# Pinal County
# Board of Supervisors

## Cactus Flower Solar, LLC
## Major Comprehensive Plan Amendment
## Case No. PZ-PA-007-24

October 30, 2024




Quarles

CYPRESS CREEK RENEWABLES

# Welcome and Introduction

## Cactus Flower Solar, LLC / Cypress Creek Renewables, LLC

- Heather Wise, Senior Project Developer
- Stacy Gramazio, Director of External Affairs
- Dan Pressman, Development Engineer

## Quarles & Brady LLP

- Peter Furlow, Land Use and Zoning Attorney

# Citizen Advisory Committee

- The Citizen Advisory Committee held a public hearing on September 5, 2024, to review Cypress Creek's Major Comprehensive Plan Amendment for this Property
- Five total solar projects were on the agenda for recommendation.
- The Committee unanimously recommended approval of Cypress Creek's request with a vote of 15-0.

# Planning & Zoning Commission

- The Pinal County Planning & Zoning Commission held a public hearing on September 25, 2024, to review Cypress Creek's Major Comprehensive Plan Amendment for this Property
- The Commission unanimously recommended approval of Cypress Creek's request.

# About Cactus Flower Solar LLC & Cypress Creek Renewables ("Cypress Creek")

- Cactus Flower Solar, LLC is owned by Cypress Creek Renewables, LLC ("Cypress Creek").
- Cypress Creek is one of the country's leading solar and storage companies.
- Cypress Creek strives to create a positive impact in the communities to develop and operate through scholarships, sponsorships, and workforce development initiatives.
- Employ hundreds of people in clean energy jobs across 33 states
- Cypress Creek has contributed tens of thousands of dollars toward Pinal County nonprofits and students and expect involvement in the community to continually grow throughout the life of the proposed development.

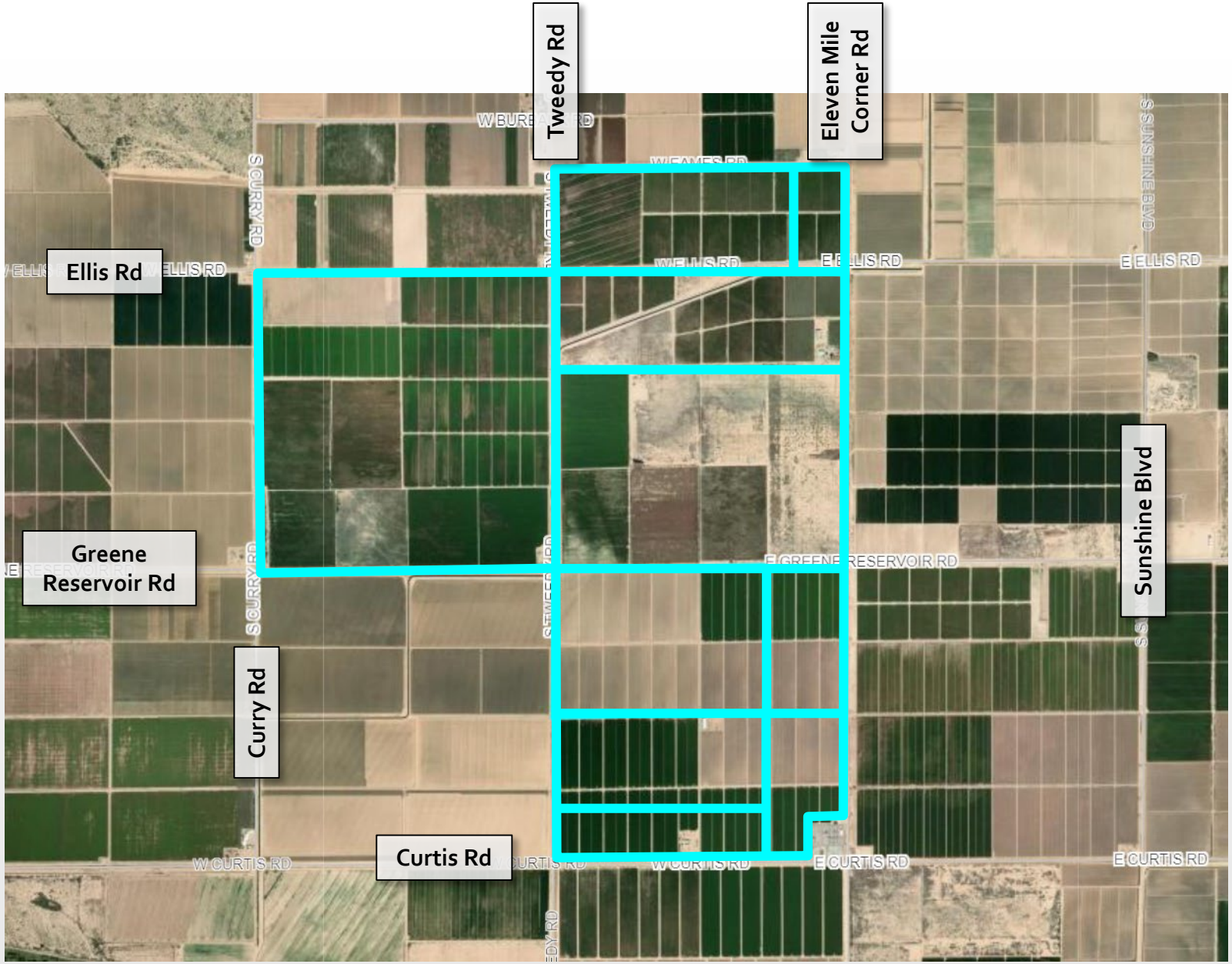
# Property & Use Overview

- The proposed development is on approximately ~2,149 acres on 10 privately-owned parcels in unincorporated Pinal County located approx. eight miles south of Eloy and seven miles south of Interstate 10 (the "Property").
- Currently zoned General Rural ("GR") and within Very Low Density Residential ("VLDR", 0-1 du/ac) and Moderate Low Density Residential ("MLDR", 1-3.5 du/ac) land use categories in the Comprehensive Plan.
- Proposed 270-megawatt with alternating current ("MWac") solar generation and 270-megawatt ("MW") battery energy storage system ("BESS").
- Abuts an already approved solar development, Eloy Solar, which has a Green Energy Production ("GEP") land use classification.

# AERIAL MAP

APNS:
40811025B, 40811025D,
40811024A, 40811024C,
40811025C, 408110230,
408150020, 408150010,
408120020, & 408120030

Pinal County, AZ

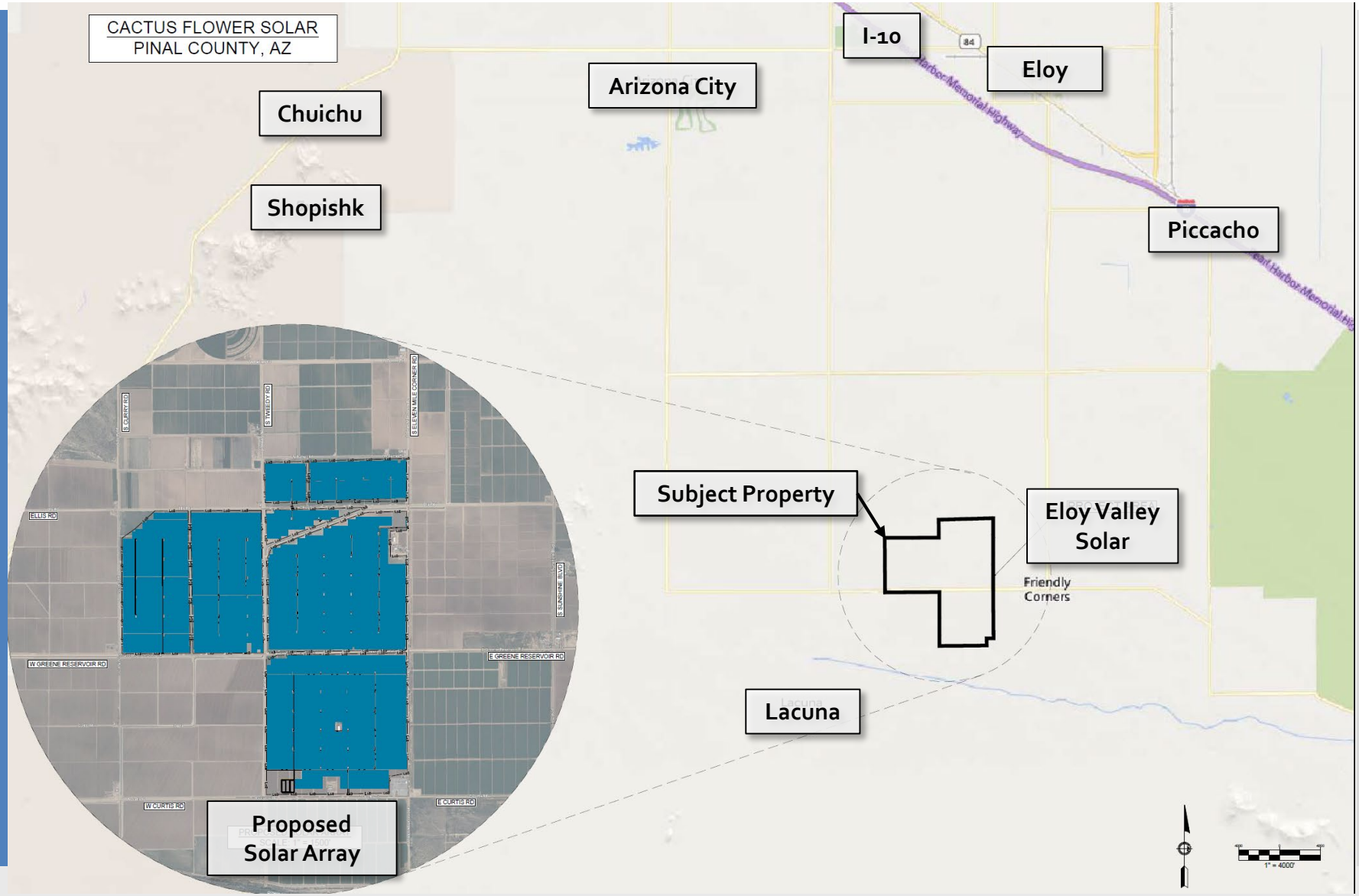



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# CONTEXT MAP

Pinal County, AZ




CYPRESS CREEK RENEWABLES

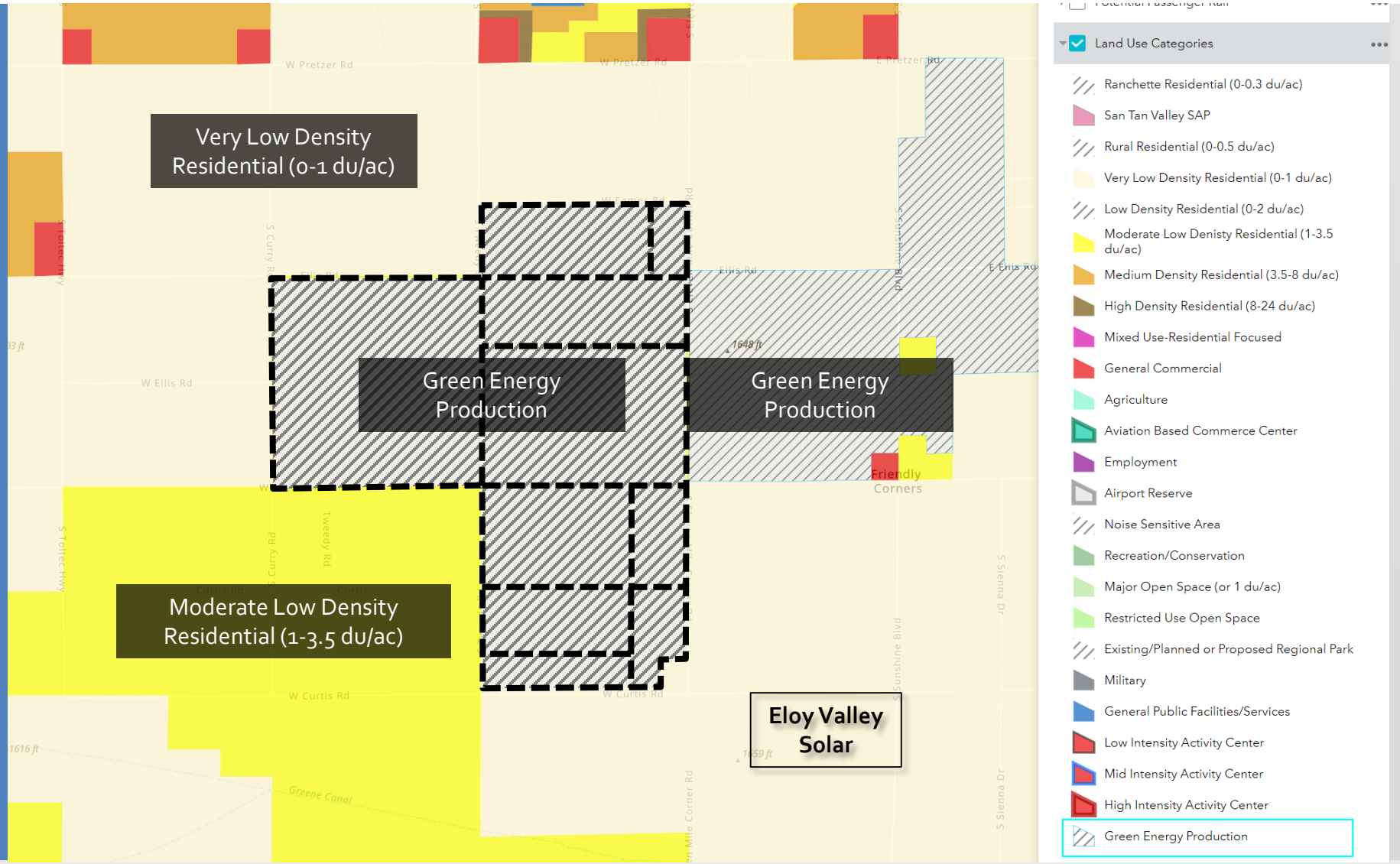
# CURRENT COMPREHENSIVE PLAN MAP

Pinal County, AZ



# REQUESTED COMPREHENSIVE PLAN MAP AMENDMENT

Pinal County, AZ



# STREET / ELEVATION VIEWS

Pinal County, AZ











## Major Comprehensive Plan Amendment

- Major Comprehensive Plan Amendment ("MCPA") request from Very Low Density Residential ("VLDR") and Moderate Low Density Residential ("MLDR") land use classifications to Green Energy Production ("GEP") land use classification.

# Request

# Major Comprehensive Plan Amendment Criteria

1. **"The identified site is appropriate for the proposed use."**

- Abuts approved Green Energy Production land.
- Generally flat agricultural land requires minimal site preparation.
- Farming the land has become difficult due to water supply being cut in half in recent years with loss of CAP water.
- The Project was intentionally sited to follow Pinal County and citizens' guidance for new energy development to be located away from current and proposed housing, employment hubs, parks, scenic areas, and recreational trails.
- Environmental studies concluded that there is no suitable habitat for federal listed or protected species.

# Major Comprehensive Plan Amendment Criteria

## 2. "The amendment must constitute an overall improvement to the County."



### County Tax Revenue:

- Early tax estimates indicate a potential lifetime revenue of over $55 million (subject to final project size and construction cost).



### Creates Jobs:

- Estimated to create approximately 400 construction jobs and additional permanent jobs.



### Clean Reliable Energy For Fastest Growing County:

- Can provide energy for 52,000 homes annually.
- Supports grid and can provide clean energy to companies such as Lucid, Kohler, TSMC, LG, etc.



### Low / Non-Water User:

- Especially important after loss of CAP water allocation.
- Significantly less water used as compared to current agricultural use.

# Major Comprehensive Plan Amendment Criteria

3. **"The amendment will not adversely impact a portion of, or the entire County."**

- Use will not significantly alter existing land use patterns and will be adjacent to Eloy Solar to the east, continuing the Green Energy Production ("GEP") land use classification.
- The current landscape will be preserved through minimal grading, and the site could be returned to farming after decommissioning, if desired by landowners.
- Since the neighborhood meeting on May 14, 2024, this application received **zero opposition**. No members of the public opposed the request at the CAC on September 5, 2024.

# Support Letters from Current Property Owners

May 26, 2024

To whom it may concern,

I own 212 acres in Eloy (408-12-002 and 408-12-003) that is part of the future Cactus Flower Solar Farm. I have owned the property for about 20 years, and it has been leased to farmers to grow agricultural crops. However, in the past few years, the water supply to raise crops on this property has been cut in half. This has resulted in the farmers only growing half the crops they used to.

This water shortage is not just on my property, but the entire Central Arizona Irrigation and Drainage District area. Converting this property to a solar farm allows the water rights to be transferred to other farmers in the area allowing them to increase the amount of crops they grow. Solar farms will be a benefit to the Central Arizona area where some of the finest cotton in the world is raised.

I have also watched with anticipation when the I-11 freeway was announced about 10 years ago. The progress has been slow as there are many decisions to be made, government regulation to comply with, and interested parties to appease. Various routes for the freeway have been proposed, but as far as I know, no decision has been made for the exact location of the freeway west of I-10. It will be more than a decade before we see any construction begin on I-11 between Casa Grande and Nogales.

The area where Cactus Flower is developing the solar farm is so far west of I-10, that even after the freeway is constructed, it will still be many years before any residential or commercial construction would begin.

Without question, the best use of my property for the next 20 years is the development of a solar farm to provide clean electricity, and assist farmers by sharing the water resources to grow more crops than they are currently able to.

Sincerely,

Michael Toone

June 3, 2024

Dear Pinal County Planning Division:

Thank you for considering this letter in your review of the Cactus Flower Solar and Battery land use reclassification application.

My family has a long history of farming in Pinal County. I grew up in Mammoth and have been farming my entire adult life, but times have been hard in recent years. Crop output has significantly declined mainly due to having lost access to the Central Arizona Project's water, which left us with groundwater from the District and about half the water supply that we used to receive. This is a direct hit to income generated from our farming. As such, we have had to reevaluate what to do with our property.

So when Cypress Creek Renewables approached us for purchasing our land- one parcel, about 216 acres- for use of a solar and battery site, it seemed like an obvious win for all parties involved. We would no longer be faced with the difficult reality of our farmland no longer being viable, the County would see substantial property tax revenue from the solar farm- from what we understand would be tens of millions of dollars throughout the life of the project, construction jobs would be created, and my property's water credits could be distributed to other agricultural productions so that their yields could be higher.

The theoretical plan for the I-11 corridor is just that at this point- theoretical. The approximately 400-foot corridor needed for the interstate is in no way set in stone. Should funding for this project occur in the future and plans for it actually move forward, there would be significant time to figure out an alternate route. Preventing Cactus Flower from moving forward because of a potential future project with an unknown timeline, and other development (is the County planning to prevent any and all development from occurring in this corridor?)- when I am confident that ADOT could find another 400-foot corridor route if it comes to it- seems to me like that County would be stalling economic development in a region that could really benefit from it.

I respectfully ask that the County respect my private property rights and support my decision to sell my land to Cypress Creek Renewables for the Cactus Flower project. I ask that this letter of support be considered as part of the review process for the land use classification change from Very Low and Moderate Low Density Residential to Green Energy Production so that development on the Cactus Flower project can move forward.

Thank you for your time and consideration,

David Stambaugh

June 5, 2024

Dear Pinal County Planning Division:

My name is Brian Blevins, and my family owns Curtis 1035 LLC here in Pinal County. We have a contract with Cypress Creek Renewables for the site control and eventual purchase of five of our parcels in Pinal County - 631 acres - for the development of Cactus Flower Solar and Storage. We strongly support the request for the land use classification change from Very Low and Moderate Low Density Residential to Green Energy Production so that the development of this facility can move forward.

The reality of farming in Pinal County is that it has been very challenging lately. We have lost all of the Central Arizona Project water, so are left with groundwater supplied through the District. This is half of what was supplied to us just a few years ago and has resulted in half the crop output. I have been farming all my life, but my family simply can no longer rely on farming as a viable income stream going forward.

Aside from the fact that selling my land to Cypress Creek for the development of Cactus Flower makes sense financially, it could also help agricultural production in the area. My water allotment could be redistributed to other farmers that could then have greater crop output with the increased water supply.

Lastly, the I-11 corridor should not be a consideration in this rezone request. My understanding is that ADOT's current map of the corridor shows the entire 2,000-foot range, of which only 400 feet will be selected for the corridor. Seeing that funding has not yet been secured, the development timeline is still entirely unknown, and the exact location of the 400-foot I-11 corridor is still undecided, preventing development in the meantime seems illogical and would prevent the County from seeing the economic benefits that occur from projects such as Cactus Flower.

This is my private property, and with respect hope that my decision to sell my land to Cypress Creek Renewables for the Cactus Flower site holds some weight when considering this land use reclassification request. Cactus Flower would bring substantial property tax revenue, jobs, and a ripple effect of economic activity in the wider City of Eloy area. It could help boost agricultural production for other farmers by increasing the water availability for them.

Thank you for considering this letter of support in your review of the land use reclassification application for Cactus Flower.

Best,

Brian Blevins

# Additional Support Letter: Eloy Chamber of Commerce

ELOY
CHAMBER OF COMMERCE

Via Email: sangeeta.deokar@pinal.gov

Dear Pinal County Supervisors, P&Z Commissioners, and Staff:

The Eloy Chamber of Commerce would like to submit this letter in support of Cactus Flower Solar, a Cypress Creek Renewables proposed project, located approximately 9 miles south of Eloy. We believe this project should be approved for a Pinal County major comprehensive plan amendment for several reasons:

· We believe this project makes sense for our community. It's located in a remote area near other compatible uses and will not be detrimental to our way of life in Eloy.

· This project will generate millions in local property tax revenue in addition to creating new economic activity and jobs for the area that will have a positive impact on Eloy and the region.

· Cypress Creek has been a good community partner to Eloy to date through scholarships, sponsorships, and a direct donation to our Santa Cruz Valley Historic Museum that will allow us to ensure that people of all abilities can comfortably visit.

· By allowing the local landowners to use their property for solar, will help keep agricultural land available for the future, especially if the water availability improves in 40 years.

Our mission is to foster, enable, and facilitate the success of Eloy businesses so our community is financially healthy and all the people living, working, and playing in Eloy will enjoy a quality lifestyle. Cypress Creek has shown that Cactus Flower Solar will likely be one of many outstanding businesses we have in Eloy that will help us advance those goals, and we look forward to continuing to partner with them.

Sincerely,

Andrew Rodriguez, Executive Director

Eloy Chamber of Commerce

# Public Participation & Community Engagement

# Public Participation & Community Engagement

- Cypress Creek has been active in the community since November 2022.
- Cypress Creek is a member of the Pinal Partnership, Eloy Chamber of Commerce, Pinal Alliance, Greater Florence Chamber of Commerce, Coolidge Chamber of Commerce, and Ms. Gramazio is President of the Central Arizona College Foundation and serves on the Board of Directors for the Eloy Chamber of Commerce and Pinal Alliance.
- The Applicant held a meeting with the City of Eloy to keep them informed of the Development and to take note of any comments or questions.
- The Applicant sent an informational letter to nearby property owners and stakeholders outlining the proposed request and to announce an upcoming neighborhood meeting on April 30, 2024.
- The in-person, public neighborhood meeting was held on May 14, 2024, and had only **one attendee who supported the project**.

# Community Engagement:

# Our Commitment

- Cypress Creek honors its Good Neighbor Commitment and establishes long-term partnerships where it develops and operates.

- Recently, Cypress Creek representatives worked with the Eloy Chamber to determine the highest need for community investments, ultimately donating $25,000 to the Santa Cruz Valley Historic Museum to make it ADA compliant in addition to over $35,000 total in sponsorships, memberships, scholarships throughout Pinal County.




- We provide multiple ways for residents to connect with our team to ask questions and provide feedback, incorporating that feedback into planning when feasible.

# Conclusion

- The comprehensive plan amendment request meets all application criteria.
- Cypress Creek has demonstrated significant efforts with the County, nearby jurisdictions, and local leadership.
- The proposed Development benefits local owners within the County.
- The development is in line with the surrounding land uses in the area and will provide significant positive benefits to the County overall.
- Therefore, we respectfully ask that the Board of Supervisors approve our Major Comprehensive Plan Amendment request.

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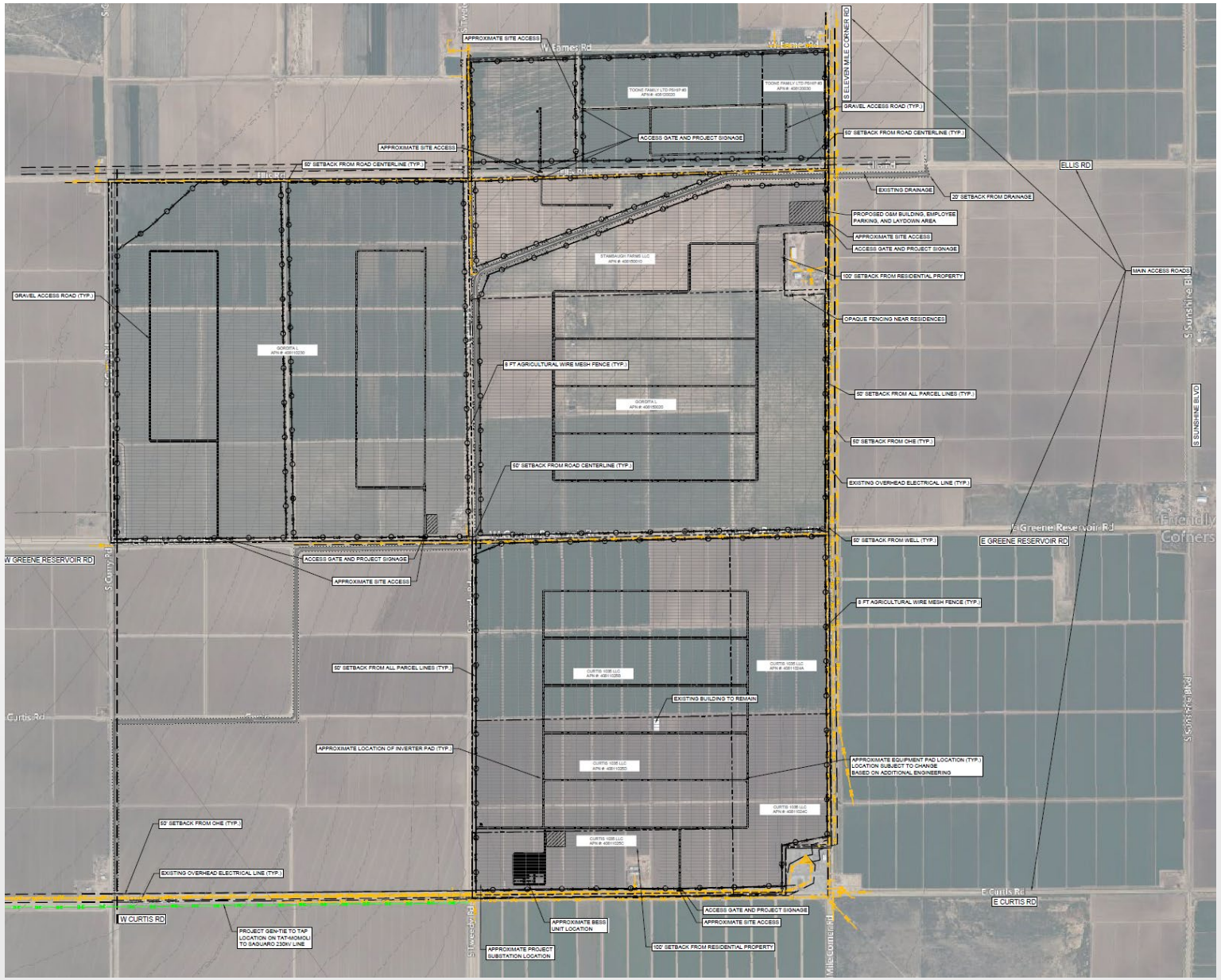
October 30, 2024




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CYPRESS CREEK RENEWABLES

# Conceptual Site Plan



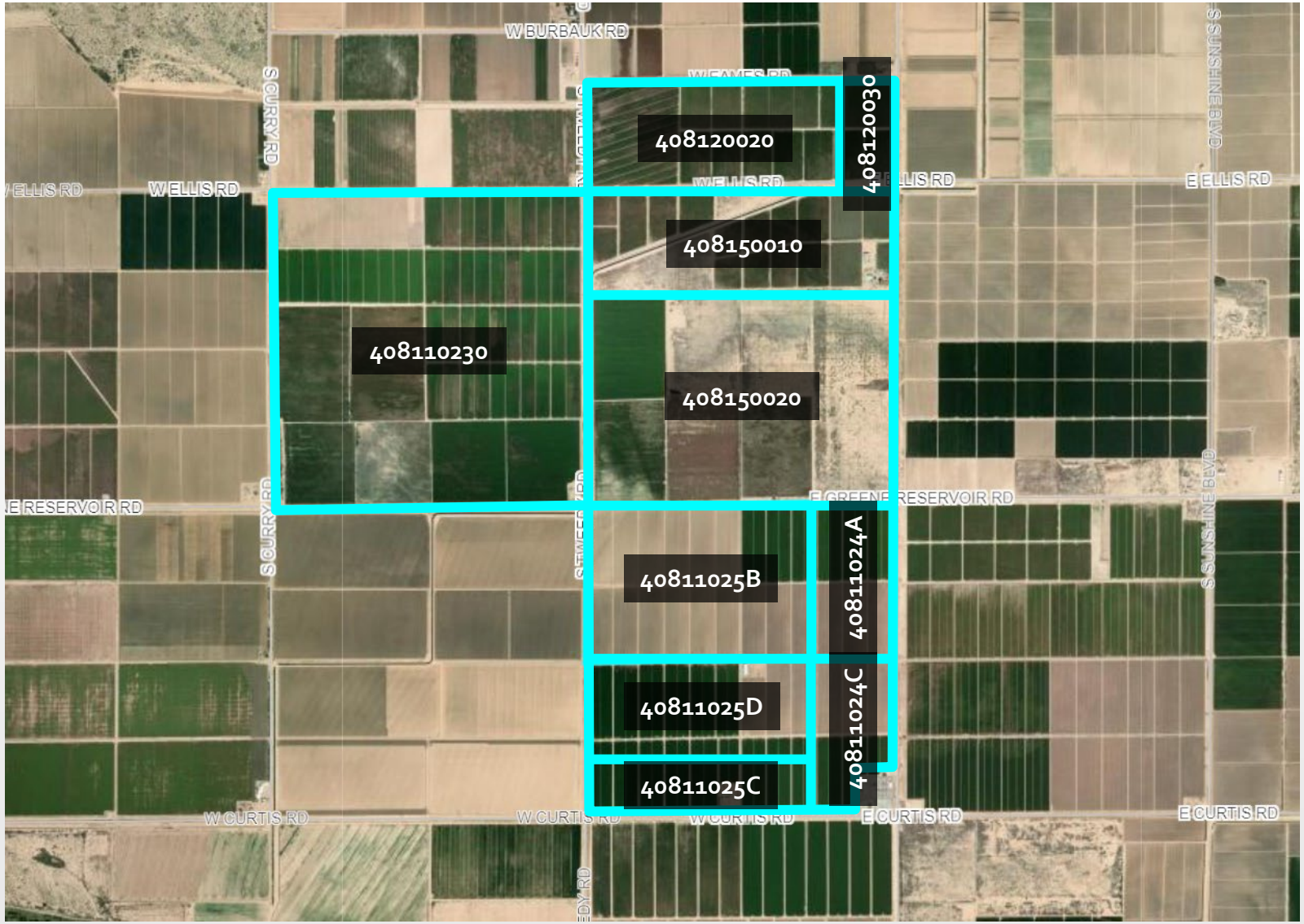

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CYPRESS CREEK RENEWABLES

# AERIAL MAP

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408150020, 408150010,
408120020, & 408120030

Pinal County, AZ



# Environmental Benefits for Pinal County

- Cactus Flower Solar will use minimal amounts of water and have zero carbon emissions during operation while still creating significant economic benefits for the area.
- The current landscape will be preserved through minimal grading, and the site could be returned to farming after decommissioning, if desired by landowners.
- The Development will create low-growing native plant vegetation communities, compatible with Sonoran Desert species, providing a potential habitat and food source for wildlife.



# BESS Fire Protection Review: Sungrow PT2

CYPRESS CREEK RENEWABLES

# Lithium-Ion System Safety Background

## Thermal Runaway by Chemistry

### NMC (Nickel Manganese Cobalt)

- Greater energy density than LFP (suited for EVs)
- Begin thermal runaway @ 210°C (410°F)

### LFP (Lithium Iron Phosphate)

- Begin thermal runaway @ 270°C (518°F)
- Slower heat release than NMC

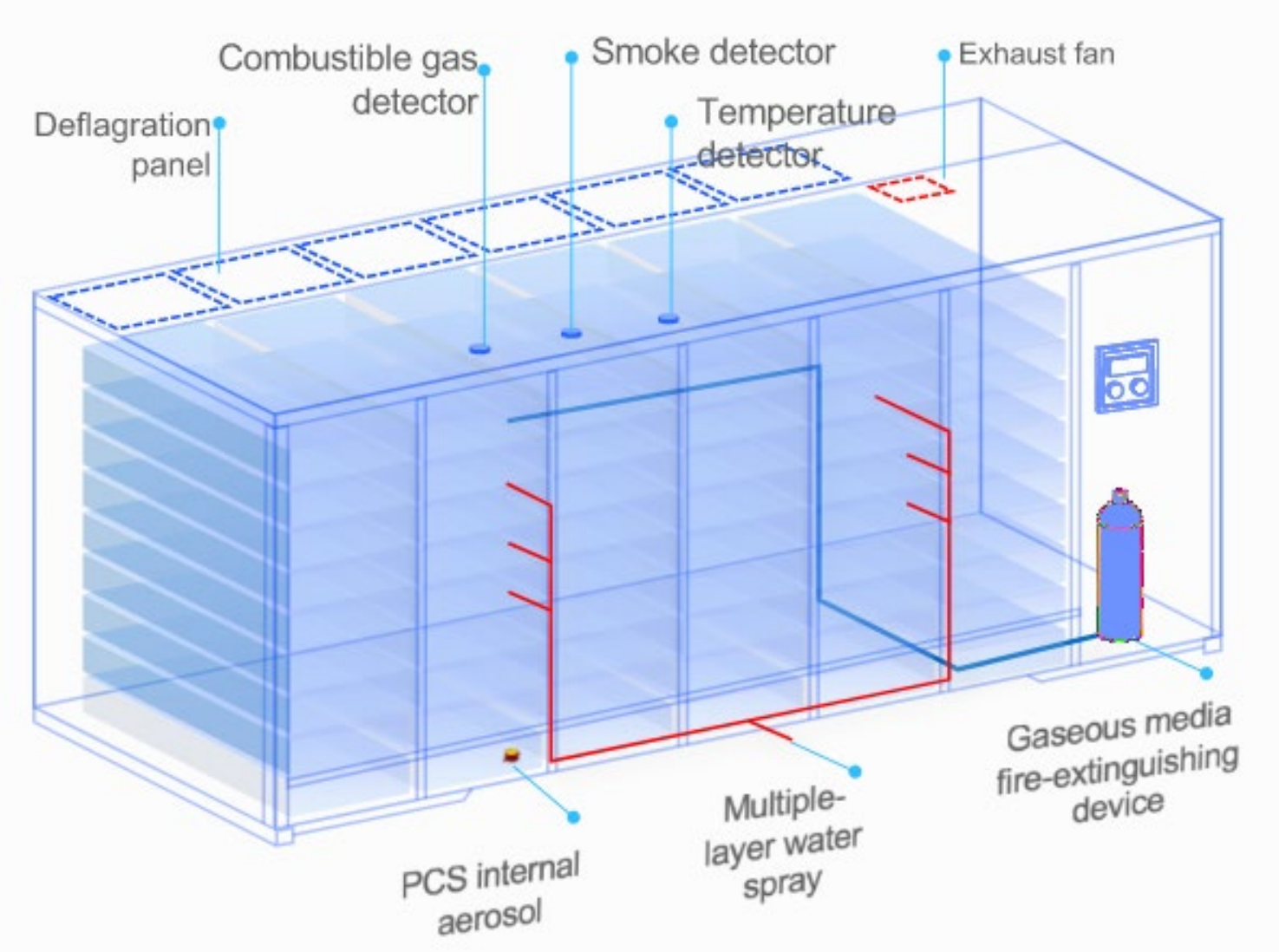
**Most thermal runaway events recorded to date (per EPRI's database) have been systems with NMC chemistry**

| | Safety | Decomposition temperature | Heat release |
|---|---|---|---|
| NMC | ★★★ | 210°C(410°F) | 600J/g |
| LFP | ★★★★★ | 270°C(518°F) | 200J/g |
| NCA | ★★ | 150°C(302°F) | 940J/g |



# Sungrow Battery Energy Storage System (BESS)

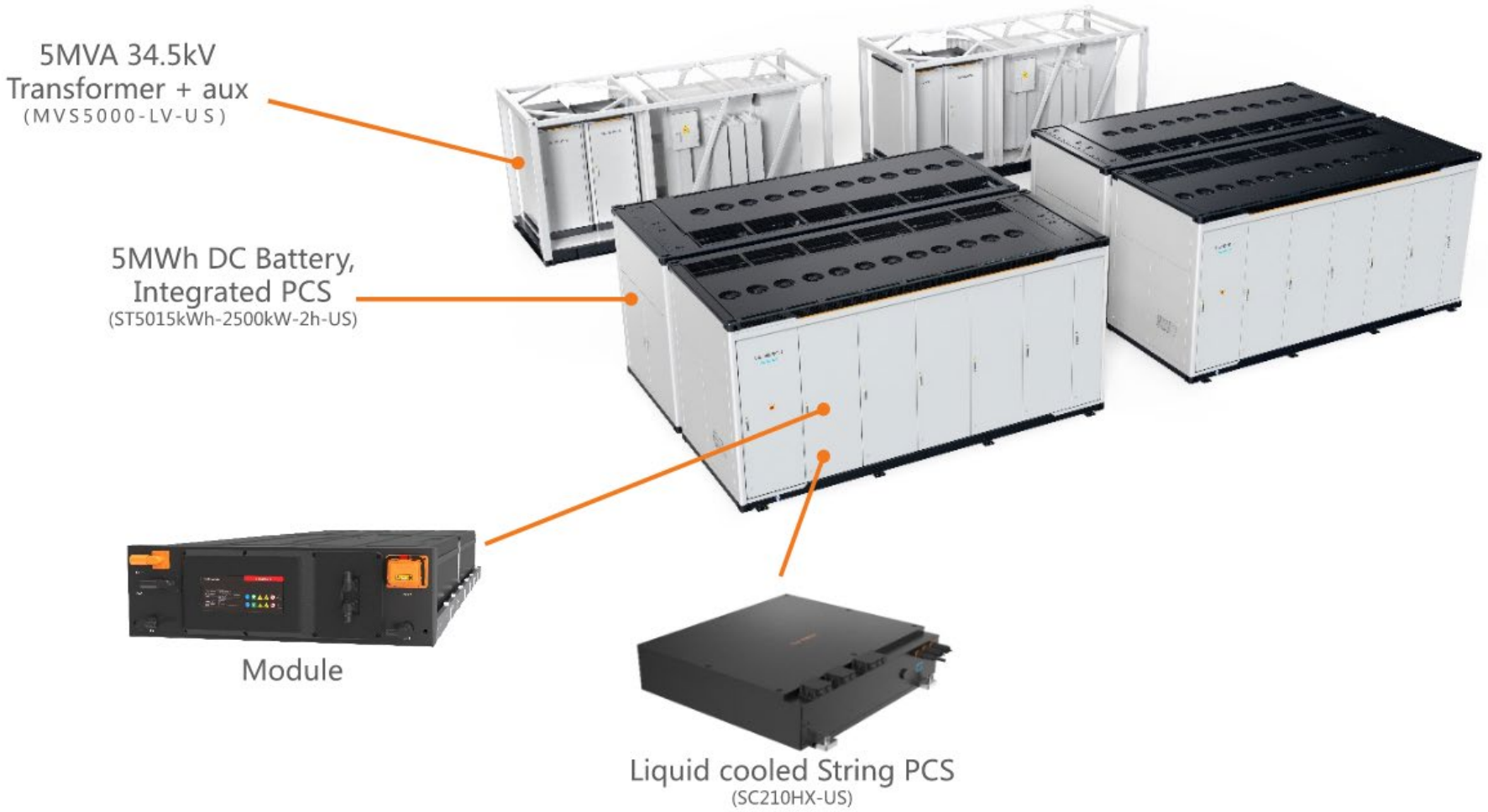
## PowerTitan2 Fire Safety Measures




CYPRESS CREEK RENEWABLES

# Sungrow BESS

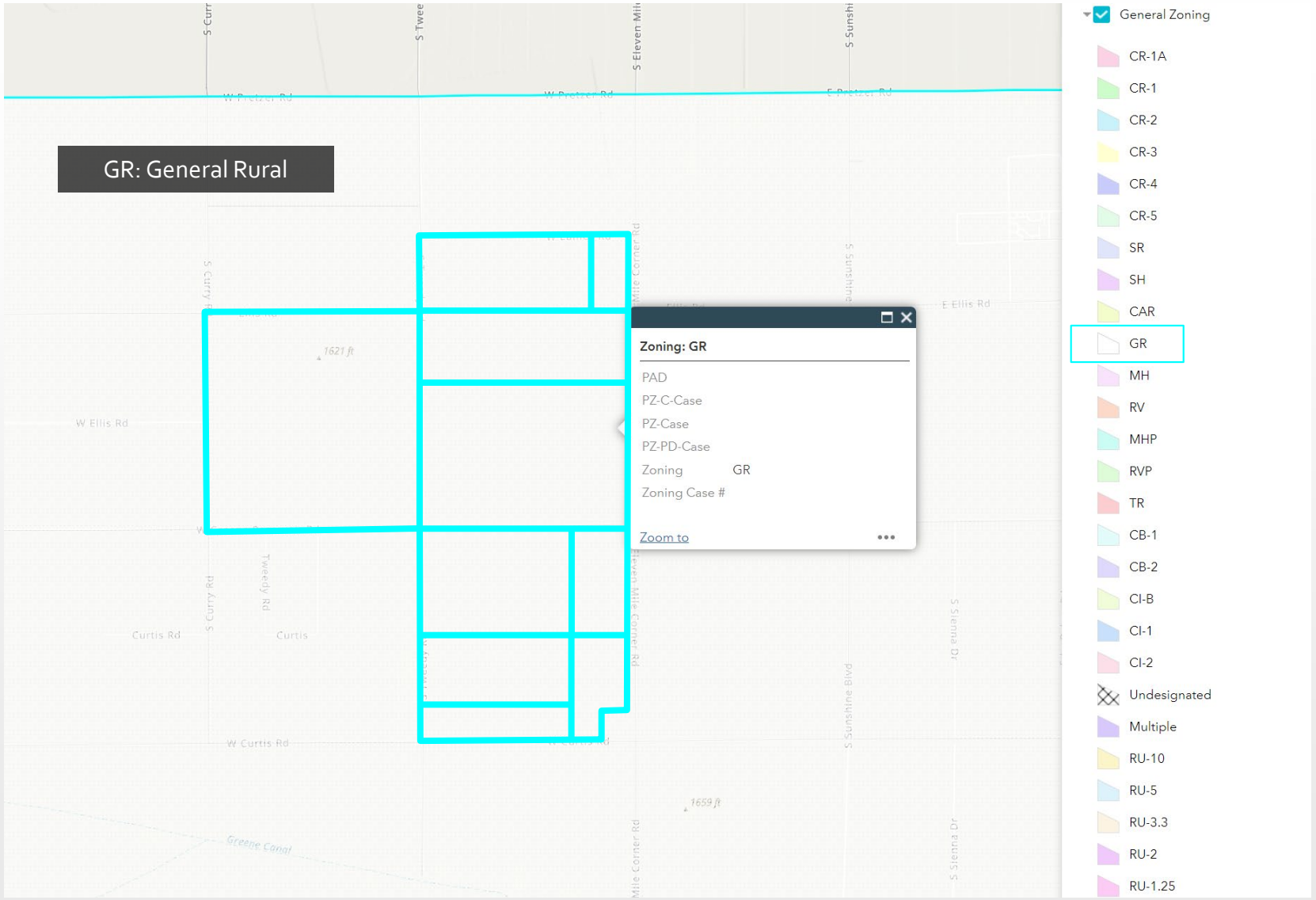
## PowerTitan2 Overview




CYPRESS CREEK RENEWABLES

# CURRENT ZONING MAP

Pinal County, AZ




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# High Capacity I-11 Corridor

- Site is located in potential future high-capacity corridor for I-11.
- **2021**: ADOT and FHWA release Tier 1 EIS
  - Created 2,000-foot-wide potential alignment for I-11 expansion.
- **I-11 Current Status**:
  - Expansion of I-11 is not in the 2025-2029 ADOT 5-year plan.
  - There are ongoing litigation challenges to the tentative route from Tier 1.
  - No funding has been identified for further studies, design, or construction of I-11, including the Tier 2 analysis which would determine the specific expansion alignment.
- PZ-PA-004-21 approved and intersected by the potential future high-capacity corridor for I-11.
- Site operational in the next 2-3 years, while potential I-11 expansion is 30-40 years in future.

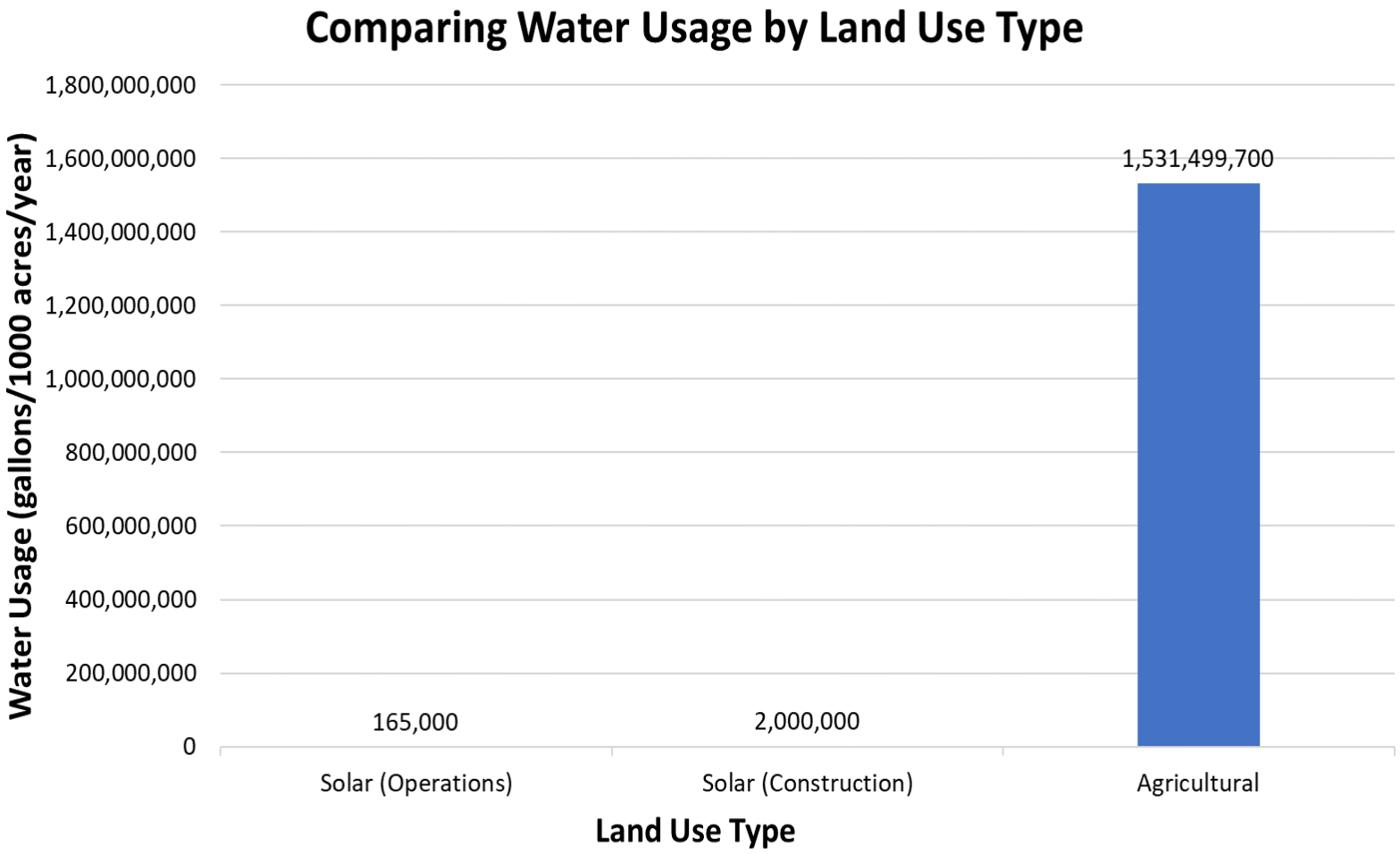
# Alignment with Pinal County Vision

Development aligns with the following goals outlined in the Pinal County Comprehensive Plan:

- Goal 7.2: Safeguard the long-term water supply for Pinal County
- Goal 7.3: Enhance energy efficiency in Pinal County
- Goal 7.6: Increase the use of renewable energy in Pinal County
- Goal 7.6: Ensure adequate future energy provision while preserving the natural environment and resources

# COMPARATIVE WATER USAGE

# SOLAR VS. AGRICULTURAL




**Sources: United States Department of Agriculture and Bay-Wa r.e. Power Solutions**

# COMMONLY ASKED QUESTIONS



## Are solar panels hazardous?

No. Solar panels contain no hazardous chemicals and do not pollute.



## Do solar panels produce glare?

No. Solar panels are designed to absorb energy, not redirect it.



## How do you dispose of panels?

Cypress Creek prioritizes the recycling and/or repurposing of panels.