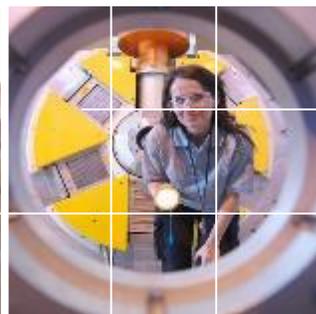


20 2025 2030 2035 2040 2045 2050 2055 2060 2065 2070 2075 2080



Shell Scenario Sky

Meeting the Goals of the Paris Agreement

Wim Thomas, Chief Energy Adviser
Shell International BV

WARNING: Uncertainties ahead

This presentation contains data from Shell's new Sky Scenario. Unlike Shell's previously published Mountains and Oceans exploratory scenarios, the Sky Scenario is targeted through the assumption that society reaches the Paris Agreement's goal of holding global average temperatures to well below 2°C. Unlike Shell's Mountains and Oceans scenarios which unfolded in an open-ended way based upon plausible assumptions and quantifications, the Sky Scenario was specifically designed to reach the Paris Agreement's goal in a technically possible manner. These scenarios are a part of an ongoing process used in Shell for over 40 years to challenge executives' perspectives on the future business environment. They are designed to stretch management to consider even events that may only be remotely possible. Scenarios, therefore, are not intended to be predictions of likely future events or outcomes and investors should not rely on them when making an investment decision with regard to Royal Dutch Shell plc securities.

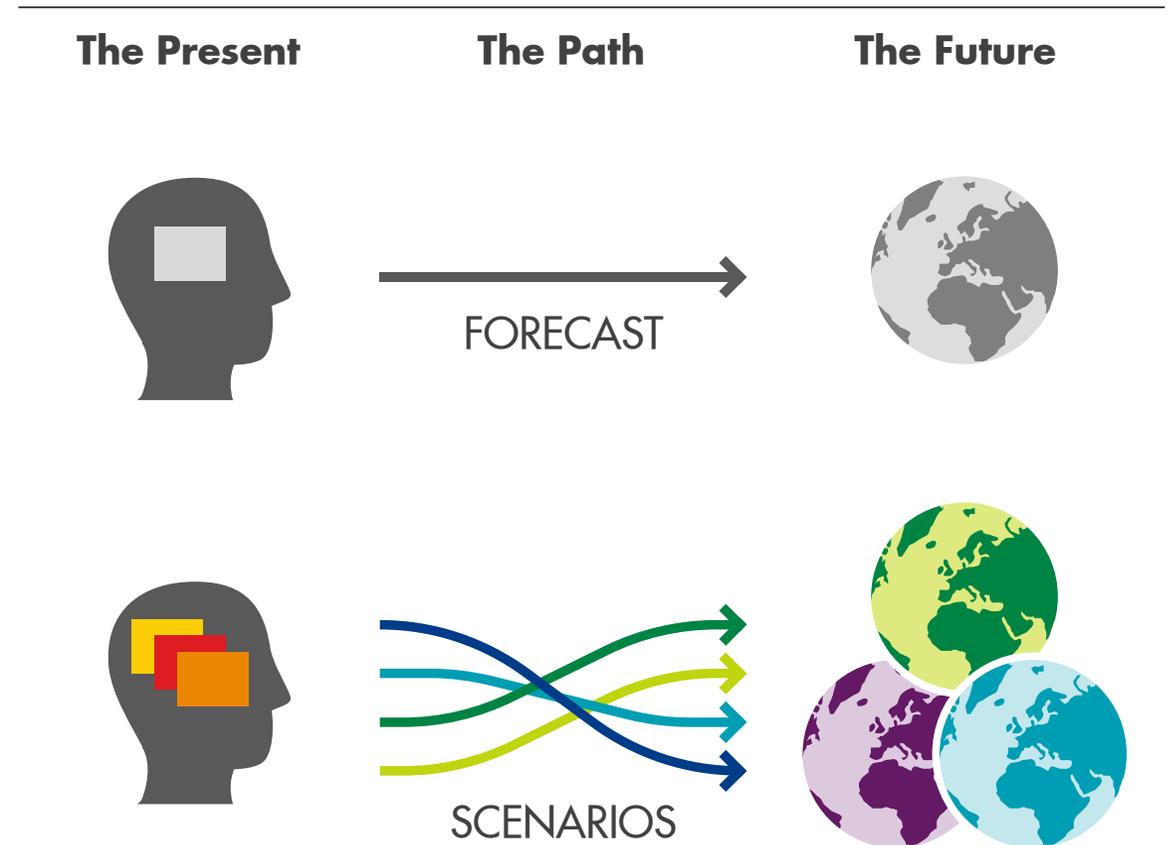
Additionally, it is important to note that Shell's existing portfolio has been decades in development. While we believe our portfolio is resilient under a wide range of outlooks, including the IEA's 450 scenario (World Energy Outlook 2016), it includes assets across a spectrum of energy intensities including some with above-average intensity. While we seek to enhance our operations' average energy intensity through both the development of new projects and divestments, we have no immediate plans to move to a net-zero emissions portfolio over our investment horizon of 10-20 years. Although, we have no immediate plans to move to a net-zero emissions portfolio, in November of 2017, we announced our ambition to reduce our net carbon footprint in accordance with society's implementation of the Paris Agreement's goal of holding global average temperature to well below 2°C above pre-industrial levels. Accordingly, assuming society aligns itself with the Paris Agreement's goals, we aim to reduce our net carbon footprint, which includes not only our direct and indirect carbon emissions, associated with producing the energy products which we sell, but also our customers' emissions from their use of the energy products that we sell, by 20% in 2035 and by 50% in 2050.

The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate legal entities. In this presentation "Shell", "Shell group" and "Royal Dutch Shell" are sometimes used for convenience where references are made to Royal Dutch Shell plc and its subsidiaries in general. Likewise, the words "we", "us" and "our" are also used to refer to subsidiaries in general or to those who work for them. These expressions are also used where no useful purpose is served by identifying the particular company or companies. "Subsidiaries", "Shell subsidiaries" and "Shell companies" as used in this presentation refer to companies over which Royal Dutch Shell plc either directly or indirectly has control. Entities and unincorporated arrangements over which Shell has joint control are generally referred to as "joint ventures" and "joint operations" respectively. Entities over which Shell has significant influence but neither control nor joint control are referred to as "associates". The term "Shell interest" is used for convenience to indicate the direct and/or indirect ownership interest held by Shell in a venture, partnership or company, after exclusion of all third-party interest.

This presentation contains forward-looking statements concerning the financial condition, results of operations and businesses of Royal Dutch Shell. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future expectations that are based on management's current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of Royal Dutch Shell to market risks and statements expressing management's expectations, beliefs, estimates, forecasts, projections and assumptions. These forward-looking statements are identified by their use of terms and phrases such as "anticipate", "believe", "could", "estimate", "expect", "goals", "intend", "may", "objectives", "outlook", "plan", "probably", "project", "risks", "schedule", "seek", "should", "target", "will" and similar terms and phrases. There are a number of factors that could affect the future operations of Royal Dutch Shell and could cause those results to differ materially from those expressed in the forward-looking statements included in this web page, including (without limitation): (a) price fluctuations in crude oil and natural gas; (b) changes in demand for Shell's products; (c) currency fluctuations; (d) drilling and production results; (e) reserves estimates; (f) loss of market share and industry competition; (g) environmental and physical risks; (h) risks associated with the identification of suitable potential acquisition properties and targets, and successful negotiation and completion of such transactions; (i) the risk of doing business in developing countries and countries subject to international sanctions; (j) legislative, fiscal and regulatory developments including regulatory measures addressing climate change; (k) economic and financial market conditions in various countries and regions; (l) political risks, including the risks of expropriation and renegotiation of the terms of contracts with governmental entities, delays or advancements in the approval of projects and delays in the reimbursement for shared costs; and (m) changes in trading conditions. No assurance is provided that future dividend payments will match or exceed previous dividend payments. All forward-looking statements contained in this presentation are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. Readers should not place undue reliance on forward-looking statements. Additional risk factors that may affect future results are contained in Royal Dutch Shell's Form 20-F for the year ended December 31, 2017 (available at www.shell.com/investor and www.sec.gov). These risk factors also expressly qualify all forward-looking statements contained in this presentation and should be considered by the reader. Each forward-looking statement speaks only as of the date of this presentation 2 October, 2018. Neither Royal Dutch Shell plc nor any of its subsidiaries undertake any obligation to publicly update or revise any forward-looking statement as a result of new information, future events or other information. In light of these risks, results could differ materially from those stated, implied or inferred from the forward-looking statements contained in this web page. We may have used certain terms, such as resources, in this presentation that United States Securities and Exchange Commission (SEC) strictly prohibits us from including in our filings with the SEC. U.S. investors are urged to consider closely the disclosure in our Form 20-F, File No 1-32575, available on the SEC website www.sec.gov. You can also obtain this form from the SEC by calling 1-800-SEC-0330.

Exploring alternative futures

- Societal and Energy systems are complicated
- Energy transition and digitalisation: major disruptors
- Past does not predict the future
- Forecasts are inappropriate in a radical uncertain future
- Complex future: needs agility
 - Scenario thinking
 - Decision-making
- Scenarios are a distinctive Shell capability, supporting strategic thinking



The Paris Ambition: well below 2°C

A signal sent around the world



3 critical United Nations Sustainable Development Goals

1 NO POVERTY



7 AFFORDABLE AND CLEAN ENERGY

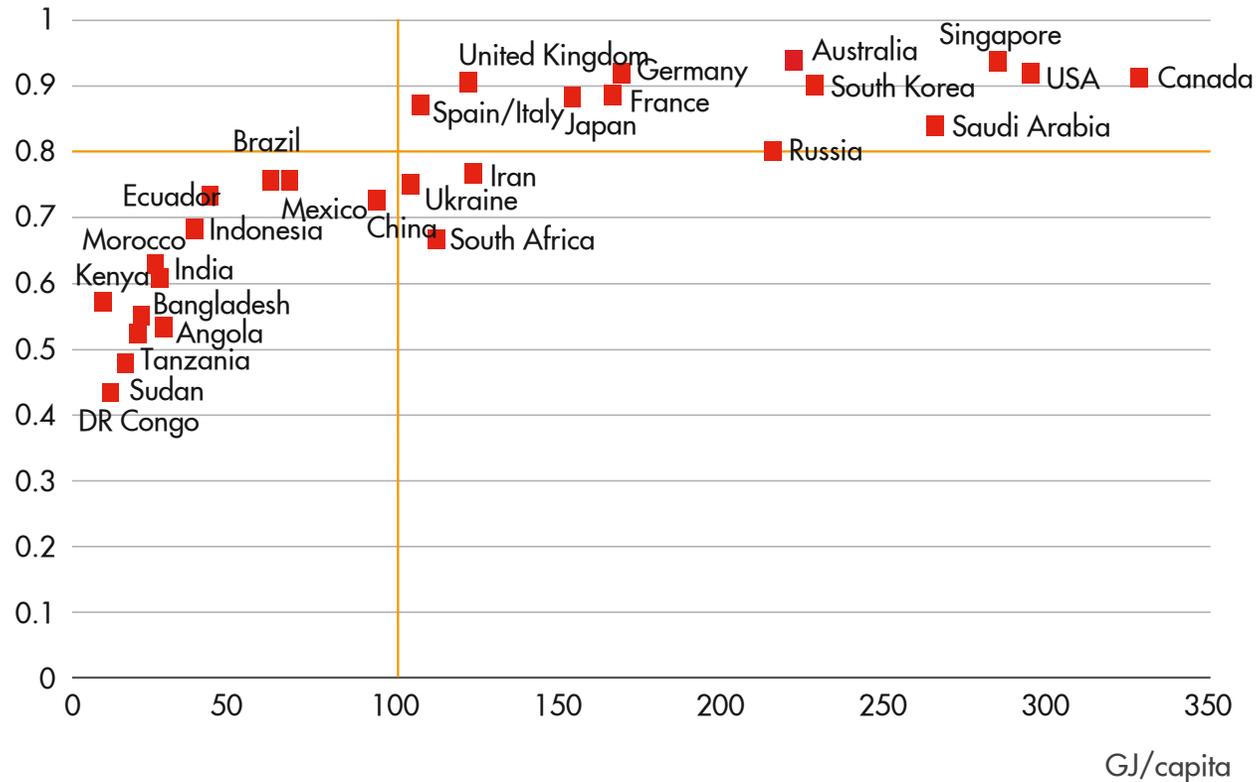


13 CLIMATE ACTION



Challenges for the 21st century: development and decarbonisation

Human Development Index: Energy supports a better life

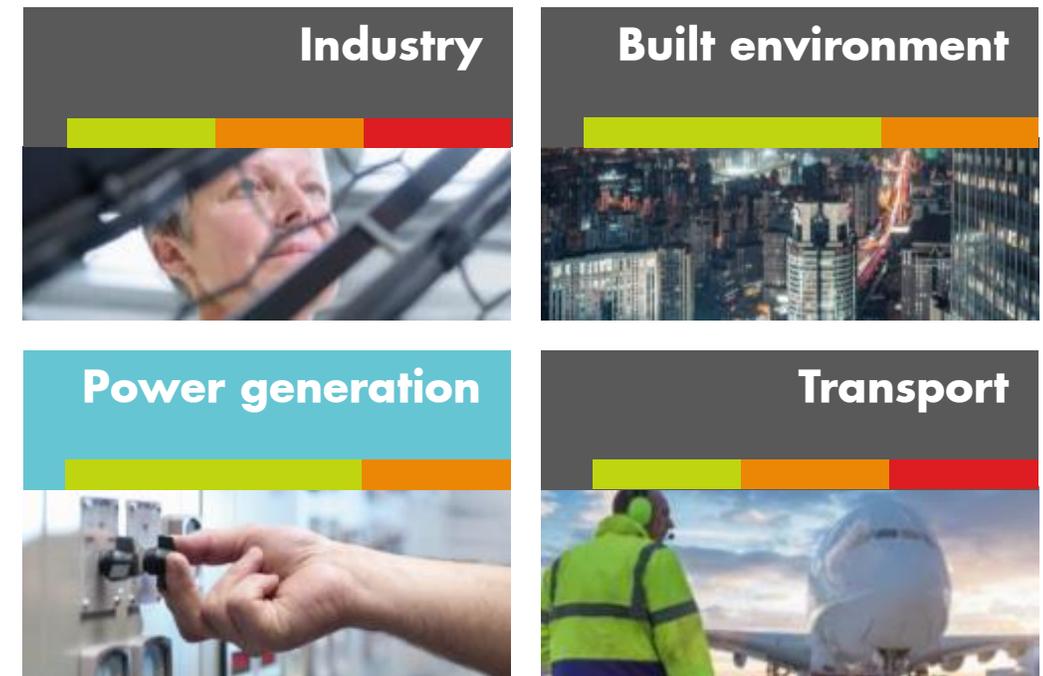


Source: Shell analysis – UN Human Development Index 2016

From “A better life and a healthy planet”, Shell publication 2016

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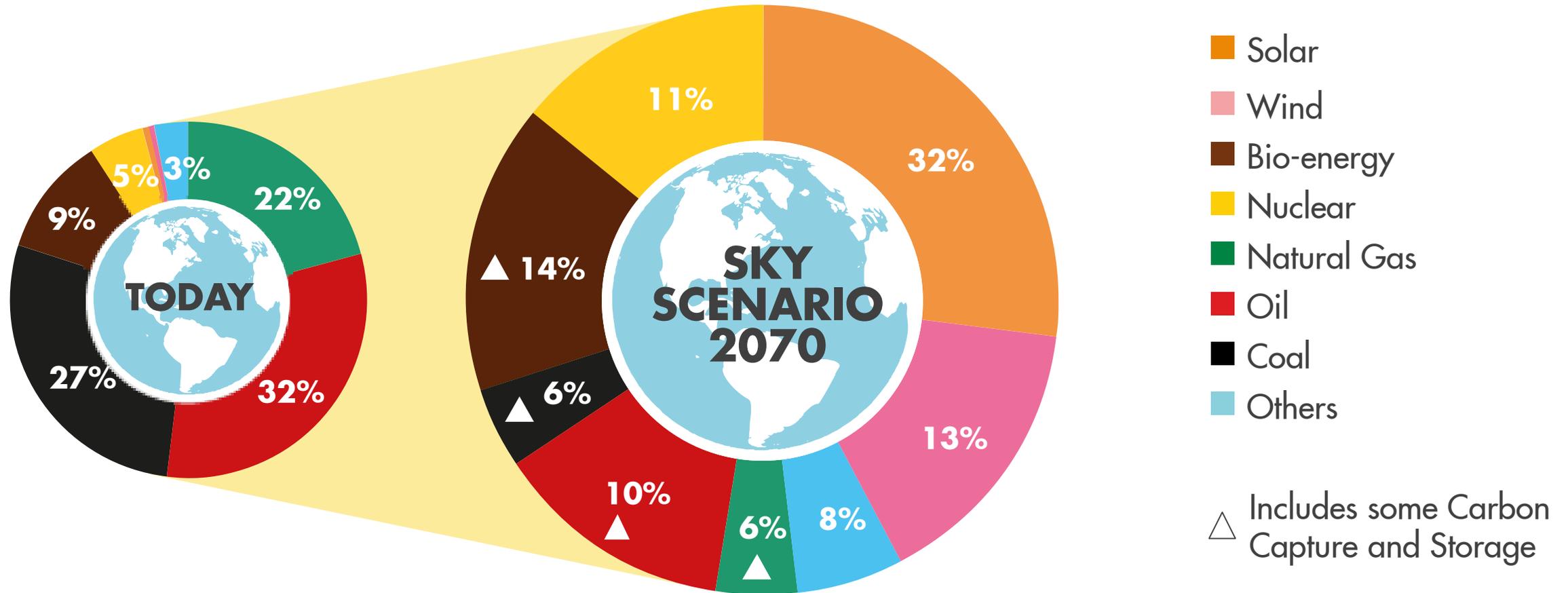
Decarbonisation: Sector-specific perspective is key



Source: Shell analysis, World Energy Model

- Less difficult to decarbonise
- ...
- More difficult to decarbonise

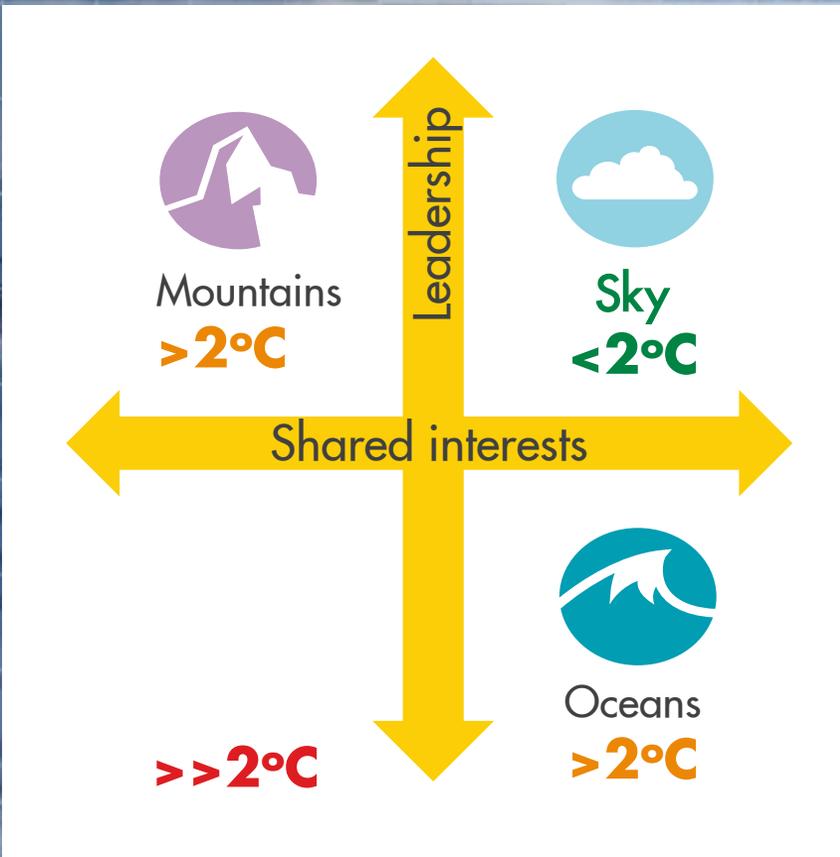
A possible primary energy mix for a net-zero emissions world



The size of the pie chart indicates growth of the energy system

The New Lens Scenarios Family

Looking beyond Mountains and Oceans...



...to Sky

Sky relies on a complex combination of mutually reinforcing drivers being accelerated by society, markets, and governments



In Sky, seven big steps forward from now to 2070



Carbon pricing



Energy efficiency



Electrification of final energy



Grow new energy systems



Carbon capture and storage



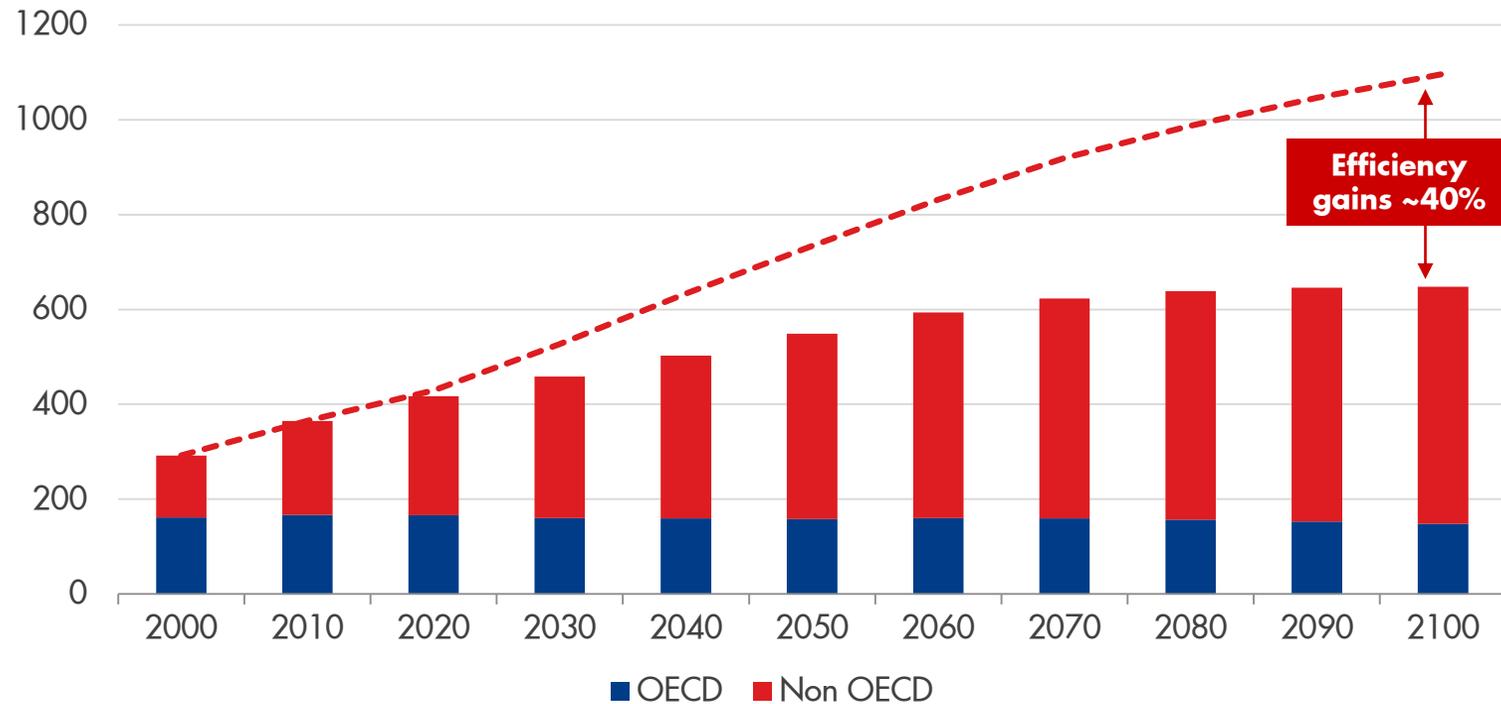
End deforestation



Changing consumer mind-set

Energy efficiency is key

World total final energy consumption, EJ/year



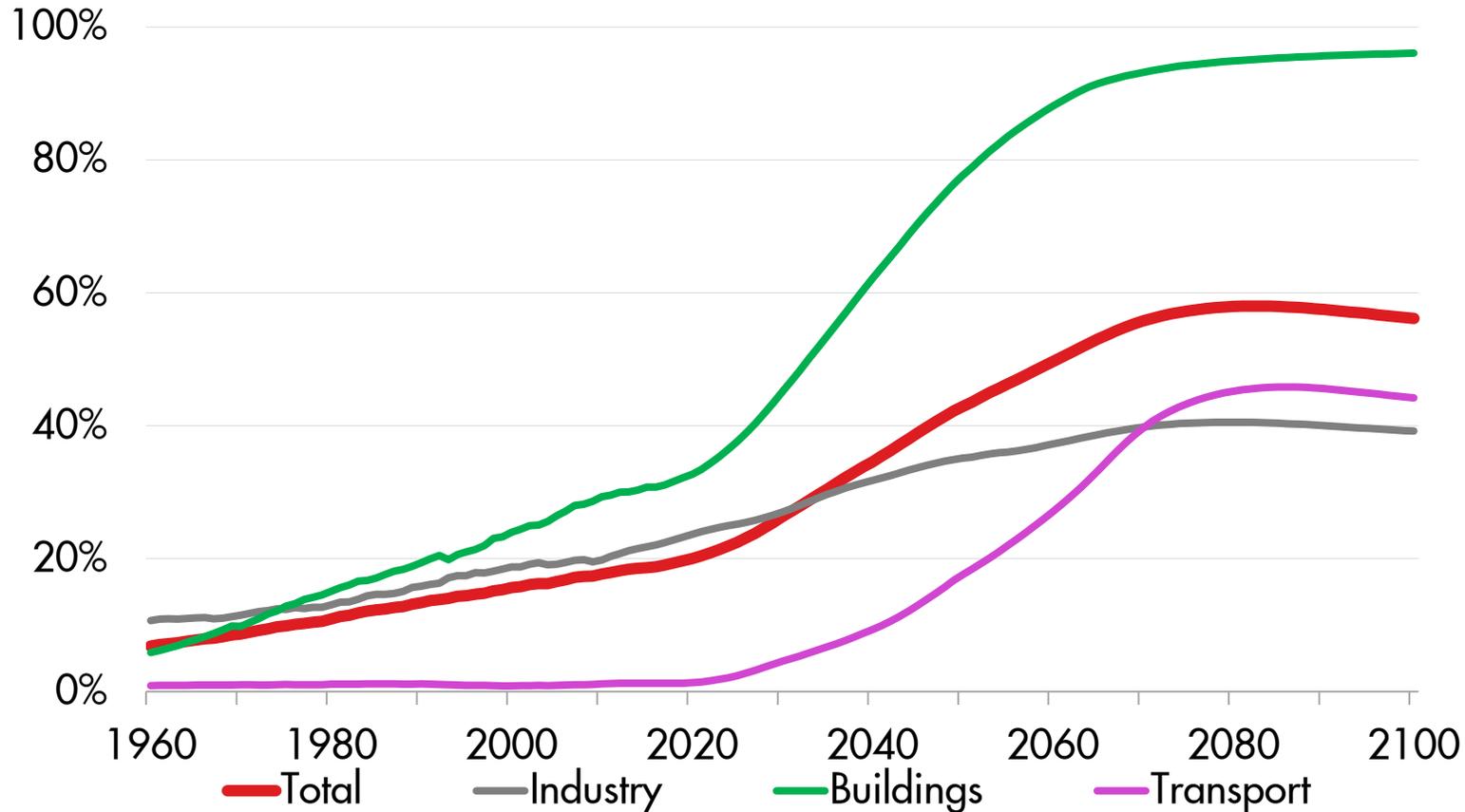
Source: Sky Scenario, Shell analysis
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- ▶ Rising incomes in developing regions drive global energy demand
- ▶ This is moderated by significant energy efficiency improvements

The deep electrification story – sector by sector

World electrification rates by sector



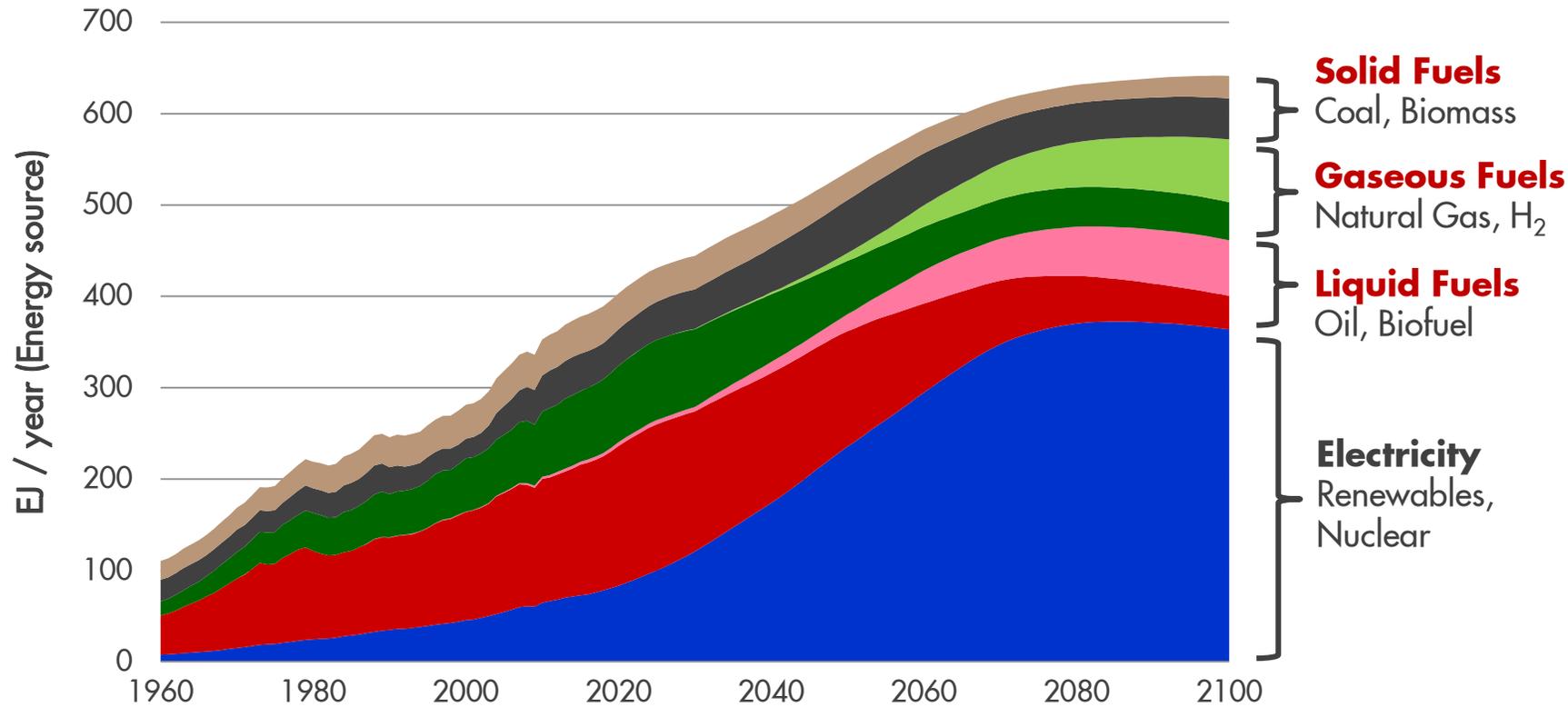
Source: Sky Scenario, Shell analysis
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- Accelerates across sectors at three times the historical rate
- Global power generation growing by a factor of five

Deep electrification, but molecules remain important

Global end-use energy consumption



Source: Sky Scenario, Shell analysis
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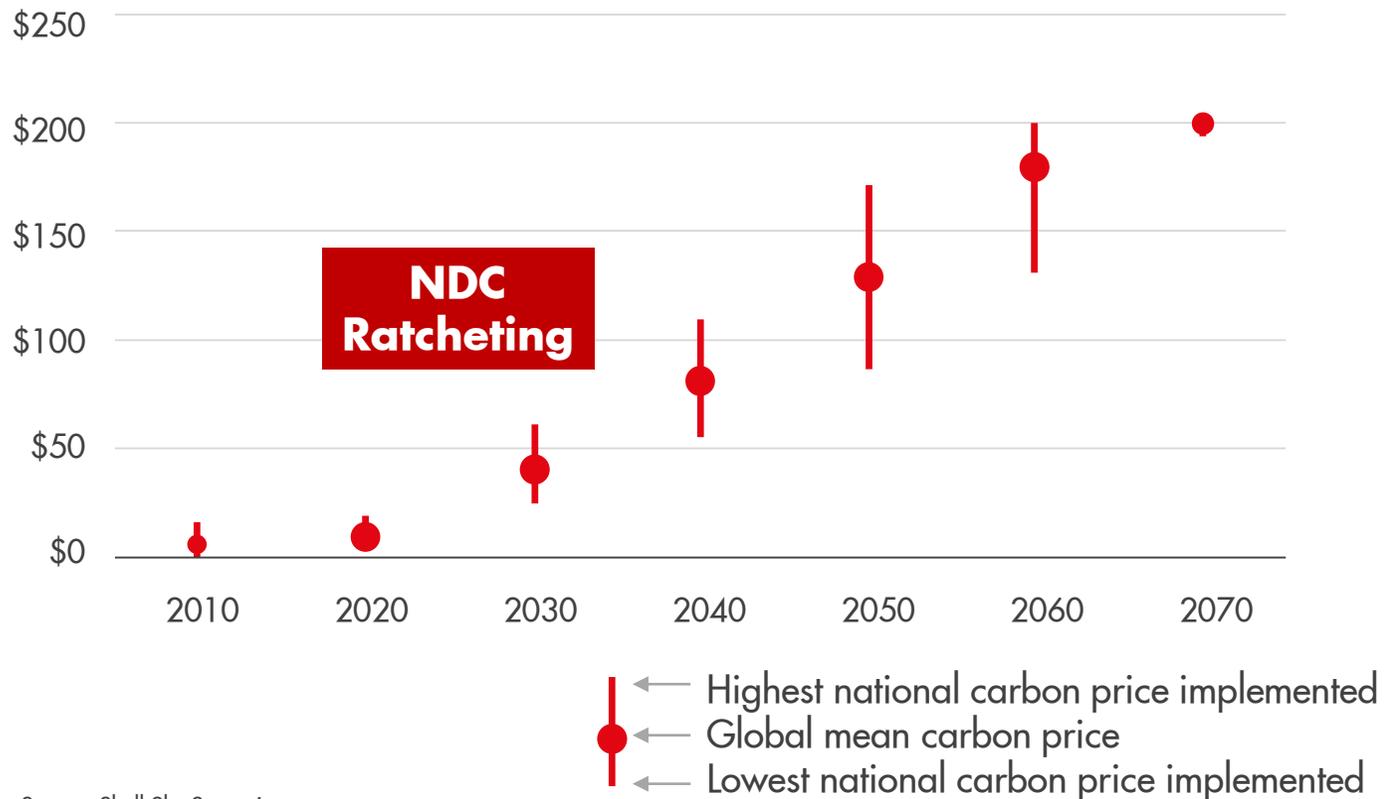


- Electrification increases from 20% today to ~55%
- Fossil molecules largely replaced by renewable ones

Governments establish essential policies

Carbon Pricing mechanisms are adopted rapidly by governments

Carbon equivalent price, \$/tonne CO₂



Source: Shell Sky Scenario

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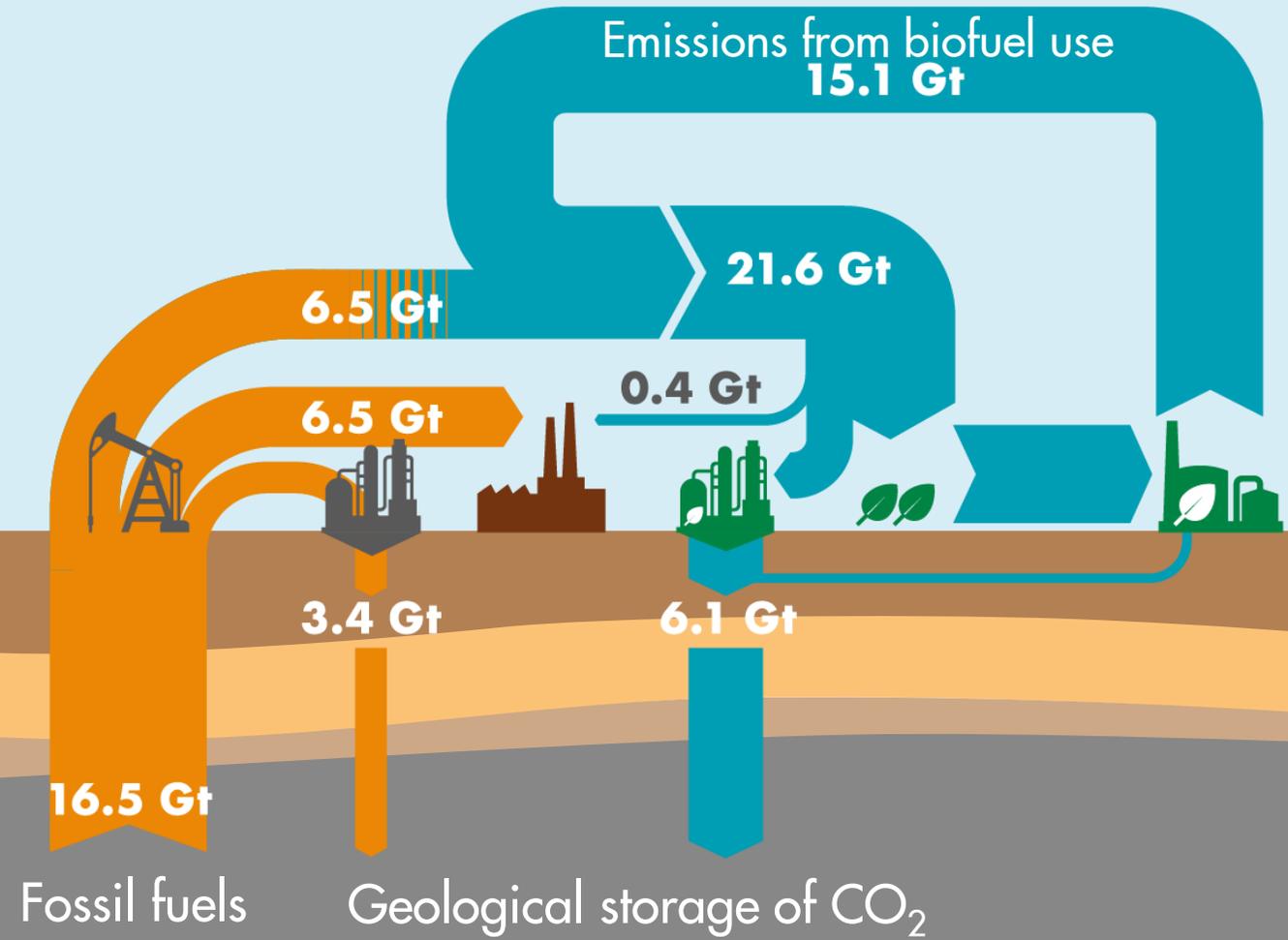
Unwavering acceleration and coordination:

- Market & Fiscal mechanisms
- Standards & Mandates
- Investments in infrastructure & technology

2070

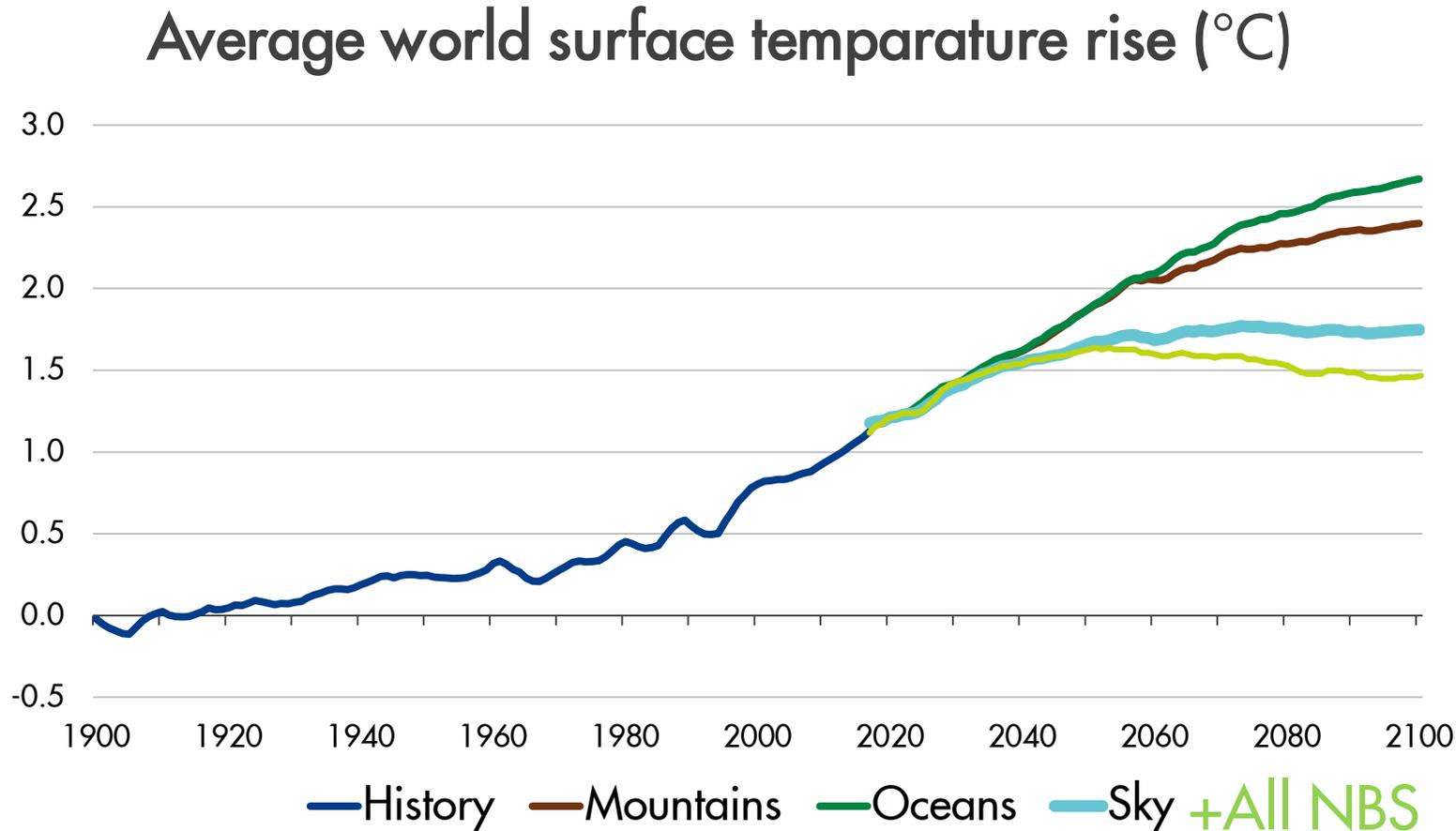
Achieving the balance

Biofuels with carbon capture and storage play a leading role



Sky meets the Paris goal

MIT assessment of climate impact

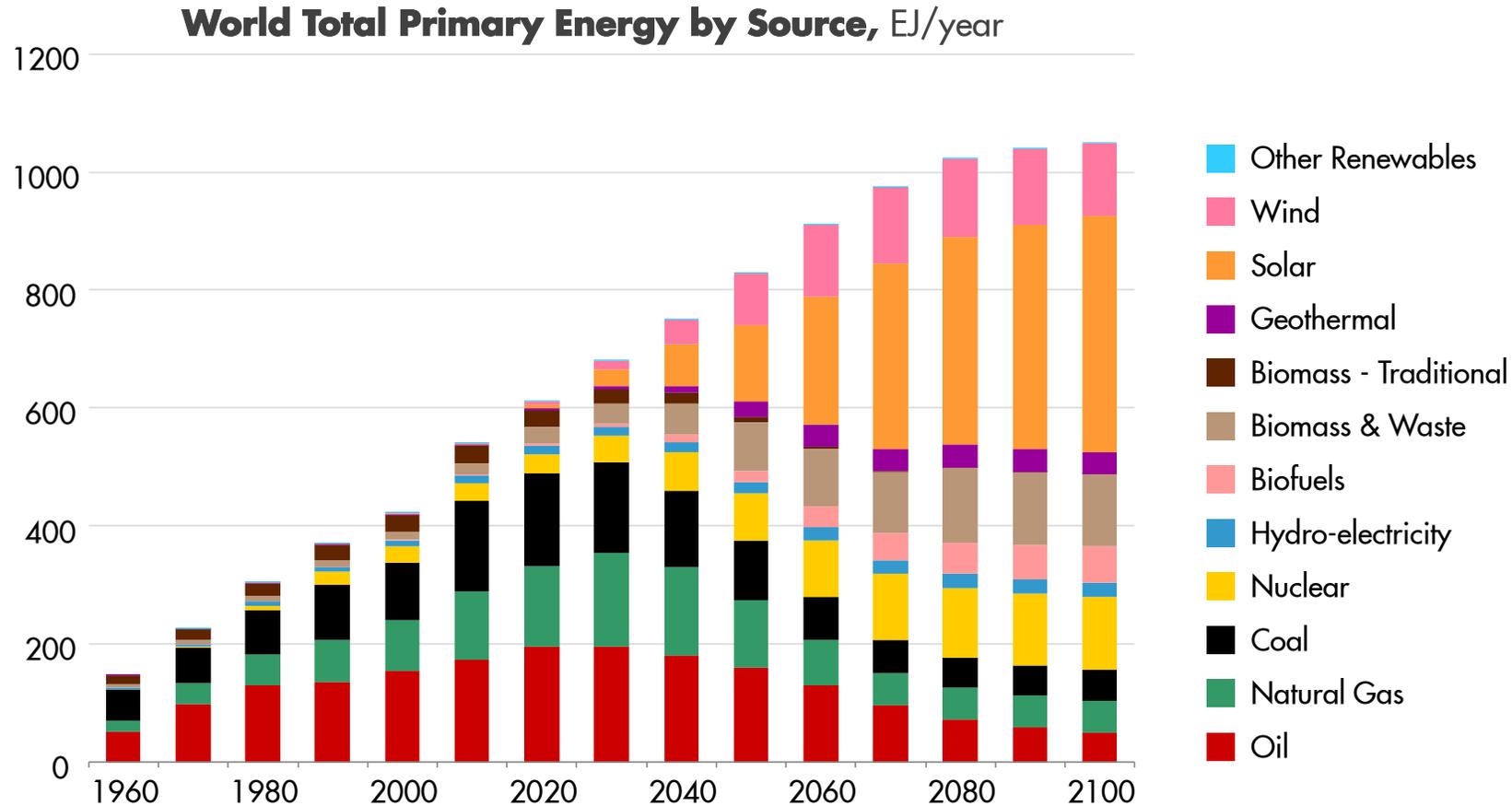


Source: Massachusetts Institute of Technology, Shell Sky data
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Reforestation can be a further game changer to push delivery to the stretched 1.5°C ambition of the Paris Agreement

Renewables dominate 2nd half of the century



Source: Sky Scenario, Shell analysis

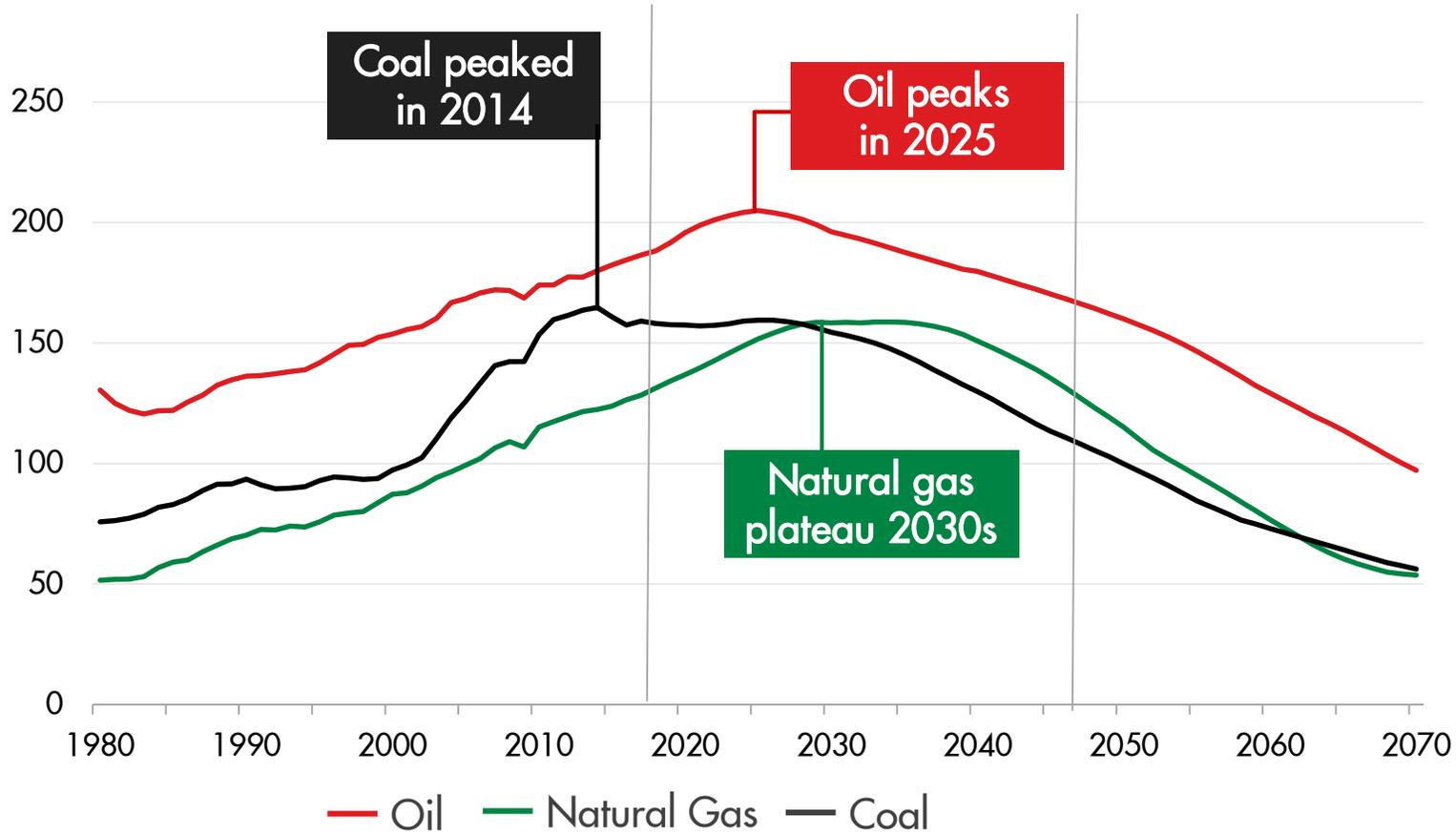
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Oil and Natural Gas grow significantly till the 2030s, but so will energy from renewables, eclipsing fossil fuels in the 2050s

Fossil fuel demand peaks

World Total Primary Energy, EJ/year



Source: Sky Scenario, Shell analysis
Copyright of Shell International B.V.



Oil demand peaks due to high ICE efficiency and EV uptake
Gas – the long transition fuel

Meeting the Paris ambition: re-wiring the global economy in 50 years

Governments



- Promoting critical new pre-commercial technologies
- Developing key infrastructures
- Framing new market structures

Private sector



- The engine for commercial innovation and scaling
- Mass-deployment and integration of new technologies
- Providing customers with new possibilities

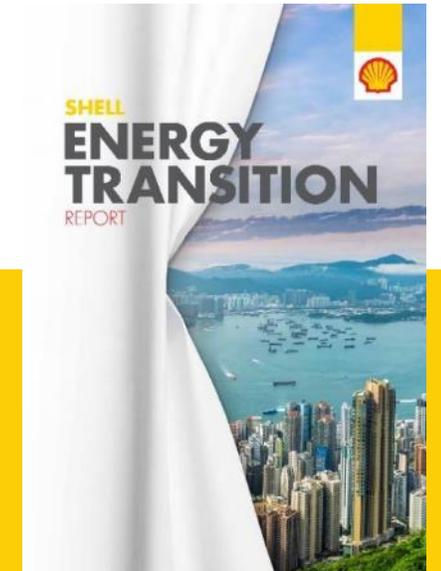
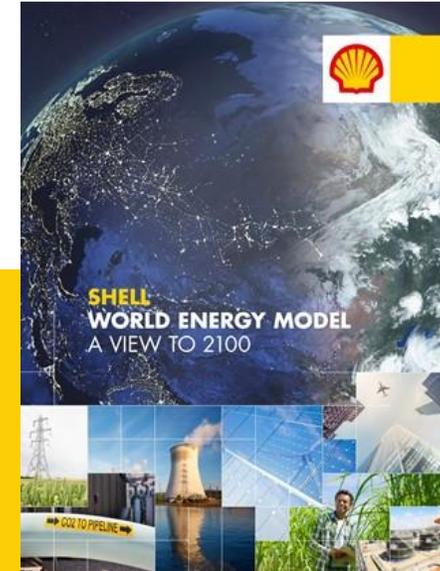
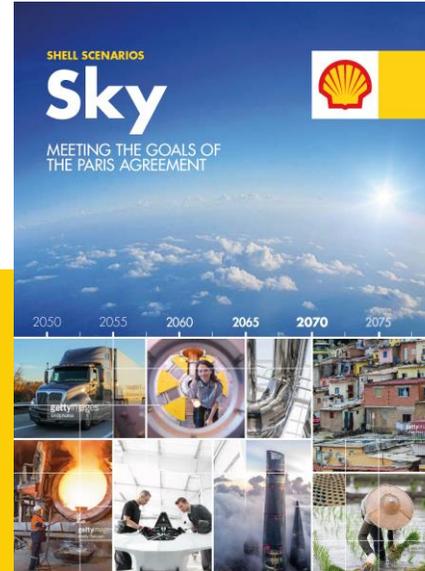
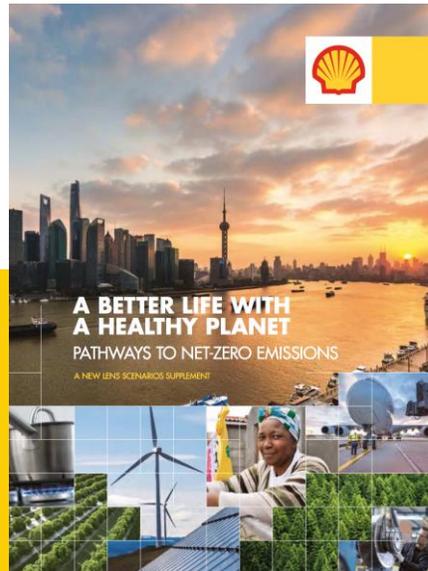
Acceleration is achieved through policy and technology uptake, and unprecedented degrees of cross-boundary collaboration



**“The future depends on
what we do in the present”**

Mahatma Gandhi

Discussion



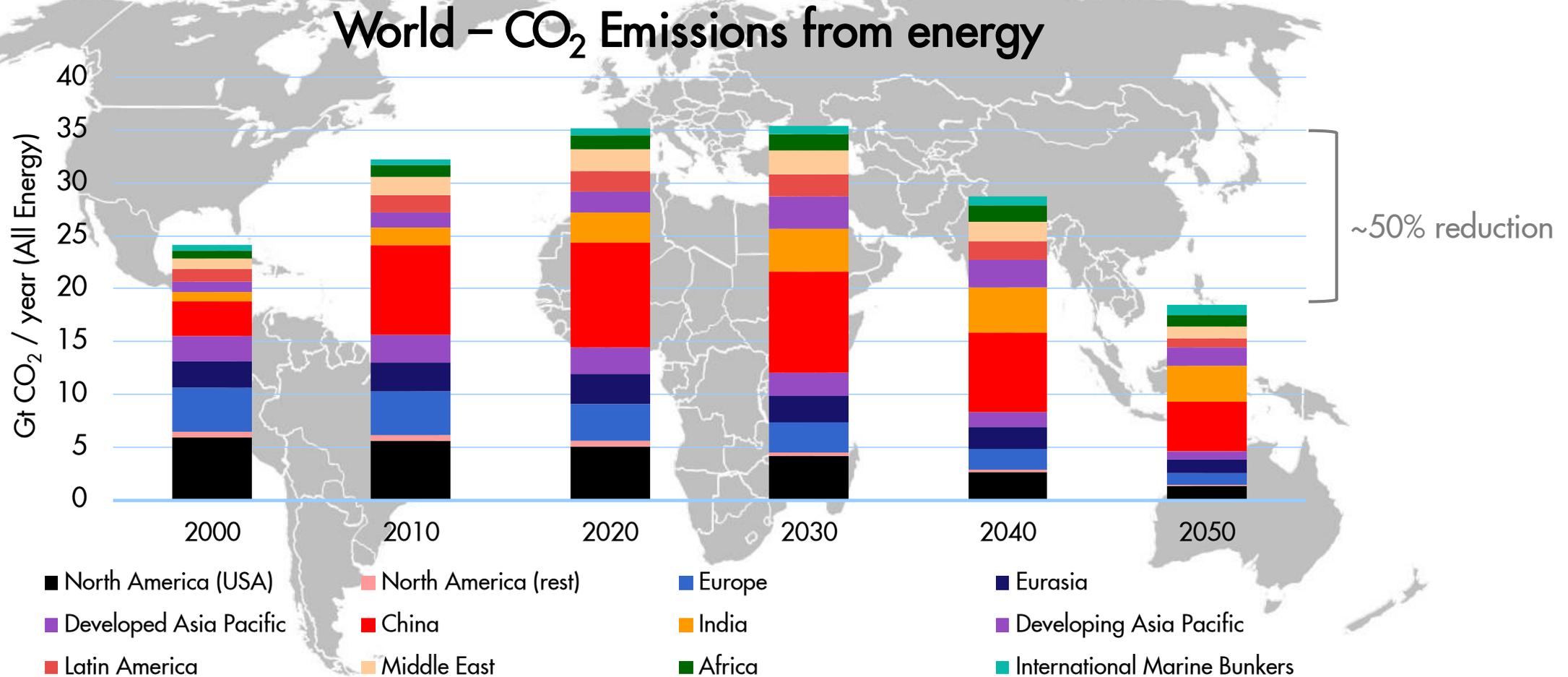
www.shell.com/skyscenario

#ShellScenarios

Shell's role in the transition to a low-carbon world

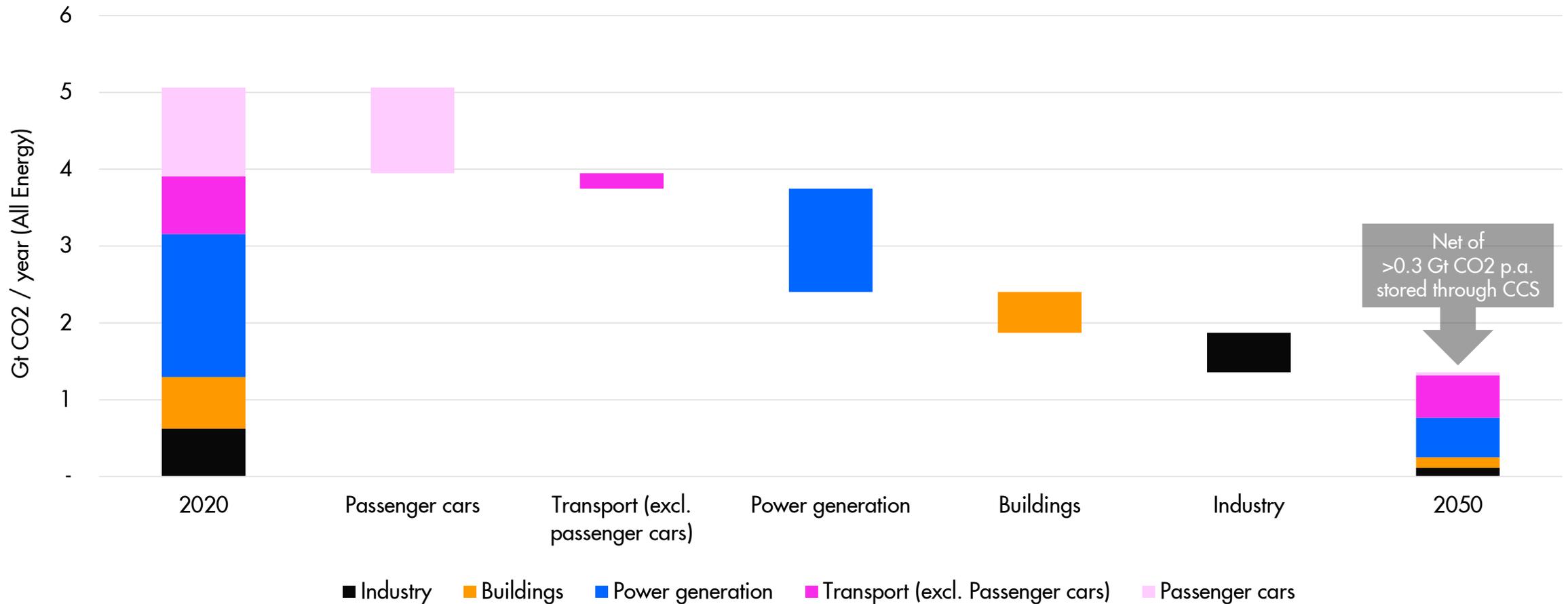


**Today, the USA emits around 5 Gt CO₂ /yr (~15% of global emissions)
 This needs to decrease to 1 Gt CO₂ /yr by 2050 (~7% of global emissions)**



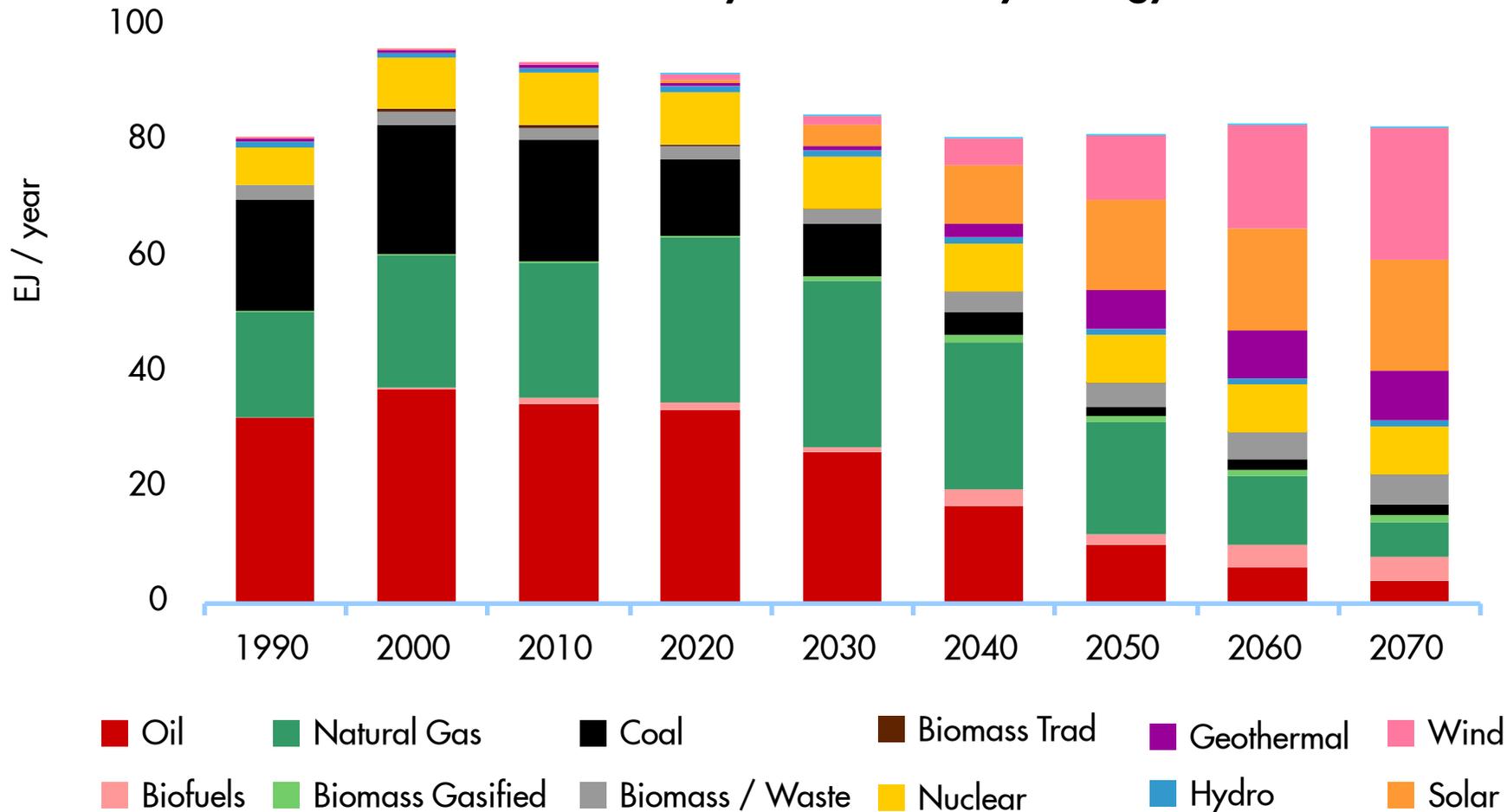
Efficiency improvements and substitution by electricity, enabled through high renewables uptake, could lead to a ~70% emissions reduction in the USA between 2020 and 2050

USA - Net CO2 Emissions Reduction



US Primary energy demand already peaked in the 2000s, with further efficiencies to go for

USA – Sky Total Primary Energy

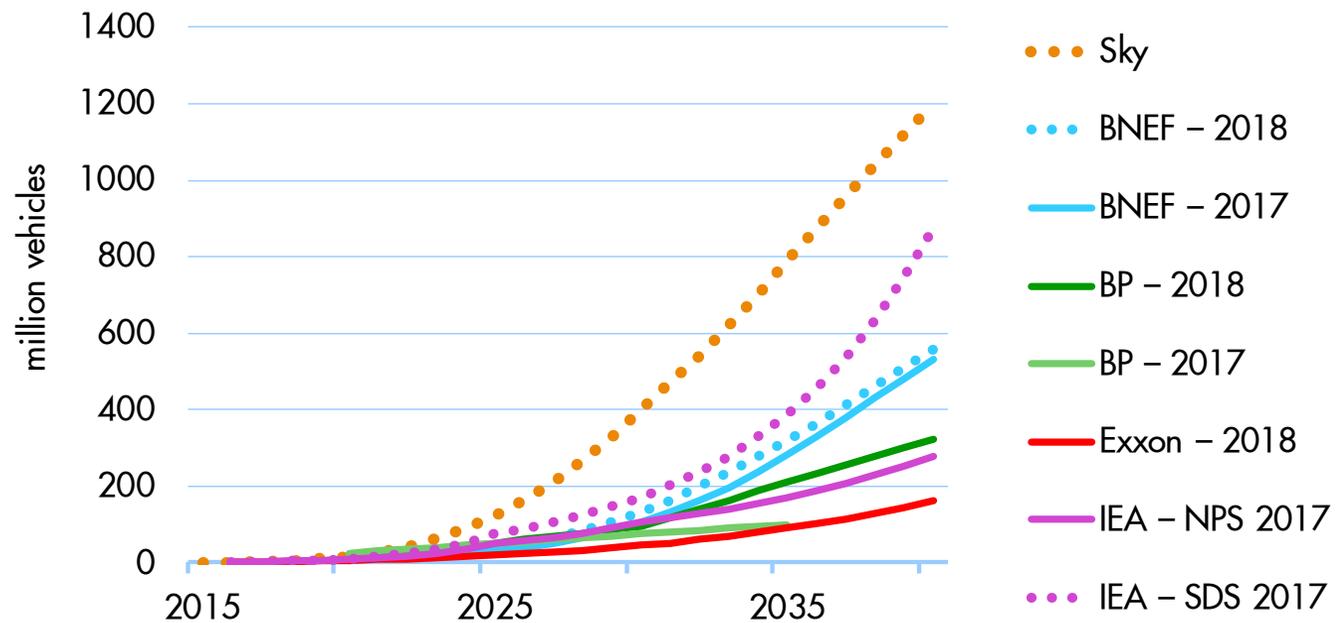


Sky in the US is foremost a technology / costs story, but CO₂ pricing and policy support is also needed to accelerate the transition required for meeting the Paris goals.

EV uptake in Sky is astronomical

Others' outlooks are revised upwards every year

World, Electric Vehicles Fleet



- ❑ Sky assumes EVs being 100% of new sales by 2030 in leading economies
- ❑ Mountains scenario assumes 50% new sales EVs by 2040.



