WEBINAR

Freedom, Flexibility and Visibility

Tigo's Solar Cornerstones

Tigo®

SOLSOL

Tigo®

- Founded in 2007
- HQ in Silicon Valley, CA
- Leader in **M**odule **L**evel **P**ower **E**lectronics
- >50,000 monitored PV installs in 7 continents
- >1GWh daily PV production monitored
- 84 patent issued

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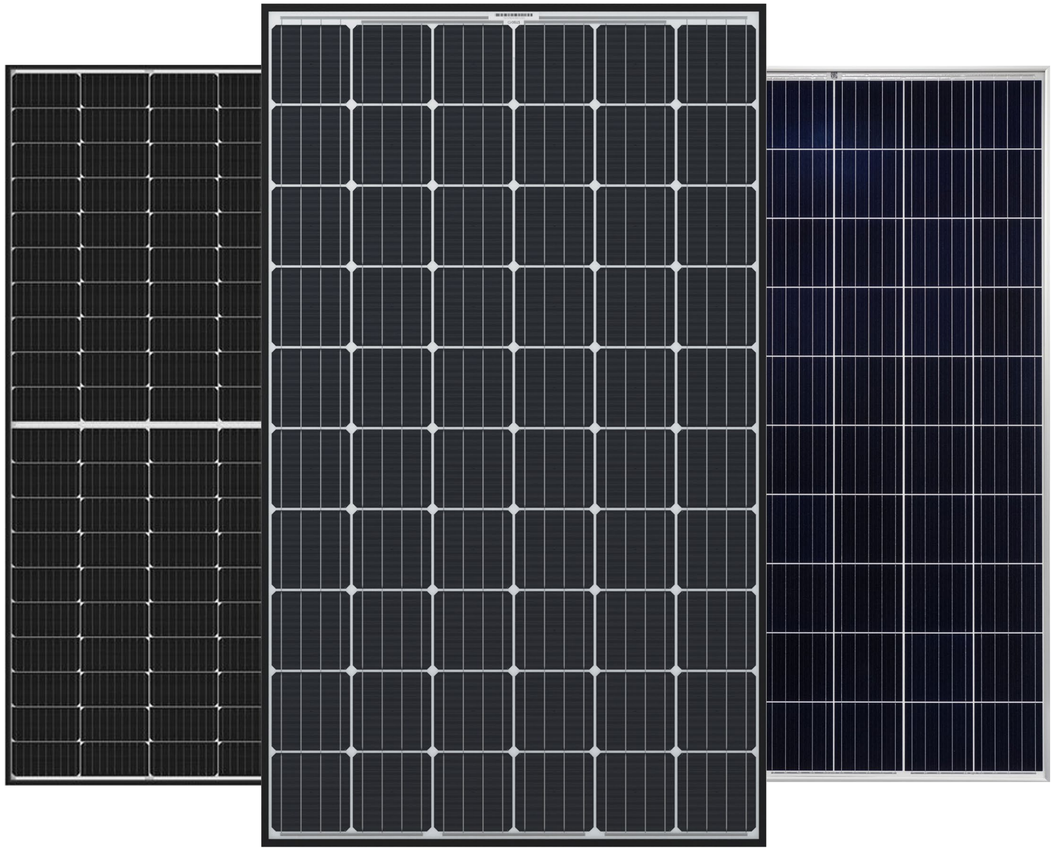
Freedom

TS4 units are deployable with any PV module…

- up to 700Wp / 15 A
- Fast installation, Smart commissioning
- Perfect for new PV systems, ideal to retrofit applications



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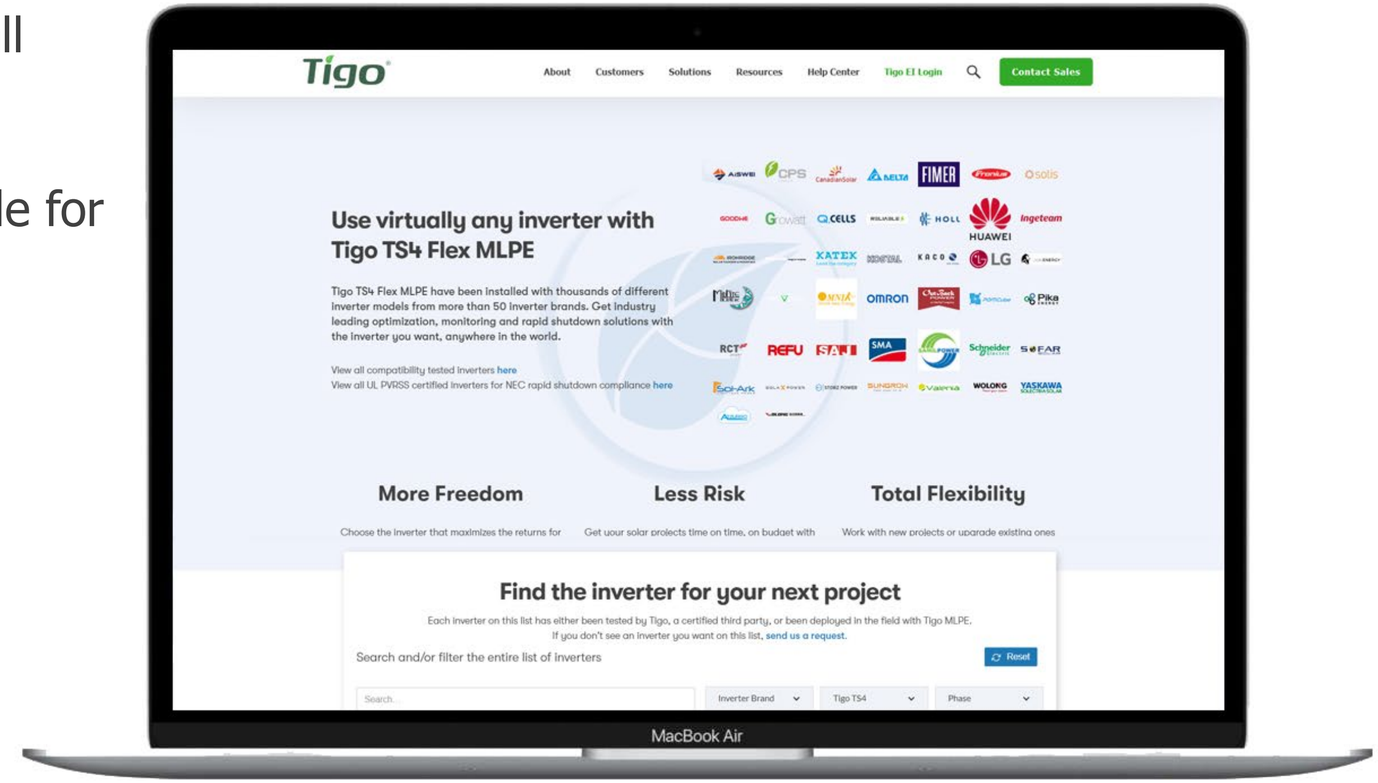
…and operate with the largest inverter network

Freedom

TS4 units work daily with the widest range of inverters in tens of thousands installations all around the world.

A vast and growing database is now available for all PV Professionals at:

tigoenergy.com/inverter-compatibility



A few numbers:

- **771** Compatible inverters
- **2182** Inverters installed on 2+ monitored sites

Read more about it on our blog
(link in related contents)

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Freedom with Tigo means:

- Plug-and-play, one-size-fits-all
- Simple architecture: forget hundreds of SKUs!
- The most scalable, versatile and reliable MLPE solution available

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Flexibility

With Tigo, only pay for what you need to maximize the benefits of your PV installations

Optimization

- Increase energy production with shade or mismatch
- Enables PV projects with design constraints, maximizing roofspace
- Tigo data shows >25% of sites get >10% Reclaimed Energy

Monitoring

- Lower O&M costs
- Three different levels of visibility (Fleetwide, system and module-level)
- Real time alerts. Early detection means better performances

Safety

- Automatic & Manual Rapid Shutdown
- IEC and UL certified for global compliance
- 1:1 or 2:1 solutions for enhanced safety on any PV installation

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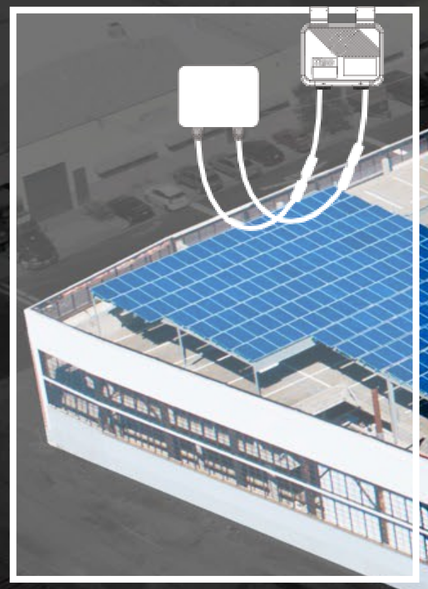
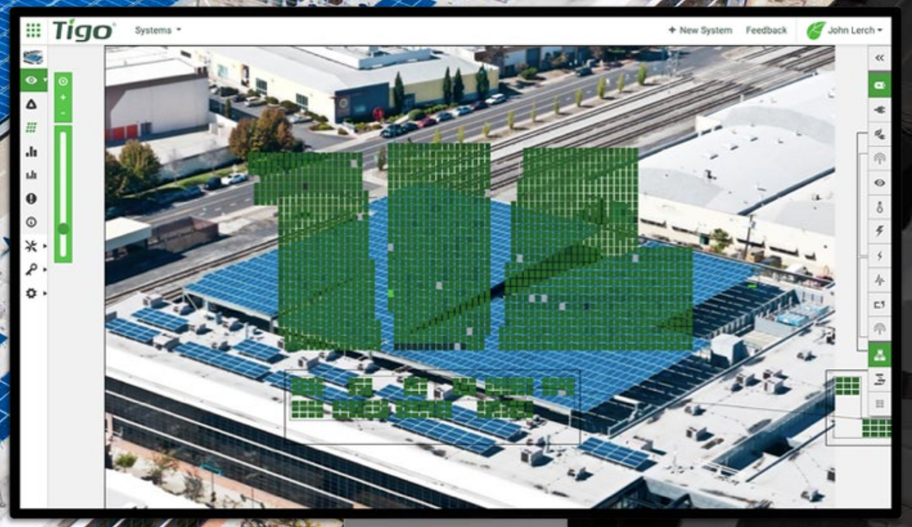
Hardware + software that increases the ROI of your solar installations

HARDWARE

Tigo TS4

On each module





SOFTWARE

Energy Intelligence Monitoring Platform

SOLSOL

The Tigo TS4 Flex MLPE platform

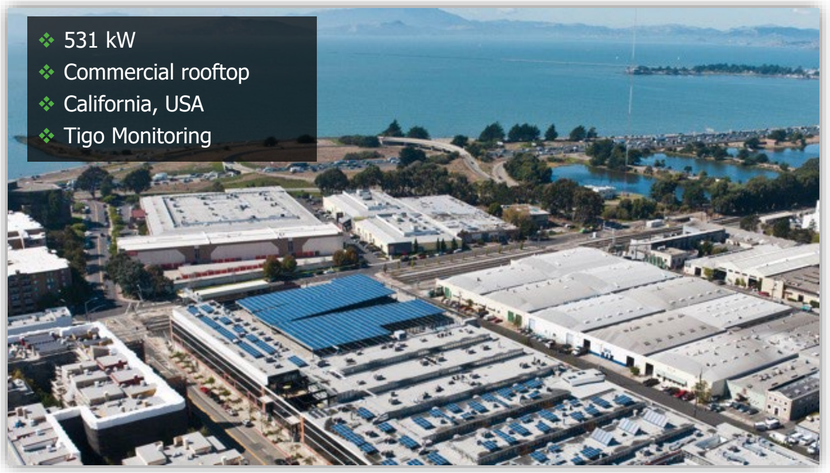
- Choose the features you want
- Choose the inverter you want
- Scales to any size install
- High reliability

Features			
Optimization	✓	✓	✓
Monitoring	✓	✓	✓
Rapid Shutdown	✓	✓	✓

Tigo Enables Intelligence in Traditional PV Systems

OPTIMIZATION

Increase energy output



MONITORING

Lower operating expenses

RAPID SHUTDOWN

Enhance safety & compliance

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What if there’s no shade?

- Full deployment of TS4-A-O (optimizers) | 320 kW in Europe
- Optimizers still increase energy production
- Reclaimed energy increases over time with soiling, mismatch, and wear on modules

Tigo® SOLSOL

What if I don’t want optimizers?

- Full TS4-A-S (safety) deployment | 10 MW Israel
- Module-level monitoring to maximize performance; remotely diagnose issues
- Rapid shutdown for safety of maintenance crews

Also available: **TS4-A-2F**

Tigo SOLSOL

What if I only want optimizers selectively?

- With Tigo, you can mix and match TS4-A-O with TS4-A-S
- Well suited for commercial rooftops with limited obstructions

Tigo® SOLSOL

Tigo is the only MLPE provider that provides selective deployment

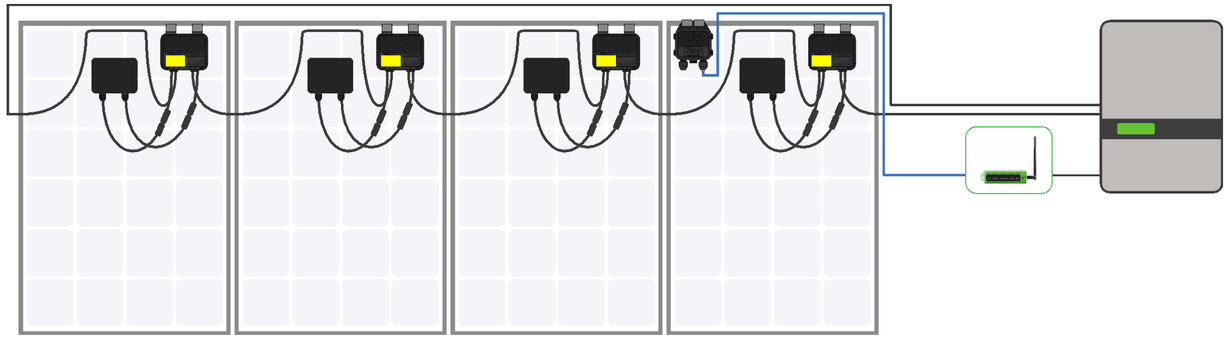
- Get safety + module-level monitoring everywhere
- Use optimizers where you want
- Increase your installed capacity and design flexibility

Better ROI for your customers
More profitable for your business (installer / EPC)

Tigo SOLSOL

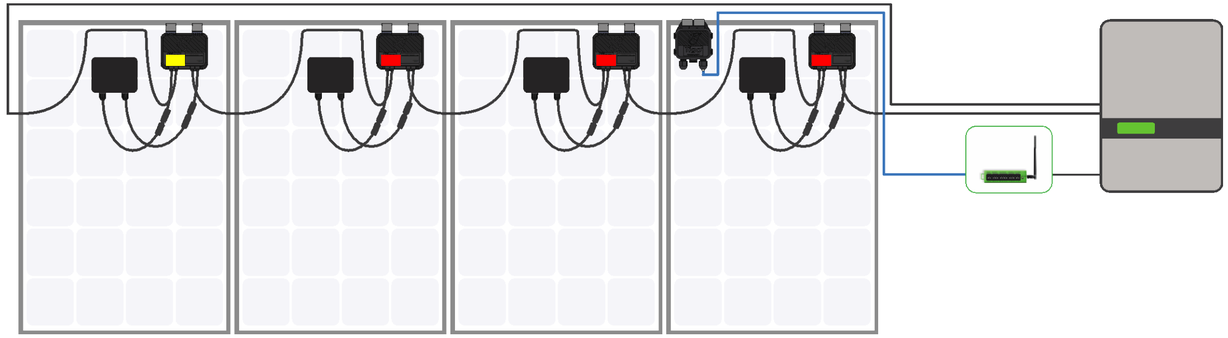
Terminology

Flexibility



Full deployment

TS4-A-O (optimizers) on every module with monitoring via the CCA & TAP



Selective deployment

A combination of O, or S on every module, with monitoring enabled via the CCA & TAP

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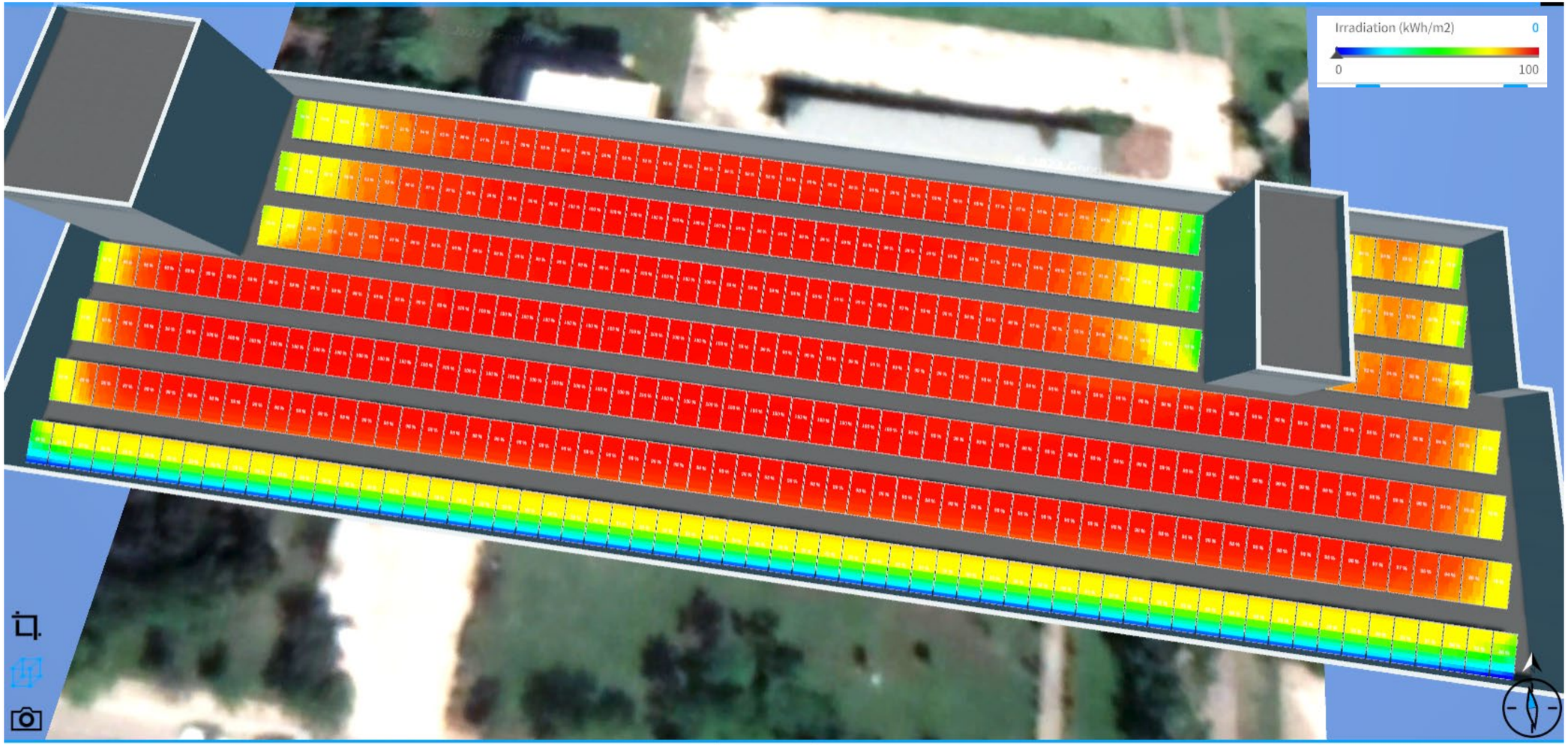
Example commercial rooftop

- 143kW with heavy shading around the perimeter
- Analyzed using InSun



Flexibility

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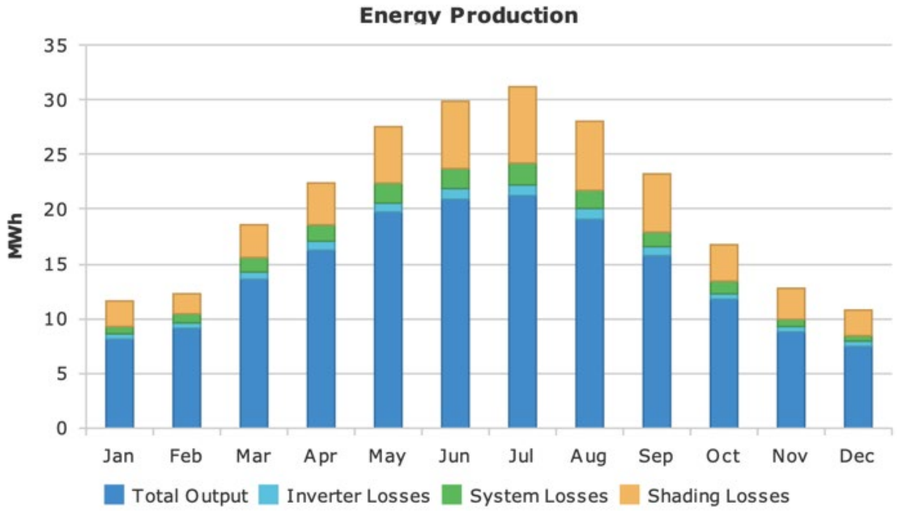
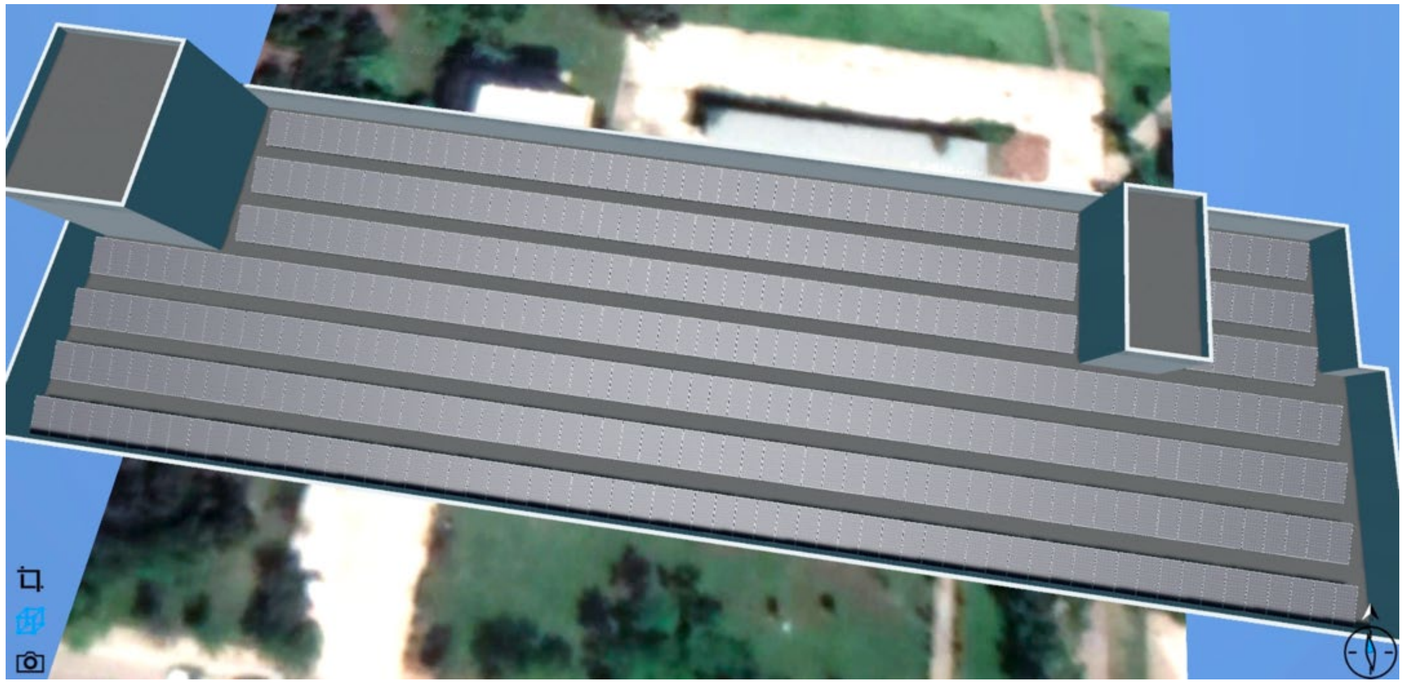
Example – no optimizers

- Installed power: 143 kW
- Annual Energy Production: 171,972 kWh





Flexibility

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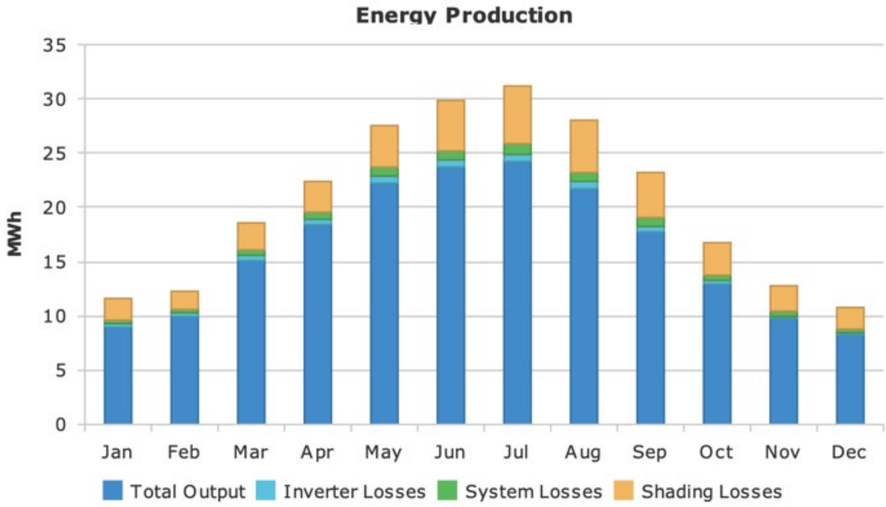
Example - full deployment

- Installed power: 143 kW
- Annual Energy Production: 193,245 kWh

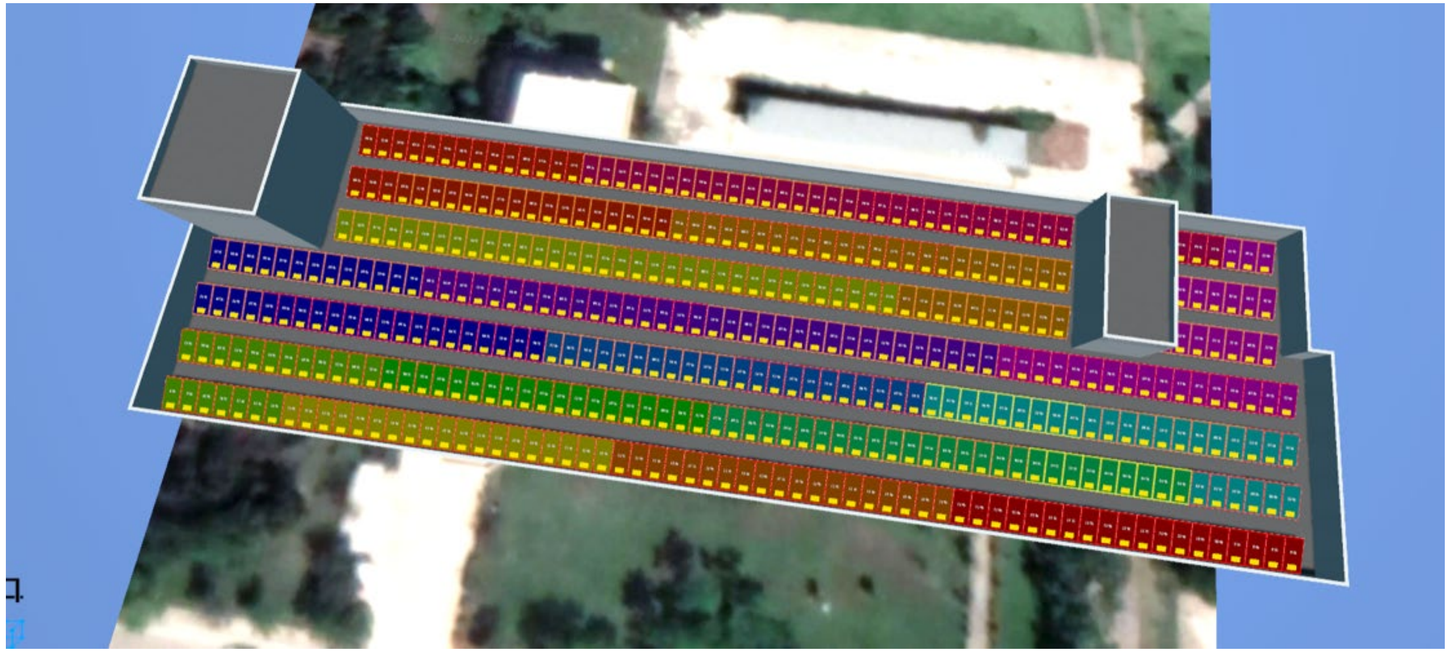
Increase vs. no optimizers: 12%



Flexibility

TS4-A-O

CCA Kit



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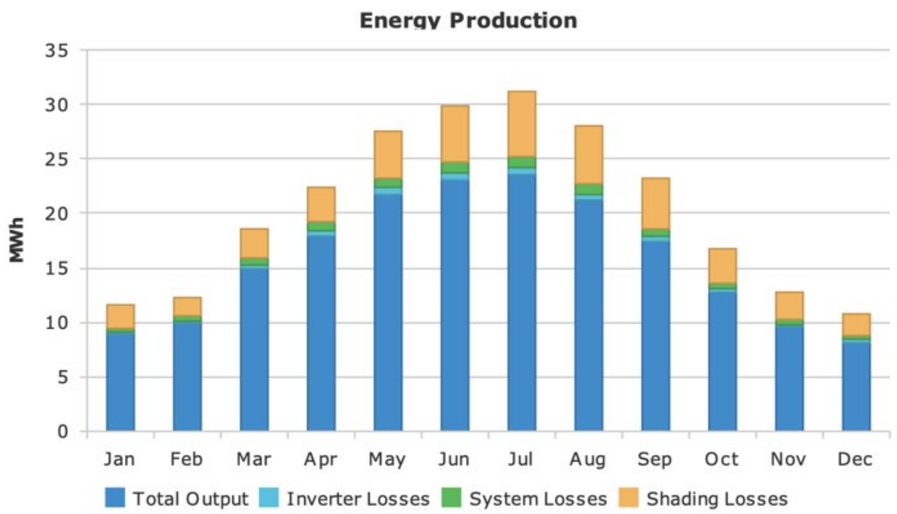
Example - selective deployment

- Installed power: 143 kW
- Annual Energy Production: 189,249 kWh

Increase vs. no optimizers: 10%



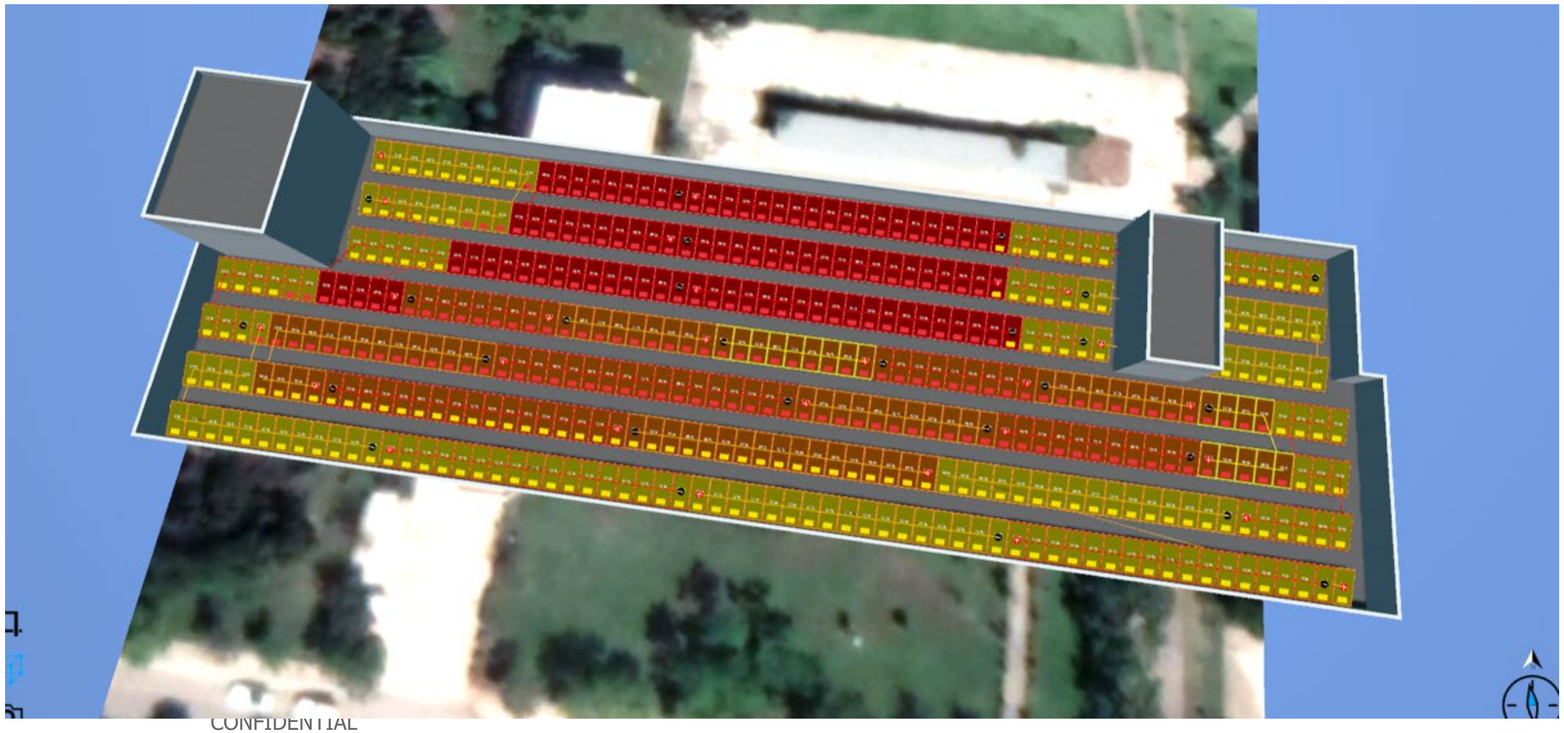
Flexibility

TS4-A-O

+

TS4-A-S

CCA Kit



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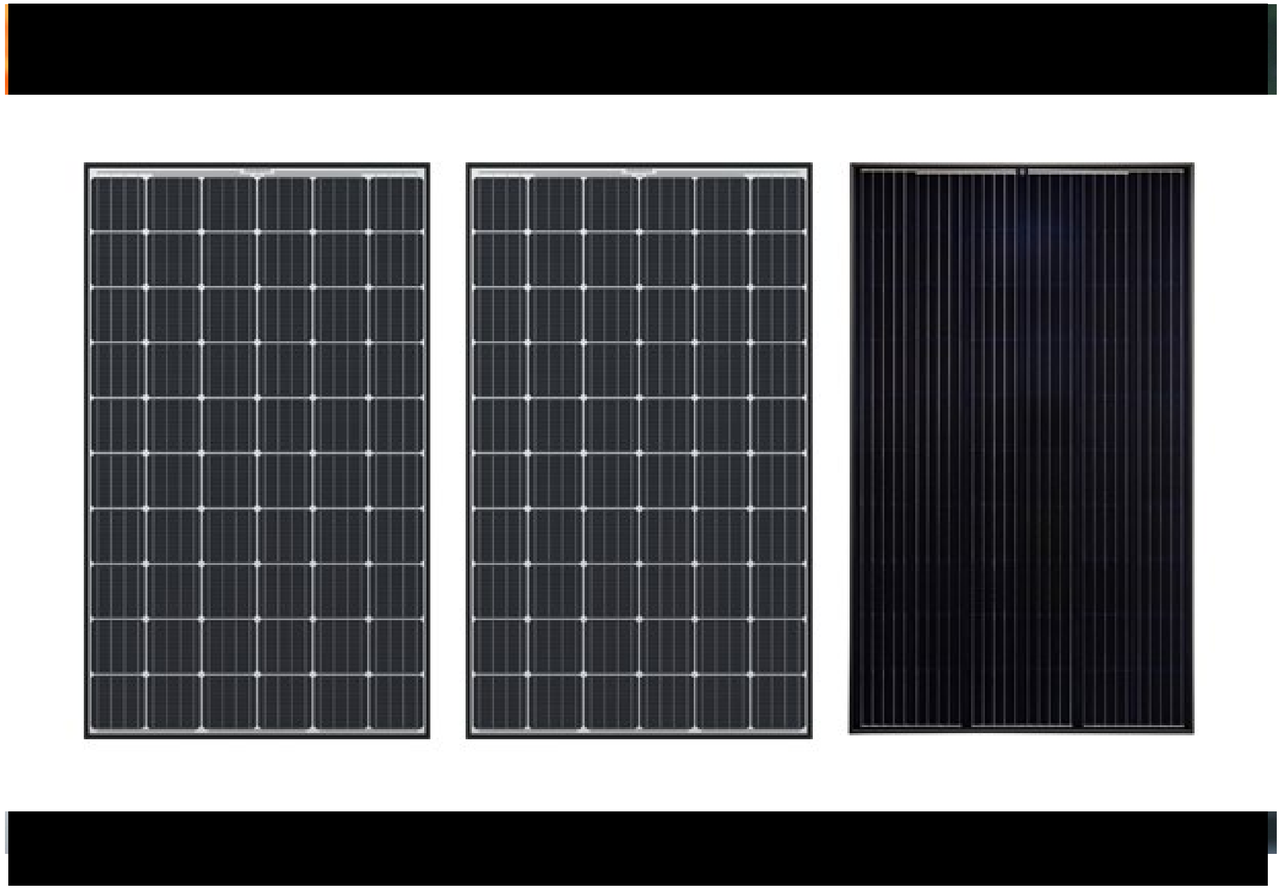
Additional scenarios and considerations

Flexibility



Retrofit to improve existing sites - Tigo MLPE work with hundreds of inverters

Swap out TS4-A-S for TS4-A-O if conditions change (trees grow, mismatch appears, etc.)

If replacement modules are different specs… prime candidate for an optimizer

Turn ‘dumb’ modules into ‘intelligent’ modules – get module level visibility and add sites to fleet management

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Visibility

The Tigo Energy Intelligence software “stack”

Visibility

Fleet management

- View and filter all sites in one spot

System monitoring

- Installation-level operations

Module visibility

- Module-level performance data

Maximize site performance | Minimize truck rolls

https://support.tigoenergy.com/hc/en-us/articles/202342726-Monitoring-Features-Pricing

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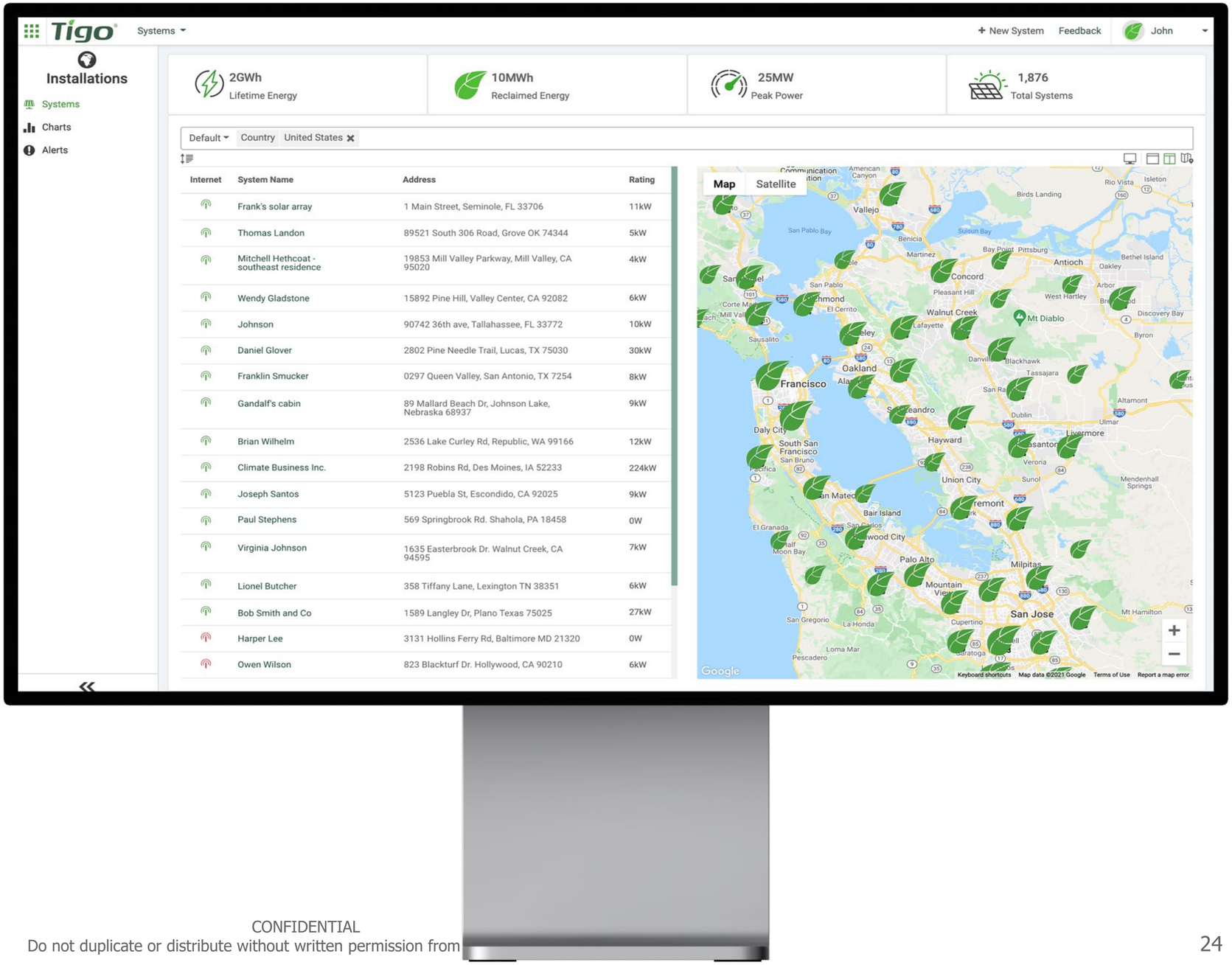
Fleetwide

- All sites in 1 location
- Fleet-level metrics
- View list or map
- Filter by specific characteristics



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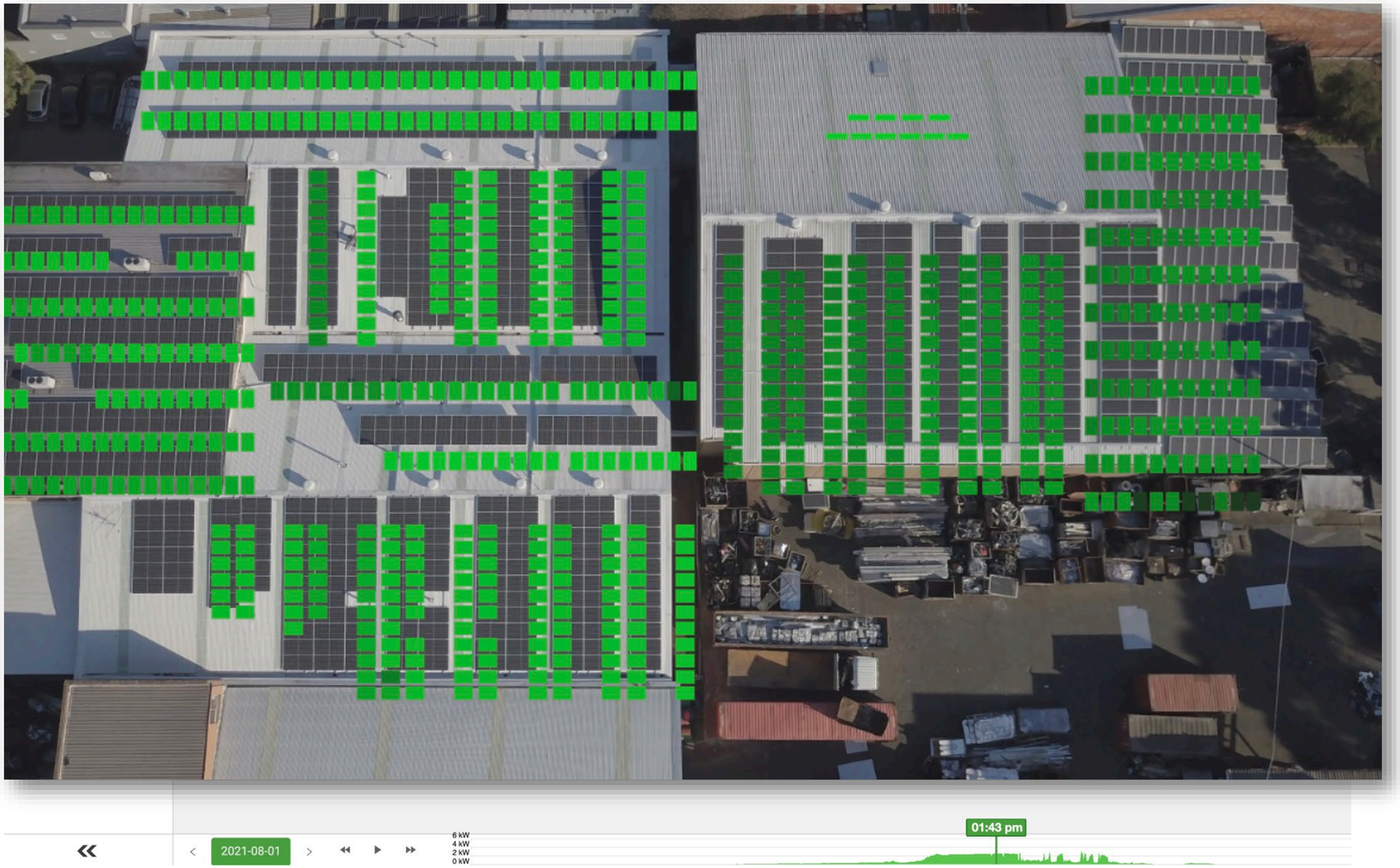
Module – digitized layout

- Overlay your system so that it matches the aerial view of the site
- Know exactly where the issues are



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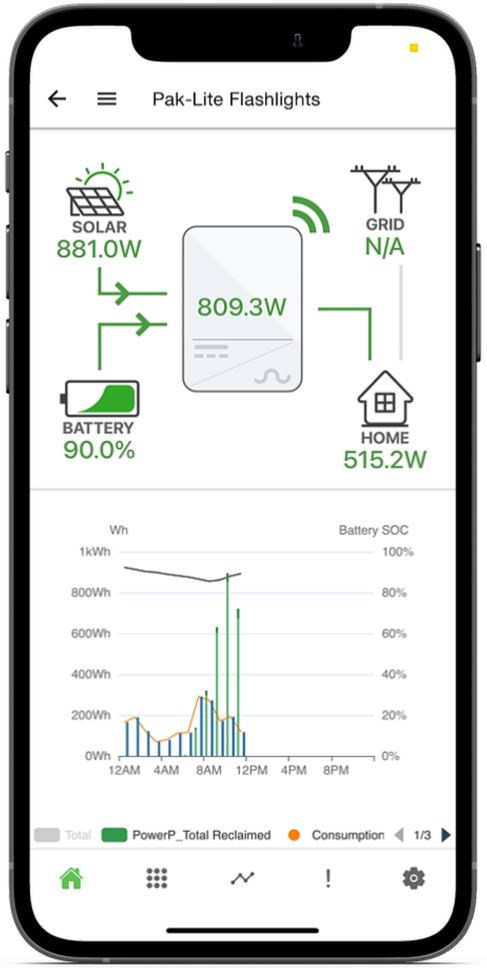
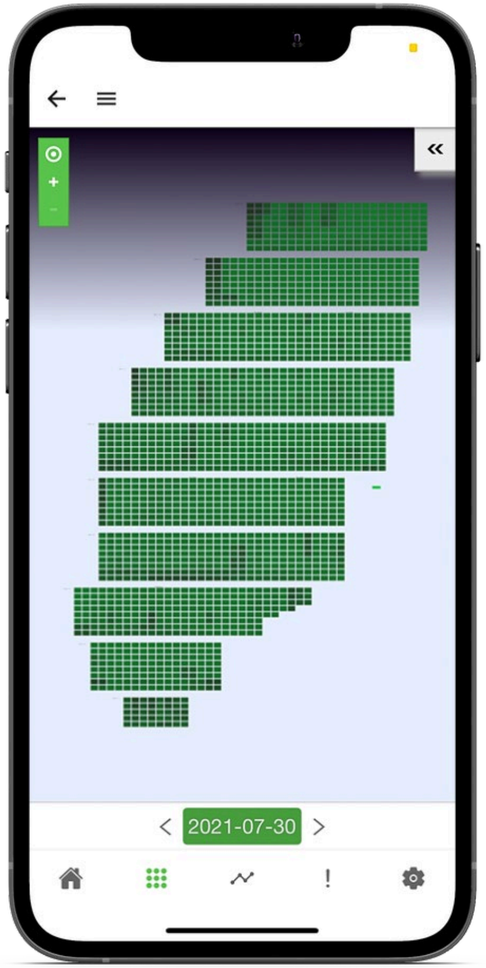
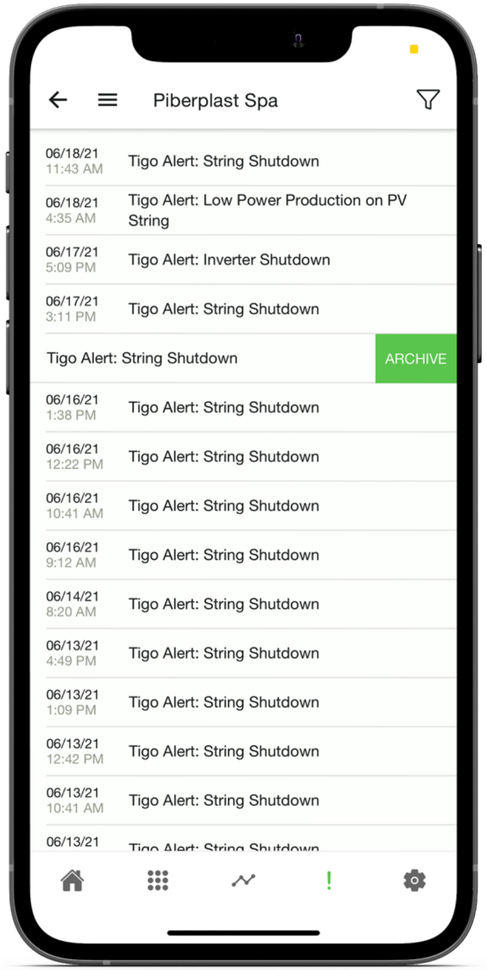
Get it all in the palm of your hand







GET IT ON Google Play

Download on the App Store

DEMO

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Tigo monitoring lets you remotely detect and diagnose issues

Maximize site uptime

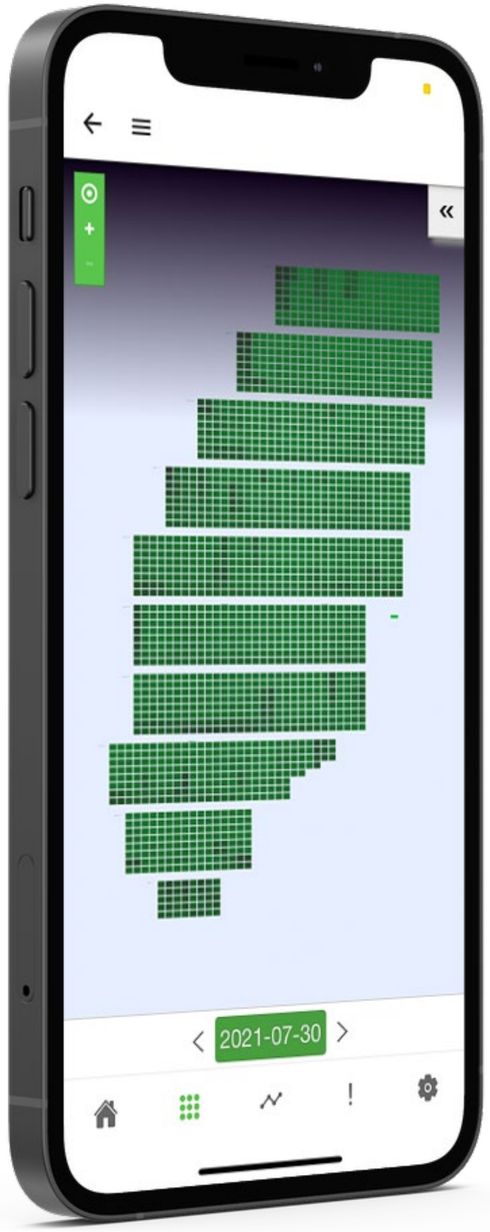
- Get real-time alerts when a performance or safety issue arises so the site can quickly be returned to normal. More uptime = more energy.

Minimize O&M costs

- Detect system level, string level, and module level issues to pinpoint and diagnose issues remotely. Save money with fewer truck rolls.

Enhance the customer experience

- Get visibility to all sites from one spot with fleet, system, and module level performance data. Get more referrals with happier customers.



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Thank You! DÍKY!

Více informací: https://www.tigoenergy.com/downloads

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