

Opening address for Devex 2022 (“Powering the Energy Transition to 2050”)

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“For the energy sector, what is the most responsible path to reach net zero (and beyond)?”

This highly pertinent question lies close to my heart and while I enjoy discussing it here, as I have done elsewhere, a broad understanding of -and action in response to- the answer, could truly make the difference between life and death, on an unimaginable scale, worldwide.

At the risk of alienating part of my audience, I would like to segregate the somewhat misleading grouping of “energy sector” into more appropriate, shall we say, capability-differentiated sections, and treat these separately. Amongst many ways to split the energy sector, the approach I am taking here seems most pertinent to the reaching of net-zero, actual zero and beyond in a timely manner.

Let’s Set the Ground-Rules to Differentiate the Energy Sector.

In the energy sector there are companies, businesses and business models perfectly capable of achieving zero emissions, and others which are not.

We need to exclude from this positive story a few parts of the energy sector with a business area (and business model) which is *not* capable of achieving *actual* zero emissions, and that is the extractive fossil fuel industry. This does not include all hydrocarbon extraction of course, merely *the extraction of hydrocarbon used as fuel*. That is by far the lion’s share of hydrocarbons extracted.

The rather more complex issue, whether this exclusion ought to be extended to include the source material for single-use plastics and other consumables, is best left for another occasion.

Priority 1 is to Understand the Ultimate Goal.

Considering the enormous climate risks of the present day, a hesitant and poorly guided political system, and an inappropriately strong corporate steer on societal and moral issues, the most responsible path must be the quickest to decarbonise and that means the quickest to remove hydrocarbons from the atmospheric and energy equation.

It is not enough to find a temporary solution for these emissions as that option, for which the technical term is *Kick-The-Can-Down-The-Road*, has been tried for over 3 decades now with some highly adverse results, which include a near-doubling of global greenhouse gas emissions.

This is the first important step to safeguarding humanity’s ability to live on this planet in relative peace.

Priority 2 is to Safeguard Livelihoods.

The next step involves people’s individual ability to feed themselves, by means of a job. To balance the reduced job opportunities resulting from a now rushed demise of the mentioned fossil fuel sector, such job numbers may be safeguarded and even expanded by rapidly developing alternative energy supplies of any available (but ultimately zero-emissions) type, as well as supporting supply chains and other relevant technologies and business activities.

For clarity: this includes distribution networks, renewables of all types, CCS (but only in situations where there are no alternatives), green hydrogen (but not blue), energy storage, and more. The broader Green-Tech sector will also support this job growth.

This can be achieved by long term commitment and investment from government and industry.

Priority 3 is to Keep the Lights On.

To ensure humanity's pursuit of happiness is not hindered by instability of the energy supply, it is important to keep *at least some amount of light* shining brightly. This may be done by pursuing two things in parallel: energy demand management and essential energy availability.

In "energy demand management" I here include reducing wastage and prioritising those in true need. With "essential energy availability" I mean: growing supply and supply diversity with renewable sources and clever distribution and storage, to ensure lives are not lost for the want of energy.

Priority 4 is to Embrace a Systems Approach to Decarbonisation.

Where the future-capable energy sector can increase value for humanity and society by joining forces with other sectors such as transport, agriculture, forestry and public utilities, this *must* be approached with the required enthusiasm, and of course the energy of urgency. In the end, the decarbonisation of our global societies is a truly *huge* interconnected challenge, and we cannot afford to have any industry or sector going it alone or taking control.

The decarbonisation of farming, transport, sewage treatment, housing, heating, leisure, communications, steel, cement and all other sectors is imperative. Not all are equally urgent this year, but well within a decade they must all be on a path towards removing emissions and wastage everywhere.

Priority 5 is a Lot of Other Stuff.

At the bottom of our priority listing, and therefore not in our task list until at least next week, are a whole raft of technical and social issues: both engineering and social justice and equity are instrumental in preventing the climate disaster we are still rapidly heading for.

A responsible path to net zero and beyond does not allow us to limit our focus to energy supply.

In summary, we need to:

- Massively ramp up renewables supply, storage and demand management including the prevention of energy wastage,
- Ramp down fossil fuel exploitation to zero during this same time,
- Collaborate proactively with all other sectors for systemic deep decarbonisation solutions, and
- Start working on social justice, inclusion and technical details of other focus areas next week.

Let's get this party started!