About Neptune Energy

Neptune Energy is an independent international oil and gas exploration and production company. The company is engaged in oil and gas exploration and production services and seeks to identify large-scale investment opportunities in the North Sea, North Africa and Southeast Asia leveraging its strong relationship network and the current energy market dynamics. The business had a production of 135,000 net barrels of oil equivalent per day in 2022 and 2P reserves on 31st December 2022 of 552 million barrels of oil equivalent. Neptune aims to store more carbon than is emitted from its operations and the use of its sold products by 2030.

Neptune Energy has built up subsurface expertise and extensive carbon capturing and storage experience, having reinjected CO₂ in the K12-B gas field in the Dutch North Sea for the last 14 years, as well as being a partner in the Norwegian Snøhvit field, which has been reinjecting CO₂ since 2008 and through its other affiliates, Neptune Energy, together with other partners is engaged in the development of several CO₂ storage initiatives for CCS in the Netherlands, Norway and the UK.

www.neptuneenergy.com

L10 CCS hub projects

Neptune Energy is developing a large-scale CO₂ storage project in the L10 area on the Dutch Continental Shelf of the North Sea. CO₂ will be injected in the depleted L10 reservoir complex in the Neptune Energy operated L10/L11 concession. The L10 CCS project has the potential to store 5 million tonnes of CO₂ annually for industrial customers with a total capacity of 75 to 100 million tonnes. It represents the first stage in the potential development of the greater L10 area as a large-volume CO₂ storage reservoir. This first stage is developed together with ExxonMobil, Tenaz and EBN.

The CO₂ will be transported from a terminal in Maasvlakte (Netherlands) via the Aramis trunkline to the L10 facilities which will be connected via a spur-line to Aramis. The L10 injection facilities consist of a platform hub and a satellite where the CO₂ is injected into the L10 reservoir complex for permanent and safe storage.

Neptune Energy has applied for the storage license in June 2023. The project has entered FEED (Front End Engineering Design) in December 2023 and is expected to start-up in 2028, aligned with Aramis timeline.

In parallel, Neptune aims to develop a direct offshore injection capacity whereby a high-pressure vessel transporting CO₂ can directly inject the CO₂ from the vessel into the reservoir. The Direct Injection CCS project offers carbon storage solutions to industrial clusters where ship transport is the primary, or earliest, export mode. The Direct Injection CCS project targets a minimum capacity of 4 million tonnes of CO₂ per year, with possibilities for further expansion through connection of additional stores, with expected start-up of operations in the 2028-2030 timeframe.
Trudvang CCS project

The Trudvang CCS project plans to design, develop, and operate a permanent, subsea geological carbon storage facility on the Norwegian Continental Shelf (NCS). It is located next to the Sleipner field. Trudvang aims to store up to 9 million tonnes per annum (MTPA) of CO₂ emissions and has a potential total capacity of up to 225 million tonnes. The project is a partnership between Sval Energi (operator), Storegga and Neptune Energy.

A possible design for Trudvang is a port-to-port solution whereby emitters can ship their emissions via vessel to a terminal in Norway. The terminal is connected via a pipeline to the offshore CO₂ permanent storage reservoir.

A storage license has been awarded in August 2023 by the Norwegian authorities. The project is currently in the feasibility phase and has the ambition to make the first injection by 2030.
Stella Maris CCS
Who we are

Altera vision: *Leading the industry to a sustainable future*

- Decades of experience in shipping and offshore operations
- Industry leader and pioneer in harsh weather FPSOs
- Market segment developer of Dynamically Positioned Shuttle Tankers
- By 2026: Allocate the majority of new capital to new business ventures aligned to the energy transition, including CCS
- By 2030: Generate the majority of cashflow from such new ventures

~2300
Total workforce

9
Offices

38
Vessels

5
Countries of Operation
Strong and Committed Sponsors

BROOKFIELD Corporation

- One of the world’s largest alternative asset managers
- Long-term, value investors
- Owner-operator mentality
- Focused on Real Assets (Property, Infrastructure, Renewables & Private Equity)
- Commitment to reach net-zero emissions by 2050 or sooner across all assets under management

Private Equity Strategy

- Real assets expertise
- Invest on a value basis
- Operations-oriented approach
- Global scale
- Significant access to capital
Stella Maris – from terminal to storage

A single Stella Maris project will have the capacity to store 10 Mt CO₂/year

Capturing Technology
If required, in collaboration with emitters

Transport CO₂ from emitter to CO₂ Terminal
In partnership with local stakeholders (pipeline, truck, rail, barge, etc.)

Emitter capture, liquify and store in own CO₂ tanks
Stella Maris can collect CO₂ and transport to terminal or directly to injection location

Collection

Transportation

Injection of CO₂

Offshore Storage Reservoir
Havstjerne licence

Transport CO₂ from emitter to CO₂ Terminal

EMITTER CAPTURE
LCO₂ carriers

DIRECT INJECTION UNIT

COLLECTION CO₂ TERMINAL

LCO₂ CARRIERS

OFFSHORE STORAGE RESERVOIR

STELLAMARIS
The Stella Maris CCS project
To get CCS costs down, large-scale flexible solutions are required

- One-stop-shop from collection to storage
- Large scale – bringing cost down
- Flexible maritime solution
- Scalable worldwide – design one – build many
- Shared CO₂ infrastructure – also for smaller emitters
- Solution deployed for large scale emitters, clusters and/or nation states in 2027
**CO₂ Terminal (CO₂ T)**

**Principal dimensions (80k cbm design):**
- Length o.a.: 220m
- Breath (M): 58m
- Depth (M): 24.5m
- Design Draft: 13m

- 50–80k cbm storage
- Annual capacity up to 7 mt/unit
- Designed for shore power

**Collection, Processing and Export**

**Designed to receive and process:**
- High- & low-pressure gas from pipelines
- Medium & low-pressure liquid from road, ships or barges
- Various qualities with different levels of impurity
Alterna has been awarded a CO$_2$ exploration licence offshore Norway

The Havstjerne reservoir is planned to be in operation in 2027

- Licence awarded together with our partner Wintershall Dea
  - 40/60% ownership share
  - Wintershall Dea as operator of the licence
- Located south of the North Sea – closer to the European market
- The reservoir is expected to have the capacity of receiving around 7 Mt CO$_2$/year and with total capacity of around 200 Mt CO$_2$
- Plan for first CO$_2$ injection in 2027
**LCO₂ Carriers**

**Key Innovations:**
- Dynamically positioned LCO₂ carrier
- Low pressure CO₂ tanks
- Equipment for offshore offloading of CO₂
- Power Source for injection unit

**Principal dimensions:**
- Length o.a.: 238m
- Breath (M): 38m
- Depth (M): 22m
- Design Draft: 13m

New, state of the art LCO₂ carrier design
50,000 cbm - low pressure tanks
CO₂ stored and transported as liquid at 6.5 barg & -47°C
Zero emission capable
Battery hybrid installation
LNG/Biogas/NH₃ as fuel
Offshore offloading

- Continuous injection is ensured by always having one carrier at site
- 2nd carrier connects and takes over before the 1st one leaves
- A Submerged Turret Loading (STL) system is used with two independent STL buoys
- Electrical power cable in addition to the CO₂ offloading hose
Direct Injection Unit (DIU)

**Alternatives**
- Injection facilities on an existing offshore installation or on new fixed offshore structure
- Direct injection from LCO₂ carrier

**Principal dimensions:**
- Hull diameter: 50m
- Bilge Box diameter: 62m
- Main Deck diameter: 50m
- Hull depth: 22m
- Design draft: 13m
- Draft loaded: 14m

**Key Innovations:**
- Power from LCO₂ Carrier
- Normally Unmanned
- Equipment for offshore loading of CO₂
- Zero emission capable
- Remote operation from shore

**Direct injection from LCO₂ carrier**

- Allows continuous injection
- Heating and injection modules below deck
- Power from LCO₂ carrier (+ battery back-up)
- Unmanned and operations from shore

- CO₂ heated and injected into reservoir in dense phase (>5° C & 65–160 barg)
Direct Injection Unit (DIU)

Offshore Injection and Storage

Alternatives

- Injection facilities on an existing offshore installation or on new fixed offshore structure
- Direct injection from LCO$_2$ carrier

Key Innovations:
- Power from LCO$_2$ Carrier
- Normally Unmanned
- Equipment for offshore loading of CO$_2$
- Zero emission capable
- Remote operation from shore

Principal dimensions:
- Hull diameter: 50m
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- Power from LCO₂ carrier (+ battery back-up)
- Unmanned and operations from shore
- CO₂ heated and injected into reservoir in dense phase (>5°C & 65–160 barg)

**Offshore Injection and Storage**
Barge concept

12,500 cbm or 6,250 cbm design

Can reduce the need of local infrastructure
Wintershall Dea is well positioned. We possess assets and strong competencies suitable for CCS & Hydrogen ...

... and pursue several activities for deployment ...

**OUR H₂ AND CCS PROJECTS**

1. Gas Reserves
2. Depleted Fields, Subsurface & Storage Know How
3. Pipeline Infrastructure & Operations

SNOVHIT, WD SHARE 2,8% SINCE 2008

- CCS: OPPORTUNITY SCREENING NORWAY
- CCS: LUNA
- CCS: HAVSTJERNE
- CCS: APPLICATION ONGOING
- CCS: GREENPORT SCANDINAVIA
- CCS: GREENSAND
- CCS: CAMELOT
- CCS: OPPORTUNITY SCREENING UK
- CCS: NOR-GE
- H₂: BLUEHYNOW
- CCS: CO₂NNECTNOW
- CCS: OPPORTUNITY SCREENING NETHERLANDS
- CCS: COOPERATION WITH FLUXYS

Wintershall Dea
November 2023
Carbon Management & Hydrogen
Customer & Market Development
ESTABLISHING A CO$_2$ STORAGE PORTFOLIO

• With the first projects indicated on the right, a portfolio of CO$_2$ storage sites emerges

• Wintershall Dea aims to grow the portfolio by actively developing further opportunities

• 134 gigatons estimated storage potential for CO$_2$ in the entire North Sea

• Particularly large potential in Norway, Denmark and Great Britain, but also in the Netherlands and Germany

• Storage possible in depleted gas and oil fields and saline aquifers
Investing in CO₂ storage services for industrial emitters

CCS Knowledge Sharing workshop by the Innovation Fund – Realising opportunities along the value chain

28 November 2023, Aalborg

Berend-Jan KLEIN-SWORMINK
David NEVICATO

Norway
Northern Lights (TotalEnergies 33%):
Up to 1.5 MtCO₂/y by 2025 with expansion to 5 MtCO₂/y

UK
Northern Endurance Partnership NEP (TotalEnergies 10%):
4 MtCO₂/y by 2027

Netherlands
Aramis trunkline (TotalEnergies 25%), CO₂ storage (TotalEnergies 60%, op.):
2.5 MtCO₂/y from 2028

Denmark
Bifrost (TotalEnergies 80%, op.):
5 MtCO₂/y storage potential by 2030
• Brownfield CO₂ Storage Project moving into FEED-phase Q3-2023
  - Re-using gas production facilities L4A with 4 injection & 1 monitoring well
  - Target is 2,5 Mtpa storage capacity in Q1-2028, Shell doing the same
  - Based on 34 MT storage capacity in 1 license application
  - Timeline below is driven by the infrastructure development, storage development not on critical path
  - Shell/TTE Joint marketing for open access T&S services: 5 Mpta @ 15 yrs (majority is third-party) 50/50 stored

• Design criteria
  - Build a cost-effective store on a fit-for-purpose basis at an affordable tariff
  - 97% injection availability, post ramp-up
  - Balancing principle (in steady state operation) in case of under-injection of Shell store; requirement to injection up to 5 Mtpa for a max. 3 months (1st 5 yrs)

• Challenges
  - Aggressive schedule: requiring no significant delays in permit award or appeal
  - Maintain an affordable tariff range whilst developing the project in FEED phase
Aramis Connected- Storage Development - Growth

- **Growth beyond Phase 1**
  - Growth volumes marketing: open access for European customers
  - 2 additional stores planned to be connected to Aramis in 2029/30
  - TTE storage ambition is 5.5 Mtpa after 2030, with plateau maintained until beyond 2050
  - Incremental development of individual fields to maintain plateau

- **Selection and sequencing of storage sites**
  - Depleted gas fields, on or around Cessation of Gas Production
  - Subsurface feasibility: closure demonstration of complex, well integrity, injectivity
  - Technical feasibility: re-use of platform, ease of connection to Aramis Distribution hub
  - Economic screening: Size of store, technical cost per ton

- **Opportunities**
  - Cross-border customer portfolio growth: serving European industry
  - Growth Programme: combining European, Dutch and TotalEnergies mutual ambition
**CCS Bifrost project: Leveraging Danish storage potential**

- **Maturity**: Appraisal
- **RFSU**: 2030
- **Capacity**: 5.5 MTPA
- **Transport & Storage**: 80% (op) to 20%

### Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>Preliminary</td>
</tr>
<tr>
<td>2023</td>
<td>Feasibility</td>
</tr>
<tr>
<td>2024</td>
<td>Conceptual</td>
</tr>
<tr>
<td>2025</td>
<td>Pre-FEED</td>
</tr>
<tr>
<td>2026</td>
<td>FEED</td>
</tr>
<tr>
<td>2027</td>
<td>EPC</td>
</tr>
<tr>
<td>2028</td>
<td>Operations</td>
</tr>
</tbody>
</table>

- **NYBRO onshore station**: 24" 260km, 80->150 Bar, 5.5 MTPA
- **HARALD store**: Well #1 2.5 MTPA (15yr)
- **Saline Aquifer store**: Well #4 3 MTPA (25yr)

- **Opportunity for project acceleration based on shipping solution should the market be mature**
- **Permitting process for appraisal well on the critical path**

- **2 exploration licences awarded**
- **5 years exploration period with operations on Oligocene aquifer incl. 3D seismic acquisition in Aug 2023 (completed) and Well (drilling) in Q1-2025**
- **Extension for 30 years storage period upon work obligations completion to be requested by Nov 2025 latest**
- **Project potential connecting additional storage sites offshore Denmark to increase capacities above 10 MTPA over 25 years. - Project timeline contingent to CO₂ licence tenders opening**
- **CO₂ Sourcing: cooperations with infrastructure developers: Ørsted (offshore pipe), Evida (onshore network in DK), OGE & VNG (onshore network in GE)**
Définition TotalEnergies / Compagnie

Avertissement
Cette présentation peut contenir des déclarations prospectives, au sens du Private Securities Litigation Reform Act de 1995, relatives à la situation financière, aux résultats d'exploitation, aux activités, à la stratégie et aux projets de TotalEnergies, qui sont soumis à des facteurs de risque et à des incertitudes résultant de changements dans, notamment, le développement et l'innovation technologiques, les sources d'approvisionnement, le cadre juridique, les conditions de marché, les événements politiques ou économiques. TotalEnergies n'assume aucune obligation de mettre à jour publiquement les déclarations prospectives, que ce soit en raison de nouvelles informations, d'événements futurs ou autres. De plus amples informations sur les facteurs susceptibles d'affecter les résultats financiers de la Compagnie sont fournies dans les documents déposés par TotalEnergies auprès de l'Autorité des Marchés Financiers et de la US Securities and Exchange Commission. En conséquence, aucune certitude ne doit être accordée à l'exactitude ou à la justesse de ces déclarations.

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Where we operate

Operations in seven countries – Average 1H production 105.9 kboepd (82% gas) – 1.16bboe 2P reserves (84% gas)

Sanctioned production target outlook

Our near-term targets

Production
- 200 Kboed

Cost of Production
- $9 – 11/boe

Revenues
- $2,500 Million

Net debt / EBITDAX
- <1.5x

ETHOS Our World, Our Responsibility
Why CO2 storage, why Prinos

A unique opportunity to decarbonise industries in the East Med

- Prinos is strategically located to serve large emitters of the region.
- Energean is a highly experienced offshore project developer and operator.
- Deep knowledge of a reservoir that has been producing HC for more than 40 years and has been considered ideal for CO2 storage due to its structure and depth.
- Utilization of existing onshore and offshore infrastructure.
- Operational from Q4 2025 as small-scale project with a capacity of up to 1MT of CO2 per year, option to increase capacity 2.5 – 3.0MT of CO2 per year from Q4 2027.
Prinos CO₂ Storage

An up to $1 - billion scalable project, leveraging onshore and offshore existing infrastructure

**RAMP-UP PHASE**

- **Limited Volumes from Greek Emitters**
- **Compressed CO₂**
- **CO₂ Manifold/Collection**
- **Dehydration, Compression & Pumping**

**Q4 2025 – Q4 2027**

- Prinos CCS will start in Q4 2025 with a ramp-up phase, during which it will have a capacity of 1 million tonnes per annum (mtpa) for local compressed CO₂ sources

**FULL COMMERCIAL ROLL-OUT**

- **Large Scale Volumes from Greek and International Emitters**
- **Liquid CO₂**
- **Jetty**
- **Liquid CO₂ Storage & Handling, compression & pumping**

**Q4 2027 – ONWARDS**

- In Phase 2, the commercial phase of the project, the facilities will be able to accommodate liquid CO₂ volumes with a storage capacity of 2.5 – 3.0 mtpa allowing for the storage of 62.5 MT of CO₂ in 25 years
Option for further expansion in SE. Europe

Upside identified within Prinos and surrounding fields, with replicability of CO2 storage projects across upstream portfolio.
**SUPPORT: a key word!**
Prinos CCS and the related value chain can serve in establishing a mature landscape for commercial projects

Experience from RES support can offer guidance

<table>
<thead>
<tr>
<th>Support Schemes in EU MS</th>
<th>RES (electricity)</th>
<th>CCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment support (Grants)</td>
<td>✓</td>
<td>Some</td>
</tr>
<tr>
<td>Tax exemptions</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>Feed in tariffs/Feed in premiums (CfDs)</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>Quota Obligations, national and EU targets</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>Long term uptake contracts with state guarantee</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>Fast track licensing/one-stop shops</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td>Certificates (GOO, ETS)</td>
<td>✓</td>
<td>✓ (but the EU EUA is not a benefit but an obligation)</td>
</tr>
</tbody>
</table>

Adapted from European Commission guidance for the design of renewables support schemes

State (and also the Commission) should draw on experience from RES support schemes
Prinos CO2 Storage, progress of the project

Important steps towards implementation

- Energean signs with industrial emitters 8 MOUs for the storage of 4.9 MTPA of CO2, oversubscribed Prinos’ estimated capacity
- Energean hires Halliburton to gauge carbon storage potential in Prinos area
- Wells have been inspected and condition assessment executed to study the opportunity to repurpose / sidetrack some of the existing wells and adapt them to CO2 injection
- Application (along with Greece’s National Natural Gas System Administrator DESFA) for the inclusion of the project in the 1st Union list of Projects of Common Interest (PCI) and Projects of Mutual Interest (PMI) under the revised TEN-E Regulation

June 2021
- EU endorses Greece’s Recovery and Resilience Plan that includes CO2 storage in Prinos

February 2022
- Hellenic Hydrocarbons and Energy Resources Management Company grants Energean a 22-month licence to further explore Prinos as a location to host a CO2 project

March 2022
- Halliburton completes subsurface study: Suitability of geological storage confirmed. Identified two cases (0.5 MTPA and 2.5-3.0 MTPA, for 25 years), subject to further refinement and optimization
- Wood plc completes PRE-FEED study: Onshore storage, 1 to 2MTPA, extra WHP, developed with wide and coarse subsurface assumptions.

September 2022
- Application for the inclusion of the project in the European Union Innovation Fund (Large Scale Projects)

October 2022
- Greek State submitted prenotification for State Aid clearance according to CEEAG and application for the inclusion of Prinos CCS in REPowerEU

November 2022
- March 2023
- July/August 2023
Thank you!
Carbfix – A rock-solid solution for climate

Carbfix captures CO₂ and turns it into stone underground in less than two years through proprietary technology that imitates and accelerates natural processes, providing a permanent and safe carbon storage solution. This cost-effective carbon capture and mineral storage technology has successfully reduced over 70,000 tons of CO₂ emissions and is ripe for dramatic upscaling, both in Iceland, where it was developed, and worldwide.

The technology is applicable to both avoiding CO₂ emissions as well as removing CO₂ already emitted to the atmosphere, both of which are vital at scale if climate goals are to be met.

The Carbfix technology is:

- **Safe.** Any risk of leakage is fully eliminated by dissolving CO₂ in water.
- **Cheaper** than alternative CCS solutions and involves lower up-front capital costs and risk.
- **Environmentally friendly** as it imitates and accelerates nature’s way of storing CO₂ in rocks. No added chemicals are needed, only electricity and water.
- **Permanent.** CO₂-bearing minerals which form are stable for thousands of years, limiting the need for long-term monitoring.
- **Built on firm scientific foundation.** Over 100 scientific papers have been published and robust monitoring campaigns demonstrate transformation of CO₂ to minerals.
- **Highly flexible** and modular with respect to capture technology, injection strategy and up-scaling.
- **Accepted** by the public as has repeatedly been confirmed by surveys.

The potential for applying CO₂ mineral storage in basalts around the globe is enormous, far greater than ever needed for climate action. The technology furthermore unlocks large regions that have previously not been considered as candidates for CO₂ storage.

Carbfix is working on various fronts for scaling up CO₂ mineral storage on a global level as well as further developing the Carbfix technology to maximize its potential impact with the objective of reaching the gigaton scale in storage capacity in coming years.

Carbfix and Direct Air Capture

On the 8th September 2021, Carbfix started injecting CO₂ captured Climeworks’ Orca plant constituting the world’s first commercial direct air capture and storage chain.

Over four years of successful collaboration, Carbfix and Climeworks has moved direct air capture and storage from pilot scale to commercial scale. The Orca installation has the capacity of capturing 4,000 tons of CO₂ per year, which is injected by Carbfix into nearby basaltic formations to be permanently turned into stone.

The Climeworks CO₂ collectors selectively capture CO₂ via a two-step process, where CO₂ is captured on a highly selective filter within a fan and released at higher temperatures for the collection of a high-purity CO₂ gas.

Iceland is a favorable host for DAC technologies, owing to both

- **Abundance of renewable energy resources needed to power direct air capture plants.**
- **Highly reactive and porous rocks, which provide a cheap and permanent carbon storage solution.**
TURNING CO₂ INTO STONE
SINCE 2012

Crystallized calcite contain solidified CO₂

Before

After
Carbfix turns captured CO₂ into stone underground in less than two years through a proprietary technology that imitates and accelerates natural processes.

Carbfix is the world's first CO₂ mineral storage operator. Since 2012, Carbfix has mineralized about 100 thousand tons of CO₂ using proprietary technology. This proven, safe, permanent, and cost-effective carbon storage solution is ripe for significant upscaling both in Iceland and worldwide.
Certified technology with competitive advantage

- **Permanent**: Stable for millennia, no long-term monitoring needed
- **100% safe**: Leakage eliminated with instant solubility trapping underground
- **Cost-effective**: Low up-front capital costs, network of shallow wells
- **Scalable**: Storage capacity much greater than needed for climate goals
Coda Terminal will be the world’s first CO₂ mineral storage hub

The CO₂ will be transported to Iceland from the hard to abate industry in Europe. Coda Terminal will also be able to store CO₂ captured from local industries and/or directly from the atmosphere. Coda Terminal will be built in phases and will reach full scale by 2031. At scale Coda Terminal will be able to mineralize 3 million tons of CO₂ per year. Coda Terminal is a recipient of EUR 115M grant from EU’s Innovation Fund.
Climate goals will not be met without CO₂ emission reductions. This includes CO₂ capture and injection into feasible geological formation for permanent storage, preventing it from entering the atmosphere. Large scale CO₂ Capture and Storage (CCS) is particularly needed for the hard-to-abate sectors such as the production of steel and cement.

CO₂ storage terminals will provide facilities for industries to store CO₂ when they are located in areas where carbon storage is not feasible on-site. CO₂ is captured at the industrial source and then transported to a location where it can be safely stored. CO₂ storage terminals significantly reduce the cost of CO₂ transport and storage through economies of scale and provide multiple sources of CO₂ with access to shared infrastructure.

At the Coda Terminal in Straumsvík, the Carbfix technology will make use of the vast storage capacity of the basaltic rocks at the site for safe and permanent mineral storage. The Carbfix technology has been under development since 2007 as a joint effort between industry and academia. It involves dissolving CO₂ in water and injecting it deep into basaltic formations where the injected CO₂ is rapidly turned into stone. The technology has been proven to be an effective and environmentally friendly climate solution through its 10 years of operational history.

Infrastructure that will be constructed for Coda Terminal operations include storage tanks for CO₂ in the vicinity of the harbour, regasification equipment, pipelines, and injection wells. The CO₂ will be captured from the European hard to abate industry and transported to Iceland by specifically designed ships capable of operating on sustainable fuel. The Coda Terminal will also be able to inject CO₂ captured from nearby industrial emissions as well as directly from the atmosphere using direct air capture technology (DAC).

The Coda Terminal will be constructed in stages and will have the capacity to store 3 million tonnes of CO₂ annually at full scale, thereby significantly supporting Iceland’s and the EU’s goal of 55% reduction in emissions before 2030. Preparations began in 2021 on the front-end engineering design and licencing processes. Full-scale operations are expected to be reached in 2031.

The Coda Terminal lays the foundation for a new, climate-friendly industry that can become a new pillar of the Icelandic economy.

Carbfix technology:
- Safe, effective, and flexible
- Permanent and natural
- Firm scientific background
- Almost unlimited storage capacity

*The name, Coda comes from music and refers to a concluding passage that brings the musical piece to a satisfactory close.*
Ravenna CCS
CCUS Forum
CCS Knowledge Sharing workshop
28 November 2023
Ravenna CCS Project
Solution to European HTA emissions with benefits along the value chain leveraging on consolidated know-how

Joint Venture eni snam

Phase 1
25ktpa of CO2 captured by Eni’s Casalborsetti plant and stored in the PCMW field, off the coast of Ravenna
Injection start: Q1 2024

Phase 2
4Mtpa of CO2 injection capacity - Ravenna CCS will contribute to achieving national and European goals, becoming the reference Hub for southern Europe and the Mediterranean
Injection start: 2026

Expansion
Phased expansion of the injection up to over 16Mtpa of CO2 leveraging on the overall storage capacity > 500Mt of the offshore fields.
Expansion: starting from 2030
Shell Offshore
Carbon Storage NL

Working together to provide reliable carbon storage solutions

Paul Vledder
Business Development Manager SOCS NL
Shell is partner in Acorn
Recently obtained in Southern NorthSea
South Wales Industrial cluster to export CO2 via shipping

Shell is partner in Northern Lights
Customers connected via shipping
Onstream 2024

Europe
- Shell is partner in Aramis, DRC, Co2Next
- SOCSNL: K14-FA (Aramis launch) and market growth stores
SOCS NL Markets CCS solution to emitters based on portfolio of stores in Dutch Sector making use of infrastructure (Aramis, DRC, CO2Next)

- Both depleted fields and aquifers
- First onstream date 2028 (K14), followed by L09
- Link to UK portfolio
The companies in which Shell plc directly and indirectly owns investments are separate legal entities. In this presentation "Shell", "Shell Group" and "Group" are sometimes used for convenience where references are made to Shell plc and its subsidiaries in general. Likewise, the words "we", "us" and "our" are also used to refer to 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 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. "Joint ventures" and "joint operations" are collectively referred to as "joint arrangements". 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.

Forward-Looking Statements

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 Shell. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are forward-looking statements that are based on the current expectations and assumptions of management. Actual performance and results may differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of 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", "milestones", "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 results of Shell operations, 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, judicial, 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 Shell plc’s Form 20-F for the year ended December 31, 2022 (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, November 14, 2023. Neither 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.

Shell’s net carbon intensity

Also, in this presentation we may refer to Shell’s “Net Carbon Intensity”, which includes Shell’s carbon emissions from the production of our energy products, our suppliers’ carbon emissions in supplying energy for that production and our customers’ carbon emissions associated with their use of the energy products we sell. Shell only controls its own emissions. The use of the term Shell’s “Net Carbon Intensity” is for convenience only and not intended to suggest these emissions are those of Shell plc or its subsidiaries.

Shell’s net-zero Emissions Target

Shell’s operating plan, outlook and budgets are forecasted for a ten-year period and are updated every year. They reflect the current economic environment and what we can reasonably expect to see over the next ten years. Accordingly, they reflect our Scope 1, Scope 2 and Net Carbon Intensity (NCI) targets over the next ten years. However, Shell’s operating plans cannot reflect our 2050 net-zero emissions target and 2035 NCI target, as these targets are currently outside our planning period. In the future, as society moves towards net-zero emissions, we expect Shell’s operating plans to reflect this movement.

However, if society is not net zero in 2050, as of today, there would be significant risk that Shell may not meet this target.

Forward-Looking Non-GAAP measures

This presentation may contain certain forward-looking non-GAAP measures such as cash capital expenditure and divestments. We are unable to provide a reconciliation of these forward-looking Non-GAAP measures to the most comparable GAAP financial measures because certain information needed to reconcile those Non-GAAP measures to the most comparable GAAP financial measures is dependent on future events some of which are outside the control of Shell, such as oil and gas prices, interest rates and exchange rates. Moreover, estimating such GAAP measures with the required precision necessary to provide a meaningful reconciliation is extremely difficult and could not be accomplished without unreasonable effort. Non-GAAP measures in respect of future periods which cannot be reconciled to the most comparable GAAP financial measure are calculated in a manner which is consistent with the accounting policies applied in Shell plc’s consolidated financial statements.

The contents of websites referred to in this presentation do not form part of 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 1-32579, available on the SEC website www.sec.gov.