

**Wiltshire Council**

**Council**

**26 February 2019**

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**From Professor Dave Waltham**

**To Councillor Jerry Wickham, Cabinet Member for Adult Social care, Public Health and Public Protection**

**Question (19-1)**

Will Wiltshire Council, in its deliberations, accept all the following statements?

1. The reality of human-generated climate change should be established (or refuted) using objectively verifiable facts.
2. It is an objectively verifiable fact that economic activities have led to the emission of approximately 1.5 trillion tonnes of carbon dioxide since 1880.
3. It is an objectively verifiable fact that global mean temperatures have risen about 1 °C since 1880.
4. It is an objectively verifiable fact that there is a strong correlation between human emissions of carbon dioxide and observed temperature rises. The probability of this being a coincidence is less than 0.1%.
5. It is an objectively verifiable fact that there is near universal agreement, amongst climate experts, that increasing temperatures are exactly what we'd expect to see given human emissions of greenhouse gasses. This was first predicted by John Tyndall in the 1850s and made fully quantitative by the Nobel-prize winning chemist, Svante Arrhenius, in 1896.
6. It is an objectively verifiable fact that our estimates of carbon dioxide's climate impact have changed very little, in the 120 years since Arrhenius, and they correctly predict the scale of the observed temperature rise.
7. No credible alternate explanations for the correlation have been proposed, e.g. that show how 130 years of increasing economic activity (and hence emissions) might be the result of rising temperatures rather than the other way around.
8. If 1.5 trillion tonnes of emissions have produced a 1 °C rise then, to keep temperature rise below 1.5 °C, humanity can only emit another 750 billion tonnes CO<sub>2</sub> (eq)—a back-of-envelope estimate confirmed by the more sophisticated IPCC analysis published in 2018.
9. If countries stick to their commitments under the Paris Agreement of 2016, global emissions will rise to about 50 billion tonnes CO<sub>2</sub> (eq) per year giving a cumulative total of 750 billion tonnes in just 15 years. Hence, if we take no further action, the temperature increase will consistently exceed 1.5 °C by the early 2030s and continue to go up thereafter.
10. Much internet material, concerning climate change, consists of deliberately misleading half-truths ("most of the warming had happened by 1943"), misunderstandings that demonstrate no attempt has been made to

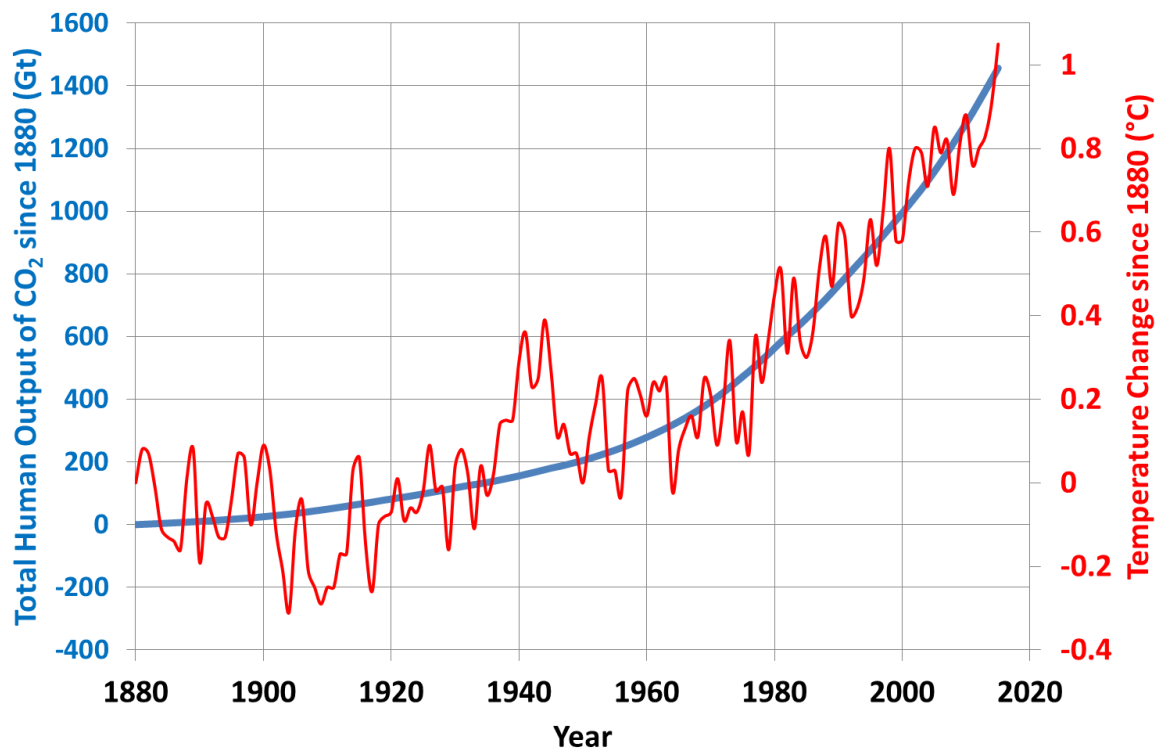
understand the science (“water vapour is more important”) and sound bites that demonstrate no attempt has been made to look at any data (“what about the Vikings on Greenland?”).

Don’t take my word (or anyone else’s) for any of this. Look at the data (rather than sound-bites) and make up your own mind. The data and sources, I have used, are appended to the end of this question.

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Emissions as a result of human economic activities are taken from [https://cdiac.ess-dive.lbl.gov/ftp/ndp030/global.1751\\_2014.ems](https://cdiac.ess-dive.lbl.gov/ftp/ndp030/global.1751_2014.ems). Temperature rise data is taken from [https://data.giss.nasa.gov/gistemp/tabledata\\_v3/GLB.Ts+dSST.txt](https://data.giss.nasa.gov/gistemp/tabledata_v3/GLB.Ts+dSST.txt).

## Response

Notice of Motion 15 on today’s agenda from Cllr P Whitehead and Cllr J Wickham on the Environment and Global Warming demonstrates that this administration takes very seriously the evidence for Global warming and the threat this poses to society.

The motion proposes working collaboratively with scrutiny through the Environment Select Committee and sets out eight parameters around which to review the evidence and shape future council policy. We welcome Professor Dave Waltham's expertise on this subject and invite him to engage with scrutiny as an expert witness so that all elected members can understand the science and evidence he puts forward in his question.