

Renewable Energy Consultancy for Multi-Tenancy Buildings

Assessing the options for energy efficiencies and renewable energy

**Client:**

South East England Development Agency (SEEDA)

Completion date:

April 2008

Retail Shopping Centres

The Centre:MK ~ Milton Keynes
Oracle & The Anchorage ~ Reading

Multi-Tenancy Offices (mixed use)

Milton Park (2 sites) ~ Abingdon
Rosewood ~ Basingstoke

Project Description:

Background Issues

As part of an ongoing commitment to reduce energy consumption, the South East England Development Agency (SEEDA) needed to assess whether there were any immediate opportunities for energy saving within Multi-Tenancy Buildings and whether any renewable energy technologies could be implemented.

To test this, SEEDA commissioned EnviroBusiness to investigate the possibilities. EnviroBusiness was seeking consultants to provide surveys of six selected buildings at various locations in the South East. Time and cost as well as quality of output were important selection criteria. NEF was chosen to support the task.

Assessments of this nature are notoriously difficult due to the following reasons -

- The developer does not know the exact demands for heating, cooling and electrical power in advance of occupancy.
- Tenants usually require a specific 'fit-out' and therefore a shared energy supply facility for heating and cooling is not normal practice in the UK.
- In certain circumstances renewable technology systems are not deployed in buildings with multiple tenants even where they are deemed to be appropriate.
 - From the landlords perspective there maybe little incentive to invest in renewable systems for purely financial reasons, as well as a strong disincentive if the consent of all the tenants has to be secured. The approval process can also be lengthy.
 - From the tenant's perspective, unless the lease has many years to run, the prospect of investing in

Project Objectives:

The objective of the study was therefore to assess the possibilities for unlocking the constraints at specific sites. NEF was chosen to carry out this project due to our experience and expertise in providing high quality, impartial and ethical advice.

Implementation:

NEF completed the six surveys within one month of engagement. Each site was carefully assessed in three respects -

- To understand energy use and compare against benchmarks.
- To assess potential for energy demand reduction.
- To identify possibilities for renewable energy.

NEF's unique position in the Energy and Renewable Sector enables us to provide independent and unbiased advice to many different communities. NEF consultants undertake feasibility studies, strategic reviews and provide policy advice



Project Timescale (Days):

- Typically 3 - 10 days per location

Renewable technologies considered:

- Solar thermal and photovoltaic panels
- Wind turbines
- Ground source heating and cooling
- Air source heating and cooling
- Biomass boilers
- Hydro
- Combined Heat & Power
- Combined Cooling Heat & Power

to businesses and local authorities. In addition to direct consultancy work, NEF is frequently involved in delivering projects through partnerships with other providers.

A comprehensive report was provided for each site covering the potential for renewable energy and investigating the cost implications and payback.

NEF provided a comprehensive and practical output which end users have found helpful in unlocking the constraints.

A timely and cost effective service helped support SEEDA's original objectives.

Conclusion:

Multi-Tenancy sites (offices, retail and mixed use buildings) of this nature are notoriously difficult to influence in energy use due to reasons outlined. NEF successfully completed the surveys and produced comprehensive survey and analysis reports for EnviroBusiness in a timely and cost effective manner. In addition, as part of the survey report NEF proposed a 'modular' approach to energy plant and equipment. Such an approach allowing for variations in demand arising from specific tenant needs.

NEF's Added Value:

NEF's unique position in the energy efficiency and renewables sector, enables us to provide independent and unbiased advice to a variety of different organisations. NEF's consultants undertake feasibility studies, strategic reviews and provide policy advice to businesses, local authorities and developers. In addition to this consultancy work, NEF is frequently involved in delivering projects through partnerships with other providers. Please visit our website at www.nef.org.uk to find out more.

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