



# ACT Virtual Event Series 2020: Taking the Fossil out of Fuels

October 8, 2020

Shawn Murphy

Engineering Manager – New Fuels

# Cautionary Note

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 Royal Dutch Shell plc and its subsidiaries in general or to those who work for them. These terms are also used where no useful purpose is served by identifying the particular entity or entities. “Subsidiaries”, “Shell subsidiaries” and “Shell companies” as used in this presentation refer to entities 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 an entity or unincorporated joint arrangement, after exclusion of all third-party interest.

This presentation contains forward-looking statements (within the meaning of the U.S. Private Securities Litigation Reform Act of 1995) 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 “aim”, “ambition”, “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 presentation, 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; (m) risks associated with the impact of pandemics, such as the COVID-19 (coronavirus) outbreak; and (n) 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, 2019 (available at [www.shell.com/investor](http://www.shell.com/investor) and [www.sec.gov](http://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, October 8, 2020. 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 presentation.

We may have used certain terms, such as resources, in this presentation that the United States Securities and Exchange Commission (SEC) strictly prohibits us from including in our filings with the SEC. 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](http://www.sec.gov).



# Shell's purpose

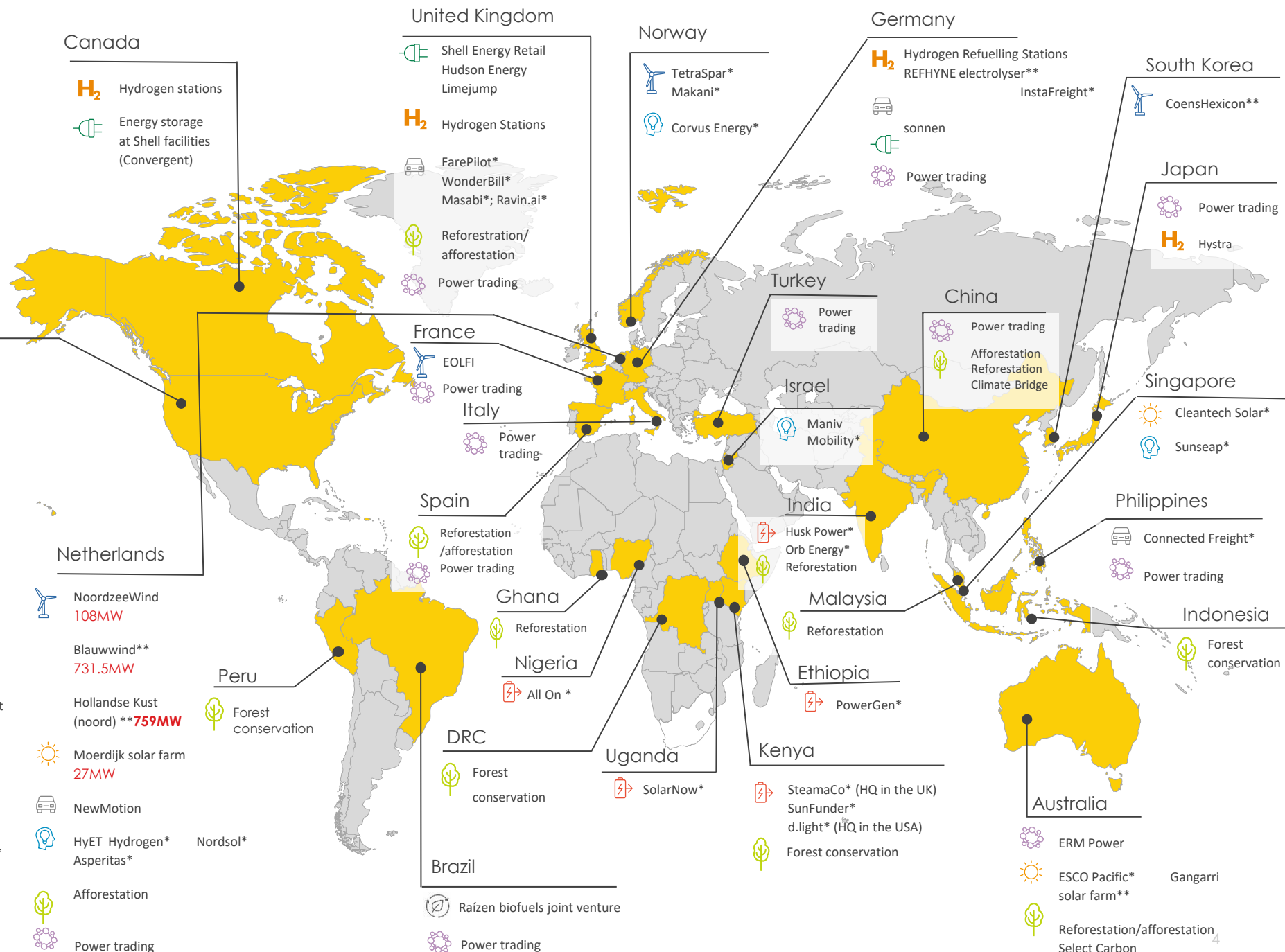
Powering progress together with  
more and cleaner energy solutions

# The bigger picture:

## Shell's broader renewable and lower carbon projects and activities

**KEY**

- Energy solutions
- Energy access
- Wind
- Solar
- Mobility
- Shell Ventures
- Nature-based solutions
- Power trading & marketing
- Hydrogen
- Biofuels
- \* Minority investments
- \*\* Not built yet
- \*\*\* Minority investment, not yet built



A low-angle, upward-looking photograph of several sugarcane stalks. The stalks are dark purple-brown with distinct white nodes. Long, green, blade-like leaves extend from the stalks, some catching the light and appearing bright green. The background is a bright, slightly hazy blue sky with soft white clouds. The overall composition is vertical, emphasizing the height of the plants.

# Biofuels

A focus on sustainability

# 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 sugarcane



## Advanced Biofuels

Investing in technologies using alternative feedstocks such as waste



## Sustainability

Commitment to the supply and development of sustainable biofuels

# Shell New Energies, Junction City Oregon, USA

- Acquisition of JC Biomethane plant in Junction City, Oregon in May 2018
- Following expansion and upgrade, the plant will produce up to 750,000 MMBtu per year of renewable natural gas, from agricultural waste through anaerobic digestion
- Encouraged by government policies, demand for RNG is increasing in transport sectors such as road and marine.
- Use of RNG in form of compressed natural gas can reduce CO2 emissions 50%-100% compared to fossil fuels





---

# Hydrogen

A fuel for transport and industry

# Hydrogen as a transport fuel

## Clean and convenient

- Improves local air quality.
- Only water vapour emissions while driving.
- Low-carbon transport in the longer term.
- Can help reduce CO<sub>2</sub> emissions if made from renewable or low carbon sources.
- High range – up to 700 km per refuel
- Minutes to refuel



The Shell Hydrogen Journey

# Shell Hydrogen Refueling Network Map

## Shell Existing Light Duty

Torrance, with Intended Upgrade  
Citrus Heights  
Sacramento  
San Francisco (3)  
Berkeley  
Newport Beach, with Intended Upgrade

## Shell Light Duty In-progress

San Jose

## Shell Heavy Duty In-progress\*\*



Ontario  
Wilmington  
Long Beach

\*\*Shell Hydrogen intends to add light-duty fueling dispensers and positions at one Shell hydrogen heavy-duty truck station to be determined, based upon developments in the market and overall fueling network.

## Shell Intended Light Duty\*

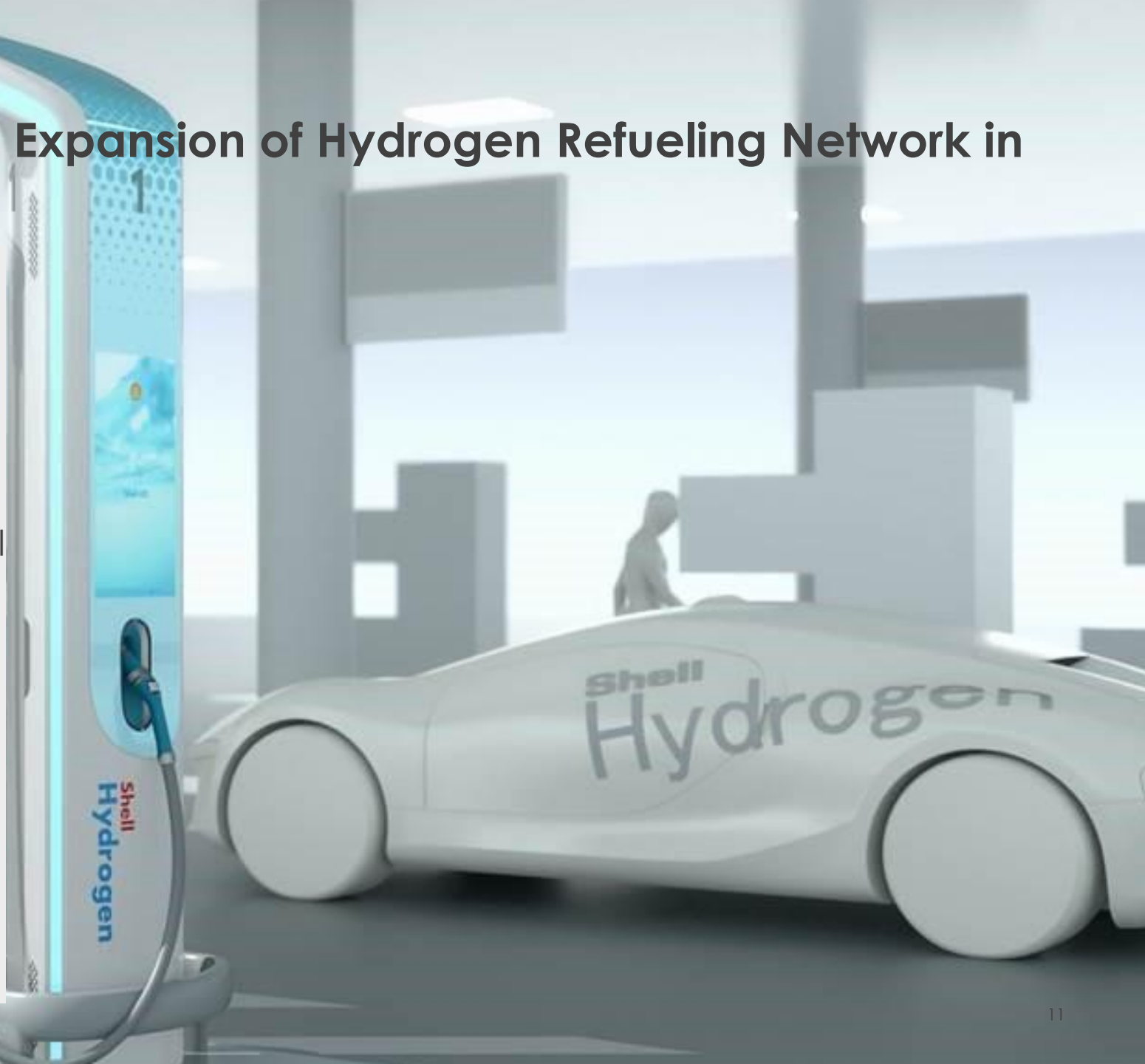
Los Angeles  
Long Beach  
City of Industry  
Artesia  
Monrovia  
Carlsbad  
Torrance  
Pasadena  
Sun Valley  
Sacramento  
Folsom  
Novato  
Oakland  
Santa Rosa

\*Shell Hydrogen has chosen these initial locations for its intended 48 station program, with flexibility in further selection to be responsive to developments in the market and overall fueling network.

 Shell Existing Light Duty (6)  
 Shell Existing Light Duty with Intended Upgrade (2)

# Shell, Toyota and Honda Plan Expansion of Hydrogen Refueling Network in California

- 40.8 million award proposed by the California Energy Commission, subject to formal approval
- Shell Hydrogen will install hydrogen refueling equipment at 48 existing Shell retail stations, upgrade two current Shell Hydrogen stations and add light-duty fueling dispensers and positions at one existing Shell Hydrogen heavy-duty truck station.
- Toyota and Honda have agreed to expand Fuel Cell Electric Vehicle (FCEV) sales in California in support of these Shell Hydrogen stations



---

Thank you!

Q&A

