The Climate Group is the global host for the Future Agenda topic on energy. We are an international nonprofit organization with a goal of leading a prosperous low carbon future for all. Our mission is to inspire and convince leaders at the top of government, business and society to reduce carbon emissions now and accelerate the transition to a vibrant low carbon economy. Below is our response to Jeremy Bentham’s provocation essay on the Future of Energy.

We agree with Jeremy that the global energy system is at the beginning of an inevitable low carbon transition due to fast growing renewables and energy efficiency. We also agree there is a pressing need for greater collaboration between government, corporates and civil society to build a sustainable energy system. But achieving a long-term solution requires clear, resilient and far-sighted low carbon policies and measures. To broaden the discussion on the future of energy and challenge some of the assumptions in Jeremy’s paper, we wish to highlight the following points.

A SHIFT FROM UNEXPECTED PLAYERS

Debate between governments is accelerating, prompted by the global COP21 climate negotiations which take place in Paris this December. The bilateral agreement between China (now a leading nation in terms of investments in low carbon technologies) and the US that was announced last year, stands as a testimony to the impact of unexpected collaborations between powerful players. But to bring about the tipping point for a prosperous, low carbon global economy, greater collaboration at scale is needed. Bold, coordinated climate actions from major corporates could be transformational. For example, a commitment by the world’s leading companies to only use renewable energy to power their operations will create significant “demand destruction” for high-carbon energy, while also sending a powerful signal to all sectors of the economy to act.
A STEP CHANGE TRANSITION IS POSSIBLE AND ESSENTIAL

Based on historical observations, new energy sources have taken at least 30 years to establish a 1% share of the energy market. However, increasing investment in renewables, improving technology, falling prices and growing awareness all point to a much faster transition to a low carbon future. This accelerated shift to renewables is not an option based on what we know about the world’s shrinking carbon budget. It is a priority. A clear exit strategy is also needed for natural gas to act as a transition fuel between coal, oil and renewables, in order to avoid gas lock-in.

STORAGE BUSINESS IS PROMISING AND GAME-CHANGING

The development of storage technologies in the form of batteries or hydrogen production is crucial. Besides solving the problem of power intermittency from renewable technologies, energy storage offers the potential for the development of a whole new mobile energy system.

ENERGY EFFICIENCY - THE INVISIBLE FUEL

The cheapest and cleanest form of energy is the energy we don’t use. Implementation of effective energy efficiency measures as well as careful management of energy demand will play a key role in creating a clean, low cost energy future.

LEAPFROGGING TO A LOW CARBON FUTURE IS POSSIBLE

Access to energy is at present unevenly distributed across the planet. However, an energy rich future for emerging economies does not necessarily imply fossil fuels. Driven by technological improvements in the low carbon energy sector, falling prices, growing awareness and greater access to finance, developing countries can leapfrog their way to lower carbon economies without passing through an intense fossil fuels phase. This is similar to how mobile phones penetrated rural markets by leapfrogging cost-intensive landlines.