Working in Partnership to Provide Metering and Monitoring Solutions

Orsis Metering Solutions

- Operating in the UK since 2006
- Deliver multi-utility Smart Metering Solutions
- Industry participant – registered MAP & DR
- Experience in delivering metering solutions in challenging environments and prestigious locations
- Experienced supplier of micro-generation metering solutions
- 40,000+ installed metering points across the UK and Europe
- OFGEM and MID approved meters
- Fiscal and Sub-Metering Solution
- Multi Utility / Micro Generation Metering
- Half Hourly Consumption/Generation Data delivered Day +1 as standard remotely configurable down to 5 min intervals
- Single Communications Network based on GPRS and 433Mhz technology
- Interfaces with any aM&T system and can be delivered in any format

Sub Metering, Energy Management and Tenant On Charging

The demand on businesses and the Public Sector to meet Carbon Commitment targets, combined with the need to reduce the cost of energy consumption requires effective and accurate reporting and monitoring.

Sub Metering, Energy Management and Tenant On Charging

Energy Management

Energy management is the use of technology to improve the energy performance of an organisation and to be fully effective it needs to be an integral part of an organisation's wider management processes and any corporate social responsibility (CSR) policy.

Orsis work closely with organisations to help identify their needs and motivations in order to define the metering strategies needed to deliver quantifiable savings. To accurately manage energy it is necessary for facility and buildings managers to understand how and where energy is being consumed.

Sub Metering & AMR

Sub Metering is the installation of meters in addition to existing primary billing meters. This allows an organisation to accurately measure and record energy usage for individual areas across a site. Orsis specialise in the delivery of multi-utility sub metering installations in addition to data logging and delivery services that fully integrate with established aM&T systems to enable the effective management of energy consumption.

Automatic Meter Reading or AMR is a method of providing accurate, remotely read data on energy consumption.

Tenant on Charging

For commercial landlords, managing a portfolio of properties or separately billed units across a site can be challenging and time consuming. The Orsis Energize tenant billing solution ensures that energy is monitored and managed effectively and accurate bills are produced.

The tenant's consumption data can be displayed on the Orsis Energize portal. The portal has many analytical functions that allow the client to monitor the entire portfolio, view individual units, overlay data from multiple sites and create alerts based on specific parameters in line with the clients risk profile. The software allows different charging structures to be implemented and can produce estimates based on individual user profiles. Data can be sent from the portal in all commonly used formats to third party payment systems.

Sub Metering Solutions

Electricity

Electricity consumption can be monitored by using an Orsis RF Data Logger fitted to the pulsed output of an existing electricity meter.

Electricity Data Logger

Local Data Concentrator (LDC)

Gas Data Logger

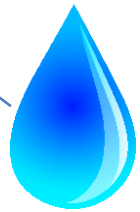
Gas

Gas consumption can be monitored by fitting a battery powered Orsis ATEX Data logger to the existing gas meter providing it has a pulsed output.

Combined Sensor Temp/RH/CO2

The mains powered Orsis Combined Sensor measures temperature, relative humidity and CO2 levels in the property. A Dual Sensor (Temp/RH) is also available.

Water Data Logger



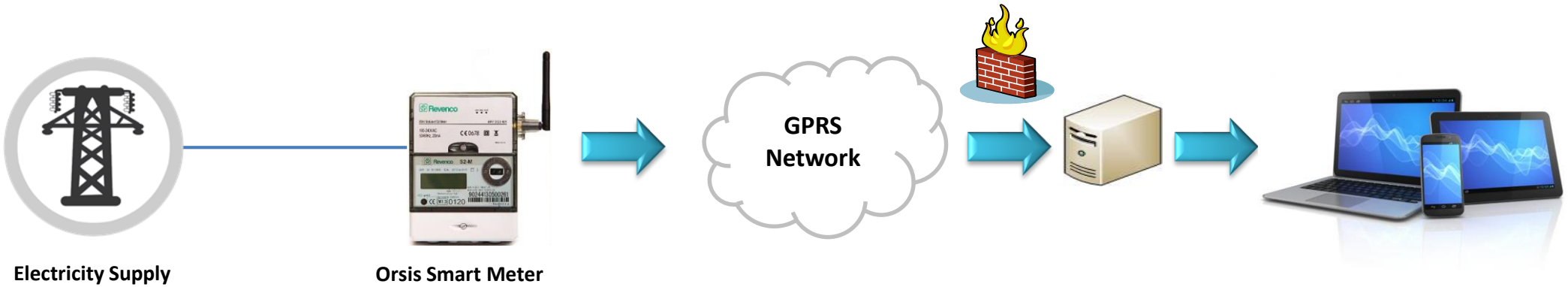
Water

Total water usage is monitored using an Orsis Water Data Logger fitted on the existing pulsed enabled water meter.

Communications

We create an RF network that connects multiple devices to a single Local Data Concentrator (LDC). The Mesh is self healing, so if a device loses connection it will automatically find an alternative route. The network is therefore resilient and always on. The LDC transmits retrieved data from the connected devices via GPRS to our back office system. The LDC can also be hardwired via an Ethernet connection.

Single Phase Electricity Metering

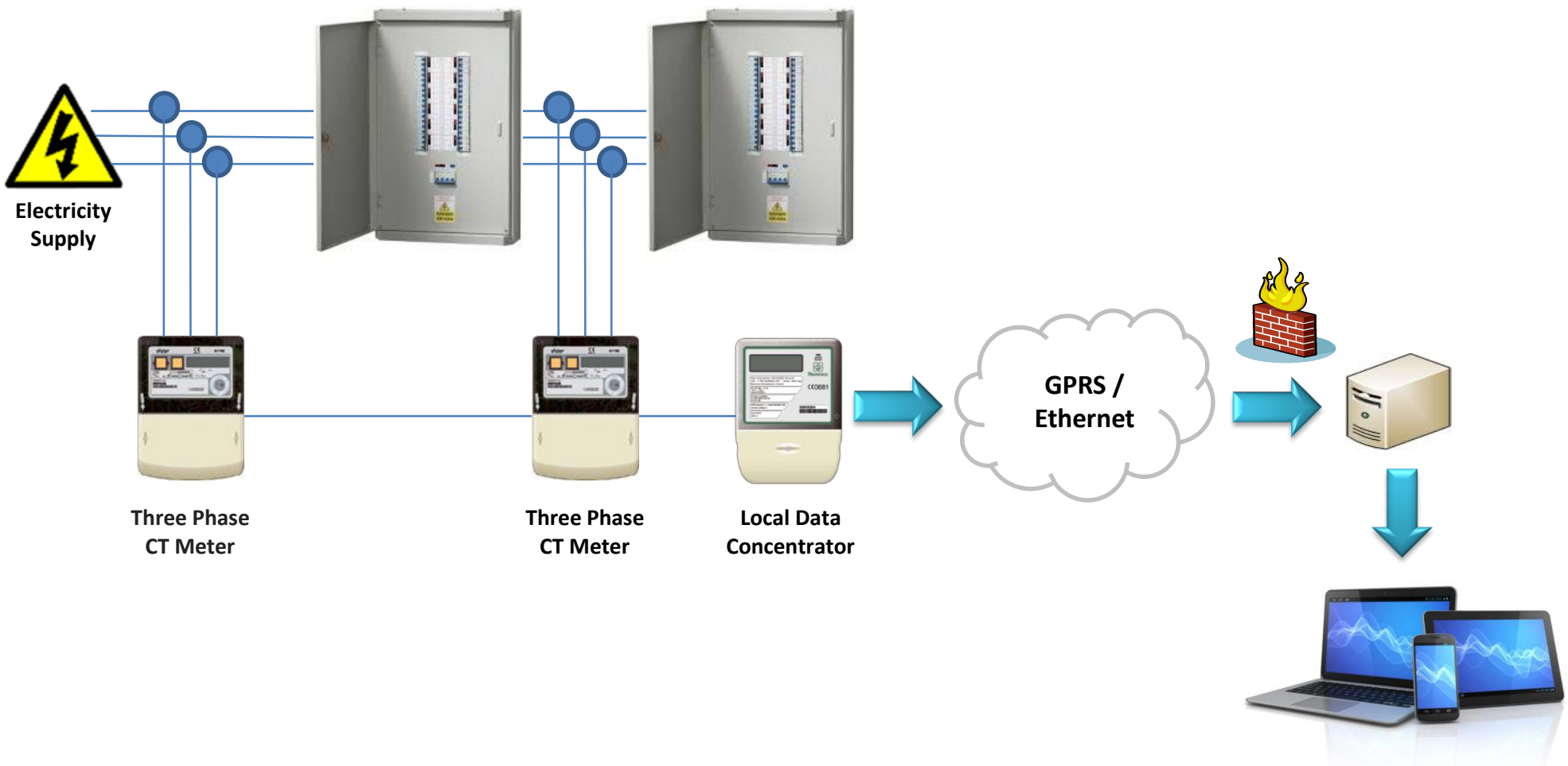


Electricity Supply **Orsis Smart Meter**

Single-Phase electricity consumption is metered using the Orsis Smart Meter which communicates via GPRS to the Orsis Back Office.

The half hourly data is displayed via the Orsis Energize Portal.

Three Phase Electricity Metering



Total energy consumption of three phase supplies can be monitored by either a three phase CT check meter or via clamp on CT Data Loggers.

The three phase meters have a direct connection to a Local Data Concentrator (LDC).

Software Solutions

We work closely with a number of businesses to develop our cutting edge monitoring platforms. The Energize Portal, in conjunction with our sub metering technologies, provides an advanced solution for monitoring, bill validation and financial forecasting.

ORSISENERGIZE

ORSISENERGIZE

To successfully manage energy it is necessary for building & facilities managers to understand how and where energy is being consumed. Rising energy prices, climate change legislation and the need to be environmentally responsible all require effective energy management.

The Energize portal simplifies every aspect of managing energy data. From mitigating supplier over charges to reducing internal administration costs, the portal displays information in a meaningful way through a suite of energy management tools enabling users to monitor, control and optimise the performance of generation and transmission systems.

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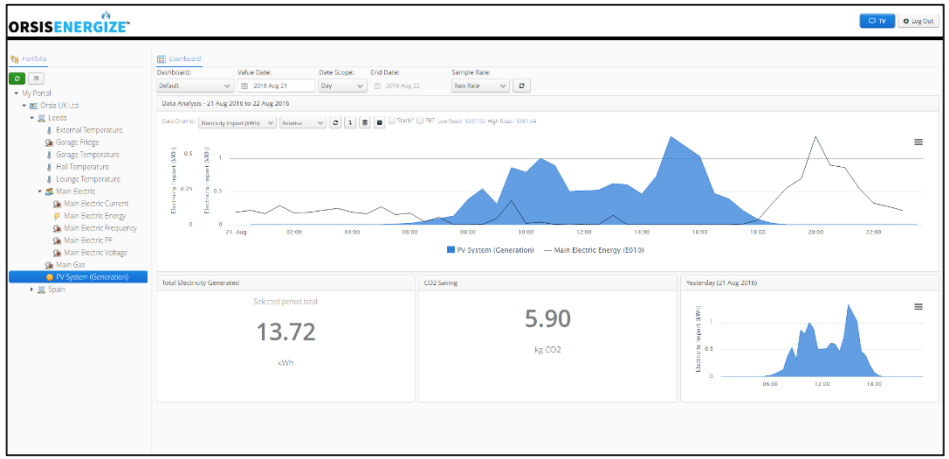

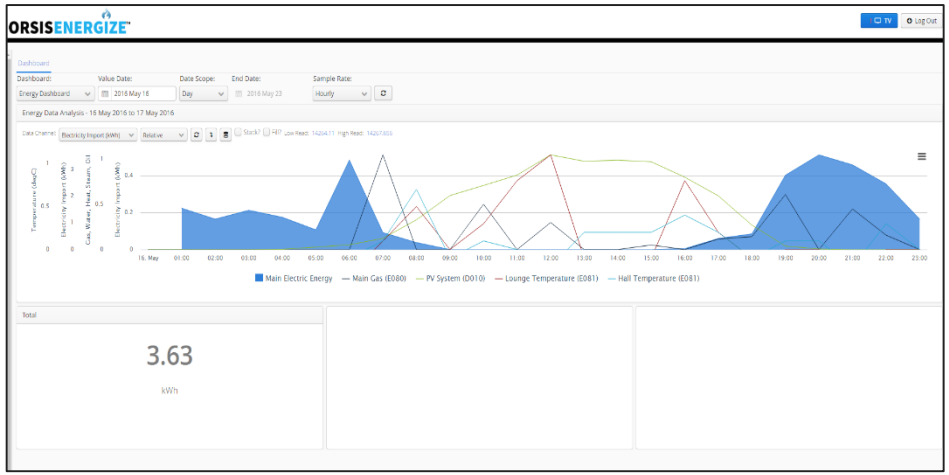

- Remotely accessed data
- Users are able to view multiple sets of data on a single graph
- Calendar overlay to compare daily/weekly/monthly and yearly data
- Easy to use ‘drag and drop’ function for viewing multiple data readings collectively
- Data Comparison between utilities
- Bespoke billing platform/tenant on charging/PPA solution

Billing

- Orsis can use the data gathered from the metering solutions above to provide a billing service for energy consumed within a building
- Produce accurate multi-utility bills for tenant on charging
- Power Purchase Agreement (PPA) solution
- Multi-rate tariff available – Day rate / Night rate
- Monthly or quarterly bill generation
- Bills can be branded with company logos

Sample Bill

ORSIS (UK) LIMITED

Address Where Meter Installed:

10 Cardale Park,
Beckwith Head,
Harrogate,
HG3 1RY

Bill Payer Address (if different):

Customer Address,
Accounts Department,
Harrogate,
HG3 1RY

Invoice Number:	Invoice Date:	Payment Due Date:
SAMPLE	01 March 2016	31 March 2016

Meter Serial Numbers:	Type:	Last Reading:
15080215	Generation	11264.957
11041343	Export	46134.673

Billing Period	Cost per kWh	Total Consumption (kWh):
01 February 2016 - 01 March 2016	5.40	20,567.26

Amount Due Excluding VAT	1,110.63
VAT	222.12
Total Amount Due	1,332.75

Bank Details For Payment

Account Name	Invoicing Company
Bank Sort Code	00 11 22
Account Number	12345678

Case Study 1

80 Strand

The Building: This fifteen storey landmark building is located on the south side of the Strand in central London. Multiple high profile, blue chip organisations are located within the building.

Requirements: 140 MID approved replacement electricity meters to provide multi-tariff tenant on charging.

Challenges: Many meter points are located in sub-basement plant rooms. There is a wide variety of working hours for the commercial tenants who required zero disruption to their services.

Orsis Solution

Orsis carried out a pre-installation survey to identify challenges. The main sub-station is situated in the basement of 85 Strand. The solution comprised of Elster three phase meters with Orsis High gain antennas used to ensure GPRS connectivity. 140 meter points were replaced over a three week period with no disruption to tenants services.

The client can now issue accurate bills to tenants and monitor energy consumption for Carbon Reporting purposes.

Case Study 2

3 More London Riverside

The Building: A nine storey multi-tenancy commercial building situated in central London with multiple high profile, blue chip organisations located within the building.

Requirements: 103 meter points utilising a combination of MID approved electricity meters and RF data loggers to provide data to enable tenant on charging.

Challenges: To ensure the accuracy of meter readings used for tenant billing. There was also requirement for zero disruption to the tenants business services.

Orsis Solution

Orsis carried out a pre-installation survey to identify potential challenges on site. A combination of Elster three phase electricity meters and Orsis data loggers were used. The meters and devices connect to several Local Data Concentrators installed throughout the building to create a mesh network. Over one hundred meter points have been installed to date with ongoing requirements dependent on tenant occupancy and building alterations. The initial installation was completed with zero disruption to tenants.

The client can now issue accurate bills to tenants and monitor energy consumption for Carbon Reporting purposes.

Case Study 3

University of Limerick

The Site: Voted The Times University of the year 2015 the campus comprises of multiple buildings across a 340 acre site.

Requirements: 204 meter points utilising a combination of data loggers monitoring gas, water and electric usage across the campus to provide energy data that is displayed on monitors in the entrances of main buildings. The data collected is also used for cross charging across the University.

Challenges: To ensure accuracy of aligning Data logger information to physical meters used for billing purposes.

Orsis Solution

Orsis carried out a pre-installation survey to identify challenges. More than two hundred Orsis Data Loggers were fitted to the existing electricity, gas and water meters. The loggers are connected via a Local Data Concentrator mesh network and routed through the University's central computer system via Ethernet connections.

The University is now able to collectively manage their energy consumption and use the data for cross charging the different departments and buildings.

Client Feedback

"Orsis (UK) Ltd is ECOVAs trusted partner for Tenant On Charging services across the UK and Europe. We have been delighted with the level of service we receive and the professionalism of Orsis staff members. We look forward to a continued relationship for many years to come."

Hannah Kimber, Tenant on Charging Team Leader

"Campbell & Kennedy have used Orsis Remote Metering Solutions for over five years on many different Renewable Energy projects. Their extensive product portfolio and ability to create bespoke solutions for complex monitoring scenarios, together with their fantastic service levels means that they are our first point of call for any future projects."

Gerry Kennedy, Managing Director

"At Parity Projects we understand how vital it is to gather accurate and reliable data when monitoring social housing properties. Orsis are able to build complex and dependable monitoring packages where others have failed and are an invaluable part of the solutions we provide to our clients."

Russell Smith, Managing Director