Equinor’s Low Carbon Solutions activities and ambitions.
21 January 2021

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Forward-looking statements

This presentation contains certain forward-looking statements that involve risks and uncertainties. In some cases, we use words such as “ambition,” “continue,” “could,” “estimate,” “intend,” “expect,” “believe,” “likely,” “may,” “outlook,” “plan,” “strategy,” “will,” “guidance,” “targets,” “in line with,” “on track,” “consistent” and similar expressions to identify forward-looking statements. Forward-looking statements include all statements other than statements of historical fact, including, among others, statements regarding Equinor’s plans, intentions, aims, ambitions and expectations with respect to the Covid-19 pandemic including its impacts, consequences and risks; Equinor’s USD 3 billion action plan for 2020 to strengthen financial resilience; Equinor’s response to the Covid-19 pandemic, including anticipated measures to protect people, operations and value creation, operating costs and assumptions; the commitment to develop as a broad energy company, future financial performance, including cash flow and liquidity; the share buy-back programme including its suspension; accounting policies; production cuts, including their impact on the level and timing of Equinor’s production; changes to Norway’s petroleum tax system; market outlook and future economic projections and assumptions, including commodity price assumptions; organic capital expenditures through 2023; intention to mature its portfolio; estimates regarding exploration activity levels; ambition to keep unit of production cost in the top quartile of its peer group; scheduled maintenance activity and the effects on equity production thereof; completion and results of acquisitions; expected amount and timing of dividend payments; and provisions and contingent liabilities.

You should not place undue reliance on these forward-looking statements. Our actual results could differ materially from those anticipated in the forward-looking statements for many reasons.

These forward-looking statements reflect current views about future events and are, by their nature, subject to significant risks and uncertainties because they relate to events and depend on circumstances that will occur in the future. There are a number of factors that could cause actual results and developments to differ materially from those expressed or implied by these forward-looking statements, including levels of industry product supply, demand and pricing, in particular in light of recent significant oil price volatility triggered, among other things, by the changing dynamic among OPEC+ members and the uncertainty regarding demand created by the Covid-19 pandemic, the impact of Covid-19, levels and calculations of reserves and material differences from reserves estimates, unsuccessful drilling, operational problems, health, safety and environmental risks, natural disasters, adverse weather conditions, climate change, and other changes to business conditions; the effects of climate change, regulations on hydraulic fracturing, security breaches, including breaches of our digital infrastructure (cybersecurity), ineffectiveness of crisis management systems; the actions of counterparties and competitors; the development and use of new technology, particularly in the renewable energy sector; inability to meet strategic objectives; the difficulties involving transportation infrastructure, political and social stability; and economic growth in relevant areas of the world; an inability to attract and retain personnel; inadequate insurance coverage; changes or uncertainty in or non-compliance with laws and governmental regulations; the actions of the Norwegian state as majority shareholder; failure to meet our ethical and social standards; the political and economic policies of Norway and other oil-producing countries; non-compliance with international trade sanctions; the actions of field partners; adverse changes in tax regimes; exchange rate and interest rate fluctuations; factors relating to trading, supply and financial risk; general economic conditions; and other factors discussed elsewhere in this report. Additional information, including information on factors that may affect Equinor’s business, is contained in Equinor’s Annual Report on Form 20-F for the year ended December 31, 2019, filed with the U.S. Securities and Exchange Commission (including section 211 Risk review - Risk factors therein). Equinor’s 2019 Annual Report and Form 20-F is available at Equinor’s website www.equinor.com. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot assure you that our future results, level of activity, performance or achievements will meet these expectations. Moreover, neither we nor any other person assume responsibility for the accuracy and completeness of these forward-looking statements. Any forward-looking statement speaks only as of the date on which such statement is made, and, except as required by applicable law, we undertake no obligation to update any of these statements after the date of this report, whether to make them either conform to actual results or changes in our expectations or otherwise.

We use certain terms in this document, such as “resource” and “resources” that the SEC’s rules prohibit us from including in our filings with the SEC. U.S. investors are urged to closely consider the disclosures in our Form 20-F, SEC File No. 1-15200. This form is available on our website or by calling 1-800-SEC-0330 or logging on to www.sec.gov.

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Equinor’s climate strategy

We use our voice to drive change

**Profitable growth in renewables**
- Develop a high value renewable business
  - 4-6 GW installed capacity 2026
  - 12-16 GW installed capacity 2035

**Industry leading in carbon efficiency**
- Carbon neutral global operations by 2030
- Upstream CO₂ intensity below 8 kg CO₂/boe by 2025
- Near zero methane emissions by 2030
- Absolute GHG reductions in Norway
  - Near zero by 2050

**Accelerate decarbonisation**
- Become net zero by 2050
- Reduce net carbon intensity to zero by 2050

1. 100% Equinor-operated basis. GHG scope 1 & 2 baseline year 2005. Without offsets
2. Equinor equity generation capacity, including 15.5% share of Scatec Solar ASA
3. From initial production to final consumption
# CCS and hydrogen Portfolio

<table>
<thead>
<tr>
<th>CCS</th>
<th>CO₂ T&amp;S</th>
<th>Blue H2</th>
<th>Green H2</th>
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<tbody>
<tr>
<td>Post Combustion</td>
<td>Northern Lights</td>
<td>Hydrogen Norway</td>
<td>H₂ production from offshore (wind) renewable</td>
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<td>Northern Endurance Partnership</td>
<td>Zero Carbon Humber</td>
<td>H₂ for industry</td>
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<td>North Sea Basin</td>
<td>NW Europe</td>
<td>Back-up renewable intermittence</td>
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</table>

- **2026**
  - Net Zero Teesside
  - Post-combustion CCS power generation
  - CCS for industry

- **2023**
  - CCS for industry
  - Transport of CO₂ by ship
  - Open/flexible
  - Phase 1 approved (15 Mt/y)
  - Phase 2 (5 Mt/y) progressing

- **2026**
  - Pipeline transport
  - Storage for Humber and Teesside

- **2026-**
  - General screening
  - Future scale-up
  - Saline formations and depleted reservoirs

- **2025**
  - Liquid hydrogen for maritime (green phase 1)
  - Integration with existing onshore plants
  - Barents Blue

- **2026**
  - Hydrogen for industry
  - Chemicals
  - Synthetic fuels
  - BECCS
  - Hydrogen to power
  - Blue Ammonia

- **2027/28**
  - Hydrogen for industry (steel)
  - H₂ Magnum
  - Power/industry
  - Flexible back-up for intermittent renewable
  - Market based H₂ approach

- **2027**
  - H₂ production from offshore (wind) renewable
  - H₂ for industry
  - Back-up renewable intermittence

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Projects are going to need a lot of CO₂ storage!
CCS is essential for sustainable development scenarios

Global storage need by 2050

5.5 Gt/y

The North Sea, where we are “Basin master” has great potential for CO₂ storage

European ambition by 2050

350 Mt/y

-> require 15 wells/year
2025 -> 2050

Sources: IEA World Energy Outlook 2020
Northern Lights onshore facilities in Øygarden
Is there a business opportunity?
- There is no lack of CO2 in Europe
- The ship-based solution means access for CO2 emitters across Europe

Sectors with the largest potential

- Waste incineration / WtE
- Cement
- Biomass and biofuel
- Refineries
- Steel
- Direct air capture
- Natural gas
  - Hydrogen
  - Electricity
Ongoing dialogue with several potential customers in Europe

25 billion NOK/year Revenue Potential (@50 EUR/ton)

Northern Lights Pipeline Capacity
**CCS commerciality**

CO2 price and costs of total CCS

- **«Klimameldingen»** - proposes Norway’s CO2 tax at 2000 NOK/ton in 2030 (~200 Euros/ton)
- Danish Council on climate change proposes Danish CO2 tax at 1500 DK/ton and 70% GHG emission reduction 2030 (~195 Euros/ton)
- Swedish CO2 tax is 118 Euros/ton in 2021
- Netherland proposed 49% GHG emission reduction by 2030 and CO2 tax of 125 Euros/ton in 2030
- Cost of CCS coming down with scale, regulations and technology development
- Increased CO2 costs moves commerciality of CCS closer in time
HyShip/ Topeka

- Potentially Equinor’s first hydrogen project
- Green Hydrogen upgraded to Liquid Hydrogen
- 6 tons per day (i.e. small)
- Equinor producer and buyer
- Shift cargo from land to sea
- Targeting Enova funding
- Operated by Air Liquide
- Strong advocacy role by BKK
- FID by Q2 2021
Hydrogen to Steel
ThyssenKrupp, Europe

From 2018
The world premiere
The concept CO₂ becomes raw materials. In September 2018, thyssenkrupp produced ammonia from steel mill gases for the first time at its Carbon2Chem® technical center in Duisburg.

From 2020
The industrialization
The pilot system at the Duisburg steel plant will use steel mill gases to produce base chemicals.

From 2022
The introduction phase
Thyssenkrupp will gradually replace pulverized coal in one blast furnace (BF) with hydrogen (H₂).

From 2024
The milestone
Using large-scale direct reduction plants (DR) which will be operated using green H₂, thyssenkrupp will produce sponge iron which will then proceed to the blast furnaces (BF) for processing, allowing a further reduction in emissions.

From 2025
The breakthrough
CO₂ will be used as a raw material in an industrial-scale plant. The Carbon2Chem® technology is also useful in other industries, for example the cement industry.

2025 to 2050
Transformation into a climate-neutral steel mill
Using electric arc furnaces (EAF), thyssenkrupp will process sponge iron into climate-neutral crude steel using electricity from renewable energy sources.
H2H Saltend | A Hydrogen Economy Kick-Starter

Currently 3.5 Mtpa CO₂ Emissions

Hydrogen fuel switch concept: A unique decarbonisation strategy for the UK’s most established chemicals site

Unlocking business models for hydrogen, CCS and BECCS

900 Ktpa CO₂ reduction

Blue facilitating Green

Largest industrial clusters by emissions

55,000 jobs

Decarbonising the Humber industrial cluster will protect 58,000 jobs in the region.

Net zero starts here

37%
If the UK develops a world-leading hydrogen economy, the expansion of low carbon infrastructure could generate over 200,000 jobs and add £16 billion each year to the UK’s economy.¹

H2H Sallenten enables the decarbonisation of industry and power across the Humber region and can expand further to deliver low carbon energy in heat and transport too.

Expansion of hydrogen production and transmission system further west towards Drax and Ferrybridge.

Transmission of hydrogen produced at Sallenten will provide the option for decarbonisation at SSE Keadby (Clacton Power Hub).

Hydrogen available to support decarbonisation of British Steel, one of only two steelworks in the UK.

Expansion of hydrogen production capacity at Sallenten (from switch at Trillows to 100% hydrogen).

With the private sector working together with government, H2H Sallenten has the potential to deliver meaningful impact to the region, the UK, and the wider world.
Decarbonising Energy Systems

**Easy**
- Battery (mostly) plus Hydrogen for Heavy Duty
- Large Battery Systems for Daily Swing (night-to-day)
- Light Industry powered by Renewable
- Heat Pumps For Efficient Use of Electricity in Homes

**Complexity to decarbonise**

**Hard**
- Hydrogen Fuel-Cell Trains
- Hydro-Power as Battery for Small Scale Intermittency
- Heavy Industry powered by Hydrogen from Natural Gas + CCS
- Hydrogen for Efficient Transfer of Energy from Production to End-Users
- Liquid Hydrogen and Fuel-Cells for long haul Big Ships
- Hydrogen fired CCGTs Clean Back-Up Power for Large Scale Intermittency
- CCS for Industry without other Alternatives
- Hydrogen for Large Scale Seasonal Storage

**Multiple technologies to address the challenge**

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14 | IR Low Carbon Solutions event

Open 21 January 2021
Why Blue Hydrogen?

Europe currently consumes about 8000 TWh of Oil & Gas

How can half of that be converted to decarbonized Hydrogen? (assuming all new renewable generation is channeled towards the remaining electricity sector)

<table>
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<tr>
<th>REQUIREMENTS</th>
<th>Green Hydrogen</th>
<th>Blue Hydrogen</th>
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<tr>
<td>Energy Source</td>
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<td>Hydrogen Capacity</td>
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<td>Existing Supply Chain</td>
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Existing global deliveries

- **Green Hydrogen**
  - x 150 New Plants
  - x 50,000 (10 MW units)
  - x 100 (10 MW units)

- **Blue Hydrogen**
  - Already Exists (Natural Gas)
  - x 500 (1 GW units)
  - x 100 (1 GW units)
  - IR, ATR, LNG
Large Scale CO2 Storage

Can we manage to store the CO2 from such a massive shift to Blue Hydrogen?

Converting 50% of EUs Oil & Gas to Blue Hydrogen yields 1000 Mill Tons/Yr of CO2

**Requirements**

1000 Wells to store CO2
1000 Million Tons per year

50 years of Operation
50 Giga Tons total Capacity

**Industrial Capability to Deliver**

200 Wells / year
Drilled each year on the NCS (Exploration and Production wells)

Northern Lights is 5 Mill T/yr
200x Northern Lights needed!

→ Massive Blue Hydrogen production requires significant maturation of CO2 storage capacity -> within reach, but step-up of activities required!
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