Accelerating the clean energy transitions and mobilizing investment

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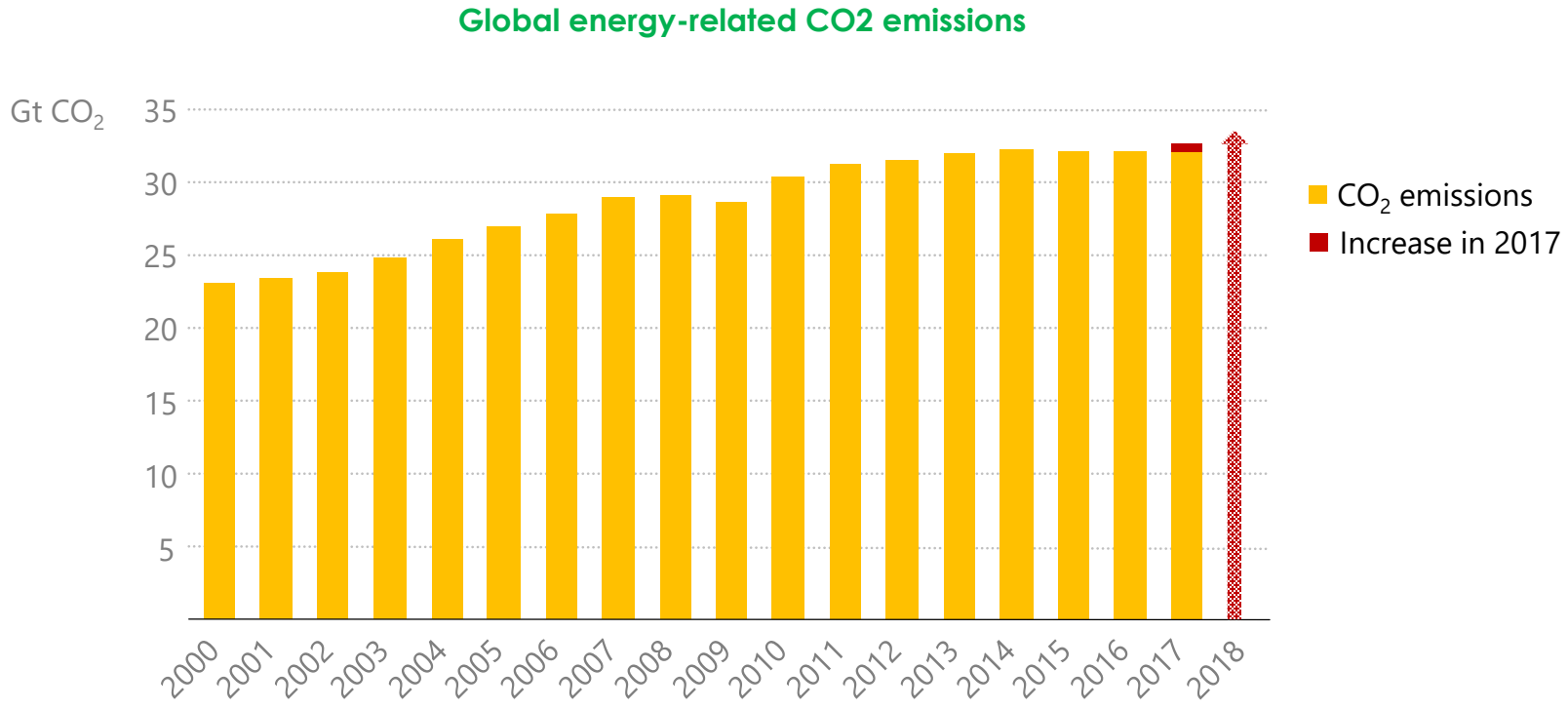
IEA at COP24

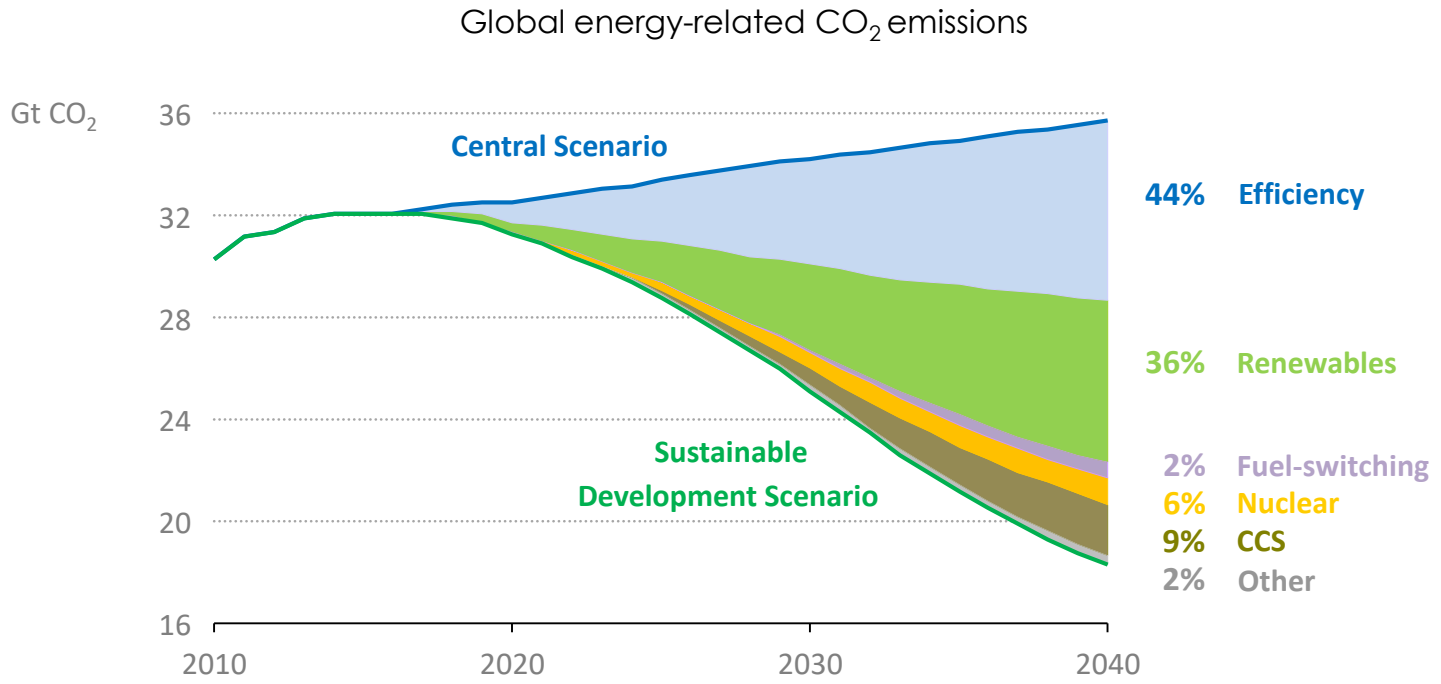
- **The IEA Family now covers almost 75% of global energy demand**
- **The IEA offers unparalleled data, rigorous analysis and real-world solutions**
- **“All Fuels and All Technologies” with global clean energy hub capabilities**
- **The IEA helps countries and companies to accelerate their own clean energy transitions**
- **IEA analysis is key to tracking progress of global energy transitions**
  - *Assessing progress on energy transitions, under the Talanoa Dialogue and beyond*
  - *Helping to drive further NDC ambition*

Where are we?



Global emissions are set to increase in 2018 - again
The world is not moving towards the Paris goals, but rather away from them

Where do we need to go?



Achieving goals require early emissions peak & sharp decline; CO_2 needs to fall to 1960 levels (with global economy 20 times larger); innovation absolutely critical

Tracking Clean Energy Progress (TCEP) – a new web platform

Power

- Renewable power
  - Solar PV
  - Onshore wind
  - Offshore wind
  - Hydropower
  - Bioenergy
  - Geothermal
  - Concentrating solar power
  - Ocean
- Nuclear power
- Natural gas-fired power
- Coal-fired power
- CCS in power

Industry

- Cement
- Chemicals
- Steel
- Aluminum
- Pulp and paper
- CCS in industry

Transport

- Electric vehicles
- International shipping
- Fuel economy
- Trucks
- Transport biofuels
- Aviation
- Rail

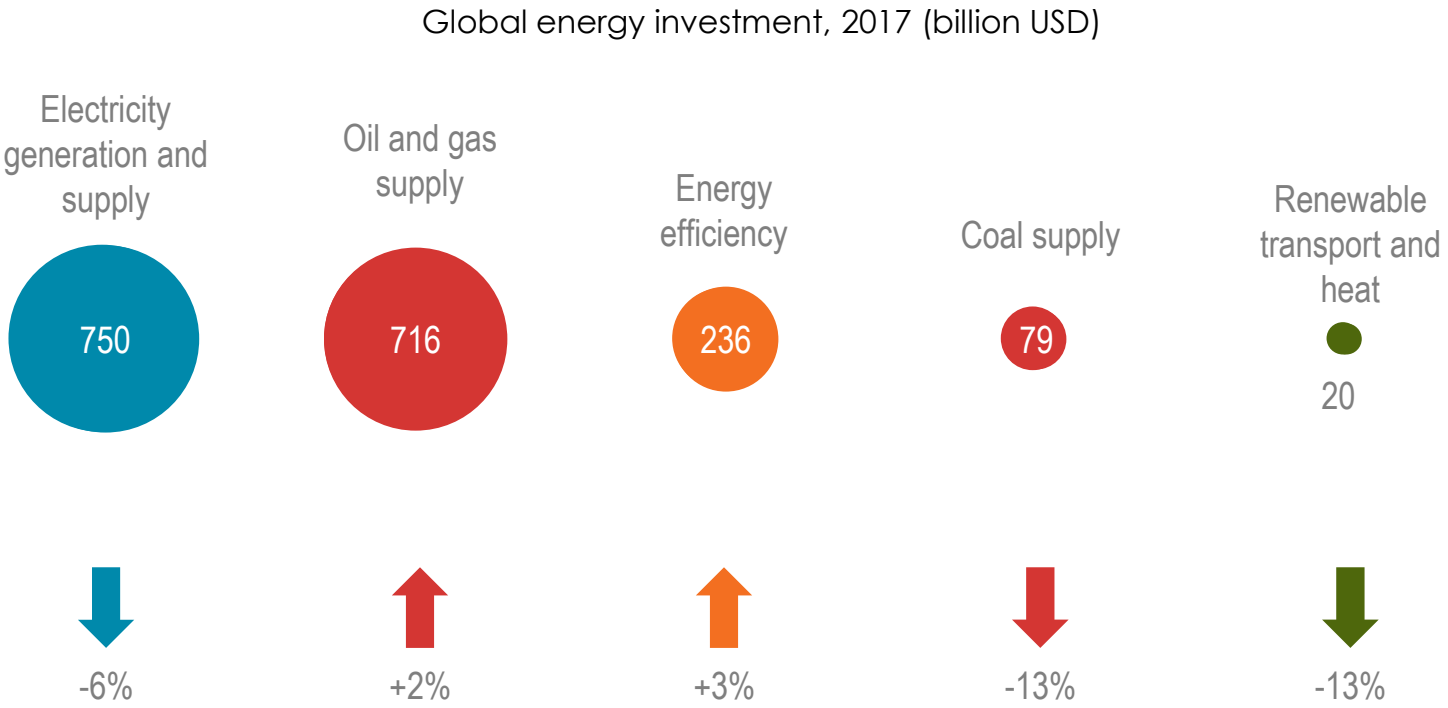
Buildings

- Building codes
- Heating
- Cooling
- Lighting
- Appliances & equipment
- Data centres and networks

Energy Integration

- Energy storage
- Smart grids
- Demand response
- Digitalization
- Hydrogen
- Renewable heat

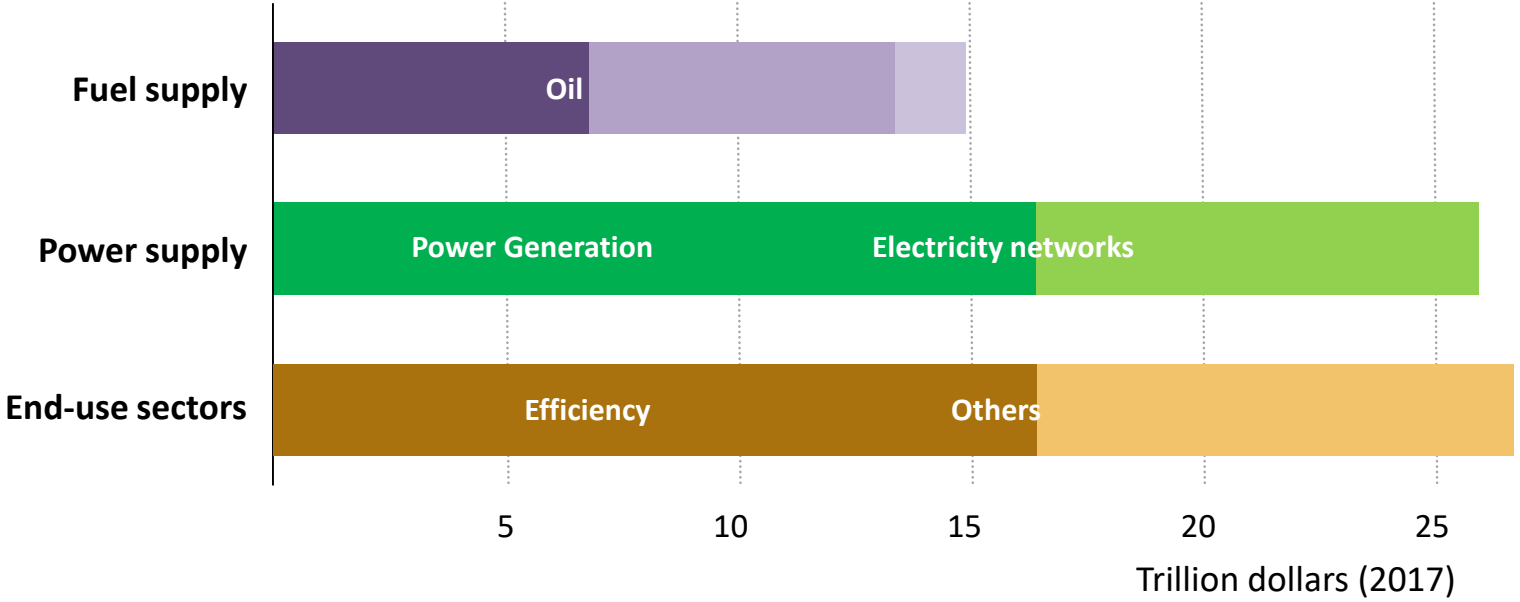
Global energy investment was USD 1.8 trillion in 2017, led by electricity



For the 3rd consecutive year energy investment declined in 2017 , by 2%, due to less power generation investment, lower costs and continued prudence in the oil and gas sector. Energy efficiency was a lone growth area.

A major shift in investment flows in a sustainable world

Cumulative energy investment needs in the Sustainable Development Scenario, 2018-40



The Sustainable Development Scenario requires 15% higher investment, but there is a marked difference in capital allocation towards power and efficiency

The IEA Clean Energy Transitions Programme

In November 2017, 13 IEA member countries launched the CETP: a multi-year, EUR 30 million commitment, enhancing IEA capabilities to support countries with their clean energy transitions

Clean Energy Transitions Programme – 2019 planning

- **Data and statistics**: engagements with new countries / regions and deeper work in key focus countries (Indonesia, India, Mexico)
- **Energy efficiency**: continued work based on extensive E4 activities (capacity building, policy support, sharing best practices), strong support from Mexico, Brazil, China, India, Indonesia
- **Electricity transitions**: very strong interest from wide variety of countries (China, India); continued ramp-up and focus on integration
- **Policy and modelling**: enhance capability; holistic approach, focus on ETS (China), long-term planning (India), policy packages (South Africa)
- **Sectors**: focus on transport (GEF), industry, hydrogen, bioenergy and digitalization
- **Innovation**: strengthening cross-agency innovation efforts; enhanced work with India and Brazil

The IEA works around the world to support accelerated clean energy transitions that are

enabled by real-world SOLUTIONS

supported by ANALYSIS

and built on DATA

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