

Rt Hon Andrea Leadsom MP
Secretary of State, BEIS
1 Victoria St
London, SW1H 0ET

Rt Hon Alok Sharma MP
Secretary of State, DFID
22 Whitehall
London, SW1A 2EG

Rt Hon Nicky Morgan
Secretary of State for Digital, Culture, Media & Sport
100 Parliament Street
London, SW1A 2BQ

19 August 2019

Dear Secretaries of State Leadsom, Sharma and Morgan,

RE: Support for an International Centre for AI, Energy and Climate

To meet the objective set out in the Paris Agreement to keep the global average temperature rise to below 1.5 degrees will require bold and urgent action from governments around the world.

However, technology can help. Fundamental advances in Artificial Intelligence achieved over the last decade offer opportunities to increase the efficiency of energy systems and help address a wide array of climate change challenges. Energy systems are transitioning from being centralised and fossil fuel dominated, to increasingly decentralised and renewables-dominated with new demands from transport and heat. As they do so there will be an increasing need to manage and predict the many distributed and complex constituents of the energy system including renewable generation, electric vehicles, and battery storage. AI will not only be a useful tool but will become essential as we manage this much more complex system and the data that it provides, whether it be in relation to solar and wind forecasting, grid optimisation, battery management or demand side response. Beyond managing and optimising existing energy systems, AI also offers opportunities to allow for more fundamental shifts to new system designs.

The opportunity for AI to support the zero-carbon transition is international. Recent analysis suggests AI can help reduce global emissions by up to 4% against business as usual by 2030, whilst concurrently supporting an increase to global GDP of 4.4%.

The UK has established a leadership position on AI, with London hosting one of the strongest and largest communities of machine learning talent globally. London is the European capital of AI and acts as a base to 750+ AI companies – double the total of Paris and Berlin combined. However, if the UK wants to maintain its lead on AI, it will need to rapidly turn general AI support into joined-up sector-specific propositions.

Whilst there are some exciting initiatives underway in this field, the regulated nature of energy systems creates barriers to the application of AI. Data sharing models and market structures developed for an analogue system need updating. Overcoming these challenges could unlock the potential for AI to systemically improve the efficiency of energy systems worldwide and help address wider climate challenges.

To address these challenges and concurrently open up new markets for UK-based businesses, we are proposing the UK support an **International Centre for AI, Energy and Climate** to advise governments on AI-friendly policy frameworks and data access, to facilitate the involvement of the machine learning community in the sector, to provide bespoke innovation funding to accelerate deployment and to support and develop the nascent ecosystem of start-ups in this space.

Whilst private companies will develop the solutions we need in this sector, Governments need to lead to ensure that AI-friendly policy frameworks and funding are designed for the public good, taking into account any social implications of the adoption of AI technology.

We would welcome a meeting to discuss this proposal further.

Yours Sincerely,



Julian David
CEO, techUK



Sam Hollister
Director of Economics and Corporate Services
Energy UK



Ben Fletcher
Executive Director of Communication, Government and Policy at Make UK



Fintan Slye
Director, National Grid System Operator



Will Cavendish
Global Digital Services Leader, ARUP



Richard Warren
Head of Policy and Representation, UK Steel



Prof. Dr. Raimund Bleischwitz
Director, The Bartlett School of Environment Energy & Resources
Chair in Sustainable Global Resources, UCL



Alex Rogers
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Laura Sandys
Chair of Energy Data Taskforce



Hugh Knowles
Director of Innovation, Friends of the Earth



Doug Parr
Chief Scientist and Policy Director, GreenPeace



E3G

Nick Mabey
CEO, E3G



Nick Molho
Executive Director, Aldersgate Group



Shaun Spiers
Executive Director, Green Alliance



Katie Russell
Head of Data & Analytics, OVO Energy



Peter Davies
CEO, VERV



Greg Jackson
Founder and CEO, Octopus Energy



Joe Short
Chief Scientist, Demand Logic Limited



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Molly Webb
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Darko Matovski
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Jo-Jo Hubbard
CEO, Electron

Concept team:



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Peter Clutton-Brock
Director, Hinge
Senior Associate, E3G



**OPEN
CLIMATE
FIX**

A handwritten signature in black ink, appearing to read "Jack Kelly".

Jack Kelly
Founder, Open Climate Fix
Ex-Google DeepMind

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Paul Massara
Ex CEO nPower RWE & Electron



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Aidan O'Sullivan
Associate Professor and Head of the Energy and Artificial Intelligence Group,
UCL

CC.

Rt Hon Kwasi Kwarteng MP
Rt Hon Claire Perry MP
Rt Hon Jo Johnson
Lord Duncan of Springbank
Andrew Stephenson MP
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Matthew Rycroft, DFID
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