SILICON RANCH®

AGRIVOLTAICS

It's not "OR." It's "AND."

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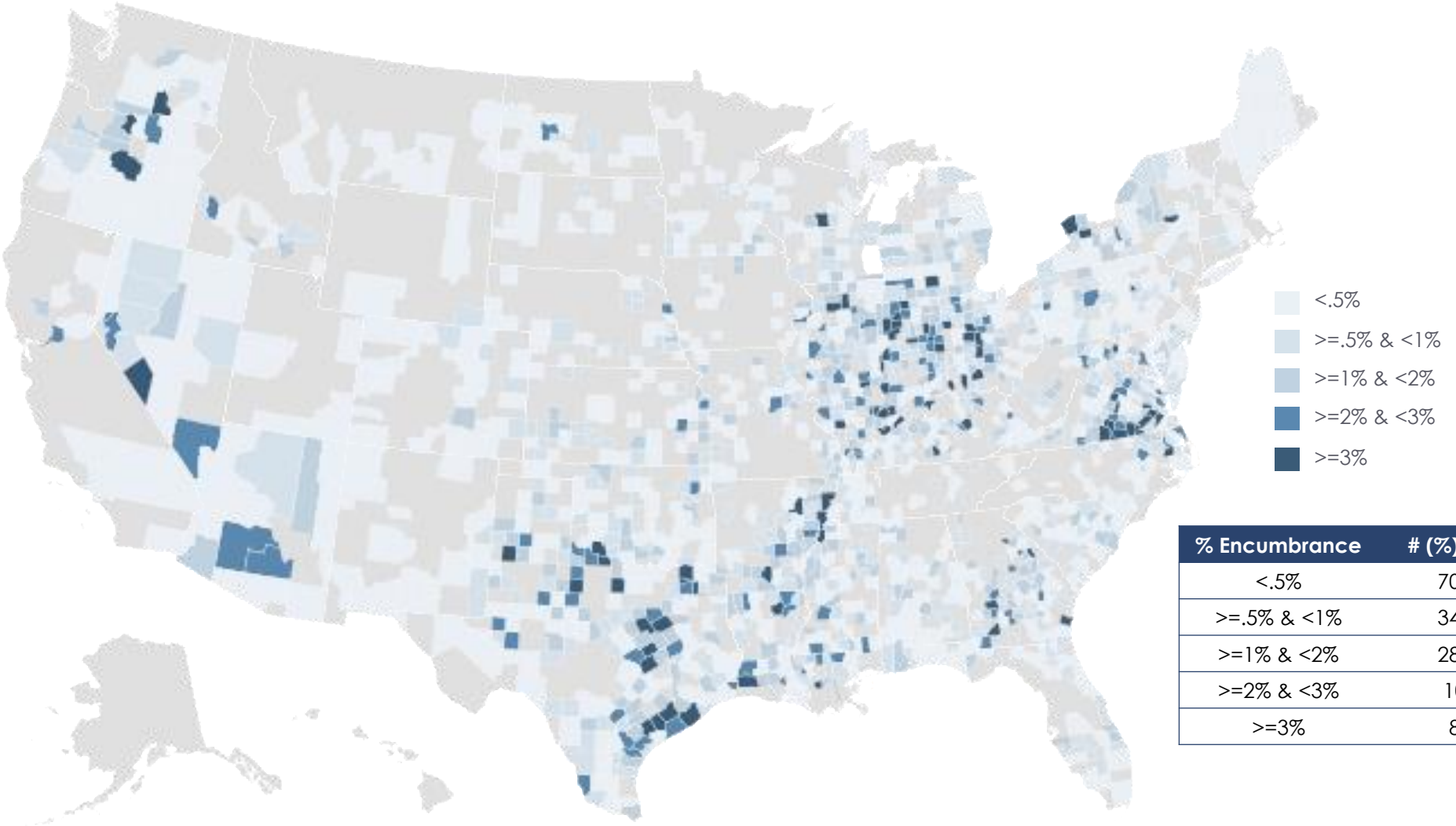
An Energy Sector Paradigm Shift has Occurred

- **BPA**
  - Over **65GWs** of transmission service requests in **2025 transmission cluster**– exceeds the total regional load projected for the **Pacific Northwest in 2034**[1]
- **Dominion**
  - **19GWs** of **new data center** load added to its forecast since July brining the total to **40.2GWs**[2]
  - But the load increase may be attributed to procedural change which incentivizes developers seeking power to get in line now as load requests will be considered in the order they are received.
- **ERCOT**
  - **52GWs** new planned load forecast[3]
- **Exelon**
  - Pipeline of data centers and other high density load projects doubled to **17GWs** from a year ago and Exelon expects its load to grow by **1.3% annually** over the next four years[4]
- **Georgia Power Company**
  - **8200MWs** of load growth in next six years and an increase of more than **2200MWs** compared to 2023 IRP update[5]
- **MISO**
  - Projected load growth within MISO's footprint is expected to be **three times higher** than previously forecast (**2044 peak load** expected to be between **150 and 190GWs**)[6]

Perspective on Land Use

% of Land Area Encumbered by Solar Assuming 100% Buildout of 900GW of Active Queued Solar Projects



% Encumbrance	# (%) of Counties
<.5%	709 (46.5%)
>=.5% & <1%	341 (22.4%)
>=1% & <2%	285 (18.7%)
>=2% & <3%	106 (6.9%)
>=3%	84 (5.5%)

Closer to Home: TACIR Report

- **TVA plans to add 10,000 megawatts** (MW) of solar power generation by 2035 throughout its service area—which includes parts of seven states, not just Tennessee.
- Even if all these facilities were developed on Tennessee farmland, they would account for approximately 100,000 acres taken out of production, <1% of farmland in the state.
- In comparison, the amount of farmland in Tennessee decreased by 1.1 million acres (9.3%) from 1997 through 2017.

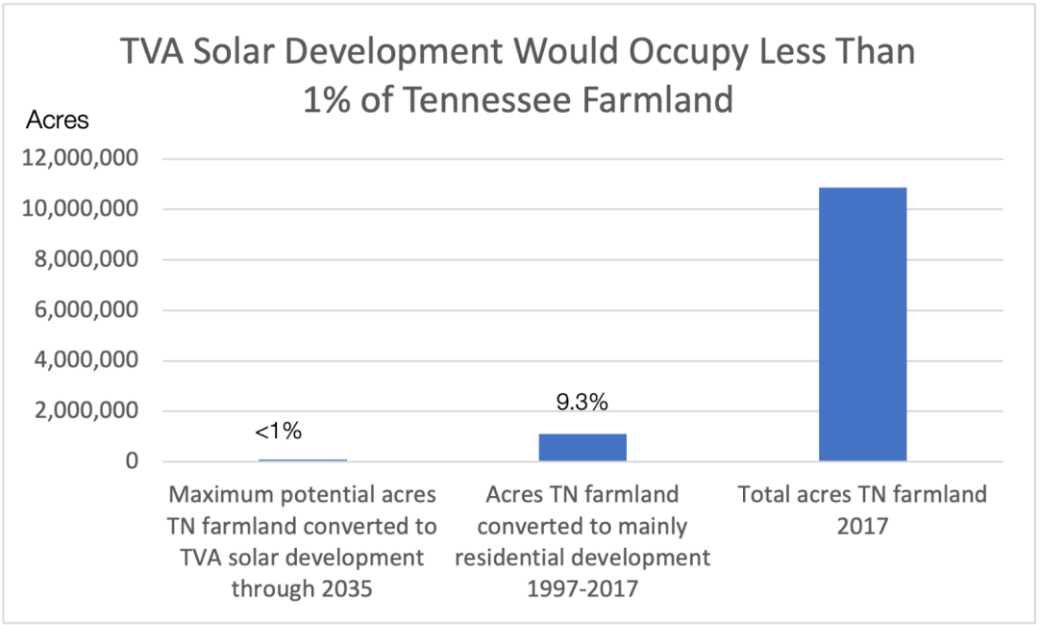


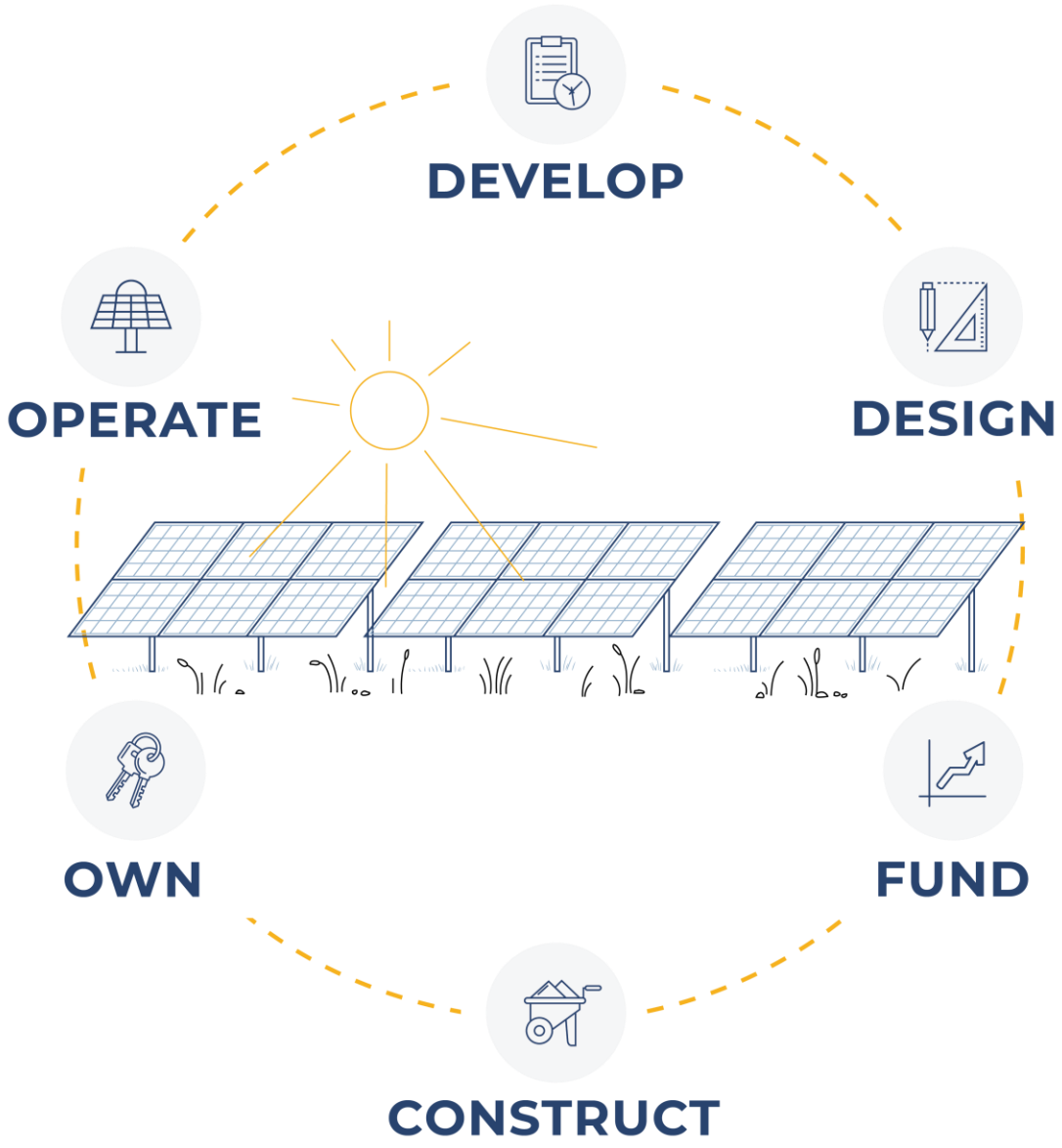
Figure drawn from TACIR's 2023 Report, "Managing Solar Energy Development to Balance Private Property Rights and Consumer Protection with the Protection of Land and Communities" and from the University of Tennessee Institute of Agriculture's 2023 Annual Report to the Governor.

Not Only Threatened by Loss of Land

- U.S. farmers, ranchers, and producers of every kind are growing older. The average age of farm producers increased from 56.3 to 57.5 years from 2012 to 2017. *(2022 Census of Agriculture Impacts the Next Generations of Farmers, USDA)*
- In the wake of the devastation caused by Hurricane Helene, Georgia farmers are retiring earlier than they wanted

Embracing Our Responsibility

- As deployment continues to expand to every corner of our country, so too does the industry's responsibility to deliver value to the communities where solar energy projects are located.
- In short, **solar must "do more"** than produce energy; solar must go beyond the megawatt to maximize the economic, environmental, and social benefits of the clean energy transition in this country.



Silicon Ranch

- Founded in 2011 and based in Nashville, Tennessee
- Fully integrated provider of customized renewable energy, carbon, and battery storage solutions
- One of the largest independent power producers in the country
- 7+ gigawatts contracted, under construction, or operating across the U.S. and Canada
- Own and operate every project
- Own our land and aim to leave it better than we found it

Our Guiding Principles

- We believe communities deserve reliable, cost-effective CHOICES for their source of power.
- We believe solar energy projects — when developed responsibly — create enduring, long-term value and deliver a meaningful legacy to their communities.
- We believe our employees can make a difference in the communities we serve.
- We believe in the power of collaborative partnerships.
- We believe we are only successful when our partners are successful.
- We require honesty and integrity in everything we do.
- We listen, learn, and respond.
- We do what we say we will do.
- We believe in square corners.
- We choose the right path over the easier path to get the job done.

A new kind of partner for farmers

"There are no losers in this deal. The Silicon Ranch land will remain pastoral. Our rural community gets much-needed jobs, and a new non-polluting industry to be proud of. We will sequester even more soil carbon and create a record of the ecological impact for others to repeat. Consumers can participate by purchasing the pasture-raised meats that were grazed at Silicon Ranch on our website."

— **Will Harris**, *White Oak Pastures*

What if solar energy was not just clean and renewable, but also regenerative?

This image shows the change in soil health at White Oak Pastures, where the soil organic matter increased from less than 1% (left) to more than 5% (right) on its regeneratively managed land. ***Over time, we can expect similar results on solar land that is regeneratively managed.***

Regenerative Energy®
Land Stewardship

Cultivate deep-rooted, multi-species perennial vegetation to establish a functioning grassland ecosystem and optimize plant growth

Install wildlife habitat corridors

Create soft buffer areas between the solar array and surrounding lands

Use no-broadcast synthetic fertilizers or pesticides unless required by state law

Houston Solar Ranch Investments:
Commitment to Land Stewardship and Community

- Expand capacity to regeneratively graze and restore more solar land
- Rebuild and strengthen U.S. sheep industry
- Create genetic strain of sheep suited to Georgia's climate
- Flock of 900 sheep and 26,000 square-foot lambing barn in Houston County, Georgia
- New career opportunities for the current and future rural workforce
- Revenues for local feed, equipment, and hay businesses
- The U.S. sheep population peaked in 1945 at 56 million… Today the current inventory [of sheep] is approximately 5 million.

NSIP
National Sheep Improvement PROGRAM

Houston Solar Investments

Rebuilding the U.S. sheep industry through Regenerative Energy®

Video Source: [The Associated Press Video](), Sharon Johnson

SOLAR BUILDER
Projects of the Year
Editors' Choice Awards
Houston Solar Project, Phase 2
Elko, Georgia | 68 MW

SOLAR BUILDER
Project of the Year Awards 2024

HOUSTON SOLAR PROJECT
NORTH AMERICAN AGRIVOLTAICS AWARDS
2024 SOLAR RANCH WINNER

Continuous Improvement: CattleTracker™

CattleTracker™ is Silicon Ranch's cross-industry study—including experts representing academia, government, agriculture, and technology—to co-locate cattle ranching with utility scale solar.

- Secured two patents
  - System
  - Method

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Universities and Institutions Partnering with Our Agrivoltaics Team

COLORADO STATE UNIVERSITY

THE UNIVERSITY OF TENNESSEE KNOXVILLE

UNIVERSITY OF GEORGIA EXTENSION

NC STATE EXTENSION

MICHIGAN STATE UNIVERSITY

VIRGINIA TECH

Built relationships with national and state agricultural organizations

Proprietary & Confidential

Solar as the “Best Placeholder”

- In 40 years, if we as a society determine that we need more power, we can repower our plants and continue our agrivoltaics and land stewardship operations.
- If, however, there is a better and higher valued use for the land,
  - the plant can be decommissioned;
  - the equipment removed and recycled;
  - and the land can be repurposed with the healthiest soil in its respective county.

This image shows the change in soil health at White Oak Pastures, where the soil organic matter increased from less than 1% (left) to more than 5% (right) on its regeneratively managed land. ***Over time, we can expect similar results on solar land that is regeneratively managed.***

Thank You!

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