

# The global surge in renewable energy

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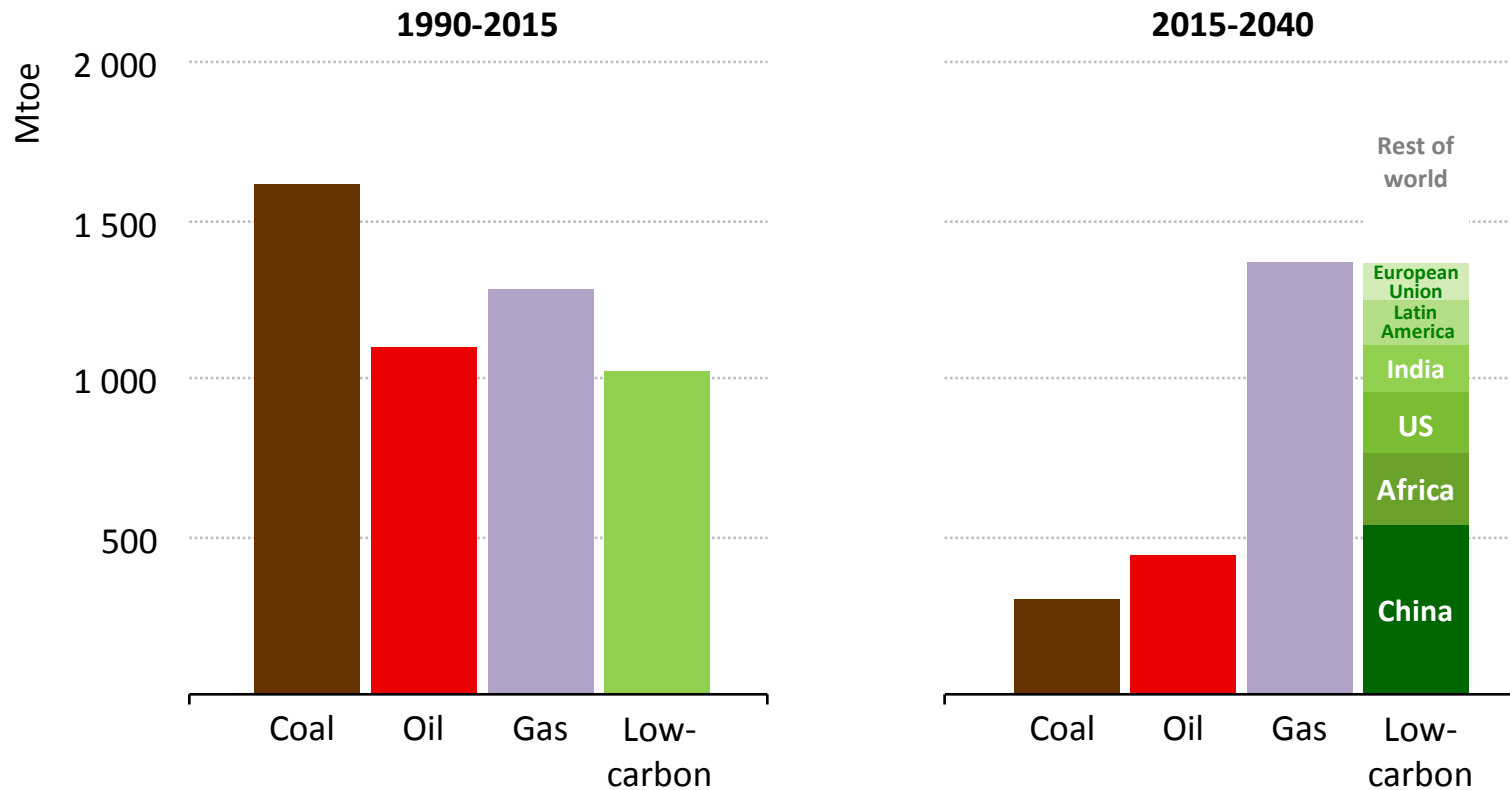
*Les Energies Renouvelables Un Elan Mondial*

# The global energy context today

- Key points of orientation:
  - *Middle East share of oil production at highest level in 40yrs*
  - *Transformation in gas markets deepening with rise in LNG*
  - *Energy sector put in spotlight by the Paris Agreement*
  - *Billions remain without basic energy services*
  - *New records for renewable capacity additions and costs*
- There is no single story about the future of global energy; policies will determine where we go from here

# A new 'fuel' in pole position to 2040

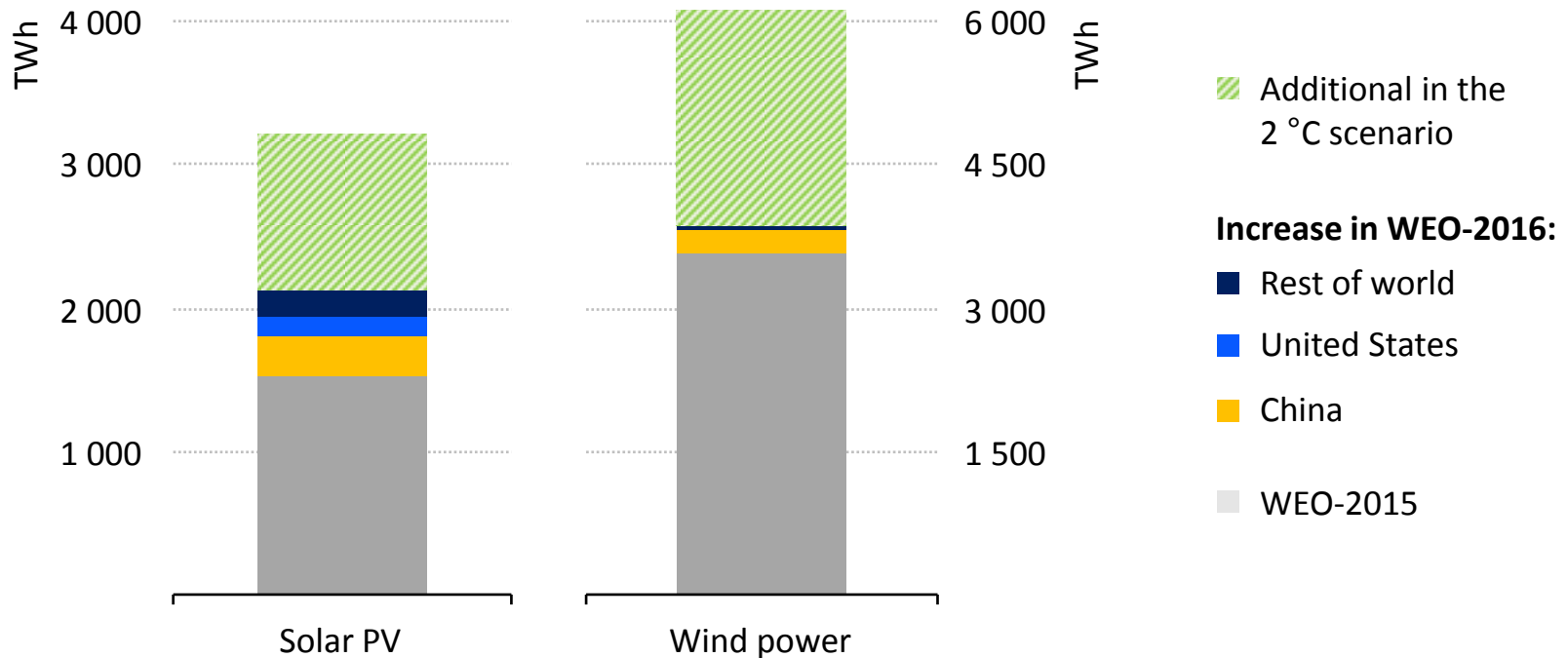
## Change in total primary energy demand



***Low-carbon fuels & technologies, mostly renewables, supply nearly half of the increase in energy demand to 2040***

# Greater policy support boosts prospects for solar PV and wind

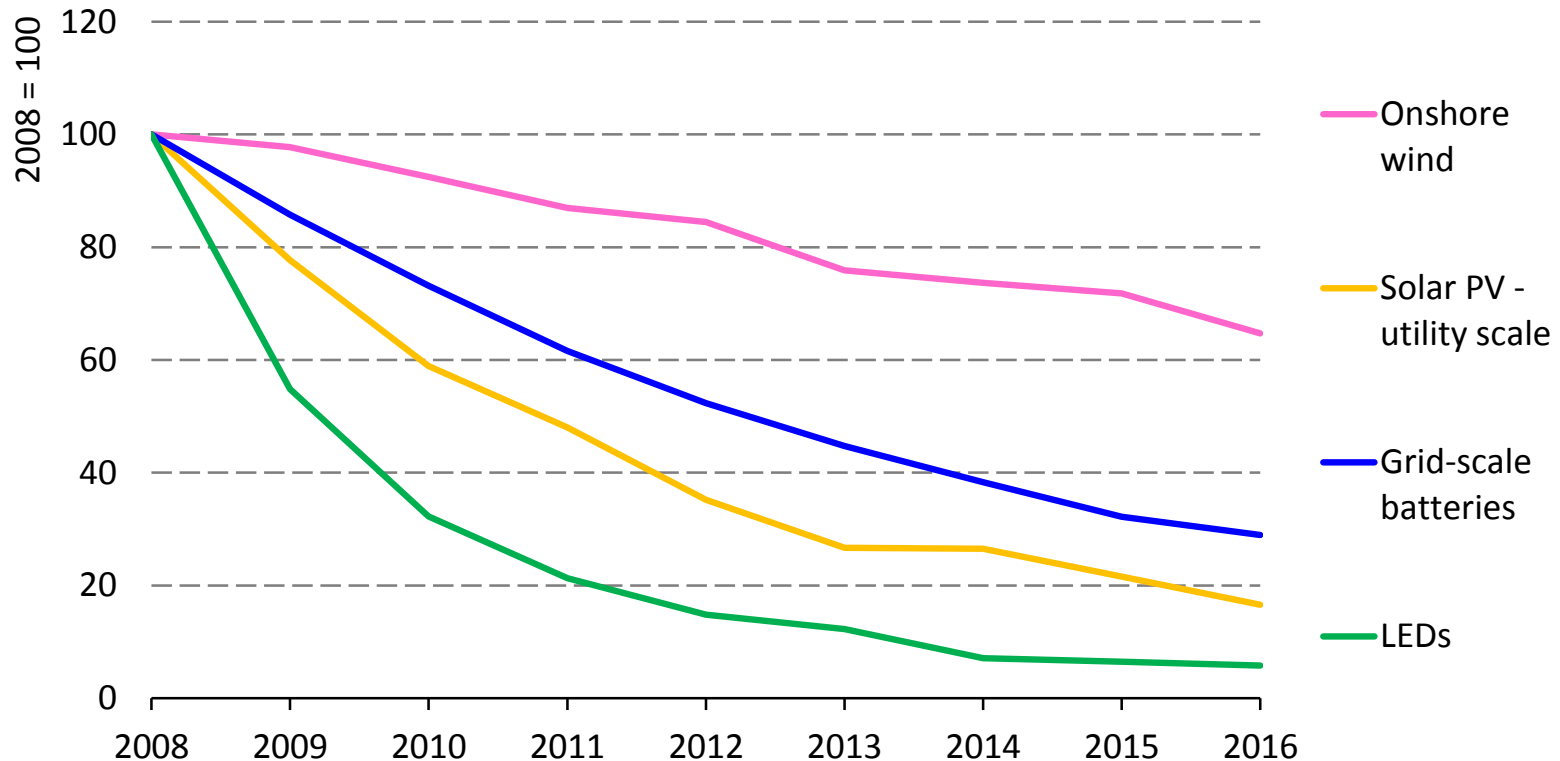
## Solar PV and wind generation, Central Scenario, 2040



***Solar PV and wind help renewables make up 37% of electricity generation in 2040 – & nearly 60% in the 2 °C scenario; system integration becomes critical***

# Cost of clean energy continues to fall

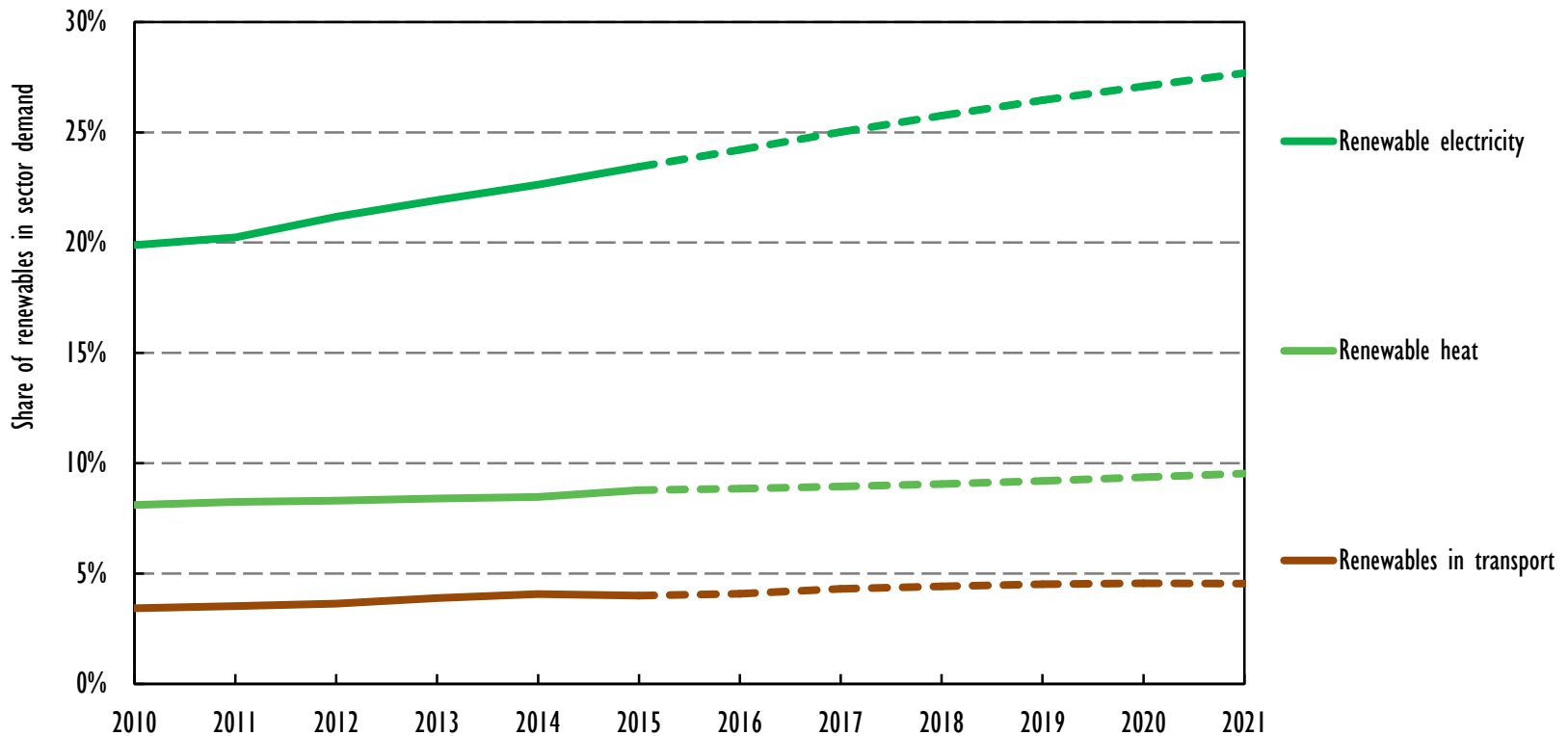
## Indexed cost of onshore wind, utility scale PV, batteries and LED lighting



***The falling cost of clean energies opens new opportunities but appropriate market design and regulatory frameworks remain critically important***

# Heat and transport lagging behind

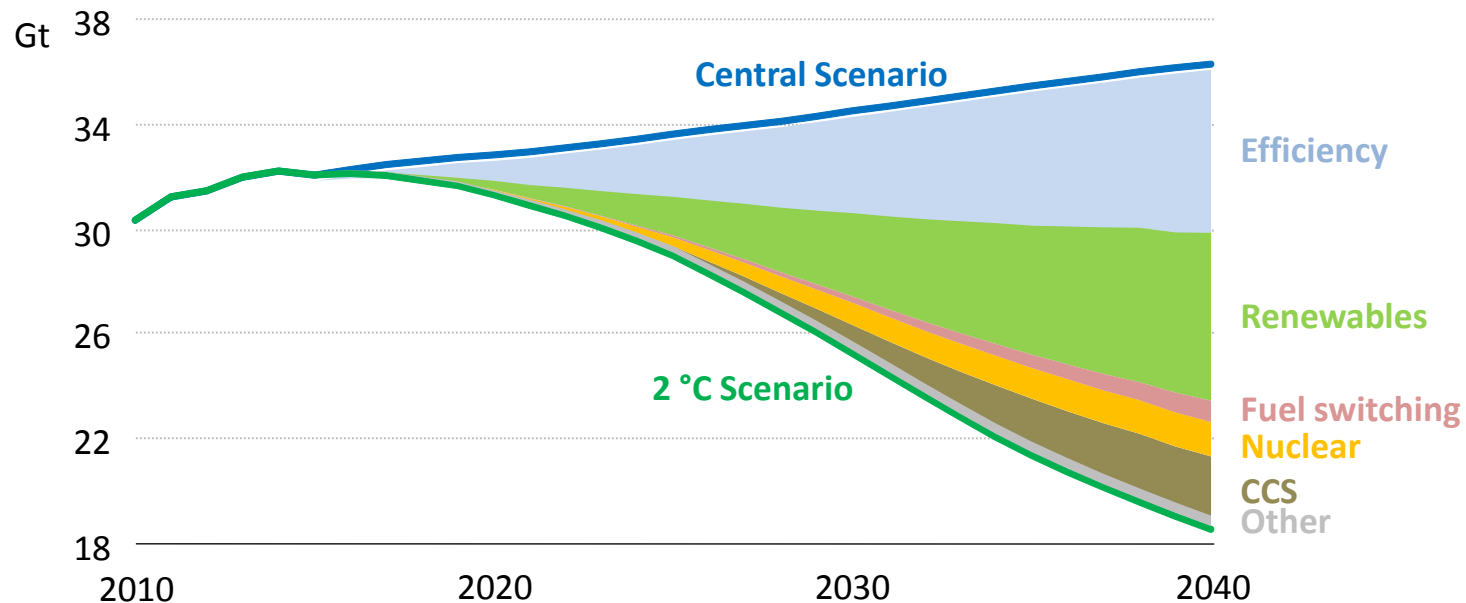
## Share of renewables in electricity, heat and transport sectors



**Renewables to dominate electricity growth, but less progress in heat and transport**

# Efficiency and renewables key to climate change mitigation

## Global CO<sub>2</sub> emissions reductions in the Central & 2 °C Scenario by technology



***Aligning policies for energy efficiency and renewables become critical to achieving climate goals***

# Policies remain crucial to attract financing

- Aligning energy efficiency and renewable energy policies is crucial
- Certainty and predictability with remuneration remain key for attracting investment
- Systems integration is becoming increasingly important & can be facilitated by short-term price signals
- Transport and heat (buildings, industry) are the next frontier for renewables
- Digital technologies & electrification are opening up new challenges & opportunities across the energy system