Technology and Innovation in the NHS
Smart Energy GB

In responding to the Health and Sport Committee’s call for evidence, we are primarily answering the question:

**What key opportunities exist for the use of technology in health and social care over the next 10 years?**

- *Smart meters, currently being installed in every home in Scotland, offer new opportunities for innovation in services.*

- *Smart technology can help identify patterns of behaviour and when assistance might be needed.*

- *It will be possible to combine aggregate data on energy and health to identify vulnerable households.*

**About us and smart meters**

Smart Energy GB is the independent voice of the smart meter rollout. Smart meters are currently being installed in households and small businesses across Scotland, England and Wales.

One of the key benefits of smart meters is that meter readings are sent automatically by the meter, resulting in accurate rather than estimated bills. This energy data is transmitted secured over a dedicated communications network to energy suppliers.

**The smart future**

Part of our work is to look at how smart metering technology will enable innovation in new services in the future. When the smart meter rollout is complete, 22 million homes will have been upgraded and this will constitute a major change to our national energy infrastructure, with a more connected and dynamic system in place.

Earlier this year we asked a team at the UCL Energy Institute to look at how academics and businesses are starting to use energy data in healthcare. Their report, *Energising Health* presents the findings and makes suggestions on how this cutting-edge field of work might develop as well as the challenges that may lie ahead.

**Opportunities in health and care**

One of the biggest opportunities identified is the ability through energy data to monitor and analyse behaviour and activity with, of course, the consent of householders.
For instance, if there were no signs of electrical usage or heating in the house of a vulnerable person, a text alert could be sent out to a carer or trusted relative suggesting that they check up on them. By installing smart meters into every house in Britain we create the platform to support future services at large scale and at good value.

Through developing this further, granular-level energy data can be analysed to recognise behavioural patterns and assist with monitoring particular health conditions.

**Case study: Dementia trial using smart metering**

A partnership between Mersey Care NHS Trust and Liverpool John Moore’s University is using smart meter technology as a non-intrusive way to monitor the progression of dementia patients. They are exploring how this could work with a wide range of other conditions where irregular activity might indicate support is needed.

The UCL research team has recommended that further trials of energy data technology are done in clinical contexts, and across disciplines and systems to avoid silo thinking as technological opportunities develop.

**Opportunities for eHealth in Scotland**

There are already innovative companies and universities in Scotland seeking to build on the smarter energy system, which, over the next ten years, will transform and modernise the energy sector.

An opportunity exists to link this innovation to the increasing demand to deliver high-quality health and care services in the home environment.

We recommend that the Scottish Government’s approach to eHealth recognises the need to explore opportunities to build on existing technological upgrades, such as smart meters, which are being installed in every household at no additional cost to consumers.