

Building Performance - Free Controllability Reviews – Limited Offer

Poor controllability is frequently the root cause of inadequately performing buildings, but is rarely properly identified, consequently problems can remain throughout the working life of the building and/or building services. Controllability is generally poorly understood and effective controllability reviews are rarely carried out. We are offering a limited number of free controllability reviews for eligible buildings and up to 50% discount for other buildings (subject to T&Cs). Please see www.birlingconsulting.co.uk for more detailed information on building performance, controllability and controllability reviews.

Controllability Reviews:

Controllable Building Services are essential for good building performance, particularly for energy efficient and stable operation. Unfortunately, controllability is often poorly understood by Building Services Engineers, Controls Engineers, Contractors and Equipment Suppliers/Manufacturers. This frequently results in a poorly performing building with nobody really understanding the true cause of the problems and often blaming the BMS/control system. A BMS/control system will only be able to control the services effectively if they are controllable.

This is nothing new, Graham P Smith CEng FCIBSE MInstMC has been addressing controllability issues for over thirty years. In recent years plant has become more complex with bivalent systems to reduce carbon emissions, which has often exacerbated the problems. A typical recent review of LTHW (with CHP) and CHW services for a building identified fundamental flaws with both system hydraulics and proposed control strategies, together with plant idiosyncrasies that had not been spotted (buried in the data sheets) and would have led to essential plant not working.

The need for controllability reviews is identified in CIBSE AM15 Biomass Heating, with the need for controllable systems and systems designed for commissioning identified in other CIBSE guidance. Methods for controllability reviews in other industries are defined, but have yet to be defined for building services. Very few individuals, or organisations, have the breadth and in-depth knowledge and experience of both Building Services and Controls/BMS design, installation and commissioning to undertake effective controllability reviews.

Controllability reviews should ideally be undertaken at an early stage in the system design to ensure effective system operation under varying load conditions and assist in plant selection and development of control strategies.

Controllability reviews can also be effective at any stage in a building's operational life and can identify cause of issues that may not be available via other means.

BMS data analysis can also be valuable in identifying and quantifying problems and ongoing analysis can assist with maintaining building performance. BMS data analysis and controllability reviews are complimentary to each other and we can advise on the most effective route for each project.

Why are we offering free controllability reviews?

Most of the controllability reviews we undertake are confidential, we know from over thirty years' experience that poor controllability is a significant factor in inadequate building performance, but poorly understood, and would like to publish some case studies to highlight the extent of the issues.

The case studies will be used to demonstrate typical issues and increase awareness of controllability with a view to developing guidance on controllability in association with appropriate institutes and/or other organisations. Please see T&Cs if you would like a confidential controllability review.

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Relevant Experience:

Graham P Smith CEng FCIBSE MInstMC has been addressing controllability issues in buildings for over thirty years and has also been involved in the development and dissemination of guidance for BSRIA, BRE, CIBSE, the Carbon Trust, ETSU, Leonardo, etc. He was Technical Advisor and Principal Author/Contributor for CIBSE Guide F Energy Efficiency in Buildings and more recently contributing author for CIBSE AM15 Biomass Heating.

Graham has significant hands-on experience from an apprentice with a controls manufacturer, then working with controls manufacturers both in the UK and the Far East. He subsequently has over 30 years' experience working as a consultant running controls, building services, energy and multidisciplinary design teams. He has also been project manager for a number of specialist government buildings.

Graham founded Birling Consulting Ltd in 2010 to provide specialist consultancy services to other consultants, contractors, end clients, facilities managers, etc. We have worked on a wide variety of projects from heat pumps in domestic dwellings through to major UK and Middle East projects. Recent projects included on-site resolution of commissioning issues at a large aeronautical composite component factory in Germany.

Terms and Conditions:

All free controllability reviews are subject to acceptance at our discretion, we anticipate around six free reviews and case studies being provided in total.

We would need agreement to publish a case study identifying the building including pictures for a free controllability review. If publicity is not desired we can offer up to a 50% reduction for an initial controllability review for each organisation.

A free controllability review would be a 'desktop' review based upon information provided to us in electronic format to include a picture of the building, accurate detailed plant schematics, equipment schedules, plant data sheets, proposed/actual control strategies, etc. The review will identify any issues discovered including both fundamental flaws and potential improvements to system operation. A free review will not include fully engineered solutions to issues identified, but will highlight the recommended way forward for each issue.

All works are subject to Birling Consulting Ltd standard terms and conditions, available on request.

Please do not hesitate to contact us to discuss eligibility, or other options.

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