



Energy Management at Hyde Housing Group

'In this regular feature, we focus on how organisations across different industries approach energy management. In this issue, we are exploring the world of housing with Andrew Piper, Energy Manager at Hyde.'

Hyde is one of the largest housing associations in England. We manage around 50,000 homes and house 100,000 residents in London and the South East. Our property includes a mix of building types including Victorian houses in London, large modern apartment buildings and rural off gas grid properties in Kent and Sussex. As well as managing these homes, Hyde builds 1,500 new homes a year. Hyde also has 14 office sites, numerous commercial units and other facilities such as depots.

My role covers all of Hyde's property. I'm involved in everything from achieving a minimum energy standard for individual homes to developing our energy strategy for offices. On our large estates, I manage our approach to improving the efficiency of heat networks which supply heat to several thousand

customers. I also lead on energy monitoring and targeting and energy procurement for around 500 sites.

What does energy management mean at Hyde?

Traditionally, energy management for housing associations broadly meant two things. Firstly, it was to ensure that utilities procurement provided value for money for residents. Secondly, it was to deliver energy retrofit to improve the energy efficiency of individual dwellings.

Housing associations have reported the average energy performance of their properties to the Government for some time so this has long been an important metric. Fuel poverty legislation now means that the sector must achieve an Energy Performance Certificate (EPC) band C for all fuel poor homes by 2030.

This is a significant step in addressing fuel poverty. However, for many organisations this is an expensive and resource intensive programme that often means that other strategic

energy management issues aren't given enough attention.

The housing sector has a lot of catching up to do to ensure that it effectively manages other issues such as monitoring and targeting, heat networks, renewables and communal area lighting.

There are multiple benefits for housing associations to improve their approach to energy management. For example Hyde's vision is for a 'great home for everyone' and key to achieving this is to provide a warm home.

By improving the energy efficiency of our homes and managing community energy systems, such as heat networks, we'll reduce fuel poverty. As well as improving resident health and wellbeing, this has a financial benefit to Hyde as research has shown that rent arrears can be reduced when energy efficiency is improved.

One of the ways that Hyde plans to achieve its vision of a great home for everyone is to build new homes. We're reinvesting as much surplus as possible to tackle the housing crisis. For every million pounds surplus we make, we can build 150 new homes. That's a really important incentive to do a great job at achieving energy cost savings.

We also know that residential property is a significant contributor to the UK's carbon emissions so by improving the energy efficiency of our buildings portfolio, we'll not only build more homes and address fuel poverty, but we'll help to address climate change too. This is especially important for an organisation that houses people who are particularly vulnerable to the increased risk of summer overheating and flooding that climate change will bring.



How does Hyde deal with energy management?

For a housing association there are several areas of focus. Housing associations have been addressing energy retrofit for some time. This is an expensive programme and as a not for profit business, we rely on grant programmes to help to deliver retrofit. As well as my day to day operational role, I spend a lot of time forming external partnerships, looking for new income opportunities and developing new financial models to deliver energy retrofit.

I think it's fair to say that energy management in its traditional sense hasn't been a significant focus for some housing associations in the past so in many ways it's an emerging discipline. Higher energy costs and new regulation are helping to raise its profile. Many new developments in London are part of heat networks. These often have large and complex

energy centres, CHP engines and renewables. This means that housing associations have to take a more 'hands on' role in energy management than they perhaps would've done in the past. Gone are the days where it was simply a case of keeping the boilers running.

I'm very lucky at Hyde because unlike many housing associations, Hyde has a lot of experience of building and managing large schemes. One of the things that we've put in place is a team of property managers who are responsible for larger buildings and they assist me with monitoring energy related issues on site and take meter readings.

Hyde currently manages 12 heat networks for 1,700 customers and we're adding new schemes to our portfolio all the time. Instead of splitting heat costs equally between tenants, as was traditionally the case, heat metering means that we now only charge for the heat used by each flat. This is certainly more equitable

but it's a challenging process change for the sector.

The data that we're now getting access to is telling us that heat networks are rarely as efficient as they should be. The specification of new schemes is particularly important to how we address this issue. However, the housing sector also needs to focus on improving its energy management knowledge and skills to ensure that system efficiency is managed effectively in the long term. The Heat Metering and Billing Regulations will also require us to retrofit heat meters in flats where there is an existing communal boiler. For many organisations this could mean a significant increase in the number of heat networks that they manage.

Another part of my role is to ensure that energy management solutions are also seen as an asset management solution. As an example we're piloting a smart thermostat in our homes. The technology is



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similar to other smart thermostats but is specifically designed for social housing. As well as helping residents to reduce their heating costs they provide the landlord with temperature, humidity, heat loss and boiler operation data. This helps us to identify homes where there's a fuel poverty risk and to proactively identify homes where there's an increased risk of condensation and mould due to under heating or ventilation issues. By identifying these problems remotely, we can help the resident to address the problem early on. This reduces the risk of energy costs leading to more significant financial difficulties for the resident. It also helps us to address condensation and mould before it becomes a potentially expensive maintenance problem.

Decentralised energy and Demand Side Response (DSR) is becoming a particular area of interest. The housing sector needs to start planning for how residents will use energy in the future to ensure that property is compatible with a changing energy market. Hyde owns a large number of renewable energy assets and electrically heated properties so we're in a good position to trial battery storage and DSR opportunities.

We're developing a large scale DSR research project with a local authority partner and we're currently piloting battery storage in properties in West Sussex. We're targeting electrically heated properties with solar pv fitted to understand the benefits to fuel poor residents in off gas grid homes. We'd typically try to connect these homes to gas but the cost is often too high due to the distance to the main. Where we're unable to connect to gas our other option is to install renewable heating systems. We're keen to understand if battery storage, solar pv and modern storage heaters could be a cost effective alternative.

What areas of everyday business at Hyde are most challenging in terms of energy management?

The increasing number of heat network schemes that we manage is our biggest operational energy management challenge. These are often complex systems that have several stakeholders involved in their maintenance and management. We need to ensure that schemes are not only designed well but that we have the right contractors and skilled staff involved in the long term management of the schemes. My biggest strategic challenge is to develop a business as usual culture

for energy management. I'm keen to change traditional perceptions of energy and sustainability into something tangible for Hyde's staff and residents. The challenge is that the housing sector is still grappling with the energy management business case. Predominantly it is residents who benefit from any energy savings which is great from a fuel poverty perspective but housing associations are not for profit organisations that are trying to increase their surpluses to fund the building of new homes. Energy efficiency budgets are therefore under pressure in some organisations. There have also been reductions in energy efficiency grant funding from the Government. A business case that sets out the wider business benefits of energy efficiency as well as the fuel poverty benefits has therefore become essential.

Author's profile:

Andrew has worked in energy and environmental management roles for local authorities and housing associations for 15 years. He's worked in the housing sector for 7 years. He started in his role at Hyde in October 2017. Andrew is a full member of the Energy Managers Association.

