

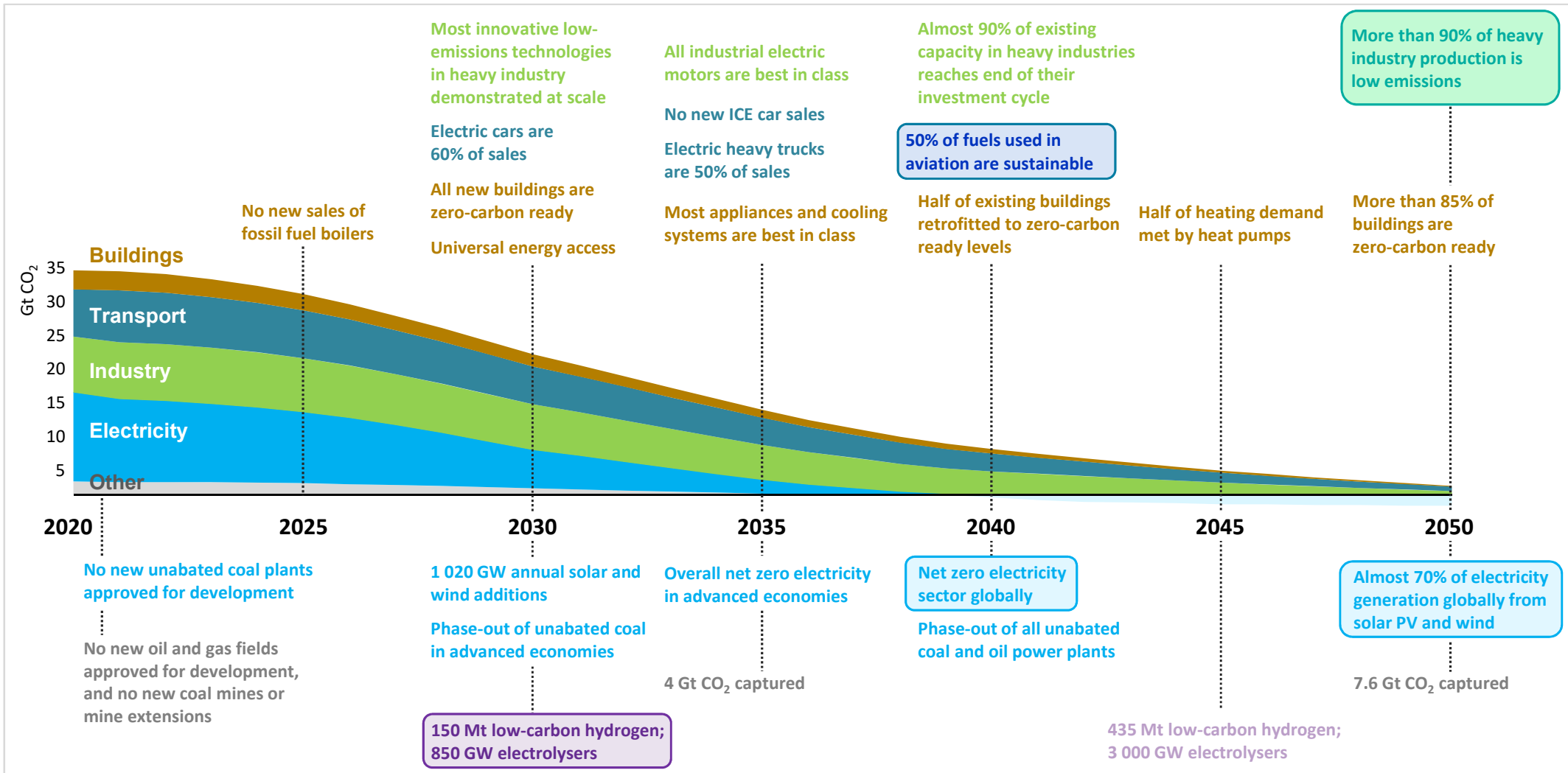


# Session 4: Renewables Open Up a New Industry and Economy

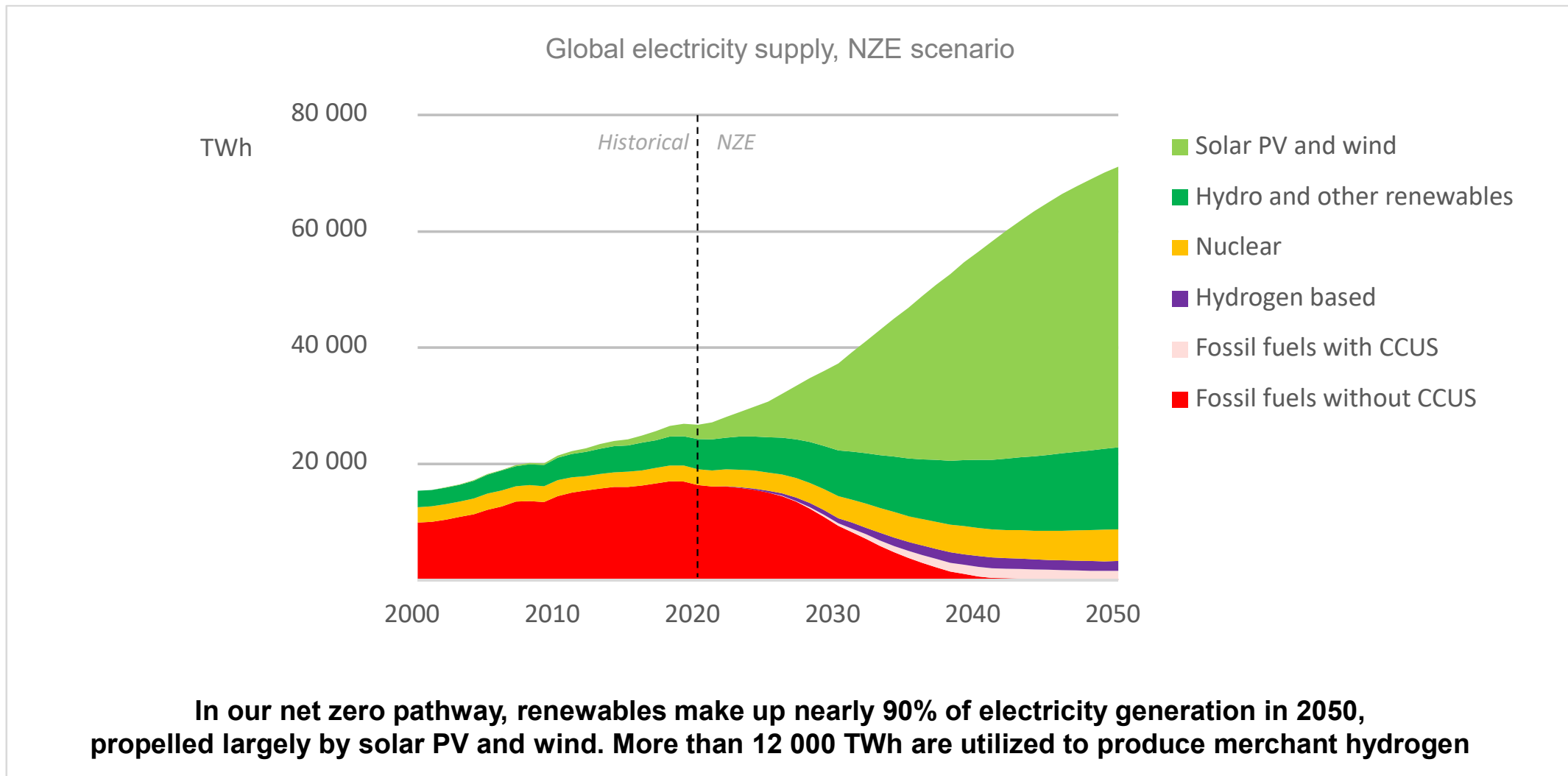
Dr Ilkka HANNULA, Senior Energy Analyst

REvision 2022

# Set near-term milestones to get on track for long-term targets

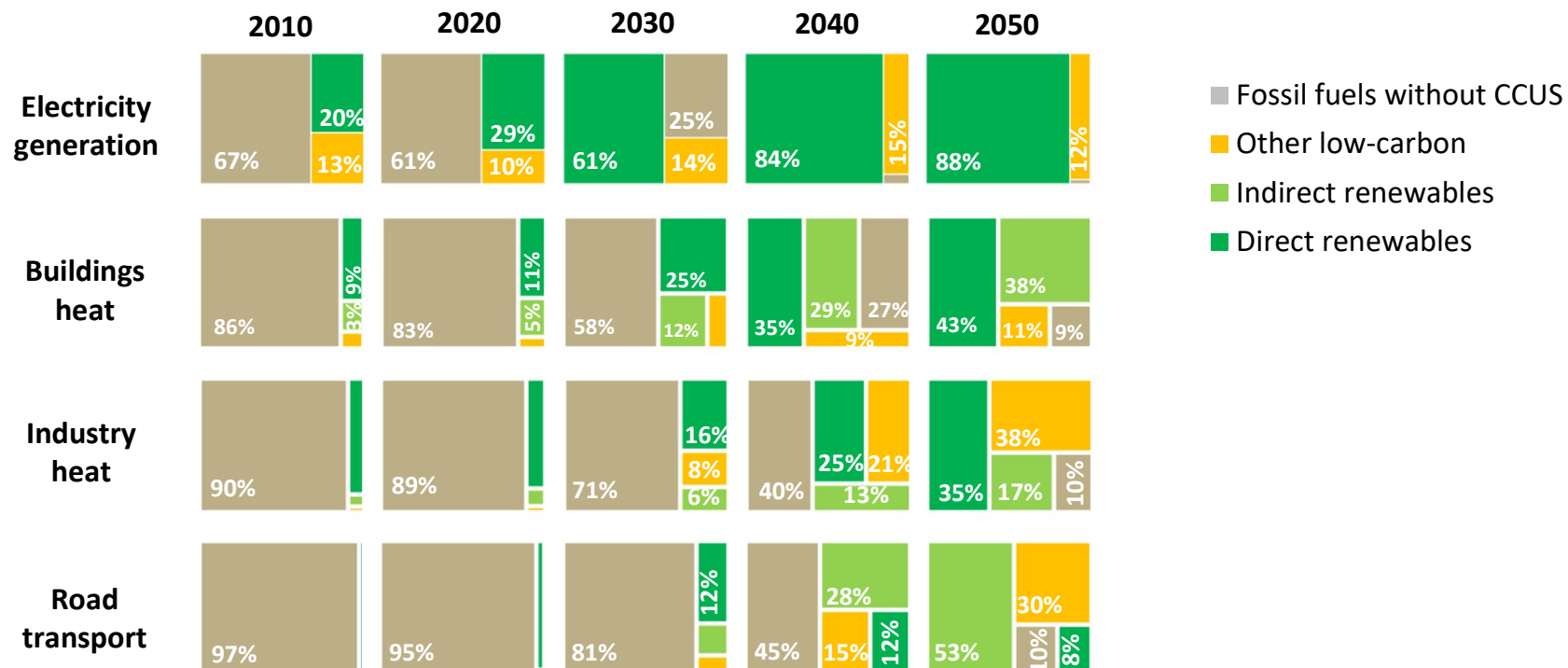


# Renewable electricity leads the way to net zero



# Renewables are a major driver of emissions reductions

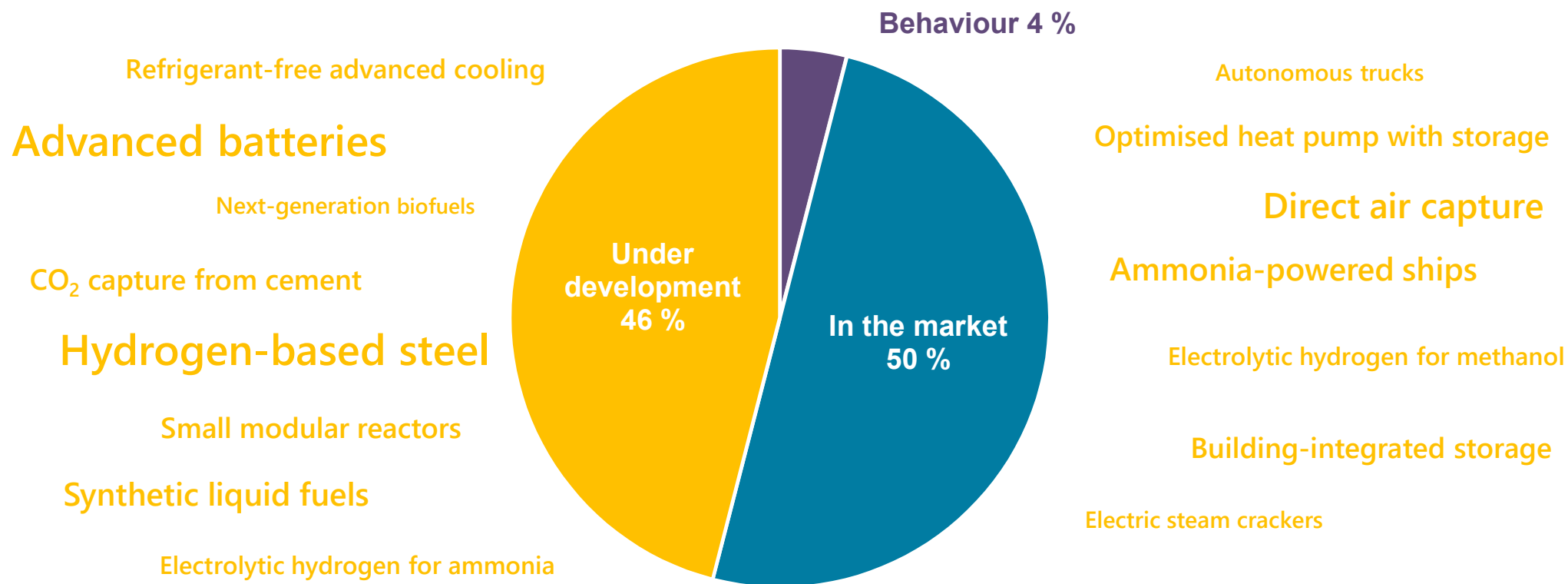
Fuel shares in total energy use in selected applications in the NZE



**Renewables are central to emissions reductions in electricity and they make major contributions to cut emissions in buildings, industry and transport both directly and indirectly.**

# Prepare for the next phase of the transition by boosting innovation

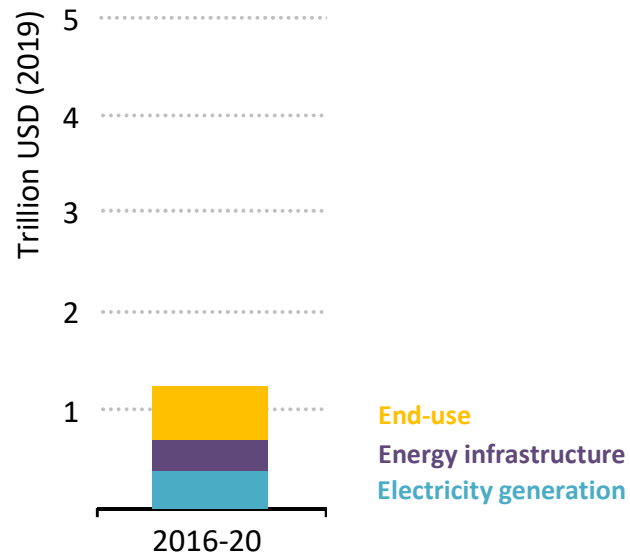
CO<sub>2</sub> savings by technology maturity in 2050, NZE scenario



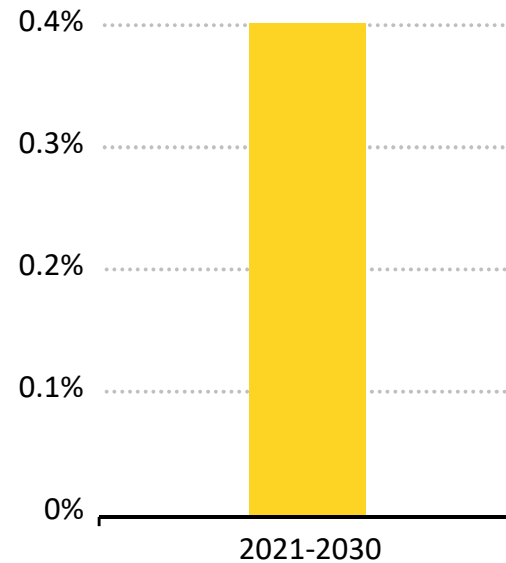
**Unlocking the next generation of low-carbon technologies requires more clean energy R&D and \$90 billion in demonstrations by 2030; without greater international co-operation, global CO<sub>2</sub> will not fall to net-zero by 2050.**

# Drive a historic surge in clean energy investment

Clean energy investment



Additional annual global GDP growth in NZE



**Annual clean energy investment more than triples by 2030 in the NZE scenario, driving an average 0.4% per year increase in global GDP to 2030 & speeding the recovery from the COVID-19 shock**

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