



Company Overview

siliconranch.com



Our Mission

To bring to communities low-cost, clean energy; economic development and jobs; and partnerships they can count on for the life of their projects.

- ✓ Proven **team** with a disciplined approach and an unwavering commitment to the Company's **guiding principles**
- ✓ A **customer-focused, fully integrated** independent power producer with a **comprehensive platform** to develop, design, finance, construct, own, operate and maintain utility-scale solar and battery energy storage solutions **tailored to meet customer needs**
- ✓ **Develop-to-own business model** provides ability to deliver value through all aspects of the project life cycle
- ✓ **100% success rate** of converting signed PPAs into high-performing operating projects
- ✓ **Works in concert**, rather than in competition, with utilities to foster deployment of solar **to meet the needs of C&I customers and drive economic development** that benefits local communities
- ✓ Pursues **continuous improvement** as long-term owners to deliver superior performance across the value chain, including its trademarked, transformative industry standard for land management, **Regenerative Energy®**
- ✓ Acquired **clean tech pioneer Clearloop®** to support C&I buyers seeking to meet **decarbonization and broader community impact goals**

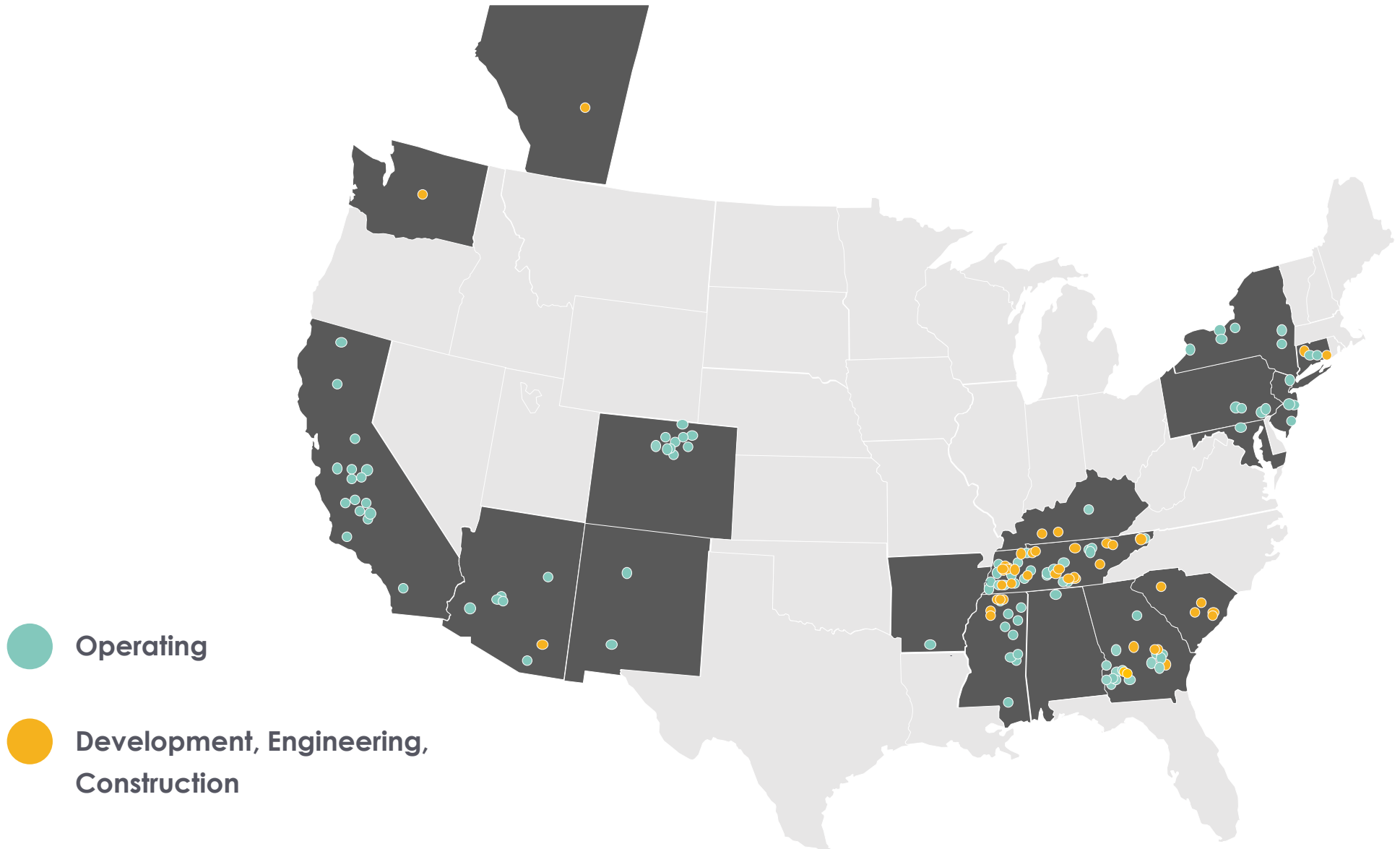
Silicon Ranch Maintains an Unwavering Commitment to Our Core Values

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



Geographically Diverse Portfolio

Silicon Ranch's Operating, Under Construction and PPA-Executed Projects Span Across 17 States Coast-to-Coast and Alberta, Canada

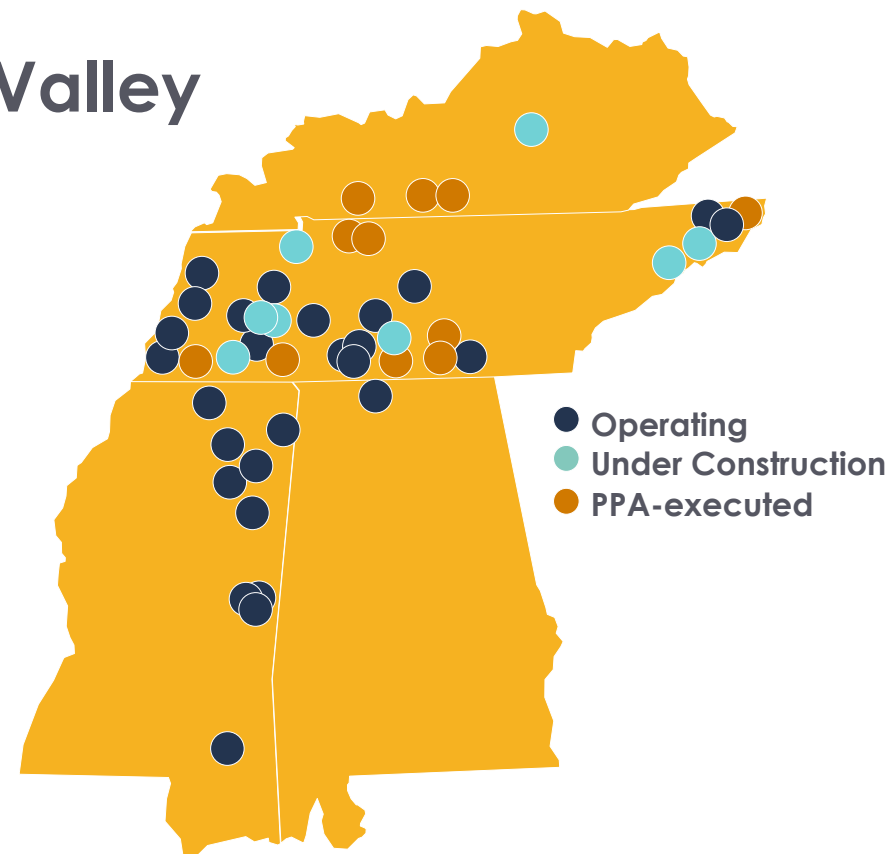


Silicon Ranch in the Tennessee Valley

Silicon Ranch pioneered utility-scale solar in the Tennessee Valley and remains committed to our home market, with more than 35 operating facilities and ~30 more under contract across the region.

- ✓ **Pioneered** utility-scale solar in 2012
- ✓ **Proud to be headquartered** in the Valley and serve the communities where we live and work
- ✓ **Productive relationships** with TVA, LPCs, state and community leadership, as well as organizations such as TenneSEIA, TAEBBC, and the Tennessee Business Roundtable
- ✓ Proud of our role in **growth and vitality of local industry**
- ✓ **Significant investments** throughout the Valley and deep history of supporting local economic development
- ✓ **Contracted Capacity⁽¹⁾: 1,100MW+**

(1) Graphic includes PPAs in Mississippi with Mississippi Power and a project in PJM Kentucky with Amazon that are not included in this number



\$1.9 Billion

Capital Investments

*Through 2025

\$113 MILLION

Total Tax Payments to Counties
of Tennessee Valley

2,500 Jobs Created



2.4k Construction
Jobs



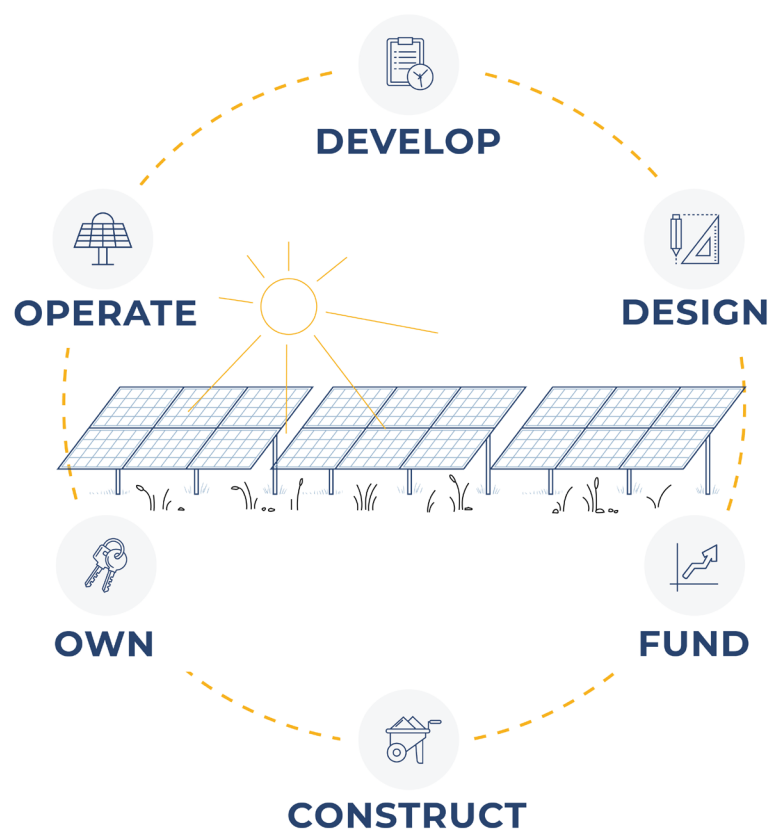
100 Operation &
Service Jobs

9,000 Acres Developed

8k 9k

8k Managed Regeneratively
to Restore Soil and Grasslands

Silicon Ranch Business Model: A Fully-Integrated Platform



In-House Expertise

1. Develop

- Originate development process based on customer demand, not policy
- Secure favorable interconnection in consultation with utility partners and experienced utility planning team
- Secure quality sites through strong community relations and reputation

2. Design

- Projects engineered for 40-year design life
- Tier 1 equipment selected to maximize long-term performance
- Experienced O&M team provides continuous feedback to improve fleet performance and de-risk portfolio

3. Fund

- Access to captive finance companies allows financial optimization and streamlines project finance process
- National award winning in-house financial team has deep experience with all tax equity structures

4. Construct

- SR EPC is a licensed general contractor in 20+ states, allowing Silicon Ranch to control all aspects of plant and interconnection construction
- SR EPC subcontracts with leading national construction firms and directly procures from leading module and transformer manufacturers

5. Own

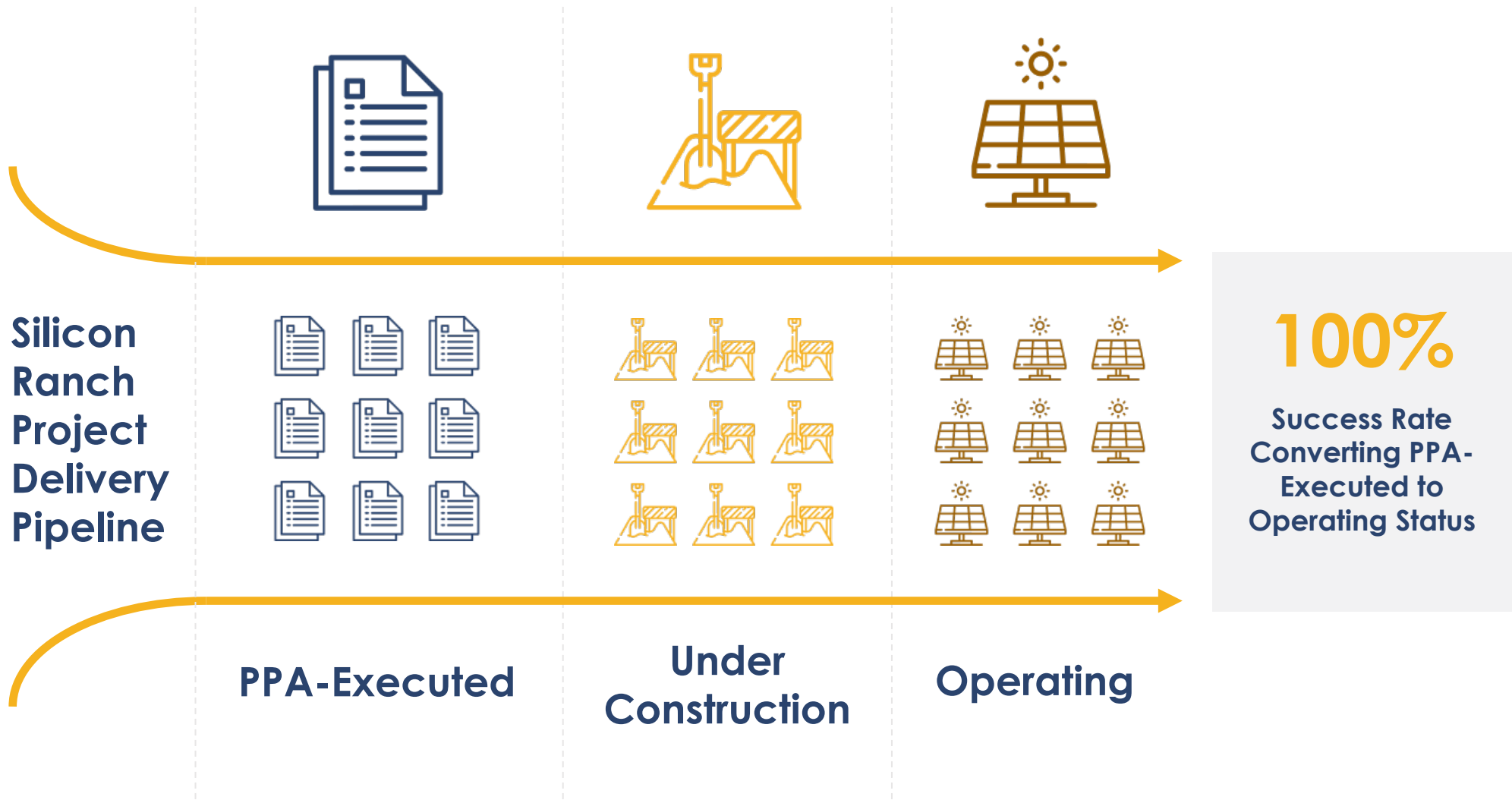
- Unlike most solar developers, Silicon Ranch **owns** 40,000+ acres of prime solar sites and has **purchase** options on over 55,000 additional acres, strategically located to support its contracted backlog and development pipeline
- Regenerative Energy® model of land management sequesters carbon and restores land to functioning grassland ecosystem

6. Operate

- Industry-leading O&M team deploys cutting-edge predictive analytics to reduce downtime, optimize performance, and extend the facility's lifespan
- State-of-the-art control center at headquarters

Perfect Track Record of Project Delivery

Silicon Ranch's Methodical and Diligent Approach to Pipeline Development Has Ensured 100% Success Rate in Converting Signed PPAs into Successful Operating Projects.

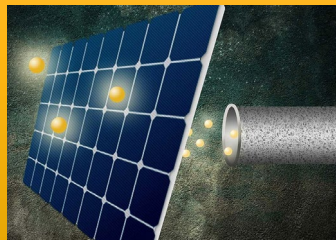


Solar Process



Image Caption Here

Step 1: Sun hits modules and electrons are knocked off silicon modules and run as DC current through wires



Step 2: DC Current circuits come together and are adjoined by a combiner box



Step 3: Combiner Box connects to the inverter that converts the DC Power to AC Power



Step 4: The Inverters then send the newly converted AC Power to a local transformer to step up the voltage (usually 34.5kV)



Step 5: The local transformer then sends the stepped-up AC Power to the Main Transformer in the substation where it will be either stepped up again or stepped down depending on the grid





Step 1: Electrons Knocked off PV Cells

When the sun shines onto a solar panel, energy from the sunlight is absorbed by the PV cells in the panel. This energy creates electrical charges that move in response to an internal electrical field in the cell, causing electricity to flow.

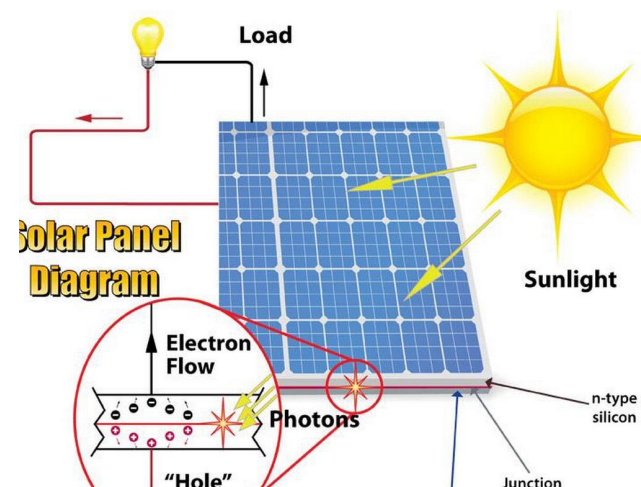


Image Caption Here



Step 2: DC Current circuits come together and are adjoined by a combiner box

The panels are all connected in series by wire management that carries the DC (Direct Current) Electricity from the panels into the combiner box.

Solar photovoltaic array combiners (solar panel combiner boxes) are commonly used to combine several solar panels (or strings of panels) into a common bus. They are basically junction boxes that are specially designed for the types of wiring used in PV systems.



Image Caption Here



Step 3: Combiner Box connects to the inverter that converts the DC Power to AC Power

Once all the DC Current is combined, it is then sent to the inverter which “inverts” the electricity from DC to AC

An inverter is one of the most important pieces of equipment in a solar energy system. It's a device that converts direct current (DC) electricity, which is what a solar panel generates, to alternating current (AC) electricity, which the electrical grid uses.



Image Caption Here



Step 4: The Inverters then send the newly converted AC Power to a local transformer to step up the voltage (usually 34.5kV)

The Inverter sends the AC Power to the Local MV (Medium Voltage) Transformer in order to step up the voltage and send it off to the substation. We do this because it is much easier to send power with this voltage over long distances. 34.5kV is an industry standard.

Transformers are critical components in solar energy production and distribution. Historically, transformers have “stepped-up” or “stepped-down” energy from non-renewable sources. There are different types of solar transformers including distribution, station, sub-station, pad mounted and grounding.

Image Caption Here



Step 5: The local transformer then sends the stepped-up AC Power to the Main Transformer in the substation where it will be either stepped up again or stepped down depending on the grid

SRC projects connect into various utilities. We need to make sure that we are connecting at the same voltages as them so that we are not putting out “bad power”. Because of this, we make sure that the voltage that we connect into the utilities is the same.

The Main Transformer is the heart of the substation. The transformer changes the relationship between the incoming voltage and current and the outgoing voltage and current. Substation transformers are rated by their primary and secondary voltage relationship and their power carrying capability.



Image Caption Here

String Inverters vs Central Inverters

String inverters use a distributed rather than centralized architecture, with a small inverter for smaller sections of the array. They convert much less power than a central inverter, but the advantage is that should an inverter fail, only the power from one small section is lost as opposed to an entire power block.



Image Caption Here

Trackers



Self Powered Controller (SPC) – Determines which angle the tracker should be at to maximize the amount of energy produced. It is a small box that can also be controlled manually. You can see it in this picture in Black on the Torque Tube

Self powered Tracker (SPT) - Brings self-contained motor power to each row, eliminating power wiring and trenching.

Network Controlled Unit (NCU) – This is what the SPCs report to. It lets each SPC know if there is too much wind, and the trackers need to go to stow (the most stable position the modules can assume to withstand the highest wind loads) or there is another catastrophic event, and a different angle must be assumed

Torque Tubes - long cylindrical tubes that hold the modules

Slew Gear - Go into the Torque Tube to rotate them to the correct angle

Piles – Driven into the ground to hold up the torque tubes

Fixed-Tilt vs Single Axis Trackers

Fixed-tilt projects are easier to plan and execute at a cheaper cost. However, despite these cost and land barriers, single-axis trackers allow for greater energy production at a given site, since the solar panels track the sun from east to west at its peak intensity.

At SRC we use single axis tracking because of the lifespan of our projects (40 years). This makes the investment in the single axis trackers worth it



Image Caption Here

Development Process



Image Caption Here

Phase 0: Greenfield

Deliverables:

- Land:
 - Executed Option Agreement(s)
- Site Diligence:
 - Internal Desktop Review
 - HST Layout
- Community/Permitting:
 - Early outreach to Economic Development Groups or Similar local group
 - Community Engagement Plan Draft with Anticipated Schedule
- Interconnection:
 - Transmission screening report
 - Interconnection Application Submitted

Once an asset has all items, the commercial lead will host a Framing Workshop

Phase 1: Early Stages

Deliverables:

- Land:
 - Initial Title Commitment
 - Title Memo
 - Option MOU Recorded
 - **Site control on all required acres and path to POI**
- Site Diligence:
 - Full Project Development Budget & Schedule Approved
 - Task Orders Executed and NTP to vendors provided
- Community/Permitting:
 - Initial Community Meetings
 - **Community Engagement Plan Finalized**
 - Includes land permitting schedule
- Interconnection:
 - **System Impact Study complete**
 - Approved to move forward with asset

*Once an asset has successfully achieved all bolded items, it is considered Power Market Ready for sales team

Phase 2: Mid Stages

Deliverables:

- Land:
 - Option Payments Made on Schedule
 - Vegetation Management Plan in place
 - Tax PILOT MOU Executed (if applicable)
- Site Diligence:
 - Final Diligence Reports Complete
 - **3rd Party Engineered Layout with constraints from field diligence**
- Community/Permitting:
 - Permit Applications Submitted
 - Use and Environmental when applicable
- Interconnection:
 - Facilities Study Complete (if applicable)

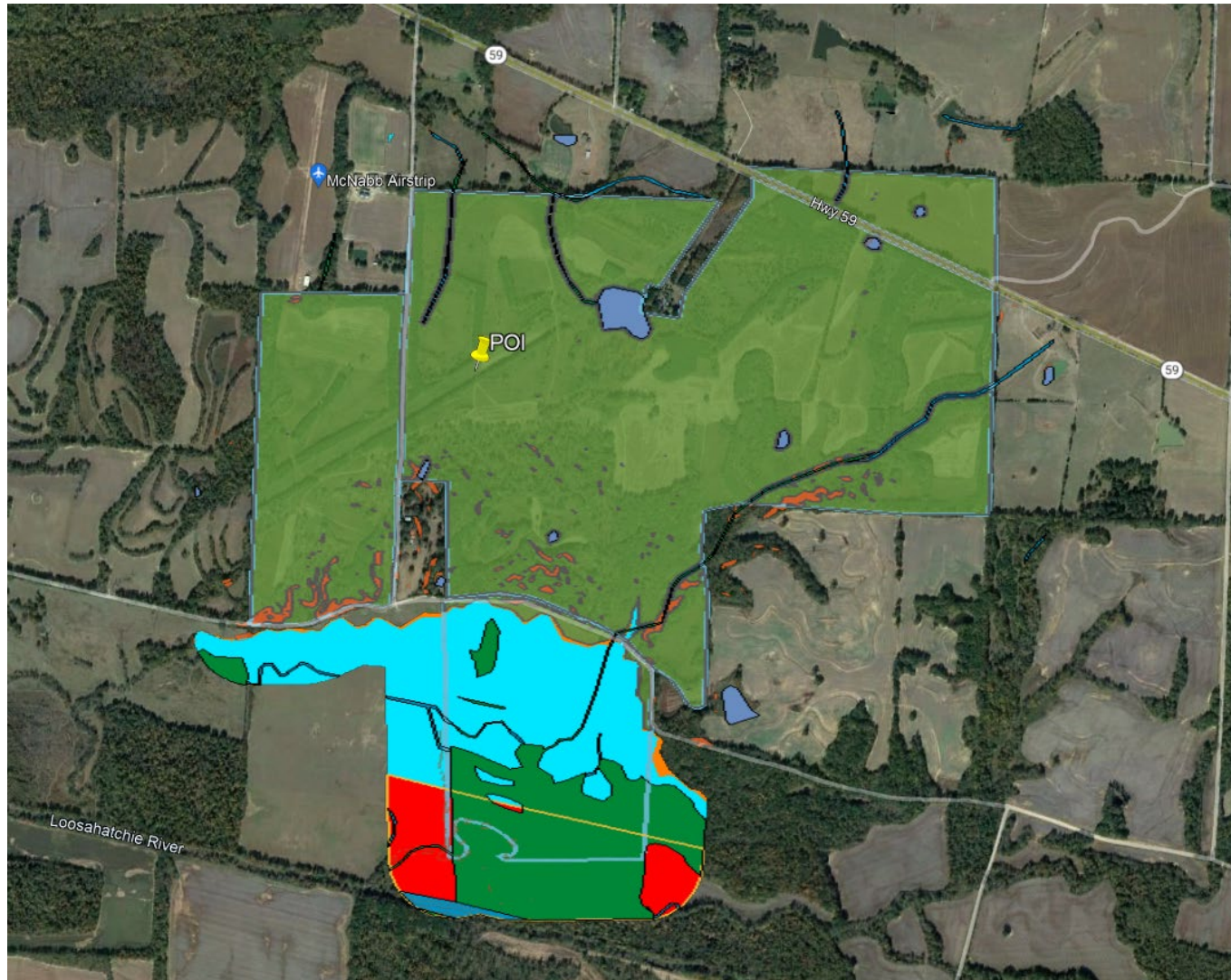
***Once an asset has successfully achieved all bolded items, it is considered Power Market Ready for sales team**

Phase 3: Final

Deliverables:

- Land:
 - Land Purchased/Leased
- Site Diligence:
 - EPC Handoff
- Community/Permitting:
 - AHJ Approvals
- Interconnection:
 - Interconnection Agreement Executed

Desktop Buildable Area (Sample)

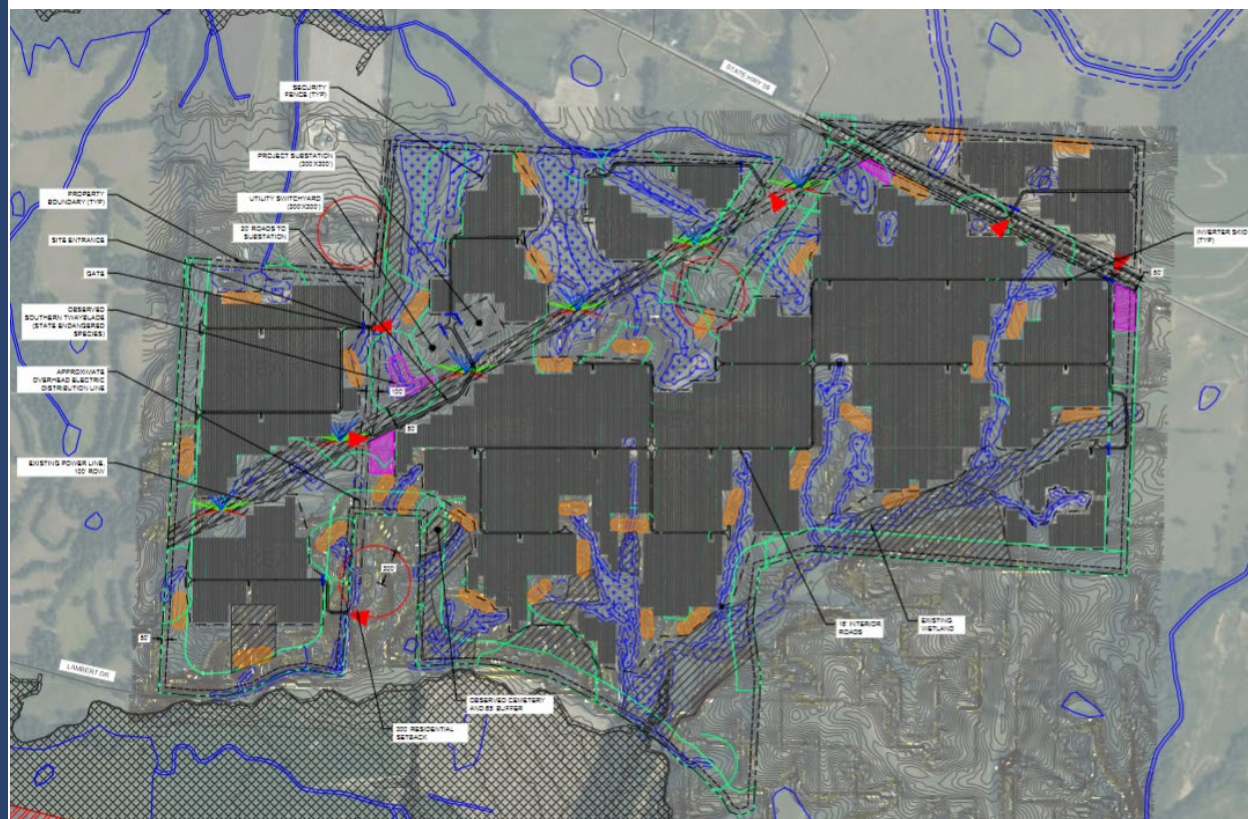


Current Layout

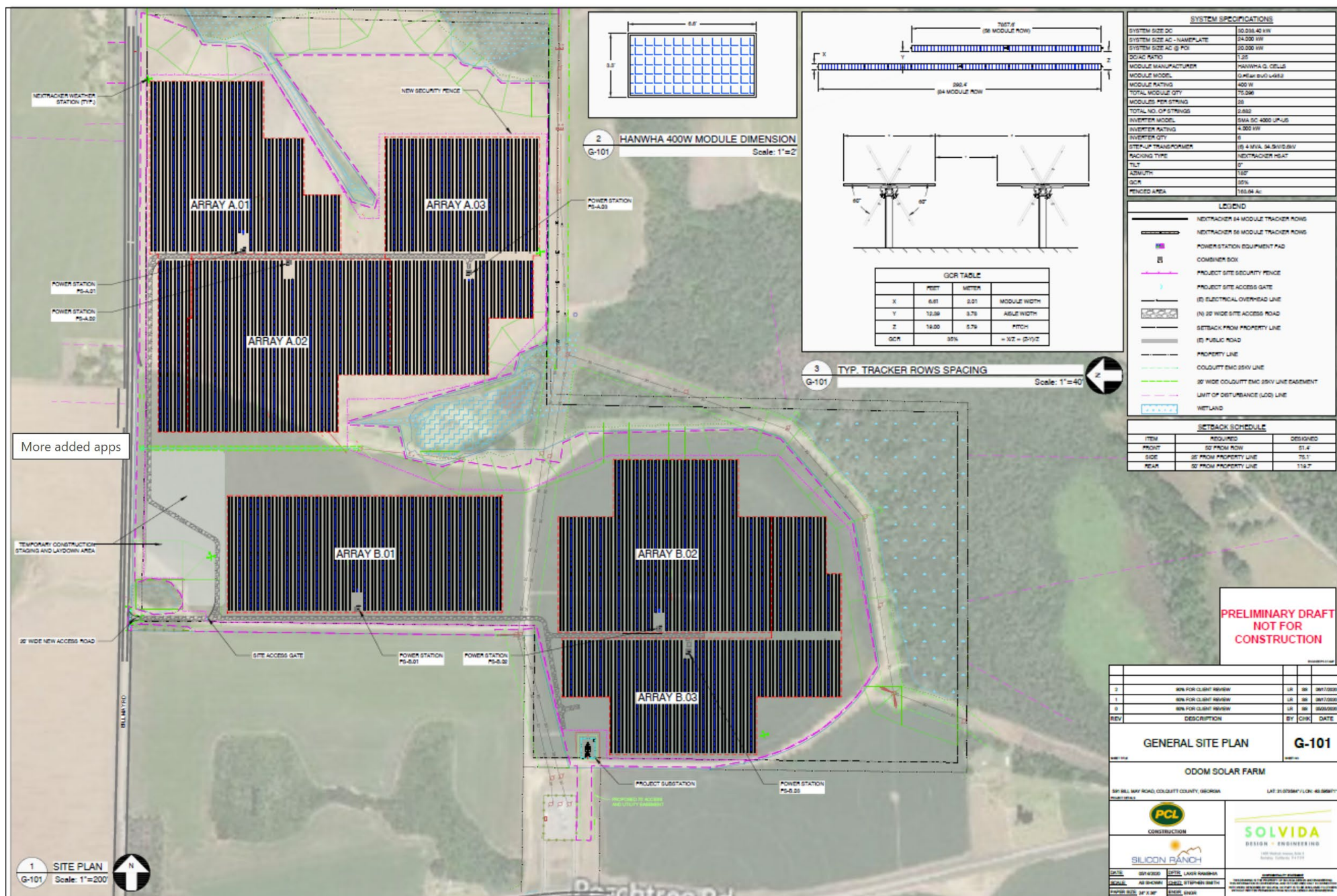
REVAMP Report Link –
<https://siliconranch.app.box.com/file/1248431228372>

REVAMP Constraints

GCR	40%
Row spacing	16.60 ft
DC/AC Ratio	1.40
Buildable area used	424 acres



Project Layout



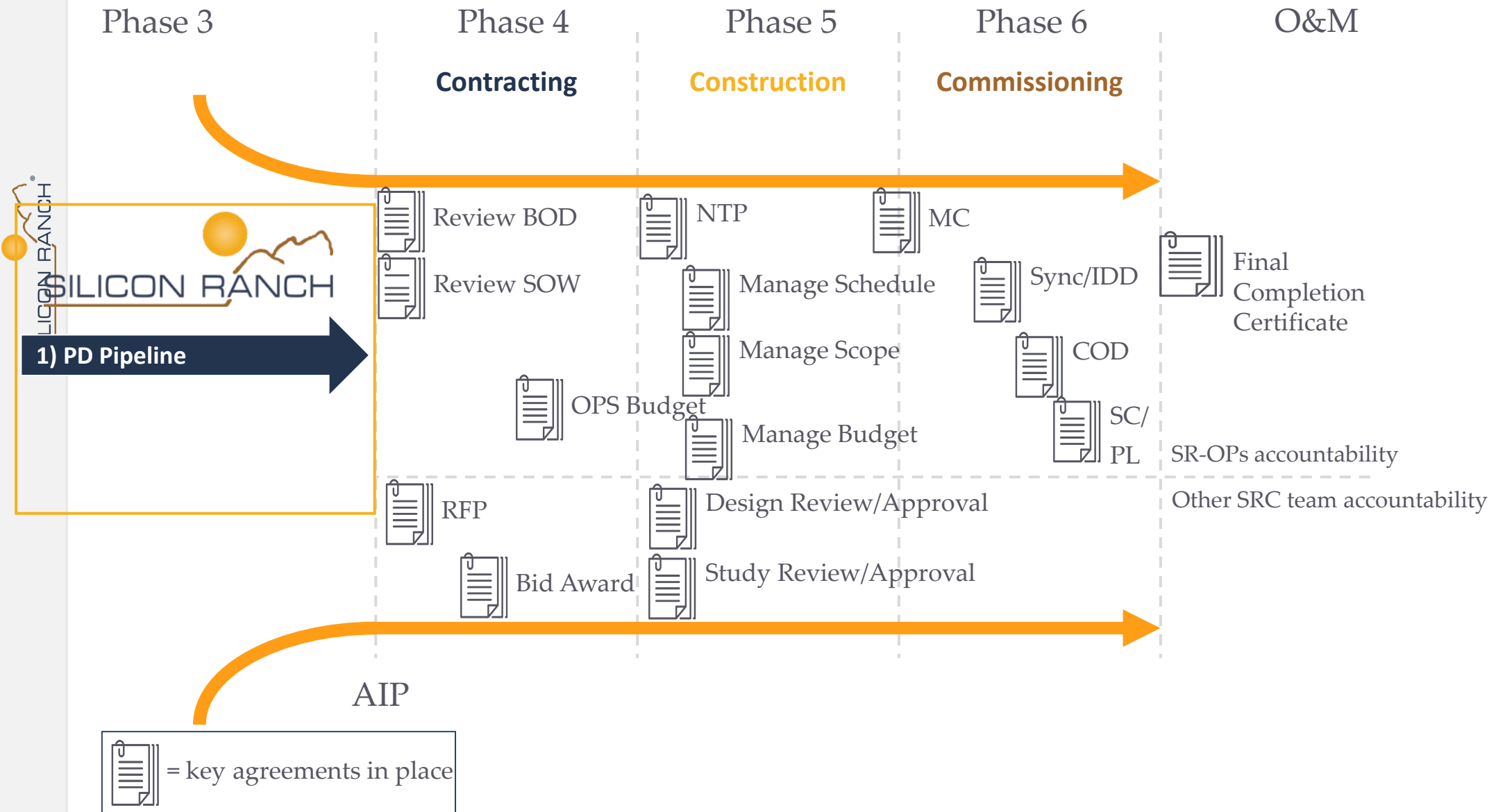
Construction Process



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Project Management milestones to FC

SR-OPS manages construction in a methodological, repeatable and scalable process to ensure a safe, high quality, predictable and timely hand-over to O&M.



Sample Schedule

ID	Task Name	Duration	Start	Finish	2020 Q1	Q2	Q3	Q4	2021 Q1
170	Operations Phase	336.75 days	Mon 8/12/19	Mon 11/23/20					
171	Substation Contract	263 days	Wed 10/16/19	Fri 10/16/20					
180	Substation Construction	166 days	Fri 2/28/20	Fri 10/16/20					
181	Substation Contractor Start	0 days	Fri 2/28/20	Fri 2/28/20					
182	Substation Construction	6.05 mons	Fri 3/27/20	Fri 9/11/20					
186	Backfeed to Substation	0 days	Thu 10/15/20	Thu 10/15/20					
188	Substation Substantial Completion (2 days after Backfeed)	0 days	Fri 10/16/20	Fri 10/16/20					
189	PV Plant EPC Phase	320 days	Mon 8/12/19	Sat 10/31/20					
190	EPC Contracting	155 days	Mon 8/12/19	Mon 3/16/20					
199	EPC contract fully executed/ Issue NTP	0 days	Mon 3/16/20	Mon 3/16/20					
222	PV Plant Construction	124 days	Tue 5/12/20	Sat 10/31/20					
223	Plant Mobilization Start	0 days	Tue 6/9/20	Tue 6/9/20					
231	Installation of Piles	2 mons	Tue 6/30/20	Mon 8/24/20					
233	Installation of Trackers	2 mons	Thu 7/23/20	Wed 9/16/20					
235	Installation of Modules	2 mons	Thu 8/6/20	Wed 9/30/20					
238	Delivery and Install Inverters	13 wks	Thu 7/23/20	Wed 10/21/20					
242	Backfeed Date to Solar Facility - Guaranteed	0 days	Sat 10/31/20	Sat 10/31/20					
243	Backfeed Date to Solar Facility	0 days	Thu 10/15/20	Thu 10/15/20					
244	Project Commissioning Phase	72.75 days	Fri 8/14/20	Mon 11/23/20					
245	Prefunctional Testing (Cold Commissioning)	8.5 wks	Fri 8/14/20	Tue 10/13/20					
250	Solar Facility Mechanical Completion -	0 days	Wed 10/21/20	Wed 10/21/20					
254	Initial Sync	0 days	Wed 10/21/20	Wed 10/21/20					
255	Hot Commissioning	4 wks	Thu 10/22/20	Tue 11/17/20					
259	Power Plant Commercial Operation -	0 days	Thu 11/19/20	Thu 11/19/20					
268	Power Plant Substantial Completion -	0 days	Mon 11/23/20	Mon 11/23/20					

Key Agreements in Place (AIP)

- Power Purchase Agreement (PPA)
- Interconnection Agreement (IA)
- EPC Agreement
- Procurement Agreement(s)

Daily Rhythm

- Daily Contractor POD
- Update Risks and Opportunities Log
- Update Change Order Log
- Daily Meetings and calls with Stakeholders
- Review RFI and Submittal logs in Procore
- Review Daily SM reports
- Review submitted project deliverables
- Update Module procurement logs

How we do it

Monthly Rhythm

- Offtaker Monthly Report
- Finance Monthly Report
- Schedule Update from Contractor
- Concur Invoice Review and Payment
- Review PPA/IA dates and Testing Requirements
- Update Mercatus
- Update safety portal with contractor monthly hours
- Cash Flow
- Site Visit

Construction Photos



A picture containing grass, outdoor, field, building
Description automatically generated



Construction Photos



Construction Photos



Construction Photos






Sample Progress Drone Image



Completion Report –
Modules
(09/29/2020)

Torque tubes completion status

-  Completed
-  Remaining
-  Inspection Area

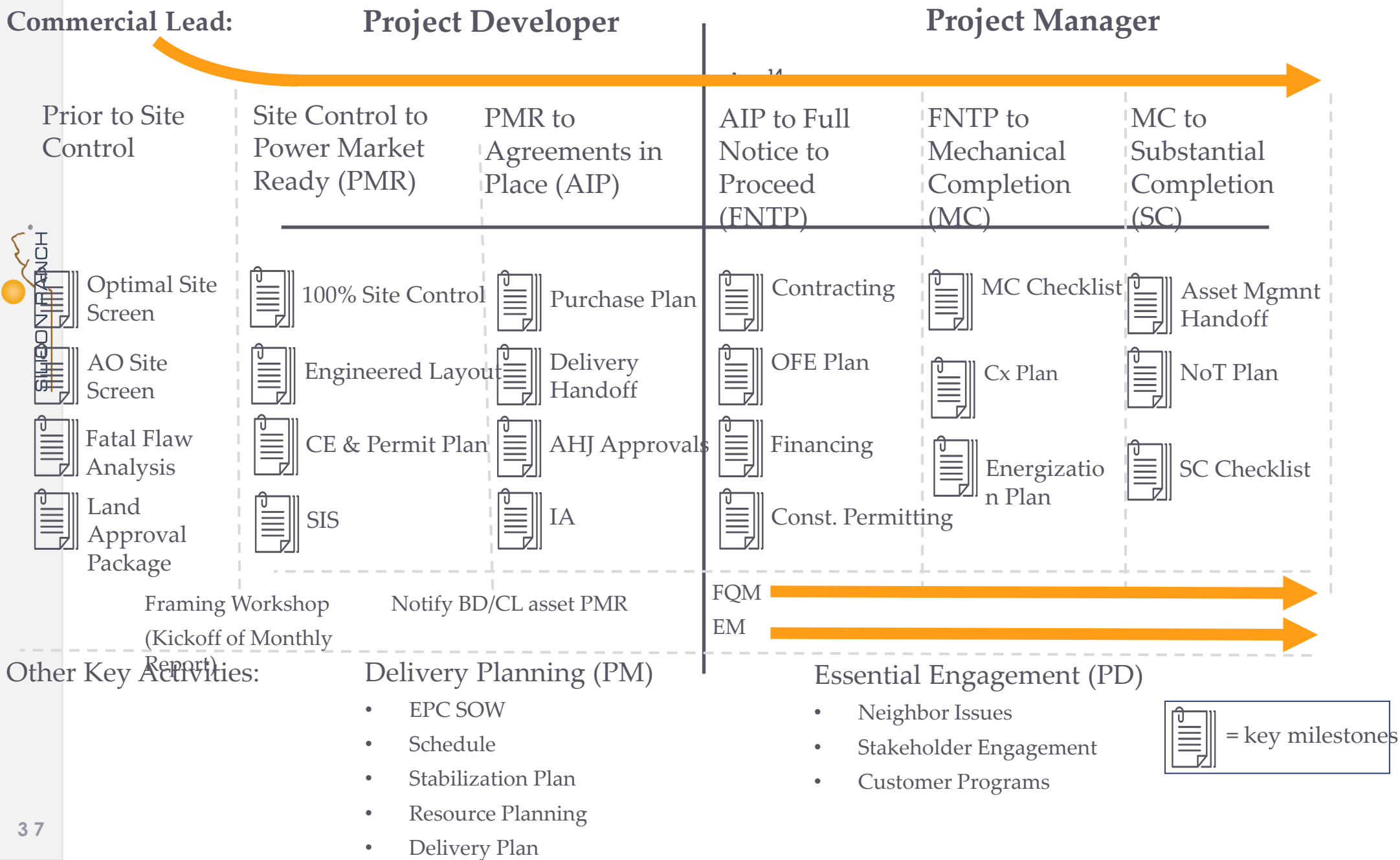
Completed Project (~30 MW)



More added apps

Commercial Lead – Site Control to Substantial Completion

The Commercial Lead owns schedule and budget during each part of a project's lifecycle.

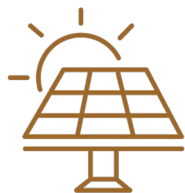


Operations & Maintenance



Image Caption Here

Quality Maintenance and Support Services



Maintenance

Internal Site Maintenance

- Lead by Director of Power Plant Maintenance, James Millis
- 8 Technicians across 6 states
- Perform full wrap maintenance on 14 sites

3rd Party Site Maintenance

- 4 Vendors
- ~160 sites across 14 states
- Under contract for 5-10 years



Asset Management

Financial Assessment

- ROI tools for maintenance decision making
- Assessment of site performance on financial basis
- Business cases for specific maintenance needs

Operations & Maintenance Budgeting

- Projection of annual spend by category based on equipment performance and maintenance history
- Budget to actual tracking for operations and asset management team

Renewable Energy Credits (RECs)



Compliance

National Generation Regulation

- National Energy Regulatory Commission (NERC)
- Energy Information Administration (EIA)
- Federal Energy Regulatory Commission (FERC)

Regional Generation Regulation

- State, city, or county regulations for operations

Optimizing Performance: Data and Analytics Capabilities

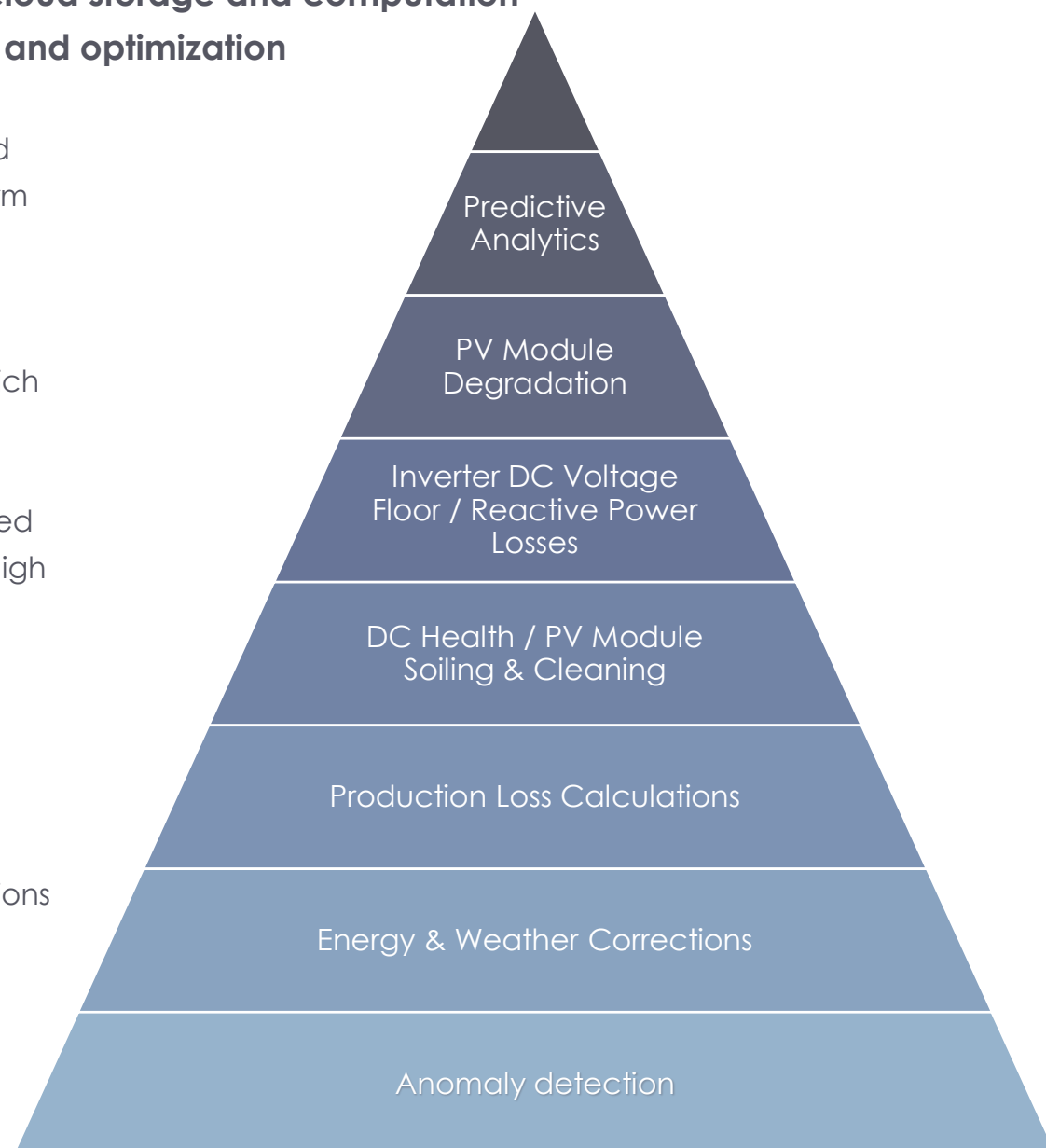
SR EPC streams plant sensor data to a modern cloud storage and computation platform to enable continuous plant monitoring and optimization

Data: Streaming sensor data is normalized and archived with short-term retention of 1 second data and long-term retention of 5-minute data

Alarm handling: Our SCADA and monitoring platform generates and prioritizes equipment anomaly alerts which are reviewed and responded to 7 days per week

Analytics: Plant operating data is cleaned and corrected for weather conditions. Results are compared against high fidelity performance models and site energy budgets. Losses are evaluated for economic impact enabling optimized maintenance activities including PV module washing and transformer tap settings, among others.

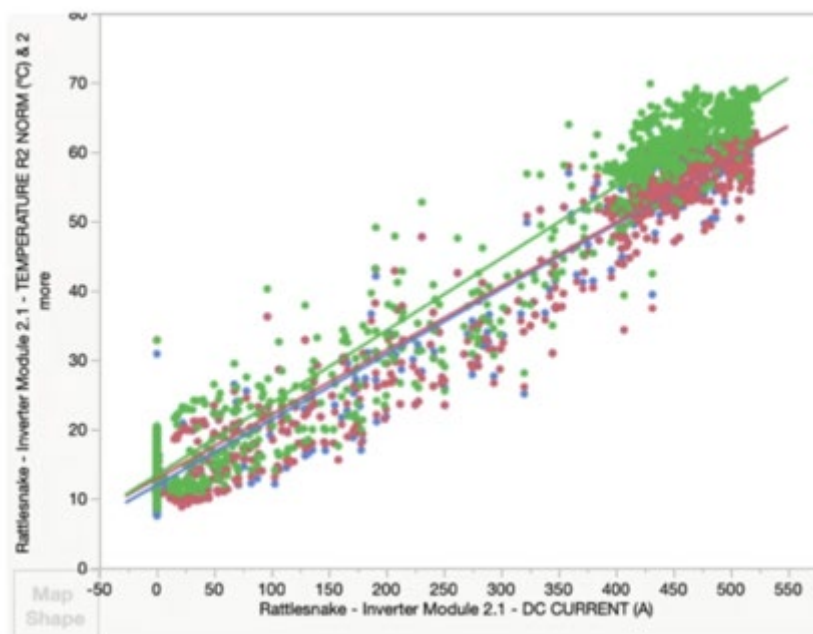
Predictive Analytics: Plant operating data and calculations are analyzed to detect the earliest indications of equipment degradation. Action is taken to prevent equipment failure and minimize the impact to plant operations and performance



Optimizing Performance: Predictive Analytics for Preventative Maintenance

Inverter IGBT Failure Detection

Proactive monitoring of IGBT health trends across a wide range of ambient conditions and inverter output enabled detection and minimization of the impact of a developing IGBT failure.



Early detection of the IGBT issue resulted in ~2 hours of downtime to implement repair.



Historically this type of failure would result in > 2 weeks of equipment downtime with significant lost power generation and much higher equipment repair costs.

Optimizing Performance: Best Practices

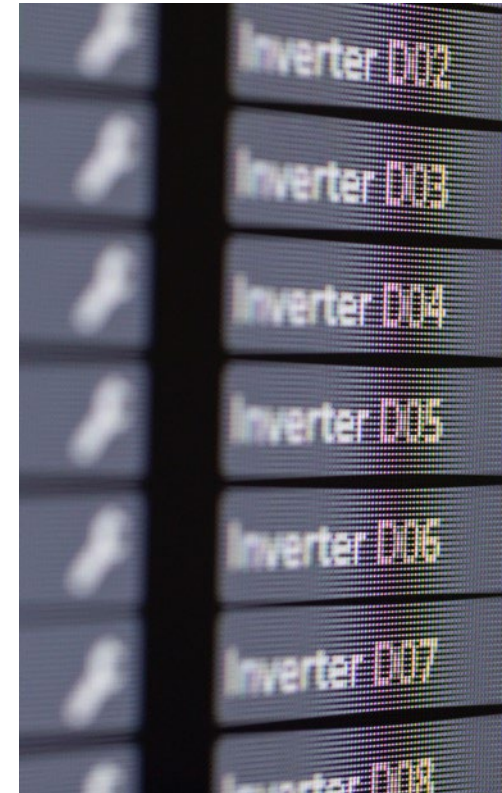
SR EPC strives to be on the cutting edge, implementing industry best practices across each department.

Design and Build Practices: SR EPC has and continues to create guides on how to design (grading, dc voltage window, above vs below grade) and build (wire management, terminations, vegetation establishment) to best performance beyond the 2 year EPC warranty period

Commissioning: Utilize what we believe are the most thorough commissioning standards in the industry to dive deep into the quality of the facility, ensure every string and module is in service, and evaluate the adherence to each element of the PVSyst waterfall rather than relying on an overall performance test and basic vendor commissioning practices

Quality: Clear quality expectations built into contracts (continuously improved with feedback) and established golden row/block practices with daily site manager engagement help reduce punchlists while reducing arguments when misses are discovered

Severe Weather Protection: This starts in site design with sensors to cause site equipment to self protect when an event occurs, civil designs to minimize impact from heavy rain, and tempered glass modules. This continues through operation with pre-authorized stows when a known event is in route to sites



Optimizing Performance: Continuous Feedback Loop

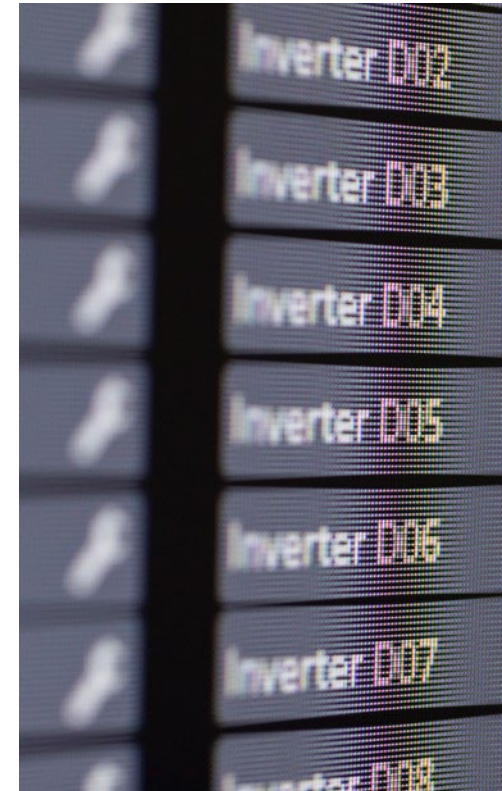
As a long-term Owner of our facilities, SR EPC has been able to establish an Operations to Delivery feedback loop which manages continuous improvement of delivered projects each year through leveraging of data analysis and observations on the operating fleet.

Robust Design: Quality and reliability truly begins in design, and the engineering team members across SR EPC work together to continually improve design standards with the goal of maximizing quality and reliability without overspending for marginal improvements. We place a high value on system solutions with demonstrated value during 40-year design life

Robust Construction Quality Standards: Operate under “trust but verify” mentality, with in-field quality assurance audit process that inspects crew performance and documents quality assurance plans to promote safe and high-quality construction.

Technology Selection: Utilize performance data, service responsiveness tracking, and failure tracking to both drive our equipment selections as well as our warranty service and serial defect terms with our partners.

Real Time Feedback: We do not wait for annual lesson learned cycles, but rather provide notices as issues are discovered to allow more immediate corrective actions to be implemented.





Responsible Development:

Making Solar Do More[®]

*Bancroft Station Solar Farm (103MWac),
where 2,000+ sheep help support Regenerative
Energy[®] land management practices*

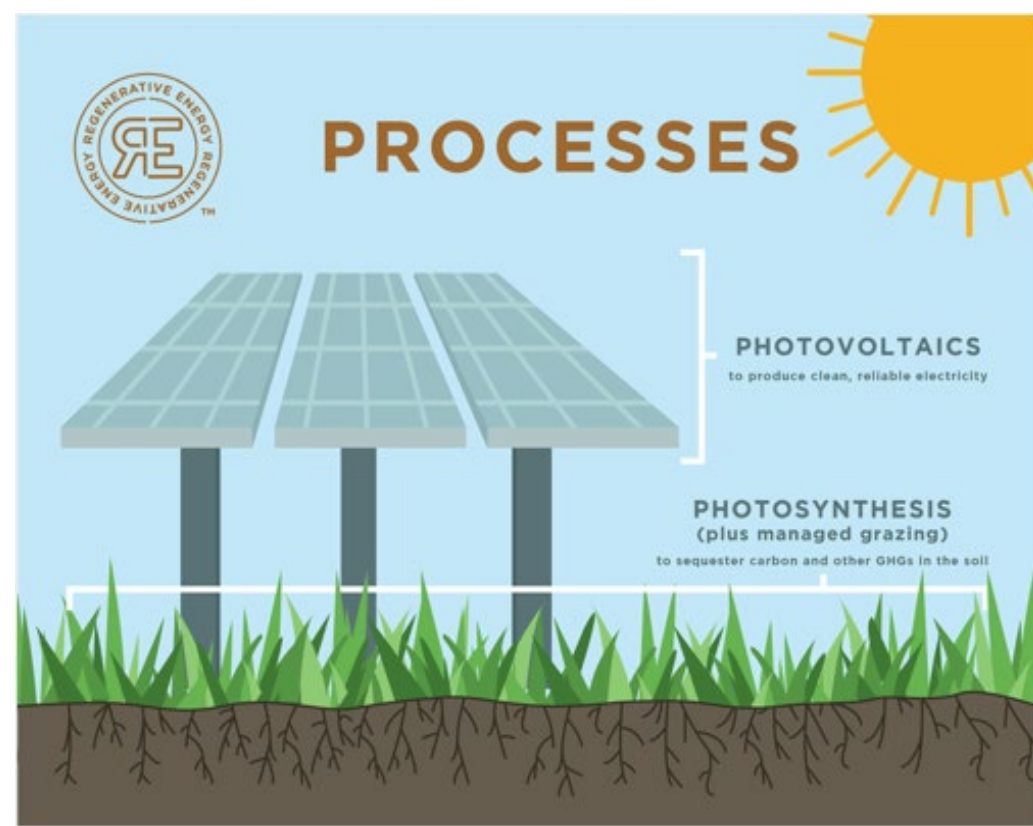
Regenerative Energy: Nature Based. Data-Driven. Community- Focused.

Regenerative Energy is Silicon Ranch's outcome-driven holistic approach to the design, construction, and operation of solar farms that is good for the land, the environment, local economies, and people.

Regenerative Energy and Agriculture: At many projects, Silicon Ranch employs in-house or partners with local farmers, ranchers, and land managers to keep solar project land in agricultural production. Silicon Ranch maintains the largest flock of sheep owned by a renewable energy company in the US, with the goal of offering pasture-raised meats and sheep products in partnership with local and regional regenerative farmers and ranchers.

Biodiversity: Regenerative Energy accelerates the return of carbon back into the soil, which leads to greater biodiversity. We take additional intentional actions to promote biodiversity, including cultivating regionally adapted grazing seed mixes, installing wildlife habitat corridors, creating pollinator habitat and territory for endangered species, and designing soft buffer areas between the solar array and surrounding lands to create an "edge effect."

Verified Impacts: We third-party monitor, quantify, and verify ecological outcomes of Regenerative Energy®, including soil health, biodiversity, habitat creation, water infiltration, and ecosystem function, through application of the Savory Institute's Ecological Outcome Verification assessment methodology.



Making Solar Do More®

Through our procurement and operational choices, we demonstrate the value of “choosing the right path over the easier path to get the job done”

Silicon Ranch: Making Solar Do More®

Domestic Manufacturing and Decarbonizing Supply Chain



- 6.2 GW MSA with First Solar
- 4.5 GW MSA with NexTracker

Responsible Land Management



- Pioneered integration of renewable energy and regenerative land practices
- Largest agrivoltaics portfolio in the U.S.

Community Impact



- Long term ownership approach allows Silicon Ranch to truly put the community first
- Clearloop emphasis on community impact informs site selection activities

Responsible End of Life



- Community recognition of incentive alignment through land ownership
- Pioneering module recycling as SOLARCYCLE's first utility-scale partner

Aligned with Partners



Showcasing community impact through Regenerative Energy



First industry signatory to *Beyond the MegaWatt* clean energy buyers' principals



Featured partner in sustainability reports and community impact study



Featured in 2022 environmental sustainability report

Thank You

John Thompson

Vice President, Business Development



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