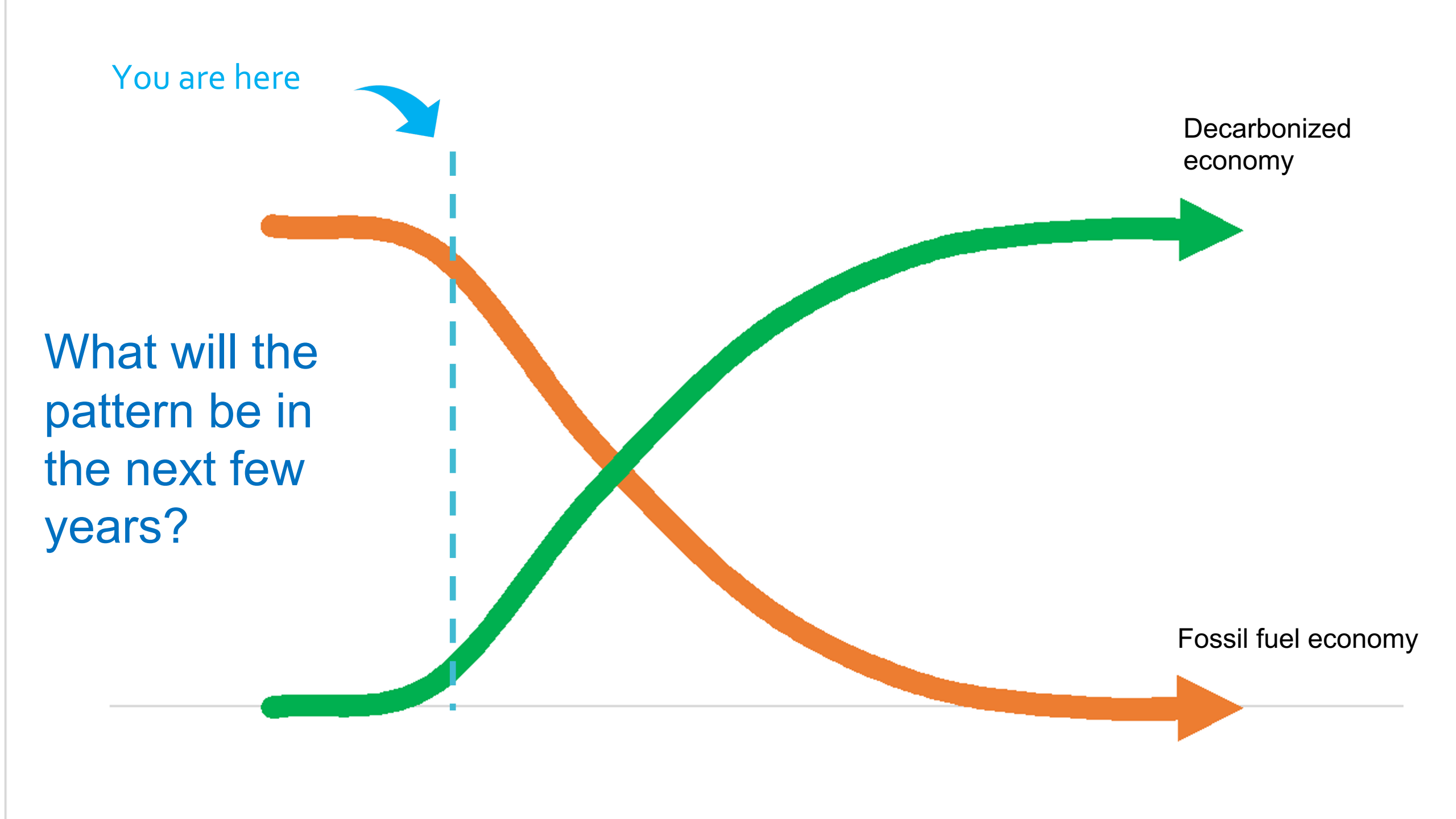
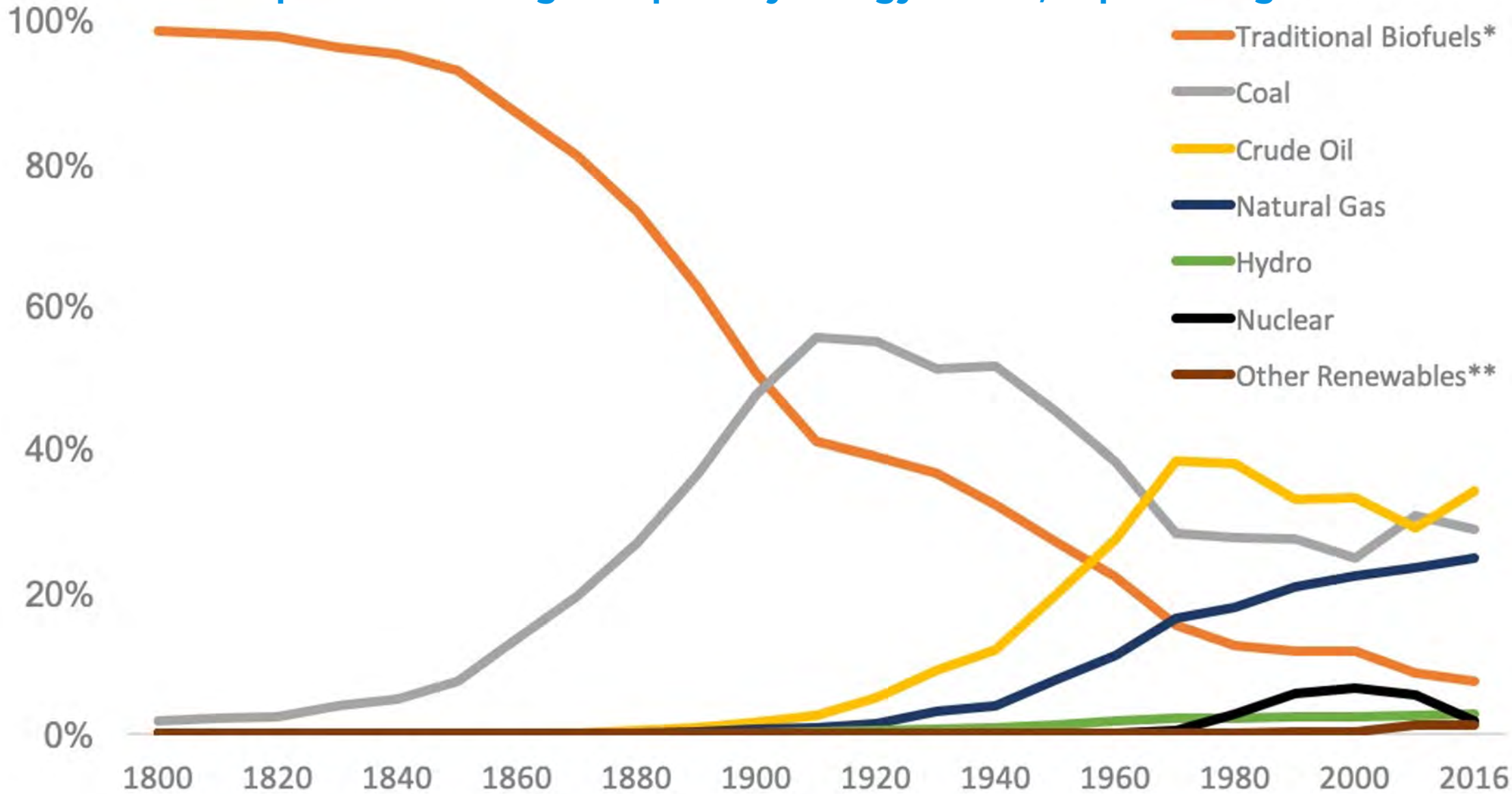
Juan Carlos Villalonga

- Member of the Chamber of Deputies (2015-2019)
- President of Globe Legislators
- *Círculo de Políticas Ambientales* (non-profit foundation ‘Circuit of Environmental Policies’)
- PlataformaH2 Argentina

The transition - occurs, or is created?

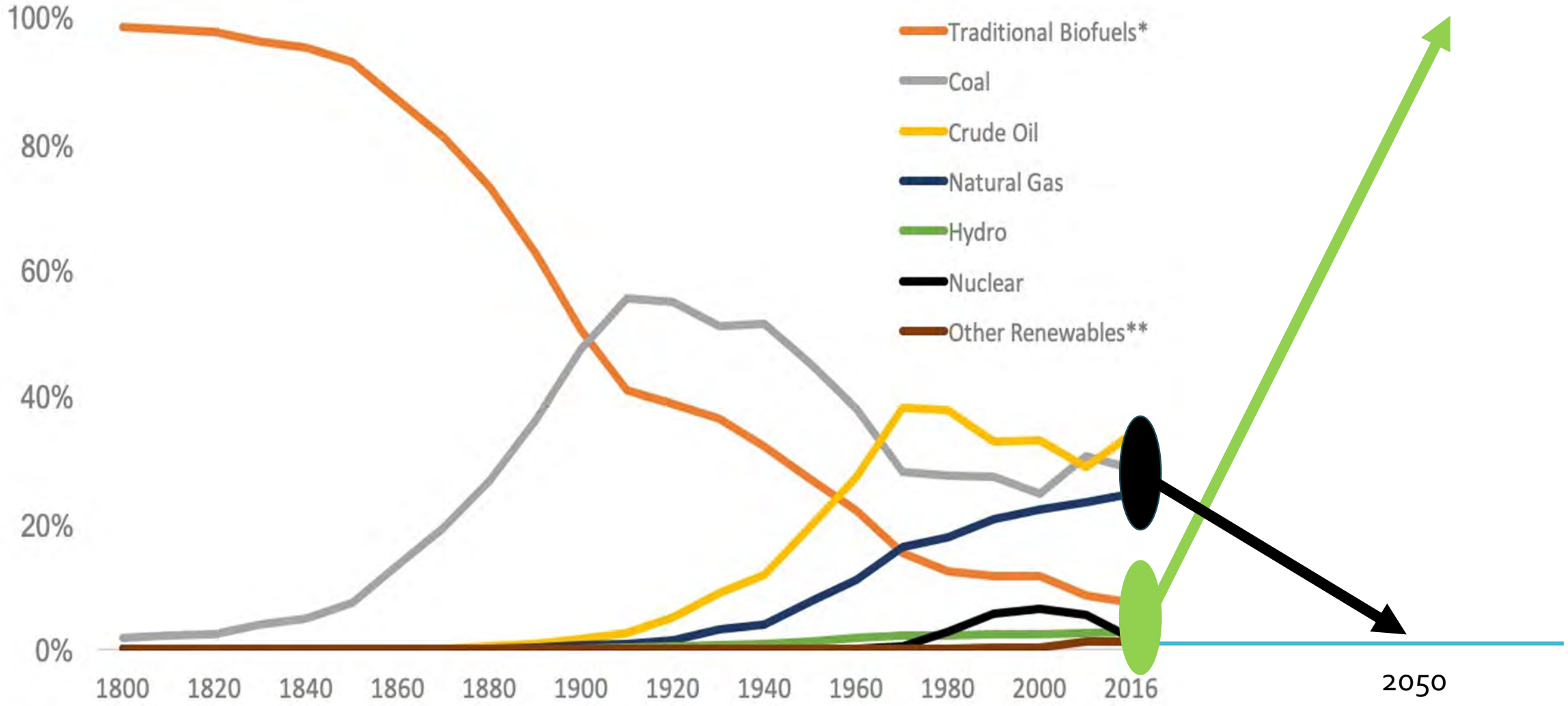

You are here
Decarbonized economy
What will the pattern be in the next few years?
Fossil fuel economy

Composition of the global primary energy matrix, in percentages



Data Source: Vaclav Smil (2017), Energy Transitions: Global and National Perspectives
*Notes: *Burning wood and other organic matter*
***Wind, solar and modern biofuels*

Composition of the global primary energy matrix, in percentages



Data Source: Vaclav Smil (2017), Energy Transitions: Global and National Perspectives
*Notes: *Burning wood and other organic matter*
***Wind, solar and modern biofuels*

This transition should occur as a result of an environmental externality, climate change.

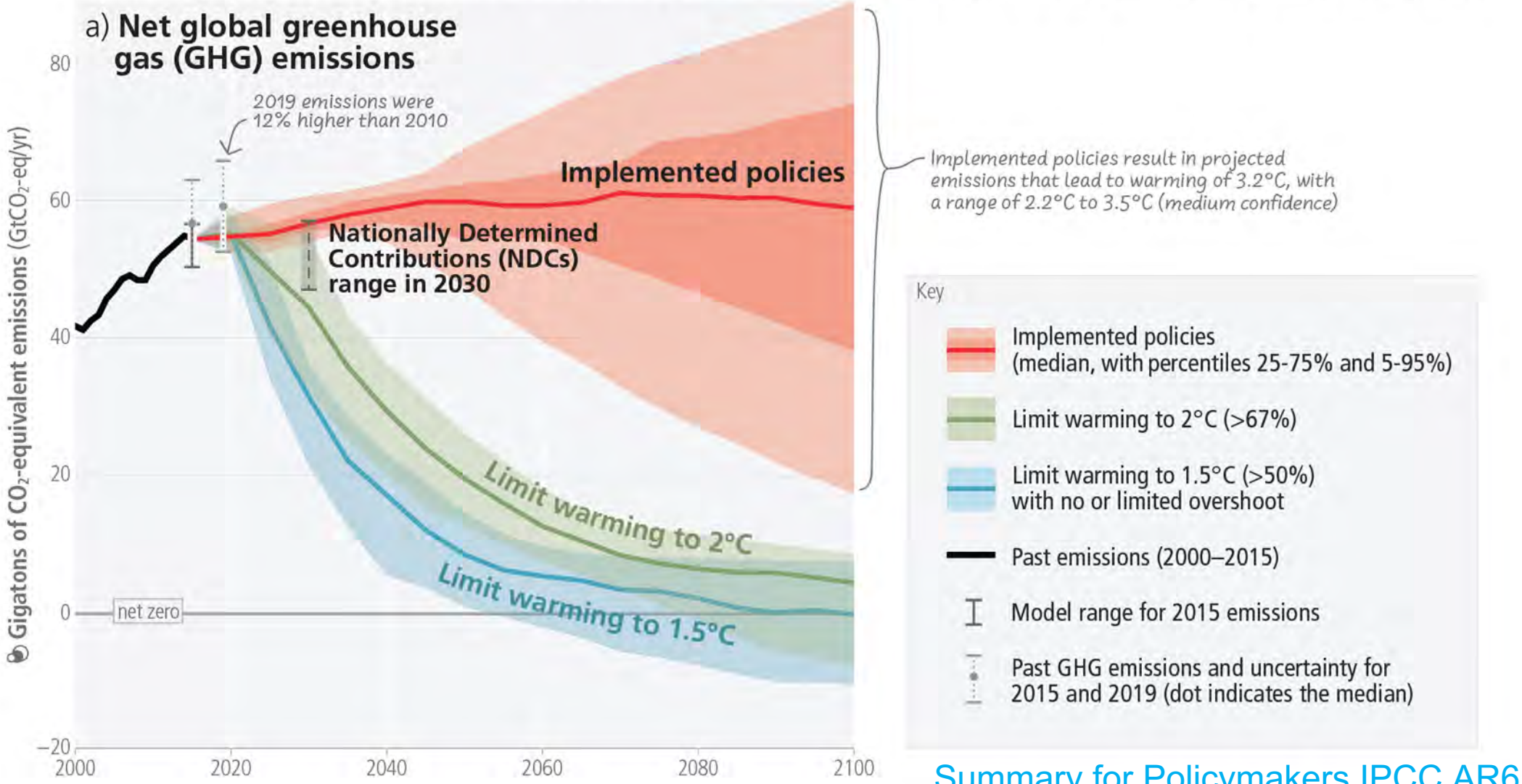
…stabilization of the concentration of greenhouse gases in the atmosphere at a level that prevents dangerous anthropogenic interference in the climate system… *UNFCCC (1992)*

Paris Agreement (2015)

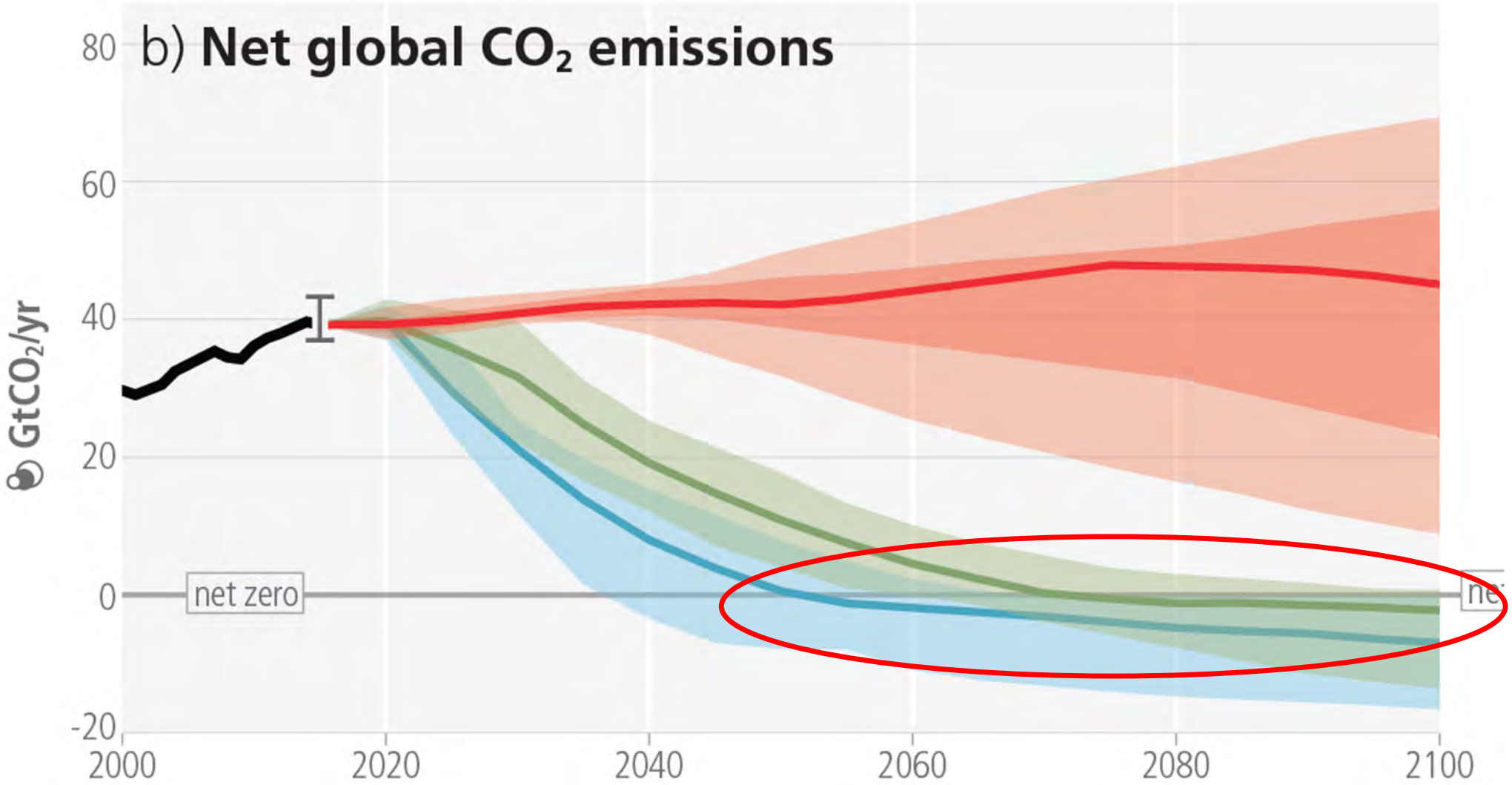
- Climate Objective: 1.5°C – 2°C
- NDC (Nationally Determined Contribution)

Limiting warming to 1.5°C and 2°C involves rapid, deep and in most cases immediate greenhouse gas emission reductions

Net zero CO_2 and net zero GHG emissions can be achieved through strong reductions across all sectors



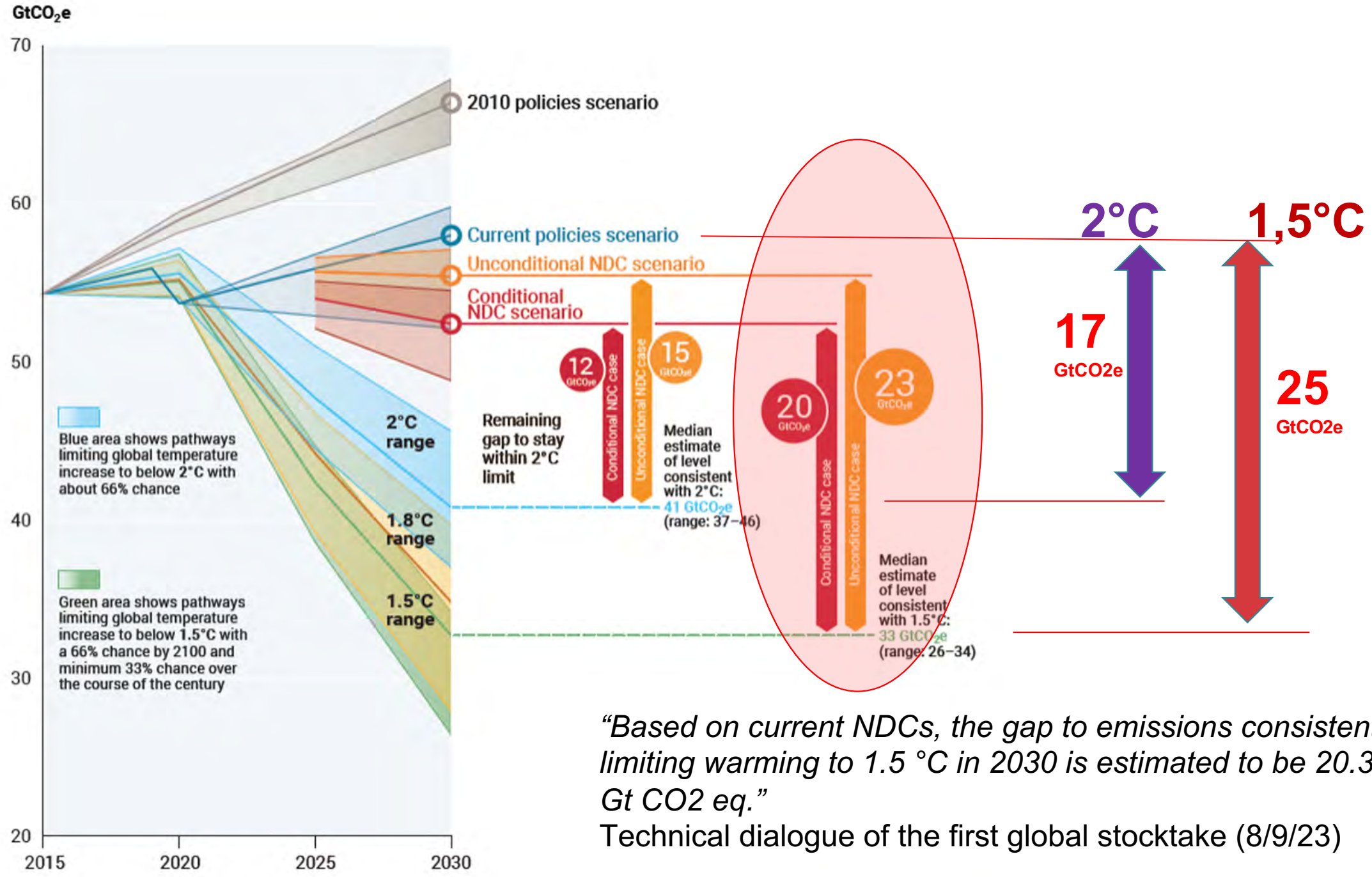
Summary for Policymakers IPCC AR6 SYR
Marzo 2023



Summary for Policymakers IPCC AR6 SYR
Marzo 2023

We have *less than 30* years to end the *“era of petroleum”*

What is the emissions “gap”?



"Based on current NDCs, the gap to emissions consistent with limiting warming to 1.5 °C in 2030 is estimated to be 20.3–23.9 Gt CO2 eq."
Technical dialogue of the first global stocktake (8/9/23)

European Union (2020)	2.96 GtCO2e
United States (2020)	5.3 GtCO2e
China (2020)	12.3 GtCO2e
TOTAL	**20.6 GtCO2e**
Latin America and the Caribbean (2020)	3.88 GtCO2e

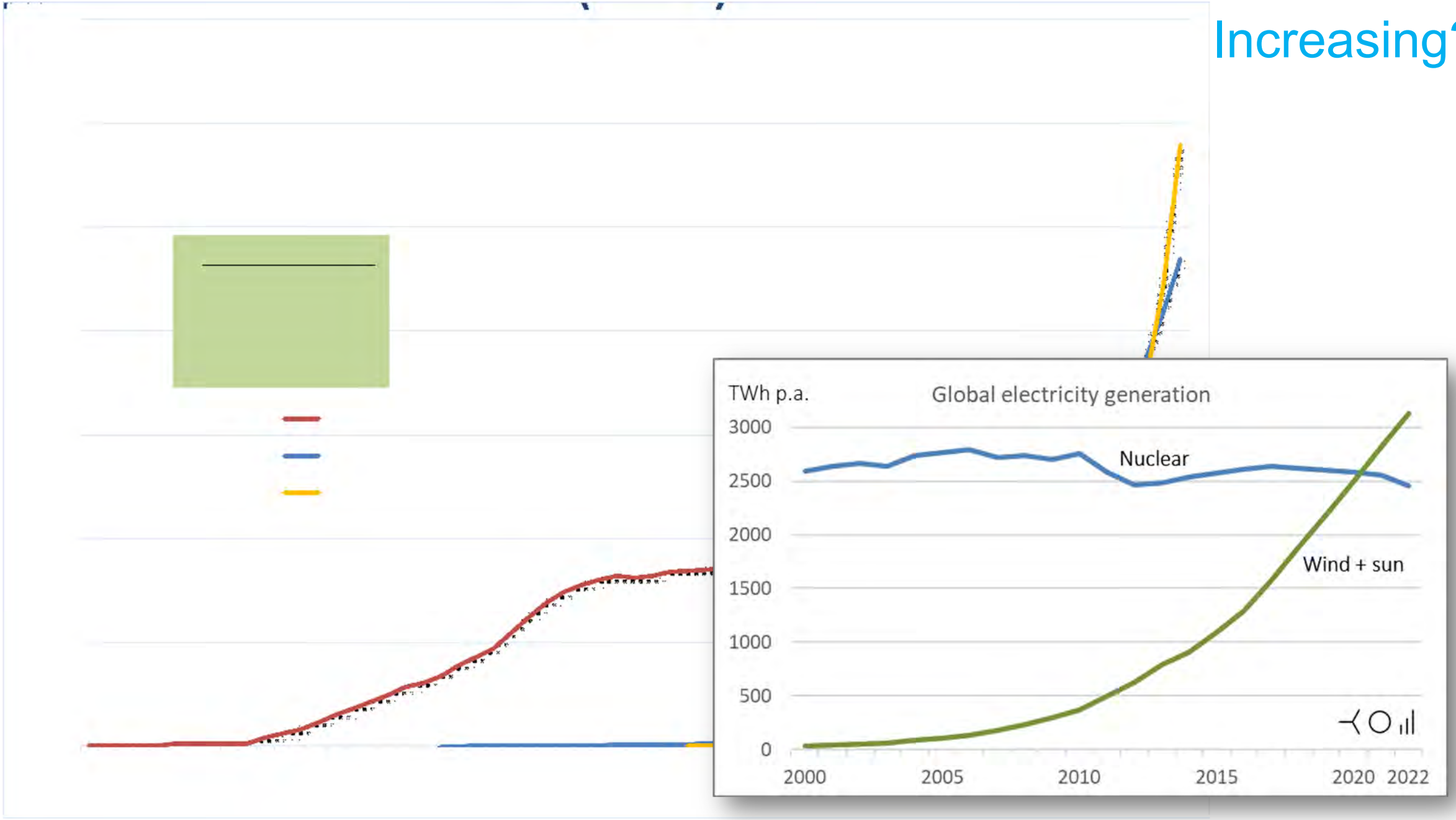
2°C “gap”: 17 GtCO2e

1.5°C “gap”: 25 GtCO2e

“Based on current NDCs, the gap to emissions consistent with limiting warming to 1.5 °C in 2030 is estimated to be 20.3–23.9 Gt CO2 eq.”
Technical dialogue of the first global stocktake (8/9/23)

New technologies bring us good news.

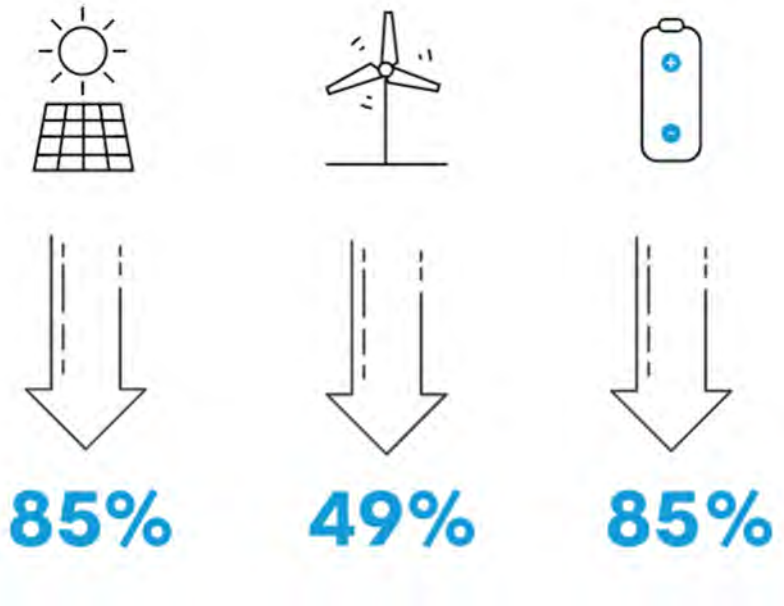
Increasing?


TWh p.a.
Global electricity generation
3000
2500
2000
1500
1000
500
0
Nuclear
Wind + sun
2000
2005
2010
2015
2020
2022

What about the costs?

"The costs of solar panels, wind turbines and batteries will continue to decline. By 2030, the energy generated and stored by these three technologies will take the place of electricity generated by coal and gas throughout most of the world."

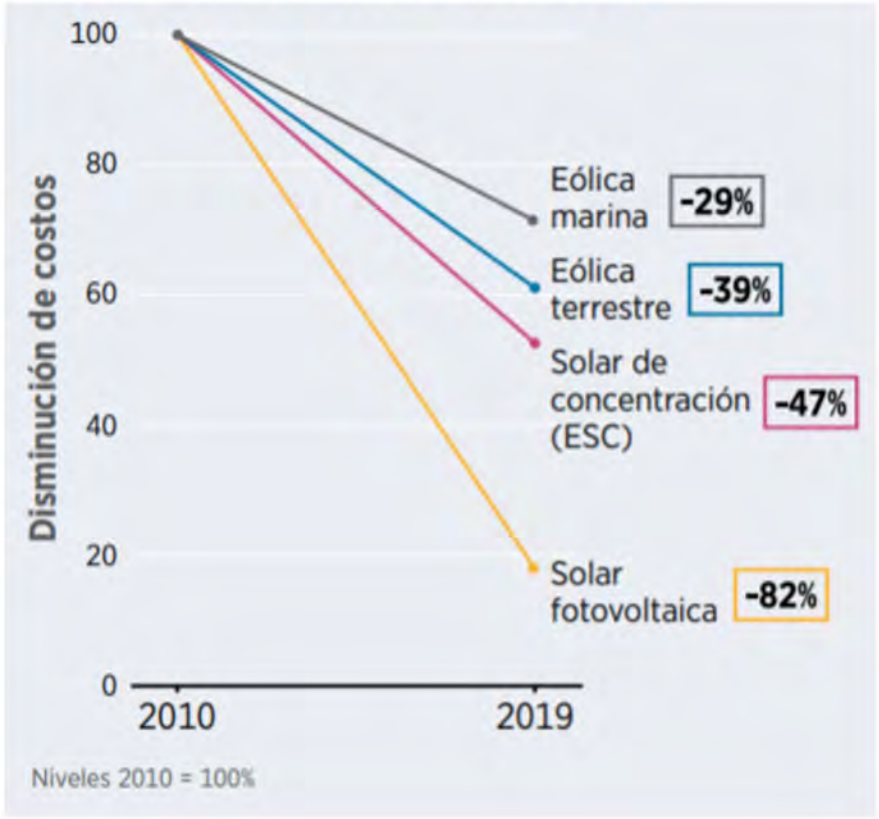
– Matthias Kimmel, NEO lead analyst, 2019



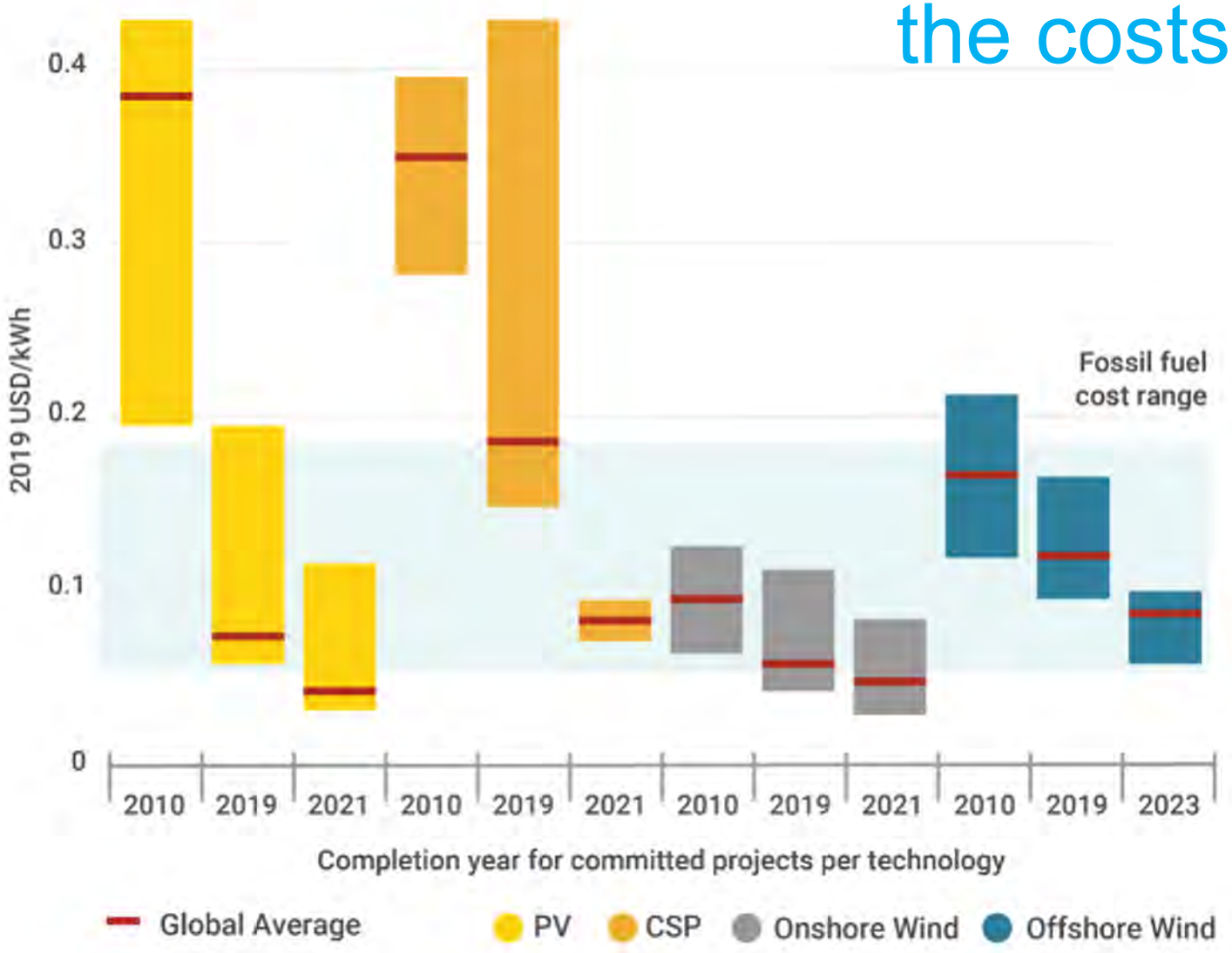
Technology cost-declines since 2010
(Source: BloombergNEF)

What about the costs?

Tecnologías de energía renovable: reducción de los costos desde 2010

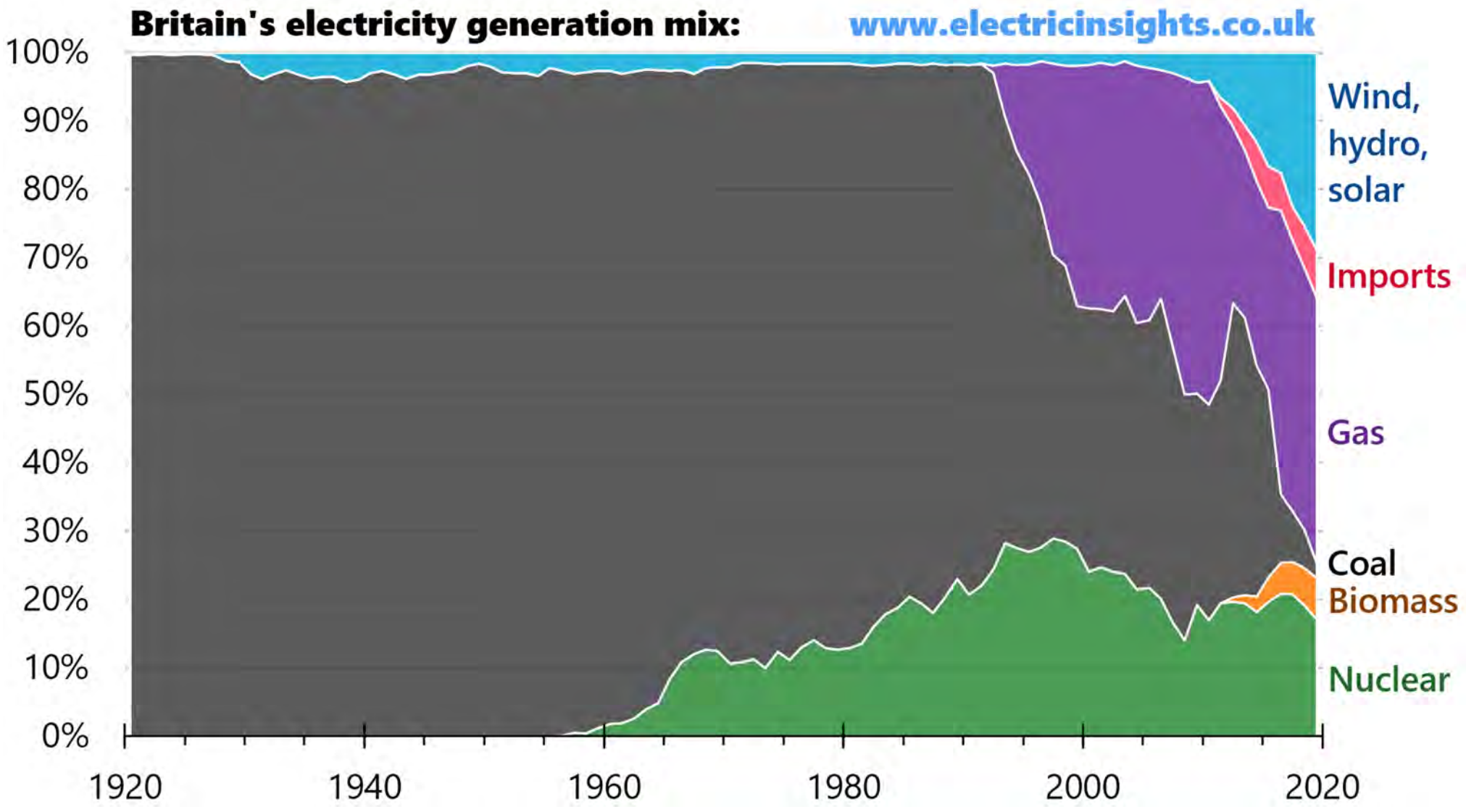


Cost reductions 2019
Recent auction prices (IRENA)



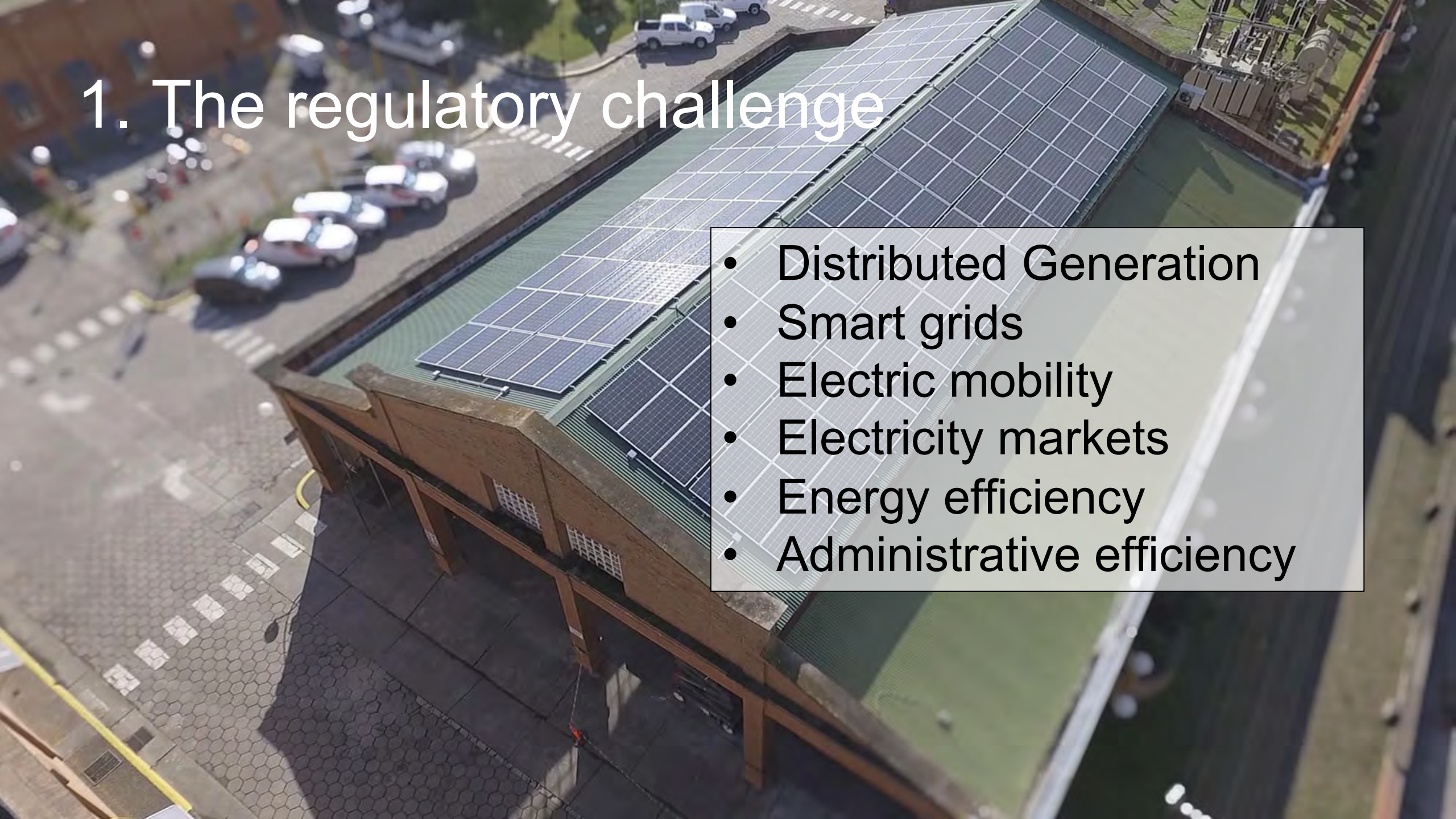
@calivillalonga

Is it possible?



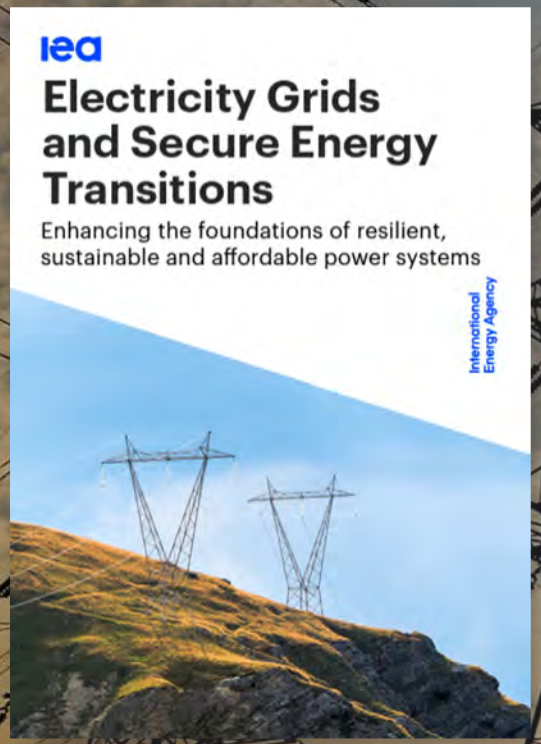
What is our job?

1. The regulatory challenge



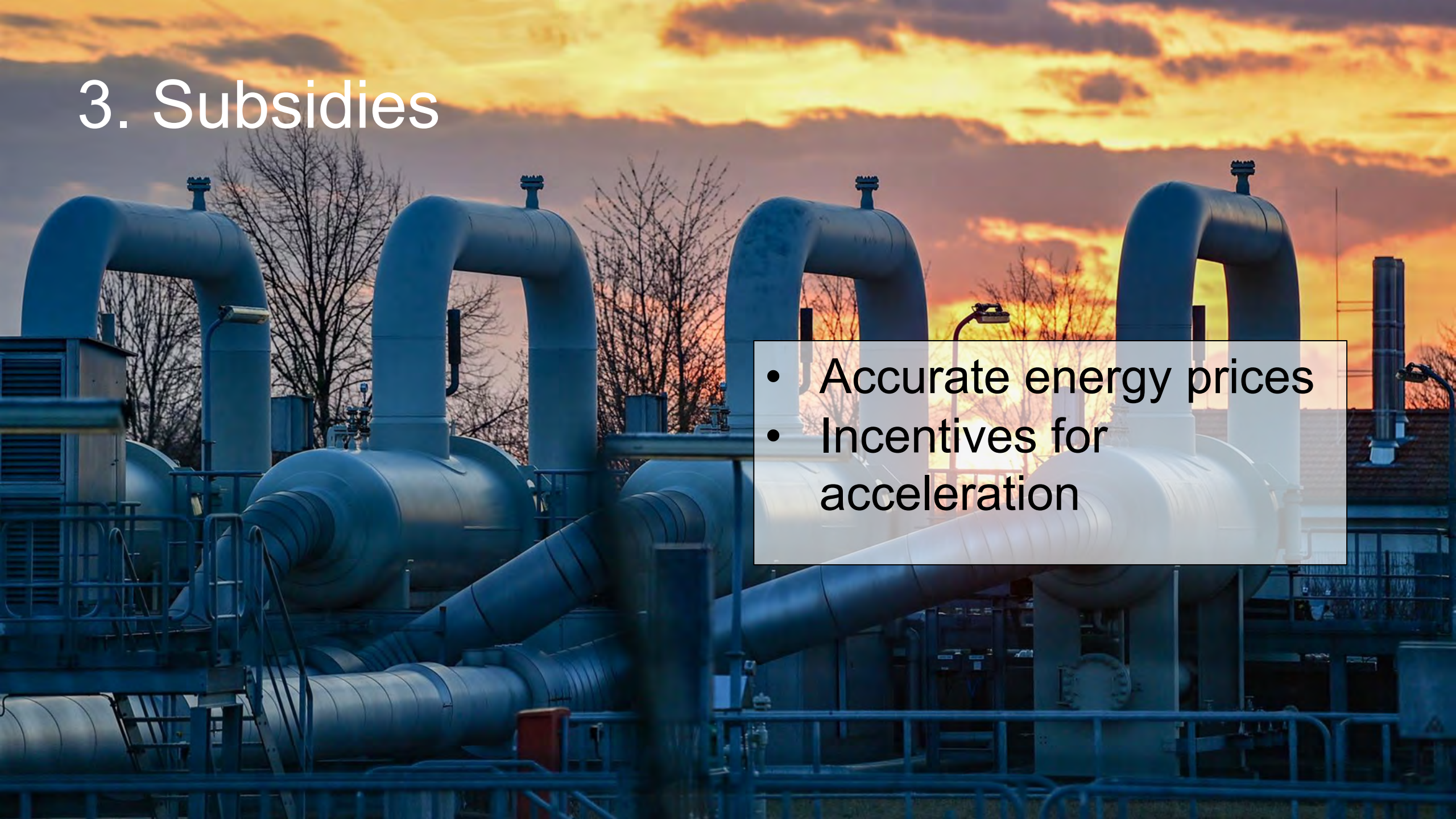
- Distributed Generation
- Smart grids
- Electric mobility
- Electricity markets
- Energy efficiency
- Administrative efficiency

2. Infrastructure



- Electricity grids
- Regional interconnection
- Regional markets
- Avoid investments in fossil infrastructure

3. Subsidies



- Accurate energy prices
- Incentives for acceleration

4. Internalize CO2 costs

- CO2 tax on fossil fuels
- Emissions markets (cap & trade)
- International markets that quantify emissions

5. Monitor NDCs

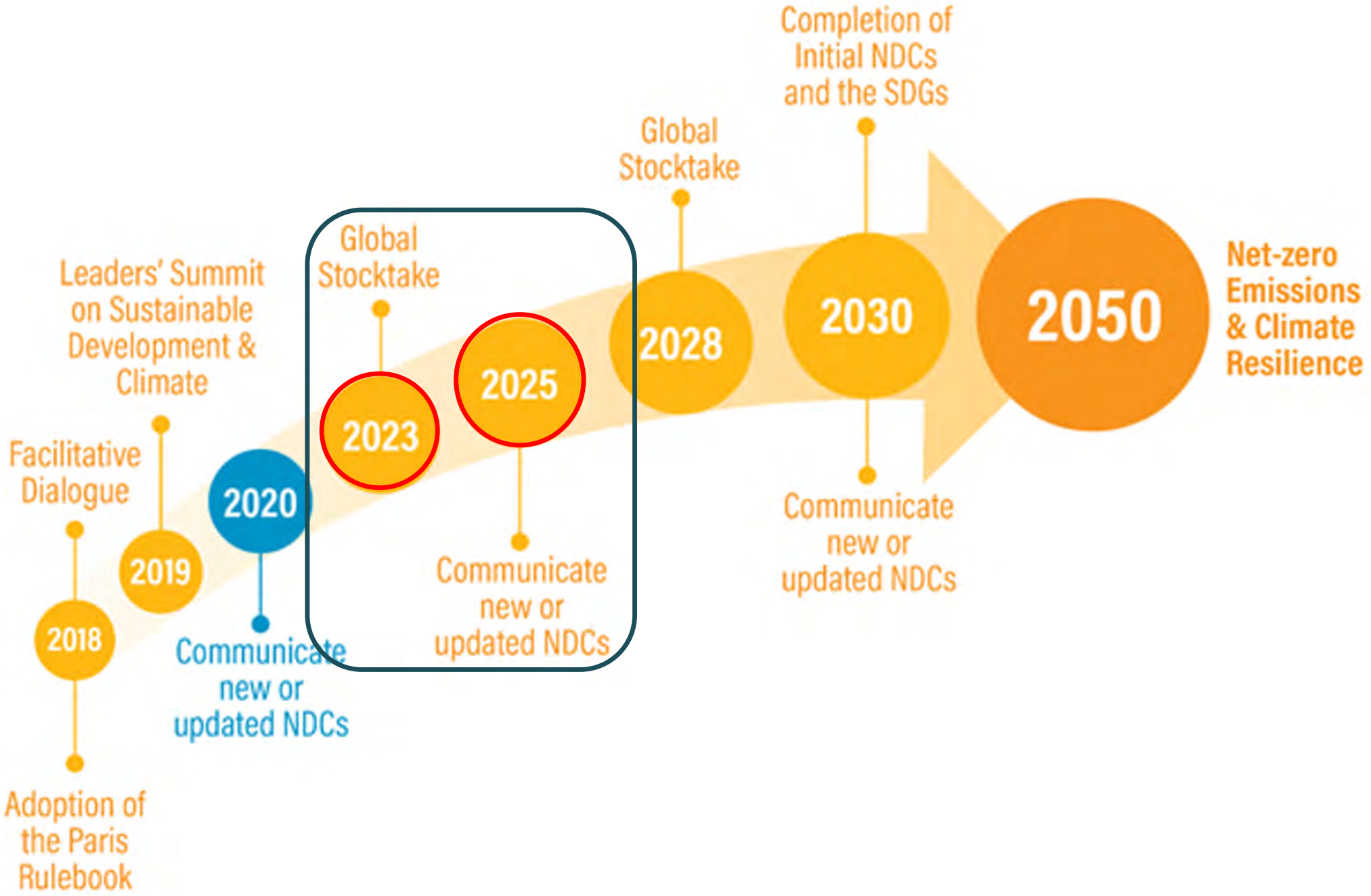
- Adopt the objectives as State policy
- Monitor compliance (in real time)
- Demand sectoral policies

6. Stop deforestation

- An important component of our inventories
- International cooperation (careful with carbon markets)

7. Fair transition

- Non-transferable responsibility of the State
- Transform regional economies
- Renew labour skills
- Identify opportunities
- Assistance for the transition


Completion of Initial NDCs and the SDGs
Global Stocktake
Global Stocktake
Leaders' Summit on Sustainable Development & Climate
Facilitative Dialogue
2018
2019
2020
2023
2025
2028
2030
2050
Net-zero Emissions & Climate Resilience
Communicate new or updated NDCs
Communicate new or updated NDCs
Communicate new or updated NDCs
Adoption of the Paris Rulebook

Can we do it?

Thank you!