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Company	iNet
Research University	Loughborough University
Academic Supervisor(s)	Dr Paul Rowley
Title	Evaluating Energy Systems Solutions in the non-domestic Buildings Sector
Abstract	<p>The aims of this EngDoc are to:</p> <ol style="list-style-type: none"> 1. Guide and optimise operational practices and future design decisions in order to support the East Midlands construction sector in moving to a low-carbon future; 2. Investigate new and innovative technical approaches that have the potential to improve the energy performance of non-domestic buildings, and that have relevance to the region's construction industry and supply chain. <p>The project includes a focus on a small number of exemplar 'low carbon' commercial and industrial buildings in the region, including the I-Hub exemplar building at Daventry (see http://www.icon-em.org) and Lincoln's EPIC Centre (http://www.epic-project.org/). The RE will apply an holistic approach within the project, which will involve:</p> <ol style="list-style-type: none"> (a) Engaging with design stakeholders (including project architects such as Consarc) to deliver pre-construction building energy analyses in order to inform the detail design process for the I-Hub; (b) Working with additional regional industry partners to specify and install comprehensive energy monitoring systems in the building(s); (c) Collating and analysing the data obtained (including renewable energy equipment performance data) to comprehensively assess building performance; (d) Presenting findings to key stakeholders in the form of reports, presentations, white papers etc.; (e) Applying and extending the work to explore new, innovative technical strategies. These could include advanced energy storage and control approaches, along with developing our

	<p>understanding of the impact of human factors in building energy performance.</p> <p>Although this EngDoc will have a technical focus, the engineer will be expected to explore clearly defined non-technical aspects within the low-carbon context, such as specific human and commercial factors. A strong maths background and good technical aptitude are therefore required (with a good BSc/BEng/MSc qualification a pre-requisite) along with good non-technical research and communication skills.</p>
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