EGEDA
under EWG-APEC

Asia-Pacific
Economic Cooperation

IRENA
International Renewable Energy Agency

Renewables : Trends and Forecasts

The 18th APEC Workshop on Energy Statistics

Joint APEC-IRENA Workshop on Renewable Energy Statistics

15-17 December 2020

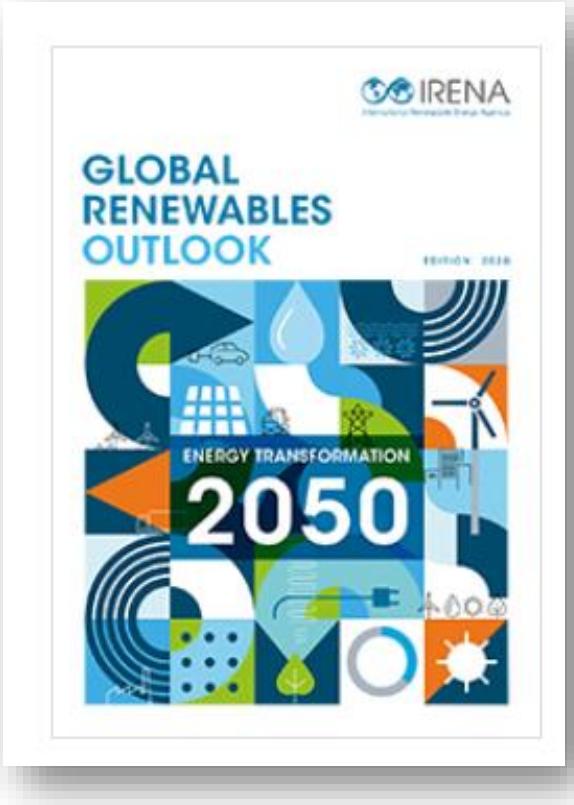
- Sonia RUEDA, IRENA

Outline

1. Global Renewables Outlook 2050
2. Scenarios and perspectives
3. The change of energy use
4. The change on fossil fuel demand
5. RE share and energy efficiency improvement
6. Investment needed
7. Jobs creation
8. COVID-19 Effects
9. Conclusions

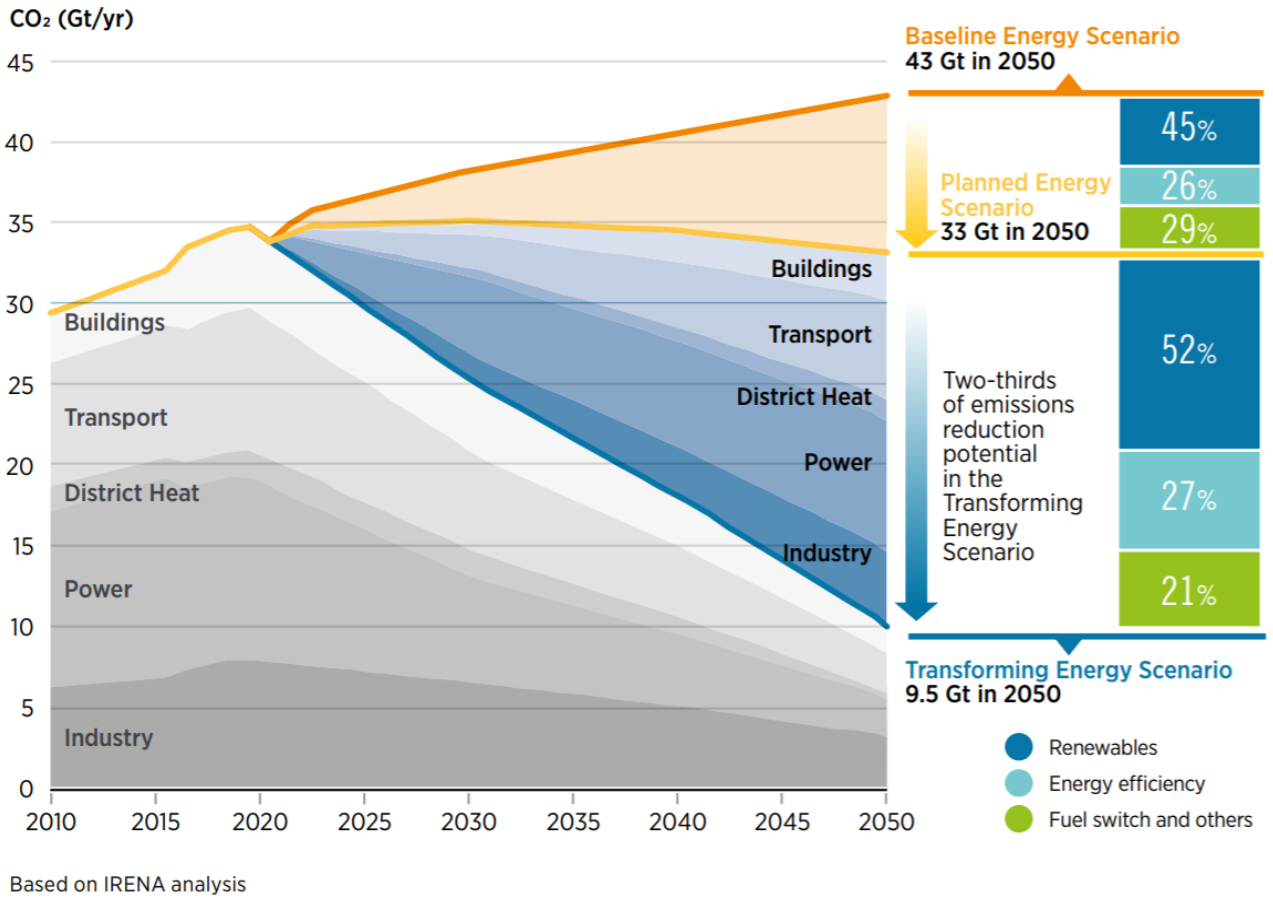
Global Renewables Outlook 2050

- The Global Renewables Outlook shows the path to create a sustainable future energy system. It highlights climate-safe investment options until 2050 and the policy framework needed to manage the transition



Available under: https://www.irena.org/publications/2020/Apr/Global-Renewables-Outlook-2020

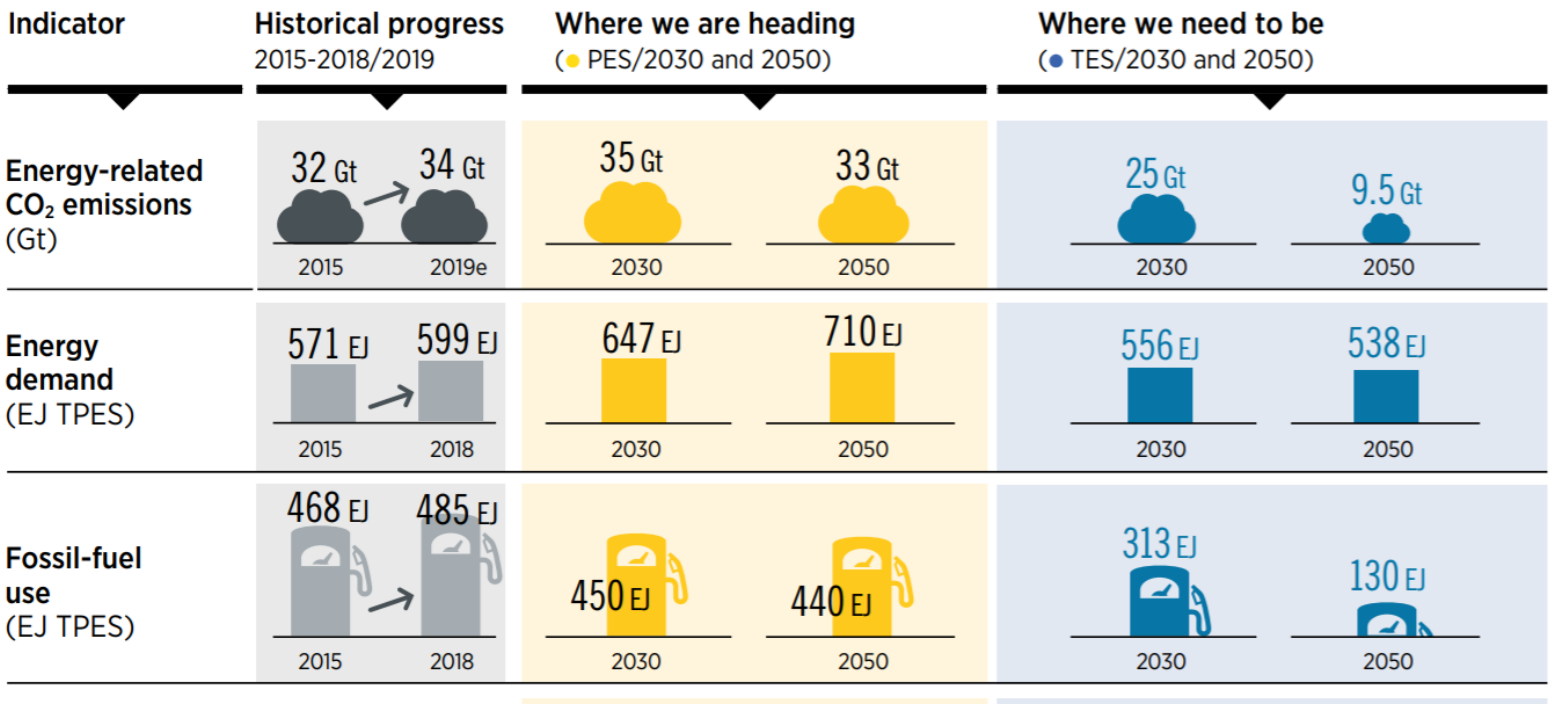
Scenarios and perspectives



Based on IRENA analysis

Renewables, energy efficiency, electric vehicles and hydrogen can provide bulk of necessary emissions reductions by 2050 .

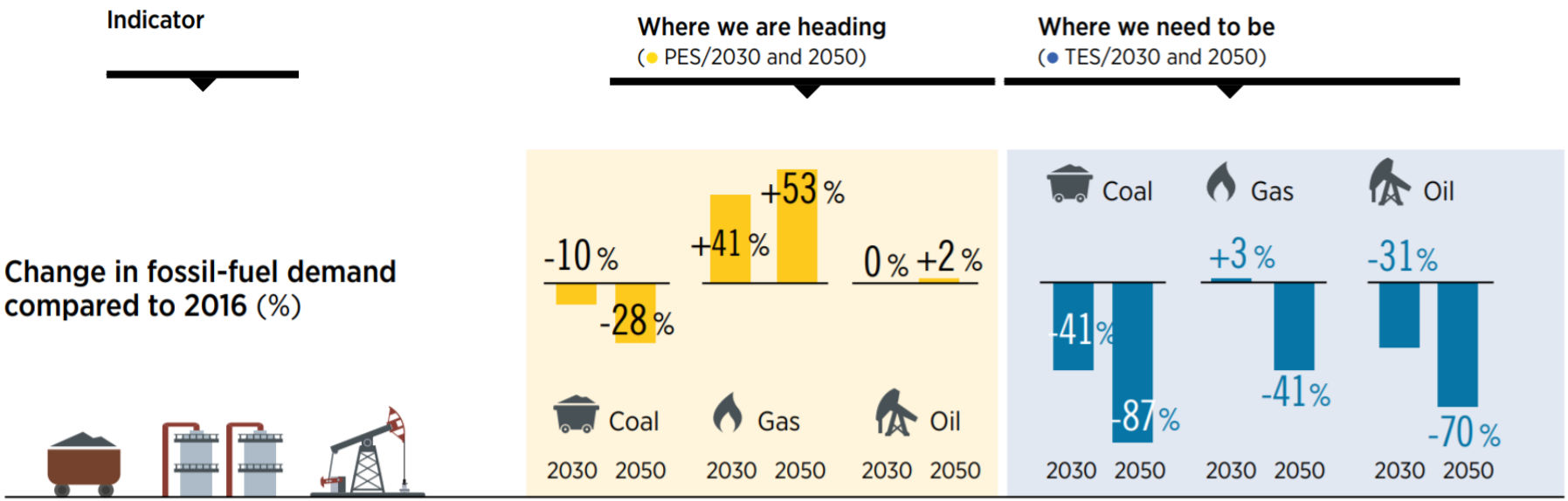
The change of energy use



Based on IRENA scenarios (PES and TES), along with IEA (2019a, 2019b) for 2015-2018 historical progress of energy demand and fossil-fuel use.

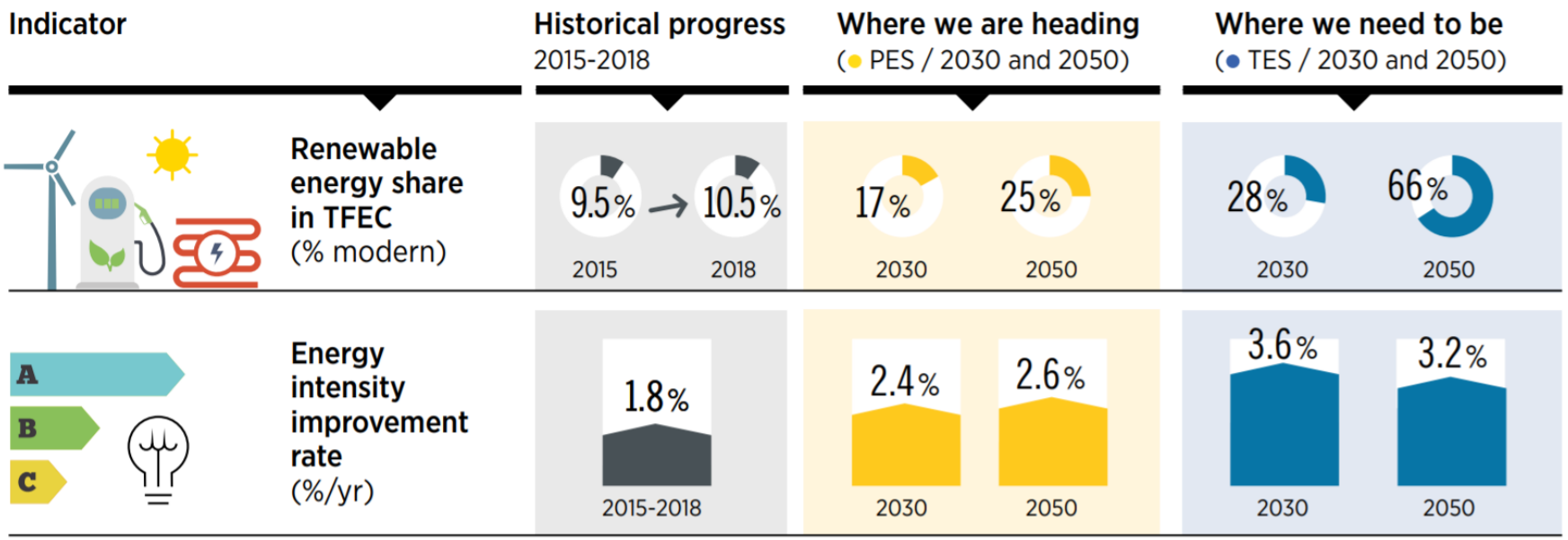
The gap between aspiration and the reality in tackling climate change remains as significant as ever

Change in fossil fuel demand



The largest consumption declines would take place in coal but policy has to focus on how to deal with current infrastructure

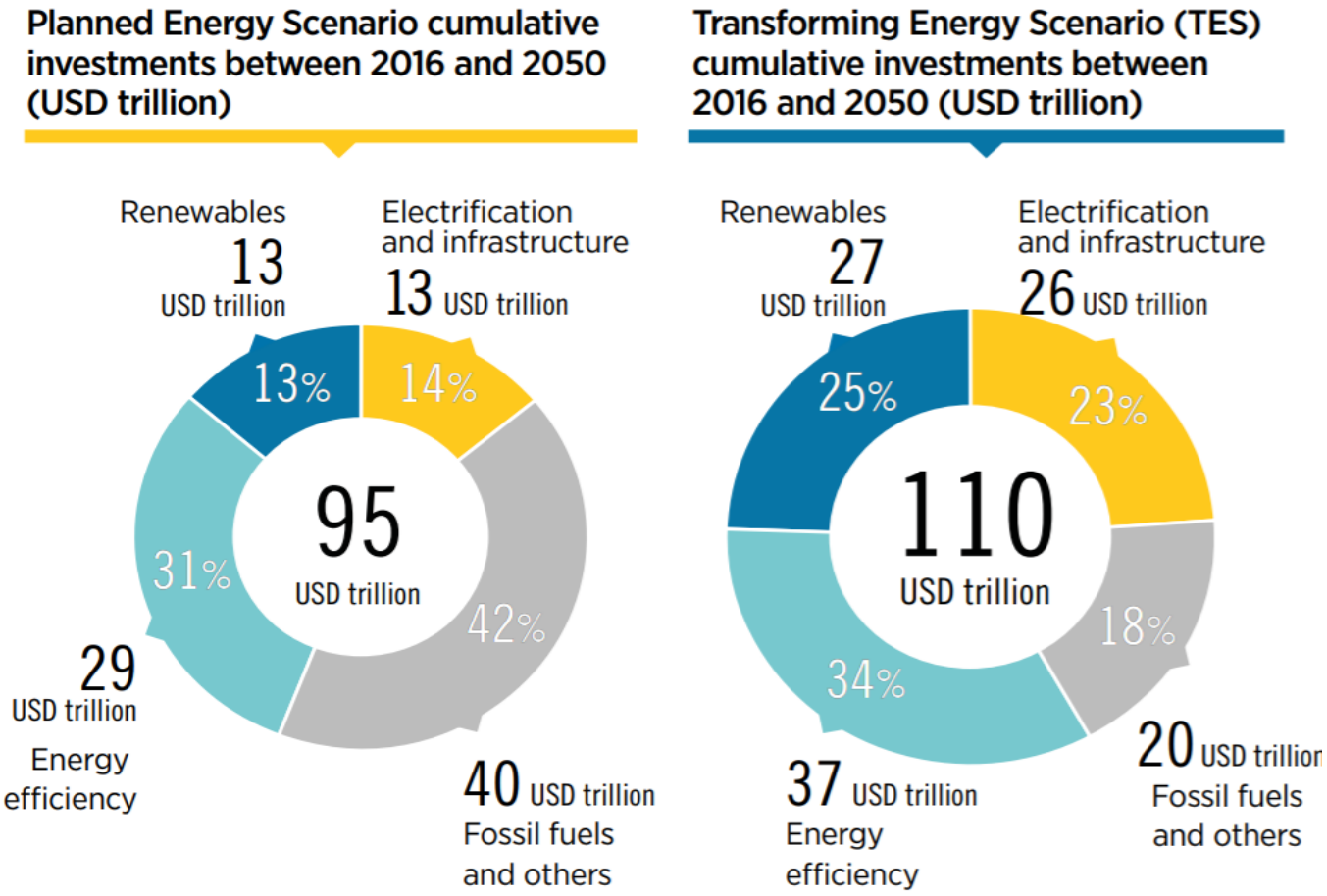
RE share and energy efficiency improvement



Based on IRENA scenarios (PES and TES), along with IEA (2019a, 2019b) for 2015-2018 historical progress of energy share in total final energy consumption (TFEC).

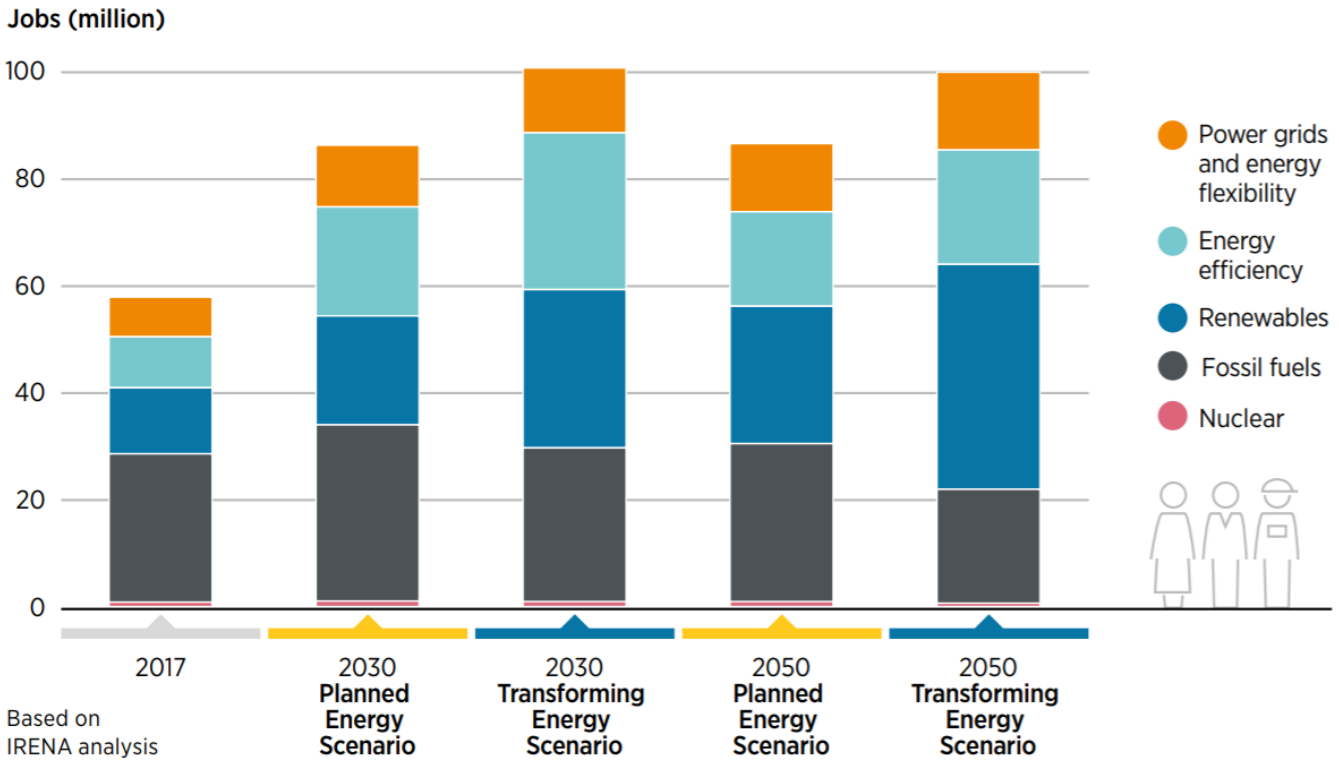
Renewables in the world's energy mix: Six-fold increase needed

Investment needed



Fossil-fuel investments need to be shifted to renewables and energy efficiency instead

Jobs creation



*Power grids and energy flexibility makes reference to all those elements that provide the flexibility needed to operate a power system with high shares of renewable power, and includes storage, demand management, and the power transmission and distribution grids.

Energy sector jobs growth: Reaching 100 million in 2050

COVID-19 effects

In 2020, there is a key question:

- Will the pandemic disruption stimulate, or delay the transition to clean energy?

The health, humanitarian, social and economic crises set off by the current COVID-19 pandemic could either **widen the gap** or **accelerate the decarbonisation of our societies**. Much will depend on how countries respond in terms of economic stimulus.

Recovery measures could include flexible power grids, efficiency solutions, electric vehicle charging, energy storage, interconnected hydropower, green hydrogen and other technology investments consistent with long-term energy and climate sustainability.

Conclusions

- The gap between aspiration and the reality in tackling climate change remains as significant as ever
- The pandemic could either widen the gap or accelerate the decarbonisation of our societies, much will depend on policy makers and investment decisions
- Public policies and recovery investment decisions must align with the vision of a sustainable future.
- Fossil-fuel investments need to be shifted to renewables and energy efficiency instead, while subsidies to fossil fuels must be phased out.

Thank you for your kind attention

https://www.egeda.ewg.apec.org/
https://irena.org/