Artificial Intelligence for the energy system: ethical and social impacts

In February 2018, academics from UCL and researchers at DeepMind, an artificial intelligence research company, and the Hoffmann Centre and the Energy, Environment and Resources Department based within Chatham House, held an exploratory roundtable to discuss the uses of Artificial Intelligence (AI) within the energy sector.

At the event, participants discussed questions including:
• In what areas can AI have the greatest impact on improving energy efficiency and tackling climate change?
• What new oC46 52ronment and

private access to technology to more affluent members of society. This would in effect trap those on the lower end of the socio-economic scale in an energy system where they bear an increasing share of the burden of cost of national infrastructure and are excluded from accessing the most economic means of energy supply. Furthermore, AI-driven subscription services can help consumers to navigate complex tariffs and fluctuating energy prices, but are not universally available.

to emerging data-driven services and the use of AI to improve the energy system. More broadly, AI has the capacity to make significant efficiency improvements to entire energy systems, but this is likely to be dependent on both capital investment for the infrastructure that is required to extract maximum value from the potential of AI, for example smart heat pumps, data centre infrastructure that allows for smart control, as well as the quality of existing infrastructure.

Careful planning is required to ensure that improvements facilitated by AI are made widely accessible.