Written Evidence submitted by the Chartered Institution of Building Services Engineers (CIBSE) (LGY0030)

Executive Summary

1. Future UK energy provision requires a systems approach incorporating decarbonisation of supply made affordable by reduced energy demand. Reduced demand is often the cost effective and quicker solution, but is a challenge with multiple actors and stakeholders, limited business models and few industrial champions. There are significant gaps between departmental responsibilities, overlaps in existing policies[1], little attention to real measured energy consumption and limited compliance with existing measures such as the Energy Performance of Buildings Regulations[2]. Reducing demand is currently the poor relation of decarbonisation, but is essential to meet our targets and the focus of this evidence.

Main Evidence

2. Reviewing the existing policy mix relating to energy efficiency reveals an unnecessarily complex system. Complexity causes confusion, uncertainty, creates gaming options, and is hugely difficult to manage because the complex legislative mix is supported by a complex and overlapping enforcement mix. We urgently need simplification of existing policy instruments. ESOS, CRC and Mandatory Greenhouse Gas reporting are one clear example. This needs resolution before we add more policy measures, and it should be an urgent priority task for the Energy Efficiency Deployment Office (EEDO) to undertake a comprehensive review in close partnership with stakeholders.

3. The introduction of condensing boilers clearly shows where a simple measure with clear and obvious enforcement and preparation of the skills base is effective. Condensing boilers were used extensively in Europe in the 1980s. From 1990 to 2005 they gained 1% market share per annum in the UK. With the introduction of Building Regulations to require them in most cases, that rose from 15% to 85% in six months. Energy consumption statistics do clearly show the impact of this policy intervention. We need to understand and recognise the role and potential benefits of well designed and implemented regulation.

4. The next 30 years of energy system transition will use many existing technologies which have evolved over the previous 30 years. But climate change is not a normal problem. Single policies and individual technical innovations will not deliver the reductions required.

5. The challenge is to achieve deployment rates and in-use performance of these technologies that will deliver the necessary low carbon targets and reduce energy demand. This in turn requires feedback between different technologies and user behavior. The most successful deployments are where there are co-benefits but these are often the easy technologies to deploy.

6. Delivering our targets will require strong political leadership, sustained multiple policies and much hard work. Industry cannot lead the way without policy certainty, not 'U' turns and incremental policy 'tinkering'. Early adopters of various energy demand innovations, such as Code Level 6 homes, have lost out when policy has changed, often at short notice. Whilst the supply side has multi-billion multi-year contracts, microgeneration is reviewed every few months and incentives cut. None of this breeds investor confidence.

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[1] Deloitte LLP report for Investment Property Fund, accessed at http://www.bpf.org.uk/en/files/bpf_documents/sustainability/GPA_Carbon_Penalties__Incentives_-_MAIN_REPORT_PUBLISHED_18.06.2014_-_with_foreword.pdf on 12th December 2014

[2] CIBSE response to DECC consultation on MEPS, September 2014, accessed at http://www.cibse.org/getmedia/ac022715-c6d7-4d0a-9b15-34bd2ac34111/164_Non-Domestic-Minimum-Energy-Efficiency-Standards-CIBSE-response.pdf.aspx on 12th December 2014

7. The transition will be uncomfortable and expensive but the long term rewards are very significant, and the costs of inaction will be even greater.

Appendix 1

About the Chartered Institution of Building Services Engineers

The Chartered Institution of Building Services Engineers (CIBSE) is the primary professional body for the engineers who design, install and operate the energy using systems, both mechanical and electrical, which are used in buildings. Our members therefore have a pervasive involvement in the use of energy in buildings in the UK.

CIBSE is one of the leading global professional organisations for building performance related knowledge and a pioneer in responding to the threat of climate change. It publishes numerous Professional Guides and other titles setting out best practice for the industry.

The Institution is the primary source of professional guidance for the building services sector on the design and installation of energy efficient building services systems to deliver healthy and effective building performance. CIBSE publishes Guidance and Codes which provide best practice advice and are internationally recognised as authoritative.

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