# Investing in the energy transition: need to know guide



## What is the energy transition?

The energy transition describes the passage from the world's mainly still fossil fuel-based energy sector to a zero-carbon emission sector.

To drive the significant reduction of carbon dioxide (CO<sub>2</sub>) emissions forward, the decarbonisation of high-emitting industries is crucial.

In parallel, the further development of more sustainable and efficient forms of energy production, storage and usage is essential to address pressing climatechange related challenges.

#### Transformation of the energy system: fossil fuels to CO<sub>2</sub>-neutral by 2050









Factories

Natural gas

Petrol

CO<sub>2</sub> GHG emissions











Efficient buildings

Solar modules

Electric vehicles

Wind farms

**Forestry** 



## Why invest in the energy transition now?

Urgent need to move from fossil fuels and step-up renewable energy development.

- Falling behind on the Paris agreement
  1.5°C goal
- Geopolitical conflict causing securityof-supply concerns
- Potential long-term opportunities arising from USD billion gaps in financing more sustainable forms of producing, storing and consuming energy



1.5°C goal



Supply concerns



Consuming energy







What is the energy opportunity?

- Renewables' share of the energy mix must rise sharply by 2050.
- Wind and solar power expected to lead.

#### Support the transition from fossil fuels.

Twin goals: doing good and earning while seeking a return on investment



Invest in climate focused solutions



Seek out renewable enerav opportunities





Falling costs of renewable energy sources

Increment of installed renewable energy capacity and lower access barriers to renewable energy sources could lead to a decrease in prices and drive up interest in renewable energy sources. With lower energy prices disposable income could rise which in turn would lead to more economic growth.

#### 2010 to 2021: A decade of declining clean energy costs (per kWh)



88%

Solar **Photovoltaics** (PV)



68%

Onshore Wind



88%

Concentrating **Solar Power** (CSP)



Offshore Wind

**4.** Massive increase in

total CO<sub>2</sub> capture.

Source: International Renewable Energy Agency, as of July 2022.



**Setting sustain**able gears in motion

#### Collaborative efforts

and investment aim to drive sustainable forms of energy production, energy consumption and energy storage.

Towards achieving 1.5°C by 2030.

#### Paving the way

1. Expand share of electricity from renewables.

2020



2. Improve energy intensity.



3. Ramp up of clean hydrogen production.



7% 2020



30% 2050



Investor focused solutions for the clean energy value chain

1. Participate in the potential growth of enablers, front-runners and beneficiaries of the clean energy transition process.



 Seek solutions that deliver on changing energy consumption patterns and the resulting new demand dynamics.



**3.** Explore potential opportunities arising from innovative technologies like hydrogen based energy supply or CO<sub>2</sub>-reducing technology innovations.



 Focus on contribution towards the UN Sustainable Development Goals (SDGs)\*



\*Allianz Global Investors supports the UN Sustainable Development Goals (SDGs).



Closing the investment gap through the enablers and beneficiaries of the energy transition

#### The investment gap

Annual investments of almost USD 2.2 trillion are required until 2030, plus annually USD 0.7 trillion to be redirected from fossil fuels towards energy transition technologies.<sup>1</sup>

Energy transition-related investments amount to around 80% of total energy sector investments, i.e., USD 47 trillion in cumulative terms between 2021 and 2030; in annual terms USD 4.7 trillion per year up till 2030 and USD 3.5 trillion per year from 2031 to 2050.<sup>2</sup>

#### Considerations for investors

The need for new infrastructure and disruptive new solutions across a multitude of industries and sectors could translate into a wide range of robust investment opportunities with the potential to provide investors with sustainable long-term earnings and a cleaner and greener portfolio.

<sup>1</sup>IRENA World Energy Transitions Outlook 2022, page 103.

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Informed investment decisions with Allianz Global Investors energy transition insights



# Energy transition and energy security – complementary or conflicting?

Amidst energy security concerns, energy transition targets must be kept in sight in order to meet Paris agreement goals. This requires greater investment in reducing fossil-fuel reliance, identifying renewable energy opportunities, and investing in climate-focused solutions.



### Switching the energy transition to sustainable gears

The reduced cost of renewable energy sources is driving opportunities to invest in solutions for more sustainable energy generation, efficient energy storage, and consumption.



# Nuclear and gas in the EU taxonomy: what this means for the energy mix of tomorrow

The inclusion of nuclear and gas in the EU taxonomy for sustainable economic activities has intensified discussions about the current energy crisis and future sustainable sources of energy. A closer look at the taxonomy helps to assess the green credentials of each.

**Read more** 

Read more

Read more

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