A Sea of Opportunity in the Netherlands

Focus on the Dutch Basin Linda Janssen, Geoscientist, EBN

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Why do we need to explore?

Energy generation

Primary energy consumption



The need for exploration - The energy gap

Forecast of gas production and demand in the Netherlands (Mboe)





O&G opportunities

- Business case for Dutch exploration
- Your gateway to subsurface data
- The Dutch exploration potential
- The role of EBN
- Key take-aways





Business case for Dutch exploration

Low cost exploration

Skaggerak North Sea Water Depth (m) Kattegat a and irge's Baltic Sea nel Durah Basim

Bathymetry of the Southern North Sea



Subsurface depth of Dutch offshore gas reserves

Source: EBN; NLOG

Incentive for investment

Operators will only bear 15% of exploration investment costs due to an updated tax allowance

- EBN invest 40% .
- The new tax allowance reduces operator investment to 15% of total investment •



Source: EBN analysis

Licence policy

- The Netherlands has an **Open Door policy** meaning that licences can be applied for at any time
- No licence rounds
- Application is free of charge

More information about the licence application process in booth 46







Your gateway to subsurface data

DEMO's in Booth 46

Your gateway to Dutch data

Subsurface data

Subsurface data available **free** of charge at <u>www.nlog.nl</u>

(seismic, well data, production data, porosity/permeability data, interpretations, papers etc.)

From data to information

EBN Databases:

- Hydrocarbon show database
- Geo-Drilling events database
- Petroleum System Analysis database







Databases publicly

available at www.ebn.nl



The Dutch exploration potential



NL Offshore exploration potential



A highly diverse play portfolio

Regional exploration studies

- Regional Petroleum System Analysis
 - Regional basin modelling study based on public data for input
 - Full study publicly available (for free!) via www.ebn.nl
- Results will be input for furthering Play Based Exploration work



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Play studies

- Continuous work on the Cygnus play in the Northern Offshore Netherlands, follow-up of a study commissioned by the OGA (UK)
- This study focuses on the Permian section – chasing the Leman (UK)/ Slochteren (NL) Sandstone further to East from Mid North Sea High study into the northern Dutch offshore



Exploration opportunities

We can offer several exploration opportunities which are already at lead plus level

F09-P6, Shallow gas Shallow gas field

Shallow gas field, producing Shallow leads (4WDC & FDC) Shallow leads (strat. trap) Shallow leads < 2 km2</p> 3D seismic data

Seismic data (e.g. bright spots) suggests presence of gas in F09-P6

- Shallow depth allows simple well • drilling and development
- Proximity to oil leads F09-Stelvio and • F08-Ventoux, potentially allowing for combined development
- POSg: 63%

A09-RB-Agate, Triassic Open acreage -Ö- Gas show UK - Ó- Dry UK Germany Germany A13

A11-RB-Beryl, Triassic



Dutch Triassic is underexplored, although it is a **proven play elsewhere in SNS** Proximity to existing infrastructure in block A12 allows options for tiebacks or stand-

alone development

- Largest of 3 leads in A09
- Covered by 3D seismic data
- POSg: 22%

- Largest of 5 leads in A11 •
- Covered by 2D high density seismic data and partly by 3D seismic data
- POSq: 35%





The role of EBN

Introducing EBN

ebn

is the Dutch National Oil & Gas Company

- Industry partner & co-investor in Oil, Gas and Geothermal
- Non-operating partner in exploration and production (40%)
- Partnership with many IOCs and innovative smaller players:



CDN brings unique expertise

- Joint venture management & governance
- Extensive data and information sharing
- Dutch sub-surface expertise
- Energy transition facilitation
- Hydrogen and CCS
- Decommissioning
- OPEX and CAPEX benchmarking & reduction
- Low CAPEX development

EBN Strategic Focus

EBN wants to make a significant contribution towards society's climate ambitions



EBN co-ordinates the efficient decommissioning or re-use (e.g. CCS) of obsolete oil and gas platforms.



EBN develops solutions to optimise a sustainable and safe exploitation of existing gas fields.



EBN builds partnerships for the efficient exploitation of geothermal energy and investigates new energy sources as hydrogen and green gas.







EBN partnership

By jointly investing in E&P, stakeholders share financial risks, thereby lowering the overall risk profile of their investment portfolio.



Why explore in the Netherlands?

EBN as your partner

Full support from the government

Remaining **Offshore potential**

Exploration studies

Incentive for investment

Low cost exploration

Open Door licence policy

Free access to data & information

With a 40% share, financial exposure and risk is reduced

The Ministry publicly supports gas exploration

Several underexplored areas with remaining potential

Continuous geological and geophysical studies by EBN

Improved tax allowance reduces exploration cost exposure from 19.5% to 15%

Most resources are in shallow water and shallow subsurface

Licences can be applied for at any time

Subsurface data available on nlog.nl and ebn.nl

Win Win Win

• Win for Operators

- Share knowledge and skills
- Accelerated high grading of prospects
- More successful discovery wells
- Win for EBN and Dutch state
 - Focussed and accelerated maturation of economic offshore prospects
 - Economic Dutch gas production with lower footprint than imported gas
- Win for all
 - Ensure offshore gas resources are safely and economically exploited to support the Energy Transition



The Netherlands

- Energising the transition -

Booth 46 For posters, presentations and brochures

Thank you for your attention

www.ebn.nl/en/exploration-production

