

London Energy Partnership

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John Bird
Head of Asset Management

Lessons Learned!

St Richards House, Camden



- CHP unit installed 1995
- 95 flats plus commercial
- 54 kWe CHP unit
- £45k grant from Residential CHP programme
- Project costs £267k
- Payback 9.5 years

St George's Flats





reductions



RESIDENTIAL CHP PROGRAMME

~ Project Profile ~

St Pancras Housing

St Richard's House and Hillwood House

Selling electricity and heat from CHP directly to tenants and commercial units

Pioneering scheme

Tenants' electricity bills reduced by 25%

CO₂ emissions saving of 275 tonnes a year

Financial benefits of CHP help to pay for system refurbishment



St Pancras House, London. St Pancras Housing is proud to be the first to supply electricity direct to its tenants and, by passing on the efficiency benefits of CHP, cutting their energy bills in the process. Adrian Norridge, chief executive of St Pancras Housing.

St Pancras Housing

The housing association St Pancras Housing (SPH) provides a complete social housing service through its housing stock of nearly 2,500 units located in London and Hertfordshire.

SPH has a Green Policy which aims to ensure that its housing stock is built and maintained in a cost effective and energy efficient way. In keeping with this policy, SPH has installed a Combined Heat and Power (CHP) unit to serve St Richard's House and the adjacent Hillwood House near Euston Station in London. The installation was assisted by a £45,000 grant from the Residential CHP Programme.

St Richard's House and Hillwood House

St Richard's House and Hillwood House provide a total of 95 one, two and three

bedroom flats, and bedsits. The complex also includes an elderly persons' community centre, ten commercial units and SPH's own head office.

System upgrade

The two buildings were originally served by separate boiler plant and heat distribution systems. The boilers were old and it was decided to replace them with a 54 kW CHP unit and new boilers. The new plant was installed in the St Richard's House boiler room during the first half of 1995. At the same time the two distribution systems were linked to form one integrated system.

Selling CHP power

Originally the 95 dwellings, the SPH offices and the ten commercial units each had an individually metered electricity supply from

London Electricity. With the installation of the CHP system SPH took over responsibility for supplying electricity to both the commercial and domestic tenants. The old meters were replaced with modern electronic meters which are all linked to a computer billing system in SPH's offices. Tenants now receive their electricity bills directly from SPH. The electricity is supplied by the CHP unit, with any extra demand being provided by a single London Electricity supply to SPH.

This pioneering arrangement allows both domestic and commercial tenants to benefit from a significant reduction in electricity costs. In a ballot, the tenants decided to take their savings by having no standing charges. This means that they still have a strong reason to reduce their electricity usage.

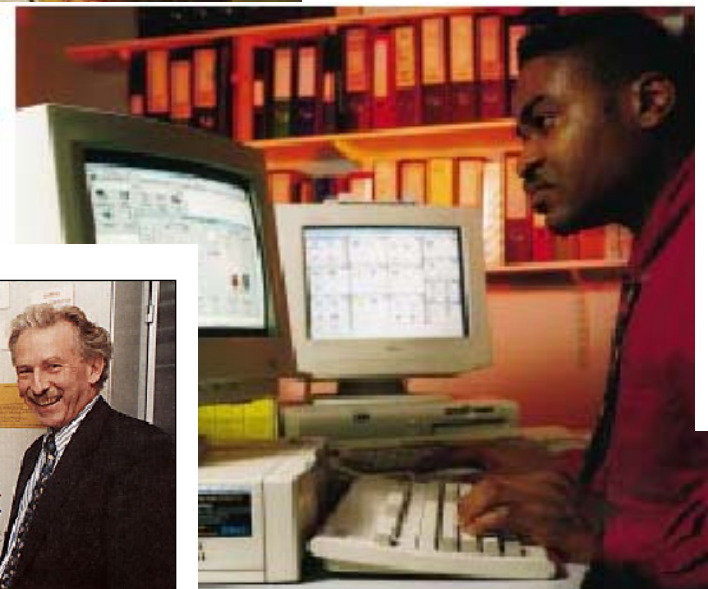
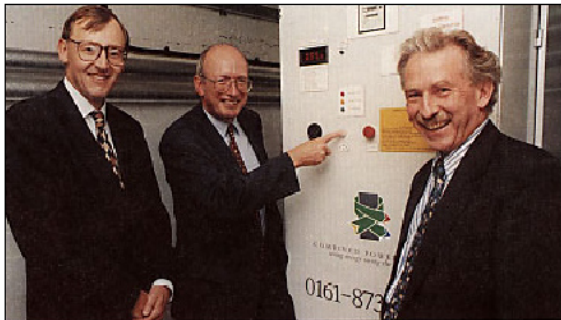


Figure 6 A PC in SPH offices is used to log its tenants' electricity consumption



Nick Raynford MP (centre) opens the CHP system. Also pictured are director of the CHPA David Green (left) and St Pancras Housing chief executive Adrian Norridge (right).



**Every new technology
has it's problems!**

**But it's normally the people that
cause them!**

Staff

- **We don't understand it.**
- **I didn't want it.**
- **It's not my problem.**
- **It's not my responsibility, it should be managed by Neighbourhood Management/Development/Technical Services/Finance. (delete as appropriate)**

Tenants

- **What's in it for you?**
- **I've been with the LEB and British Gas all my life.**
- **It will break down.**
- **I prefer to pay as I go.**
- **What are you doing about my noisy neighbours?**

Objectives

- To make energy affordable
- To save energy



Savings for residents result from....

- Bulk purchasing
- Central metering
- Local generation
- Efficient heating systems
- 'Profit' from commercial sales
- Lower overheads
- Climate change levy



Environmental benefits

- **Primary energy savings of 650,000 Kw hours per annum**
- **275 tonnes of carbon dioxide saved per annum**



Where things can go wrong

- **At the beginning**
- **In the middle**
- **At the end**

At the beginning

- **Non technical consultation – residents and staff**
- **Decide on billing options**
- **Purchase of the wiring?**
- **Understand the implications**
- **Keep it simple**

In the middle

- **Non technical consultation – residents and staff**
- **Firm up discussions on billing**
 - **Pre-payment?**
 - **Traditional?**
 - **Frequency**
 - **Style?**
- **Consider maintenance contracts**
- **Check rates**

At the end

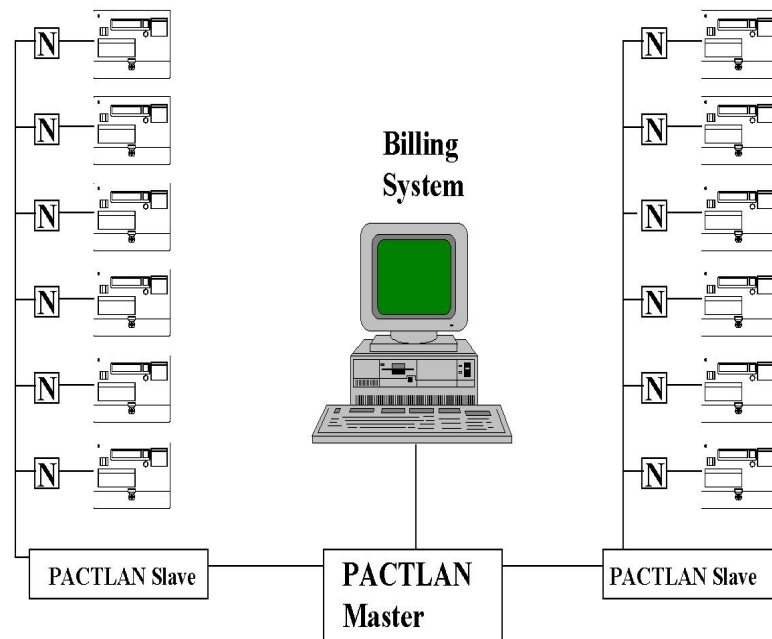
- **Non technical consultation – residents and staff**
- **Ensure billing correct from day one!**
- **Have maintenance contracts in place**
- **Check rates**

And ongoing.....

- **New staff induction**
- **New tenant induction**
- **Plan for renewals**

Technical issues

- **Direct data communications**
- **Computerised billing**
- **Quarterly bills**
- **Credit management**



Would we do it again?



QE11 Hospital
Accommodation



Mora Burnett
Extra Care
Home