



Pathways out of the crisis: lessons from recent IEA analysis

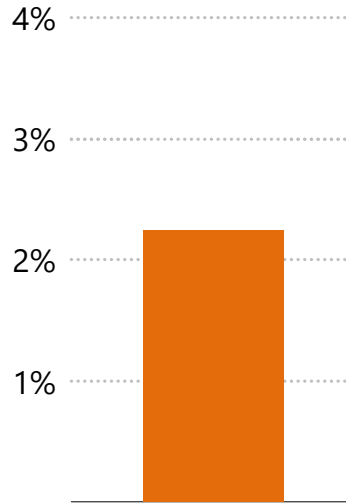
Paris, 19 October 2020

Covid-19 and the energy outlook

- In an extraordinary year, 2 key questions:
 - How might the pandemic (and its aftermath) **reshape the energy sector**?
 - Does this disruption help, or hinder, the **prospects for rapid clean energy transitions**?
- Focus on pathways out of today's crisis over the next 10 years, amid 2 key uncertainties
 - **Duration and severity of the pandemic** and its economic impacts
 - **Response from energy policy makers** and the sustainability of the recovery
- Scenario-based approach more important than ever, to examine:
 - The **direction we are heading**, depending on the outlook for public health & the economy
 - What would be required to **reach net-zero emissions**

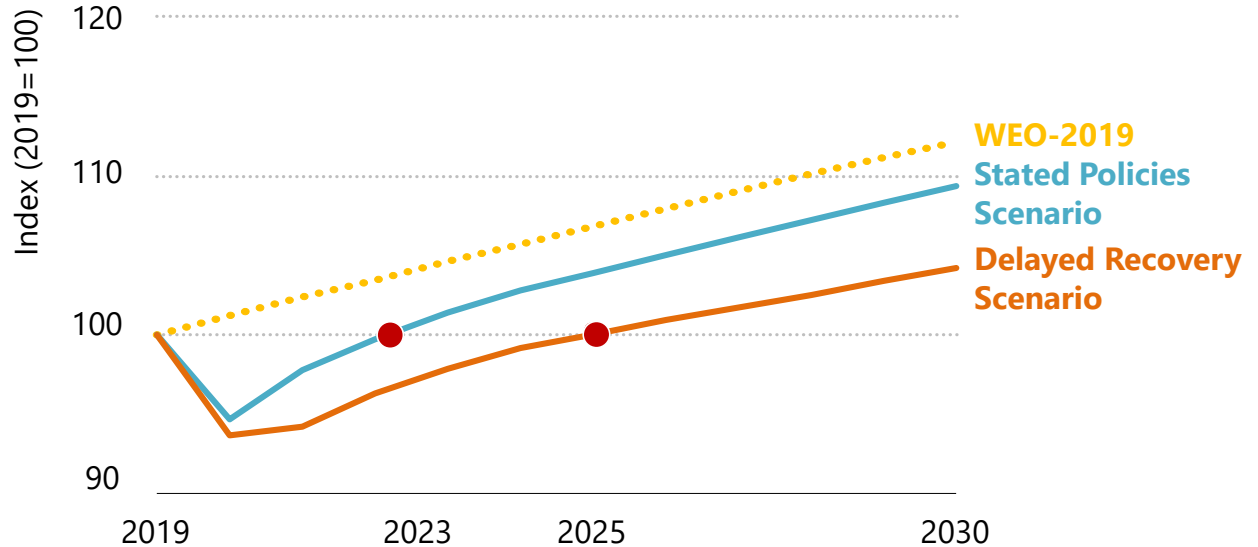
A shock to the energy system

Average annual GDP growth
(2019-30)



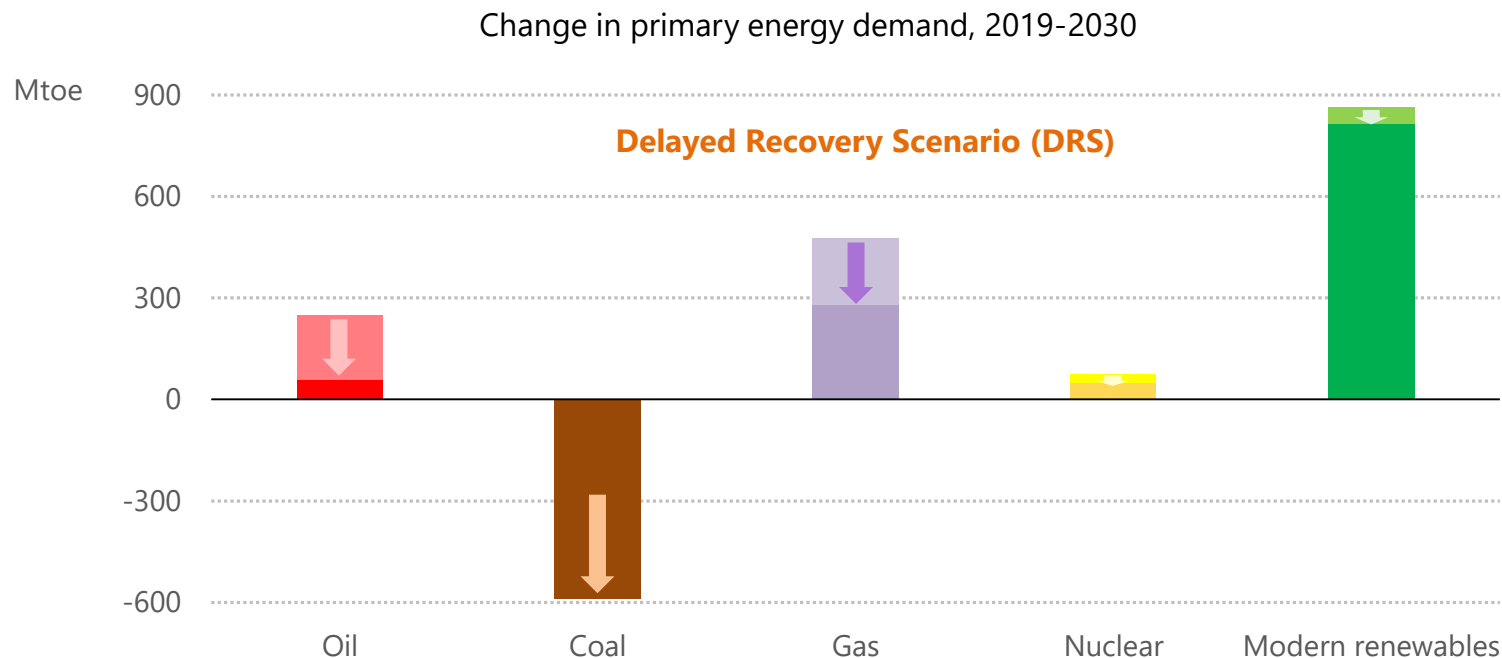
Delayed Recovery Scenario

Energy demand



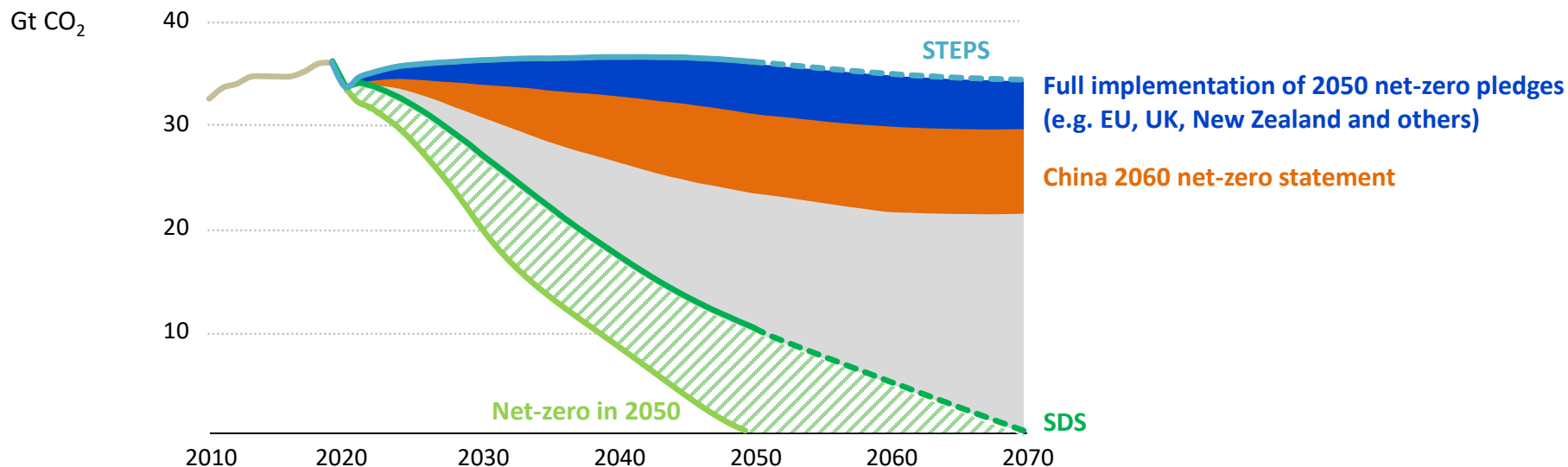
Bringing the pandemic under control in 2021 would allow energy demand to return to pre-crisis levels by early 2023. A longer pandemic would usher in the slowest decade of energy demand growth for a century

Impacts vary widely by fuel & technology



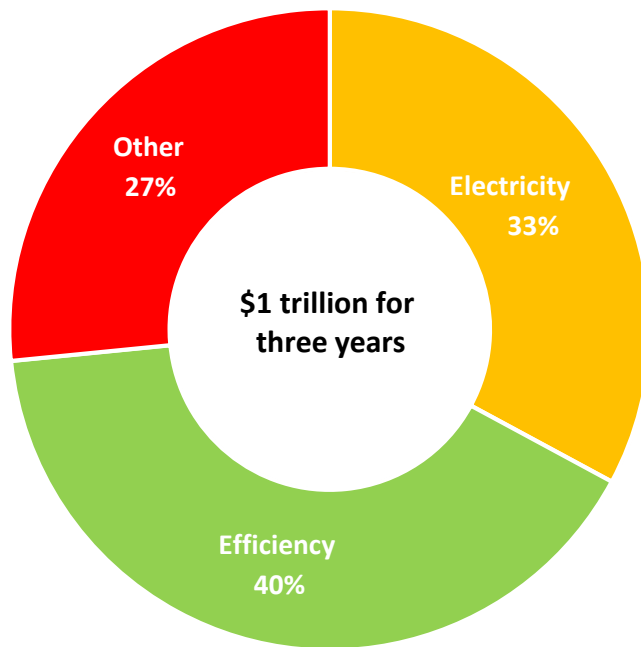
After a 5% drop in energy demand in 2020, renewables lead the rebound while coal never gets back to pre-crisis levels; a delayed recovery puts energy into slow motion, prolonging today's overhang of supply

The world is still far from putting emissions into decisive decline



Global emissions are set to bounce back more slowly than after the financial crisis of 2008-2009, but the world is still a long way from a sustainable recovery

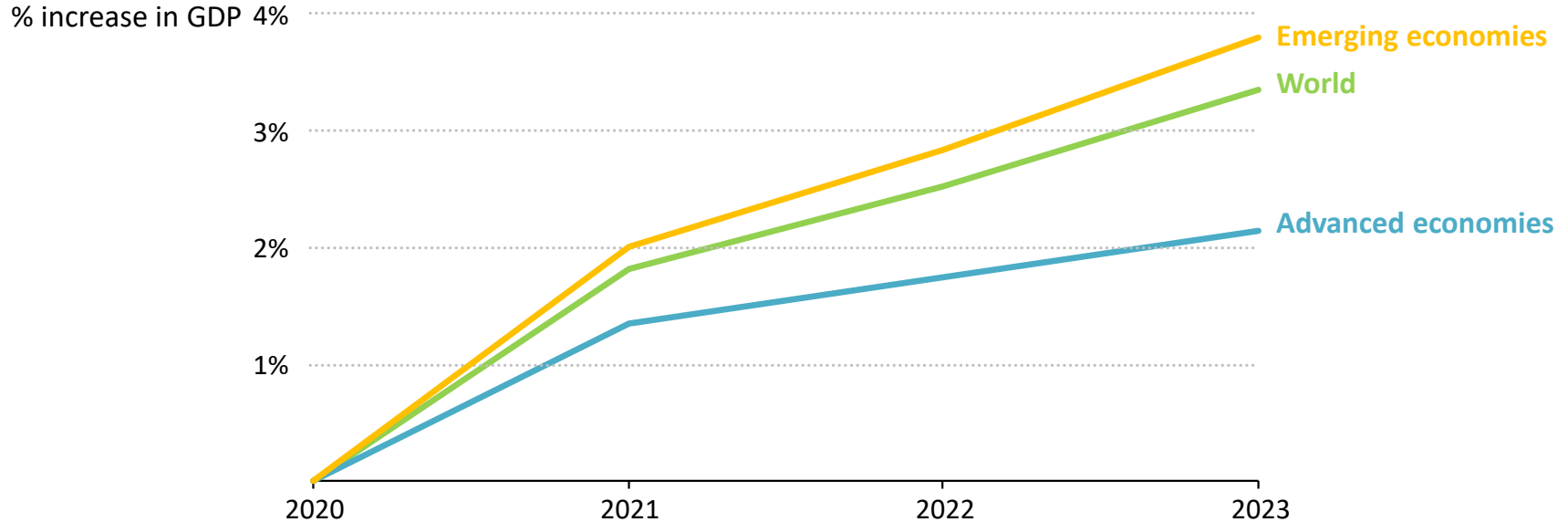
A plan for a Sustainable Recovery post Covid-19



The Sustainable Recovery Plan provides an integrated approach to support economic recovery and jobs while improving the resiliency & sustainability of the energy system

The energy sector could be a major driving force for economic growth

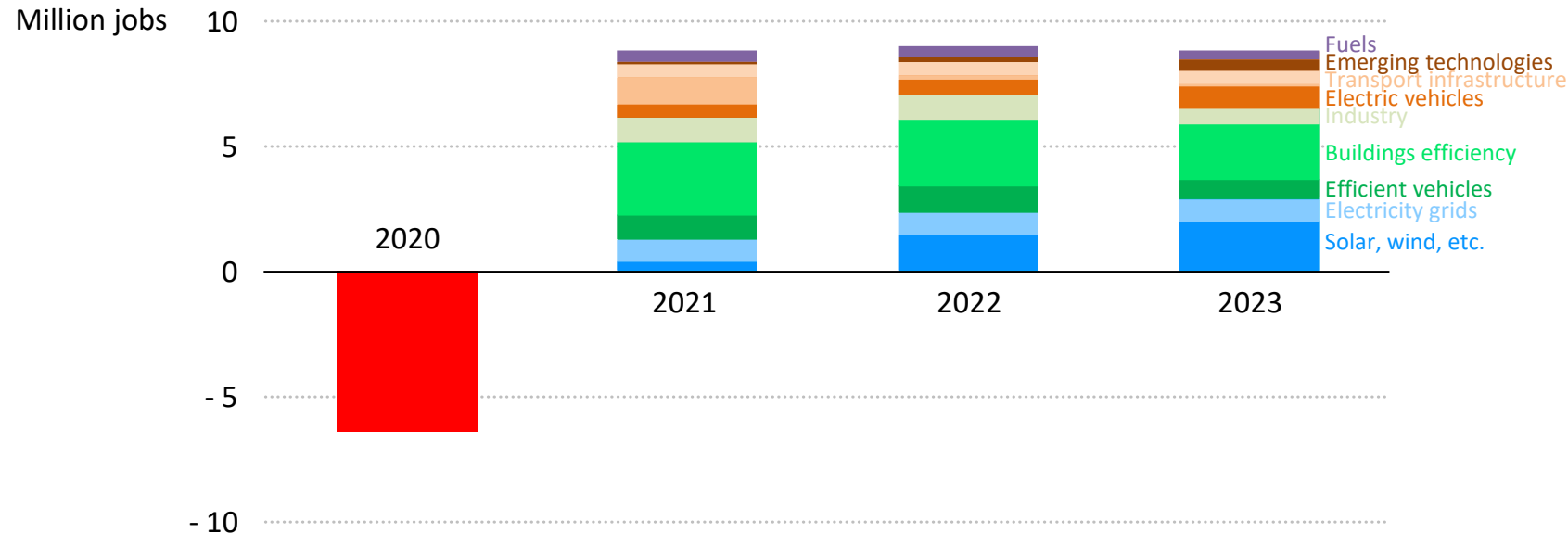
Additional growth in real GDP from the Sustainable Recovery Plan



An assessment conducted in co-operation with the International Monetary Fund shows that the Sustainable Recovery Plan would boost average annual global GDP growth by 1.1% to 2023.

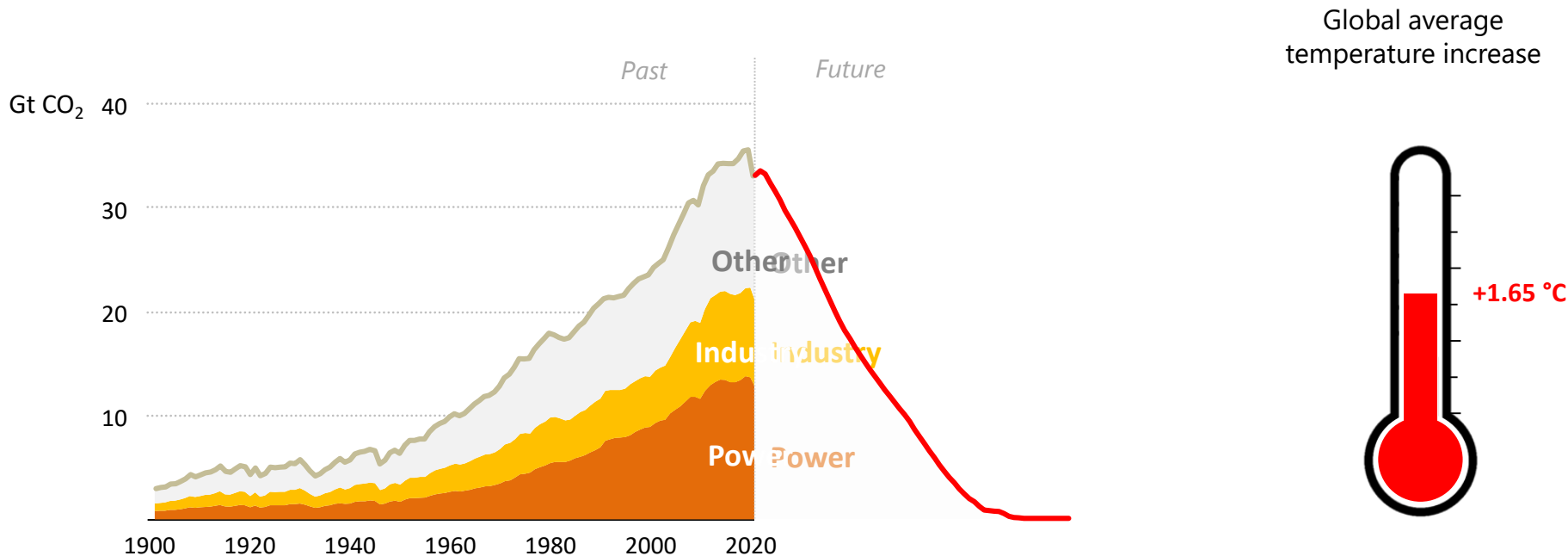
A Sustainable Recovery Plan creates new jobs

Energy-related jobs at risk due to Covid-19 in 2020 and new jobs created by the Sustainable Recovery Plan



With 6 million jobs that could be permanently lost due to the crisis, the plan could create or save some 9 million jobs in every year between 2021 and 2023 with most being in efficiency and in power.

Existing infrastructure alone could lead to a temperature rise of 1.65 °C



Using existing energy infrastructure as in the past would “lock in” emissions for decades to come; the associated 1.65 °C global average temperature increase would put all climate goals out of reach

Net-zero by 2050 demands unprecedented efforts over the next decade



Hydrogen

2020 0.45 Mt

2030



40 Mt

Electric cars

2020 2.5 million

2030



50 million cars sold

Clean electricity investment

2020 380 billion \$

2030



1.6 trillion \$

Net zero energy emissions in 2050 would require a set of dramatic additional actions over the next 10 years. Energy companies, citizens and investors all need to be on board – with unprecedented contributions to make

Conclusions

- The pandemic will leave lasting scars, but it is still open whether it represents a setback for a more secure and sustainable energy system, or a catalyst that accelerates the pace of change
- Governments will make decisions that shape energy infrastructure and industries for decades to come, but these need to address concerns of their citizens: employment, equity, development, and energy security
- Getting to net zero means ramping up clean technology deployment while continuing to reduce costs, especially through innovation for hydrogen and other low-carbon fuels, battery storage & CCUS
- There are no short cuts; only profound changes, guided by good policies, can deliver a better energy future. This is a choice – for citizens, investors, companies, but most of all for governments