



SPECIAL REPORT ON A SUSTAINABLE RECOVERY: How sustainable energy stimulus can rebuild the global economy

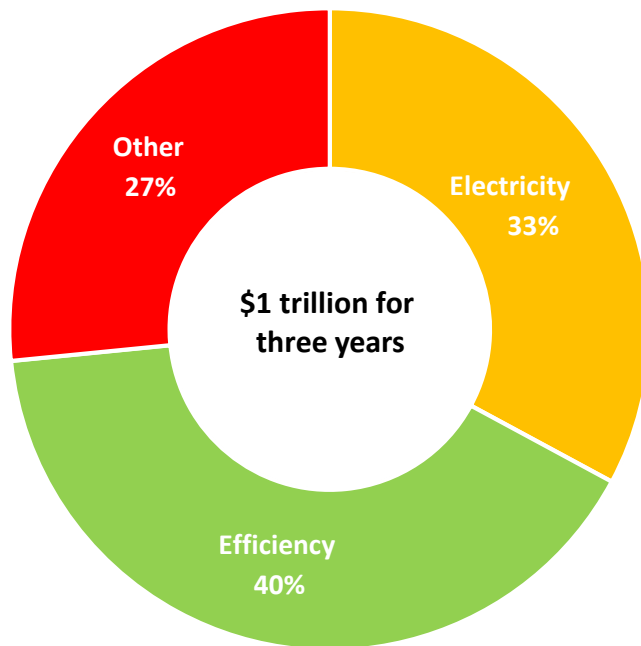
Daniel Wetzel, Energy Analyst

28 September 2020, 6th IEA-Tsinghua Joint Workshop

Context

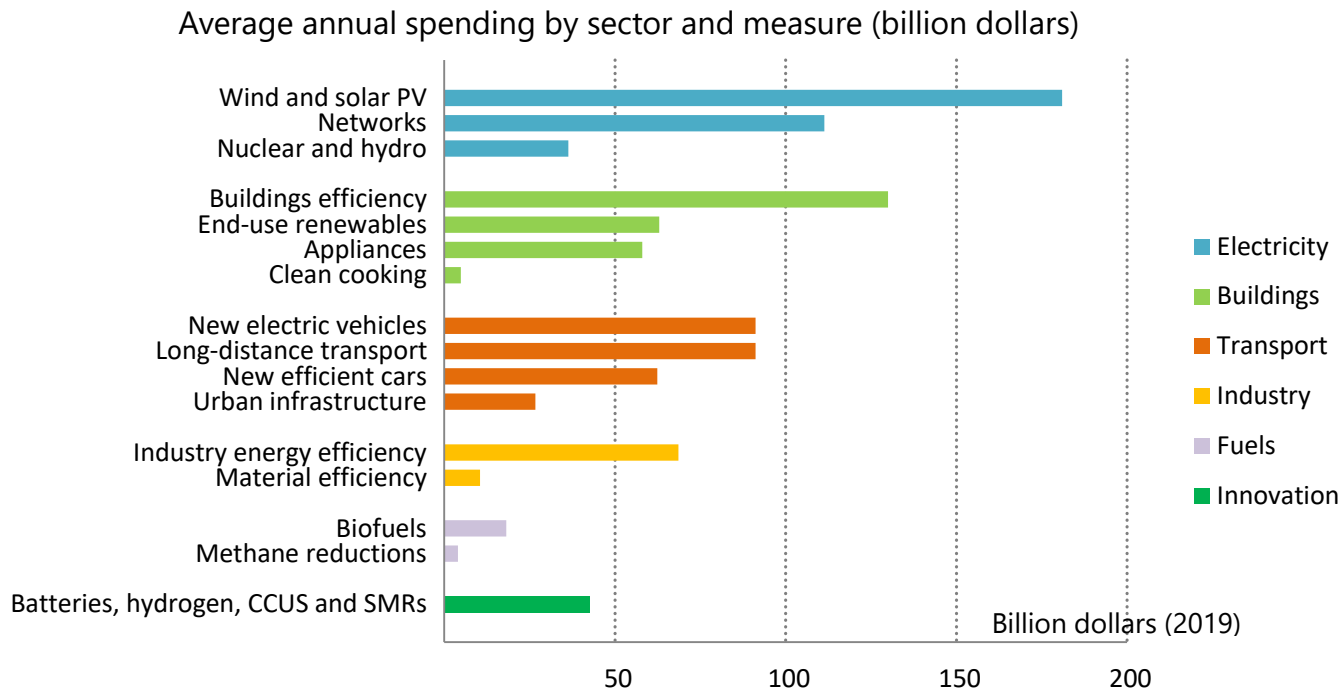
- Covid-19 is creating the largest economic crisis since the great depression: global GDP is expected to decline by at least 6% in 2020.
- 400 million jobs are at risk across the economy and around 6 million in energy-related sectors
- Global CO₂ emissions are set to fall by around 8% in 2020, but recoveries from previous global economic crises have generally been accompanied by a large jump in emissions.
- The immediate focus of governments has been on healthcare and financial interventions to help avert economic meltdown: energy sectors have not featured prominently in spending plans to date
- The magnitude of this crisis, lessons from previous crises, and the current trajectory for CO₂ emissions mean there is a very strong case for the energy sector to play a central part in upcoming plans.
- Based on detailed bottom-up assessment of over 30 energy measures, and economic analysis carried out by the International Monetary Fund, the IEA has designed a sustainable recovery plan for the energy sector that would create jobs, boost economic growth, and improve sustainability and resilience.
- These measures also align with regional market conditions and policy objectives, providing pathways that are viable for policymakers to advance.

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

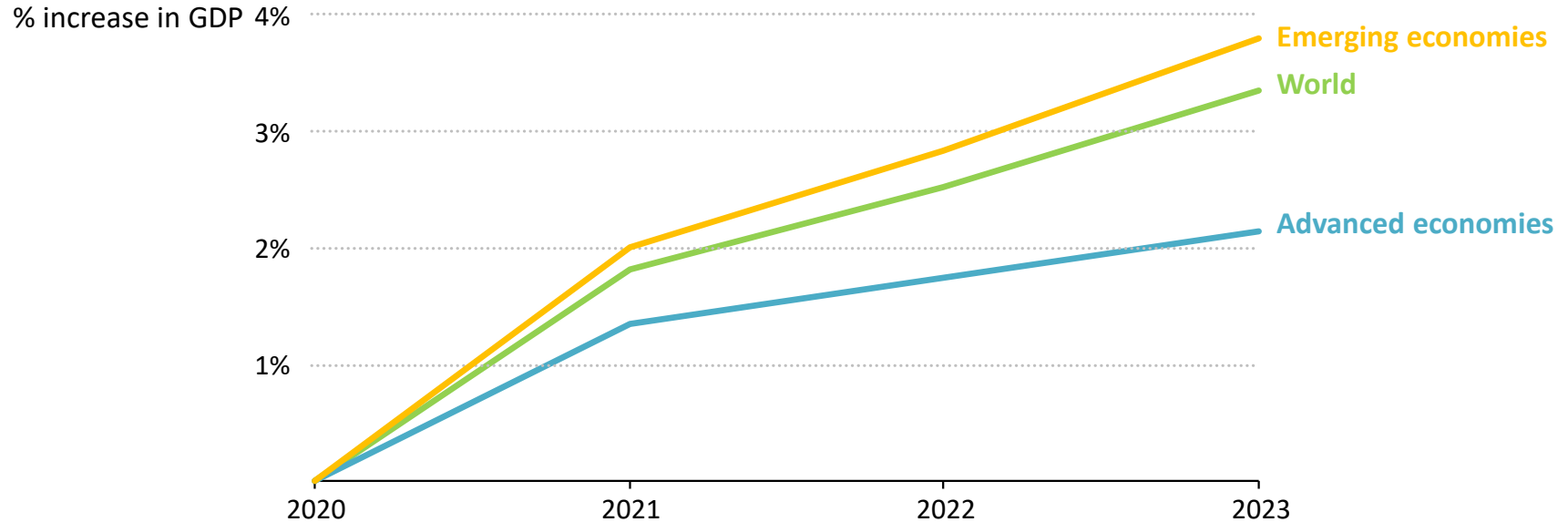
Aligned with forecasted needs for incremental investment



All spending is additional to the annual levels in recent years. 70% of the \$1 trillion comes from private sources, with direct financial public support and policy design critical to mobilising these funds.

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

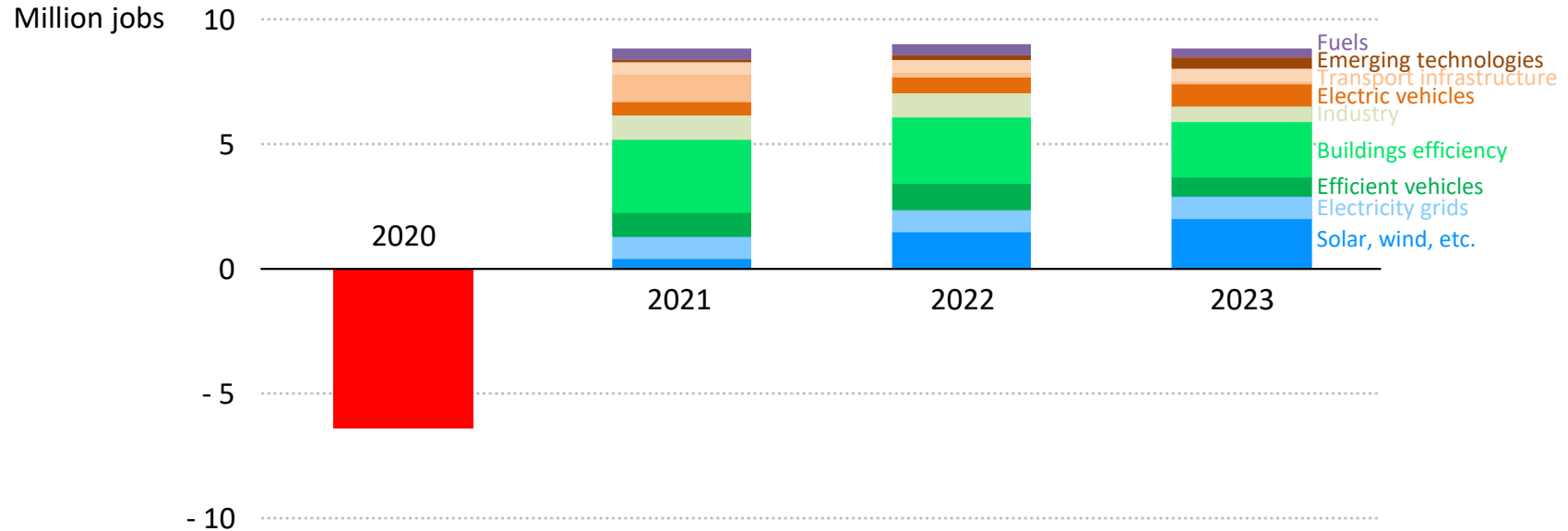
Additional growth in real GDP from the Sustainable Recovery Plan



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

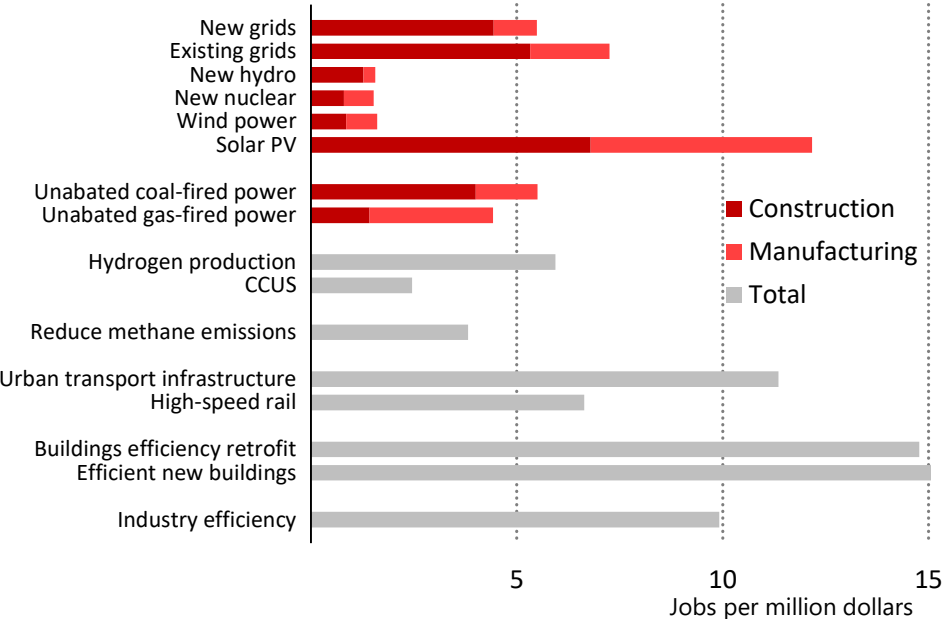


With 6 million jobs that could be permanently lost due to the crisis, the plan could create or save some 9 million jobs in every year between 2021 and 2023 with most being in efficiency and in power.

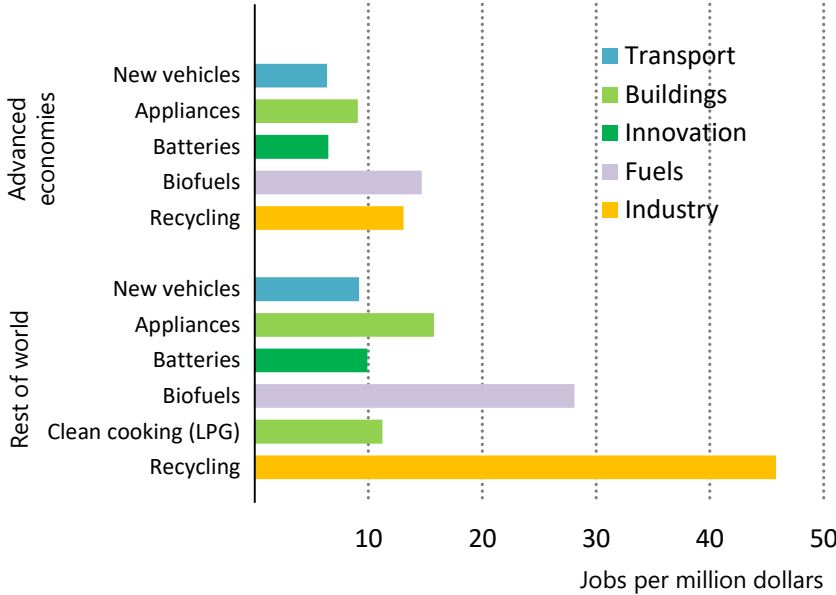
Energy efficiency and PV are jobs engines

Jobs created per million dollars of capital investment and spending by measure

Per million dollars of capital investment

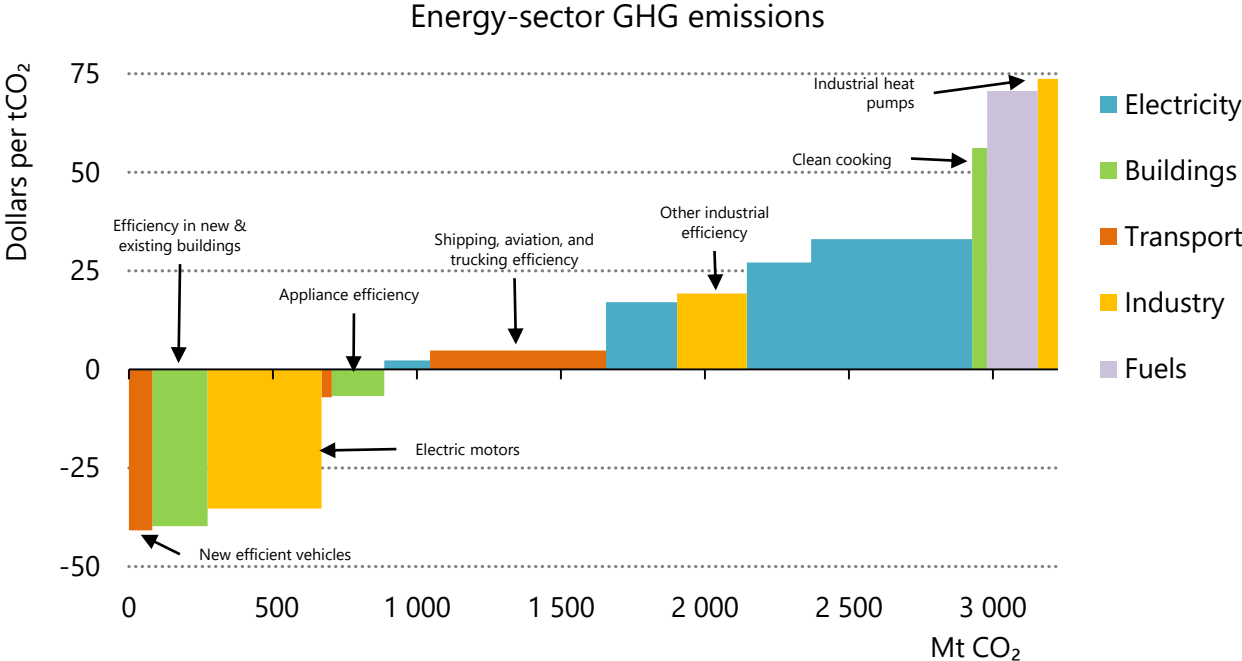


Per million dollars of spending



Efficiency, solar PV and grids create many jobs per unit of investment, with recycling and biofuels in developing and emerging markets. These align with other policymaker objectives for recovery.

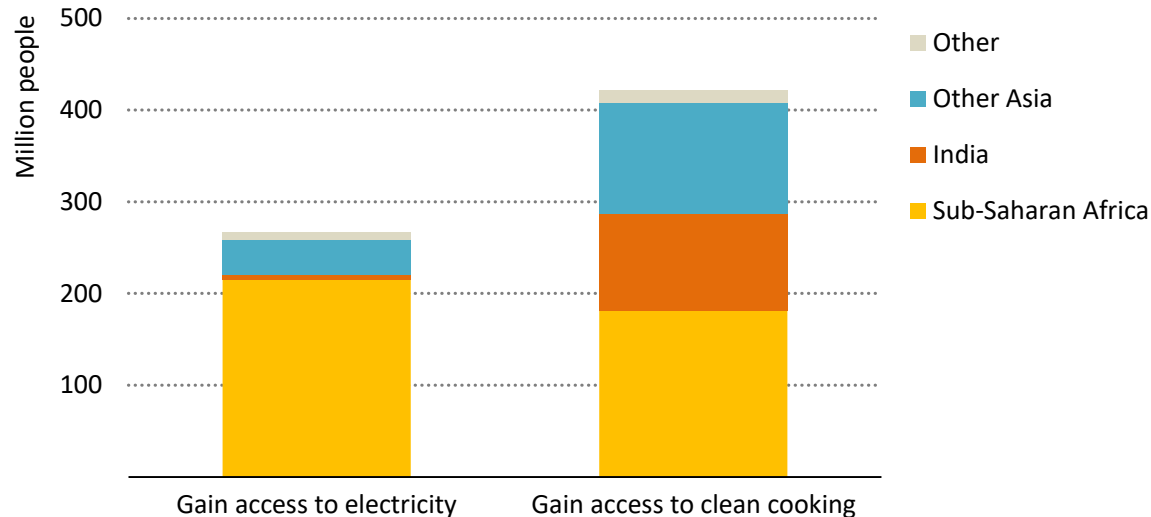
Efficiency contributes the most emissions and cost reductions



Annual CO₂-eq emissions would be nearly 4.3 Gt lower, air pollution improves by 5%, and customer energy costs would be 2-3% less due to these measures.

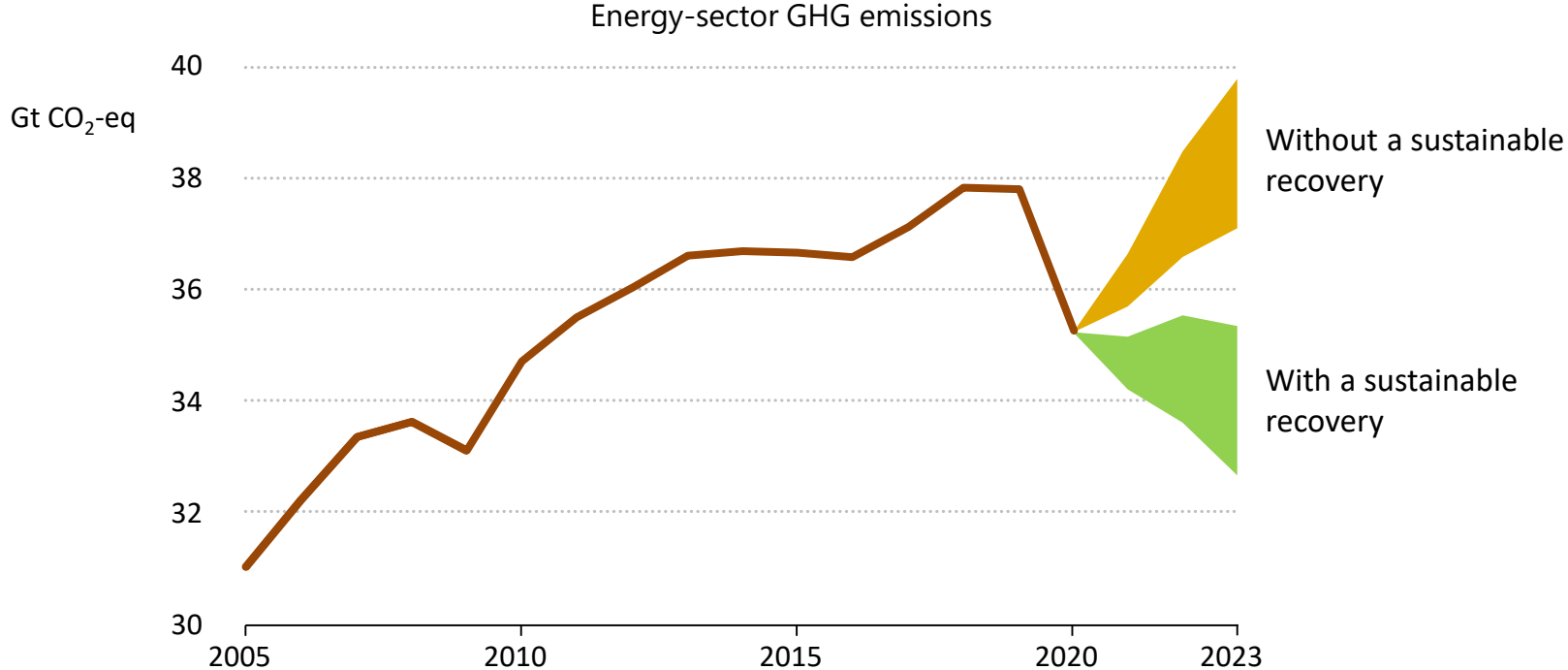
Progress on energy access in developing regions

Improvements in electricity access and clean cooking access under the Sustainable Recovery Plan



The Sustainable Recovery Plan includes funding for improving energy access for the poorest, often the most impacted by the COVID crisis, creating new jobs and sustaining livelihoods

Energy systems would shift towards structurally cleaner ones



The plan would make 2019 the definitive peak in global emissions, reducing GHG emissions by 4.5 billion tonnes and putting them on a path towards achieving long-term climate goals, including the Paris Agreement.

Conclusions

- 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
- Investments in the Sustainable Recovery Plan can achieve a range of significant outcomes:
 - Boost economic growth by an average of 1.1 percentage points a year, higher in developing economies
 - Save or create roughly 9 million jobs a year
 - Make 2019 the definitive peak in global emissions
 - Provide electricity to nearly 300 million people, and give over 400 million access to clean cooking
 - Decreases customer costs, improves energy security, and reduces pollution
- Direct government expenditure would be less than 10% of recovery plans announced to date, but it is crucial for governments to create the right conditions to materialise \$1 trillion a year for three years.
- The real challenge for governments now is how to deliver these policies quickly, cost-efficiently, mobilising 2-3x private investment, and within their own political constraints.

iea