Pinal County
Board of Supervisors

October 30, 2024

TAP SOLAR PROJECT

CASE #PZ-PA-009-24

Copia Power
A Carlyle Portfolio Company

Kimley»Horn

ROSE LAW GROUP pc
RICH · CARTER · FISHER

Copia Power: *An Experienced and Best in Class Energy Developer*

- Develops, owns and operates projects throughout the US
- 15GW of projects under development
- Backed by Carlyle: one of the world's largest global investment firms
- Experienced building projects in Arizona with 100's of MWs being developed

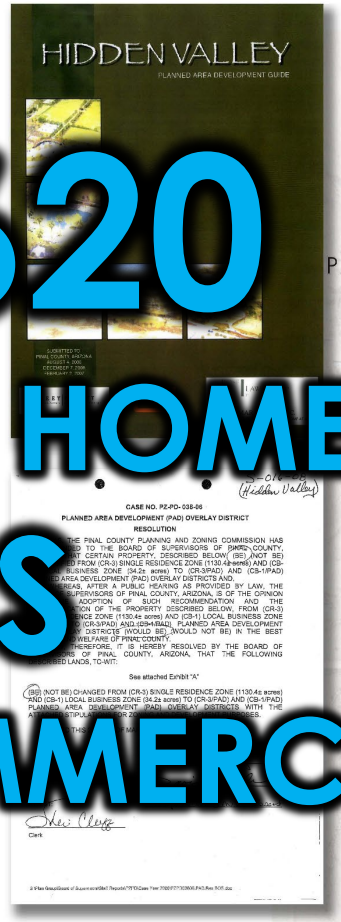
Why so much solar??

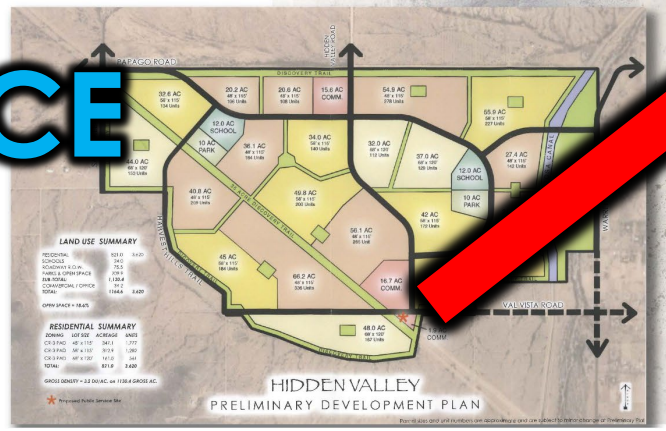
- Arizona needs power!
- APS projecting 40% load growth over next few years
- SRP talking about doubling the amount of power it needs
- Solar and batteries are fast to build and least cost option

Tap Solar: Right use in the Right location

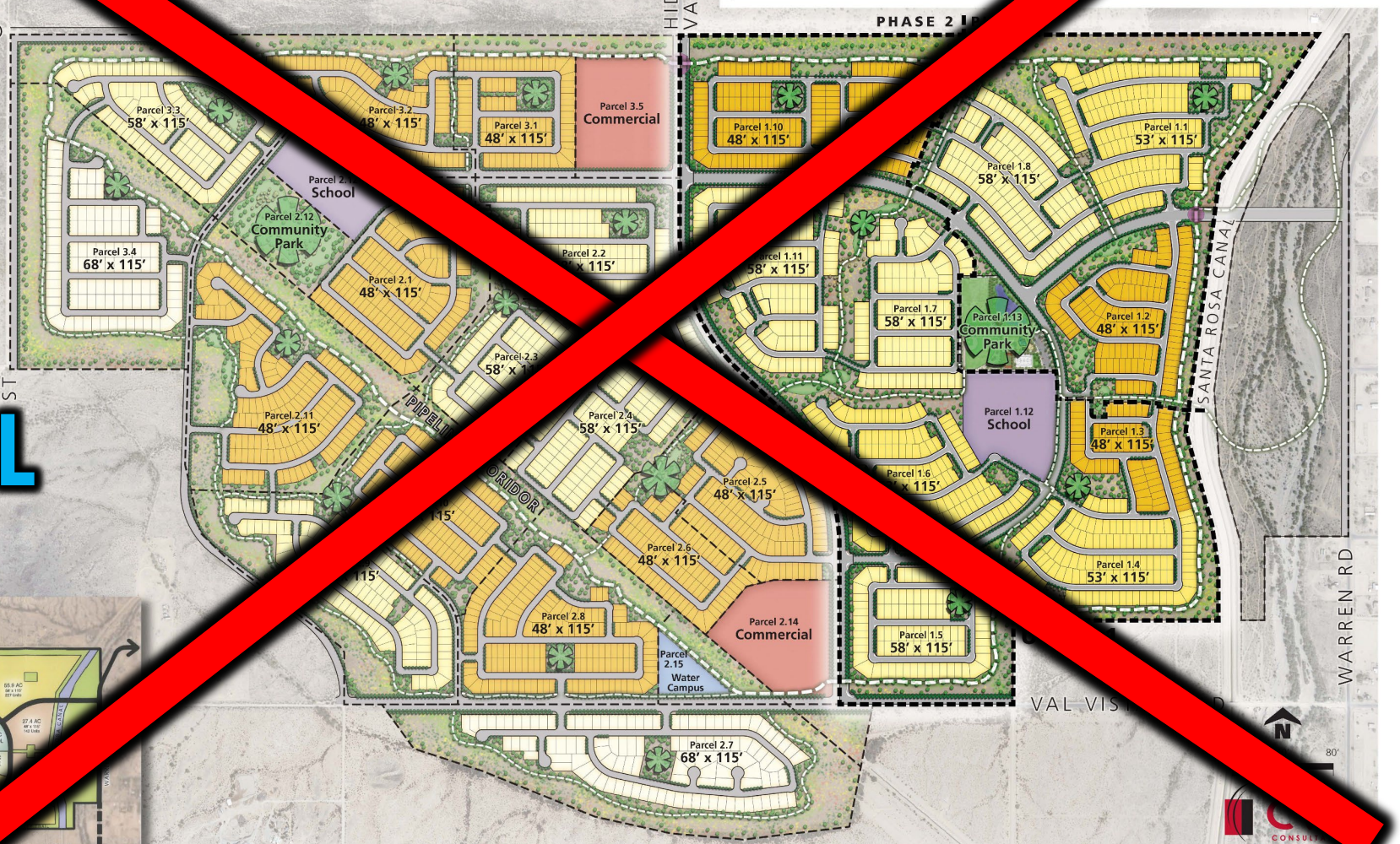
- Dramatic reduction in intensity of use
- Currently planned for **3,620 homes**

3,620 NEW HOMES PLUS COMMERCIAL AND OFFICE





HIDDEN VALLEY RANCH
MASTER PLANNED COMMUNITY
APPROVED PLANNED AREA DEVELOPMENT (PAD)
(CR-3 PAD/CB-1 PAD) CASE #: PZ-PD-038-2006

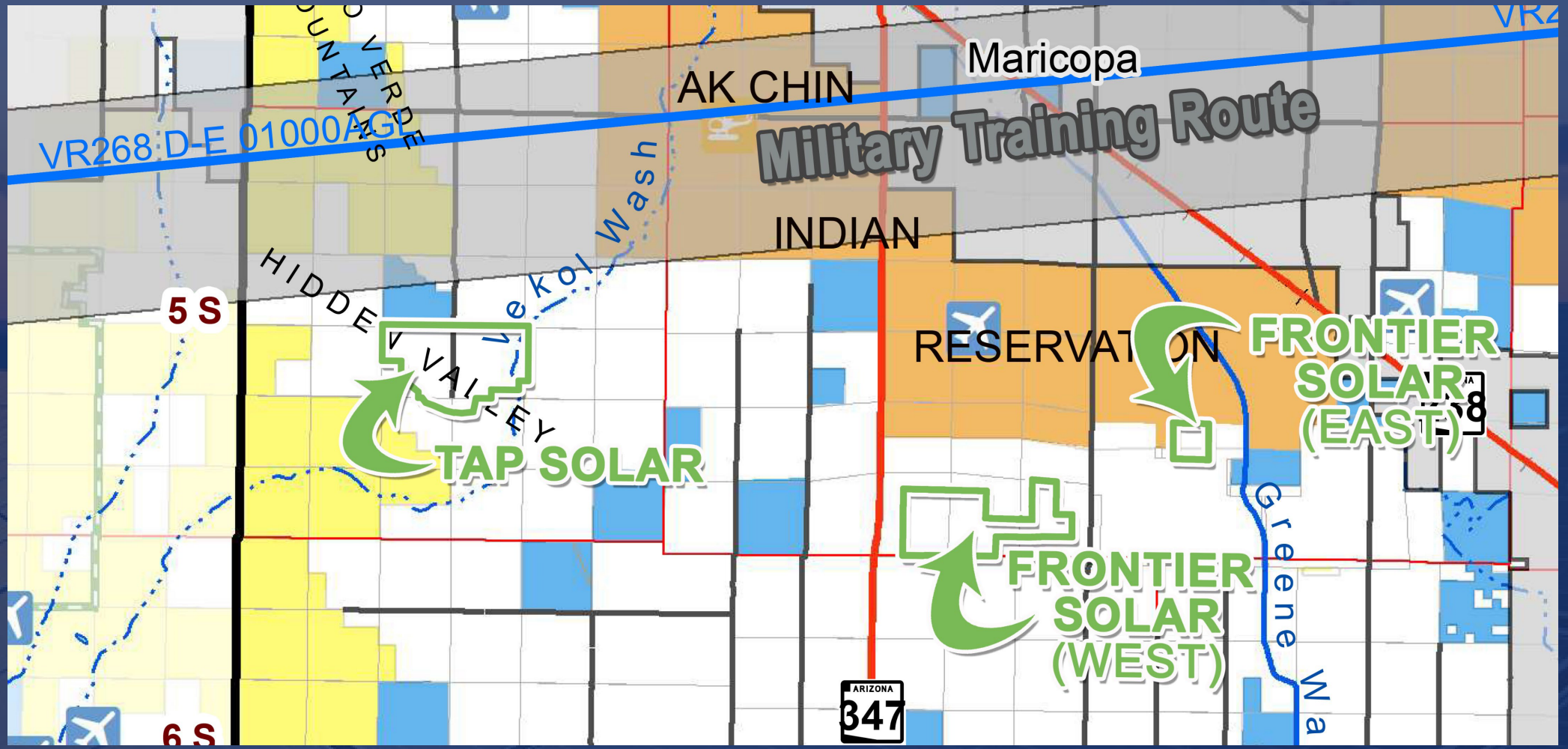


2007 APPROVAL CURRENTLY ALLOWS FOR 3,620 RESIDENITAL UNITS, COMM. & OFFICE



Thank You Thunderbird Farms Neighbors for Support!

NOT IN DOD FLIGHT PATH



DOD review is an informal/normal review (panel heights, materials)

Tap Solar: Right use in the Right location

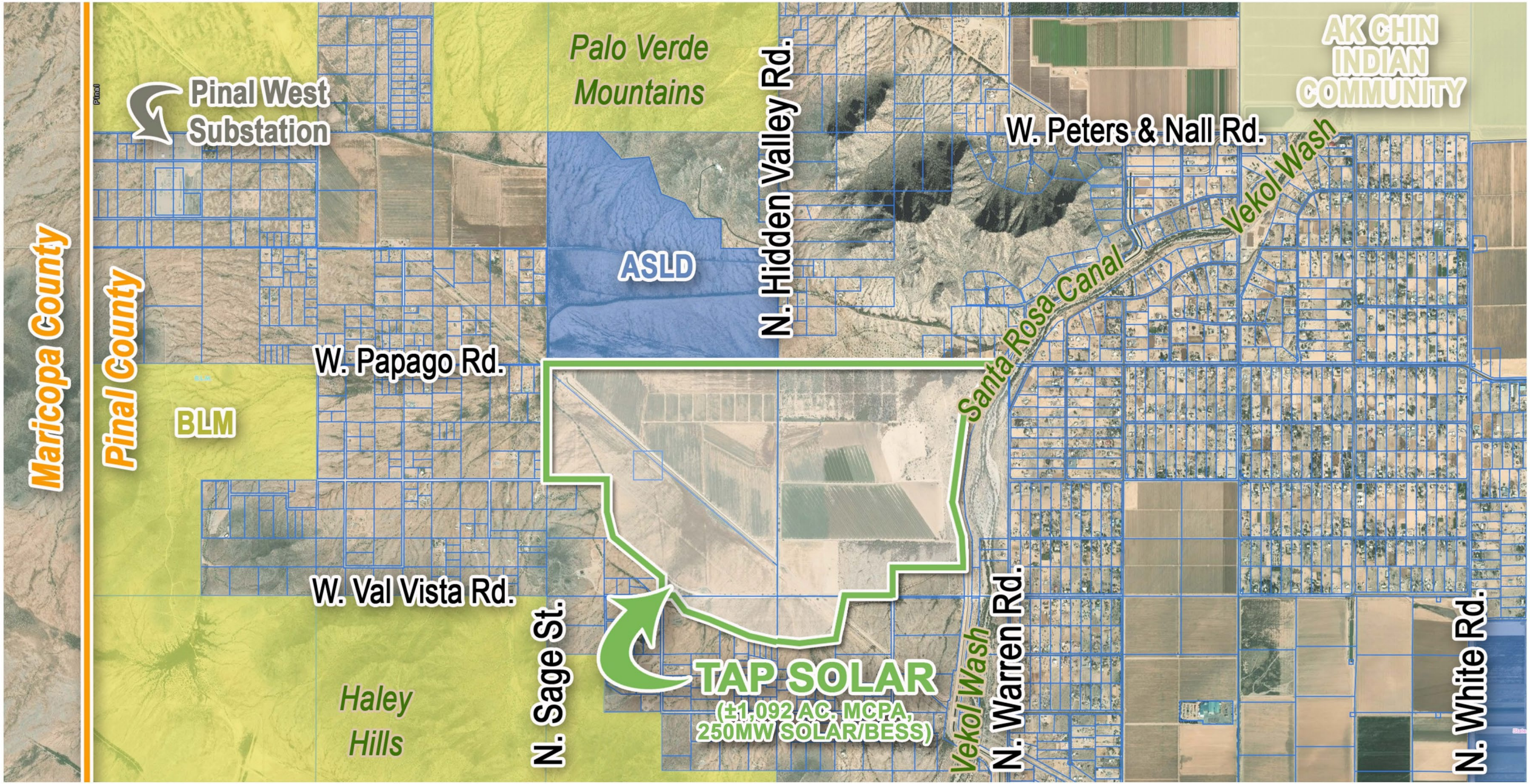
- Dramatic reduction in intensity of use
- Currently planned for **3,620 homes**
- Surrounding community positive feedback
- No traffic
- No water usage
- No light pollution
- Quiet neighbor – Keeps the area RURAL!
- Protects and preserves Vekol Wash
- Will be working closely with local Fire to ensure public safety
- Increased tax revenue for schools and special districts
- Decommissioning Plan for end of project life



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Maricopa County
Pinal County
Pinal West Substation
Palo Verde Mountains
ASLD
N. Hidden Valley Rd.
AK CHIN INDIAN COMMUNITY
W. Peters & Nall Rd.
Vekol Wash
Santa Rosa Canal
W. Papago Rd.
BLM
W. Val Vista Rd.
N. Sage St.
TAP SOLAR
(±1,092 AC. MCPA, 250MW SOLAR/BESS)
Vekol Wash
N. Warren Rd.
N. White Rd.
Haley Hills

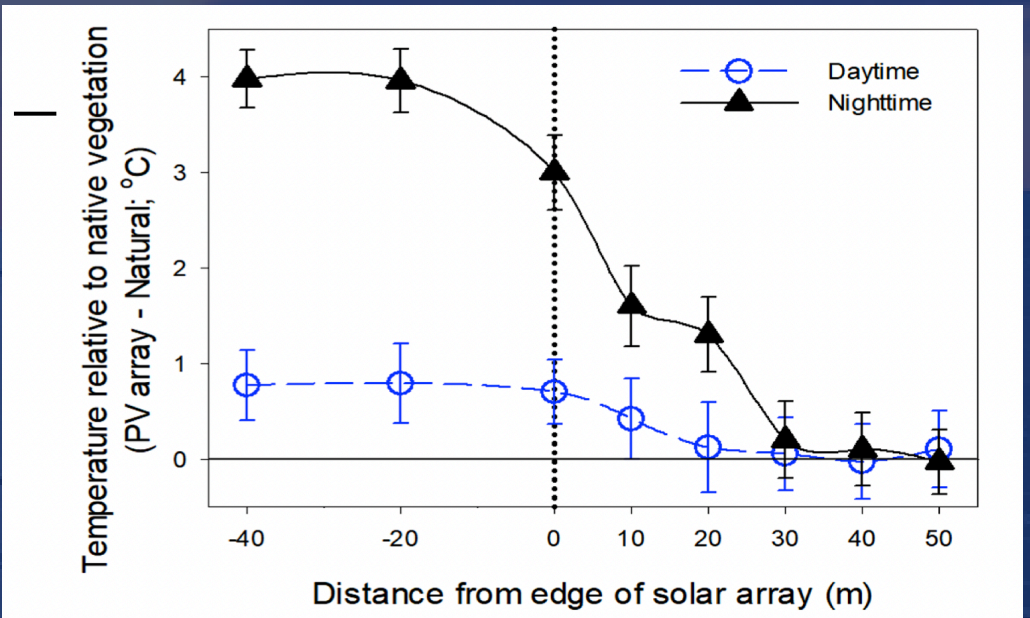
Solar does NOT increase nearby temperatures

University of Arizona has studied this exact question

- *Professor Greg Baron-Gafford: School of Geography, Development & Environment*
- *Director of Food, Energy and Water Resilience Solutions, Biosphere 2*



Locations of additional measures of air temperature are marked with yellow triangles. Stations were placed inside the array at 20m and 40m in from the edge of the array, at the edge of the array (0m), and outside the array at 10, 20, 30, 40, and 50m out from the edge of the array to quantify the spatial extent of the PVHI effect.

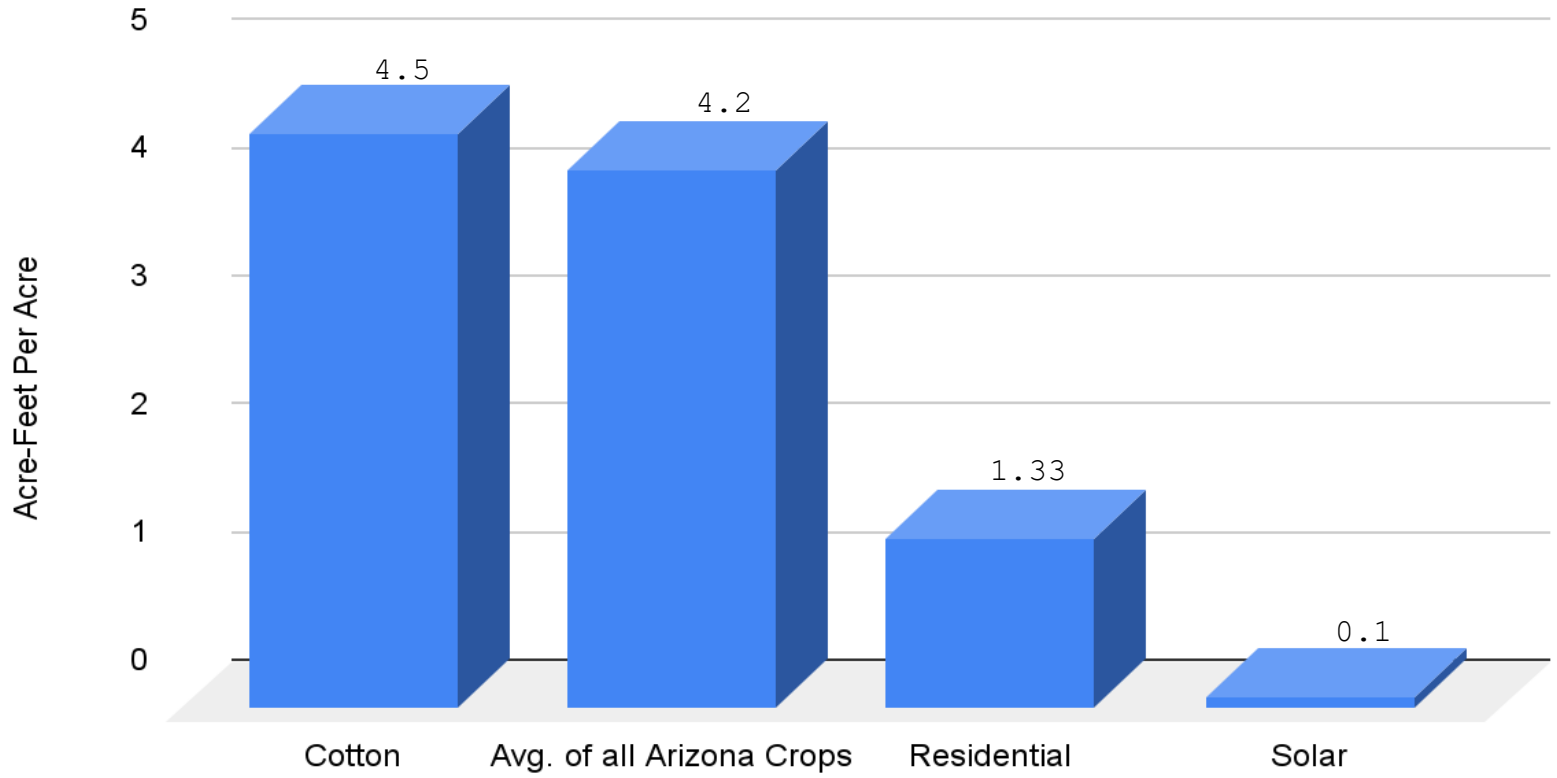


Measures of air temperature within (negative values on the X-axis) andoutside of the PV array (positive values on the X-axis) were used to quantify the spatial extent of the PVHI effect. The dotted line represents the edge of the PV array. The solid line at 0 on the Y-axis illustrates when there is no difference between a measurement along the transect and ambient air temperatures over native vegetation. At night, the PVHI effect of 3-4°C directly above the solar panels is reduced to 1.5 °C at 10m and to 0°C at 30m. There is a lesser PVHI effect by day.

SOLAR USES MINIMAL WATER

SOLAR GENERATES ELECTRICITY WITHOUT USING ANY WATER.

Solar Water Usage Comparison [2,3,4,5]

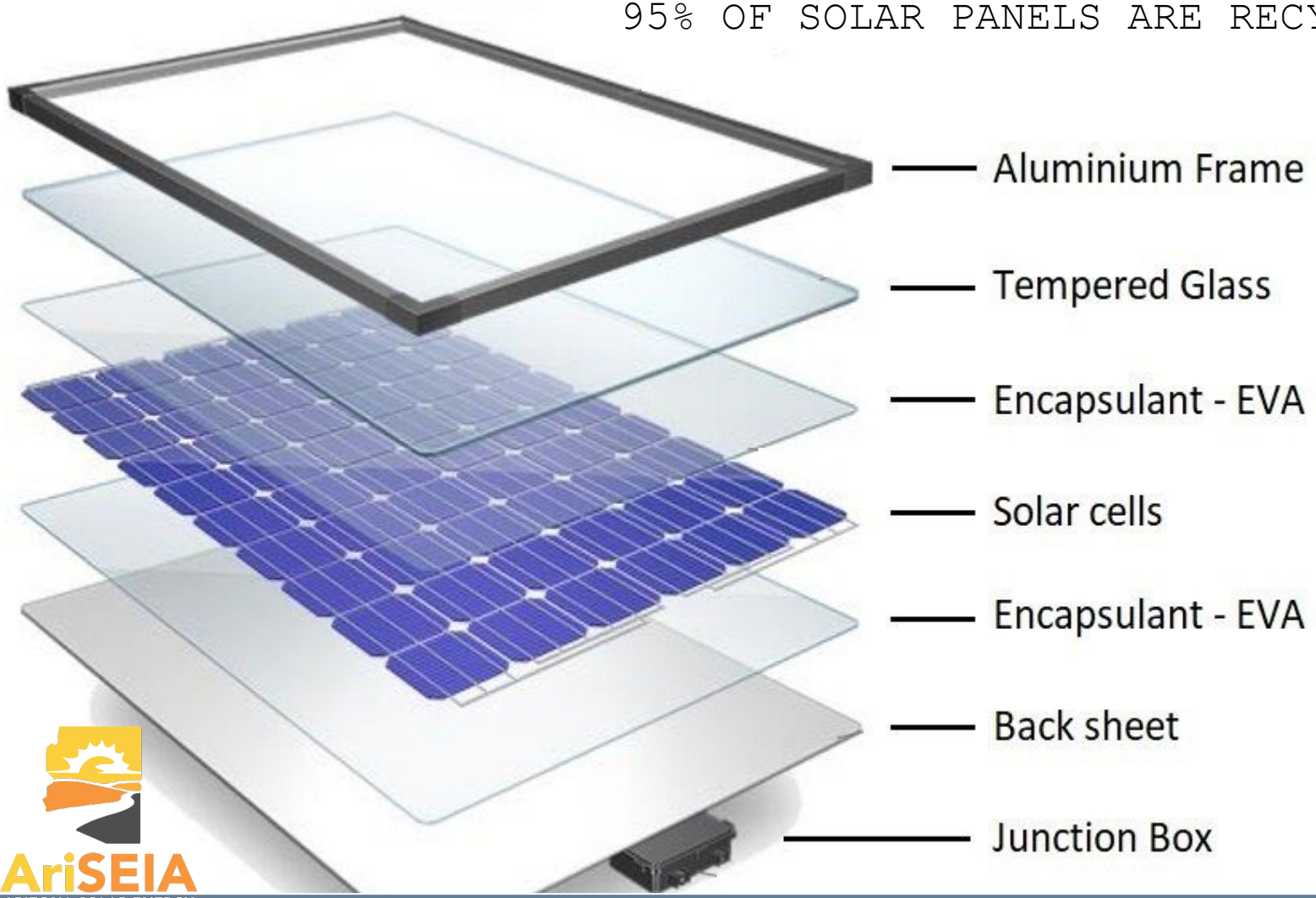




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RECYCLE SOLAR PANELS MATERIALS

95% OF SOLAR PANELS ARE RECYCLABLE[8]



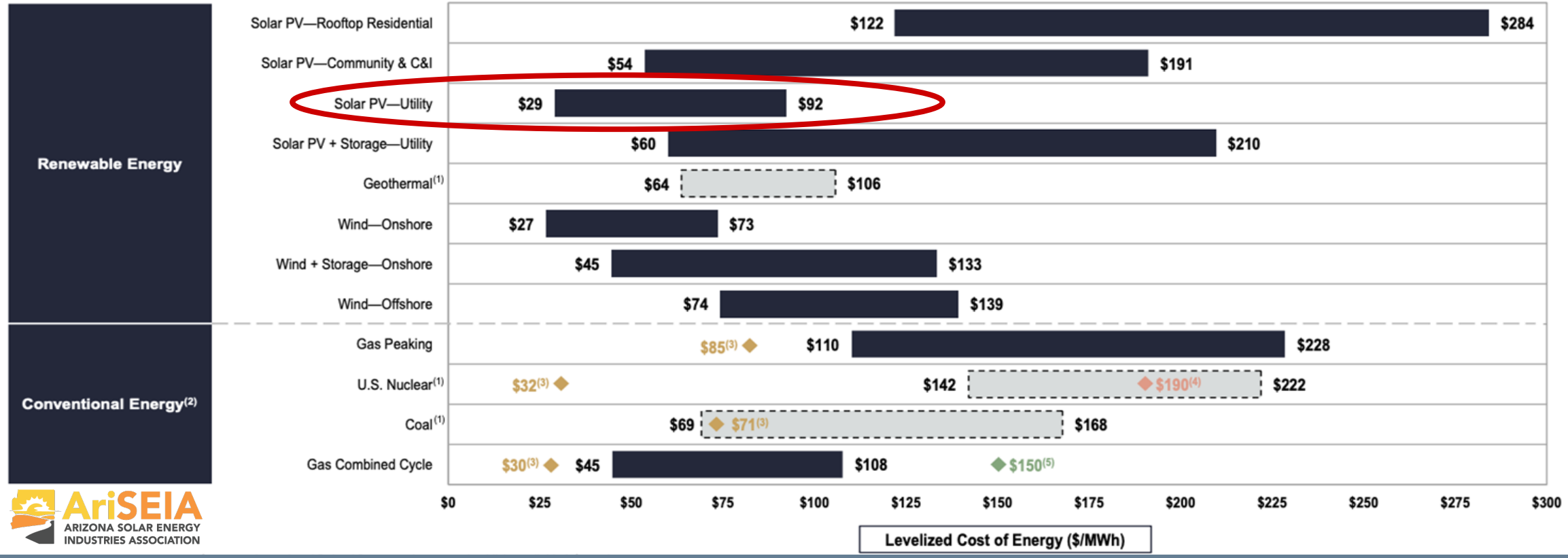
Recycling Process:[9]

1. Disassemble frame + glass. 100% of metals and 95% of the glass are recycled.
2. Thermal Processing at 500° evaporates encapsulants.
3. Cells separated and etched with acid. Metal + Silicone are 85% recycled.
4. Back sheet and junction box are 100% recycled after disassembling.

SOLAR ENERGY IS LEAST EXPENSIVE

Levelized Cost of Energy Comparison—Version 17.0

Selected renewable energy generation technologies remain cost-competitive with conventional generation technologies under certain circumstances



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