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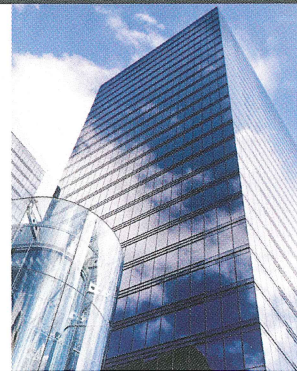
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BRISTOL'S RENEWABLE ENERGY SUCCESSES RECOGNISED AT INTERNATIONAL PANEL

Bristol's achievements increasing its renewable energy supply have been recognised by a high-level international panel organised by the European Commission and featuring a Member of the European Parliament at the UN's COP21 global climate talks in Paris.

Cllr Daniella Radice, Assistant Mayor for Neighbourhoods including the Environment at Bristol City Council, presented the city's successes including its solar projects which have helped the share of renewables in Bristol's energy supply soar to 25%.

The session, 'Renewable Energy: Energising The Future' presented renewable energy projects already being implemented in cities around the world. It also investigated how to accelerate these developments.

Stefan Schurig, Director of the Future of Cities and Climate and Energy department at the World Future Energy Council, presented an opening discussion on 'What does it take for cities to achieve 100% renewable?'

The panel included Mayor Marcio Araujo Larceda from Belo Horizonte, Brazil; Mayor Gregor Robertson from Vancouver, Canada;

and Mayor Kartrin Stjernfeldt Jamme from Malmo, Sweden. Claude Turmes MEP from Luxembourg also participated in the discussion, which was hosted by Claire Roumet, Executive Director of Energy Cities.

Cllr Radice described one of Bristol's Transformative Action Plans (TAPs), The Bristol Billion, which is designed to invest \$1B (or £700m) making the city's buildings more energy efficient to achieve significant carbon and energy savings. It would involve refurbishing 56,000 homes in Bristol – 30% of the city – to reduce energy use, help lift people out of fuel poverty and reduce health costs.

Cllr Radice said: "We are in Paris to exchange ideas with other cities and to attract investment in projects to transform Bristol.

"We have the lowest per capita carbon emissions of all the large UK cities, but I have been sitting at the table with even more ambitious cities such as Vancouver and Malmo, which shows the challenge we have ahead in terms of being in the very top league internationally.

"We have a clear picture of where to go

as a city but we know we need investment to help, and we have sent this message loudly and clearly to a broad range of people and organisations at this world summit."

Bristol City Council has installed 1.3MW capacity of solar PV on its own operational buildings. In 2015 alone it has rolled out 650kW, with a further 250kW planned before the end of this year. A total of 3,600 solar panels will have been installed, saving around 340 tonnes of CO2 each year. The council, which already holds 5MW capacity from two wind turbines since 2013, has plans to complete two solar parks with 10.2MW combined capacity in the coming months.

Heat networks are also being developed in the city, connecting businesses and public buildings to energy centres powered by biomass and backup energy efficient gas boilers. Building developers within a major city development project, Bristol Temple Quarter Enterprise Zone, will be set to attract sustainability-orientated businesses with affordable low carbon heat.

For your energy audits in the field

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- Ideal for mounting on electricity poles
- Self-powered by its voltage inputs up to 1,000 V
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- Measurements according to the IEEE 1459 standard
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MICRONICS – ETAF MANAGEMENT

ETAF Management (Energy, Training and Facilities), are experts in the specialist field of Energy Management. In February 2015 they were confronted with the need to verify for tax claim purposes the 'useful heat' used for a 778kW combined heat and power unit in a major hotel group. Alvaro Alvarez, ETAF's Architecture Technician searched the internet for a solution and discovered the Micronics U3000 which seemed to fit the requirements exactly. The Wiltshire-based company aims to optimise plant operations to achieve proven energy savings of as much as 30% in hotels throughout Europe, working for major groups such as the Carlson Rezidor Group, Jury's Inn, Marriott and Hyatt as well as smaller groups, and their contribution to the bottom line is highly valued by their clients. The Micronics flow meter allows accurate flow measurement from outside the pipe so there is no need to cut into pipework making measurement quick and simple. The Ultraflo's easy to follow menu and simple set up makes the calculation

of liquid flow effortless and reliable. The whole Micronics range of fixed and portable clamp-on flow meters provide a cost-effective alternative to traditional in-line meter installation for a wide range of applications. In addition, dry servicing means minimum downtime saving both cost and time. Compact, rugged and reliable, the Ultraflo has been designed to provide sustained performance in industrial environments and was ideal for Alvaro's needs. "I wanted to try an alternative flow measurement and have been delighted with my choice of the Micronics U3000 which offered exactly what I was looking for. We deal with very big volumes so wanted relatively easy, surface mounted installation. The U3000 offered exactly the features we needed and I would have no hesitation using it in other projects where precise flow measurement is required."

The potential for similar use is significant and ETAF's experience is an example of how Fixed Ultrasonic technology can be successfully implemented to gather information on water and energy use.



For further information on this project or the Micronics range call Micronics on +44(0)1628 810456, or visit www.micronicsflowmeters.com

PEL 105, THE POWER ENERGY LOGGER WHICH IS IDEAL FOR APPLICATIONS IN THE FIELD

The specialist in portable electrical instrumentation is completing its range of PEL Series loggers under the Chauvin Arnoux® brand with the latest model for energy auditing or point measurements on networks.

The PEL 105 logger is particularly simple to use with an all-terrain IP67 casing capable of withstanding shocks, UV rays and extreme temperatures. It is ideal for outdoor installation directly on an electricity pole. This logger was developed in the Group's R&D laboratories in France and manufactured on the production sites in Normandy, like the Group's other product ranges.

With its 1,000 V CAT IV safety rating, it can be used for measurements on all LV networks, including measurements of the neutral-earth voltage and the neutral current. This stand-alone instrument is equipped with a self-powering system via its voltage inputs up to 1,000 V. The PEL 105 offers 5 voltage inputs and 4 current inputs. Compatible with a large number of current sensors to make it easier to use, it also recognizes the sensors automatically.

THE COMMUNICATING LOGGER

Designed for use in the field, the PEL 105 can be set up in places where access is difficult. The measurements can be monitored in real time or the data can be recovered via USB, SD card, Ethernet, WiFi or Bluetooth for processing on a PC or tablet.

APPLICATIONS

The PEL 105 can be used to measure, record and analyse the power values (W, var, VA) and energy values (kWh, kvarh, kVAh). At the same time, they record the PF and the DPF. Recording is continuous with a sampling interval of 200 ms.

To improve energy efficiency according to ISO 50001 or carry out the audits required by the regulations, the PEL 105 can be set up on the different electrical feeders. It can then be used, simply and without downtime, to assess the relative weight of each line as a proportion of overall consumption, define a load profile for the installation and thus determine the priorities for improvement.

ANALYSIS OF THE MEASUREMENTS

The DataView® software platform is equipped with a wide range of functions including analysis of the measurements, comparisons and generation of measurement reports. DataView® can be used to monitor the measurements from each PEL logger in real time, whether it is connected to the Ethernet network or via Bluetooth or WiFi. This makes it simple and quick to view the measurements from all the instruments installed at different points in the building.

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