



# Cure heat network inefficiencies

Ensure accurate billing and efficient energy monitoring with healthy heat meters.

**Meter health is a crucial element in preserving the accuracy and efficiency of heat networks. By ensuring meters are healthy and functioning correctly, we can provide accurate billing and ward off energy waste, essential to both customers and suppliers.**

## What is meter health?

Meter health refers to the condition of heat meters and their ability to provide accurate and regular meter readings. Healthy meters consistently and correctly record energy consumption, while unhealthy meters may give inaccurate data or cease functioning altogether. Monitoring meter health involves regular check-ups and maintenance to sustain optimal performance.

## Common causes of unhealthy meters

Unhealthy meters can result from a variety of issues:

### 🔗 Out of communication

This occurs when communication between the heat meter and the billing system is lost, resulting in a lack of data transmission.

### 🚫 Supply off yet consuming (prepay meters only)

This situation arises when the heating & hot water supply has been turned off, but the heat meter continues to register consumption. This may indicate that the prepay valve has been overridden, allowing continued consumption even when credit is depleted.

### ↑ High consumption

This occurs when the heating & hot water supply is on, but there is a significantly high level of consumption recorded by the heat meter. This may indicate a potential leak in the network, or excessive usage.

### ↓ Low consumption

This situation arises when the heating & hot water supply is on, but there is a noticeably low level of consumption registered by the heat meter. This may be due to meter recording issues or could indicate financial vulnerability if residents excessively lower their usage.

### ⊗ No consumption

This occurs when there is no consumption recorded by the heat meter within a specified period, indicating potential issues with the heat meter or heating & hot water supply.

## Meter health regulatory requirements

The Office of Gas and Electricity Markets (Ofgem) is setting stringent requirements for heat network meters to ensure accuracy and consumer protection. Current consultations indicate the following:

- New build heat networks must install smart meters by default, and existing networks must replace non-compliant meters.
- Meters must meet specific accuracy standards and undergo timely repairs.
- Heat networks must provide data on tariffs and pricing.
- Bills must be transparent and display charge calculations for consumers.
- Suppliers must take meter readings for consumers unable to do so.
- Consumers should not be billed for heat consumed more than 12 months prior to the bill issuance.

⚠️ **Non-compliance with future heat network regulations may lead to financial penalties and potential revocation of operating licenses by Ofgem.**

## Risks of poor meter health

### Inaccurate billing:

Customers might be billed incorrectly, due to faulty meters or missed tariff updates from out-of-communication meters, leading to disputes and dissatisfaction.

### Revenue loss:

Inaccurate consumption data and reliance on industry standards may lead to cost under-recovery for suppliers and operators.

### Increased operational costs:

Faulty meters can result in higher maintenance costs and operational inefficiencies.

### Compliance penalties:

Non-functioning meters can lead to non-compliance with industry regulations, risking fines and other penalties.

### Reputational damage:

Ofgem's new regulations mandate precise data reporting; failure to comply could lead to public censure and reputational harm.



# Cure heat network inefficiencies

Ensure accurate billing and efficient energy use monitoring with healthy heat meters.

## How to fix unhealthy meters

Addressing issues with unhealthy meters involves several steps to ensure they return to optimal performance:

- 1. Remote diagnostics:** Utilise remote monitoring software like VANTAGE to diagnose the cause of unhealthy meters.
- 2. Attempt remote resolution:** Investigate whether the issue can be resolved remotely. Your metering & billing or maintenance provider may be able to help with this.
- 3. On-site intervention:** If remote resolution is not possible, contract a heat network engineer to fix the issue on-site. Access to the resident's property may be required.

### Preventative measures:

Implement regular maintenance and continuous heat network data monitoring to uphold meter health and promptly address potential issues.

## Finding meter health in VANTAGE

By regularly checking meter health on VANTAGE, you can proactively address any issues before they escalate.



1. Log into your VANTAGE account at [insite.valytica.com](https://insite.valytica.com).
2. Navigate to the 'Meter health' report via the left-hand menu or click on the 'Meter health' pie chart.
3. Scroll sideways on the two tables to view reasons for unhealthy meters. This data can also be exported to an Excel spreadsheet.

Please note, in winter cooling meters may register as low consumption. Use the filters in the top right corner to only view heat meters.

**Please get in touch with your client account manager to discuss the meter health at any of your heat networks.**

## 🔍 Case study: How one client increased their number of accurate bills by 117%

Faced with challenges in meter accuracy and billing precision within their heat network, our client recognised the need for strategic intervention to overcome these obstacles. Seeking to enhance operational efficiency and customer satisfaction, they chose Insite Energy as their maintenance provider to help navigate these complexities.

### Challenges

Limited access to residents' properties posed logistical challenges, yet ignited our innovative problem-solving.

Existing complex failures within the infrastructure served as opportunities for strategic improvements.

Complex data solutions, while initially daunting, spurred our team to develop streamlined processes and solutions, leading to enhanced efficiency and accuracy in billing.

### Solutions

Implemented a thorough assessment of existing meter faults.

Calibrated 10% of heat meters, targeting poor performers for enhanced accuracy.

Prioritised meter repairs for cost reduction based on data-driven insights.

Collaborated with the client for property access and communication with residents.

Proactively addressed new faults as per service level agreements (SLAs).

### Outcomes

Repaired 70% of existing faults within the first year, exceeding forecasts.

Achieved meter calibration scope within 12 months, covering 10% of the estate, ensuring optimal performance.

Addressed 102 emergency repairs promptly ensuring uninterrupted supply.

Increased bills issued based on actual readings from 33.8% to 73.5%, improving accuracy and cashflow.

By maintaining good meter health, heat network operators can ensure efficient and reliable service, benefitting both customers and the business. Regular monitoring and maintenance, supported by tools like VANTAGE, are essential for achieving these goals.

