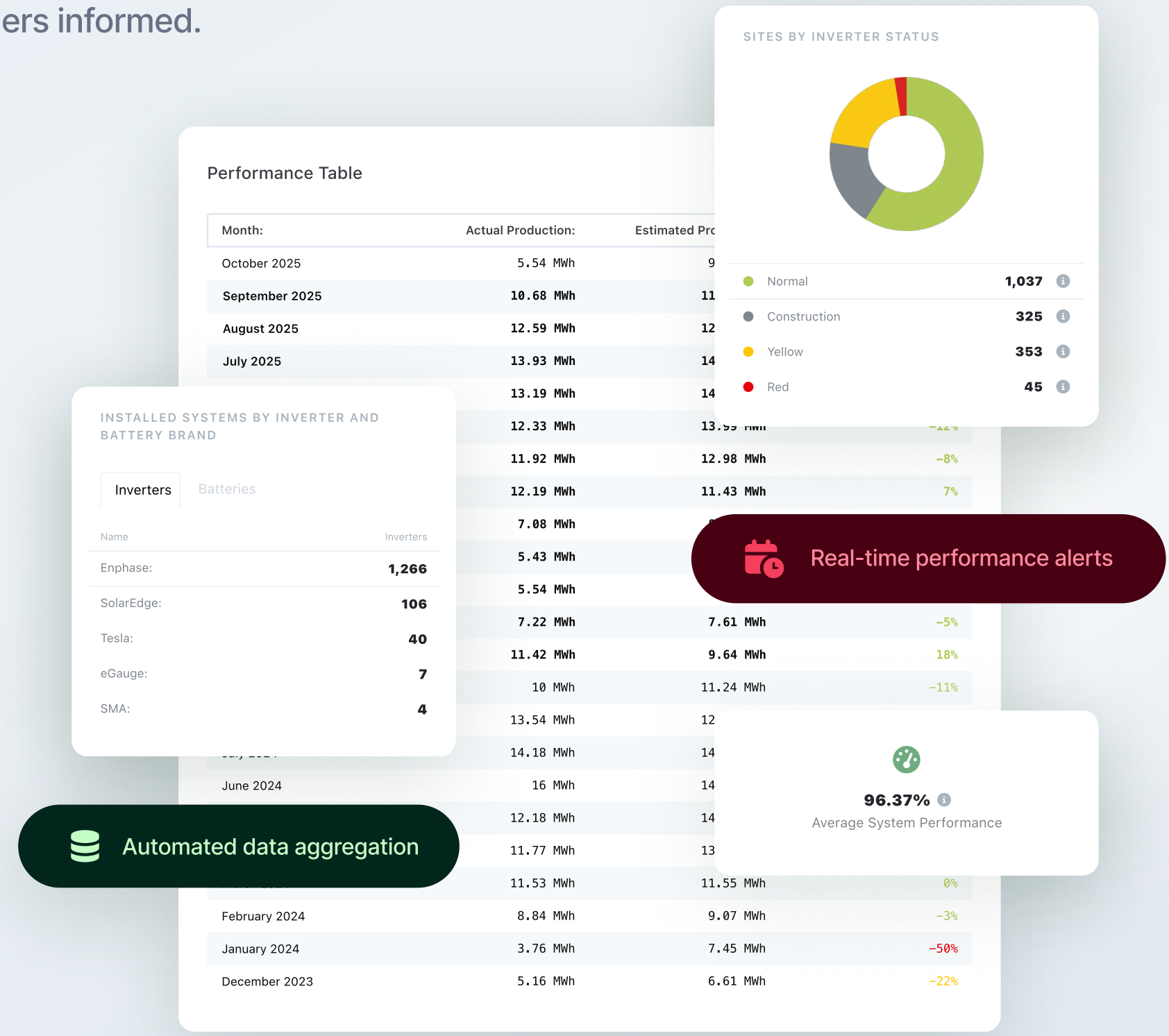
OPERATIONS & MAINTENANCE

The Sunvoy O&M Playbook

A practical guide to monitoring more systems, catching problems earlier, and keeping homeowners informed.



INSTALLER FIELD GUIDE

WHY THIS PLAYBOOK EXISTS

Installing the system is only the beginning.

Once a project reaches PTO, your team inherits years of production data, inverter alerts, Wi-Fi issues, homeowner questions, warranty claims, and service work.

The challenge is not collecting more alerts. It is knowing which systems actually need attention - and having a repeatable process for what happens next.

Sunvoy brings fleet monitoring, performance, tickets, CRM work orders, automations, and homeowner communication into one connected O&M workflow.

WHAT ARRIVES AFTER PTO

Production data

Thousands of daily readings that need context, not just storage.

Inverter signals

Equipment faults, stale data, and manufacturer-specific alert detail.

Connectivity problems

Home Wi-Fi changes can make a healthy system look broken.

Homeowner questions

Customers want a clear answer before they want a truck roll.

Service obligations

Tickets, warranties, work orders, dispatch, and documentation.

Good O&M is not about watching more dashboards.

It is about catching the right problem, giving it to the right person, and keeping the homeowner informed until the system is back where it should be.

THE PLAYBOOK IN ONE VIEW

Every good O&M process follows the same basic path.

The tools may change, but the operating rhythm stays consistent: find the condition, verify what is really happening, give the work an owner, and close the loop with the homeowner.

01

Monitor the fleet

Use production statistics, the fleet map, triage queues, and site-health indicators.

02

Verify the problem

Check synchronization, inverter data, production history, and actual versus estimated output.

03

Organize the response

Create a ticket, set the stage and priority, add tags, and assign a clear owner.

04

Escalate when needed

Create or open a CRM work order when remote troubleshooting is not enough.

05

Automate the routine

Trigger messages, delays, and work orders - then stop when the recovery goal is met.

06

Keep customers informed

Route support correctly, send reports, share documents, and preserve message context.

07

Package the service

Present active monitoring and post-install support under the installer's own brand.

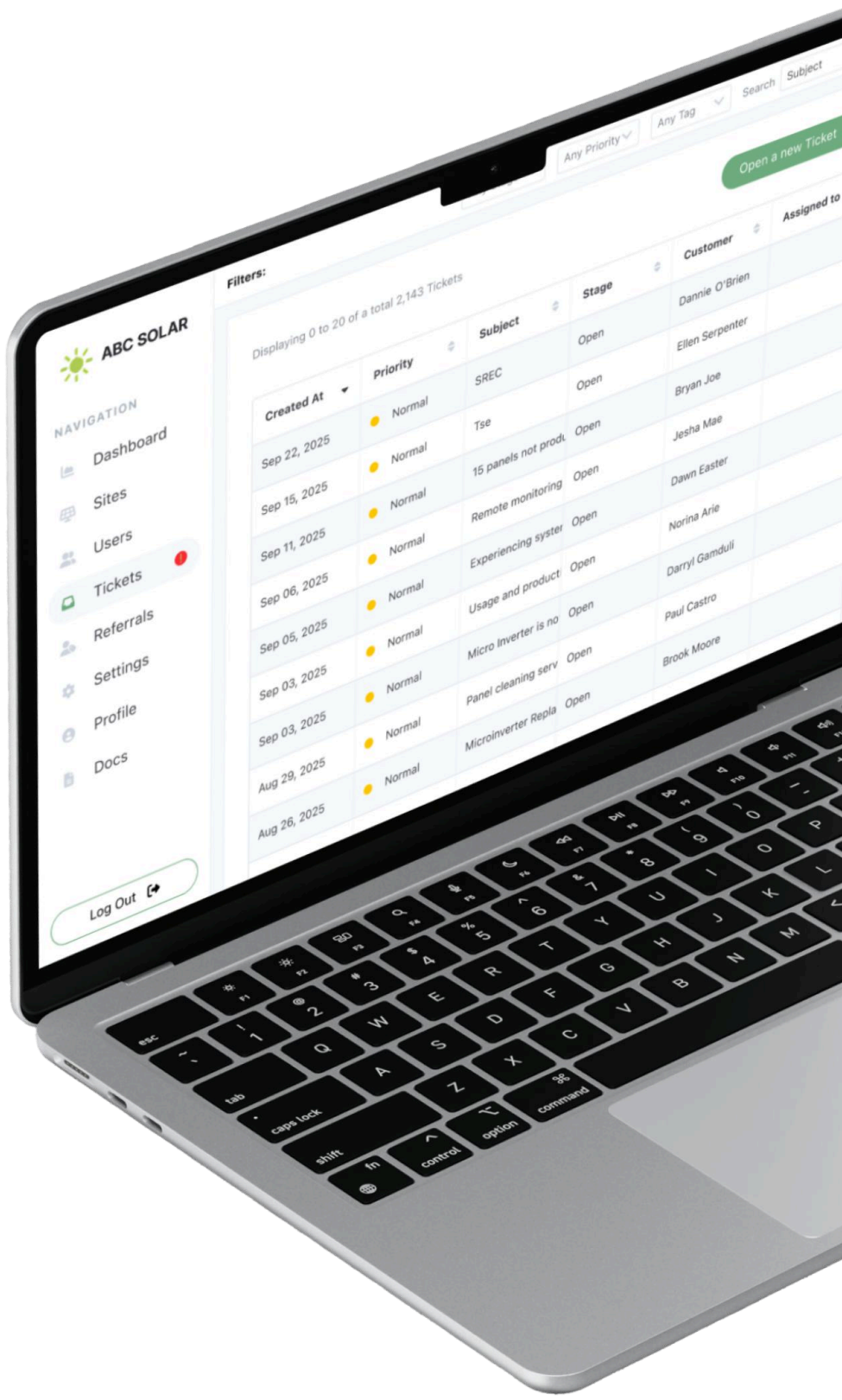
1. Start with the health of the whole fleet

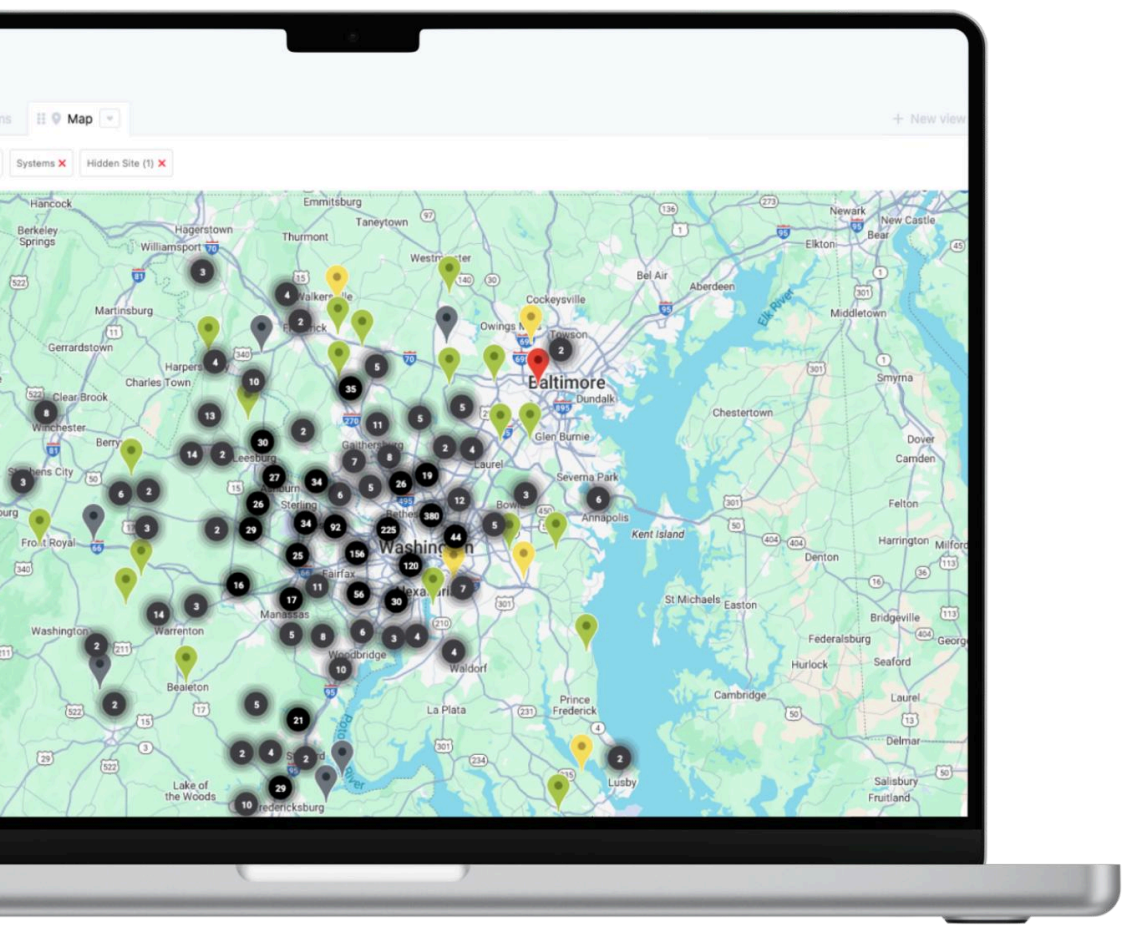
Your fleet is talking. Know which systems to listen to first.

A growing installed base can become noisy fast. One inverter stops reporting.

Another system is producing below estimate. Somewhere else, a real equipment fault needs immediate attention.

Before opening individual sites, look at how the fleet is performing as a group. Sunvoy's O&M dashboard shows fleet production statistics along with average and median system performance.





2. Use the map to understand where the work is

- View installed systems and filter sites.
- Show an employee's current location.
- Find nearby systems while a technician is already in the area.
- Identify clusters and systems that need attention.

3. Separate performance problems from communication problems

A red system and a yellow system should not enter the same queue.

Not every system that looks bad is actually broken.
Clear triage queues help your team decide whether to investigate equipment, contact the homeowner, or wait for the next sync.

Underperforming

The system is online, has estimated production data, and is producing below the threshold your team configured.

First move: Compare the production curve with the site's estimate, age, and recent history.

Red equipment errors

Red typically points to a production-level or equipment issue reported through the inverter integration.

First move: Open the site, review the manufacturer error and inverter status, then decide whether to escalate.

Yellow communication errors

Yellow often points to stale synchronization, lost connectivity, or performance below a warning threshold.

First move: Check the last sync. A Wi-Fi reconnect or another data cycle may be enough.

Know what the integration can tell you.

The amount of alert detail - and how much alert history is available - depends on the inverter manufacturer and the information exposed through its integration. Some provide detailed equipment errors and historical context.

Others may provide only a current status or communication condition.

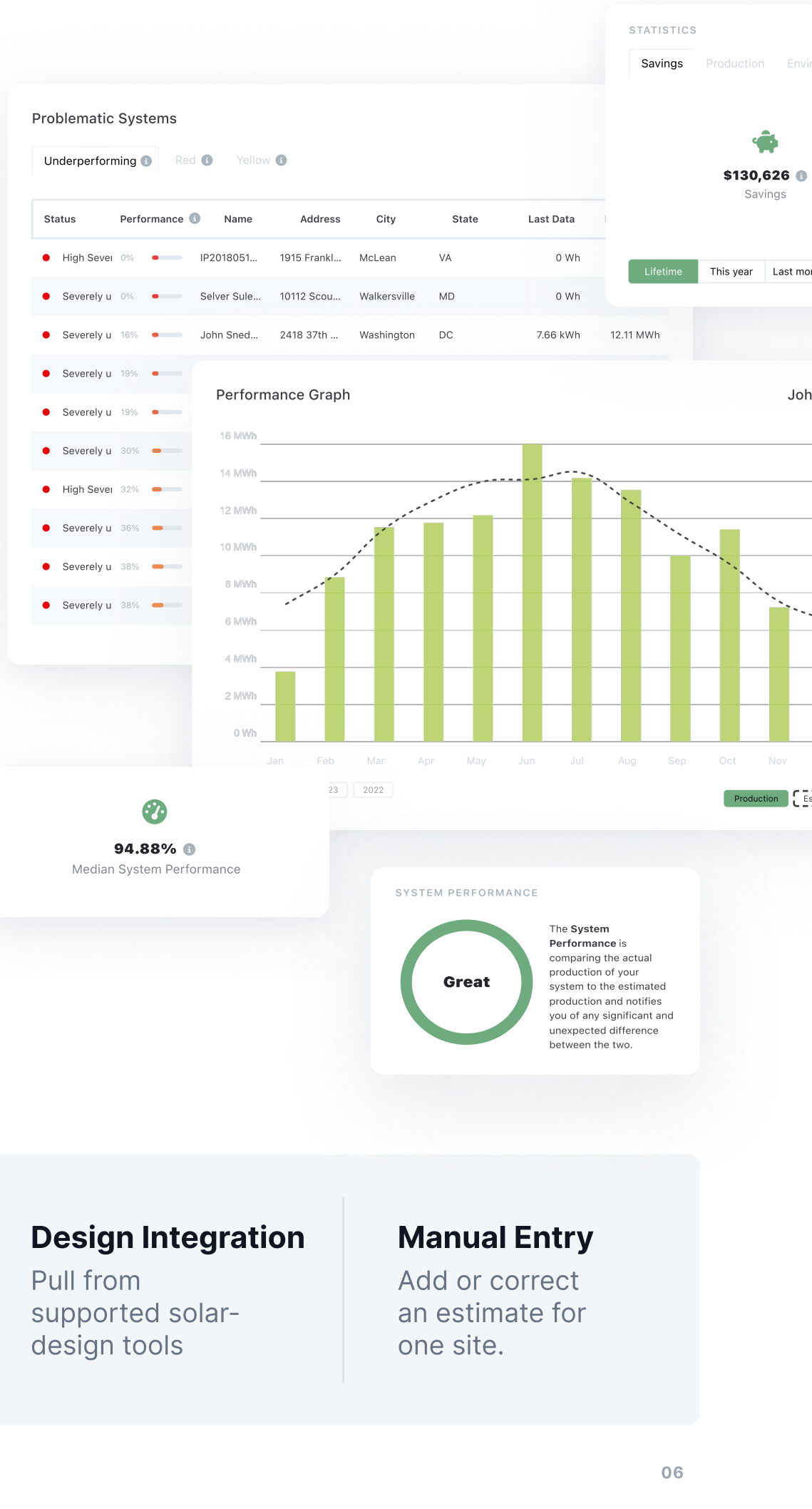
4. Compare what the system produced with what it should have produced

Raw production does not tell the full story.

A 5 kW system in Arizona should not be judged the same way as a shaded 5 kW system in the Northeast.
The better question is:

Is this system producing close to its own expected output?

Sunvoy Performance Monitoring compares actual production with an estimate and lets your team tune the comparison to the system.



Comparison Period
Choose the months used for evaluation.

Red Threshold
Surface severe underperformance.

Yellow Threshold
Flag moderate underperformance.

Annual Degradation
Adjust expectations as the system ages.

Estimate Source

Your CRM
Use project estimates already stored with the job.

Design Integration
Pull from supported solar-design tools

Manual Entry
Add or correct an estimate for one site.

5. Open the site before you open a work order

The color gets your attention. The details tell you what to do.

Once a system reaches the top of the queue, move from the fleet view into the individual site. Do this before dispatching anyone.

Check production history. Look for a single bad day, a repeating pattern, or a sustained decline.

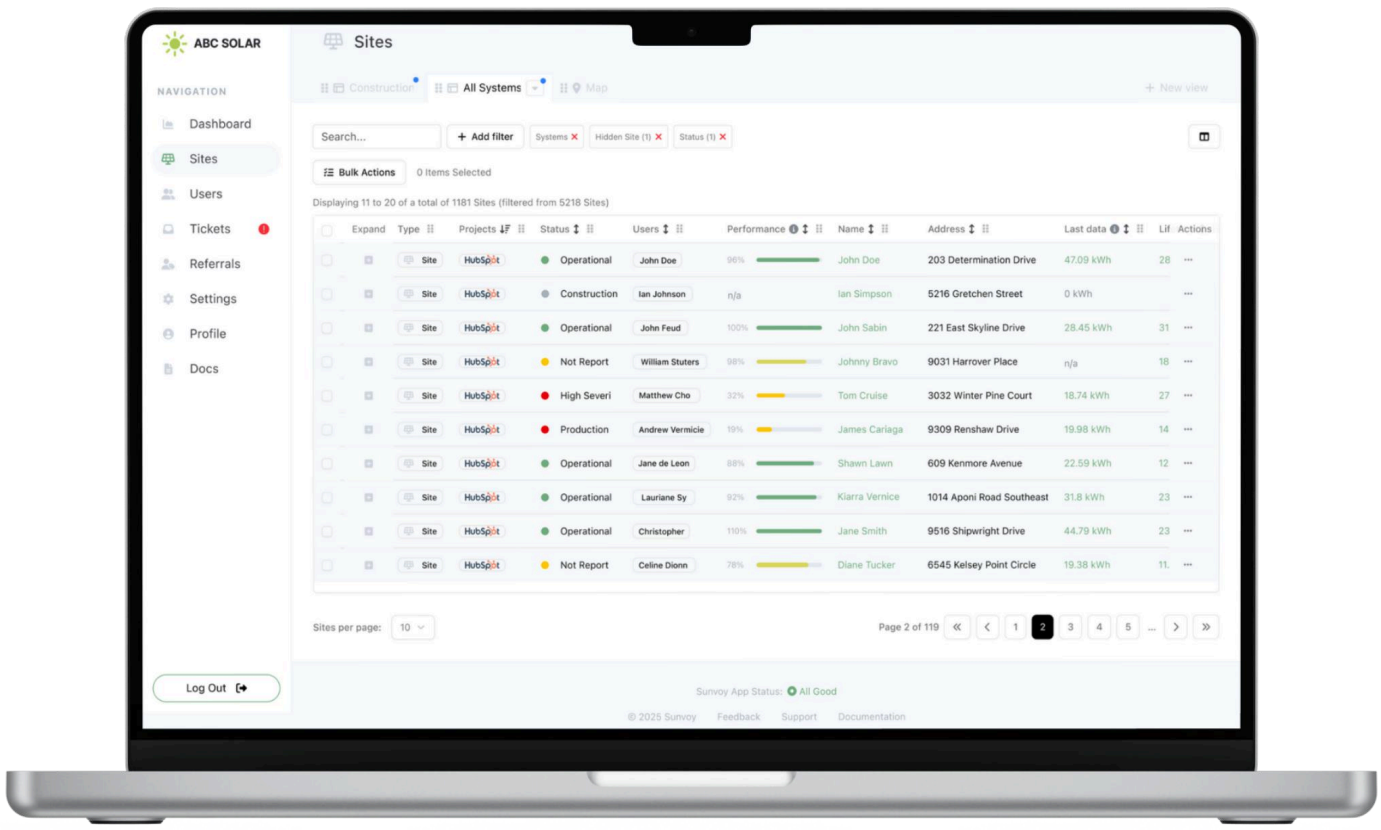
Compare actual versus estimated. Confirm that the issue is meaningful for this system.

Review the last synchronization. Zero data and zero production are not the same thing.

Read inverter and equipment status. Use the integration detail that is available.

Check customer context. Look for open tickets, earlier messages, and known site conditions.

> Avoid the unnecessary truck roll. First decide whether the issue is production, equipment, communication, or missing data.



High Severity

Operational

Not Reporting

Construction

6. Put the problem into a ticket someone can own

An alert is not a workflow.

Once a system reaches the top of the queue, move from the fleet view into the individual site. Do this before dispatching anyone.

Finding a problem is only the first step. The real O&M work begins when someone must investigate, contact the homeowner, arrange service, and close the loop.

Sunvoy tickets organize homeowner-reported and employee-created issues in one searchable queue.

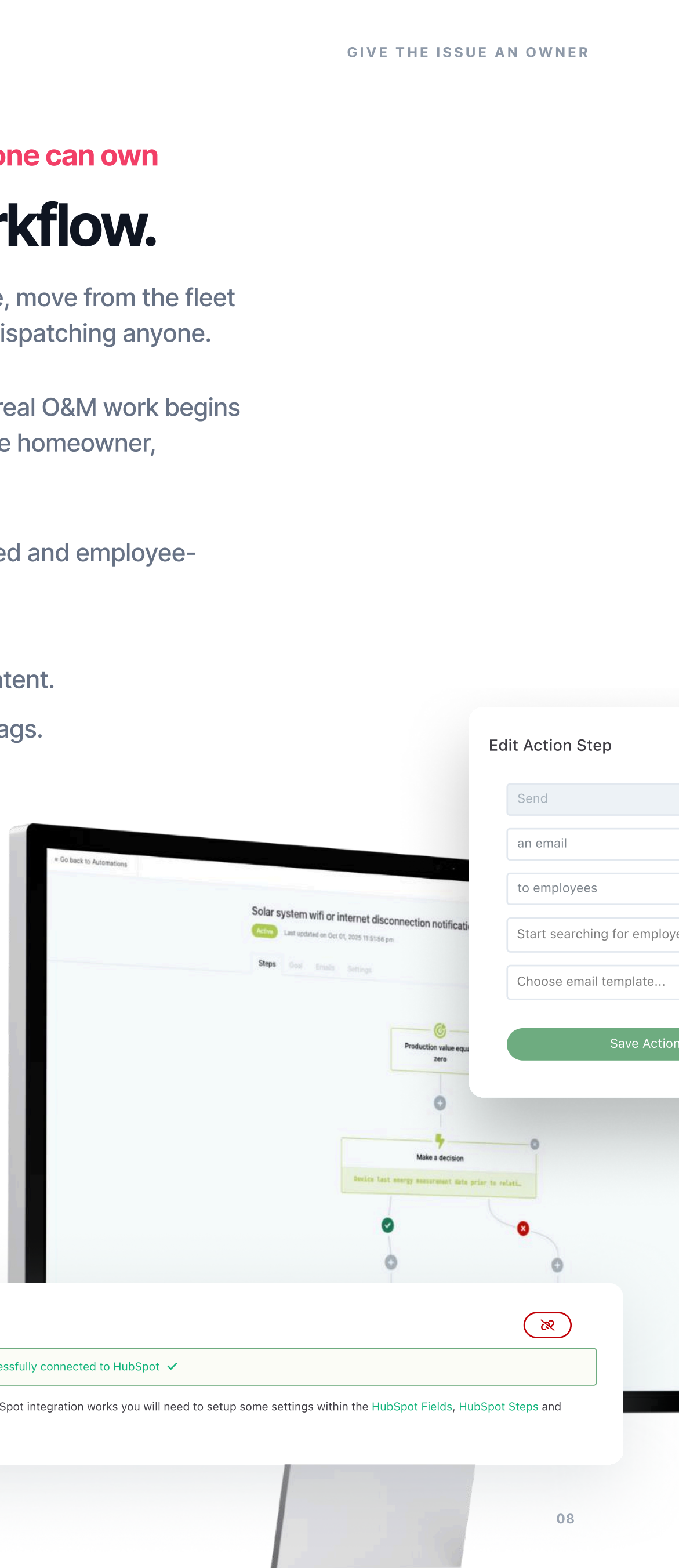
- Search by customer, system, or ticket content.
- Filter by stage, assignment, priority, and tags.
- Keep the conversation and service history together.
- Close the ticket once the issue is resolved and documented.

Keep the context with the issue

Customer: contact details, location, communication options.

System: performance, inverter and equipment data, production history.

CRM: mapped project details such as size, equipment models, and specifications.



7. Use stages, assignments, priorities, and tags consistently

Make the next step obvious.

There is no universal perfect workflow. The important part is that every employee understands who owns the ticket and what must happen before it moves forward.

New
Received, but not yet reviewed.

Remote troubleshooting
Check production, communication, inverter data, or homeowner connectivity.

Waiting on homeowner
Request a Wi-Fi reconnect, access, a photo, or confirmation.

Work order created
The issue needs field service or another CRM-managed action.

Scheduled
A service visit or follow-up has a date and owner.

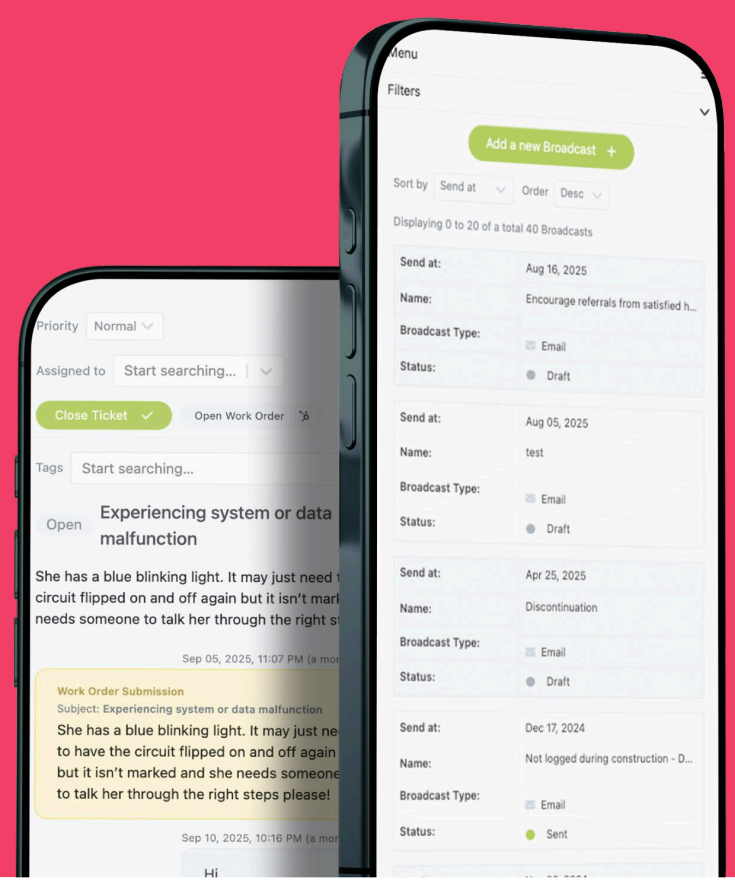
Closed
The issue is resolved and the outcome is documented.

8. Create the CRM work order without re-entering everything

The ticket explains the problem. The work order organizes the field response.

Where supported by the installer's CRM configuration, Sunvoy can create or open a work order from the ticket, map customer and system information, and synchronize supported statuses and updates.

Exact behavior depends on the CRM, its available fields, and the installer's integration configuration.

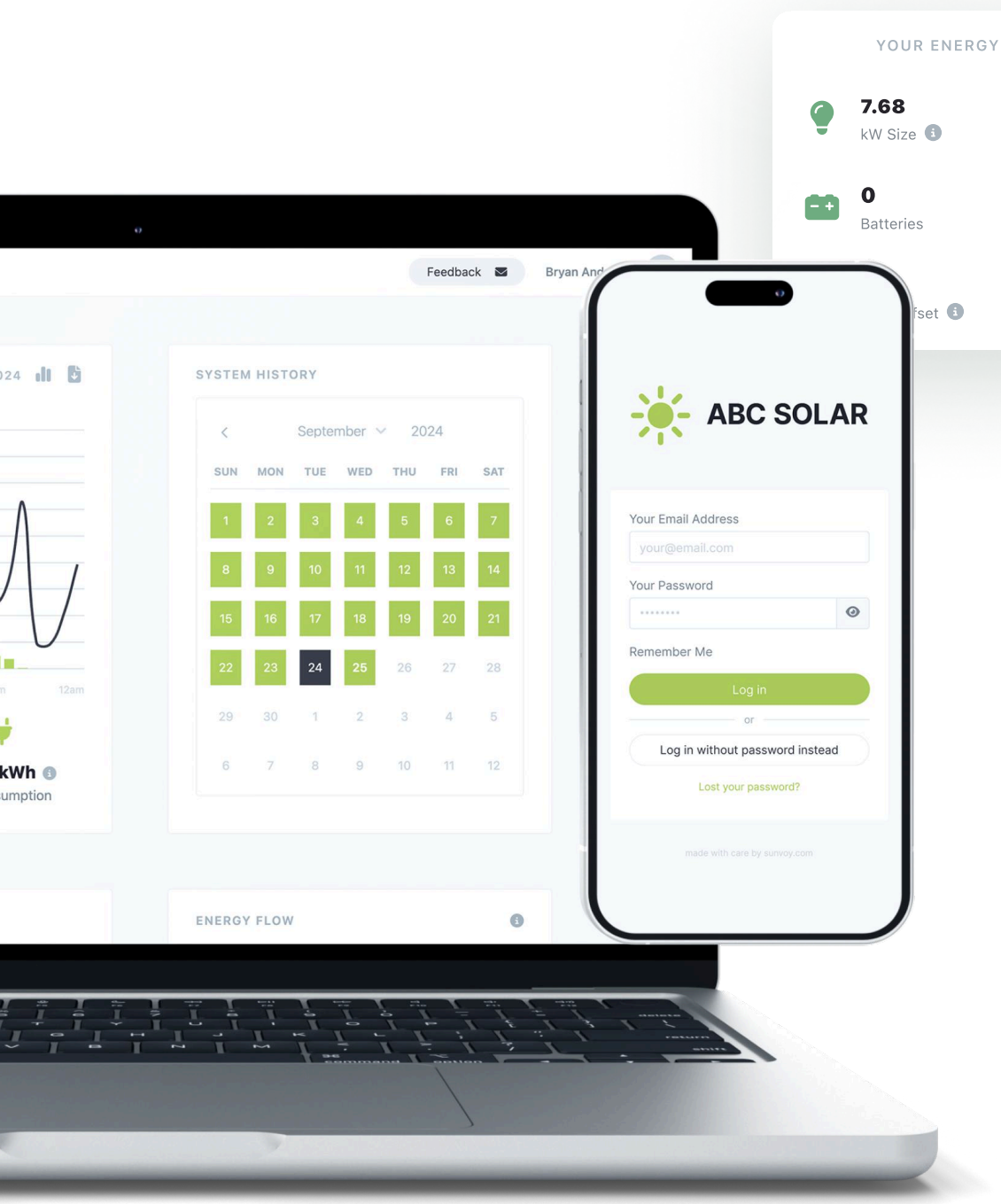


9. Give the technician context before the truck rolls

A technician should arrive knowing more than the address.

Before the visit, make sure the field team can see why the system was flagged, what troubleshooting has already happened, the recent production pattern, the inverter or equipment involved, customer contact information, ticket notes, and the related CRM work order.

The unified map can also show nearby systems while an employee is already in the field. One planned visit may become an opportunity to check another site without building the day's route from scratch.



Panel-level monitoring: useful, but not universal

Sunvoy supports installer-only panel-level visibility where the inverter integration exposes the required data, with current coverage led by Enphase.

SolarEdge optimizer-level monitoring is not available because the required panel-level API data is not exposed.

> Treat panel-level visibility as an internal troubleshooting tool
> — not a homeowner-facing feature or a universal replacement for inverter diagnostics and onsite inspection.

10. Automate the predictable first steps

The best O&M teams do not manually chase every system.

As the fleet grows, the repetitive work grows with it: notice zero production, email the homeowner, wait for a reconnect, follow up, and create the work order when the easy fix does not work.

Sunvoy can trigger O&M workflows from:

- Zero production
- A configured system condition
- A new ticket

Automate the predictable steps before a person needs to intervene.

The point is not to automate the entire service department. It is to help the team focus on exceptions.

> A useful automation knows when to stop. Recovery goals prevent another "your system may be offline" message from going out after production has already resumed.

EXAMPLE / ZERO-PRODUCTION WORKFLOW

Trigger
The system reports zero production.

Send the first response
Email or text the homeowner with Wi-Fi or basic troubleshooting instructions.

Add a delay
Wait for the homeowner to respond or for the inverter to synchronize again.

Check the recovery goal
Has production returned?

Exit or escalate
If production is back, stop. If not, create the next action or CRM work order.

11. Keep construction questions out of the O&M queue

Not every homeowner question belongs with maintenance.

Homeowners still in construction may need their project manager, salesperson, billing contact, or general support team - not O&M.

STILL IN CONSTRUCTION

Route the question to the project team.

Use a contact form during construction so project-status and pre-PTO questions do not enter the live-system service queue.

- Project status
- Billing and paperwork
- Scheduling and inspections
- Pre-PTO questions

OPERATIONAL SYSTEM

Make maintenance easy to reach.

Publish maintenance-team contact information and decide whether homeowners see ticketing or a direct support contact.

- Production concerns
- Inverter or communication issues
- Warranty and service questions
- O&M tickets

The operating benefit:

The O&M team stays focused on live-system service while every homeowner still gets a clear path to the right person.

12. Keep homeowners informed with branded monthly reports

Show up before the homeowner has to ask.

A homeowner should not have to open an inverter app just to know whether their system produced last month. Sunvoy can send branded monthly energy and performance reports through the installer's customer experience.

- Enable or disable monthly reporting.
- Preview a report for one site.
- Opt individual customers out.
- Control which customers are eligible.
- Send a report manually.
- Review reports from the site record.

See what the homeowner sees

From the individual site, employees can inspect the homeowner portal, review message history, manage open and closed tickets, upload customer-visible documents, preview reports, and confirm customer-system associations.



13. Turn O&M into a service - not only a cost center

Make post-install support feel intentional.

Many installers already provide some level of monitoring and support. The homeowner may not understand what is included or why it has value.

Sunvoy Protect can help package post-install offerings under the installer's brand:

- Active system monitoring
- Service-team access
- Warranty or guarantee information
- Related maintenance and protection offerings

> Protect is the package, not a separate monitoring engine. It does not replace Sunvoy's monitoring, ticketing, work-order, or automation workflow. It helps the installer explain, offer, and continue delivering those services.

This creates an opportunity to turn O&M from an internal obligation into a homeowner service the installer can clearly stand behind.

