

Naked Energy

Operations & Maintenance

Powered by Naked Energy

The smarter way to protect your solar heat and power investment

Naked Energy's Operation & Maintenance (O&M) services are designed to ensure the optimal performance, longevity and safety of Virtu solar thermal and PVT systems. Our services maximise energy efficiency and savings, reduce emissions and protect your investment in Virtu technology.

▪ Data driven

Clarity²⁴⁻⁷, our operational management and monitoring platform, enables us to deliver data-driven O&M services. It provides real-time tracking, early fault detection, and detailed performance analysis to keep systems running efficiently.

▪ Expertise

As a leading British company specialising in engineering design and system engineering, we bring deep technical expertise in solar thermal and PVT technology with hands-on experience from designing and building every Virtu system.

▪ Warranty

By choosing Naked Energy to provide your O&M services, you benefit from an extended ten-year warranty on Virtu products, giving you added assurance of quality and reliability.

▪ Vision

Our vision is 'Changing Energy for Good'. Providing effective O&M is key to delivering this in the long term.

Our O&M services protect the performance, reliability and value of Virtu

Through real-time monitoring and preventative maintenance, we keep your system efficient, reliable and continuing to deliver carbon reductions.

01 Reduce operational costs whilst protecting your investment

Preventative maintenance and early defect detection reduces downtime and unforeseen repair costs, protecting return on investment and prolonging a system's lifespan.

02 Reduce carbon emissions with accurate performance data

Through maintaining the system correctly, O&M ensures consistent carbon emissions reduction, which are monitored and reported via our Clarity24-7 platform.

03 Prevent breakdowns and ensure long-term reliability

We can help prevent breakdowns and our services also support hybrid systems that integrate Virtu with other technologies such as heat pumps. Virtu systems maintained by Naked Energy benefit from an extended 10-year warranty.

Lease Virtu systems with no upfront costs

Find out more

With our Heat-as-a-Service model, you can lease Virtu systems with no upfront costs. Operations & Maintenance is fully included, ensuring your system is always performing at its best.

Keep your Virtu system operating always at its best

We use real-time monitoring and preventative maintenance to ensure peak performance and long-term savings.

Preventative maintenance

We conduct regular checks to make sure your system is operating safely and efficiently. This includes:

- Integrity of Virtu collectors, reflectors and roof fixings
- Cleaning collectors and reflectors
- Inspecting insulation, valves, pumps and heat dumps
- Testing glycol concentration and pH balance
- Calibration of controls and sensors
- Reviewing system flow rates and pressure

Continuous monitoring

Our Clarity²⁴⁻⁷ software monitors system performance in real time and alerts us automatically if anything unusual, such as variations in pressure, flow or temperature is detected. This minimises downtime by enabling us to proactively address possible problems early.

Call out services

Our team is available to react promptly should a fault arise. We'll verify coverage, locate the problem, and restore your system with minimal downtime.

Reporting and performance

Regular reporting provides you with information on system health, energy production, carbon reductions and future maintenance requirements. Advanced diagnostics and trend analysis help identify areas for optimisation and prevent future callouts. Custom reporting options can also be set up to share results and demonstrate sustainability performance.

Client training and onboarding

If required we train your onsite team to operate the system safely, understand Clarity²⁴⁻⁷ data, carry out basic checks and to troubleshoot common issues. Nominated individuals in your organisation can receive notifications from Clarity²⁴⁻⁷ to support this activity.

Operational tasks

- Asset registers
- Maintenance schedules & logs
- Fault detection & alerts
- Performance analytics
- Real-time monitoring
- Digital schematics & controls
- BMS integration
- Training

Customer offer

- Preventative maintenance & proactive fault finding
- Incident 'call-out' service
- Onsite team support

Output

- High performing systems
- System performance & maintenance reports

clarity²⁴⁻⁷

Clarity²⁴⁻⁷ is Naked Energy's proprietary monitoring and management platform – the digital core of our O&M service. It offers a real-time view of how your Virtu system is performing, allowing us to find and fix any problems before they impact efficiency or productivity.

Asset registers

Real-time tracking

Clarity²⁴⁻⁷ replicates the operational state of every Virtu system in real-time while continuously measuring system performance parameters such as pressure, temperature, and flow rate.

BMS Integration

Remote support Our engineers use Clarity²⁴⁻⁷ insights to diagnose and potentially fix issues remotely, reducing site visits and downtime.

Maintenance schedules & logs

Automated alerts

If performance deviates from expected levels, Clarity²⁴⁻⁷ immediately raises an alert – notifying both the Naked Energy O&M team and the client so prompt action can be taken to restore optimum performance.

Digitalised schematics & controls

Performance analytics

For a detailed performance analysis, historical data can be visualised and interrogated for patterns and trends. This enables a greater level of analysis which may be required to optimise more complicated or larger solar thermal systems.

Data-driven insight with clarity²⁴⁻⁷

- Case studies

O&M in action

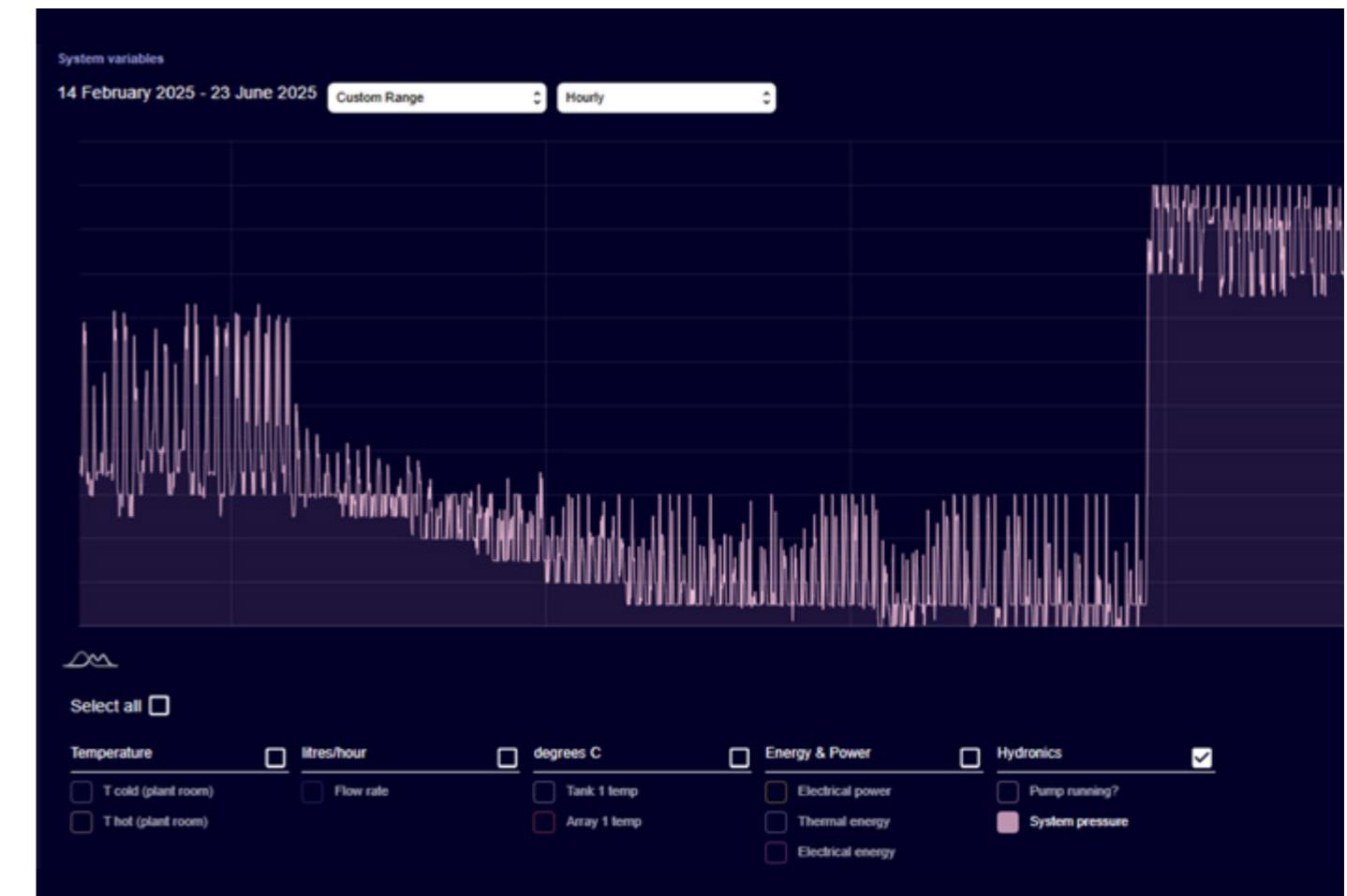
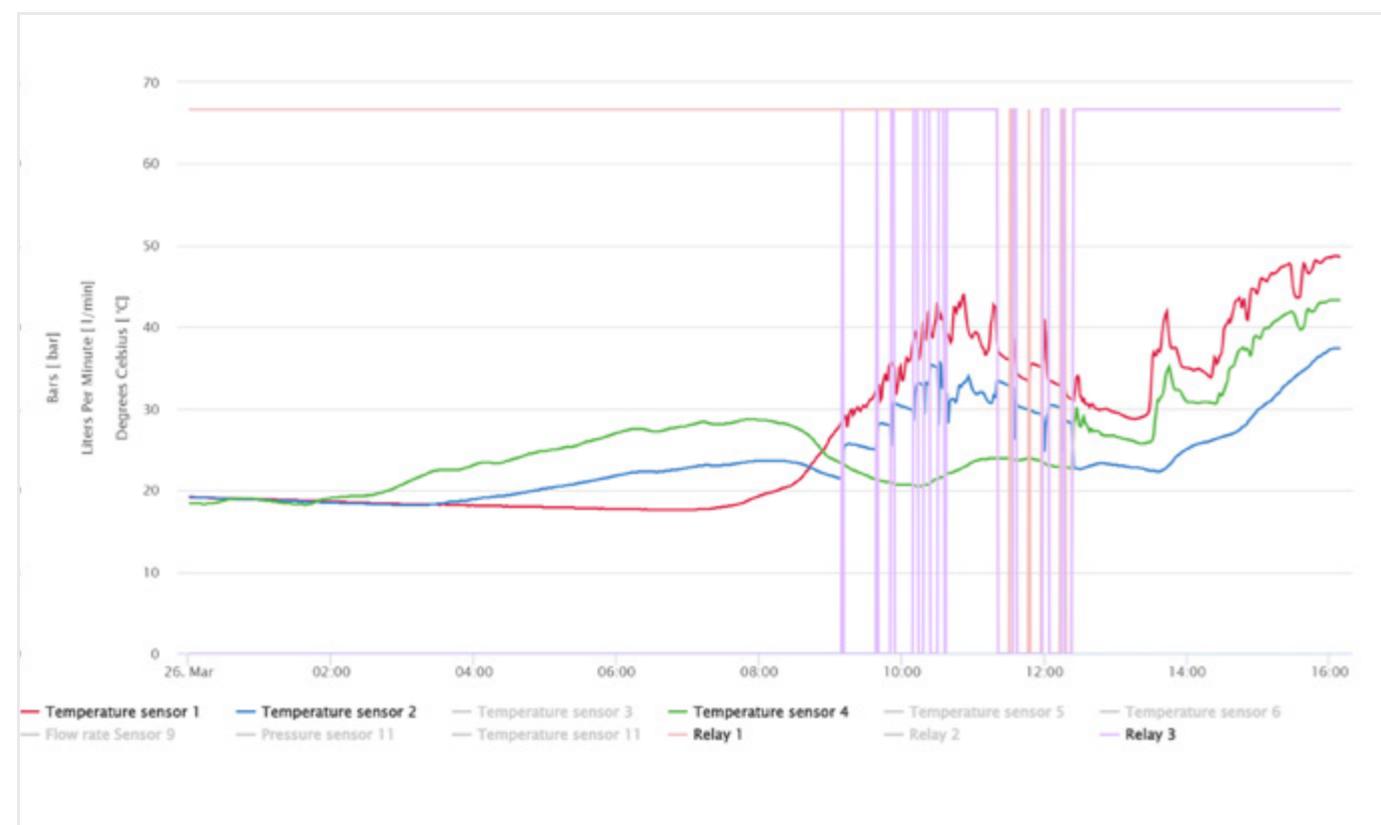
Selection of real-world case studies

Major Hotel, UK

Commissioning support

Using Clarity²⁴⁻⁷, our performance analytics team supported the initial commissioning of a major hotel installation. Data showed erratic tank charging behavior and over temperature, which required prompt action to resolve.

Our O&M team attended site within two days, carried out further investigations and identified minor amendments to sensor locations and configuration were needed to restore correct operation. This is a good example of a period of extended initial commissioning, where the Naked Energy team supported the installer and the client to achieve the desired performance.



Small commercial system, UK

Proactive monitoring

Early identification of a reduction in pressure was identified by Clarity²⁴⁻⁷. If left unchecked, this could have resulted in a reduction in energy generation and potential damage to the collectors and system components (as a lack of pressure means there is likely to be a lack of water-glycol fluid in the primary circuit, resulting in increased risk of collector overheating & damage).

As a result of early detection, the building operator was advised to arrange for a top-up of working fluid through a local contractor. A non-urgent visit was then scheduled to investigate the source of pressure loss, resulting in the replacement of a valve.

O&M in action Selection of real-world case studies

Leisure centre, UK

Heat dump malfunction

Client feedback indicated that a public swimming pool was experiencing slight overtemperature events, with water temperatures 0.5°C – 1°C above the desired temperature of 29°C.

A detailed investigation by our performance analytics team isolated an issue with the heat dump and valve

function. The client's in-house engineering team carried out onsite adjustments to fix a separate controls fault, supported remotely by Naked Energy. Both issues were quickly resolved, restoring stable and efficient system operation.



Paper manufacturing plant, UK

System performance optimisation

At a UK paper manufacturing plant, our O&M team was asked to investigate whether the Virtu system serving domestic hot water could operate more efficiently. We found pump speed was averaging only 45% even on the sunniest days.

By increasing pump speed, we reduced operational dT value (different between flow from collectors and

return temp from building), resulting in reduced energy loss, while still meeting the requirement of the hot water usage. Optimising the operational temperature by adjusting pump speed, immediately increased overall system performance by 6%, demonstrating the measurable impact of O&M services.

Frequently asked questions

01	Why does Virtu need specialist Operations and Maintenance (O&M)?	Virtu solar thermal collectors benefit from professional O&M to ensure optimal performance, extend their lifespan, maintain energy efficiency and prevent breakdowns. Regular physical checks and performance analytics can identify minor issues before they become major problems.
02	What's included in Naked Energy's O&M services?	Our service covers the Virtu and the full solar thermal system; collectors, pumps, valves, insulation, and controls, with options to include wider system components such as heat pumps. Packages combine preventative maintenance, continuous performance monitoring via Clarity24-7, preventative monitoring and incident call-out support. We can also offer training to any onsite engineers or facility management staff on basic solar thermal maintenance requirements and safety protocols.
03	What are common signs the system needs attention?	Reduced hot water output, unusual pump noises, low pressure, visible leaks, damaged insulation, or unexpected system alerts can all indicate a problem. Our Clarity24-7 platform proactively detects performance issues before they become faults.
04	How often should the system be serviced?	We recommend annual servicing for optimal performance and reliability, though frequency can vary with system age, usage and site conditions.
05	What is included in a routine maintenance visit?	A routine visit includes an inspection of collectors and pipework, checking system pressure, testing glycol fluid quality and concentration, inspecting pumps and valves, cleaning collector surfaces, and verifying sensor operation.
06	What do I do in an emergency?	We offer a dedicated call-out service for urgent issues. Our engineers respond quickly to diagnose and resolve faults, restoring safe and reliable operation.
07	How much does an O&M contract cost?	Pricing depends on system size, configuration and service level, we usually find annual O&M costs represent around 1-3% of total system capex. We provide tailored quotes after initial consultation.
08	Do you offer ongoing maintenance contracts?	Yes. We offer maintenance contracts ranging from one to three years, providing predictable costs, priority response and long-term peace of mind. Customers who commit to a three-year contract receive a 10% discount.
09	How do I schedule a service or request a quote?	You can schedule a service or request a quote by filling out the contact form on our website, emailing us directly, or calling our customer service line on +44 20 4542 2230.
10	Do I get a warranty with my Virtu system?	Yes. All Virtu products meet rigorous certification and quality assurance standards and come with a standard five-year warranty. Customers who use an approved installer and use Naked Energy's O&M services, benefit from an extended ten-year warranty – one of the longest in the industry.

Working with Naked Energy

At Naked Energy, our O&M services aren't just about a technical solution, it's an ongoing partnership. From the moment your system is handed over, we work with you to ensure it runs safely, efficiently and reliably 24/7.

Onboarding

Every O&M contract starts with a full review of your system design. We set up monitoring, go through the essentials with your team and ensure that everyone feels confident running the system on a daily basis.

Ongoing support

Through Clarity²⁴⁻⁷, we monitor system performance through real-time analytics, can provide comprehensive reports, and support as required. Our responsive maintenance team is always ready to tackle any issues quickly and effectively.

One point of call

At the start of every O&M contract we ensure you have a single point of communication for maintenance scheduling, technical advice, and performance updates – this way you expect seamless support with someone who knows your system best.

**Changing energy
for good**
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