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SPE NEWS

COPENHAGEN SECTION

## FROM THE CHAIRMAN

### DEAR SPE MEMBERS AND STUDENTS,

Happy New Year! I hope you have had a great holiday season. This is a great time to reflect on what has been a fine start to the 2024/25 season for SPE Copenhagen. I am happy to share some of the highlights and updates from 2024, as well as a look ahead to what is coming in the new year.

### A Late Summer Party and Awards Night in October

We kicked off the 2024/25 season with a vibrant Late Summer Party and Awards Night at DJØF Meeting and Event in Central Copenhagen. The evening was filled with great food, drinks, and networking, not to mention the stunning view of Copenhagen's rooftops. We celebrated the contributions this season's award recipients, Finn Engstrøm, Bill Ginty, Phillip Wodka and recognized their dedication to the SPE Copenhagen Section, you will find more about this in the newsletter.

A fun tradition continued with the annual Quiz, crafted by board members Natalia Krygier from Innargi (and last year's quiz winner) and Lucas Correa from Calsep. A big congratulations to Anders Krag (former SPE Copenhagen Chair) for taking home this year's first prize and, perhaps, the honor of designing next year's quiz!

### Distinguished Lecturer Series: Andy Watt

Our first technical meeting of the season featured Distinguished Lecturer Andy Watt from Woodside Energy, who gave a thought-provoking presentation on "No Longer a Sunk Cost: Innovation & Collaboration for Decommissioning Subsea Infrastructure." Andy highlighted the complexities of decommissioning flexible subsea pipelines, which involve intricate bundles of steel, polymers, copper, and many other materials. He emphasized the importance of collaboration across stakeholders to develop innovative and sustainable solutions for the safe removal and reuse of infrastructure. It was an inspiring session to set the tone for the season's technical program.

### Behind the Scenes at NOV Kalundborg

In October, we had the pleasure of visiting NOV's Subsea Production System facility in Kalundborg, thanks to the generous support of NOV. The event brought together more than 20 students from DTU, along with SPE members and participants from IDA (The Danish Society of Engineers).

One of the highlights was seeing a flexible pipe that was ready to be shipped to Australia. The scale of the production process was impressive. We also visited the test facility, where these pipes are tested to withstand very harsh environments for over 30 years. A big thank you to Søren Hartman, DrillConsult from the board for coordinating this exceptional event. It was a great afternoon which inspired all who attended.

## November Meeting: CCS and CO<sub>2</sub> Transport

In November, Ørsted hosted a highly engaging meeting at Ørsted's headquarters in Gentofte, focusing on Carbon Capture and Storage (CCS). The event explored Ørsted's ambitious plans to capture CO<sub>2</sub> from their plants at Avedøre and Asnæs and transport it to the Northern Lights storage facility near Bergen, Norway.

Ørsted's Jon Geest Jakobsen, Senior Process Engineer, presented the operational challenges of CO<sub>2</sub> loading and unloading at 16 bar and -26°C, with a specific focus on handling impurities in the vapor return from ships. This led seamlessly into a technical presentation by Henrik Sørensen from Calsep, who presented the effects of impurities on the vapor-liquid equilibrium and their impact on reservoir behavior. The presentations provided valuable insights into the complexities of CCS and that there is a requirement for innovation in solving these challenges.

## New Chapter for DTU Petroleum Engineering

This year marked a bittersweet moment as the last Petroleum Engineers graduated from DTU. Congratulations to the graduates - we hope to see you at future SPE events as members of our community!

With DTU's decision to discontinue the Petroleum Engineering Master's program, the future of the SPE Student Chapter was uncertain. However, with the support of Wei Yan from DTU Chemistry, who stepped in as Faculty Advisor, we were able to reestablish the Student Section. A warm welcome to Maximilian Wirth, the new Student Chair! We are excited to see the Student Section grow under Maximilian's leadership, with support from the SPE Board and industry sponsors. This revitalization represents a valuable opportunity for students to engage with the industry and for companies to connect with the talent.

The Board wishes to thank our former Faculty Chair, Dr. Alexander Shapiro, Associate Professor in the Department of Chemical and Biochemical Engineering at DTU, for his outstanding service. Dr. Shapiro has made remarkable contributions to the Society of Petroleum Engineers (SPE) Copenhagen Section, serving on the board since 2006 and as a dedicated faculty advisor. He has also been responsible for the petroleum engineering MSc program at DTU and contributed enormously to the previous student chapter activities. His leadership, mentorship, and commitment to advancing petroleum engineering have significantly shaped the organization and inspired both students and professionals. We hope you will continue to participate in our meetings and contribute to SPE Copenhagen.

## Looking Ahead: January Meeting with BlueNord and Distinguished Lecturer Kåre Langaas

We are excited to welcome BlueNord back as an event host. In January, they will host Distinguished Lecturer Kåre Langaas from AkerBP, who will present on Inflow Control and share insights into AkerBP's innovative work in the North Sea. BlueNord will also provide an update on their activities in the Danish sector of the North Sea. Be sure to check out the event details in this newsletter and mark your calendars for this highly anticipated meeting!

Finally, we extend our gratitude to our sponsors and event hosts - your contributions ensure the continued success of this section. If you are interested in hosting or contributing to an SPE meeting, please contact our Programme Chair, Natalia Krygier.

**Yours truly,**

**Peter Tybjerg**  
Section Chair  
SPE CPH



Peter Tybjerg  
SPE Copenhagen Section Chair

# THE BOARD

## SECTION CHAIR

**Peter Tybjerg, Calsep A/S**

Tel.: +45 4597 0817

E-mail: [pt@calsep.com](mailto:pt@calsep.com)

## PROGRAMME CHAIR

**Natalia Krygier, Innargi A/S**

Lyngby Hovedgade 85, 2800 Kgs. Lyngby

Tel.: +45 5031 5176

E-mail: [natalia.krygier@innargi.com](mailto:natalia.krygier@innargi.com)

## TREASURER

**Mette Juncker Brædstrup, SLB**

Dampfærgevej 27-29 3rd floor,

2100 Copenhagen Ø

Tel.: +45 6035 0711

E-mail: [mhansen4@slb.com](mailto:mhansen4@slb.com)

## SECRETARY

**Hans Horikx, DOTC**

Tel.: +45 6114 1852

E-mail: [horikx@dtu.dk](mailto:horikx@dtu.dk)

## MEMBERSHIP CHAIR

**José Antonio Pérez Acero, INEOS Energy**

Tel.: +45 3018 6261

E-mail: [jose.perez@ineos.com](mailto:jose.perez@ineos.com)

## COMMUNICATIONS CHAIR

**Nikolai Andrianov, GEUS**

Øster Voldgade 10, 1350 Copenhagen K

Tel.: +45 9133 3488

E-mail: [nia@geus.dk](mailto:nia@geus.dk)

## STUDENT LIAISON OFFICER

**Jedrzej Bryla, INEOS Energy**

Teknikerbyen 5, 1st floor, 2830 Virum, Denmark

Tel.: +45 3018 0898

E-mail: [jedrzej.bryla@ineos.com](mailto:jedrzej.bryla@ineos.com)

## TECHNICAL CHAIR:

### DRILLING & DECOM AND DATA SCIENCE

**Michal Stepień,**

Wintershall Noordzee B.V.,

Tel.: +45 9185 4263

E-mail: [stepien.michal01@gmail.com](mailto:stepien.michal01@gmail.com)

## EVENTS CHAIR

**Søren Weiss Hartmann, Drillconsult**

Fagerlunden 23, 2950 Vedbæk

Tel.: +45 3111 1101

E-mail: [swh@drillconsult.dk](mailto:swh@drillconsult.dk)

## TECHNICAL CHAIR: CCS

**Lucas Correa, SLB Capturi**

Tel.: +45 9185 7543

E-mail: [l.falcchi@gmail.com](mailto:l.falcchi@gmail.com)

## YOUNG PROFESSIONALS CHAIR

**Patryk Bijak, Ross Energy**

Flæsketorvet 68, 1st floor, 1711 København

Tel.: +45 5017 2167

E-mail: [patryk.bijak@rossoffshore.dk](mailto:patryk.bijak@rossoffshore.dk)

## ASSISTANT YP CHAIR + WEBMASTER

**Bartosz Bula, INEOS Energy**

Tel.: +45 3018 6211

E-mail: [bartosz.bula@ineos.com](mailto:bartosz.bula@ineos.com)

## TECHNICAL CHAIR: WELL INTEGRITY

**Fabio Rosas Gutterres, Welltec A/S**

Gydevang 25, DK-3450 Allerød,

Tel.: +45 5213 8232

E-mail: [frgutterres@welltec.com](mailto:frgutterres@welltec.com)

## SECTION ADVISOR

**Jonathan Hastings, TotalEnergies**

Amerika Plads 29, 2100 Copenhagen Ø

Tel.: + 45 5164 0531

E-mail: [jonathan.hastings@totalenergies.com](mailto:jonathan.hastings@totalenergies.com)

## FACULTY ADVISOR

**Wei Yan, DTU**

Department of Chemistry

Kemitorvet, 206, 261, 2800 Kgs. Lyngby

Tel.: +45 2245 0662

E-mail: [weya@kemi.dtu.dk](mailto:weya@kemi.dtu.dk)

## STUDENT CHAIR

**Maximilian Wirth, DTU**

Department of Chemistry

Kemitorvet, 206, 261, 2800 Kgs. Lyngby

Tel.: +45 7155 5938

E-mail: [mawir@dtu.dk](mailto:mawir@dtu.dk)

## NEW BOARD MEMBERS



### WEI YAN (DTU)

*Steps in as a Faculty Advisor at the SPE CPH Board*

Wei Yan is an associate professor at the Technical University of Denmark. With a background in chemical engineering, he entered the field of reservoir engineering nearly 30 years ago. His research focuses on thermodynamics and high-pressure phase behavior, commonly referred to as "PVT" in the petroleum industry. Dr. Yan's work spans diverse industrial processes, including petroleum production and CCUS. His research group adopts an integrated approach, encompassing experimental measurements, modeling of complex phase behavior, and the development of computational algorithms for compositional simulations. Currently, his research projects are centered on CCUS and hydrogen storage. Dr. Yan has served on the editorial boards for petroleum engineering journals and actively participated in the organizing committees for SPE workshops.

### ***What is your vision for your role on the board in terms of engaging university students and fostering their interest in joining SPE?***

As a Faculty Advisor, my primary goal is to bridge the gap between the university students and SPE, making the society an integral part of students' professional and personal development. We aim to raise awareness of SPE within universities by organizing activities such as industry talks and student chapter events, to highlight the relevance of SPE to emerging fields like CCUS, hydrogen storage, and geothermal energy, and to emphasize the career advancement opportunities offered through SPE.

### ***With the focus on subsurface green transition applications such as carbon capture, geothermal, and hydrogen storage, how do you propose SPE can integrate these topics into its activities and outreach, particularly for academic circles?***

SPE is uniquely positioned to lead in the subsurface aspects of the green transition. SPE can play a vital role in enhancing university education and supporting students' career development. Companies engaged with SPE are encouraged to contribute by delivering industrial lectures and supporting research projects focused on green transition applications. Furthermore, these companies are strongly encouraged to offer internship and collaborative thesis projects, providing students with hands-on experience and bridging the gap between academic learning and industrial practice.

### ***How do you plan to utilize your expertise to contribute to SPE's mission and activities, particularly in advancing technological solutions and educational content related to energy resources and innovations?***

We launched a course on CO<sub>2</sub> storage at DTU in 2024 and plan to continue our education efforts in collaboration with other DTU colleagues and industry partners. Students entering the evolving area of energy resources come from a wide range of engineering and scientific disciplines (such as chemical engineering, mechanical engineering, chemistry, geoscience, etc.). As the future energy industry is set to encompass a broad landscape, it is crucial to equip students with essential fundamentals as well as up-to-date skills to address the challenges of the energy transition.

## MAXIMILIAN WIRTH (DTU)

*Steps in as a Student Chair at the SPE CPH Board*

Maximilian Wirth is a Ph.D. student at the Technical University of Denmark. His background is in Petroleum Engineering, where he holds two master's degrees from the Technical University of Clausthal and the Université de Lorraine, specializing in Reservoir Management. After completing his master's degrees, he worked at the Technical University of Clausthal as a research assistant. His main research topic during that time was underground hydrogen storage, with an additional focus on underground methanization processes. Currently, he is working on his Ph.D. research project, CompReact, which aims to enhance the open-source simulation software GEOS with advanced compositional capabilities and geochemical modeling for applications in CO<sub>2</sub> storage projects.



### ***What is your vision for your role as the leader of the student chapter at your university, and how do you plan to achieve the goal of increasing SPE membership among students?***

The vision I have as the current leader of the DTU student chapter is to increase visibility for SPE among DTU students who do not come from a classical petroleum engineering background. SPE can be very beneficial for a student's development, both professionally and personally, while also providing a great environment to meet new people. To increase SPE membership among students, it will be crucial to raise awareness of the diversity of topics SPE offers and to include students from the various engineering disciplines available at DTU.

### ***What strategies do you intend to implement to engage students and encourage them to join SPE, considering both the traditional oil and gas focus and the newer green transition initiatives?***

When discussing the green transition, SPE can offer a wide range of knowledge and experience on topics such as underground hydrogen and CO<sub>2</sub> storage, or geothermal energy. Therefore, achieving a balance between these emerging topics and classical hydrocarbon-related subjects will be crucial when planning activities or industry lectures. Collaboration with the industry will be a major part of encouraging and engaging students, providing them the opportunity to see where academic knowledge can be applied in their future careers. Speaking with industry professionals and observing how projects are executed in the real world has always been a significant motivator for me, and I aim to extend this opportunity to current students.

### ***What long-term impacts do you hope to achieve through your leadership of the student chapter, both for individual students and for the broader goals of SPE in the context of evolving energy challenges?***

Recently, the last petroleum engineering students graduated from DTU, meaning there are currently no students at DTU with this specialization. Therefore, one of the crucial long-term goals for the current student board is to reach students from other study directions, such as chemical engineering or sustainable energy, and build a lasting foundation. Another significant change is the shift towards green transition topics, which can also help attract students who might not normally be interested in joining SPE. By incorporating these new topics, reaching out to multiple disciplines, and creating an engaging environment, the SPE student chapter will benefit DTU students in the long term.

# SPE COPENHAGEN CHAPTER AWARDS



With the events in September and October, we have concluded the second edition of the already established "SPE COPENHAGEN CHAPTER AWARDS".

It is always an honor for us to replicate the SPE International awards initiative. With all the humbleness, we aim to continue this activity in further editions. If the resources allow, it may be even broadened it into more awards per year.

The goal is for SPE Copenhagen to formally recognize outstanding members in our section and is honestly a very tedious task since we have such a wealth of knowledgeable and outstanding members among us.

The awards for this season were to three selected disciplines:

- Formation Evaluation SPE Copenhagen 2023-2024 Award*
- Completion Optimization and Technology SPE Copenhagen 2023-2024 Award*
- Outstanding Service SPE Copenhagen 2023-2024 Award*

After careful consideration and scrutinizing through several parameters, the elected 2023-2024 awarded members are:



## FINN ENGSTROM

Who has been a member of SPE Copenhagen since 1st of April 1986 and is an expert petrophysicist with outstanding scientific publications.

Finn gathers 40+ years at the forefront of innovation in carbonate reservoirs (Specially North Sea chalk and Middle east carbonates.)

Additionally, Finn is the **author of the EQR model**, a "go-to" petrophysics model which is now available at GeoLog software package.

## PHILIP WODKA

Is a member of the SPE Copenhagen since 1st of July 1983 and a **member of the 1st SPE Copenhagen board**.

Philip is a member of the group for IOGP ISO16530 Well Integrity Standard, which is a reference standard worldwide. His career ranges through several positions within production engineering, wells and well integrity at Maersk Oil and TotalEnergies.

During 40+ years of experience, Philip has held not only the above cited positions, but a very active role at SPE Copenhagen often present in our events.



## Bill Ginty: Because none of us calls him "William" 😊

An outstanding Member of SPE Copenhagen since 1st of October 1983, as well as **SPE Copenhagen Board Member from 1985 to 2017**, holding several positions as Chairman and representative for DONG Energy and HESS Corporation.

Bill is the author of several technical papers on diverse disciplines and experienced both in the Danish Sector and the NCS (Norwegian Continental Shelf).

This award aims to recognize this and his supportive personality, continuously mentoring students and young professionals along their careers.



In representation of the SPE Copenhagen Board 2023-2024, I want to express our strongest gratitude to these three great men for their contributions, and we look forwards to a next edition full of awards.

Wishing all our members a Merry Christmas and Happy 2025!

**José Antonio Pérez Acero**  
Membership Chairman



# SPE Meeting

## DESIGNING OPTIMAL WELLS WITH INFLOW CONTROL TECHNOLOGY



### Speaker

Kåre Langaas is a Senior Advanced Reservoir Engineer at Aker BP. Langaas has a PhD in physics from University of Bergen in close collaboration with University of Oxford and has 30 years' experience within reservoir technology research, reservoir engineering, field developments and reservoir management. He was the Chief Reservoir Engineer for Det Norske and Aker BP 2015-2020 and has since been Principal Advisor for lower completion design and in-well tracers. Langaas is author/co-author of more than 25 papers/publications and has been responsible/driver for Alvheim area testing/deployment of AICT and tracer technology, contributing to Norwegian Petroleum Directorate IOR prize for 2018. Langaas is a member of SPE.

### Abstract

The lecture shows a systematic approach to continuously improve the lower completion design process, primarily relevant for long horizontal wells with sand screens and inflow control technology (ICT). ICT can enable optimal inflow into a well and can help choke unwanted fluids. The potential is enhanced value and environmental benefits such as reduced CO<sub>2</sub> emission. Since the first SPE paper on ICT in 1994, the industry has evolved towards autonomous inflow control technologies (AICT). Langaas has managed flow performance testing of multiple AICTs 2015-2023 as well as the correct modelling and evaluation of ICT wells in the reservoir model. The achieved improvements are a result of open collaboration with several technology vendors and inter-disciplinary teamwork. The success recipe applied for more than 40 horizontal branches consists of eight steps. Each step will be explained by examples.

1. Understand the reservoir and the key objectives for the well.
2. Understand and chase improvements in ICT.
3. Make a mathematical model of the ICT.
4. Pre-drill design studies of the well. Understand the best ICT and establish the lower completion strategy.
5. During drilling, update the understanding and models according to the actual drilling result. Update the design and position any in-well tracers optimally.
6. After start-up, secure good well surveillance including a tracer-based (or mechanical) production log.
7. Perform history match of well performance to compare the lower completion model with the observed data, incorporating the inflow estimates.
8. Learn and improve.

Lecture key take-away: A systematic approach to design better wells.

### PROGRAM

17:00 - 18:00

Drinks & Networking

18:00 - 19:00

Presentation by SPE Distinguished Lecturer Kåre Langaas

19:00 - 20:00

Tapas and a BlueNord presentation

### SPEAKER

SPE Distinguished Lecturer Kåre Langaas

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## WEDNESDAY, 22 JANUARY

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Please sign-up no later than 20 January 2025

[Register HERE](#)

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BLUENORD, VIBENSHUSET, LYNGBYVEJ 2, 2100 KØBENHAVN Ø

# SPE Meeting

## UNDERSTANDING AND LEVERAGING THE FORCES OF NATURE FOR CCS AND WELL ABANDONMENT

Subsurface CO<sub>2</sub> storage is not without risks and challenges, as the geological environment is constantly being changed by human intervention. Often, the forces of nature are seen as a challenge to be overcome, but through profound understanding of natural processes they can also be made to work for us. Natural processes provide opportunities to deal with challenges related to subsurface CO<sub>2</sub> storage in a dynamic environment, in particular when combined with implementation of effective monitoring and management strategies. For instance, by leveraging our ability to monitor and predict the geomechanics, geochemistry and geobiology of natural phenomena in the subsurface, we may safely and sustainably upscale CO<sub>2</sub> storage opportunities in Denmark, while minimizing the environmental impact.



### Speaker

Charlotte N. Larsen

Programme Manager for the CO<sub>2</sub> Storage Research Programme and the Abandonment Research Programme at DTU Offshore. Before joining DTU Charlotte worked 20 years with Maersk Oil and Gas as Lead Drilling Engineer and Well Project Manager amongst other roles. Through her career Charlotte has worked in Denmark, Qatar and Turkmenistan and has a Master degree in Civil Engineering from DTU.



### Speaker

Hans Horikx

Advisor at DTU-Offshore, dedicated to energy transition and energy efficiency matters including CCS. Prior to joining DTU he worked 30 years with Shell and Maersk Oil in Europe, the Middle East, South and North America and Russia. He holds a Drs degree in Experimental Physics from Leiden University, having done research on photosynthesis.

### PROGRAM

**17:00**  
Social Hour (beer, wine, soft drinks)  
**18:00**  
Main presentation  
**19:00**  
Dinner (sandwiches) & After-dinner presentation  
**20:30**  
End of Meeting

### SPEAKERS

Main presentation:  
Charlotte Larsen & Hans Horikx  
  
After-dinner presentation:  
Dave Quirk

**WEDNESDAY, 26 February**

Please sign-up no later than 23 February 2025

[Register HERE](#)

DTU-OFFSHORE | ELEKTROVEJ BUILDING 375, 2800 KGS. LYNGBY



# WHAT DOES 2049 LOOK LIKE? A SUCCESSFUL OR FALTERING ENERGY TRANSITION?

After-dinner presentation:

Buffeted by international events, can a country like Denmark lead the way in moving from offshore oil and gas to sustainable energy production? It's a tough call and the roadmap is far from clear but there are potentially many opportunities and synergies in power generation, energy transfer, hydrogen production, CO<sub>2</sub> removal and power-to-X. Will all the technologies, joined-up networks, cross-sector alliances and economic drivers be in place to meet the ambitious goals of net-zero emissions in less than 25 years? Are the different stakeholders ready to work together and, if not, what has to change to achieve the common goals? We will discuss a wide range of technical, political and societal challenges with the view of solving them in just over half an hour.



## Speaker

Dave Quirk

Dave Quirk has a PhD in geology and worked for 30 years in oil and gas exploration as a geophysicist and team leader for Shell, Burlington Resources, Hess, Maersk, Cairn and the North Sea Transition Authority, whilst continuing to publish research on salt tectonics, rifting, mineralisation, resource assessment and risk and uncertainty. During this time, he augmented his carbon footprint by racing motorcycles. Five years ago Greta got to him and he left the oil industry to focus on the energy transition, specifically on ways to achieve net zero emissions on islands. He joined DTU Offshore in 2022 and has since worked on low-carbon energy system models, innovative pumped hydro storage schemes, green hydrogen systems and public engagement activities.



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DTU-OFFSHORE | ELEKTROVEJ BUILDING 375, 2800 KGS. LYNGBY

## EVENT CALENDAR

JANUARY

**22**

17:00 - 21:00

*Designing Optimal Wells with Inflow Control Technology  
by SPE Distinguished Lecturer Kåre Langaas*

BlueNord | Vibenshuset, Lyngbyvej 2, 2100 København Ø

FEBRUARY

**26**

17:00 - 20:30

*Understanding and leveraging the forces of nature for CCS and well  
abandonment by Charlotte N. Larsen & Hans Horikx*

**&**

*What does 2049 look like? A successful or faltering energy transition?  
by Dave Quirk*

DTU | Offshore, Elektrovej Building 375, 2800 Kgs. Lyngby



*CarbonCuts:*

## PIONEERING CO<sub>2</sub> STORAGE ON LOLLAND WITH PROJECT RUBY

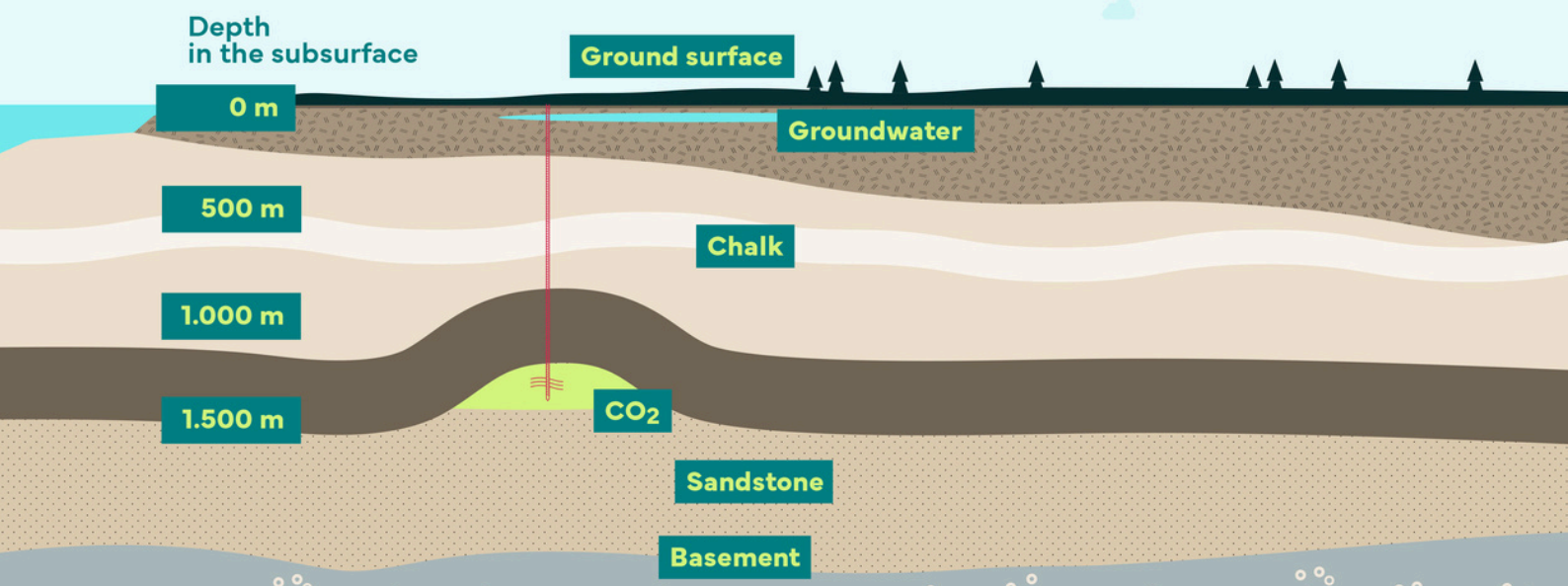


CarbonCuts, a 100% owned subsidiary of DUC partner BlueNord, is at the forefront of Denmark's efforts to establish large-scale, onshore CO<sub>2</sub> storage. Since being awarded an exploration licence for Project Ruby in June 2024 by the Danish Ministry of Climate, Energy and Utilities, CarbonCuts has embarked on a journey to evaluate the geological suitability of the Rødby formation on Lolland for safe, permanent CO<sub>2</sub> storage. This ambitious initiative aims to contribute to Denmark's climate goals and support industries in transitioning to a low-carbon future.

"Getting the license was a monumental step—not only for us at CarbonCuts but also for Denmark's CO<sub>2</sub> storage ambitions," says Ken Wesnæs, CEO of CarbonCuts. "The license reflects the hard work of our team over more than two years. We could only achieve this by combining entrepreneurship with extensive subsurface expertise, decades of experience in the oil and gas sector, and insights spanning exploration, production, operatorship, and regulatory processes. I'm proud of the progress we have made so far, including building a talented and diverse team, and we all look forward to the next crucial steps for Project Ruby."

### **A Roadmap to CO<sub>2</sub> Storage**

The awarded license allows CarbonCuts to conduct a multi-year exploration program, with the first two major activities planned for early 2025. First, Denmark's so far largest on-shore 3D seismic survey will be conducted in February 2025,



covering an extensive 220 km<sup>2</sup> area on Lolland. The survey will provide critical subsurface data to assess the Rødby structure.

Simultaneously, CarbonCuts will re-enter the legacy Rødby-2 well, originally drilled in the 1950s. “Re-entering the well is a unique opportunity,” explains Charlotte Laurentzius, Exploration Manager at CarbonCuts. “By utilizing this existing well, we can access vital geological data faster and assess its condition, enabling us to move closer to determining the site’s viability for long-term CO<sub>2</sub> storage.”

The well re-entry process began with site preparation, including the installation of a modern well head. In January 2025, a drilling rig will be assembled on-site to drill to a planned depth of 1500 meters. This will provide crucial data on the well’s condition and the geological formations. Once drilling is completed, the site will be restored, for future logging and monitoring operations without the need for a rig.

### Why Lolland?

The Rødby structure is an ideal candidate for CO<sub>2</sub> storage. Located more than 1,000 meters below the surface, this 20 km by 10 km structure has been designated by the Danish authorities for its geological suitability. Additionally, the site’s proximity to Rødbyhavn positions it as a regional hub, with potential for CO<sub>2</sub> transport via ship, offering opportunities for collaboration with ports in Denmark and neighboring Baltic Sea countries.

### Community Engagement and Beyond

Local engagement is a cornerstone of Project Ruby. CarbonCuts has already held multiple community meetings, engaging about 300 residents so far to share insights about the project and its benefits to Lolland. The most recent meeting, held in early December, focused on the upcoming 3D seismic survey and its implications for the area. “We believe in open and ongoing dialogue with the local community,” Ken Wesnæs says. “This isn’t just about technology; it’s about building trust, information, and creating shared value for both the region and the environment.”

### A Vision for the Future

CarbonCuts, in partnership with the state-owned Nordsøfonden, envisions a future where the Rødby structure safely stores 1 million tons or more CO<sub>2</sub> annually, starting in 2030. With a strategic combination of technology, regulatory insight, and community collaboration, Project Ruby is set to become a cornerstone of Denmark’s climate action efforts.

To learn more, visit CarbonCuts’ website at

[www.carboncuts.dk](http://www.carboncuts.dk)

or explore the sector’s CCS knowledge portal at

[www.co2idybden.dk](http://www.co2idybden.dk)

# DANISH ENERGY AGENCY PRESSES THE START BUTTON FOR BILLION-DOLLAR TENDERING PROCEDURE FOR CARBON CAPTURE AND STORAGE

In October this year the Danish Energy Agency published its final tendering materials for the CCS Fund, a state subsidy that will cover a significant portion of the costs of CO<sub>2</sub> capture, Transport and storage in Denmark. Below is a summary of the announcement, highlighting the main elements from an energy operator's perspective:

## Denmark Launches Billion-Dollar Carbon Capture Tender

Denmark is taking a significant step towards combating climate change by launching a massive tender for carbon capture and storage (CCS) projects. The Danish Energy Agency has allocated \$4.2 billion to fund initiatives that capture and store carbon dioxide (CO<sub>2</sub>) underground, helping the country reduce its greenhouse gas emissions and meet its climate neutrality goals.

The agency is seeking proposals from companies interested in developing CCS facilities that can capture "fossil, biogenic or atmospheric CO<sub>2</sub>" over a 15-year contract period and store it safely beneath the Earth's surface. Successful projects will receive government subsidies to help offset the costs of construction and operation. The goal is to obtain the highest possible carbon reductions at the lowest possible cost, and to have these facilities up and running by 2029 to capture and store millions of tons of CO<sub>2</sub> annually.

This initiative aligns with Denmark's broader efforts to transition to a sustainable and low-carbon economy. By investing in CCS technology, the country aims to play a leading role in the global fight against climate change.

The tendering process for the Danish CCS Fund involves several stages, including market consultation, dialogue, and negotiation. Potential tenderers must submit pre-qualification applications by March 25, 2025. The Danish Energy Agency will evaluate bids and award contracts to multiple successful tenderers. A key factor of the tendering process is that it will involve negotiation, rather than follow a traditional auction style award process. Market players will need to bid a fixed amount of CO<sub>2</sub> per year and a price per tonne of CO<sub>2</sub> captured and stored.

Denmark has granted six licenses for exploration for CO<sub>2</sub> storage and has political agreements with several countries for cross-border transportation of CO<sub>2</sub> for geological storage under the seabed.

### Key Metrics:

- Total funding: \$4.2 billion
- Target year for facility operation: 2029
- Estimated annual CO<sub>2</sub> capture and storage: At least 2.3 million tons annually from 2030
- Climate neutrality goal: Denmark aims to achieve climate neutrality by 2050, in line with EU recommendations.

The full official announcement can be found here:

<https://ens.dk/en/press/danish-energy-agency-presses-start-button-billion-dollar-tendering-procedure-carbon-capture>



Danish Energy  
Agency



## Denmark's long-term energy partner

We are in the middle of a global energy and climate crisis that highlights the need for energy solutions here and now. As one of the world's largest energy companies, TotalEnergies knows that the future belongs to renewables. This is why we are in full swing transforming our business to help secure a green future for Denmark.

Our focus is on maintaining an energy-efficient and safe production of oil and gas, with the redeveloped Tyra field at the center, while leveraging our many years of experience as an energy supplier in Denmark. We will do this by expanding our activities to wind, solar, and Carbon Capture and Storage (CCS).

TotalEnergies has great ambitions to be at the forefront of green energy production with the objective of being among the world's top five players in renewables by 2030.



 Follow us on Facebook: @TotalEnergiesDenmark

 Learn more about the company: <http://corporate.totalenergies.dk>

# A new and dynamic leader in offshore drilling



# A dynamic leader in offshore drilling

Since 1921, Noble has been a world-class offshore drilling company with industry-leading safety and operational performance. Noble focuses on deep and long-term partnerships as the foundation for driving efficiency and increasing certainty for our customers in the pursuit of operational excellence.

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