



Investing in Advanced Biofuels Technology Development for Scale Up

Scaling Up 2018, Ottawa, 7 November

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Disclaimer

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.

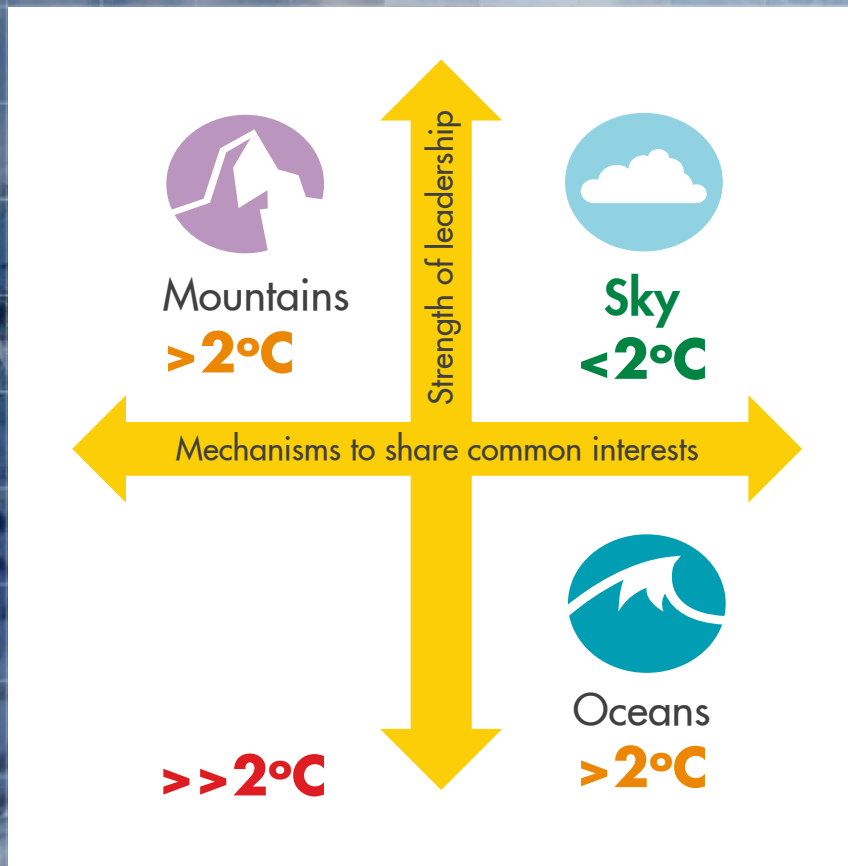
Additionally, it is important to note that Shell's existing portfolio has been decades in development. While we believe our portfolio is resilient under a wide range of outlooks, including the IEA's 450 scenario (World Energy Outlook 2016), it includes assets across a spectrum of energy intensities including 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.

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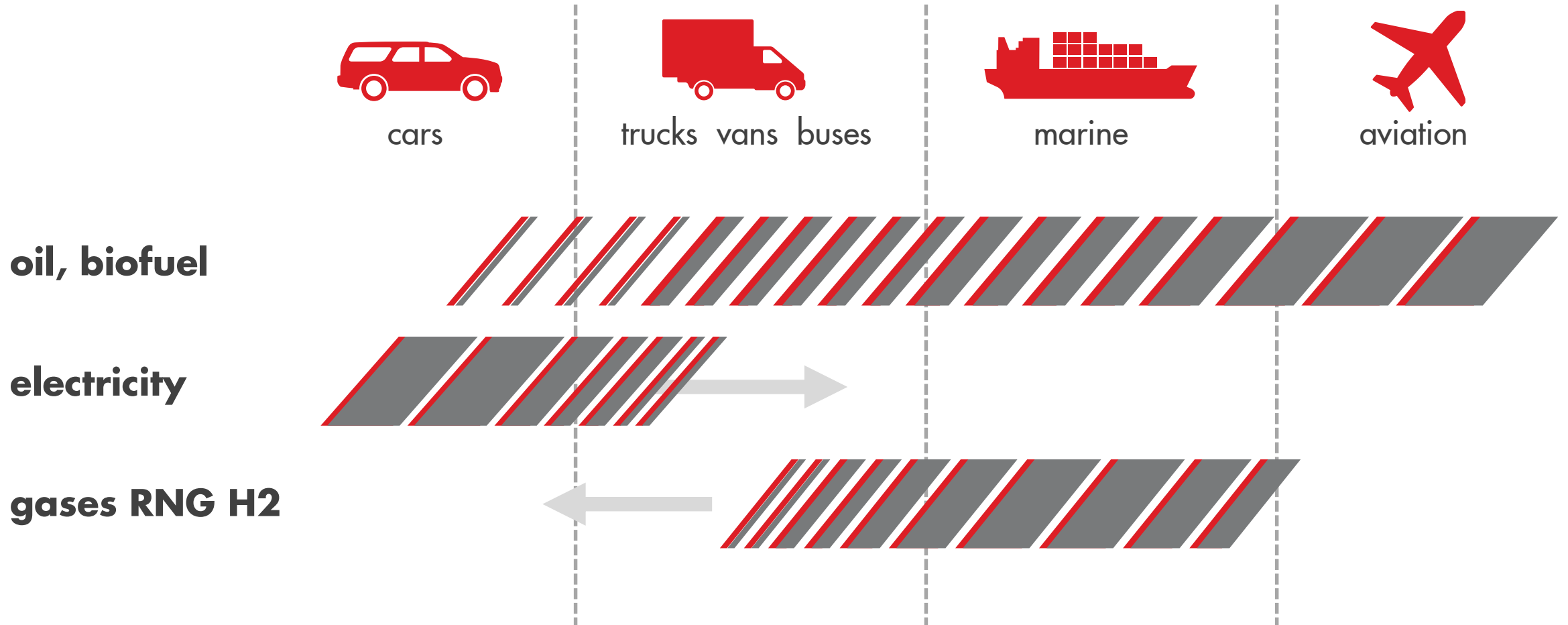
The New Lens Scenarios Family

Looking beyond Mountains and Oceans...



...to Sky

Different fuels will have different applications



New Energies



- **Selective and opportunity driven investment**
- **Capital investment \$1-2 billion per annum average**

New Fuels



- Focus areas:
 - Biofuels
 - Hydrogen
 - Electric mobility
- Work in partnerships and consortia
- Target downstream returns high teens %

Power



- Focus areas:
 - Trading, marketing and customer access
 - Low-carbon generation and storage
- Investment in customer access
- Selective asset ownership
- Target equity returns of 8-12%

New Fuels



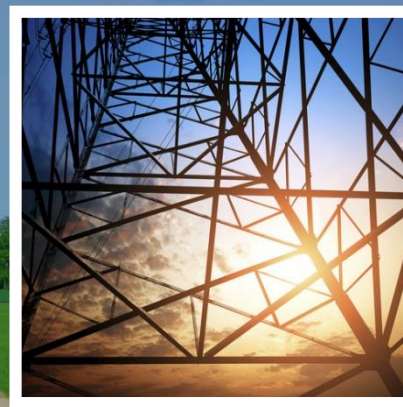
Biofuels

Conventional & advanced biofuels



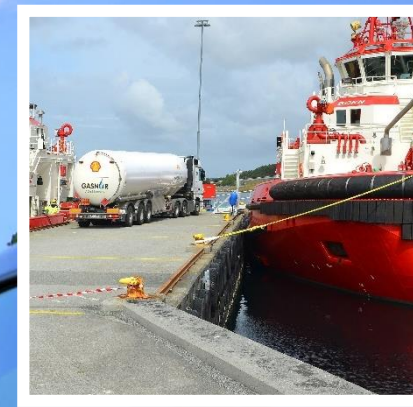
Hydrogen

Active in hydrogen electric



Electric Mobility

Exploring a role in the charging of EVs



Gas for transport

Offering gas to liquids (GTL) and liquefied natural gas (LNG)

Shell and biofuels



Trading & Supply

One of the world's largest blenders and distributors of biofuels



Raízen JV

Production of low-carbon ethanol from Brazilian sugar cane



Advanced Biofuels

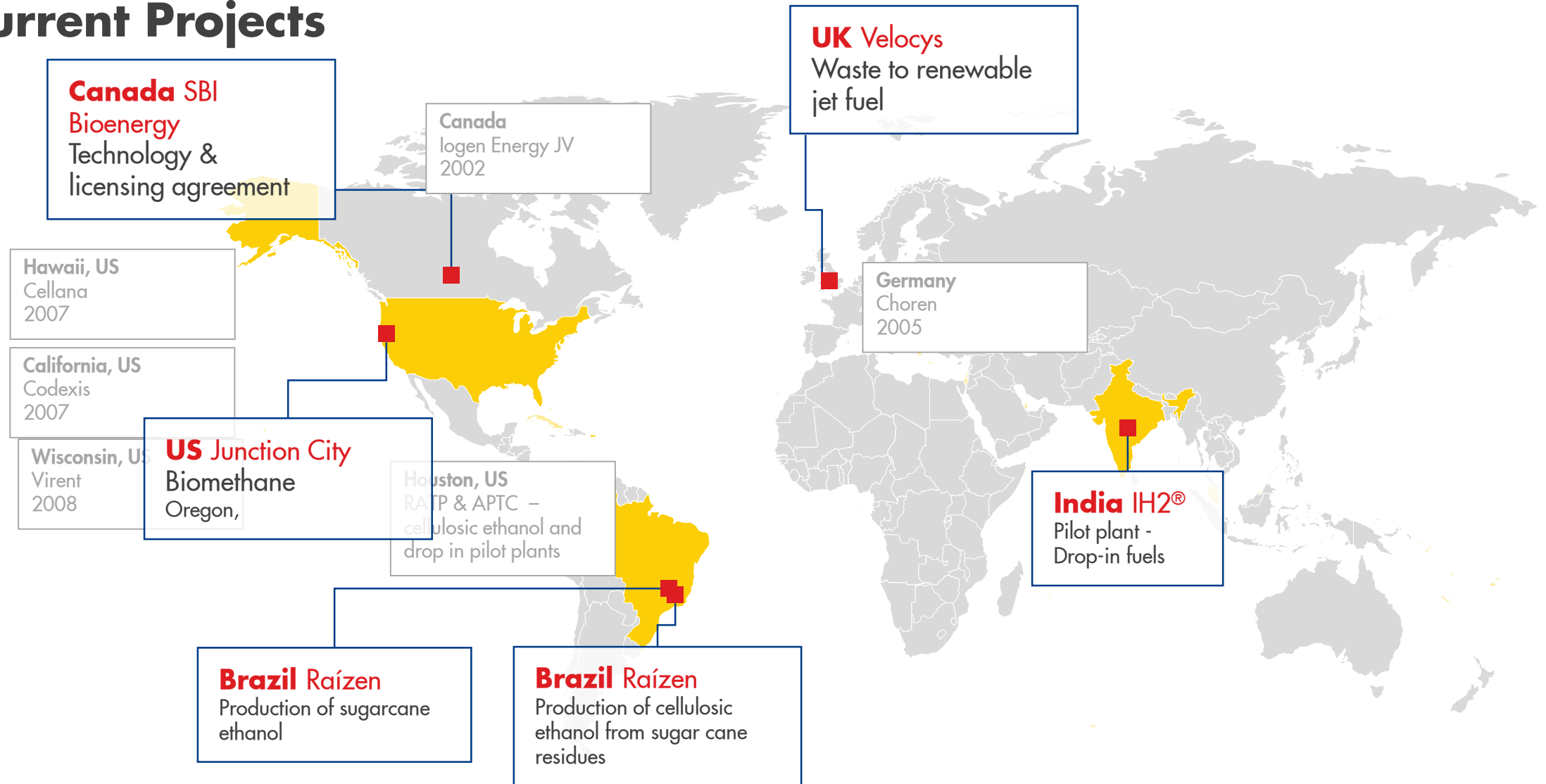
Investing in technologies using alternatives feedstocks such as waste



Sustainability

Commitment to the supply and development of sustainable biofuels

Current Projects



SBI Bioenergy

- Agreement granting Shell exclusive development and licensing rights for SBI BioEnergy patented renewable drop-in biofuels
- SBI uses a continuous catalytic process that converts fat, oil or grease into renewable gasoline, diesel and jet fuel that can be dropped directly in to petroleum fuels
- SBI's drop-in products do not require blending or any modifications to engine or infrastructure



Waste to renewable jet fuel

Velocys

- Velocys, in collaboration with Shell and British Airways developing a project to install a waste-to-renewable-jet fuel plant in the UK
 - Velocys' Fischer Tropsch technology designed for and demonstrated in Oklahoma City, US
 - Project supported by grant from UK Department for Transport
- Successful completion of the initial feasibility stage of development. Next stage will include a detailed pre-FEED study and site permitting activities



