

World Energy Outlook 2018

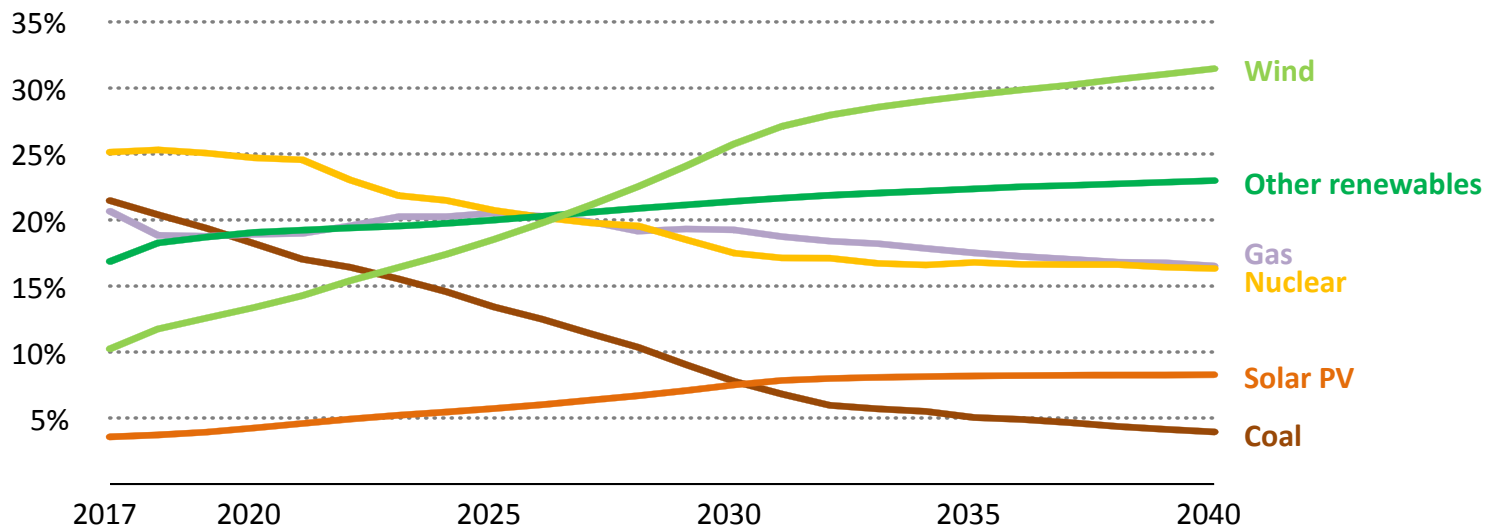


Dr Fatih Birol
IEA Executive Director
Eurelectric, Brussels
27 November 2018

- Mixed signals about the pace & direction of change in global energy:
 - Oil markets are entering a period of **renewed uncertainty & volatility**
 - **Natural gas is on the rise**: China's rapid demand growth is erasing talk of a 'gas glut'
 - **Solar PV has the momentum** while other key technologies & efficiency policies need a push
 - Our assessment points to **energy-related CO₂ emissions reaching a historic high in 2018**
 - For the first time, the global **population without access to electricity fell below 1 billion**
- **Electricity** is carrying great expectations, but questions remain over the extent of its reach in meeting demand & how the power systems of the future will operate
- Policy makers need well-grounded insights about different possible futures & how they come about. The *WEO* provides two key scenarios:
 - New Policies Scenario
 - Sustainable Development Scenario

Wind to become the largest power source in the European Union

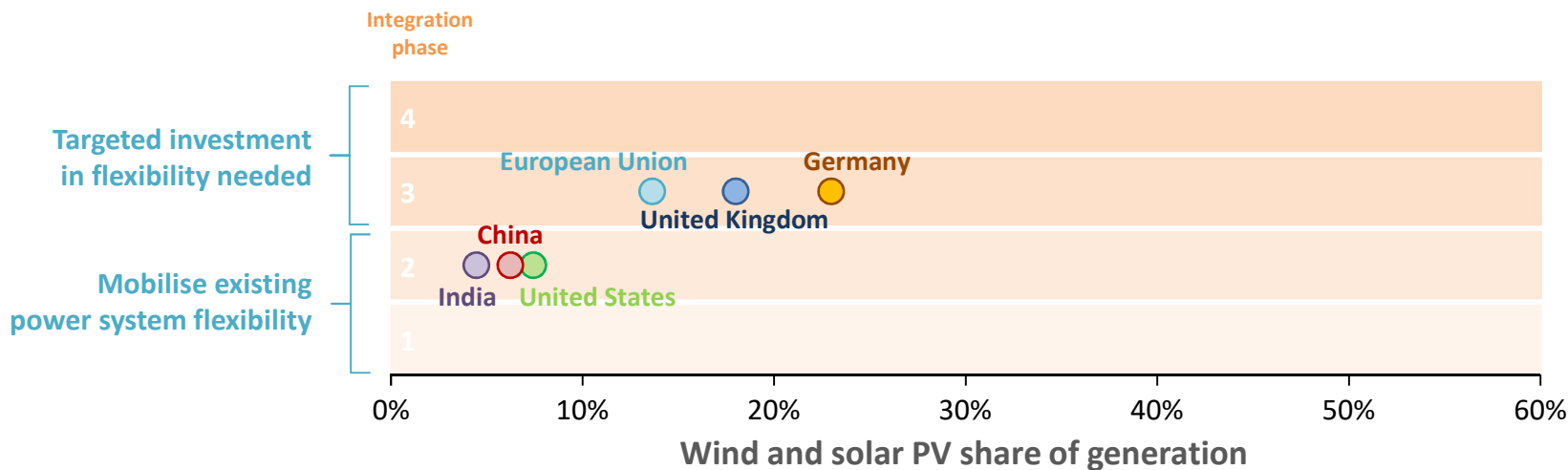
Share of electricity generation by source in the European Union, 2017-40



Wind electricity generation in the EU more than triples to 1 100 TWh by 2040; the rapid increase of variable forms of generation calls for new approaches to system integration

Flexibility: the cornerstone of tomorrow's power systems

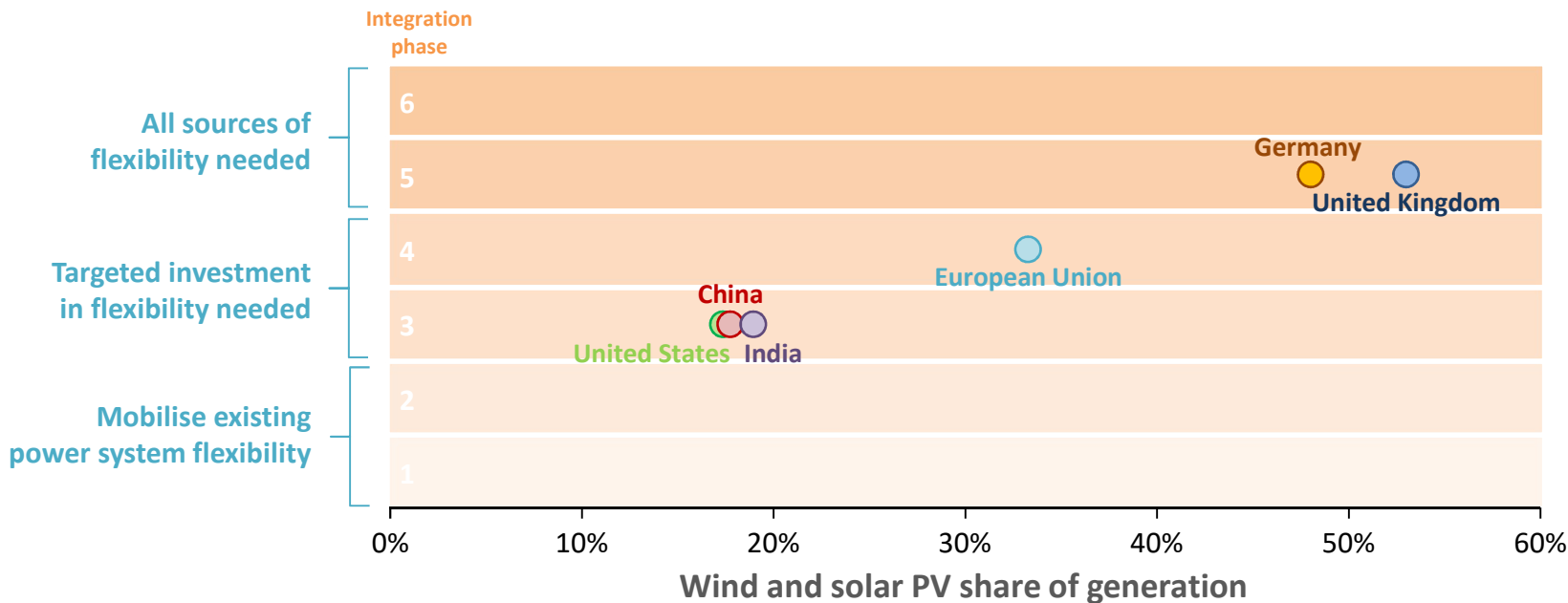
Phases of integration with variable renewables share, 2017



Higher shares of variable renewables raise flexibility needs and call for reforms to deliver investment in power plants, grids & energy storage, and unlock demand-side response

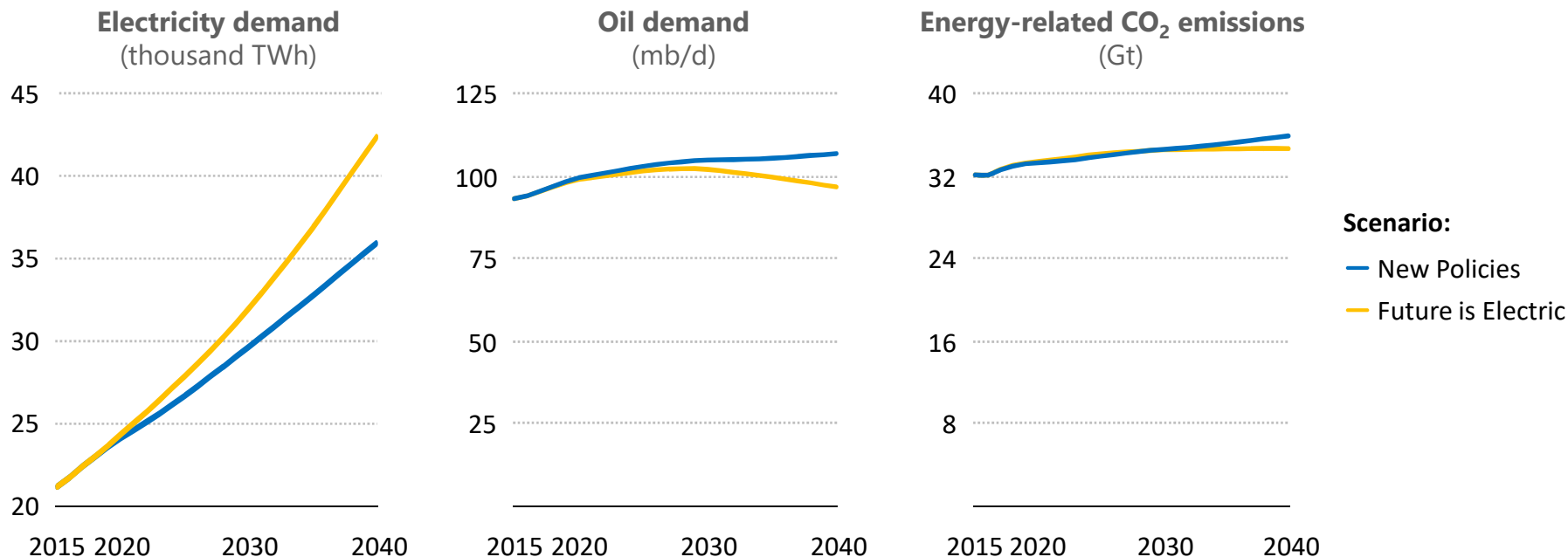
Flexibility: the cornerstone of tomorrow's power systems

Phases of integration with variable renewables share, 2030



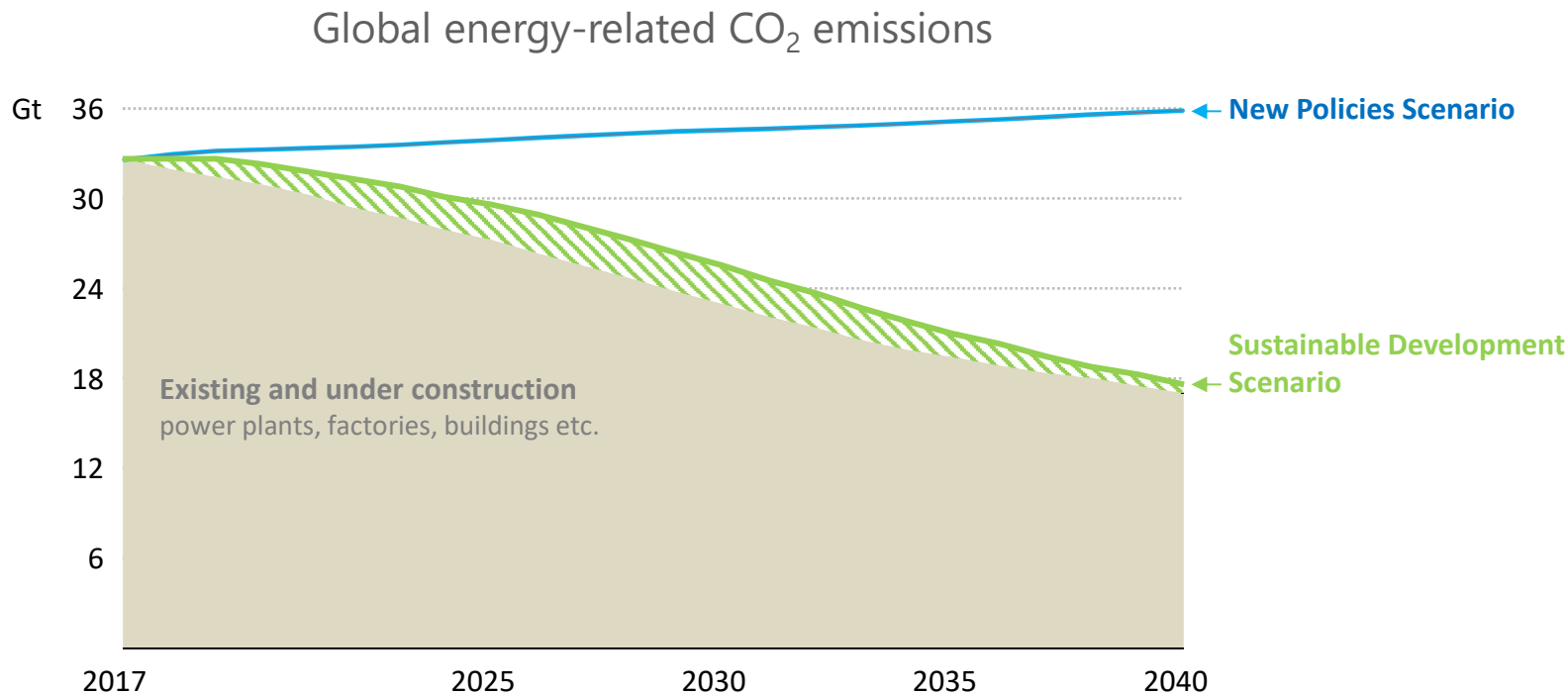
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What if the future is electric?



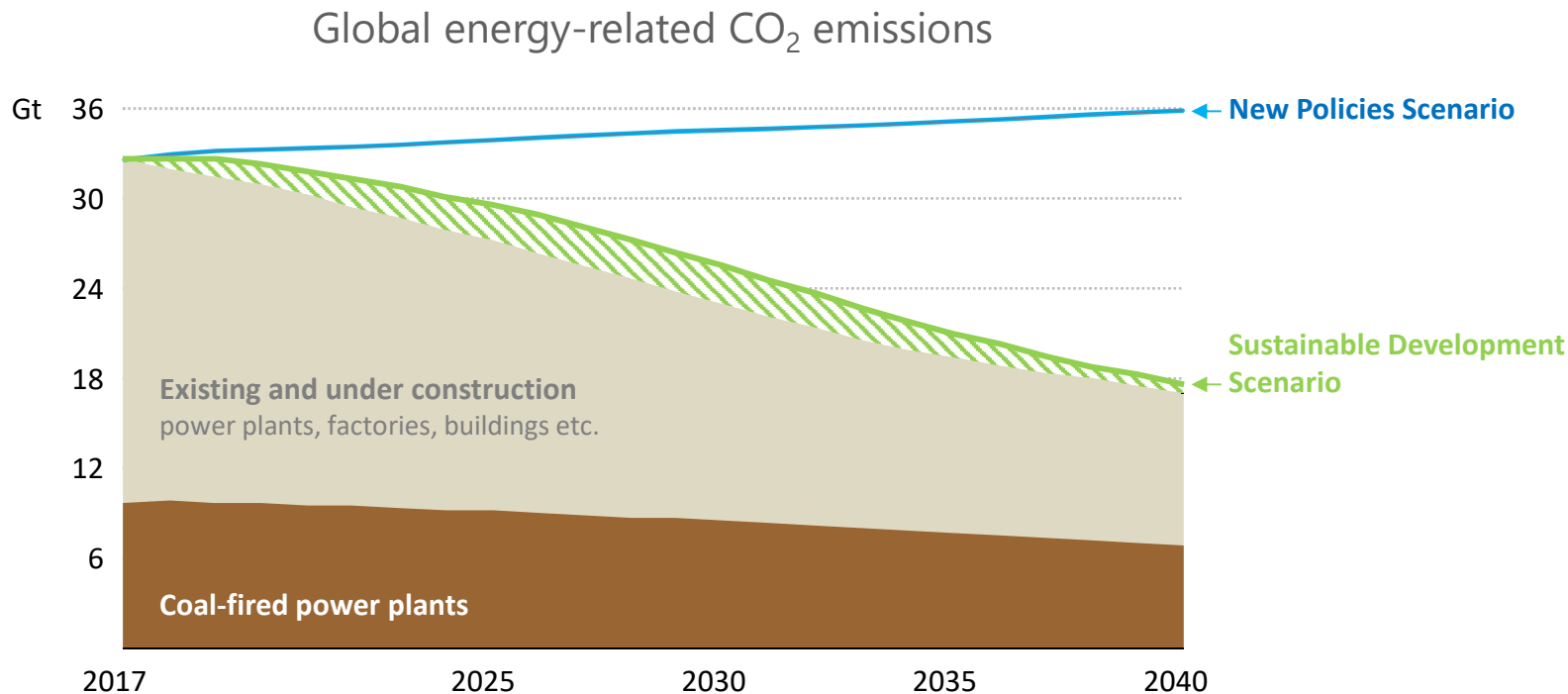
Increased electrification leads to a peak in oil demand, avoids 2 million air pollution-related premature deaths, but does not necessarily lead to large CO₂ emissions reductions

Can we unlock a different energy future?



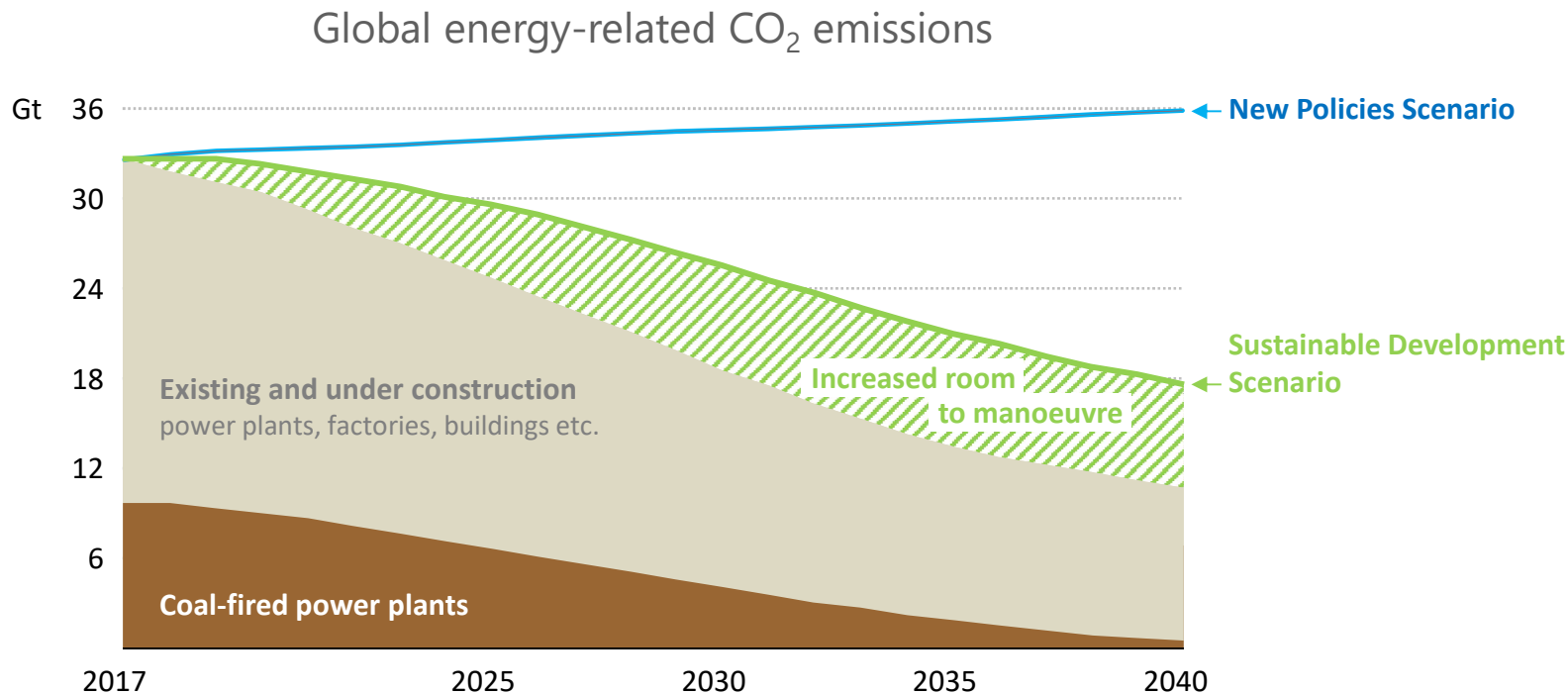
Coal plants make up one-third of CO₂ emissions today and half are less than 15 years old; policies are needed to support CCUS, efficient operations and technology innovation

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