Reducing costs for housing associations and residents

KURVE
TECHNOLOGIES

The flexible consumer interface for heat networks

9:41

HOME   EB

CURRENT BALANCE
Last Reading 13:20 · 13/09/21 · 355kWh

£34.⁷⁰
Estimated
14 days left

Today you have used

£
1.20

kWh
12

TOP UP
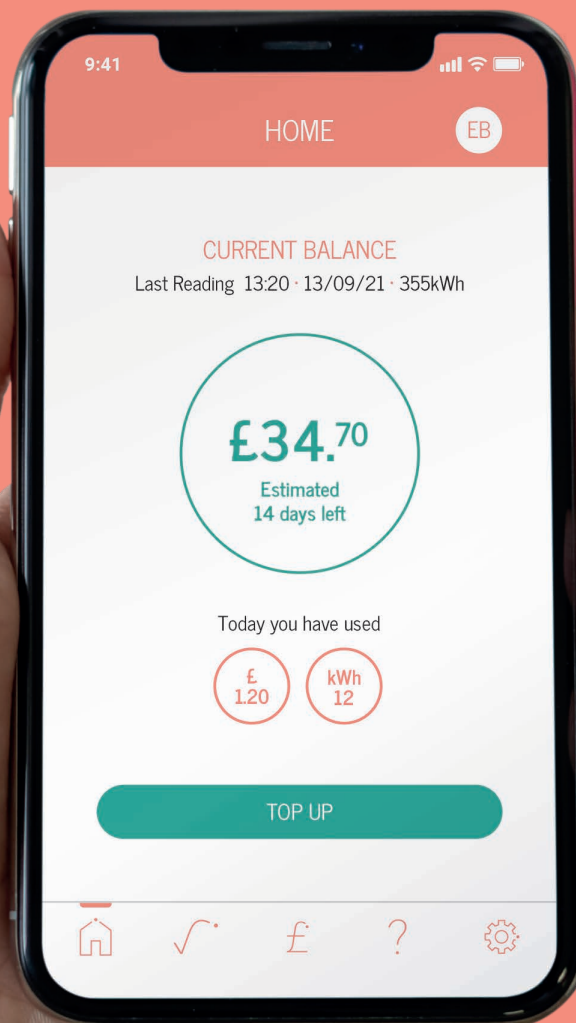
HEAT NETWORKS

Heat networks are a key element to the UK successfully achieving its carbon targets by 2050. Heat networks provide the flexibility to exploit large scale, renewable and recovered heat sources that cannot be accessed at an individual building level. While offering a low-carbon source of energy, heat networks also offer improved safety, supply reliability and energy security.

The Climate Change Committee estimates that heat networks need to provide 18% of the UK's domestic heat by 2050, for the UK to meet its ambitious carbon targets. Heat networks currently account for only 2% of UK domestic heat demand, with the industry facing multiple challenges including high capital expenditure (CapEx), increasing operational (OpEx) and replacement expenditures (RepEx), and more demanding requirements for metering and billing.

Metering and billing regulations are tightening - as of 25th October 2020, the Energy Efficiency Directive (EED) requires all meters installed to be remotely readable. In addition, by 1st January 2027, all existing meters must be remotely readable, with data being provided to end consumers on at least a monthly basis.

As standard, a heat supplier is responsible for the operation and maintenance of a heat network. This includes the procurement of incoming fuel, metering and billing of connected properties, and the upkeep of both plant room and property (including HIUs and heat meters) equipment.

It is the responsibility of the heat supplier to remain in compliance with Heat Network (Metering and Billing) Regulations 2014, and select the right metering and billing platform for their heat network.

APARTMENT

EXAMPLE OF A DISTRICT HEATING SCHEME

HIU*

ENERGY CENTRE

— HEAT NETWORK
*HEAT INTERFACE UNIT
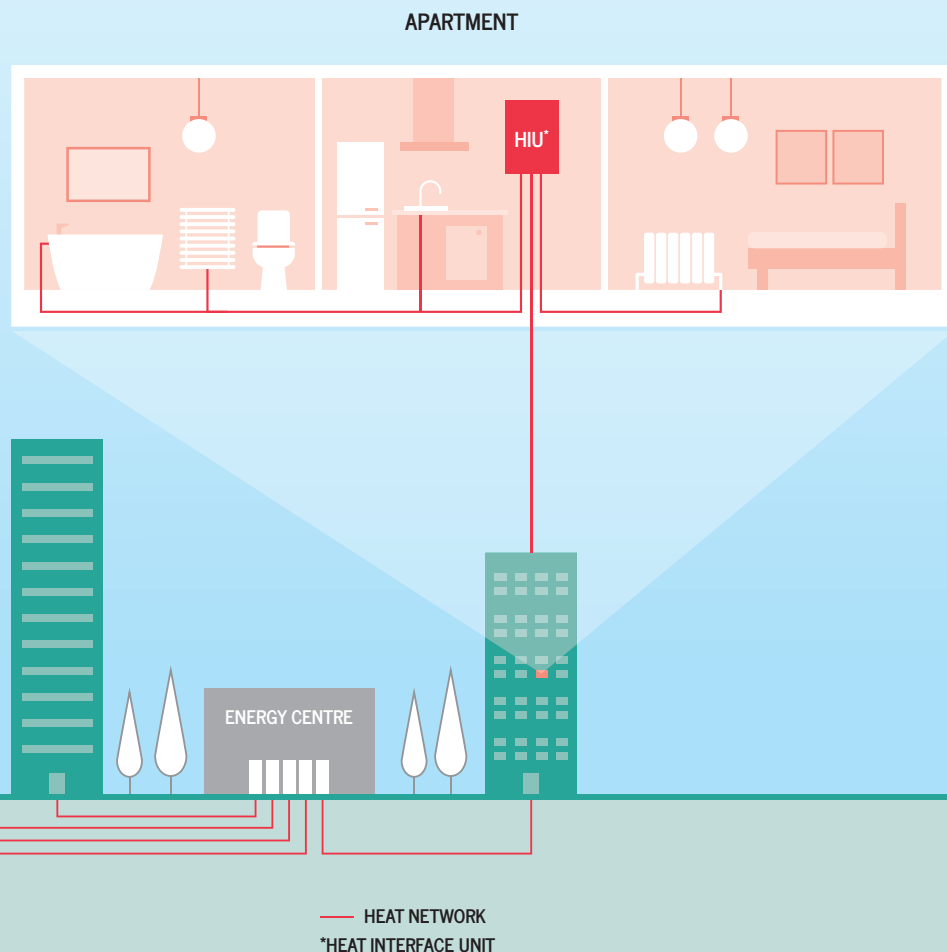
KURVE TECHNOLOGIES

KURVE - REDUCING HEAT NETWORK COSTS

KURVE Technologies was established in 2018 and after extensive development the KURVE web-app has launched. Consumer experience is paramount to the success of heat networks and having on-the-go access helps consumers to engage with their energy consumption. KURVE helps reduce costs and risk to heat suppliers whilst improving transparency and convenience to residents.
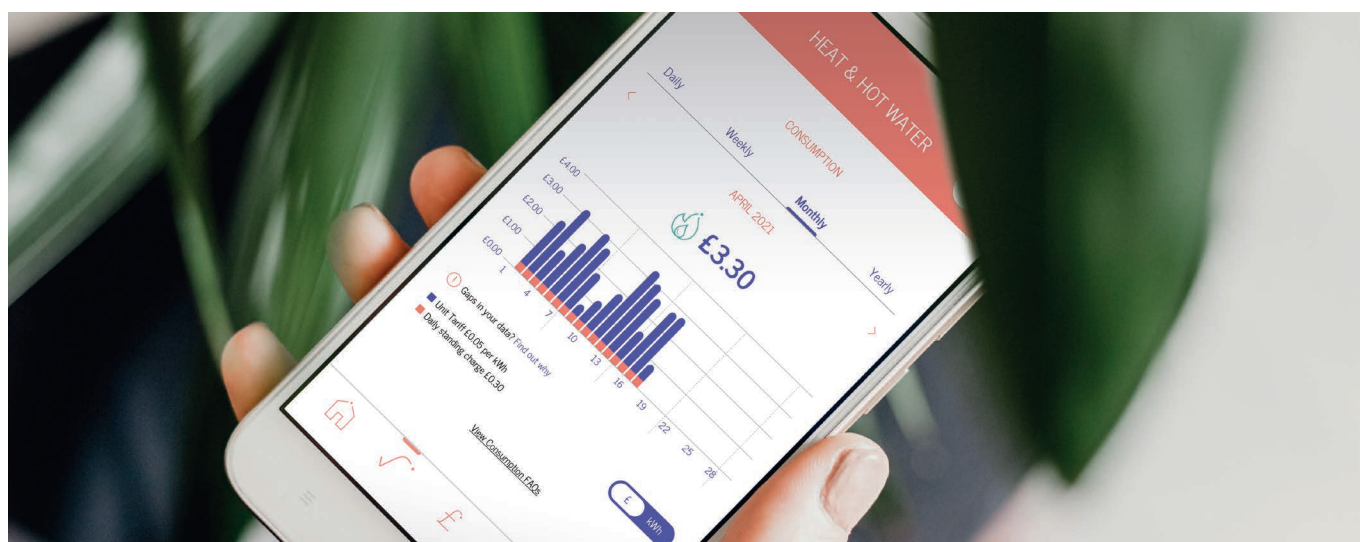
KURVE IS A JOINT VENTURE BETWEEN INSITE ENERGY AND SAV SYSTEMS

SAV.

www.sav-systems.com

"Optimum indoor living with minimum energy wastage."

Since 1997 we have worked continuously to improve our solutions by collaborating closely with clients, designers, site engineers and our chosen technology partners to ensure the right solution is delivered to each project, making us UK market leaders for HIUs.

insite energy

www.insite-energy.co.uk

With over 10 years of heat network experience, Insite Energy provides a range of specialist services to heat network operators across the UK. This includes smart metering, billing, payment and customer support services to over 30,000 homes. At Insite, we aim to take the stress out of metering and billing for all.

KURVE TECHNOLOGY PARTNERS

kamstrup

READy software

Gentrack

Billing and customer relationship management (CRM) platform

PayPoint

Omni-channel payment solutions

Brandwidth

KURVE web-application developer

PAY **ON THE GO**

KURVE has been designed with both clients and residential consumers in mind. This new smart metering and billing solution has been developed as a web-app allowing customers to access their account through any internet-connected device from anywhere, at any time.

From the KURVE web-app a customer can view their current balance and historical consumption. With the embedded fast and secure payment technology, consumers can conveniently manage their utility account on the go. Paying for energy use has never been easier or more convenient. To date (Aug 2021), 99% of consumer payments have been made via the web-app.

YOUR BALANCE

- View current balance (£)
- View current day's usage (kWh)
- Activate emergency credit
- View latest meter reading
- Traffic light colours to highlight current balance status
- Estimated number of days of credit remaining
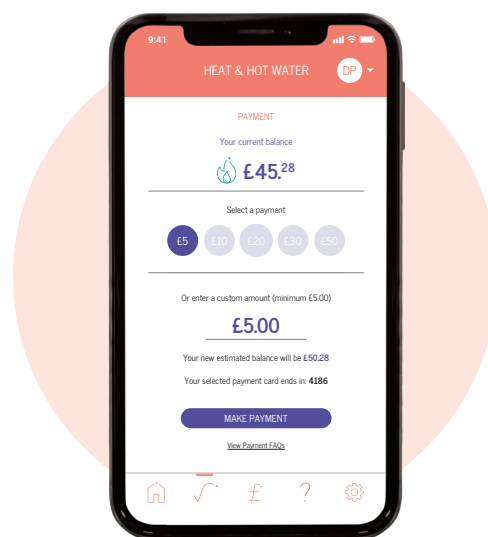
MAKING PAYMENT

- Email balance notifications sent to customers as helpful top-up reminders
- Top-up via the KURVE web-app
- Top-up at any PayPoint outlet with cash or card
- Top-up via 24/7 secure phone payment service (IVR)
- Ability to store multiple payment cards
- 4-click quick-pay process
- Payment history viewable in app
- Fully PCI compliant payment processes

Heat suppliers benefit from the ability to remotely switch KURVE from Credit-As-You-Go (CAYG) to Pay-As-You-Go (PAYG) depending on their preference, or consumer needs.

KURVE FOR CUSTOMERS

CUSTOMER JOURNEY

KURVE customers will receive a full suite of correspondence throughout their set-up journey. This includes:

Physical leaflet to introduce them to KURVE

Welcome email allowing them to activate their account

Electronic welcome brochure providing them with detailed information about their scheme and account set-up

Full access to their utility account through the KURVE web-app

ACCESS OPTIONS

We understand that all customers are different.
As a result KURVE can be offered in various ways:

- KURVE Pay-As-You-Go (PAYG): a customer has full access through their online account.

- KURVE Credit-As-You-Go (CAYG): a NEW configuration of the web-app allowing customers to pay in arrears whilst having a credit threshold in place to manage the risk of aged debt.

- KURVE-branded credit billing: standard monthly electronic or paper credit billing with KURVE branded statements, with the ability for manual disconnection.
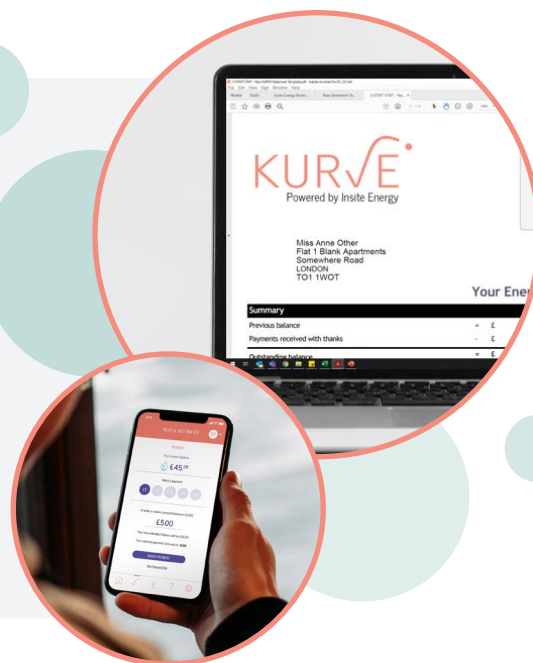
VULNERABLE CUSTOMERS

KURVE has been designed to be versatile to support vulnerable customers.
Where a full PAYG app is not deemed appropriate, we offer the following two options which you can set them up with:

Authorised account holder

- This could be a carer, family member or friend who can manage their account for them, without the need to be in the property. All we need is written authorisation from the resident.

- By being set up on the app, they will receive the balance notifications, informing them of low credit before disconnection may occur.

KURVE branded credit billing

- For some vulnerable customers, PAYG with self-disconnect is simply not the right solution. As such, these individual residents can be set-up on KURVE-branded credit billing. This removes any risk of isolation, and physical bills can be sent out each month.

- KURVE's Smart M-Bus technology can still be installed within the HIU and heat meter to avoid any long-term debt from building up and allow future account type switching if there is a change of tenancy requirements.

KURVE FOR CLIENTS

FLEXIBLE KURVE SET-UP

- Streamlined resident sign-up journey with tailored-to-scheme customer communications
- Adjustable welcome, friendly-hours and emergency credit available
- Adjustable credit threshold to enable PAYG and CAYG set-up, remotely switchable
- Alternative account set-up options for vulnerable customers
- Option for 'keep warm' billing omission
- Customer account settings can be configured at property level to client requirements

CAPEX, OPEX & REPEX

- Low in-dwelling installation requirements:
  - No in-home display device required
  - Energy meter only
- Low network installation requirements:
  - Standard wired M-Bus network
  - Resultant reduction in CapEx
- Results in minimal maintenance (OpEx cost)
- Results in reduced asset replacement (RepEx cost)

KURVE
INSIDE

DEBT RISK MANAGEMENT

- Automatic supply isolation in the event of non-payment (self disconnection)
- Enhanced cash-flow security
- Individual debt recovery plans available
- PCI, GDPR and Cyber Essentials compliant
- Ring-fenced client accounts for customer payment collections
- Full compliance with: Heat Network (Metering and Billing) Regulations 2014, CIBSE Code of practice (CP1) 2020 and Heat Trust guidelines.

CYBER ESSENTIALS CERTIFIED

FOLLOW YOUR **KURVE**

KURVE displays a customer's consumption over the day, week, month and year, giving them access to their data whenever they want.

This visibility promotes their engagement with their consumption - a proven way of encouraging reduced energy use and achieving cost savings.
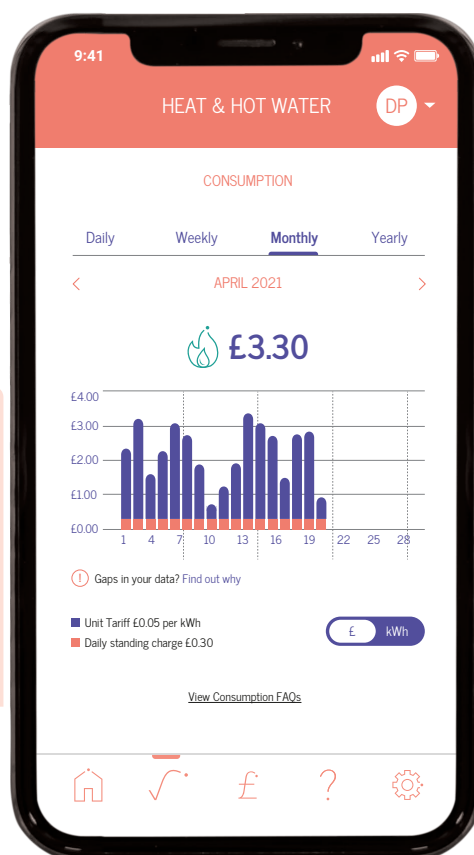
CONSUMPTION AT YOUR FINGERTIPS

- Daily, weekly, monthly and yearly views
- Historical data access
- View energy usage (kWh)
- View energy spend (£)
- Promotes conscientious energy usage and reduced spend
- Current and historic tariffs (daily standing charge and kWh unit rate) displayed in app.

HOW IT **WORKS**

FLEXIBILITY TO PICK WHAT WORKS FOR YOUR SCHEME

METERING AND BILLING PROCESSING

KUR/E
T E C H N O L O G I E S
CLOUD BASED SOLUTION

Hosted by Insite Energy

PayPoint   *Gentrack*   **kamstrup**

KURVE Communication Hub

WIRED M-BUS NETWORK

M-Bus Disconnect module

Energy Meter

HIU can be isolated via M-Bus Disconnect module

Heat Interface Unit with Kamstrup energy meter and M-Bus disconnect module

Fully transferable; if at any point you want to move away from the KURVE solution, you will have full control to do so obtaining meter data via the wired M-Bus network.

HIU **COMMISSIONING** & ONGOING **MONITORING**

KAMSTRUP ENERGY METER

Kamstrup's technology has grown with the heat network industry, with over 350 engineering specialists engaged in Kamstrup's Research and Development department. There is a huge amount of intelligent technology built into the Kamstrup meter, making it possible to process and log readings. This data can be used for ongoing monitoring to quickly highlight if things are going wrong in the system.

Clients, consultants, contractors and commissioning engineers all face challenges to prove HIU commissioning has been successfully completed. Kamstrup energy meters provide the evidence to resolve this issue. With the Kamstrup meter installed inside the HIU, one-minute meter data can be extracted to show heat network flow and return temperatures and flow rate. There are three main variables to commissioning a HIU; (1) domestic hot water, (2) space heating and (3) keep warm function. This data is used to analyse and demonstrate HIU performance.

VWART / VWAFT

Volume Weighted Average Return Temperature (VWART) is a key factor for heat networks to monitor the health of the system. Keeping the VWART as low as possible reduces costs and improves efficiencies.

VWART is calculated and displayed on the Kamstrup meter, and extracted through the M-Bus datagram.

Why add complexity when the data is already there!

Kamstrup 603 energy meter

PERMANENT DATA-LOGGING

Each energy meter incorporates a permanent memory (EEPROM) where the energy data is stored, assisting engineers and billing companies to access the recorded information when required. The following four data loggers are included as standard:

Yearly logger	20 readings
Monthly logger	36 readings
Daily logger	365 readings
1 min logger	4320 readings

READY PRO

Easy to access, clear and actionable data is key to being able to understand how your scheme is operating. With KURVE's open protocol wired M-Bus system you will always be able to have the data in the way that works for you.

You can't manage what you can't measure.
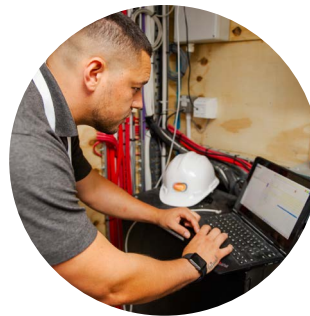
Heat network performance analysis

KURVE

KURVE UK SUPPORT

KURVE's specialist teams work across all areas of metering and billing delivery with nation-wide coverage.

**Please come visit us at our Technology Centre in Woking
for a hands-on introduction to KURVE.**

KURVE Technologies

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