

Lecturette

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What does net zero emissions mean?

‘Net zero emissions’ refers to achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere. Think of it like a set of scales: producing greenhouse gas emissions tips the scales, and we want to get those scales back into balance, which means no more greenhouse gas can be added to the atmosphere in any given year than is taken out.

Eventually, we will probably need to tip them the other way to repair past harm. Once we stop emitting greenhouse gases from fossil fuels, we still need to deal with all the emissions we’ve already pumped into the atmosphere over the years.

Getting to net zero means we can still produce some emissions, as long as they are offset by processes that reduce greenhouse gases already in the atmosphere. For example, these could be things like planting new forests, or drawdown technologies like direct air capture. The more emissions that are produced, the more carbon dioxide we need to remove from the atmosphere (this is called sequestration) to reach net zero.