

Exchange of information The case of Norway

Vienna, 14 February 2017

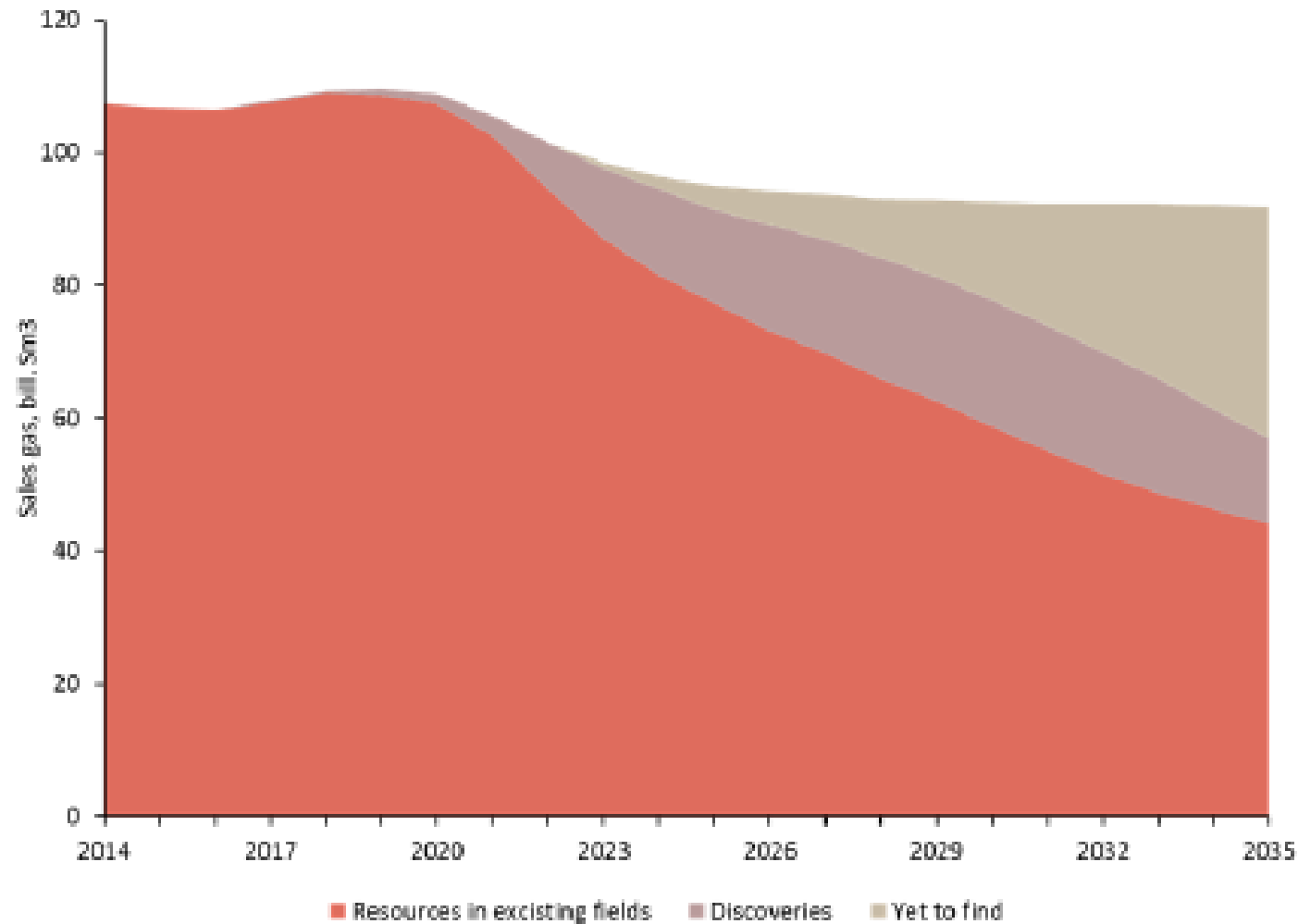
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Information

- By Gouvernement institution (NPD):
 - On Norwegian shelf in general
 - On single fields (reserves, production profiles)
- By commercial partners
 - During project development
 - Operational Information
 - Reservoir related risks / future delivery profile

Historic and expected volumes of sales gas from Norwegian fields, 2014 – 2035 (November 2015)





Information by commercial partners I

- During project development
 - Progress reports
 - Coordination of construction
- Operational information
 - Daily dispatch information
 - Weekly, monthly forecasts
 - Force majeure / interruptions
 - Quality



Information by commercial partners II

- Profile determined by seller and/ or buyer?
- Risk-related Information:
 - On reservoir related performance, development, production profile
 - Depending on contract type
 - Depletion contract (Ekofisk): profile determined by seller depending on reservoir performance
 - Supply type contract (Troll): some elements of profile determined by sellers, but several options by buyers (obligation to replace from other fields)



Ekofisk:

Exchange of Information and Forecasts (Art VII)

- Ekofisk: group of oil fields with associated gas, oil driven
- Ekofisk contract: Dedication/ depletion type contract, covering all gas from the fields (Ekofisk, Ekofisk-West, Cod and 50% Albuskjell)
- Exchange of information
 - Exchange of information as may be necessary or useful
 - Monthly production figures, development of quality
- Forecasts of operations: Once a year
- Change of DCQ by Sellers based on changed ERR (Economically Recoverable Reserves)
 - Notification rules , justification given
 - Possibility to check by independent expert



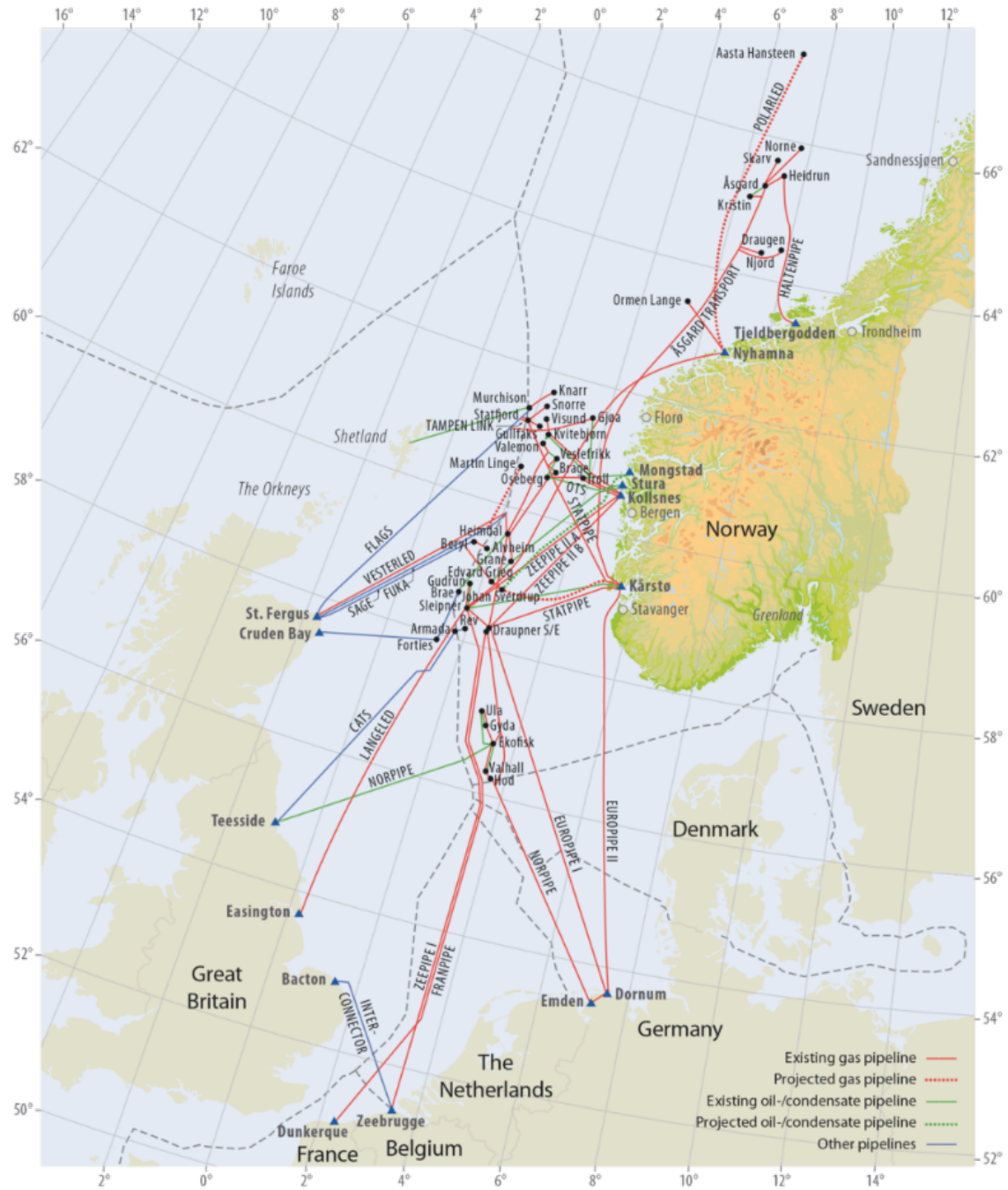
Ekofisk, relevance of information

- Change in DCQ, contractual DCQ was lowered substantially, several times
- Ekofisk subsidence,
 - part of gas temporarily used for reinjection to slow subsidence
 - Later, lifting and reconstruction of facilities
- Tie-in of Statpipe
- Several cases of strike / lock out



Troll /Sleipner

- Troll: Super giant dry gas field ca 1300 billion m³ in 300 m water depth with an underlying giant oil field, but without mutual interference
- Sleipner East: gas condensate field, driven by condensate recovery, included as of start of deliveries
- Possible additional contractual replacement fields from other reliable Norwegian sources
- Large new infrastructure to be built:
 - Troll platform, Sleipner East platform
 - Landing and treatment plant onshore in Kollsnes
 - Four new pipelines: Zeepipe, Europipe 1 and 2 , Franpipe





Troll Contract

Exchange of Information, Art 7 + Appendix E

- Troll Contract: supply type contract, supply obligation linked to Troll and Sleipner East, plus contractual replacement fields nominated later
- Underperformance: replacement obligation (if economic)
- Comprehensive provisions on Information
 - Art 7 Exchange of Information
 - For Troll and all replacement sources
 - Forecasts of operations
 - Current information
 - Progress reports
 - App E Information
 - Technical presentations (Reservoir, field installations,)
 - Specific information during development



Troll, relevance of information

- Collapse of Sleipner East substructure
- Crossing the Wattensee (shallow sea) Natural Park
- Delivery pressure at Dornum
- Management of quality split between landing in Germany and Belgium / France



Thank you for your attention!