



PROJECT SUMMARY:



CLIENT:
Taylor Wimpey/
A2Dominion

PROJECT:
Biomass Energy Centre,
District Heating, Metering

TIMESCALE:
June 2009 - November
2012

CONTRACT VALUE:
£1.3 million

THE BENEFITS:

- > Highly-efficient, low-cost and low-carbon
- > Greater variety of options for residents
- > Provides energy security for the long-term
- > Meets planning regulations requirements and achieved Level 3 of the Code for Sustainable Homes
- > Emergency and friendly credit features

OVERVIEW

Previously home to US visiting forces and the UK's celebrated code-breaking team, relocated from Bletchley Park, RAF Eastcote is the first of six former Ministry of Defence sites in London to be redeveloped to provide much needed new housing for the UK's capital city. Taylor Wimpey purchased the 19-acre Hillingdon, West London site in 2007 to build Pembroke Park, a development of 385 new apartments and houses, 105 of which are affordable homes for A2Dominion Housing Association.

Cutting carbon was a core element of the planning conditions and led Taylor Wimpey to appoint Vital Energi to design, build, operate and maintain

a biomass-fuelled community heating scheme to supply the 105 affordable homes on the site.

Pembroke Park also marked the launch of Vital Energi's new smart metering and billing system vPro: energy metering system (vPro:ems).

When the credit billing solution originally specified was found not to be adequate for A2Dominion's residents at Pembroke Park, it commissioned Vital Energi to install our new vPro:ems smart metering system in its homes on the development and switch residents to a Pay As You Go billing mode.

CHALLENGE

Planning was awarded for the site on condition that it achieved a 10 per cent reduction in CO2 emissions from on-site renewable generation. This condition

was dictated by the Mayor of London's development strategy to achieve Level 3 of the Code for Sustainable Homes for all the affordable homes on the development.

▶ A2Dominion commissioned Vital Energi to install its very own new smart-metering and billing system named vPro in its homes and switch residents to a Pay As You Go billing mode. This was because the credit billing solution originally specified was found not to be adequate for A2Dominion residents at RAF Eastcote.



“ Over the past two years A2Dominion has worked in close partnership with Vital Energi investigating a series of challenges posed following the previous installation of CHP systems, by others, on schemes now owned by A2Dominion. They have been unfailingly helpful and innovative in providing ideas and solutions related to the design and build of new systems, the future maintenance of those systems and billing residents for the energy. They have also supported us in educating residents and staff to understand and get the best from sometimes complex and difficult problems. ”

STEVE MICHAUX, DIRECTOR OF LEASEHOLD SERVICES, A2DOMINION

▶ THE SOLUTION

Vital Energi was initially appointed by Taylor Wimpey to assess the original design proposal. Working closely with the client, our technical team took the original brief and developed it into a viable, reliable and energy-efficient design to deliver long-term performance.

We were then commissioned to supply and install a 140kW wood pellet boiler with gas-fired back-up boiler plant, wood-pellet fuel store, conveyor system to feed the biomass boiler, above and below ground heat distribution networks and our own Vital Aqua Varm Hydraulic interface Units (HIUs).

As the Energy Services Company (ESCo) of the scheme, A2Dominion recognised the residents required a more advanced metering and billing solution rather than the quarterly credit billing system originally specified as this didn't provide residents with the visibility of their consumption levels which resulted in residents getting into arrears.

A2Dominion therefore commissioned Vital Energi to install its new smart metering system vPro:ems in the 105 affordable homes at Pembroke Park and switch residents from credit

billing to Pay As You Go. vPro:ems has a number of benefits compared with basic metering and billing systems. It provides improved visibility of energy consumption levels, allows arrears to be collected and offers a wide variety of payment options including Payzone, Direct Debit, internet and telephone. It enables secure revenue collection through a Dynamic Payment Solution (DPS) which includes Pay As You Go and Managed Credit options, prompt crediting during normal working hours and security against hacking and fraud. The vPro:ems In-Home Display (vPro:ems IHD) encourages customer engagement and provides key data such as current consumption, remaining balance, days left until top up required and current tariff.

Vital Energi's metering team installed vPro:ems into all A2Dominion properties at Pembroke Park, fitting four systems a day during October and November 2012.

THE CONCLUSION:

Combining practical solutions with superior products and technologies, Vital Energi has installed a thermally-efficient low carbon energy source for heating and hot water which complements the developments aims to reduce its environmental impact and encourage residents to embrace a sustainable lifestyle.

The system provides significant savings and a reduction in CO2 to help Pembroke Park achieve its goal of cutting emissions by 10 per cent. For A2Dominion-owned homes on the development, Vital Energi's vPro energy metering system (vPro:ems) provides the most secure, flexible and resilient metering solution available on the market today.