Chino Valley, Arizona, this 17th day of March 2025.

Tom Armstrong, Mayor

ATTEST:

Erin N. Deskins, Town Clerk

APPROVED AS TO FORM:

Andrew J. McGuire, Town Attorney
Gust Rosenfeld P.L.C.

I hereby certify that the foregoing Ordinance No. 2025-949 was duly passed by the Council of the Town of Chino Valley, Arizona, at a meeting held on March 17, 2025, and that quorum was present, and that the vote thereon was ____ ayes and ____ nays and ____ abstentions. ____ Council members were absent or excused.

Erin N. Deskins, Town Clerk

**2025 AMENDMENTS TO CHINO VALLEY TOWN CODE CHAPTER 154
REGARDING
UTILITY-SCALE SOLAR PHOTOVOLTAIC FACILITIES**

ADOPTED BY REFERENCE BY ORDINANCE NO. 2025-949

SECTION 1. Chino Valley Town Code, Title XV, Land Usage, Chapter 154, Unified Development Ordinance (the “UDO”), Section 2.2, Meaning of Words and Terms, is hereby amended by adding the following definition and making conforming changes:

UTILITY-SCALE SOLAR PHOTOVOLTAIC FACILITY. A ground-mounted solar facility that has a solar project area exceeding 275 acres and that generates electricity for distribution to the public through a utility grid.

SECTION 2. UDO Section 2.2, Meaning of Words and Terms, is hereby amended by amending the following definition as follows (~~deletions~~; **additions**):

SOLAR FACILITY USE PERMIT. A **conditional use** permit ~~signifying~~**-indicating** that the ~~developer~~**-applicant** has completed, or agreed to complete, through a development agreement, all project conditions and requirements. A solar facility use permit is required before the Town can approve a **utility-scale solar photovoltaic facility** project.

SECTION 3. UDO Section 3.6, “AR-5” Agricultural/Residential, is hereby amended by adding Subsection (C)(17) to read as follows:

17. Utility-scale solar photovoltaic facilities, subject to Section 4.33.

SECTION 4. UDO Section 3.7, “AR-4” Agricultural/Residential, is hereby amended by adding Subsection (C)(17) to read as follows:

17. Utility-scale solar photovoltaic facilities, subject to Section 4.33.

SECTION 5. UDO Section 4, General Regulations, is hereby amended to add the following as Section 4.33, Utility-Scale Solar Photovoltaic Facilities:

4.33 UTILITY-SCALE SOLAR PHOTOVOLTAIC FACILITIES

A. **PURPOSE.** The purpose of this Section 4.33 is to establish reasonable requirements and conditions for the permitting, placement, design, development, and eventual decommissioning of utility-scale solar photovoltaic facilities, and for consideration of a solar facility use permit, in a manner that:

1. Ensures public health, safety, welfare, and convenience as enumerated in Section 1.9.2(A).
2. Ensures such facilities protect the natural environment and native wildlife.
3. Ensures such facilities directly benefit the Town.
4. Ensures such facilities are compatible with neighboring land uses.

5. Ensures safety during such facilities' entire life cycle.
- B. **APPLICABILITY.** All utility-scale solar photovoltaic facilities constructed after **EFFECTIVE DATE** shall comply with the requirements of this section.
- C. **CONDITIONAL USE PERMIT.**
1. No utility-scale solar photovoltaic facilities may be constructed without a solar facility use permit, which the Council may grant in its sole and absolute discretion upon meeting the requirements and conditions of this section and other applicable sections of this code.
 2. Except as otherwise provided in this section, applications for solar facility use permits are subject to UDO procedures and requirements, including the conditional use permit requirements in Section 1.9.3.
 3. The solar facility use permit process includes preliminary and final permits. A preliminary solar facility use permit is required before an applicant can apply for a final solar facility use permit. Securing a preliminary permit does not guarantee that an applicant will secure a final permit.
 - a. **Preliminary Permit.** A preliminary solar facility use permit establishes a **Public Outreach Program**, ensures compliance with applicable siting requirements, outlines requirements, and establishes a timeline.
 - i. **Pre-Application Meeting.**
 - (a) Before applying for a preliminary solar facility use permit, the applicant shall schedule a pre-application meeting with Town staff to ensure the proposed project complies with the siting requirements set forth in Section 4.33(D) and to establish a **Public Outreach Program** as set forth in Section 4.33(F).
 - (b) If a rezoning is needed, the applicant may pursue that per Section 1.9.2.
 - (c) If rezoning is unnecessary, or if the rezoning process has been completed, staff will review the proposed **Public Outreach Program** and either approve it or recommend changes. The applicant may resubmit for further review after making such changes, and the process will continue until staff approves the program.
 - (d) Confirmation of siting requirements will not proceed until the **Public Outreach Program** is approved by the Town.
 - ii. **Preliminary Permit Application.**
 - (a) After receiving approval for the **Public Outreach Program** and confirmation of siting compliance, the applicant may apply for a preliminary solar facility use permit pursuant to Section 1.9.3 and this section.

- (b) The preliminary solar facility use permit will specify the programs, plans, maps, lists, studies, and analyses needed to apply for the final permit and will remain valid for three years.
 - (c) If the applicant does not submit all items required under the preliminary permit within three years of its approval by the Council, the permit will become invalid. Submission of all required items does not guarantee that an applicant will secure a final permit.
- b. Final Permit. Issuance of a solar facility use permit is strictly conditioned on the applicant executing a **Development Agreement** as outlined in Section 4.33(F).
 - i. Pre-Application Meeting.
 - (a) Before applying for a final solar facility use permit, the applicant must schedule a pre-application meeting with Town staff to submit the programs, plans, maps, lists, studies, analyses, and other items required under this section, all of which will become part of the **Development Agreement** as attachments, outlining the commitments to be made by the applicant.
 - (b) If the applicant submits all such items through a pre-application meeting before the expiration of the preliminary solar facility use permit, the tolling clock stops, marking the date of complete application submittal, and the review for all submitted items begins. Staff and subject matter experts hired at the applicant's expense, if needed, will review all submitted items. The applicant must make any required changes and resubmit applicable items within 180 days of the date of complete submittal.
 - ii. Review and Approval.
 - (a) After all the submitted items are reviewed and accepted as complete and accurate, they will be attached to the final solar facility use permit and sent to the Commission for review and possible recommendation to the Council.
 - (b) The final solar facility use permit, together with the Commission's recommendation and the required Development Agreement, will be sent to the Council for review and possible approval, with the final decision made by the Council in its sole and absolute discretion.
 - (c) The Commission may recommend, and the Council may impose, requirements and conditions as set forth in this section and other applicable sections of this code.
 - (d) In addition to the notice required under Section 1.9.3, notice of the public hearings shall adhere to the approved **Public Outreach Program**.

D. **SITING REQUIREMENTS.** The following siting requirements shall apply for the permitting, construction, and operation of utility-scale solar photovoltaic facilities:

1. **Zoning.**

- a. Utility-scale solar photovoltaic facilities may, with a solar facility use permit, be permitted as a conditional use on properties zoned AR-4 or AR-5.

2. **Siting Criteria.**

- a. Solar project areas must:

- i. Maintain a minimum separation of three miles.
- ii. Be at least 1,320 feet ($\frac{1}{4}$ mile) to the east of the Peavine Trail.
- iii. Have 50-foot setbacks from all property lines.

- b. Battery energy storage systems (BESS) must be centrally located within the solar project area or maintain a minimum separation of one mile from any developed residential property, whichever is greater.

- c. All solar panels and equipment must maintain a minimum separation of 1,320 feet ($\frac{1}{4}$ mile) from any developed residential property.

3. **Limitations.**

- a. The cumulative maximum acreage for all solar project areas within the Town is 3,800.
- b. If a utility-scale solar photovoltaic facility comprises multiple parcels or portions of parcels, such parcels must not be separated by over 2,640 feet ($\frac{1}{2}$ mile).

E. **PROJECT STANDARDS.**

1. **General Requirements.**

- a. Utility-scale solar photovoltaic facilities shall meet the project standards set forth in this section.
- b. All project standards will be reviewed, at the applicant's expense, by subject matter experts. The review period for plans shall not exceed 180 days.
- c. If such review determines that changes are needed, the applicant must implement those changes and resubmit for further review. This process will continue until the plans fulfill all requirements and are considered satisfactory.
- d. Any information of an engineering nature that the applicant submits, whether civil, mechanical, or electrical, must be certified by an Arizona-licensed professional engineer.

2. Site Grading and Drainage.

- a. The applicant shall provide a **Site Grading Plan** that outlines proposed slope changes and the volume of earth to be moved. A **Post-Graded Elevation Map** is also required for comparison.
 - i. Completed grading shall be in reasonably close conformity to the grades shown in the **Site Grading Plan**. The Public Works Director shall determine the limits of reasonably close conformity in each individual case, and the Public Works Director's judgment shall be final and conclusive.
 - ii. Project site grading must not exceed 20% of the total acreage.
 - iii. Existing property features with a slope of 5% or greater cannot be graded.
 - iv. Solar panels are not allowed on grades over 5%.
- b. The applicant shall provide a **Drainage Plan** that addresses stormwater issues before, during, and after construction. This includes stormwater reclamation and recharge components, if necessary, as well as a **Stormwater Pollution Prevention (SWPP) Plan**.
- c. Blasting is not permitted.

3. Wildlife.

- a. The applicant shall provide a **Wildlife Protection Plan** developed in concert with and approved by the Arizona Game and Fish Department (AZGF) that includes a complete and accurate list of all wildlife and plant species that exist in, on, and within five miles of the solar project area, and identifies and plans for the necessary placement and maintenance of functional wildlife corridors and wildlife-friendly fencing. The applicant shall provide proof of consultation with and approval by AZGF. Any reports, agreements, and review documentation shall be included.
- b. If AZGF determines that a utility-scale solar photovoltaic facility may detrimentally impact wildlife, the **Wildlife Protection Plan** must address participation in and support for AZGF wildlife protection programs. This may include funding wildlife studies or providing pronghorn collaring to study impacts before, during, and after construction.
- c. The applicant shall place and maintain functional wildlife corridors and wildlife-friendly fencing as identified in the **Wildlife Protection Plan**.

4. Public Safety.

- a. The utility-scale solar photovoltaic facility must be annexed into a fire district.
- b. The applicant shall provide a **Fire Mitigation Plan** developed in concert with the Central Arizona Fire and Medical Authority (CAFMA) for the entire solar project area.

- i. The battery energy storage systems (BESS) area of the project requires a specific section in the **Fire Mitigation Plan** to ensure timely and effective extinguishment of any fire in the BESS, with minimal environmental impact.
 - (a) This portion of the plan is required to be reviewed and updated with the latest fire suppression techniques every three years.
 - (b) The updated plan will receive public review and comment by the Commission and the Council and will also be required to receive CAFMA review and approval.
 - (c) The applicant shall provide proof of CAFMA's review and approval and include any reports, agreements, and review documentation.
 - c. A **Natural Disaster Mitigation Plan** is required to ensure appropriate and timely response in the event of a natural disaster.
- 5. Traffic and Roads.
 - a. The applicant must conduct **Traffic Impact Analyses** to assess traffic impacts during the construction and operation of the facility and provide a **Road Improvement Plan** for all roads impacted and created by the project.
 - b. The **Road Improvement Plan** shall reflect continued access to existing Forest Service Roads, if applicable.
- 6. Screening Requirements.
 - a. All utility buildings and equipment storage areas shall be screened with a concrete masonry unit (CMU) wall at least seven feet high.
 - b. The applicant shall provide a **Viewshed Analysis and Protection Plan** of higher elevation and slope areas to determine suitable project screening. Determination of additional screening requirements may be made by the Town based on such analysis.
 - c. Perimeter fencing around the project is required. Specifics such as height, construction type, screening, ingress and egress, and security measures must be outlined in a **Fencing Master Plan**.
- 7. Glare and Panel Safety.
 - a. All solar panels, support structures, and equipment must be constructed to minimize glare or reflection onto adjacent properties and roadways and have a sufficiently low light reflective value (LRV) to not interfere with traffic, including air traffic, or create a safety hazard.
 - b. Utility-scale solar photovoltaic facilities shall be maintained in good condition and repair and comply with applicable local, state, and federal regulations. Except during periods of regular maintenance and planned curtailments, such

facilities must remain functional and operational until decommissioning is initiated pursuant to the approved **Decommissioning Plan**.

- c. Panels shall use the latest construction materials and technology for environmental safety and shall react automatically to potential panel-damaging weather to avert broken panels and other environmental issues.
- d. Solar panel height shall not exceed 15' when oriented at maximum tilt (perpendicular to the ground). Such height is measured from the foundation.
- e. To the greatest extent possible, all solar panels and other materials removed due to damage or through the decommissioning process must be recycled.

8. Outdoor Lighting.

- a. All lighting on-site before, during, and after construction must comply with Dark Sky regulations.
- b. The applicant shall provide a **Lighting Plan** that includes, at a minimum, fixture cut sheets, numbers, locations, and types of lights; a schedule detailing lights used and their hours of operation; the purpose of the lighting; the lumens for each light; and a **Photometric Plan** for the project area.

9. Drones.

- a. If the project utilizes drones, the applicant shall provide a **Drone Utilization Plan** that outlines their usage, flight heights, noise levels, hours of operation, travel routes, and lighting, along with proof of compliance with all applicable federal and state regulatory requirements.

10. Noise.

- a. Construction is allowed only between 8:00 AM and 5:00 PM (Arizona time) Monday through Friday. A **Construction Noise Contour Impact Study Map** is required for the construction phase of the project.
- b. Post-construction noise levels must not exceed 55 dB between 8:00 AM and 5:00 PM and 40 dB between 5:00 PM and 8:00 AM. A **Post-Construction/Operational Facility Noise Contour Impact Study Map** is required.

11. Property Maintenance.

- a. The applicant shall provide a **Property Maintenance Plan** for the solar project area that addresses landscaping; weed control and abatement, including herbicide applications (types, amounts, and frequency); site infrastructure maintenance; panel cleaning and repair; fencing; drainage systems; access roads; and waste management.

12. Water Usage.

- a. The applicant shall provide a **Water Usage Plan** for the solar project area that includes:
 - i. A water source assessment that addresses sources, permits, and rights and includes a sustainability report showing that the water required for the project can be provided from the source.
 - ii. A water usage assessment detailing the volume of water needed during construction and operation.
 - iii. A **Water Recycling and Reuse Plan** that outlines what equipment and policies are in place to ensure the project recycles and reuses water as efficiently as possible.

13. Decommissioning Plan.

- a. The applicant shall prepare and submit a detailed **Decommissioning Plan** for the solar project area. The **Decommissioning Plan** must contain:
 - i. A description of the project components and a sequence and description of the activities required to remove the same in compliance with this section within one year of decommissioning. The **Decommissioning Plan** shall ensure the removal of all poles, concrete, and other items placed below grade, the remediation of any environmental issues caused by the project, and the restoration of the land to its original pre-project condition. The **Decommissioning Plan** shall also ensure that all decommissioned equipment and solar panels are recycled to the greatest extent possible.
 - ii. Assurances that the applicant has included the Town as an additional insured party (amount to be determined) and that all project owners, developers, and successors shall be bound to the **Decommissioning Plan**.
 - iii. A report prepared by a qualified third party (to be approved by the Council in advance) setting forth the procedures and estimated net costs associated with decommissioning the project as set forth in the **Decommissioning Plan**.
 - iv. Cash, an irrevocable letter of credit, or performance bond running in favor of the Town in an amount not less than the total estimated net costs identified in the above report.
 - (a) Such security shall be in place when project construction commences and remain in effect until decommissioning is completed.
 - (b) No such security shall be canceled without notice to the Zoning Administrator and approval by the Council.

- (c) Each year, the applicant shall provide proof that such security is in effect.
- (d) The applicant shall have the above report updated and provide the updated report to the Town at least every three years and upon any proposed transfer of the solar facility use permit. Should any update indicate a change in the decommissioning costs, the security required above shall be adjusted accordingly.

F. ADMINISTRATIVE REQUIREMENTS.

1. Public Outreach.

- a. An applicant for a solar facility use permit shall propose a written **Public Outreach Program** for staff approval. The program must address how the applicant will, from the commencement of the utility-scale solar photovoltaic facility project, work with the Town to ensure effective public outreach and keep the public informed about the project.
- b. The applicant shall pay all costs for required notifications, facility rentals, and community meetings.

2. Development Agreement.

- a. Issuance of a solar facility use permit is strictly conditioned on the applicant executing a **Development Agreement** setting forth the applicant's requirements to construct, operate, and eventually decommission a utility-scale solar photovoltaic facility in compliance with this section. The **Development Agreement** must:
 - i. Be prepared and executed in accordance with A.R.S. § 9-500.05 and any applicable requirements of this code.
 - ii. Set forth the applicant's requirements under this section.
 - iii. Address and include as exhibits all applicable programs, plans, maps, lists, studies, and analyses required under this section.
 - iv. Include an annual payment-in-lieu-of-tax (PILT) to provide a community benefit to the Town for the sole purpose of road maintenance. The benefit amount shall never be less than the initial amount determined in the agreement and shall be adjusted every three years based on the average CPI for the previous three-year period.
- b. Nothing in this section obligates the town to enter into any **Development Agreement**.
- c. It is the intent of this section that the **Development Agreement** not reduce, waive, or otherwise exempt the applicant from the requirements of this section.