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Climate: investing with a focus on a more climate-neutral world

The impact of climate change on the global economy – and the resulting investment opportunities. An analysis.

Customer version | Edition for Germany, Italy, Liechtenstein, Luxembourg and Austria

Foreword

Flooded cities and fields, landslides destroying houses and roads and periods of sustained heat drying out entire river courses and causing harvests to wither – these are the kinds of extreme weather events that, with increasing frequency, are making people acutely aware of climate change.

A look at climate data from the past decades shows that extreme weather events are merely the most conspicuous signs of continuous development. Since industrialisation, global warming has been steadily increasing and the global climate is already 1.3°C above the pre-industrial average for 1871 to 1900. Global temperatures are now higher than they have ever been in the past 2000 years.[1]

According to scientific findings, a major driver of the sustained rise in temperatures is the increasing concentration of CO_2 in the atmosphere – mainly caused by humans. If global warming is to be contained, carbon dioxide emissions must be significantly reduced. This view now seems to be established worldwide – in politics, in business and among the general public.

Nonetheless, the efforts to reduce CO_2 emissions also give rise to investment opportunities. This analysis will show you where we see the greatest opportunities and which risks must be taken into account at the same time.

Prepared by:	Dr Gerhard Wagner, Dr Daniel Zimmerer, Asset Management at Zürcher Kantonalbank
Regions analysed:	Global
Sectors:	Industry, utilities, technology
Sustainable Development Goals (SDGs):	03 Good health and well-being | 06 Clean water and sanitation | 09 Industry, innovation and infrastructure | 11 Sustainable cities and communities | 14 Life below water | 15 Life on land
Sources:	Last accessed on 5 July 2024
Date of publication:	July 2024

[1] https://www.meteoschweiz.admin.ch/klima/klimawandel.html

Abstract

Since the start of industrialisation, the rising concentration of CO_2 in the atmosphere has been driven by the almost unchecked combustion of fossil fuels. The resulting man-made global warming is only likely to be contained by rapidly reducing CO_2 emissions to net zero by 2050.

The drivers for reducing emissions are diverse, with global political ambitions (e.g. EU Green Deal, US Inflation Reduction Act), technological progress and significant demand for green energy probably among the most important. The economic potential is between USD 2.3 trillion and 4.5 trillion in annual investments, depending on the International Energy Agency scenario.[2]

The solutions for tackling the challenge of climate change are numerous and largely technologically established. They can generally be divided into four investment themes:
1. Renewable energies (e.g. solar, wind),
2. Energy efficiency (e.g. building insulation, heat pumps),
3. Mobility (e.g. electric vehicles), and
4. Resource efficiency (e.g. circular economy).

If companies succeed in establishing a strong market position with products and services in these investment themes and with the appropriate barriers to entry, they should be able to achieve profitable and above-average growth over the next few years and decades.

[2] https://www.iea.org/reports/net-zero-by-2050#downloads

1. The problem: rising CO_2 concentrations and their impact on global warming

In its natural form, the greenhouse effect plays a vital role. Without it, temperatures on Earth would be too cold (-18°C) and life would not be able to evolve. The greenhouse effect is caused by a number of trace gases (water vapour, carbon dioxide, methane and nitrous oxide etc.) present in the atmosphere. These allow the short-wave sunlight to shine on the earth uninhibited. This radiation is absorbed by the Earth's surface and released back into the atmosphere in the form of heat (long-wave radiation). The greenhouse gases then prevent the long-wave heat radiation from escaping into space. Instead, they absorb a portion and release the rest in all directions. This process heats the Earth's surface and the lower layer of the atmosphere.

Humanity has been burning more and more oil, gas and coal as well as clearing large areas of forest since the Industrial Revolution, so the concentrations of carbon dioxide (CO_2) in the atmosphere are rising. This increases the natural greenhouse gas effect. Figure 1 shows the atmospheric carbon dioxide concentrations over the past 800,000 years; these have been reconstructed using ice cores and, for roughly the last 50 years, by direct air measurements.

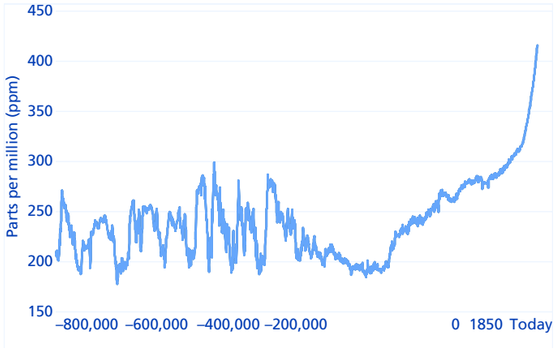
The graph clearly shows that the CO_2 concentrations fluctuated between 180 and 300 ppm (parts per million) during the period under review. Since 1850, however, the value has risen from around 280 ppm to 420 ppm today.

1.1 Man-made global warming is advancing

Since industrialisation, climate has changed significantly, both in Switzerland and globally. Globally, the current climate is already more than 1 degree Celsius above the average for the reference period from 1951 to 1980, as shown in Figure 2 below. Today, global temperatures are higher than at any time in the past 2000 years, and most probably even 125,000 years.

The mechanisms of the climate system are well understood today. Human emissions of greenhouse gases intensify the natural greenhouse effect and contribute to the additional heating of the Earth's surface. It is probable that the large proportion of the warming observed since the start of industrialisation can be attributed to human activity. Cutting CO_2 emissions seems a crucial step in slowing down global warming.

Figure 1: Global CO_2 concentrations in the atmosphere, derived from Antarctic ice cores

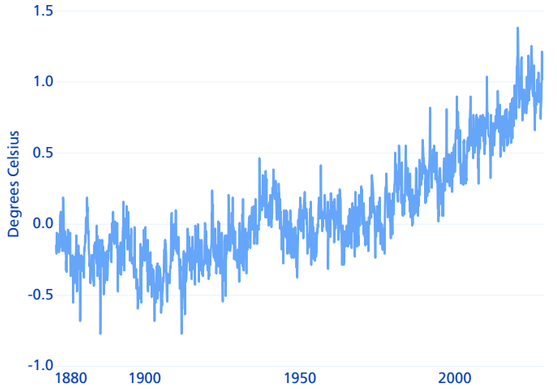


Note on the X scale: the year scale is not linear because CO_2 concentrations in the atmosphere have been reconstructed from ice cores.

The atmospheric carbon dioxide (CO_2) concentrations in the graph are measured in parts per million (ppm). Long-term trends in CO_2 concentrations can be measured in high resolution using preserved air samples from ice cores.

Source: National Oceanic and Atmospheric Administration (NOAA)

Figure 2: Global warming – monthly temperature anomalies



The anomaly as a combination of land and sea surface temperature is reported as a deviation from the 1951–1980 average.

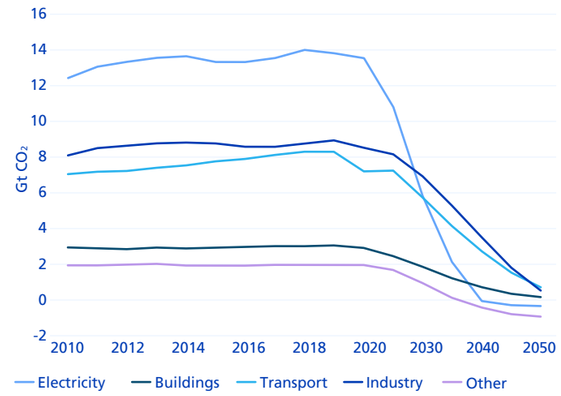
Source: National Aeronautics and Space Administration (NASA), Goddard Institute for Space Studies (GISS)

1.2 CO_2 reduction to net zero

In Figure 3, the International Energy Agency illustrates how and, above all, in which areas CO_2 emissions can and must be reduced to achieve net zero CO_2 emissions by 2050. The strongest leverage for this is the decarbonisation of electricity generation – in other words all fossil fuel power plants would have to be replaced by wind, solar, hydro and, where appropriate, nuclear power. In vehicle technology, all internal combustion engines would have to be replaced by electric motors that would only run on green electricity. This would save 22 to 23 billion tonnes of CO_2.

Electric motors in industry, lighting and household appliances account for around two-thirds of global electricity consumption. It is therefore crucial that particularly energy-efficient equipment is used in these areas. Smart power grids in combination with storage technologies and gas turbine power plants, including carbon storage for dark spots, are also important for cutting CO_2 emissions.

Figure 3: Global net emissions per sector in an NZE Scenario



Source: International Energy Agency, IEA

2. Topics & SDG identification

Cutting CO_2 emissions (decarbonisation) and limiting global warming affects almost all economic sectors as well as almost all the UN Sustainable Development Goals:[3]

03

SDG 3: Good health and well-being
Reduce deaths and illnesses through improved air quality and by reducing exposure to extreme climatic conditions.

06

SDG 6: Clean water and sanitation
Promote water efficiency and support sustainable water management systems strengthened by climate resilience measures.

07

SDG 7: Affordable and clean energy
Promote renewable energies and improve energy efficiency to reduce greenhouse gas emissions.

08

SDG 8: Decent work and economic growth
Create green jobs and promote a sustainable economy that respects the environment.

09

SDG 9: Industry, innovation and infrastructure
Investments in sustainable infrastructure and the promotion of innovations that minimise the environmental footprint.

11

SDG 11: Sustainable cities and communities
Support for the development of resilient cities that can cope with the challenges of climate change.

12

SDG 12: Responsible consumption and production
Promote sustainable consumption and production models that minimise the environmental impact.

14

SDG 14: Life below water
Protect marine ecosystems by combating pollution and promoting sustainable fishing practices.

15

SDG 15: Life on land
Preserve and restore land ecosystems, promote the sustainable use of land resources and combat deforestation.

Companies make a significant contribution to achieving these sustainability goals through their products and services (including investments in capital goods). The most obvious contributors are those companies with products and services – also referred to as solutions below – from areas such as renewable energies, electric vehicles and batteries, insulation for buildings, heat pumps and power grids. These solutions usually contribute directly to reducing CO_2 emissions.

Companies with
solutions that serve to reinforce the adaptation to climate change by promoting resource efficiency and protection should not be overlooked either. Examples include infrastructure companies that contribute to better coastal protection against rising sea levels or that make cities more resilient to heavy rainfall by expanding wastewater infrastructure.

To achieve the ambitious targets set out in the Paris Agreement, namely to limit the global temperature increase to a maximum of +1.5 degrees Celsius, it is likely that global efforts to reduce CO_2 emissions will need to be significantly intensified in the coming years.

[3] The descriptions of the SDGs highlight the key points of reference for the climate topic from the point of view of Zürcher Kantonalbank Asset Management. The sequence is purely numerical.

3. Solutions to the climate crisis

The following sections highlight the drivers of decarbonisation and the economic potential as well as the solutions and risks of the climate crisis.

3.1 The drivers of decarbonisation

The drivers for the topic of climate and decarbonisation are diverse. Below, we will take a closer look at what we consider to be the three key drivers: political ambitions, technological progress and the demand for green energy. However, this list is not exhaustive.

3.1.1 Political ambitions

Figure 4: Share of global CO_2 emissions, by country and their political ambitions

Other countries with similar net zero announcements	33%
European Union (EU27) – 2050	7%
China – 2060	28%
USA – 2050	14%
India – 2070	7%
Countries with no net zero target	11%
Total with net zero targets	**89%**

Source: Climate Analytics and NewClimate Institute (2023)

The first major driver of decarbonisation appears in the form of the political ambitions of states and supranational organisations. Countries that account for 89% of global CO_2 emissions already have the ambition to become CO_2 neutral ("net zero") in the future (see Figure 4). These targets are usually accompanied by appropriate packages of measures.

The three most prominent policy packages are those of the European Union, China and the United States.

The European Green Deal of 2019 has the ambitious goal of not only achieving the net zero target in the EU by 2050, but of making Europe a climate-neutral continent. The main goal is to neutralise greenhouse gas emissions and strengthen the economy through sustainable growth. Key initiatives include the "Fit for 55" package to reduce CO_2 emissions by 55% by 2030 compared to 1990 levels, significant investments in renewable energies and the promotion of energy efficiency. The Green Deal aims to ensure this through climate neutrality laws and also provides measures to support the circular economy. One consequence of this is, for example, that from 2035, newly registered passenger cars and light commercial vehicles will no longer be permitted to emit greenhouse gases. The ban on internal combustion engines adopted by the European Parliament means the end of petrol and diesel-powered vehicles as well as hybrids, which are currently experiencing a boom.

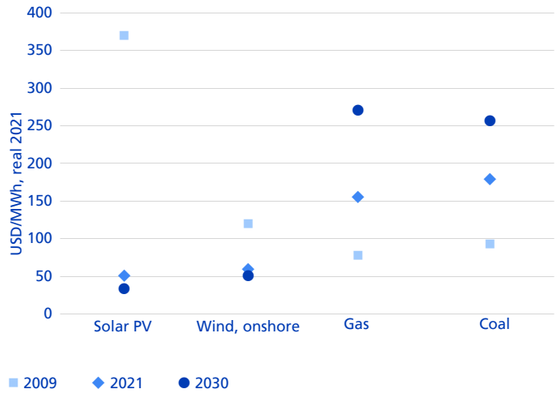
In parallel, China's strategy aims to achieve climate neutrality by 2060, a target announced by President Xi Jinping in 2020. This strategy requires a comprehensive transformation of the Chinese energy mix by, among other things, increasing the share of renewable energy and massively reducing the use of coal. Other important measures are industrial modernisation, the development of green technologies and the promotion of electric vehicles and environmentally friendly rail transport. The challenges are significant, as China remains the largest consumer of coal today and has large energy-intensive industries. The success of this strategy is therefore of global importance.

The US 2050 Strategy – a central part of climate policy under the Biden administration – aims to achieve climate neutrality in the USA by 2050. This target is linked to the goal of halving greenhouse gas emissions by 2030 compared to 2005 and achieving net zero emissions by 2050. The strategy focuses on promoting renewable energies, electrifying the transport sector and increasing energy efficiency in buildings and industries. Furthermore, significant capital is being invested in technologies such as carbon capture and storage, and the development of green hydrogen. The challenges of this strategy are considerable, especially in view of political resistance and the need for large-scale infrastructure investments. In the US, the Environmental Protection Agency (EPA) plays an important role in this process. For example, oil and gas producers must locate and repair leaks. The routine combustion of methane gas has been prohibited. What's more, there are more frequent checks and independent third parties now have to report methane leaks directly to the EPA. According to the US Environmental Protection Agency, the regulation is expected to reduce methane emissions by nearly 80 percent.[4]

Technological progress

The second major driver of the issue is the significant and unchecked technological progress of recent decades. The technological progress in the field of renewable energies is best illustrated by the example of solar PV systems and wind power plants: in recent decades, there have been significant advances in the energy efficiency of solar modules, i.e. the amount of solar energy that can be converted into electricity. Current generations of solar modules, which are also used in the field, already achieve energy efficiencies of 23% and above. Just a few years ago, this figure was 12% and below. In recent decades, there have also been major advances in wind turbine technology, significantly increasing the rated output per turbine, achieved in particular through larger and more efficient generators. While in 2009, one megawatt hour (MWh) of solar power still cost around USD 370 to produce, this number has currently fallen to around USD 50 on a global average (see Figure 5). Wind turbines (onshore) have also shown a similar trend, with costs per MWh being reduced from a global average of around USD 120 to USD 55 today. Electricity generated from gas and coal has gone in the opposite direction, with electricity production costs increasing by more than 80% in some cases, driven on the one hand by higher prices for fossil fuel energy and on the other hand by the increased taxation of CO_2 emissions. This has made solar PV and wind power the most competitive forms of electricity generation, giving them a significant boost. However, this trend is just one example of technological progress in a variety of green technologies (energy-efficient buildings, electromobility, etc.).

Figure 5: Technological progress using the example of electricity generation costs



The data relates to the non-subsidised level (i.e. if current US tax credits for wind and solar heating systems were taken into account, costs would be further reduced).

Source: IEA, Lazard, BNEF

Demand for green energy

The third major driver of the topic is the demand for green energy, which is increasingly being influenced by the CO_2 reduction ambitions of companies with a global reach. Power Purchase Agreements (PPAs) are a proven and increasingly popular means of green energy procurement.

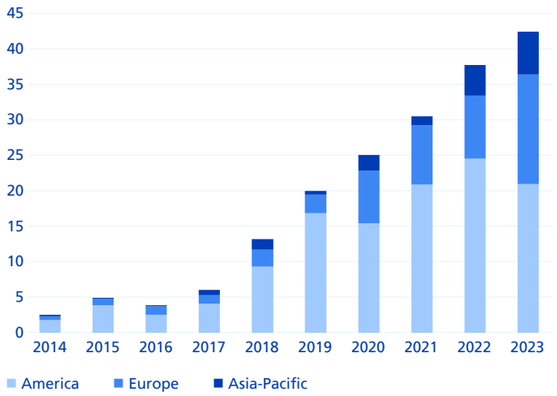
A PPA is a contract between an energy producer and a consumer. It regulates the purchase and sale of electricity under specified conditions over a specified period of time. This gives energy producers a purchase guarantee for their electricity for up to ten to twelve years. PPAs are widespread, especially in renewable energies, and make a significant contribution to promoting sustainable energy projects. They enable long-term financial predictability and thus facilitate investments in wind, solar and other renewable energy systems. The importance of PPAs for climate policy is significant, as they promote the use of renewable energy and in doing so, help to reduce CO_2 emissions. By buying renewable electricity directly, companies can improve their environmental footprint and

[4] https://www.theguardian.com/environment/2023/dec/02/us-outlines-measures-to-cut-methane-emissions-by-80-in-next-15-years

work towards achieving their sustainability goals. Major technology firms such as Google, Microsoft and Amazon are using PPAs extensively to power their data centres and other facilities with green energy.

PPAs therefore play a crucial role in the transformation to a more sustainable and climate-friendly energy future. The number of PPAs concluded has risen sharply in recent years. Figure 6 shows the sharp growth in PPAs for renewable energy projects (mainly solar and wind) by region.

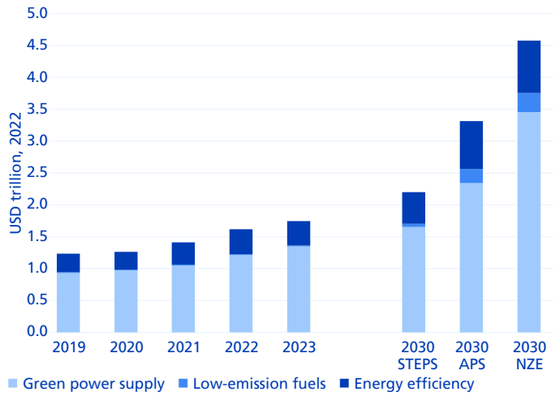
Figure 6: Concluded PPAs, capacities (in GW) by year and region



The chart only shows "offsite" PPAs. The data for Asia Pacific is an estimate and excludes India.

Source: Bloomberg New Energy Finance

Figure 7: Historical investments in energy compared to demand in the IEA scenarios for 2030



Source: IEA 2023, Historical investment in energy benchmarked against needs in IEA scenarios in 2030, IEA, Paris https://www.iea.org/data-and-statistics/charts/historical-investment-in-energy-benchmarked-against-needs-in-iea-scenarios-in-2030, Licence: CC BY 4.0

3.2 Economic potential

The International Energy Agency (IEA) uses three scenarios to show how much money will potentially be invested in decarbonisation in 2030. In the IEA's Stated Policies Scenario (STEPS), which takes into account the current political framework conditions and legislation, investments will increase from USD 1.7 trillion at present to USD 2.3 trillion. In the Announced Pledges Scenario (APS), which also includes national net zero ambitions that have been announced, investments will increase to USD 3.3 trillion and in the Net Zero Emissions (NZE) Scenario, which is compatible with the 1.5°C climate protection target, investments will increase to USD 4.5 trillion. This would mean that by 2030, investments would rise by USD 2.8 trillion in the NZE Scenario, or by around 2.5 to 3 percent of global gross domestic product. The current valuations of companies in the area of clean technologies (cleantech) rarely take into account the growth rates of the NZE Scenario. Typically, the implicit growth rates per technology are between the STEPS and the APS.

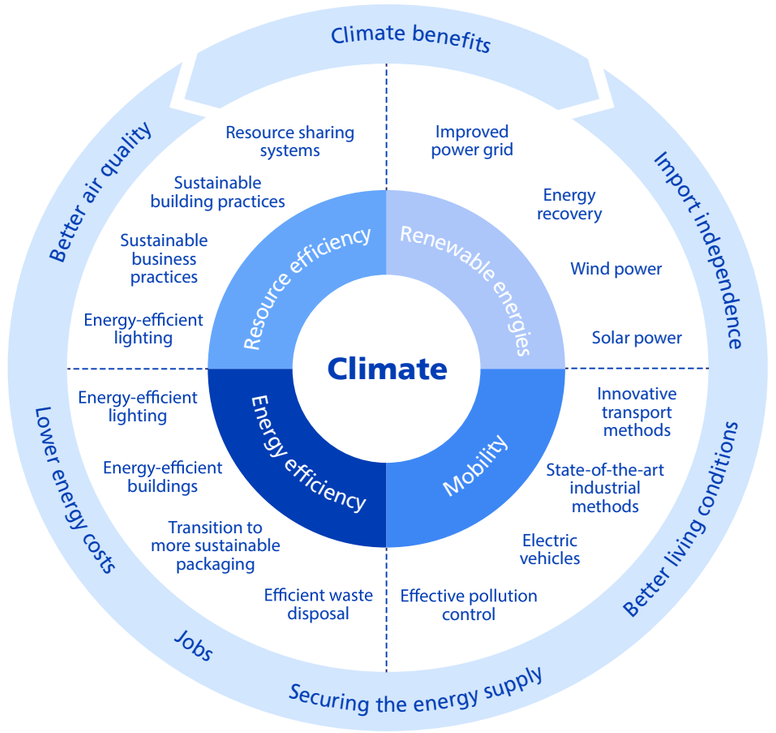
3.3 Solutions

There are numerous solutions for cutting CO_2 emissions and, in turn, combating climate change. These can generally be classified into four investment themes:

1. Renewable energies
2. Energy efficiency
3. Mobility
4. Resource efficiency

(see Figure 8, inner circle). The four investment themes are explained in more detail below.

Figure 8: Overview of decarbonisation solutions

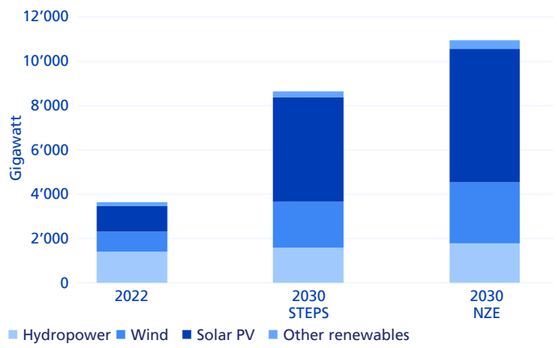


Source: ZKB Asset Management

3.3.1 Renewable energies

The best-known and most obvious solution for cutting CO_2 emissions is renewable energy. Decarbonising electricity generation through renewable energies can cut global CO_2 emissions from fossil fuels by almost 40%. In the context of renewable energies, it is solar and wind power that are experiencing the most significant growth and that can contribute the most to reducing CO_2 emissions. Figure 9 below illustrates the growth in wind and solar power. The installed capacity will more than double in the STEPS scenario and almost triple in the NZE Scenario. The strongest growth is in solar power.

Figure 9: Global renewable energy capacity by scenario, 2022 and 2030

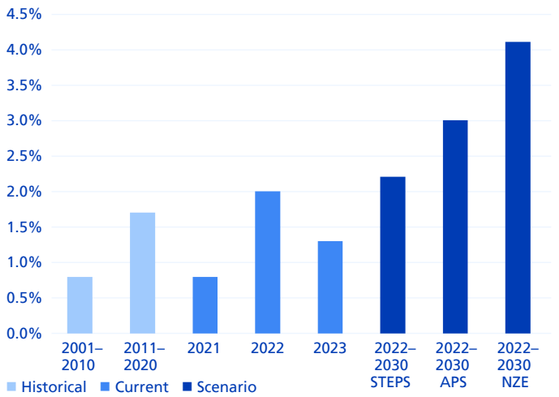


Source: IEA (2024), Global renewable energy capacity by scenario, 2022 and 2030, IEA, Paris https://www.iea.org/data-and-statistics/charts/global-renewable-energy-capacity-by-scenario-2022-and-2030, Licence: CC BY 4.0

3.3.2 Energy efficiency

Another key pillar in cutting CO_2 emissions is to increase energy efficiency. Energy efficiency must improve by 4% each year by 2030 in the NZE Scenario. Primary energy consumption will only fall if energy efficiency gains are greater than economic growth. In the STEPS scenario, the annual increase in energy efficiency would be 2.2% and in APS it would be 3%. This is illustrated in Figure 10. Energy efficiency gains in the past are shown as a comparison. From 2001 to 2010, efficiency increased by only 0.8% on average and from 2011 to 2020 by 1.7%. So far, 2022 has been the leader with an increase of 2%.

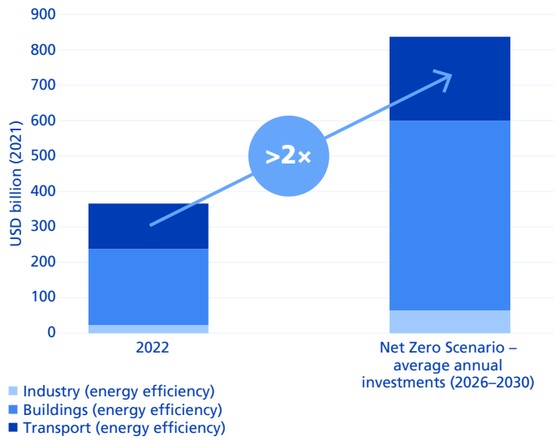
Figure 10: Annual primary energy intensity improvement, 2001–2023, and by scenario, 2022–2030



Source: IEA 2023, Annual primary energy intensity improvement, 2001-2023, and by scenario, 2022-2030, IEA, Paris https://www.iea.org/data-and-statistics/charts/annual-primary-energy-intensity-improvement-2001-2023-and-by-scenario-2022-2030, Licence: CC BY 4.0.

Figure 11 shows how efficiency improvements can be achieved. Investments must more than double by 2030 compared to 2022. The biggest absolute growth in investments needs to happen in buildings, especially in the form of better thermal insulation and the use of highly energy-efficient heat pumps. In industry, energy efficiency can and must take place through further electrification.

Figure 11: Investments in energy efficiency in the NZE scenario

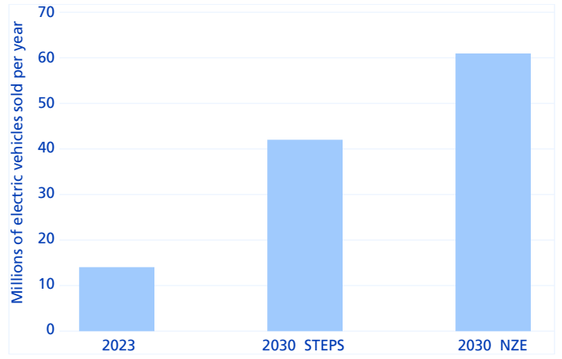


Source: IEA 2023, Energy Efficiency 2023, IEA, Paris https://www.iea.org/reports/energy-efficiency-2023, Licence: CC BY 4.0

3.3.3 Mobility

Electrification of road transport is an absolutely central solution for cutting CO_2 emissions in the field of mobility. According to the IEA, conventional vehicles with combustion engines emit average life cycle emissions of ~42 tons of CO_2 equivalents (tCO_2-eq). This carbon footprint compares to average life cycle emissions of ~21 tCO_2-eq for battery-powered electric vehicles (BEVs). These can vary depending on how the electricity consumed in the vehicles is generated. However, a global comparison of the average carbon intensity of grid electricity shows that BEVs only emit about half as much CO_2 emissions as vehicles with internal combustion engines over their lifespan. The lower lifecycle emissions of BEVs therefore make them the preferred option for decarbonising transport. In its Net Zero Scenario, the IEA assumes that as early as 2030, around 60 million BEVs will be sold per year (see Figure 12), rising to 90 million in 2050, which is slightly above the current global annual automotive production.

Figure 12: Electric vehicles sold per year in the NZE Scenario, in millions

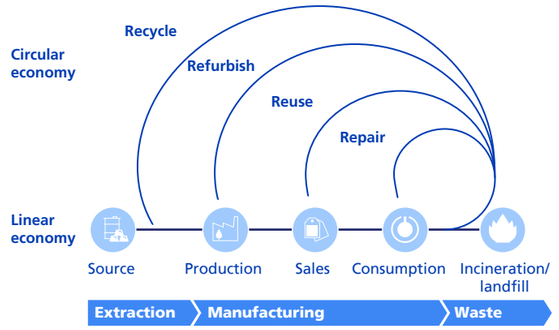


Source: IEA 2024, Electric car sales in the Stated Policies Scenario and in the Net Zero Scenario, 2023 and 2030, IEA, Paris https://www.iea.org/data-and-statistics/charts/electric-car-sales-in-the-stated-policies-scenario-and-in-the-net-zero-scenario-2023-and-2030, Licence: CC BY 4.0

3.3.4 Resource efficiency

Another often underestimated solution for cutting CO_2 emissions is the circular economy (see Figure 13), which reduces resource consumption and waste generation, improves energy efficiency and promotes more sustainable production and consumption behaviours. The use of resources is reduced by repairing, reusing, refurbishing and recycling products and materials, eliminating the necessity to manufacture new products via processes that are frequently energy-intensive. Better energy efficiency reduces the total energy requirement and the CO_2 emissions emitted throughout the product life cycle. Moreover, by paying special attention to durability and recyclability in product design, there is less waste that would otherwise end up in landfill, where it would decompose anaerobically and release methane – a gas with a high greenhouse potential. Circular economy processes are often more local, which can reduce the need for long-distance transport and the associated CO_2 emissions. Another part of the circular economy is carbon sequestration and storage technologies that can help to permanently remove carbon from the atmosphere and safely store it underground. All these forms of the circular economy effectively contribute to reducing CO_2 emissions and consequently, to limiting global warming.

Figure 13: Schematic representation of the circular economy



Source: European Generation, Bocconi University

3.4 Climate concept

Companies that either offer decarbonisation solutions or drive demand for climate-smart solutions can generally be divided into one of the following three categories: solution providers, adopters or enablers (see Figure 14, page 16).

Figure 14: Climate concept
The climate concept distinguishes between solution providers, adopters and enablers.

Solution provider

Solution providers **offer services** or a combination of **products and services** to address climate challenges.

E.ON

E.ON is one of the largest electricity network operators in Europe. Contribution to decarbonisation: the expansion of renewable energies and the electrification of the economy require a comparable expansion of power grids and their resilience.

Other examples

Tesla **Orsted**

Adopter

Adopters **are demonstrating their role as leaders** by introducing climate policies and the associated best practices in their **operations**.

Air Liquide

Significant player in power purchase agreements based on renewable energy sources.
Contribution to decarbonisation: Air Liquide has set itself the target of supplying most of its energy-intensive operations with renewable energy.

Other examples

LyondellBasell **Essential**

Enabler

Enablers provide **tools, software and technology** to address the challenges of climate change.

Prysmian

One of the world's largest manufacturers of cable systems for electricity transmission.
Contribution to decarbonisation: Prysmian is a global leader in the manufacture of electricity transmission cables for the low to high voltage range and is therefore central to electrification.

Other examples

Catl **Wabtec Corporation**

Source: Company information

3.5 Risks of the investment theme

The main risks for the investment theme are as follows: Firstly, there is a fundamental risk that the issue of climate action will be pushed into the background due to other threats such as war or pandemics. If the underlying political conditions are not in place, climate action technologies are also unlikely to prevail. Secondly, there is a risk for investors that fierce competition will cause the price of climate action technologies to fall more sharply than costs can be reduced, which could lead to unprofitable growth. One well-known example of this is the growth in the solar PV sector, which has always had significant volume growth. Nevertheless, for many manufacturers outside China, the price of solar modules was below the production costs. Finally, there is a risk of disruptive innovations that, in extreme cases, make previous technologies redundant. If, for example, new battery technologies manage without lithium, they could displace the currently dominant lithium-ion technology and lithium mining sites could at least partially become "stranded assets".

4 Conclusions

In order to curb the global warming caused by humans, severe and sustained measures are likely to be needed. Accordingly, climate change and the reduction in the CO_2 emissions that are responsible for it will probably continue to occupy us for many years to come. As set out in this analysis, the greatest progress can currently be achieved through sustainable electricity generation from renewable energy sources and through the electrification of the economy. This is also consistent with the approach that politicians in many countries intend to pursue.

In light of this, we anticipate sustained growth in renewable energies, electromobility and energy and resource efficiency, while demand for fossil fuel sources of energy is likely to decline. The energy industry is likely to face fundamental changes in this decade. Companies that benefit from this transformation through their products and services and that contribute to decarbonisation are poised for profitable growth as a result.

For investors in this area, we have identified four attractive investment areas that could benefit from efforts to cut CO_2 emissions and combat climate change:

– **Renewable energies:** Solution providers, adopters and enablers from the fields of solar and wind power are a particular focus, as they are expected to play a decisive role in the reduction of global CO_2 emissions. Their solutions are expected to reduce greenhouse gas emissions by up to 40%. Installed capacity is expected to increase significantly by 2030.

– **Energy efficiency:** Reducing energy consumption despite economic growth would require an annual improvement in energy efficiency of 4%. Investments, especially in buildings and industry, are vital. Providers of more efficient energy solutions should therefore benefit from increased demand.

– **Mobility:** The electrification of road transport, in particular by battery-powered electric vehicles (BEVs), has the potential to significantly reduce CO_2 emissions over the life cycle. If the forecast of 60 million BEV sales annually by 2030 proves accurate (see Figure 12), this should result in a notable period of growth.

– **Resource efficiency:** A circular economy reduces resource consumption and waste. At the same time, it ensures improved energy efficiency and promotes sustainable production and consumption behaviour. Carbon sequestration technologies also support CO_2 reduction.

Imprint
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