2018-IP09: 2017 Energy Efficiency at a Cross Roads

In the autumn of last year, the IEA published its 2017 status report on energy efficiency titled "Energy Efficiency at a Cross Roads". In its ETP 2017 modelling of the below 2 degree scenario (B2DS), the IEA said that energy efficiency will contribute 34% of the global CO_2 emissions needed by 2060[1].

In its summary of the 2017 Energy Efficiency report the IEA state that:

"*More than ever before, energy efficiency is central to the achievement of a range of policy goals, including energy security, economic growth and environmental sustainability"*
"Strong efficiency gains, despite the recent fall in energy prices, have had a significant impact on global energy demand, reducing consumers' energy bills, holding back emissions growth and making energy systems more secure".
"However, global progress has become dependent on yesterday's policies, with the implementation of new policies slowing. If the world is to transition to a clean energy future, a pipeline of new efficiency policies needs to be coming into force. Instead, the current low rate of implementation risks a backward step"

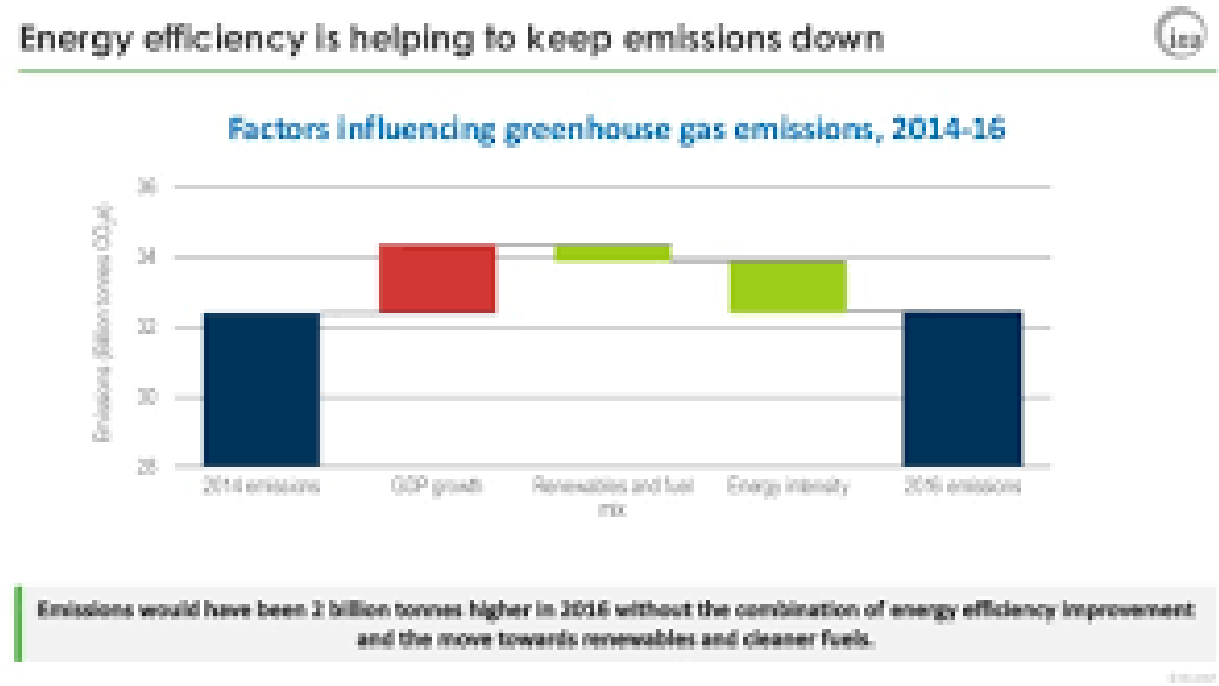
This summary infers that new policy measures are urgently needed if this low carbon option is to achieve the targets proposed by the IEA In its B2DC in reducing global CO_2 emissions. The summary of the 2017 Energy Efficiency Report can be found at:
http://www.iea.org/efficiency/?utm_content=buffer56196&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer#section-6.

There is also a link from this page to the full report.

In terms of greenhouse gas emissions the report suggests that global energy intensity fell by 1.8% in 2016 and since 2010, intensity has declined on average by 2.1% per year. Intensity has fallen the fastest in China, reflecting the ongoing effects of efficiency policies. It is notable that, without China, global energy intensity would have improved by only 1.1% in 2016.

The IEA states that the improvement in energy intensity is the main reason why global energy-related greenhouse gas emissions have levelled off between 2014 and 2016. Lower energy intensity was responsible for offsetting three-quarters of the increase in emissions due to GDP growth, with the shift to renewables and other low-emission fuels offsetting the other quarter.

[1] https://www.slideshare.net/internationalenergyagency/energy-technology-perspectives-2017



Unfortunately, emissions have now started to rise again mainly because of issues in China[2].

In the forward to the main report, Fatih Birol, the IEA's Executive Director tells us that*; the report reveals very different rates of progress across countries and an increasing reliance on pre-existing policies to drive energy efficiency improvement.* This suggests that; *there was a noticeable slowdown in the implementation of new policies in 2016, and this trend appears to be continuing in 2017*. He is *optimistic and notes that there is plenty of scope for further policy action. For example:*

- *Over 68% of the world's energy use is not covered by efficiency codes or standards.*
- *Only four countries regulate the energy efficiency of trucks, a major source of fuel demand as well as emissions growth,*
- *Space*-cooling demand is rising fastest in countries with the weakest air conditioning efficiency regulation.

He further suggests that; *technological innovation is creating new opportunities for progress on efficiency. Digitalization is beginning to have a significant impact on the energy sector and energy efficiency is emerging as a key arena for innovation. It is creating exciting new opportunities for integrated solutions where efficiency and renewable energy work together to deliver clean energy outcomes at the lowest cost.*

Fatih Birol tells us that; *a key lesson from this report is that well-designed policy works. To help stimulate the development of new policies in the Energy Efficiency area. The IEA is putting more*

[2] http://www.ieaghg.org/docs/General_Docs/Information_Papers/2017-IP58_Global_CO2_Emissions_on_the_Rise_Again.pdf

emphasis on best practice policy exchange and helping countries learn from one another to focus on attacking the remaining 68% of global energy use not covered by codes or standards. To that end, the IEA has launched a new initiative the Global Exchange Platform for Energy Efficiency,

The new Global Exchange Hub for Energy Efficiency aims to be a unique resource for policy makers to learn what sector-specific policies are being applied around the world, what impact they are having, and what lessons have been learned about their design and implementation. It will serve as an online exchange platform where the global community of practice for energy efficiency can learn from each other as well as from the latest research and analysis. The new Exchange Hub was formally launched at the IEA's Ministerial Meeting in November 2017.

The new hub can be found at http://hera.iea.org/

John Gale
11/04/2018