



# : Climate Scenario Pathways for China Net Zero 2060

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## : 2030 and 2060 target commitments mean change is needed today



**By 2030**

Peak carbon



**By 2035**

Per-head GDP to match  
"moderately developed nations"\*



**By 2060**

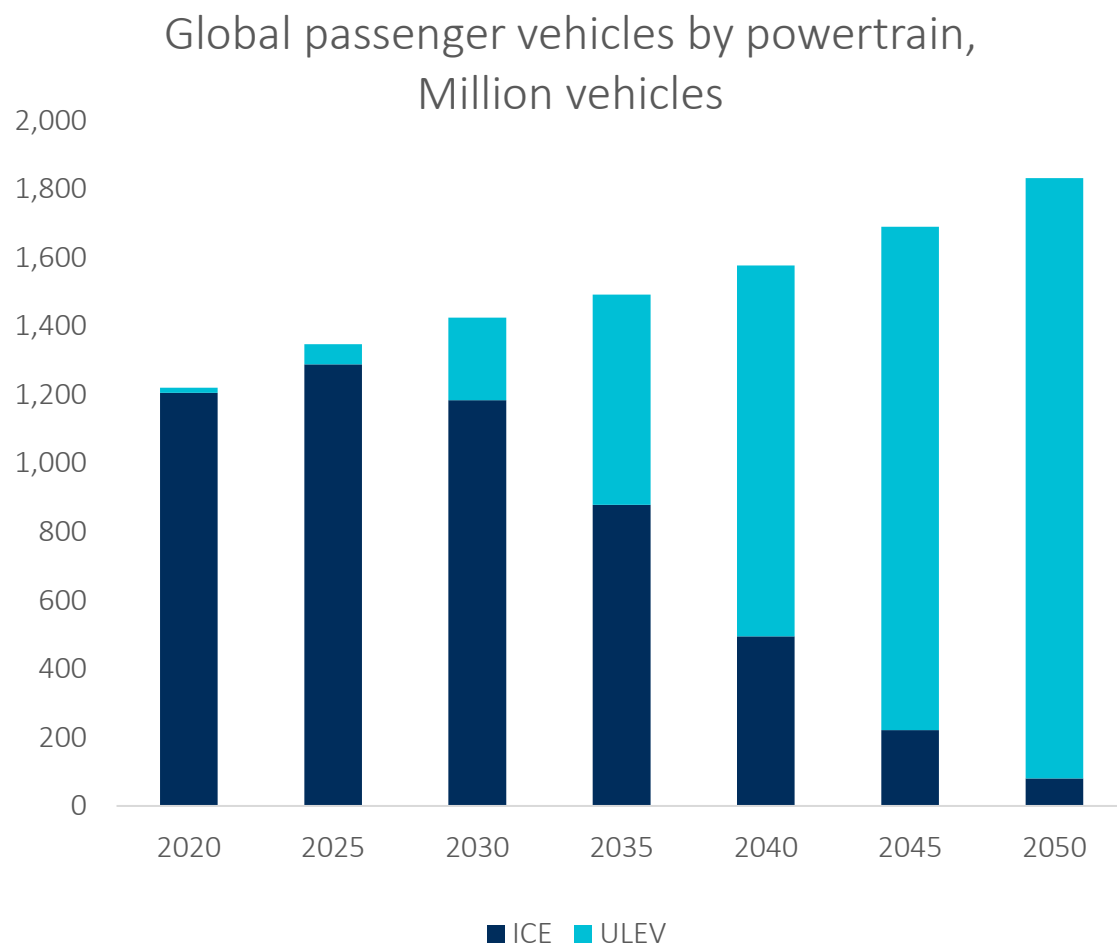
Carbon neutrality

\*Defined as nations with a per-capita GDP of US\$20,000 to US\$40,000



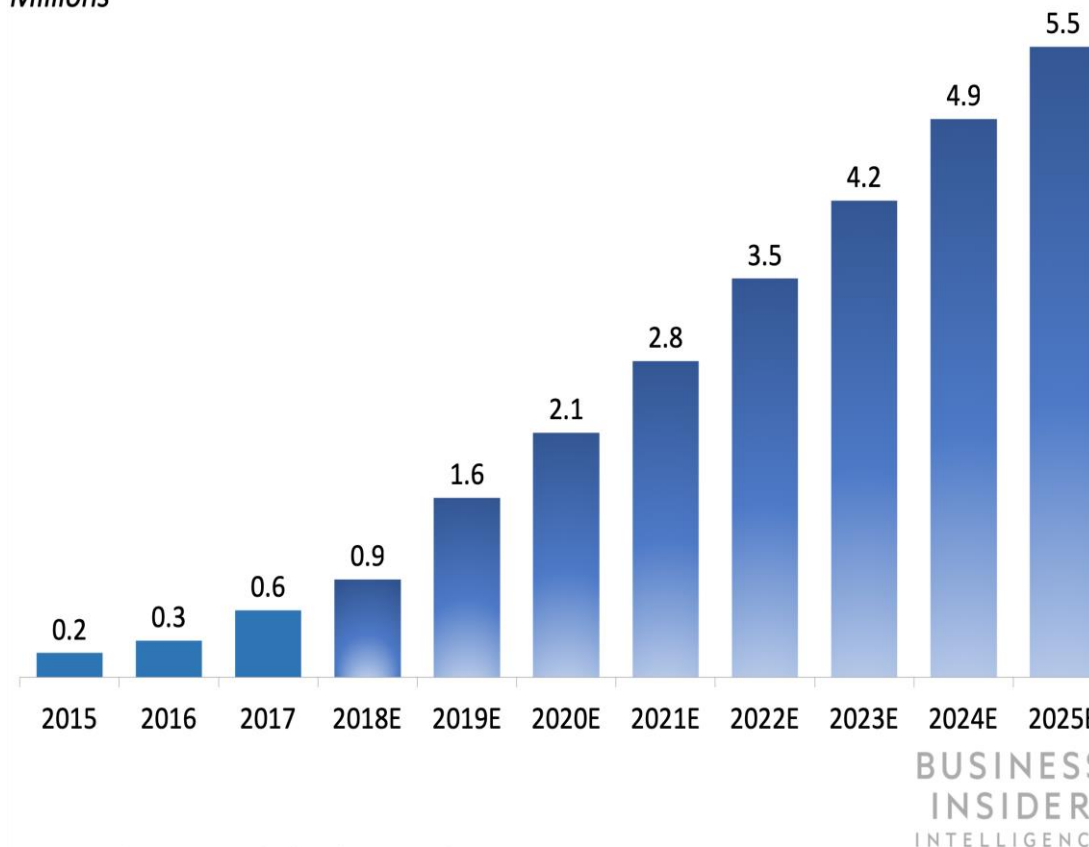


## : Rapid electrification in transport is expected



Source: Inevitable Policy Response – Forecast Policy Scenario 2019

### Electric Vehicle Sales In China Millions

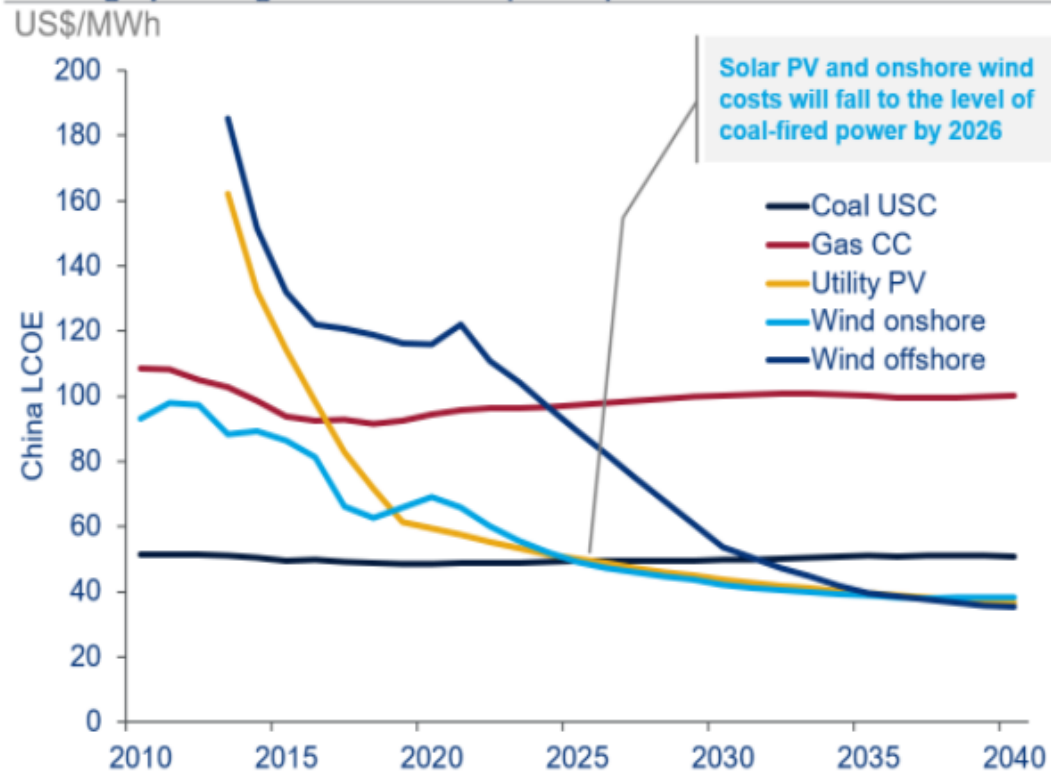


Source: IHS Markit estimates cited by The Wall Street Journal



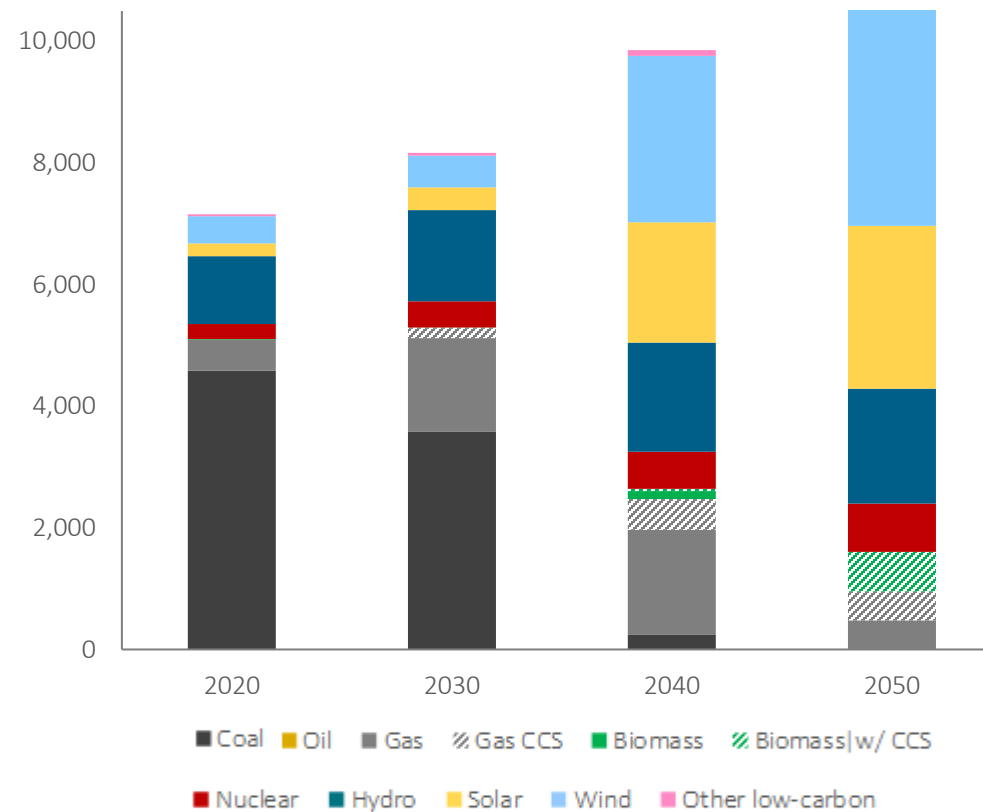
## Renewables will soon become cost competitive, pushing out coal; Emission targets require further reduction in coal generation

Average power generation cost (LCOE) trend in China



Source: Wood Mackenzie

China, TWh



Source: Inevitable Policy Response – Forecast Policy Scenario 2019

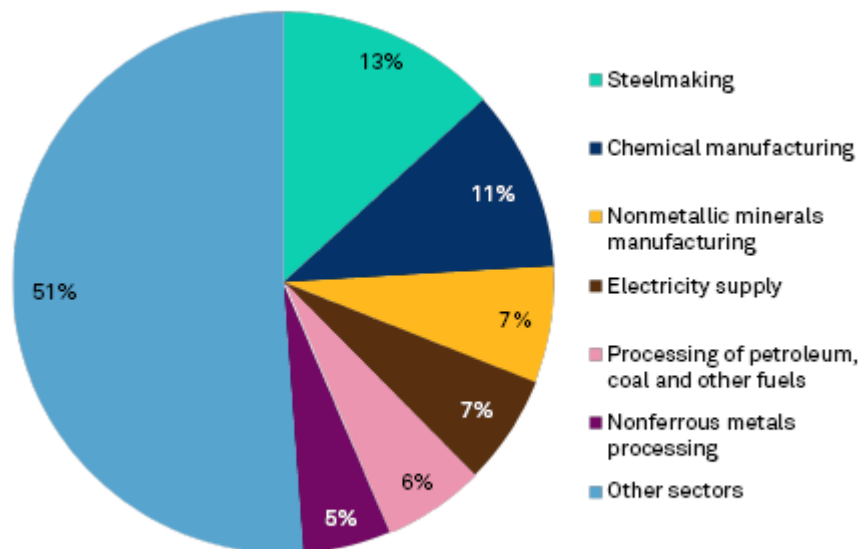


## Investment is needed now to drive innovation in zero-carbon steelmaking processes, such as carbon, capture and storage and hydrogen routes to steel

### IPR forecast 100% new zero carbon production facilities from 2050

- Routes to hydrogen must be zero-carbon (likely electrolysis or natural gas reforming + CCS) therefore demonstrating the need for an economy-wide approach to net zero

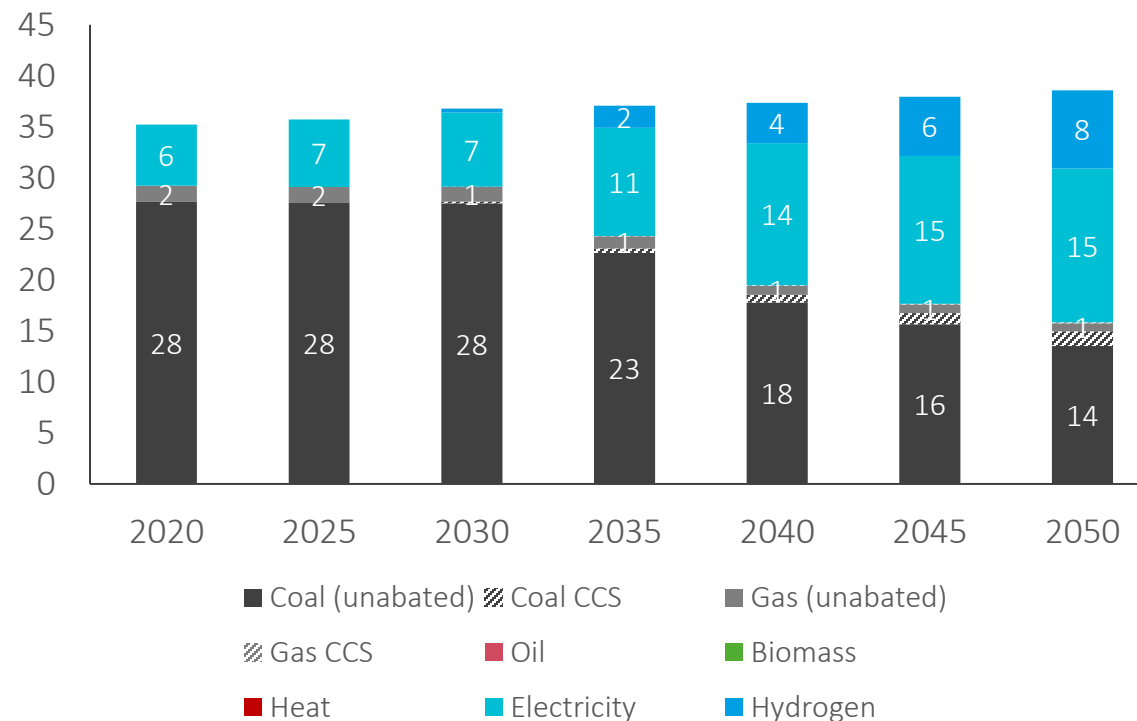
China's energy consumption by sector in 2018



Data released Sept. 23, 2020.

Source: China Statistical Yearbook 2020 compiled by National Bureau of Statistics of China

Iron and steel sector energy mix, EJ per year

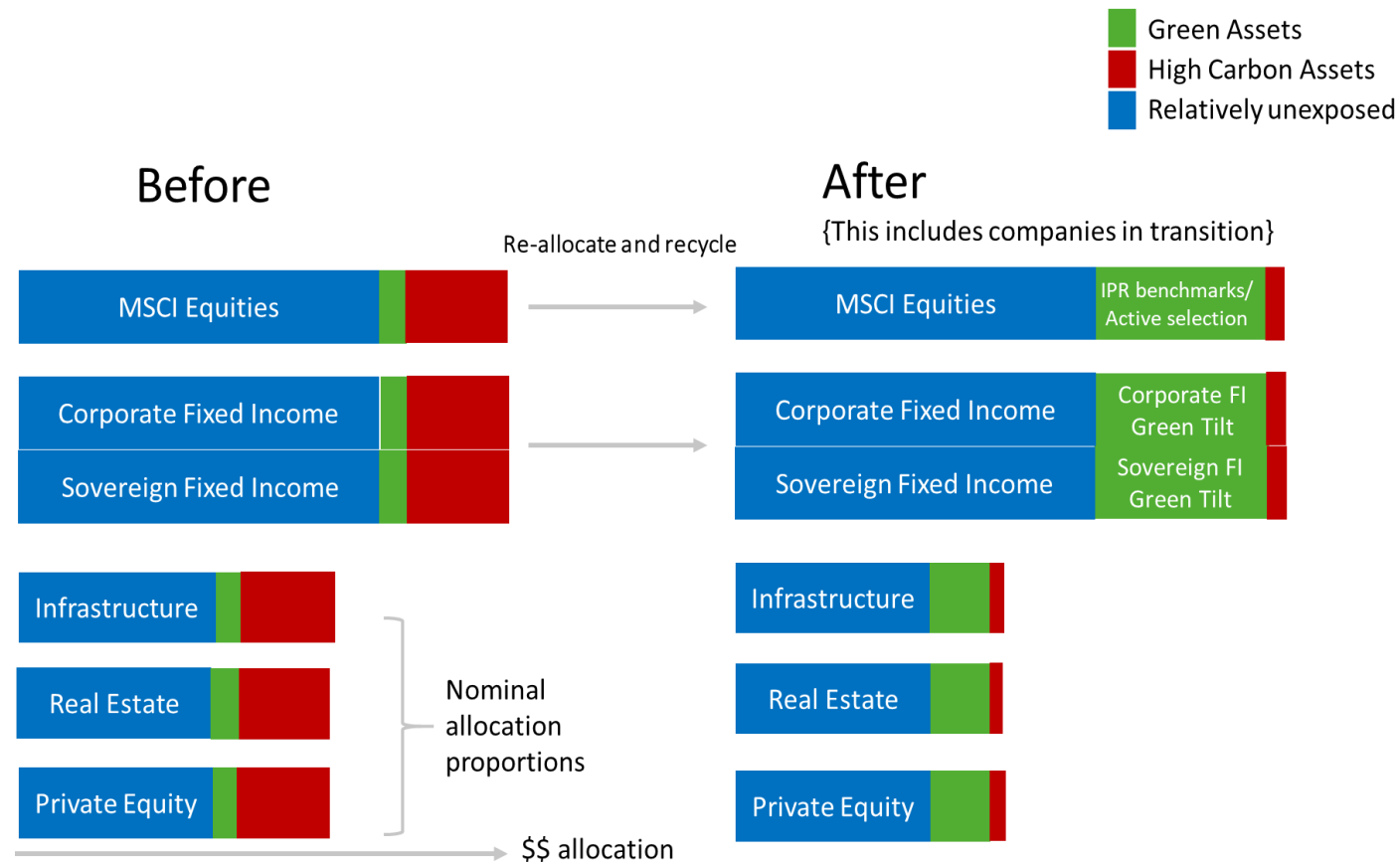


Source: Inevitable Policy Response – Forecast Policy Scenario 2019



## Exposure needs to be reduced today by recycling capital towards low carbon assets

- Investment opportunities exist across a range of sectors to deploy low-carbon technologies
- There is potential for stranded assets in some sectors, for example coal-fired generation



# : Contact us

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putting economics to good use

# PRI - China Carbon Neutrality Week

**Ben Carr**, Analytics and Capital Modelling  
Director, Aviva plc

Wednesday 28<sup>th</sup> April





# Creating a better tomorrow: Aviva's climate goals



**Targeting Net Zero on carbon emissions** we produce ourselves by **2030**, from our suppliers by **2030** and from customers' and shareholders' investments by **2040**.

**Today, we are the first major UK financial services company to target Net Zero carbon by 2040\***

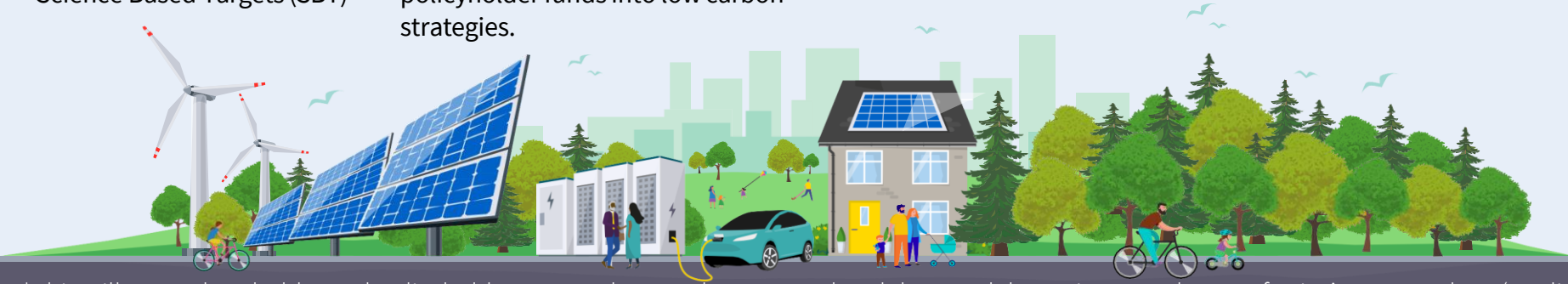
**By the end of 2021**, Stop underwriting insurance for companies making >5% of their revenue from coal or unconventional fossil fuels, unless they signed up to Science Based Targets (SBT)

**By the end of 2022**, Divest from companies making >5% of their revenue from coal, unless they have signed up to SBT. Invest a further £10bn of assets from its auto-enrolment default funds and other policyholder funds into low carbon strategies.

**By 2025**, 25% cut in carbon intensity of investments.

**By 2030**, 60% cut in carbon intensity of investments.

**By 2040**, Net Zero company with Net Zero carbon investments.



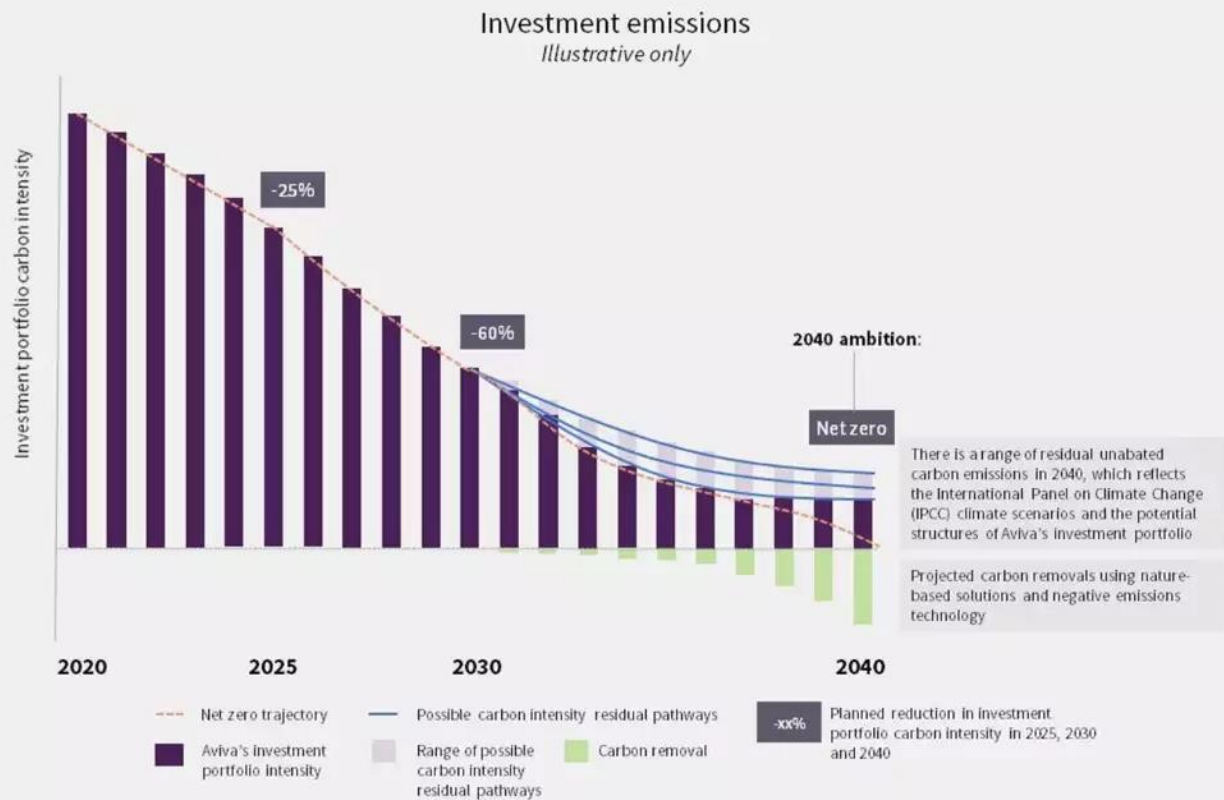
\*This will cover shareholder and policyholder assets where we have control and data; and the main asset classes of Aviva's core markets (credit, equities, direct real estate and sovereign debt). We will be able to expand this further as new data and methodologies become available. For more details please see [www.aviva.com/climate-goals](http://www.aviva.com/climate-goals)

# Investments

Having an ambition twenty years into the future is important to set the destination, but it means nothing without more immediate targets and milestones to mark the way.

Therefore, today we are setting out the following plan and trajectory:

- **By 2025, we plan to cut the carbon intensity of our investments by 25%.**
- **By 2030, we plan to cut the carbon intensity of our investments by 60%.**



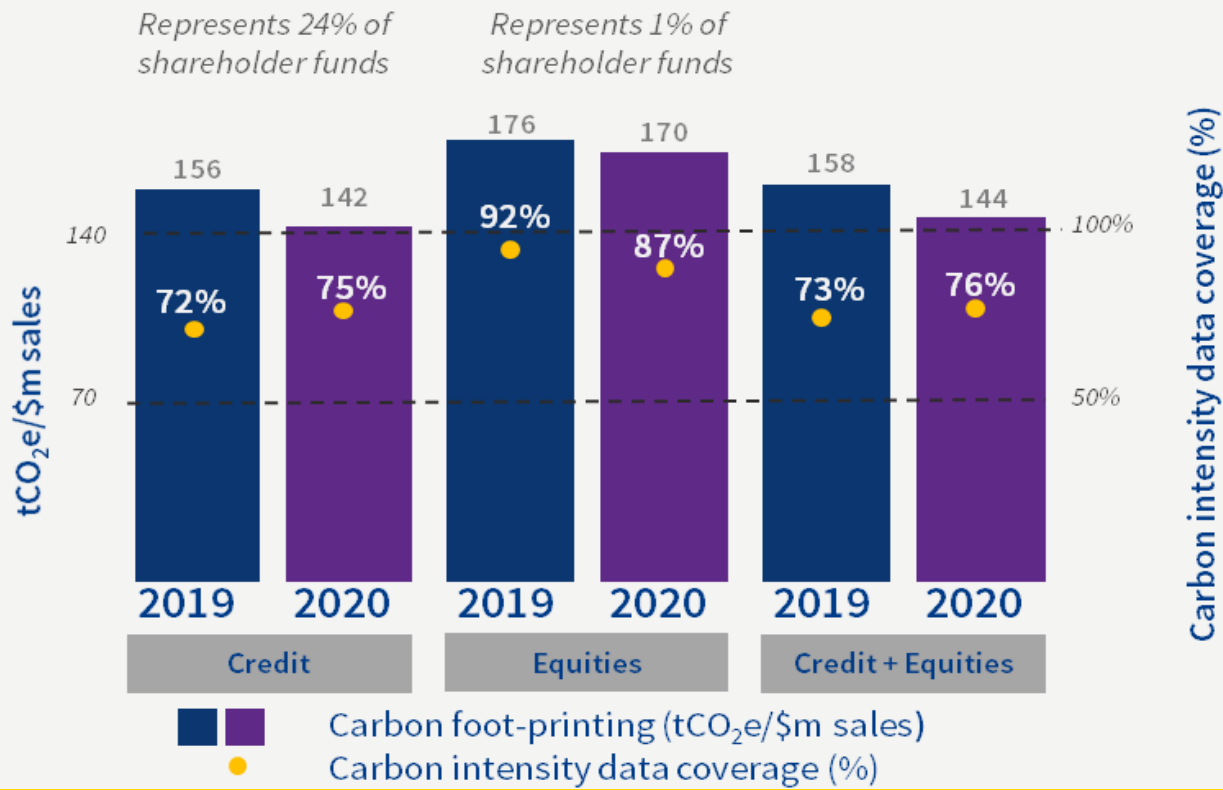
This graph is for illustrative purposes only. The carbon intensity trajectory for 2020-2030 aligns with our commitment to achieve a 25% reduction in emissions intensity by 2025 and 60% by 2030. However, the trajectory beyond 2030 is dependent on IPCC's climate scenarios and structure of Aviva's investment portfolio. As such, the portfolio carbon intensity reductions and the amount and type of carbon removals shown should be considered as illustrative. We will provide more information on this in due course.

# Carbon footprinting

We use weighted average carbon intensity data to assess our investment portfolio's sensitivity to an increase in carbon prices and our progress to the 1.5°C Paris Agreement target.

Our carbon footprinting intensity has reduced compared to last year in line with our **25% cut in carbon intensity of investments target by 2025.**

Weighted average carbon intensity (tCO<sub>2</sub>e/\$m sales) of credit and equities in Aviva's shareholder funds as at 31/12/2020 compared to 2019. Source: Aviva/MSCI.

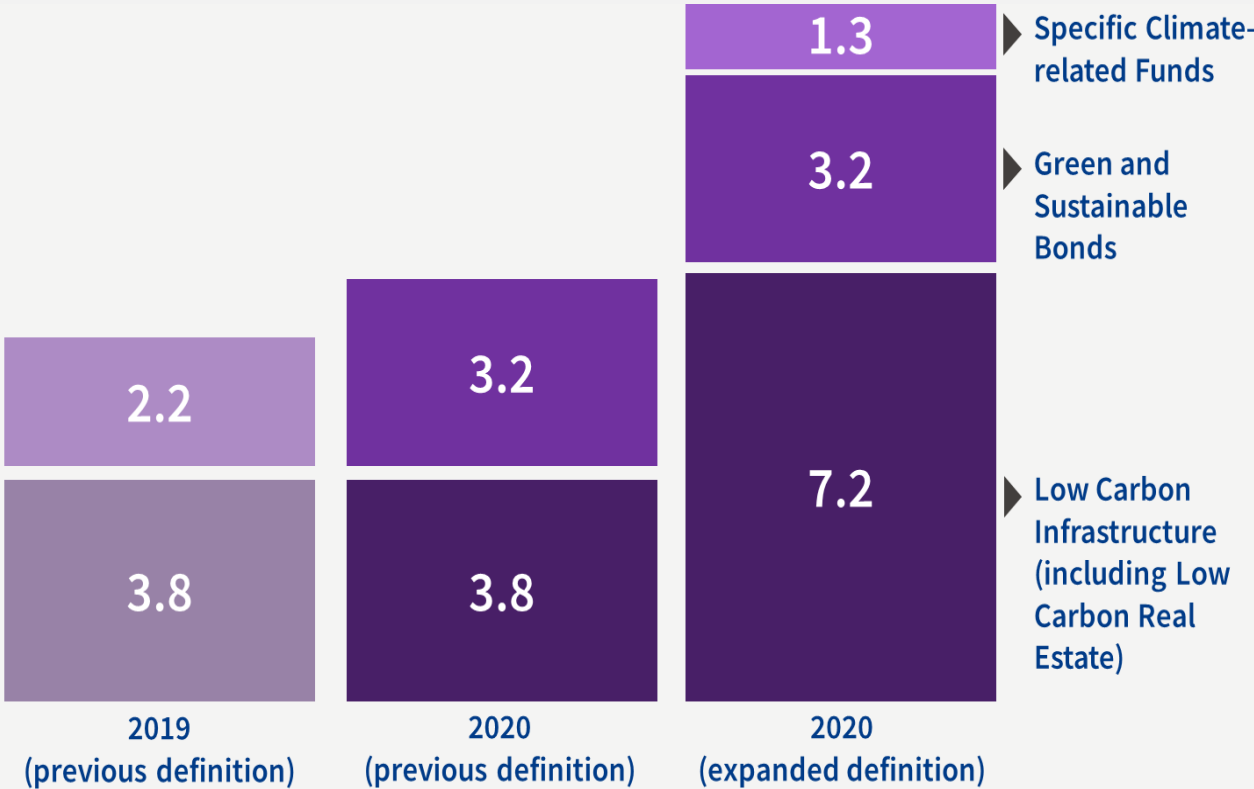


# Green Assets

By 2025, 25% cut in carbon intensity of investments

- **Aviva will invest £6bn in green assets**, including £1.5bn of policyholder money into climate transition funds
- **Aviva investors will invest £2.5bn in low carbon and renewable energy infrastructure and deliver £1bn of carbon transition loans**

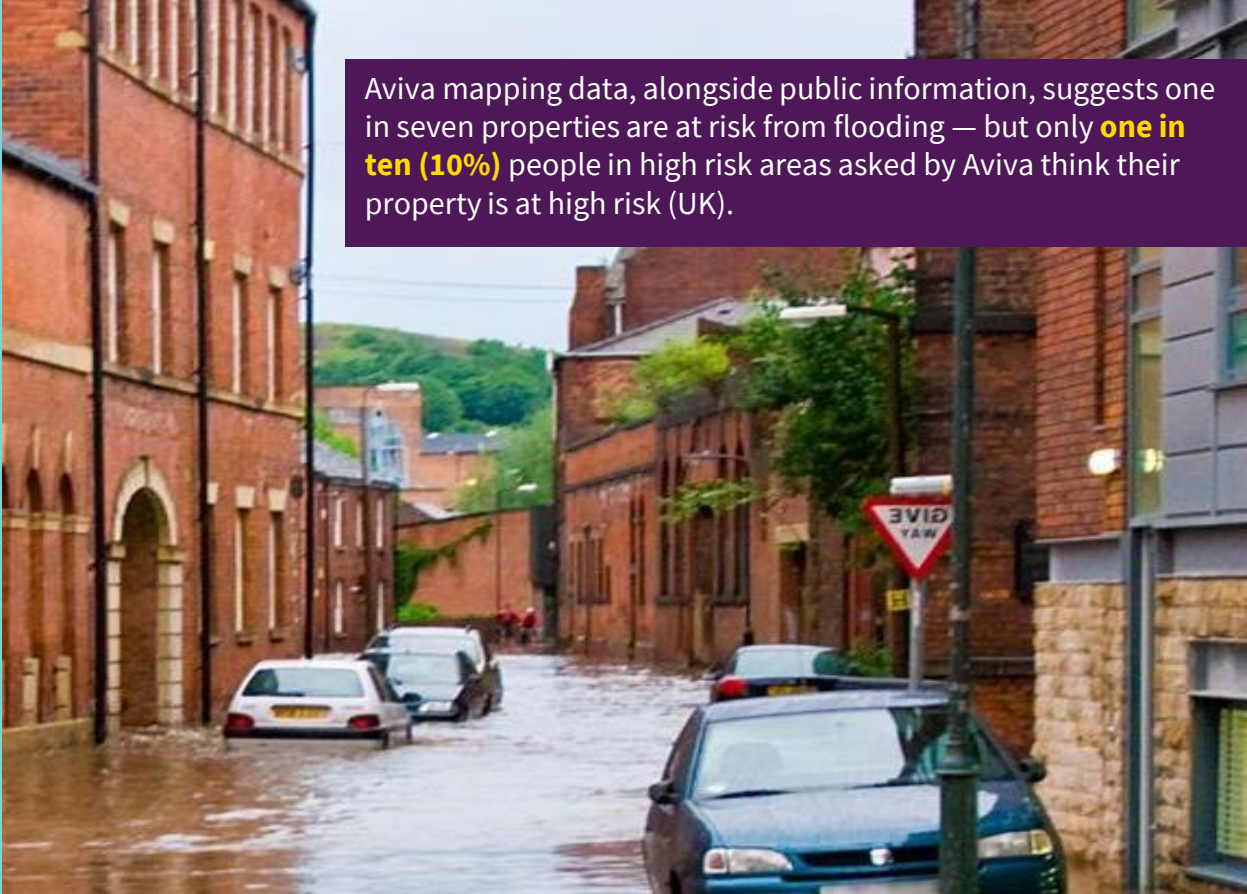
£11.7bn in Green Assets



# Underwriting

We seek to grasp opportunities to support the transition to a low carbon economy and promote activities that will secure a better future for our customers and wider society.

We continue to develop climate conscious products and services, which reward customers for environmentally responsible actions and provide some element of adaptation/resilience or additional cover for those customers at risk of extreme weather impacts.

A photograph of a flooded street in a residential area. The street is filled with brown, murky water. On the left, there are tall brick buildings with multiple windows. On the right, there are more brick buildings and a street sign that reads 'GIVE WAY'. Several cars are parked along the street, partially submerged in the water. In the background, a green hill is visible under a cloudy sky.

Aviva mapping data, alongside public information, suggests one in seven properties are at risk from flooding — but only **one in ten (10%)** people in high risk areas asked by Aviva think their property is at high risk (UK).

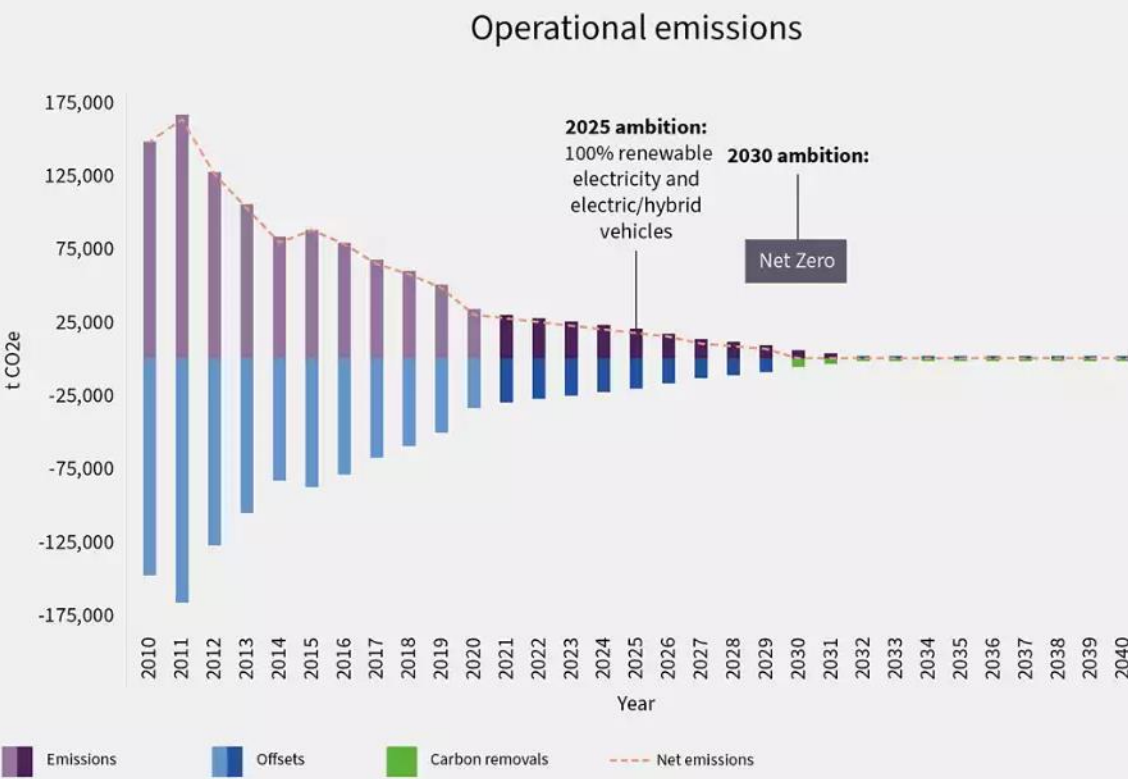
# Operational emissions

Today, we have achieved an operational emissions cut by 76% since 2010.

By 2030, we plan to have:

- Net Zero operations
- Net Zero supply chain

To help get there we are committed that by 2025, we will use 100% renewable electricity for all our offices, and our new company car leases in the UK, Ireland and Canada will be delivered through plug-in hybrid or electric vehicles



Emissions reduction forecasts are for illustrative purposes only. Pathways are based on a reduction of 8% per year 2020-2030. This goes beyond SBTi's AC 1.5 degree pathway (>4.2% per year, which would reach net zero by 2040). Exact targets and milestones will be determined as part of SBT commitment.



# Q&A

