Brevdato	02-01-2017
Afsender	Kirsten Lundt Erichsen (Sagsbehandler, TFU)
Modtagere	Jesper Brandrup (Sagsbehandler, TFU)
Akttitel	Vs: Tyra data svar - del 2
Identifikationsnummer	501773
Versionsnummer	1
Ansvarlig	Kirsten Lundt Erichsen
Vedlagte dokumenter	Tyra data svar - del 2 Svar ref møde 4 maj TA-sheet Southern Portfolio v2 DOKUMENT IKKE MEDTAGET TA-sheets Upside part 2 v2 DOKUMENT IKKE MEDTAGET
Dokumenter uden PDF-version (ikke vedlagt)	
Udskrevet	03-01-2017

Akt nr. 80

Til: Jesper Brandrup (jbr@ens.dk)
Fra: Kirsten Lundt Erichsen (kle@ens.dk)
Titel: Vs: Tyra data svar - del 2
Sendt: 02-01-2017 15:28:07
Bilag: Svar ref møde 4 maj.docx; TA-sheet Southern Portfolio v2.xlsm; TA-sheets Upside part 2 v2.xlsm;

Akt nr. 80

Til: Jens-Birger Christophersen (jbc@ens.dk), Jan Harley Andersen (jha@ens.dk), Kirsten Lundt Erichsen (kle@ens.dk)
Cc: Windelin, Jakob (Jakob.Windelin@maerskoil.com), Kruse, Stefan (stefan.kruse@maerskoil.com)
Fra: Kildegaard, Jesper Saaby (jesper.kildegaard@maerskoil.com)
Titel: Tyra data svar - del 2
Sendt: 12-05-2016 17:34:51

Kære alle,

Vedhæftet er sidste del af udestående svar fra sidste onsdags møde.

Mvh Jesper

Jesper Saaby Kildegaard
Senior Economist

Mærsk Olie og Gas A/S
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Mobile: +4561552239
Fax:
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Company reg. No. 22 75 73 18

Svar til spørgsmål fra Energistyrelsen ref møde 4. maj

[redacted]

Energistyrelsen

3. januar 2017

Aktdetaljer

Akttitel: SV: Tyra data svar
Aktnummer: 82

Akt ID:	419432
Dato:	26-05-2016
Type:	Udgående
Original titel:	SV: Tyra data svar
Dokumenter:	[1] SV Tyra data svar.eml [2] Spørgsmål til TA sheets sydlige område 26-05-2016.docx

Til: Kildegaard, Jesper Saaby (jesper.kildegaard@maerskoil.com)
Cc: Kruse, Stefan (stefan.kruse@maerskoil.com), Jan Harley Andersen (jha@ens.dk), Jens-Birger Christophersen (jbc@ens.dk), Trine Fugmann (TFU@ens.dk), Windelin, Jakob (Jakob.Windelin@maerskoil.com)
Fra: Kirsten Lundt Erichsen (kle@ens.dk)
Titel: SV: Tyra data svar
Sendt: 26-05-2016 13:02:38
Bilag: Spørgsmål til TA sheets sydlige område 26-05-2016.docx;

Kære Jesper

Mange tak for nedenstående.

Vi har nogle få opklarende spørgsmål til disse TA-sheets, som vi håber at I kan hjælpe med at afklare for os i denne uge. Se venligst vedhæftet.

På forhånd tak for hjælpen.
Med venlig hilsen / Best regards

Kirsten Lundt Erichsen
AC-medarbejder / Advisor
Center for Energiressourcer / Centre for Energy Resources

Mobil / Cell +45 3392 6873
E-mail kle@ens.dk

Energistyrelsen

Danish Energy Agency - www.ens.dk
- part of the Danish Ministry of Energy, Utilities and Climate

---

Fra: Kildegaard, Jesper Saaby [mailto:jesper.kildegaard@maerskoil.com]
Sendt: 18. maj 2016 14:39
Til: Kirsten Lundt Erichsen
Cc: Jan Harley Andersen; Jens-Birger Christophersen; Trine Fugmann; Kruse, Stefan; Windelin, Jakob
Emne: RE: Tyra data svar

Kære Kirsten,

Vi har vedhæftet TA-sheets med split af Dan, Gorm og Halfdan (samt et "Other" TA-sheet som dækker diverse ikke-hub specifikke omkostninger), som svarer til graferne vist på TAC mødet d. 15. april 2016.

ABEX omkostninger ved COP for de enkelte hubs står i celle E10 i de respektive TA-sheets. Dette gør sig gældende for både den vedhæftede fil og tidligere filer for Tyra Upside projekterne, jvf Jan's spørgsmål fra mandag 16. maj 2016.

Tyra SE ABEX udgør [redacted] for Tyra. Den resterende del tilfalder Tyra Main.

Mvh Jesper

Jesper Saaby Kildegaard
Senior Economist

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www.maerskoil.com
Company reg. No. 22 75 73 18

From: Kirsten Lundt Erichsen [mailto:kle@ens.dk]
Sent: 12. maj 2016 17:37
To: Kruse, Stefan; Windelin, Jakob
Cc: Kildegaard, Jesper Saaby; Jan Harley Andersen; Jens-Birger Christophersen; Trine Fugmann
Subject: SV: Tyra data svar

Kære Stefan og Jakob

Mange tak for nedenstående.

Vi har foreløbigt et enkelt spørgsmål vedrørende CoP Facilities ABEX estimater for 1.1: Kan I fordele Tyra ABEX på [redacted] USD henholdsvis Tyra Main og Tyra Sydøst?

Vi vender eventuelt tilbage med yderligere spørgsmål.

Vi har desuden en supplerende anmodning om data i det vedhæftede dokument.
Med venlig hilsen / Best regards

Kirsten Lundt Erichsen
AC-medarbejder / Advisor
Center for Energiressourcer / Centre for Energy Resources

Mobil / Cell +45 3392 6873
E-mail kle@ens.dk

Energistyrelsen

Danish Energy Agency - www.ens.dk
- part of the Danish Ministry of Energy, Utilities and Climate

Fra: Kruse, Stefan [mailto:stefan.kruse@maerskoil.com]
Sendt: 12. maj 2016 10:06
Til: Jan Harley Andersen; Kirsten Lundt Erichsen; Jens-Birger Christophersen
Cc: Kildegaard, Jesper Saaby; Windelin, Jakob
Emne: Tyra data svar

Kære alle,

Vedhæftet er 1. Del af udestående svar fra sidste onsdags møde. Spørgsmål vedrørende upside projekter og opdateret (inluerende 100% transport omkostninger) Sydlig portefølje følger.

Mvh,
Stefan

Scheef Kruse, Stefan
Financial Planning and Economics Manager

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Denmark

Visiting Address:
Oslo Plads 2, 2100 Copenhagen Ø, Denmark

Mobile: +45 51 71 41 74
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26. maj 2016

<u>Spørgsmål til TA-sheets modtaget ved e-mail af 18/5 2016 vedrørende det sydlige område</u>:

1. Hvilke <u>upsides</u> (projekter) er regnet med for det sydlige område? Eller er der ingen upsides med?

Er eksempelvis projektet [redacted]?

2. Fuel og flare er ikke direkte nævnt i TA-sheets. Hvordan er fuel og flare håndteret med hensyn til mængder og omkostninger?

Er det muligt at anvende data for fuel og flare fra 5 års prognoserne (fremsendt med brev af 30. januar 2016) og ekstrapolere forbruget på grundlag af værdien i 2020?

Det fremgår af oplysningerne for Gorm og Dan (fane: "Gorm Hub" og "Dan Hub"), at der er et negativt gassalg i en årrække. Svarer dette til den forudsete gasimport? Er udgiften til køb af gas medtaget i OPEX for Gorm?

3. I fane "Gorm Hub" er angivet en særligt høj CAPEX i 2017: Hvad er det?

4. Hvilke forudsætninger er anvendt for abandonment for Dan centeret? Vi kan se, at Kraka har sidste produktionsår [redacted]. Fortsætter Dagmar til [redacted] med tilhørende OPEX? Får [redacted] f.eks. i 2016?

I fane "Dan Hub" er angivet running ABEX i [redacted] Hvad dækker det?

5. I fane "Other (part of Southern Port)" er angivet running ABEX (i række 63) i årene 2017 og 2018. Hvad dækker det?

Brevdato	02-01-2017
Afsender	Kirsten Lundt Erichsen (Sagsbehandler, TFU)
Modtagere	Jesper Brandrup (Sagsbehandler, TFU)
Akttitel	Vs: Tyra data svar
Identifikationsnummer	501776
Versionsnummer	1
Ansvarlig	Kirsten Lundt Erichsen
Vedlagte dokumenter	RE Tyra data svar TA-sheets Dan Gorm Halfdan DOKUMENT IKKE MEDTAGET
Dokumenter uden PDF-version (ikke vedlagt)	
Udskrevet	03-01-2017

Akt 83

Til: Jesper Brandrup (jbr@ens.dk)
Fra: Kirsten Lundt Erichsen (kle@ens.dk)
Titel: Vs: Tyra data svar
Sendt: 02-01-2017 15:29:16
Bilag: TA-sheets Dan Gorm Halfdan.xlsm;

Akt nr. 83

Til: Kirsten Lundt Erichsen (kle@ens.dk)
Cc: Trine Fugmann (TFU@ens.dk), Windelin, Jakob (Jakob.Windelin@maerskoil.com), Jens-Birger Christophersen (jbc@ens.dk), Kruse, Stefan (stefan.kruse@maerskoil.com), Jan Harley Andersen (jha@ens.dk)
Fra: Kildegaard, Jesper Saaby (jesper.kildegaard@maerskoil.com)
Titel: RE: Tyra data svar
Sendt: 18-05-2016 14:38:33

Kære Kirsten,

Vi har vedhæftet TA-sheets med split af Dan, Gorm og Halfdan (samt et "Other" TA-sheet som dækker diverse ikke-hub specifikke omkostninger), som svarer til graferne vist på TAC mødet d. 15. april 2016.

ABEX omkostninger ved COP for de enkelte hubs står i celle E10 i de respektive TA-sheets. Dette gør sig gældende for både den vedhæftede fil og tidligere filer for Tyra Upside projekterne, jvf Jan's spørgsmål fra mandag 16. maj 2016.

Tyra SE ABEX udgør [redacted] MMUSD af de [redacted] MMUSD for Tyra. Den resterende del tilfalder Tyra Main.

Mvh Jesper

Jesper Saaby Kildegaard
Senior Economist

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From: Kirsten Lundt Erichsen [mailto:kle@ens.dk]
Sent: 12. maj 2016 17:37
To: Kruse, Stefan; Windelin, Jakob
Cc: Kildegaard, Jesper Saaby; Jan Harley Andersen; Jens-Birger Christophersen; Trine Fugmann
Subject: SV: Tyra data svar

Kære Stefan og Jakob

Mange tak for nedenstående.

Vi har foreløbigt et enkelt spørgsmål vedrørende CoP Facilities ABEX estimater for 1.1: Kan I fordele Tyra ABEX på [redacted] mio. USD henholdsvis Tyra Main og Tyra Sydøst?

Vi vender eventuelt tilbage med yderligere spørgsmål.

Vi har desuden en supplerende anmodning om data i det vedhæftede dokument.
Med venlig hilsen / Best regards

Kirsten Lundt Erichsen
AC-medarbejder / Advisor
Center for Energiressourcer / Centre for Energy Resources

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Energistyrelsen

Danish Energy Agency - www.ens.dk
- part of the Danish Ministry of Energy, Utilities and Climate

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Fra: Kruse, Stefan [mailto:stefan.kruse@maerskoil.com]
Sendt: 12. maj 2016 10:06
Til: Jan Harley Andersen; Kirsten Lundt Erichsen; Jens-Birger Christophersen
Cc: Kildegaard, Jesper Saaby; Windelin, Jakob
Emne: Tyra data svar

Kære alle,

Vedhæftet er 1. Del af udestående svar fra sidste onsdags møde. Spørgsmål vedrørende upside projekter og opdateret (inluerende 100% transport omkostninger) Sydlig portefølje følger.

Mvh,
Stefan

Scheef Kruse, Stefan
Financial Planning and Economics Manager

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Energistyrelsen

Aktdetaljer

Akttitel: VS: 20160905 Tyra Upside - volumes approximate risking.pptx
Aktnummer: 84

Akt ID:	468693
Dato:	05-09-2016
Type:	Udgående
Original titel:	VS: 20160905 Tyra Upside - volumes approximate risking.pptx
Dokumenter:	[1] VS 20160905 Tyra Upside - volumes approximate risking.pptx.eml
	[2] 20160905 Tyra Upside - volumes approximate risking.pptx

3. januar 2017

Til: Kirsten Lundt Erichsen (kle@ens.dk), Jan Harley Andersen (jha@ens.dk), Jens-Birger Christophersen (jbc@ens.dk), Energi-, Forsynings- og Klimaministeriet (efkm@efkm.dk)
Cc: Martin Hansen (mah@ens.dk)
Fra: Trine Fugmann (TFU@ens.dk)
Titel: VS: 20160905 Tyra Upside - volumes approximate risking.pptx
Sendt: 05-09-2016 15:13:28
Bilag: 20160905 Tyra Upside - volumes approximate risking.pptx;

Hermed Mærsks forslag til risking af potentialer. Sum ca. [redacted] ! Men også en noget lav risking af nogle af potentialerne....
Venligst
Trine

Fra: Windelin, Jakob [mailto:Jakob.Windelin@maerskoil.com]
Sendt: 5. september 2016 15:01
Til: Trine Fugmann
Emne: 20160905 Tyra Upside - volumes approximate risking.pptx

Kære Trine,

Vedhæftet oversigt over upside volumner med et eksempel på hvordan de kan riskes.

Det bemærkes, at risking kan foretages på mange måder og vil være forskellig for de individuelle DUC partnere. Afhængig af risikoprofil og appetit kan man for eksempel variere produktion, opex, capex og apex med forskellige faktorere eller samlet. Der kan ligeledes være forskellige faktorer der anvendes, hvis man vil vurdere en P90, jf. tidligere fremsendt oversigt.

Det bemærkes, at eksemplet ikke udtrykker en samlet vurdering fra DUC, inklusiv APMM, idet hver partner vil have forskellige syn på upside-potentialet og om eller hvordan værdien af upsides eventuelt kan indgå i Tyra beslutningsgrundlaget.

Med venlig hilsen
Jakob Windelin
Head of Commercial, DBU

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Fax: +45(33)633878
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Tyra Upside part 1 & 2 –Volume Potential
(Table truncated by year 2042)

[redacted]

MAERSK OIL

Energistyrelsen

3. januar 2017

Aktdetaljer

Akttitel: Møde onsdag
Aktnummer: 135

Akt ID:	498795
Dato:	12-12-2016
Type:	Udgående
Original titel:	Møde onsdag
Dokumenter:	[1] Møde onsdag.eml

Til: Windelin, Jakob (Jakob.Windelin@maerskoil.com)
Fra: Trine Fugmann (TFU@ens.dk)
Titel: Møde onsdag
Sendt: 12-12-2016 18:56:25

Kære Jakob

Vi vil gerne mødes med jer onsdag på vores niveau. Jeg har forstået det sådan, at dagsordenen er opfølgning på mødet i dag. Hvordan ser jeres tilgængelighed ud onsdag?

Venligst
Trine

Med venlig hilsen / Best regards

Trine Fugmann
Kontorchef / Head of Division
Center for Energiressourcer/Centre for Energy Resources

Mobil / Cell +45 2618 0292
E-mail tfu@ens.dk

Energistyrelsen

Danish Energy Agency - www.ens.dk
- part of the Danish Ministry of Energy, Utilities and Climate

Energistyrelsen

3. januar 2017

Aktdetaljer

Akttitel: NL tiltag
Aktnummer: 142

Akt ID:	498739
Dato:	11-04-2016
Type:	Indgående
Original titel:	NL tiltag
Dokumenter:	[1] NL tiltag.eml
	[2] 234460_1134947_43_1.pdf

Til: Trine Fugmann (TFU@ens.dk)
Fra: Windelin, Jakob (Jakob.Windelin@maerskoil.com)
Titel: NL tiltag
Sendt: 11-04-2016 11:38:17
Bilag: 234460_1134947_43_1.pdf;

Hej Trine,
Jeg havde vist lovet dig denne til inspiration.
Mvh
Jakob

EUROPEAN COMMISSION

Brussels, 20.7.2010
C(2010)4944 final

Subject: State aid N 718/2009 – The Netherlands – Development of marginal offshore gas fields

Dear Sir,

1. PROCEDURE

1. Following pre-notification contacts, the Dutch authorities notified the abovementioned aid measure on 22 December 2009. On 2 March 2010 an information request was sent to the Dutch authorities, which was answered by letter of 16 April 2010. A further information request was sent to the Netherlands on 7 June 2010. The Dutch authorities replied by letter of 11 June 2010. Further clarifications were received on 23 June 2010 and on 6 July 2010.

2. DESCRIPTION OF THE NOTIFIED MEASURE

Introductory remarks

2. In the interest of energy supply and delivery security, the Dutch government is aiming for optimal exploration and exploitation of the country's offshore gas reserves. This is urgently needed, according to the Dutch authorities, because of the approaching dismantling and removal of existing platforms and infrastructure.

3. According to the Dutch authorities, the Netherlands produces an average of 45 billion m^3 of natural gas annually from onshore gas fields and 25 billion m^3 from offshore gas fields. Large (or larger) gas fields offshore currently still in production are expected to be exhausted in 10 to 15 years. These fields are mostly located in

Zijne Excellentie de Heer Maxime VERHAGEN
Minister van Buitenlandse Zaken
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geographic areas currently exploited (where there are existing platforms and infrastructure) but they have not been developed. If new small fields offshore still to be developed in the geographic areas currently exploited are not connected in the next five to ten years, the platforms and infrastructure in question will be dismantled and removed. Without these platforms and infrastructure, these small fields cannot produce profitably and corresponding quantities of natural gas will remain underground. These gas fields are limited in size, particularly in a global context. It only concerns specific marginal fields on the Dutch part of the continental shelf (at the seaside, as defined in article 54, sub e, of the Mining Act) which have been designated as such by the Minister of Economic Affairs, following an application by the mining company for the investment deduction.

4. Platforms and production pipelines to the platforms are exploited by the operators/holders of a permit[1]. This concerns 174 platforms as per 1 January 2010[2], for both oil and gas. For gas alone, this is around 153 platforms, which are operated by approximately 15 different companies, including Gaz de France, Nederlandse Aardolie Maatschappij B.V. (NAM), Total, BP and Chevron. In the Netherlands as a whole (both onshore and offshore), the main gas producers are the following companies: ATP Oil and Gas Netherlands B.V., Chevron E&P Netherlands B.V., Cirrus Energy Nederland B.V., GDF Suez E&P Nederland B.V., NAM, Northern Petroleum Nederland B.V., Petro-Canada Netherlands B.V., TAQA Offshore B.V., TAQA Onshore B.V., Total E&P Nederland B.V., Venture Production Nederland B.V., Vermillion Oil & Gas Netherlands B.V. and Wintershall Noordzee B.V.[3]. The extracted gas is transmitted ashore by way of private distribution networks, which are owned and exploited by (consortia of) operators. These transport pipelines connect to the entry points of the gas transmission network of Gasunie/GTS[4]. Producers can choose to whom they sell their gas, either through direct trading or by way of a trading facility (e.g. Title Transfer Facility[5]). The extra gas can therefore be destined both inside and outside the Netherlands[6].

5. The authorities wish to introduce a fiscal measure which incentivizes investment in the exploration and exploitation of otherwise untapped gas reserves with a view to fully exploiting marginal offshore gas fields as defined in the proposed draft legislation (specified in further detail in the points 9 and 10 below).

---

1 For an overview of existing infrastructure on the Netherlands Continental Shelf (platforms and pipelines on the Dutch continental shelf, as per 1 January 2010), see: http://www.nlog.nl/nl/infra/infrastructure.html. For a map picturing production platforms and pipelines offshore at 1 January 2010, see: http://www.nlog.nl/resources/Jaarverslag2009/NL/2009_map_pipes_platf_NL.pdf.

2 For an overview of the platforms and the names of the corresponding operators as per 1 January 2010 reference is made to: http://www.nlog.nl/resources/Jaarverslag2009/NL/JV2009_NL.pdf.

3 See: http://www.nlog.nl/resources/Jaarverslag2009/NL/2009_oliegasproductie_NL.pdf

4 For the most part, gas is brought ashore via the following three main gas production (collection) pipelines offshore: *WestGasTransportleiding* (owned by EBN, NAM, Nuon, Wintershall, Total, Oranje-Nassau Energie; *NoordGasTransportleiding* (owned by GdF Suez, Taqa, XTO, Rosewood, NAM, EBN) and *Noordelijke Offshore GasTransportleiding* (owned by GdF Suez, Total, Centrica, EBN, EWE, RWE-DEA, Wintershall)

5 http://www.gastransportservices.nl/en/shippers/our_services/ttf_gas_exchange

6 The gas which is extracted in the Netherlands and on the Dutch part of the continental shelf is sold in the North-West European gas market, consisting of the Netherlands, Belgium, France, Germany and the United Kingdom. Additionally, supplies of gas are sold to Italy and Switzerland. See Annual Report Gasterra 2008, page 16: http://www.gasterra.nl/nieuws/verslagen/Documents/Jaarverslagen/Gasterra_JV2008_NL.pdf

The measure

6. The notified measure consists of an investment deduction for every mining company that is or becomes a holder or joint holder of a permit under the Dutch Mining Act to extract hydrocarbons and which invests in, for such reserves previously unused, business assets. These investments are: wells, platforms and pipelines and related installations, including exploratory and evaluation drilling. The Dutch authorities have clarified that solely investments in business assets made after the applicable law came into effect, which have not been used *before* for the exploration and exploitation of a new gas field offshore which qualifies for the measure, are eligible for the investment deduction.

7. This includes investments in a platform which has been used elsewhere before (a "second hand" platform), as the measure does not distinguish between a new and a used platform for the purpose of achieving its objective. If a marginal gas field is connected to an existing platform, only the costs of connecting the gas field to the existing platform or infrastructure can be claimed under the tax deduction facility. Expenditure related to e.g. maintenance of existing installations or infrastructure is not eligible for the tax deduction facility.

8. By law, mining companies are obliged to pay, apart from corporate income tax, an additional annual amount to the Dutch State, the so-called State Profit Share[7]. The measure allows mining companies to charge, in addition to normal depreciation, an additional 25% of the investment amount against the result on the basis of which the legal payment of the State Profit Share, due to the Dutch State, is calculated under the Mining Act in the year that the investment is made.

9. The Mining Act and subsequent ministerial regulation will establish objective criteria by which the Dutch Minister of Economic Affairs will decide and determine, at the permit holder's request, whether a marginal gas field offshore qualifies for the investment deduction. The Minister of Economic Affairs has no discretion as regards the determination of what constitutes a marginal gas field, as the relevant criteria will be established in the legislation.

10. The criteria included in the draft legislation are the distance from the gas field to existing infrastructure and the size and productivity of the field[8]. These criteria are defined in a technical way, independent from criteria individual mining companies may use for the purpose of deciding whether or not to invest in the development of a gas field. A formula has been established to determine on the basis of these criteria whether a gas field offshore qualifies for the investment deduction[9].

---

[7] In addition to Corporate Income Tax (CIT), under the Mining Act mining companies must make an additional payment to the Dutch State, the so-called State Profit Share (SPS), based on the result of the cost and revenue of the gas fields that are exploited. This allows the State to obtain additional revenue from natural gas extraction.

[8] The Dutch authorities have explained that a field is "marginal" when the investment costs and operational costs are only just compensated with the revenues from that field (i.e. the break even point). For prospects there is in addition the, normally high, chance of failure. The revenue is determined mainly by the recoverable reserves, the oil or gas price and tax regime. The costs are mainly determined by the location, reserves and productivity. There is not much variation in water depth offshore in the Netherlands and that would make the cost structure fairly uniform. The only difference is the distance to existing infrastructure.

[9] See Article 1 of the draft ministerial regulation *'Regeling investeringsaftrek marginale gasvoorkomens Nederlands continentaal plat'*.

According to the submitted draft legislation, the threshold for determining whether a field can be considered as 'marginal' is verified against the current portfolio of known but not yet developed reserves and for which no development plan existed within 5 years after the field was known (stranded fields)[10].

11. It is expected that in the first years of the measure being in place, it will be predominantly the "stranded fields", i.e. gas fields which have already been identified but still not been put into production, that will be brought online, whilst in the later stages running up to 2020 and beyond the extra production will mainly come from prospects, i.e. gas presences that still have to be drilled and explored. According to the calculations from the Dutch authorities, the measure will ensure that there will be 21 billion m^3 more gas brought into production on the Dutch part of the continental shelf (out of which some 20% from stranded fields and some 80% from prospects), than the 91 billion m^3 that would be brought into production from stranded fields and prospects without the measure[11].

Legal basis

12. The legal basis of the aid scheme is the Law of 26 November 2009 amending the Dutch Mining Act[12], in particular article 68a sub 1, as well as the parliamentary *Toelichting* relating to this legislation[13].

Beneficiaries

13. All companies, being mining companies with an extraction permit under the Dutch Mining Act, are eligible for the scheme insofar as the fields comply with the eligibility criteria. The expected number of beneficiaries is between 11 and 50.

Duration

14. The scheme is notified for the period 1 January 2010 to 31 December 2016, subject to Commission approval of the aid. The Dutch authorities have clarified that the measure is tailored to the estimated production time remaining for those gas fields still presently in production and the operational costs and the economic life of the platforms and the infrastructure currently operating for extraction, treatment and transportation of the gas produced. Those gas fields are expected to be exhausted in 10 to 15 years' time. If the new small/marginal fields are not connected within the next 5-10 years, the existing platforms and infrastructure shall be dismantled or removed[14].

---

[10] For an overview of the stranded fields as per April 2010 see: http://www.nlog.nl/nl/reserves/reserves/stranded.html.

[11] With the measure, it is expected that some 21 billion m^3 extra reserves will be brought into production in the coming years. The extra production will extend beyond 2033, according to the Dutch authorities. Some 30-40% of the additional volume of 21 billion m^3 would however be produced in the next 10 years, i.e. until 2020.

[12] State Gazette, 2009, 508.

[13] TK 2008-2009, 31 479, nr. 6, p. 7 - 10.

[14] Most fields offshore are declining and many will reach their end of field life in the coming years. Once a platform is not used for production purposes anymore it will be abandoned. Prospects in the vicinity of that platform will have to connect to other platforms which are usually further away and this will increase the investment costs. These prospects will thus become less attractive. Moreover, the allocation of operational cost of the infrastructure is normally done on a throughput basis. Because the

Budget

15. The Dutch authorities consider that the measure gives rise to state aid, considering that it confers a selective advantage on certain businesses (mining companies with an extraction permit under the Mining Act). The authorities have not provided a precise dedicated budget for the measure, but have explained that an additional 21 billion m^3 is expected to be produced as a result of it. Overall, the state revenues are expected to increase as a result of the measure[15]. Nonetheless, if, hypothetically, all other things being equal, this extra volume would be produced *without* the measure under the prevailing tax rules, the Dutch State would generate additional nominal revenue of EUR 194 million. Therefore, as a consequence of the measure this amount of EUR 194 million can be considered as a foregone resource for the Dutch State. This amount can thus be regarded as constituting the indicative budget for the purpose of the present case.

3. ASSESSMENT

3.1. Presence of State Aid Pursuant to Article 107(1) EC Treaty

16. Under article 107(1) Treaty on the Functioning of the European Union ("TFEU")[16], "*any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, insofar as it affects trade between Member States, be incompatible with the internal market.*"

17. The aid under scrutiny is granted by a national authority and is granted by the State through State resources within the meaning of Article 107 TFEU. It distorts or threatens to distort competition by selectively favouring those enterprises that are eligible for the tax deduction. More particularly, the measure is considered to be selective as only certain businesses will benefit from the tax deduction, notably those mining companies that are or become a holder or joint holder of a permit under the Mining Act to extract hydrocarbons from a marginal gas field as determined by the Dutch Minister of Economic Affairs[17]. Since this can be any

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production of the existing producing fields is declining, new fields will have to pay a larger share of these operational cost if they come on stream in later years. With the current level of offshore exploration it would take many years to drill all the prospects, according to the Dutch authorities. With lower activity levels there will be less time to drill the marginal prospects because the increased operational costs or the abandonment of the necessary infrastructure will define the end of the window of opportunity.

15 According to the Dutch authorities, regarding the period to 2020 reserves in production without the measure would be 91 billion m3 (prospects and stranded fields); an additional 21 billion m3 of the remaining natural gas reserves on the Dutch continental shelf would be extracted due to the measure. In terms of State revenue, without the measure, this would be EUR 5517 million (nominal) at an oil price of $50 per barrel, whereas at an oil price of $100 per barrel this would be EUR 13932 million (nominal). With the measure, the extra total State revenue would be EUR 685 million at an oil price of $50, whereas at an oil price of $100 per barrel this would be EUR 2575 million (nominal).

16 With effect from 1 December 2009, Articles 87 and 88 of the EC Treaty have become Articles 107 and 108, respectively, of the TFEU; the two sets of provisions are, in substance, identical. For the purposes of this Decision, references to Articles 107 and 108 of the TFEU should be understood as references to Articles 87 and 88, respectively, of the EC Treaty where appropriate.

17 More precisely this means every mining company that is or becomes a holder or joint holder of a permit under the Mining Act to extract hydrocarbons and which:

- counted from the effective date of the proposed measure, enterprise and, furthermore, natural gas is subject to intense trade within the European Union, the measure affects trade between Member States. The aid granted to the beneficiary under the proposed scheme thus constitutes State aid pursuant to Article 107 (1) of the TFEU.

18. Under Article 107(3)(c) of the TFEU, aid to facilitate the development of certain economic activities or of certain economic areas may be considered to be compatible with the internal market, where such aid does not adversely affect trading conditions to an extent contrary to the common interest.

19. The Commission notes that the measure does not fall within the scope of existing guidelines of application of Article 107(3)(c) of the TFEU, so that the measure must be assessed directly under this treaty provision. In order to be compatible under article 107(3)(c), an aid must pursue an objective of common interest in a necessary and proportionate way. In this regard, the Commission considers it appropriate to assess the following questions:

(1) Is the aid measure aimed at a well-defined objective of common interest (i.e. does the proposed aid address a market failure or other objective)?

(2) Is the aid well-designed to deliver the objective of common interest? In particular:

(a) Is the aid measure an appropriate instrument?

(b) Is there an incentive effect, i.e. does the aid change the behaviour of firms?

(c) Is the aid measure proportional, i.e. could the same change in behaviour be obtained with less aid?

(3) Are the distortions of competition and the effect on trade limited, so that the overall balance is positive?

3.1.1. Well-defined objective of common interest

20. The Dutch authorities have submitted that effective and rational management of the remaining extractable gas reserves in the Netherlands contributes to supply and delivery security of the European Union. In this context, reference is *inter alia* made to the conclusion of the Energy Council dated 19 February 2009: *"In order to decrease its dependency on external energy sources, the EU needs to make the best use of its own energy resources, including renewables, fossil fuels and, in countries which choose to do so, nuclear energy, and create a climate where Member States according to their fuel choice may effectively facilitate investments in these resources"*. The European Council also underlined on 19/20 March 2009 that the

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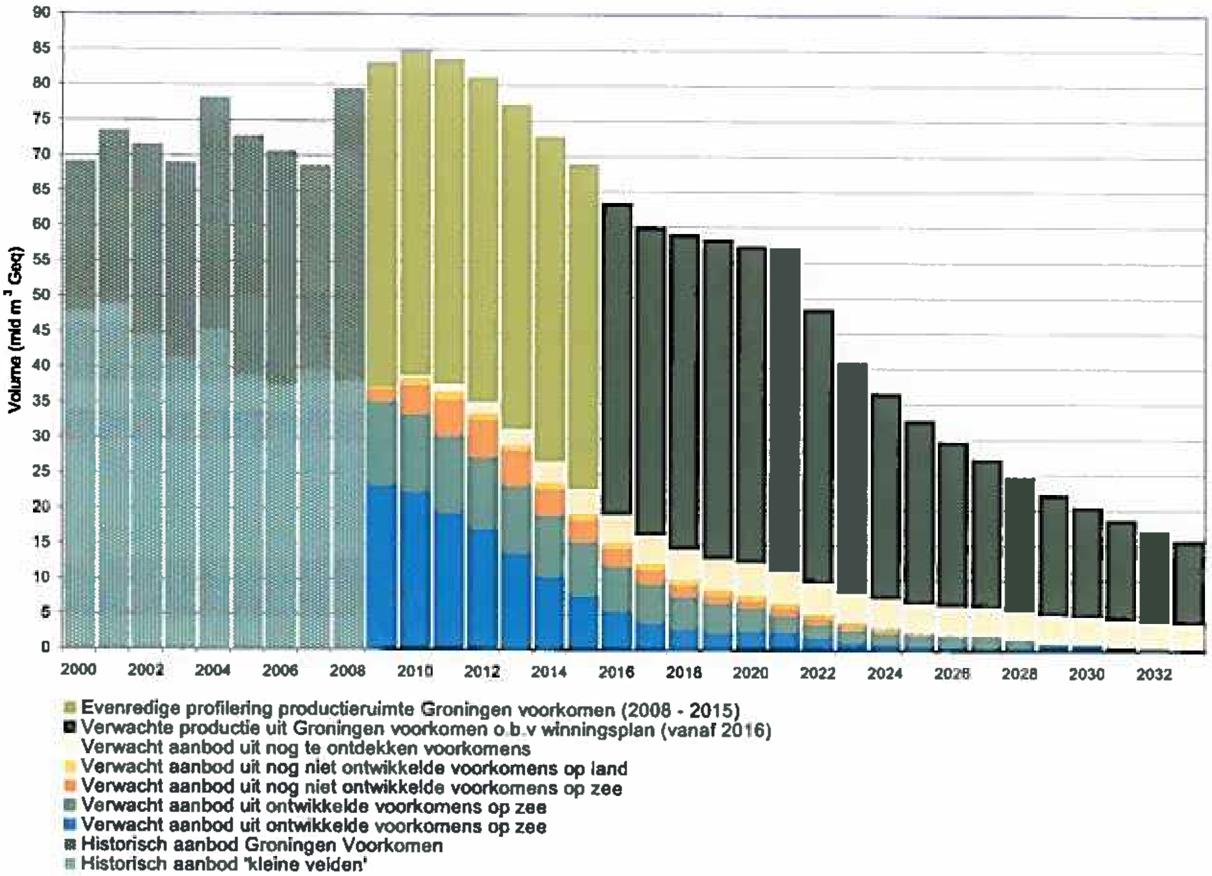
- under an exploration or exploitation permit offshore,
- for the benefit of exploration or extraction,
- of marginal gas fields,
- based on pre-disclosed criteria applied objectively and non-discriminatorily,
- determined by the Minister of Economic Affairs at the permit holder's request,
- invests in, for such reserves previously unused, business resources (wells, platforms and pipelines, including exploratory and evaluation drilling).

European Union's energy security can be strengthened by, among other things, optimal use of indigenous energy sources.

21. The aim of the Dutch authorities to ensure an effective and rational management of the indigenous gas reserves must be seen against the background that there will be a significant decrease in gas production in the Netherlands until 2033[18].

Table 1: Actual production of natural gas in the Netherlands from 2000 - 2008 and production prognosis the period 2009 - 2034



22. According to the table above, the current gas production in the Netherlands of around 85 billion m^3 per annum will gradually decrease to approximately 20 billion m^3 in 2030. In the expectation that Dutch domestic demand for natural gas will stabilize the next few decades at 45-50 billion m^3 per year, between 2020 and 2025 the turning-point would be reached when the Netherlands would become a net importer of gas. It is expected that the Netherlands would have to import 20-30 billion m^3 natural gas more than is currently the case.

23. In particular, the production of the existing *offshore* facilities will show a steep decline until 2020, considering that production would be 22.4 billion m^3 in 2010, 7.8 billion m^3 in 2015 and 2.8 billion m^3 in 2020.

24. It appears that the proposed measure indeed increases the supply of natural gas and as such enhances the delivery security. This is considered as a legitimate objective of common interest for the following reasons.

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[18] http://www.nlog.nl/resources/Jaarverslag2008/JV2008_UK.pdf)

25. Firstly, Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply[19] explicitly includes domestic production of gas among the instruments to enhance the security of gas supply.

26. Additionally, incentivising the exploitation of these marginal fields in the near future (when the infrastructure is still available) increases gas supplies in the Netherlands. As the extra gas supply is sold in the North-West European gas market as well as Italy and Switzerland (as indicated in footnote 6 above), the measure also has a beneficial impact on the security of supply of the relevant export countries.

27. Secondly, the Dutch authorities have submitted that the measure aims at effective and rational management of the remaining extractable gas reserves offshore in the Netherlands. The measure thus aims at increasing the amount of gas that is available to the market. Since gas competes with other fuels, the measure may increase or prolong the use of gas under economic conditions.

28. It appears, therefore, that the measure aims at an effective and rational management of limited extractable reserves, in particular as regards small and marginal gas fields.

29. It is furthermore noted that natural gas is a low CO_2 emitting fossil fuel and out of the conventional energy sources, it is a relatively clean energy source. Although being of fossil origin, gas can be considered as a bridge fuel until a carbon free economy can be reached.

30. Finally, as further shown below, the subject investment aid is designed in such a way that the marginal gas fields in question can be viably explored and exploited.

31. Consequently, the Commission considers that the proposed measure has a well-defined objective of common interest.

3.1.2. Well-designed measure to deliver the objective of common interest

32. To demonstrate that the measure is well-designed to deliver the objective of common interest, the Dutch authorities have pointed out that it would result in extra gas production from the marginal offshore fields which would not be realised otherwise. The eligibility for the aid solely depends on technical parameters and is independent from criteria and economic considerations of individual mining companies. Based on the design of the draft measure, i.e. the strict criteria for the development of the marginal gas fields (as referred to in point 9 and 10 above), the authorities aim to exclude, to the largest possible extent, those gas fields that could also be economically be exploited without the aid.

33. Other generic policy instruments have been considered by the authorities, including the possibility of a random depreciation on investments or an increased percentage of depreciable costs. However, these options were found to be less suitable precisely in order to exclude free-rider behaviour or overcompensation.

34. More specifically, the Dutch authorities clarified in this context that they made a comparison of the effect of the measure and the depreciation at will ("DAW"),

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[19] OJ L 127, 29.4.2004

which was abolished in 2003[20]. One of the problems identified was that there was no discrimination for projects. As a consequence, all projects, also the economic ones, received the benefit of the DAW and there were many free rider projects, according to the authorities. DAW projects with high investments were benefitting much more than projects with lower investments. Contrary to the DAW, the subject measure has the same effect for all marginal fields.

35. The authorities have furthermore explained that a public auction, whereby companies would bid for the right to extract gas (instead of paying the State Profit Share) would not fit into the Dutch system of allocation of permits for exploration and extraction, as laid down in Article 9 of the Dutch Mining Act, which is generally based on a system of competing applications, in line with Directive 94/22/EC of the European Parliament and of the Council of 30 May 1994 on the conditions for granting and using authorizations for the prospection, exploration and production of hydrocarbons (in particular article 3, second indent, sub b of this directive)[21].

36. Furthermore, a licence holder will have to make active use of its permit and shall not, for an extended period, refrain from making use of (parts) of their licence area should other parties wish to carry out activities there. Pursuant to an amendment of the Dutch Mining Act, the Minister of Economic Affairs will have the power to place at the disposal of third parties unused sections of licensed areas[22].

37. Finally, it is noted that the incentive of a company to exploit a gas field affects, and is affected by, the number of other fields connected to the network, which determine the viability of the network infrastructure. Given that such network effects are not taken into account in individual decisions to exploit certain fields, the measure leads to coordination benefits. In the absence of the measure, it is likely that the marginal fields would not be exploited given that the required network infrastructure would no longer be available.

38. In light of the foregoing the Commission considers that the measure is well-designed to deliver the objective of common interest.

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20 Before abolition of depreciation-at-will, exploration costs could be charged as an expense and be written off immediately. Capital expenditures can no longer be depreciated at will. DAW enabled firms to treat investments in platforms and pipes as expenses in the determination of taxable income. Without it, investments have to be entered on the tax form on a unit-of-production basis or on a straight-line basis. The immediate impact of DAW, compared with other regimes, was postponement of tax payments, which gave an interest advantage to firms.

21 OJ L 164, 30 June 1994, pp. 3-8

22 A field which has been qualified as being "marginal" in the sense of draft Article 68a, sub 1, of the Dutch Mining Act will be subject to the procedures of the Covenant between the Minister of Economic Affairs and the mining industry relating to active use of permits, which entered into force on 1 January 2010. Consequently, the provisions of this Covenant regarding a reduction in the area to which the permit relates, apply *mutatis mutandis* (the Minister Economic Affairs can decide to reduce the area for which a permit has been granted, if for a part thereof no significant exploration, exploitation or storage activities have been undertaken during the previous two years, or if the exploitation activities have ceased altogether).

3.1.3. *Incentive effect*

39. State aid must be necessary and have an incentive effect. To demonstrate this, the notifying Member State must prove that the investment would not have been made without the aid.

40. The Dutch authorities have explained that for projects (without exploration risk) often the VIR – Value Investment Ratio – is used which is the NPV (Net Present Value) divided by the project investment. The VIR must meet a certain hurdle level. For prospects (exploration projects) there is an additional complication, i.e. the risk. For prospects the RVIR – Risked Value Investment Ratio – is often used which is the risked revenue divided by the risked investment. For both revenue and investment the probability of success is taken into account.

41. The hurdle level is company and project dependent and ranges from 0.10 – 0.40 as argued by the Dutch authorities[23]. According to the information submitted, the measure increases the VIR for development projects or the RVIR for exploration projects by a fixed magnitude of 0.125 (namely 25% deduction on the 50% State Profit Share). For projects just below the hurdle, the measure would make these projects acceptable and incentivize the mining companies[24]. For prospects an economic hurdle of RVIR > 0.2 has been used for the purpose of the calculations. For the stranded fields – which no longer entail an exploration risk - the threshold value of the VIR is 0.4. The economic hurdle rate reflects the value on the basis of which an optimum extra gas volume is to be expected as a result of the measure (both for the prospects and stranded fields).

42. More particularly, the Dutch authorities have submitted confidential business secrets information on 40 prospects (accounting for some 80% of the expected extra gas production arising from the measure) which would become economic as a result of the measure, taking into account an economic hurdle of RVIR > 0.2[25]. The relevant fields are run by 11 different operators[26].

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[23] The Dutch authorities argue that Energie Beheer Nederland (EBN, 100% owned by the Dutch State and charged with the management of the State participation in the exploration and extraction of oil and natural gas) is in a position to see all projects, exploration and development and that EBN receives all the input data for the economic analysis. Even if EBN does not know the discount rates nor the oil price (gas price) prediction for the future of the the individual companies, according to the Dutch authorities, EBN has a good idea what companies are using. The range of 0.1 – 0.4 is established by EBN.

[24] The calculated VIR or RVIR is very much dependent on the oil or gas price. Per project an oil or gas price can be calculated for which the project is no longer economic and the measure would be necessary. There is, however, not one level for which all marginal fields or prospects become economic.

[25] The prospects are evaluated with the same assumed economic hurdle for all the companies. Although the hurdle (Screening oil price 50$/bbl, NPV 11% after tax, RVIR > 0.2) originates from Nogepa (Association of all Dutch operators; http://www.nogepa.nl/language/en-GB/Home.aspx) and reflects the average hurdle for all Dutch operators, individual companies will have their own hurdles and these may deviate. The Dutch authorities have explained that, apart from the VIR / RVIR threshold, the oil price (gas price) and discount rate are also important for the calculation of the effect of the measure and that the VIR / RVIR threshold must be looked at in combination with these two parameters. The authorities submitted that there is a Mining Climate Working Group with representatives of NOGEPA (the Netherlands Oil and Gas Exploration and Production Association) members, EBN, and the Ministry of Economic Affairs. EBN has developed the Monte Carlo model for the Dutch offshore sector. The economic parameters used in that model, including the VIR / RVIR thresholds have been established in this working group. Nogepa consulted all operators on their economic threshold and

43. Based on the information and underlying data provided by the Dutch authorities, the Commission considers the criterion that the proposed measure must have an incentive effect as being fulfilled. This conclusion is further reinforced by the design of the draft legislation which provides that solely investments in business assets made after the applicable law came into effect, which have not been used for the exploration and exploitation of a new gas field offshore before, are eligible for the investment deduction.

3.1.4. Proportionality of the aid

44. As a preliminary remark, the Commission finds the duration of the measure, which is limited to six years, proportionate and adequate. As already indicated in point 3 above, if the marginal fields in question are not connected within the next 5-10 years, the existing platforms and infrastructure - which are expected to be exhausted in 10 to 15 years' time - shall be dismantled or removed. Hence, there is only a limited window of opportunity for the exploration and exploitation of the remaining gas reserves from the small fields.

45. Furthermore, the aid intensity resulting from the measure amounts to 12.5% of the investment (25% extra deduction for the State Profit Share with a rate of 50%). This aid intensity is by any standard modest in absolute terms. In further support of the proportionality of the measure, it can be concluded from the data provided by the Dutch authorities on those prospects that would become economic as a result of the measure (as indicated above), that in a majority of cases, the RVIR is not exceeding the economic hurdle by more than 0.1.

46. The Commission therefore considers that the proportionality criterion is fulfilled.

3.1.5. Impact on competition and trade between Member States

47. The Commission notes that the proposed measure does not discriminate and is open and applicable to all (mining) companies, who, irrespective of their origin, are active (or wish to be active) in the area of exploration and extraction of natural gas in the marginal gas fields concerned in the Dutch section of the continental shelf and who under the extraction licence granted under the Mining Act are obliged to pay a profit share to the Dutch State[27].

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derived from this an average set of parameters. When the average parameter set is applied to the total prospects database, the outcome would be a good representation of the final outcome, according to the Dutch authorities.

26 However, not all prospects identified will automatically benefit from the measure, given that not all prospects remain economic over time. The economics of a prospect or field depends *inter alia* on the allocated share of the operational cost of the existing infrastructure to which the field or prospect is connected. As the existing production is in decline and because operational costs are allocated on a throughput basis, the share of the operational costs will increase with time. Additionally, the infrastructure that it will connect to may be abandoned and other evacuation routes may consequently be further away with higher investment costs. Furthermore, the number of prospects on the list that will be drilled also depends on the annual exploration activity level.

27 The Dutch authorities submitted that 13 operators are currently active in the Dutch gas production sector offshore, including: ATP Oil and Gas Netherlands, Chevron, Cirrus Energy, GDF Suez E&P Nederland, NAM, Total E&P Nederland, Grove Energy, Wintershall Noordzee and Petro-Canada Netherlands. Additionally, 20 joint licence holders are active in this sector.

48. As indicated in point 40 above, the measure would potentially benefit a considerable number of different operators. According to the Dutch authorities, the prospects that could be exploited economically as a result of the measure are run by 11 different companies. This relatively high number of potential beneficiaries/competitors that are active in the offshore gas sector would seem to indicate that any adverse impact on competition as a result of the measure is unlikely. Moreover, the Dutch authorities have provided data on existing gas fields which shows that the benefits of the measure are likely to be broadly distributed and that no individual operator is likely to derive disproportionate benefits thereof.

49. Furthermore, the measure is open to newcomers. Even though exploration and extraction licences have been granted for the largest part of the Dutch part of the continental shelf and a large part of the prospects and unexplored reserves is located in the existing licensed areas, there have been various entries and withdrawals in existing (mainly exploration) licences, transfer of complete or parts of licences and refunds (for parts) of licensed areas[28].

50. Additionally, in view of the limited window of opportunity by the disappearing infrastructure on the continental shelf, other means are used by the Dutch authorities to promote access for newcomers to prospects and unexplored reserves. As indicated above (footnote 22), the Covenant between the Minister of Economic Affairs and mining companies aims to actively utilise areas beneath Dutch soil for exploration, extraction and storage.

51. Finally, it is not expected that the measure will give rise to an undue distortion of competition or adversely affect trade between Member States.

52. In the view of the Dutch authorities, competition in the exploration and production of natural gas takes place on a global scale. The Commission, in previous merger decisions, has considered the relevant market for exploration of natural gas as a distinct relevant product market which has a global scope[29]. Further downstream, the relevant geographic market for the production of natural gas was found to comprise most likely the EEA, including imports from Russia and Algeria (although the exact geographic market definition could be left open since the transaction did not give rise to competition concerns under any reasonable geographic market delineation)[30].

53. In relation to the subject case the Dutch authorities have submitted information[31] which indicates that the total gas production in the European Union[32] was 177 billion m^3 in 2009. The additional reserves of 21 billion m^3 will result in production going beyond 2020 (see point 11). However, assuming full production until 2020, this would come down to approximately 2.1 billion m^3 per year. This annual volume of 2.1 billion m^3 represents approximately 1% of total gas production for 2009 in the European Union (i.e. on an even narrower scale compared to the relevant geographic market identified by the Commission). Consequently, on the

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[28] See http://www.nlog.nl/nl/licences/licences.html

[29] Merger decision M4545 Statoil-Hydro of 3.5.2007 (point 7).

[30] E.g. merger decision M5220 *ENI/Distrigaz* of 15.10.2008 (points 35-36).

[31] Source: IHS-CERA (IHS Cambridge Energy Research Associates).

[32] I.e. EU27: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Sweden, Spain, and the United Kingdom.

basis of a market for exploration/production of natural gas which is worldwide in scope, this percentage would be even lower.

4. DECISION

54. On the basis of the foregoing assessment, the Commission has decided not to raise objections against the notified measure, since it fulfils the conditions to be considered compatible with the internal market, pursuant to Article 107(3)(c) of the TFEU.

55. The Commission reminds the authorities of the Netherlands that, in accordance with Article 108(3) of the TFEU, plans to refinance, alter or change this scheme have to be notified to the Commission pursuant to provisions of Commission Regulation (EC) No 794/2004[33].

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[33] Commission Regulation (EC) No 794/2004 implementing Council Regulation (EC) No 659/1999 laying down detailed rules for the application of Article 93 [now 88] of the EC Treaty; OJ L 140, 30.4. 2004, p.1.

56. If this letter contains confidential information which should not be published, please inform the Commission within fifteen working days from the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the Internet site: http://ec.europa.eu/community_law/state_aids/state_aids_texts_nl.htm

Your request should be sent by registered letter or fax to:

European Commission
Directorate-General of Competition
State Aid Greffe
B-1049 BRUSSELS
Fax n°: 00-32-2-296 1242

Yours faithfully,
For the Commission

Joaquín ALMUNIA
Vice-President of the Commission

Brevdato	02-01-2017
Afsender	Kirsten Lundt Erichsen (Sagsbehandler, TFU)
Modtagere	Jesper Brandrup (Sagsbehandler, TFU)
Akttitel	Vs: TA-sheets for Tyra upside part 1, part 2 and Southern portfolio
Identifikationsnummer	501779
Versionsnummer	1
Ansvarlig	Kirsten Lundt Erichsen
Vedlagte dokumenter	TA-sheets for Tyra upside part 1, part 2 and Southern portfolio TA-sheets Upside part 2 DOKUMENT IKKE MEDTAGET TA-sheet Southern Portfolio DOKUMENT IKKE MEDTAGET TA-sheets Upside part 1 DOKUMENT IKKE MEDTAGET 20160429 Tyra Upside - volumes v3
Dokumenter uden PDF-version (ikke vedlagt)	
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Akt 143

Til: Jesper Brandrup (jbr@ens.dk)
Fra: Kirsten Lundt Erichsen (kle@ens.dk)
Titel: Vs: TA-sheets for Tyra upside part 1, part 2 and Southern portfolio
Sendt: 02-01-2017 15:32:45
Bilag: TA-sheets Upside part 2.xlsm; TA-sheet Southern Portfolio.xlsm; TA-sheets Upside part 1.xlsm; 20160429 Tyra Upside - volumes v3.pptx;

Akt nr. 143

Til: Trine Fugmann (TFU@ens.dk)
Cc: Kruse, Stefan (stefan.kruse@maerskoil.com), Kildegaard, Jesper Saaby (jesper.kildegaard@maerskoil.com)
Fra: Windelin, Jakob (Jakob.Windelin@maerskoil.com)
Titel: TA-sheets for Tyra upside part 1, part 2 and Southern portfolio
Sendt: 29-04-2016 16:46:37

Kære Trine,

I henhold til Energistyrelsens anmodning sendes vedhæftet præsentation vedrørende mulige yderligere volumner der potentielt muliggøres af en Tyra genopbygning, samt TA Sheets for den sydlige portefølje og TA Sheets for de potentielle Tyra upside volumner.

Disse marginale projekter er i forskellige faser af vores Project Maturation Process og er derfor behæftet med variernede grader af usikkerhed.

Spørgsmål kan rettes til undertegnede, eller ved spørgsmål omkring modellering og TA-sheets til Stefan Kruse 51714174 eller Jesper Kildegaard 33633862. Lad os under alle omstændigheder mødes i næste uge for at gennemgå det fremsendte.

God weekend
Jakob Windelin
Director

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Tyra Future upside potential – volume potential

28 April 2016

MAERSK OIL

Volume build-up for Tyra Future and potential upsides

[redacted]

- Tyra Future volumes (Status Quo 10.1, Partial Recovery, 10.5, and Rebuild, 1.1) incremental to Decommissioning case
- "Status Quo" case is MO updated numbers (likely to be [redacted] MMBOE lower than DNS case, primarily due to different assumptions on shut-down timing)
- Upside volumes are unrisked and truncated by year 2042
- Upside part 1 are Tyra area marginal projects currently prioritised and resourced
- Upside part 2 are Tyra area marginal projects with low priority
- Upside part 3 are Tyra area projects included in the national strategy, but ,highly unlikely to materialise
- Upside part 4 are potential third party tie-back projects

MAERSK OIL

Tyra Upside –Volume Potential

(1st table truncated by year 2042, 2nd table not truncated)

[redacted]

Aktdetaljer

Akttitel: Fwd: Fiscal incentives Open book 160613 ENS.pptx
Aktnummer: 145

Akt ID:	498736
Dato:	13-06-2016
Type:	Indgående
Original titel:	Fwd: Fiscal incentives Open book 160613 ENS.pptx
Dokumenter:	[1] Fwd Fiscal incentives Open book 160613 ENS.pptx.eml [2] Fiscal incentives Open book 160613 ENS.pptx [3] ATT00001.htm

Til: Trine Fugmann (TFU@ens.dk)
Fra: Windelin, Jakob (Jakob.Windelin@maerskoil.com)
Titel: Fwd: Fiscal incentives Open book 160613 ENS.pptx
Sendt: 13-06-2016 16:55:17
Bilag: Fiscal incentives Open book 160613 ENS.pptx; ATT00001.htm;

Hej Trine,

I forlængelse af vores drøftelser i sidste uge sendes vedhæftet yderligere sensitiviteter.

Jeg foreslår vi drøfter det fremsendte tirsdag eller onsdag.

Med venlig hilsen

Jakob Windelin
40483882
Sent from my iPad

Begin forwarded message:

Scenarios Open book, DKK

KEY METRICS	Total Production 100%	Capex nominal MOD, 100%	NPV (mmdkk, 100%)	Gov'ment take (mmdkk)
	mmboe	mmdkk	ATCF NPV10%	Discounted @ 4,7%
[redacted]				

Projects are sanctioned on the basis of many parameters, including positive NPV (in case of Tyra, higher than NPV than the alternative options), an acceptable DPI (in the case of Tyra the incremental DPI), and a NPV positive P90. Neither of these requirements are met by the 1.1 Rebuild economics.

As can be seen above, the 1.1 Rebuild option is at least as good as the alternative for the government and with risked upside added it is [redacted] DKK better. Unlike for the investors, where Rebuild + risked upsides yields the same NPV against an additional investment of [redacted] DKK.

The 1.1 Rebuild P90 will remain negative, even with risked upside added.

DKK/USD 6.91

MAERSK OIL

Upsides and Risk

With project risking only 2 projects [redacted] are likely being sanctioned without incentives.

Maersk Oil PMP process phases:
- Initiate
- Assess
- Select
- Define (ends with FID)
- Execute

[redacted]

Risking of upside projects towards a P90 at project sanction:
- Capex/abex +40%
- Opex +25%
- Production -40%

Risking is based on an approximation based on industry data and internal Maersk Oil projects, with the expected development of volume and costs from early project phases to project sanction/FID. Schedule risk is not included.

Harald LPO is sanctioned and will be included in the [redacted]

DKK/USD 6.91

Energistyrelsen

3. januar 2017

Aktdetaljer

Akttitel: Clarification
Aktnummer: 146

Akt ID:	498735
Dato:	16-06-2016
Type:	Indgående
Original titel:	Clarification
Dokumenter:	[1] Clarification.eml

Til: Trine Fugmann (TFU@ens.dk)
Cc: Kruse, Stefan (stefan.kruse@maerskoil.com)
Fra: Windelin, Jakob (Jakob.Windelin@maerskoil.com)
Titel: Clarification
Sendt: 16-06-2016 10:42:18

Kære Trine,

I forlængelse af vores drøfteler I går, kan jeg bekræfte, at resourcetallene i præsentationen fra 3. marts inkluderede den forventede samlede produktion fra Tyra i 1.1 og 10.5 scenarierne (uden upside projekter).

Mandagens præsentation inkluderer alene den inkrementelle produktion.

Håber det besvarer spørgsmålet, ellers må du vende tilbage.

Mvh
Jakob Windelin
Head of Commercial, DBU

Mærsk Olie og Gas A/S
Oslo Plads 2
DK-2100 Copenhagen K
Phone: +4533634969
Mobile: +4540483882
Fax: +45(33)633878
www.maerskoil.com
Company reg. No. 22 75 73 18

Aktdetaljer

Akttitel: RE: Deltagere onsdag i møde med maersk
Aktnummer: 157

Akt ID:	498724
Dato:	15-08-2016
Type:	Indgående
Original titel:	RE: Deltagere onsdag i møde med maersk
Dokumenter:	[1] RE Deltagere onsdag i møde med maersk.eml

Til: Trine Fugmann (TFU@ens.dk)
Fra: Windelin, Jakob (Jakob.Windelin@maerskoil.com)
Titel: RE: Deltagere onsdag i møde med maersk
Sendt: 15-08-2016 16:25:38

Kære Trine,
Tak. Sender deltagerliste i morgen.
Hvor lang tid er der afsat?
Mvh
Jakob

From: Trine Fugmann [mailto:TFU@ens.dk]
Sent: 15. august 2016 16:23
To: Windelin, Jakob
Cc: Nikolaj Lomholt Svensson; Jens-Birger Christophersen; Kirsten Lundt Erichsen (ENS); Jan Harley Andersen (ENS); Trine Tougaard; Martin Hansen
Subject: VS: Deltagere onsdag i møde med maersk

Kære Jakob

Som lovet dagsorden og deltagerliste til mødet på onsdag:

1) Gennemgang af potentialerne i DUCs område, v. ENS
2) Gennemgang af beregningerne af skatteprovenuet, herunder spørgsmålet om skatteneutralitet, v. SKM
3) Evt.

EFKM
Trine Tougaard (DEP)
(evt. Søren Jacobsen – kontorchef DEP)

ENS
Martin Hansen (Vicedirektør)
Trine Fugmann (kontorchef)
Jens-Birger Christophersen
Nikolaj Lomhols Svensson
Kirsten Lundt Erichsen
Jan Harley Andersen

SKM
Niels Kleis Frederiksen (afdelingschef)
Lise Bo Nielsen (kontorchef)
Marc Harding eller Trine Søberg

FM
Rasmus Lønborg (kontorchef)
Søren Hauskov Pilgaard
Kathrine Thrane Bløcher

EVM
Helle Osmar Clausen (kontorchef)
Preben Sandberg Pettersson (kontorchef)
Jakob Mau Pedersen

Lad os lige tales ved i morgen.

Venligst
Trine

Energistyrelsen

3. januar 2017

Aktdetaljer

Akttitel: Møde om Tyra Future
Aktnummer: 158

Akt ID:	498723
Dato:	16-08-2016
Type:	Indgående
Original titel:	Møde om Tyra Future
Dokumenter:	[1] Møde om Tyra Future.eml

Til: Trine Fugmann (TFU@ens.dk)
Cc: Pedersen, Martin Rune (Martin.Pedersen@maerskoil.com)
Fra: Windelin, Jakob (Jakob.Windelin@maerskoil.com)
Titel: Møde om Tyra Future
Sendt: 16-08-2016 12:49:19

Kære Trine,

Følgende deltager på vegne af Maersk Oil på mødet i Energiministeriet, Stormgade 2 i morgen kl 14:

Jakob Windelin, Head of Commercial, DBU
Morten Jeppesen, Head of Subsurface, DBU
Morten Hesselager Pedersen, Head of Tyra Future Development Project
Preben Thorsen, Head of Tax
Ulrik Lindow Sørensen, Head of Legal, Denmark
Stefan Kruse, Head of Economics, DBU
Karin Svan, Head of Growth Control, Finance

Jeg går ud fra, at vi blot skal meddele vores ankomst i receptionen og spørge efter Martin Hansen.

Med venlig hilsen
Jakob Windelin
Head of Commercial, DBU

Mærsk Olie og Gas A/S
Oslo Plads 2
DK-2100 Copenhagen K
Phone: +4533634969
Mobile: +4540483882
Fax: +45(33)633878
www.maerskoil.com
Company reg. No. 22 75 73 18

Aktdetaljer

Akttitel: RE: Dagsorden til teknisk møde med Maersk tirsdag kl. 9
Aktnummer: 162

Akt ID:	498719
Dato:	22-08-2016
Type:	Indgående
Original titel:	RE: Dagsorden til teknisk møde med Maersk tirsdag kl. 9
Dokumenter:	[1] RE Dagsorden til teknisk møde med Maersk tirsdag kl. 9.eml

3. januar 2017

Til: Trine Fugmann (TFU@ens.dk)
Cc: Svan, Karin (karin.svan@maerskoil.com), Thorsen, Preben Joker (preben.joker.thorsen@maerskoil.com), Kruse, Stefan (stefan.kruse@maerskoil.com), Kirsten Lundt Erichsen (kle@ens.dk), Nikolaj Lomholt Svensson (nls@efkm.dk), Martin Hansen (mah@ens.dk), trito@efkm.dk (trito@efkm.dk), Sorensen, Ulrik Lindow (ulrik.lindow.sorensen@maerskoil.com)
Fra: Windelin, Jakob (Jakob.Windelin@maerskoil.com)
Titel: RE: Dagsorden til teknisk møde med Maersk tirsdag kl. 9
Sendt: 22-08-2016 21:26:34

Kære Trine,
Tak for det.

Vi kommer:
Ulrik Lindow Sørensen
Preben Joker Thorsen
Karin Svan
Stefan Kruse

Og undertegnede.

Mvh
Jakob Windelin
Head of Commercial, DBU

From: Trine Fugmann [mailto:TFU@ens.dk]
Sent: Monday, August 22, 2016 7:47 PM
To: Windelin, Jakob
Cc: Kirsten Lundt Erichsen (ENS); Nikolaj Lomholt Svensson; Martin Hansen; Trine Tougaard; Trine Fugmann
Subject: Dagsorden til teknisk møde med Maersk tirsdag kl. 9

Kære Jakob

Hermed dagsorden til morgendagens møde. Beklager den sene fremsendelse.

Venligst
Trine

1. Statsstøtteforhold v. EVM
2. Energinet.dk v. ENS
3. Nordsøfonden v. EVM
4. Finansielle løsninger v. FM
5. Evt.

Deltagere:
EFKM: Søren Jacobsen (kontorchef) (evt. +1)
ENS: Martin Hansen (vicedirektør), Trine Fugmann (kontorchef) og Kirsten Lundt Erichsen
EVM: Helle Osmer (kontorchef) og Preben Pettersson (kontorchef).
FM: Rasmus Lønborg (Kontorchef) +1

Brevdato	02-01-2017
Afsender	Kirsten Lundt Erichsen (Sagsbehandler, TFU)
Modtagere	Jesper Brandrup (Sagsbehandler, TFU)
Akttitel	Vs: note questions for authorities 160825.xlsx
Identifikationsnummer	501780
Versionsnummer	1
Ansvarlig	Kirsten Lundt Erichsen
Vedlagte dokumenter	note questions for authorities 160825.xlsx note questions for authorities 160825 DOKUMENT IKKE MEDTAGET
Dokumenter uden PDF-version (ikke vedlagt)	
Udskrevet	03-01-2017

Akt 167

Til: Jesper Brandrup (jbr@ens.dk)
Fra: Kirsten Lundt Erichsen (kle@ens.dk)
Titel: Vs: note questions for authorities 160825.xlsx
Sendt: 02-01-2017 15:34:35
Bilag: note questions for authorities 160825.xlsx;

Akt. nr. 167

Til: Trine Fugmann (TFU@ens.dk)
Fra: Windelin, Jakob (Jakob.Windelin@maerskoil.com)
Titel: note questions for authorities 160825.xlsx
Sendt: 26-08-2016 09:50:01

Kære Trine,

Vedhæftet et par spørgsmål vedrørende de foreslåede modeller.

Vi overvejer stadig de forskellige modeller, så der kan komme yderligere spørgsmål.

Med venlig hilsen
Jakob Windelin
Head of Commercial, DBU

Mærsk Olie og Gas A/S
Oslo Plads 2
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Phone: +4533634969
Mobile: +4540483882
Fax: +45(33)633878
www.maerskoil.com
Company reg. No. 22 75 73 18

Spørgsmål vedrørende Tyra Future problemstillingen		
Emne	Spørgsmål	Svar
Skat		
	Er det korrekt, at neutralitet i kulbrintebeskatningen er baseret på en antagelse om, at stat og investorer diskonterer med samme procentsasts (på omkring [redacted]) - Er det korrekt, at hvis investorerne for eksempel diskonterer med [redacted] og staten med [redacted] vil kulbrinteskattesystemet ikke være helt neutralt?	
	Er det korrekt, at kulbrintebeskatningen for projekter med en lang investeringshorisont før afskrivninger påbegyndes ikke er helt neutralt?	
	Er det korrekt, at kulbrintebeskatningen ikke er neutral for så vidt angår det faktum at selskabsskatteværdien af dekommissioneringsomkostninger ikke udbetales ved virksomhedens ophør?	
Statsstøtte		
	[redacted] grundlag for at få godkendt statsstøtte og argumenter for en [redacted]	
Tidslinie		
	Hvorledes ser en realistisk tidslinie ud for de foreslåede modeller?	
	hvornår vil DUC skulle forpligt sig til den fulde genopbygning?	
	Hvornår vil der kunne være fuld klarhed over, om de forskellige modeller kan eksekveres og nødvendige EU godkendelser indhentes?	
	Hvilke tiltag skal tages organisatorisk for eksekvering af de foreslåede modeller? (f.eks. Etablering af struktur, ansættelse af personale mv)	

Energistyrelsen

3. januar 2017

Aktdetaljer

Akttitel: Re: Møde i morgen
Aktnummer: 278

Akt ID:	498602
Dato:	13-12-2016
Type:	Indgående
Original titel:	Re: Møde i morgen
Dokumenter:	[1] Re Møde i morgen.eml [2] image001.png

Til: Trine Fugmann (TFU@ens.dk)
Cc: Nikolaj Lomholt Svensson (nls@efkm.dk)
Fra: Windelin, Jakob (Jakob.Windelin@maerskoil.com)
Titel: Re: Møde i morgen
Sendt: 13-12-2016 22:44:41
Bilag: image001.png;

Kære Trine,

Deltagere fra vores side er:
Jakob Windelin
Ulrik Lindow Sørensen
Stefan Kruse
Preben Jøker Thorsen
Robert Kaufmann
Christian Holm Nielsen

Vil I ligeledes sende deltagerliste? pft

Mvh

Jakob Windelin
Head of DBU Commercial
+4540483882

On 13 Dec 2016, at 12:28, Trine Fugmann <TFU@ens.dk> wrote:

Kære Jakob

Mødet i morgen bliver fra kl. 10-11 som udgangspunkt. Hvis behov kan der muligvis udvides med ½ time til sidst.

Emnerne bliver:

- [redacted]
- [redacted]
- [redacted]

Sted er Finansministeriet

Venligst
Trine

Med venlig hilsen / Best regards

Trine Fugmann
Kontorchef / Head of Division
Center for Energiressourcer/Centre for Energy Resources

Mobil / Cell +45 2618 0292
E-mail tfu@ens.dk

<image001.png>
Danish Energy Agency - www.ens.dk
- part of the Danish Ministry of Energy, Utilities and Climate

== AKT 498602... ==

Energistyrelsen

Energistyrelsen

3. januar 2017

Aktdetaljer

Akttitel: Fwd: TFU DUC 2nd proposal 20161108 v4.pptx
Aktnummer: 382

Akt ID:	498487
Dato:	08-11-2016
Type:	Udgående
Original titel:	Fwd. TFU DUC 2nd proposal 20161108 v4.pptx
Dokumenter:	[1] Fwd TFU DUC 2nd proposal 20161108 v4.pptx.eml [2] TFU DUC 2nd proposal 20161108 v4.pptx [3] ATT00001.htm

Til: Lise Bo Nielsen (lbn@skm.dk), Helle Osmer Clausen (DEP) (hoc@evm.dk), Niels Kleis Frederiksen (nkf@skm.dk), Martin Hansen (mah@ens.dk), Energi-, Forsynings- og Klimaministeriet (efkm@efkm.dk), rasib@fm.dk (rasib@fm.dk), kthra@fm.dk (kthra@fm.dk)
Fra: Trine Fugmann (TFU@ens.dk)
Titel: Fwd: TFU DUC 2nd proposal 20161108 v4.pptx
Sendt: 08-11-2016 19.41:32
Bilag: TFU DUC 2nd proposal 20161108 v4.pptx; ATT00001.htm;

T.O. Ny præsentation fra Mærsk med lavprisscenariet inkluderet.
Venligst
Trine

Start på videresendt besked:

Fra: "Windelin, Jakob" <Jakob.Windelin@maerskoil.com>
Dato: 8. november 2016 kl. 18.59.16 CET
Til: "tfu@ens.dk" <tfu@ens.dk>
Cc: "Sorensen, Ulrik Lindow" <ulrik.lindow.sorensen@maerskoil.com>, "Kaufmann, Robert" <Robert.Kaufmann@maerskoil.com>
Emne: TFU DUC 2nd proposal 20161108 v4.pptx

Kære Trine,

I forlængelse af mødet i dag sendes opdateret præsentation med 'low oil price' inkluderet.

Vi har også rettet lidt i ordlyden under tabllen.

Med venlig hilsen
Jakob Windelin
Head of Commercial, DBU

Mærsk Olie og Gas A/S
Oslo Plads 2
DK-2100 Copenhagen K
Phone: +4533634969
Mobile: +4540483882
Fax: +45(33)633878
www.maerskoil.com
Company reg. No. 22 75 73 18

Starting positions

Government position

Ready to contribute to get TFU 1.1 sanctioned:

- Assumed PI of [redacted] on incremental investment (incremental CAPEX of [redacted] MMUSD)
- Plus delta between TFU 1.1 and TFU 10.5

Contribution around [redacted]

(Incremental DPI of [redacted]

Compromise ?

DUC proposal (of 3rd November)

- Uplift of [redacted] production [redacted]
- Uplift applied to TFU only
- Based on current views on project CAPEX

Contribution around [redacted]

(Incremental DPI of [redacted]

MAERSK OIL

Why should Government move position?

Upside

[redacted]

What has changed?

- Lower oil price environment
- Increased capital competition globally
- [redacted]DPI not representing current cash flow environment
- "[redacted]DPI" was a simple metric for modelling purposes in North Sea strategy work

MAERSK OIL

2nd DUC Proposal

KEY METRICS	Total Production 100%	Capex nominal MOD, 100%	NPV ($mm, 100%)	Gov'ment take ($mm)	DPI (Discounted Profitability Index)
					w/o Abex
	mmboe	$mm	ATCF NPV10%	[redacted]	

[redacted]

[redacted] ERSK

DUC TFU 1.1 cash flow

[redacted]

MAERSK OIL

Energistyrelsen

Aktdetaljer

Akttitel: VS: Spørgsmål til Mærsks business case af 8 bem (2).docx
Aktnummer: 383

Akt ID:	498486
Dato:	08-11-2016
Type:	Udgående
Original titel:	VS: Spørgsmål til Mærsks business case af 8 bem (2).docx
Dokumenter:	[1] VS Spørgsmål til Mærsks business case af 8 bem (2).docx.eml
	[2] Spørgsmål til Mærsks business case af 8 bem (2).docx

3. januar 2017

Til: Lise Bo Nielsen (lbn@skm.dk), Helle Osmer Clausen (DEP) (hoc@evm.dk), Niels Kleis Frederiksen (nkf@skm.dk), Martin Hansen (mah@ens.dk), Energi-, Forsynings- og Klimaministeriet (efkm@efkm.dk), raslb@fm.dk (raslb@fm.dk), kthra@fm.dk (kthra@fm.dk)
Fra: Trine Fugmann (TFU@ens.dk)
Titel: VS: Spørgsmål til Mærsks business case af 8 bem (2).docx
Sendt: 08-11-2016 21:54:28
Bilag: Spørgsmål til Mærsks business case af 8 bem (2).docx;

Kære alle

Hermed spørgsmål sendt til Mærsk.

Venligst
Trine

Fra: Trine Fugmann
Sendt: 8. november 2016 21:53
Til: Windelin, Jakob
Cc: Martin Hansen
Emne: Spørgsmål til Mærsks business case af 8 bem (2).docx

Kære Jakob

Hermed spørgsmål til jeres businesscase fra i dag. Du må meget gerne give en tilbagemelding på, hvornår I vil kunne svare, og evt. dele svarene op, så vi får dem løbende.

Venligst
Trine
Med venlig hilsen / Best regards

Trine Fugmann
Kontorchef / Head of Division
Center for Energiressourcer/Centre for Energy Resources

Mobil / Cell +45 2618 0292
E-mail tfu@ens.dk

Energistyrelsen

Danish Energy Agency - www.ens.dk
- part of the Danish Ministry of Energy, Utilities and Climate

Spørgsmål til Mærsks business case af 8. november 2016

Som opfølgning på dagens møde er der følgende spørgsmål til business casen:

1) Indgår kriteriet om et positivt NPV ved den lave oliepris [redacted] i beregningsgrundlaget i de fire eksempler. I så fald, hvordan ser beregningerne ud, hvis dette kriterium ikke indgår?
2) Hvor stor en del af fradraget i de fire eksempler anvendes i DUCs øvrige portefølje uden for Tyraprojektet? Er denne gevinst tilbageført til den isolerede beregning af Tyras rentabilitet?
3) Hvordan ser tallene i tabellen ud, dvs. produktion, CAPEX, NPV og DPI for de fire eksempler, hvis der indregnes tillægspotentialer jf. vedhæftede bilag? Der anmodes om tre sæt beregninger [redacted]
4) Hvad betyder en tidsbegrænsning fra 2018 -2025 af den foreslåede lempelse for de fire modeller?
5) Hvor stor skulle ændringen i kulbrintefradraget være, hvis man skulle nå en DPI på hhv. [redacted] og [redacted]
6) Hvor mange pct.-point skulle kulbrintefradraget lempes, før det giver en gevinst på [redacted] USD?
7) Tabel med oversigt over, hvordan business casen påvirkes (NPV, DPI og NPV ved den lave oliepris [redacted] ved en gradvis lempelse af kulbrintefradraget, dvs. ved en lempelse på [redacted] mv.
8) De nævnte produktions CAPEX, som er medtaget i dagens business case – indgår de som CAPEX i TA-sheets for det nordlige område fra marts? Hvis ikke, hvordan indgår de så?

Energistyrelsen

Aktdetaljer

Akttitel: VS: Spørgsmål til DUCs business case af 8 bem - for for DEA
Aktnummer: 386

Akt ID:	498483
Dato:	09-11-2016
Type:	Udgående
Original titel:	VS: Spørgsmål til DUCs business case af 8 bem - for for DEA
Dokumenter:	[1] VS Spørgsmål til DUCs business case af 8 bem - for for DEA.eml [2] Spørgsmål til DUCs business case af 8 bem - for for DEA docx [3] ATT00001 htm

3 Januar 2017

Til: Lise Bo Nielsen (lbn@skm.dk), Helle Osmer Clausen (DEP) (hoc@evm.dk), Niels Kleis Frederiksen (nkf@skm.dk), Martin Hansen (mah@ens.dk), Energi-, Forsynings- og Klimaministeriet (efkm@efkm.dk), raslb@fm.dk (raslb@fm.dk), kthra@fm.dk (kthra@fm.dk)
Fra: Trine Fugmann (TFU@ens.dk)
Titel: VS. Spørgsmål til DUCs business case af 8 bem - for for DEA
Sendt: 09-11-2016 19:43:11
Bilag: Spørgsmål til DUCs business case af 8 bem - for for DEA.docx; ATT00001.htm;

Hermed Mærsks svar på de fleste af vores spørgsmål.
Venligst
Trinenkf

Fra: Windelin, Jakob [mailto:Jakob.Windelin@maerskoil.com]
Sendt: 9. november 2016 18:59
Til: Trine Fugmann
Cc: Sorensen, Ulrik Lindow; Kaufmann, Robert
Emne: Spørgsmål til DUCs business case af 8 bem - for for DEA

Kære Trine,
Vedhæftet svar på jeres spørgsmål. Der udestår et enkelt datapunkt, som vil tage mere tid at beregne.

Vi står til rådighed, hvis I har spørgsmål.
Med venlig hilsen

Jakob Windelin
Head of Commercial, DBU

Mærsk Olie og Gas A/S
Oslo Plads 2
DK-2100 Copenhagen K
Phone: +4533634969
Mobile: +4540483882
Fax: +45(33)633878
www.maerskoil.com
Company reg. No. 22 75 73 18

Spørgsmål til DUCs business case af 8. november 2016

Som opfølgning på dagens møde er der følgende spørgsmål til business casen:

1) Indgår kriteriet om et positivt NPV ved den lave oliepris [redacted] i beregningsgrundlaget i de fire eksempler. I så fald, hvordan ser beregningerne ud, hvis dette kriterium ikke indgår?

   Response: The requirement still applies. Removing the requirement will not change the required return on the mid case. Table was submitted 8 November 2016:

KEY METRICS	Total Production 100%	Capex nominal MOD, 100%	NPV ($mm, 100%)	Gov'ment take ($mm)	DPI (Discounted Profitability Index) w/o Abex
	mmboe	$mm	ATCF NPV10%	[redacted]	
[redacted]					

2) Hvor stor en del af fradraget i de fire eksempler anvendes i DUCs øvrige portefølje uden for Tyraprojektet? Er denne gevinst tilbageført til den isolerede beregning af Tyras rentabilitet?

   Response: An NPV benefit of [redacted] from production capex and sanctioned projects is included in the TFU project NPV.

3) Hvordan ser tallene i tabellen ud, dvs. produktion, CAPEX, NPV og DPI for de fire eksempler, hvis der indregnes tillægspotentialer jf. vedhæftede bilag? Der anmodes om tre sæt beregninger [redacted]

   Response: The upside projects only marginally affect the base case DPI due to the capital requirements for these projects. The DUC partnership has differing views on the viability of the upside projects. The majority of projects are immature; consequently, it is likely that costs will increase significantly before they potentially are sanctioned. While DUC agree that there is value to the upside projects, there is not sufficient value to justify an argument of assigning additional value to the TFU 1.1 project in the base assessment.

   See the below table:

KEY METRICS	Upside	Total Production 100%	Capex nominal MOD, 100%	NPV ($mm, 100%)	DPI (Discounted Profitability Index)
	[illegible]	mmboe	$mm	[redacted]	w/o Abex
[redacted]					

4) Hvad betyder en tidsbegrænsning fra 2018 -2025 af den foreslåede lempelse for de fire modeller?

[redacted]

5) Hvor stor skulle ændringen i kulbrintefradraget være, hvis man skulle nå en DPI på hhv [redacted] og [redacted]?

Response: See the below table:

6) Hvor mange pct.-point skulle kulbrintefradraget lempes, før det giver en gevinst på [redacted]?
[redacted]

7) Tabel med oversigt over, hvordan business casen påvirkes (NPV, DPI og NPV ved den lave oliepris [redacted] ved en gradvis lempelse af kulbrintefradraget, dvs. ved en lempelse på [redacted] mv.

Response: See under question 5

8) De nævnte produktions CAPEX, som er medtaget i dagens business case – indgår de som CAPEX i TA-sheets for det nordlige område fra marts? Hvis ikke, hvordan indgår de så?

Response: DUCs Open Book model includes the data handed out to the DEA in the spring 2016. Production capex is included in the Southern Portfolio dataset.

Til: Jesper Brandrup (jbr@ens.dk)
Fra: Kirsten Lundt Erichsen (kle@ens.dk)
Titel: Vs: Opfølgning på afklaringsmødet den 17. august
Sendt: 03-01-2017 16:23:05
Bilag: Provenuprofil og gaspriser til APMM.xlsx; teknisk gennemgang 17-08-16 A.pdf;

Akt nr. 890

Til: Windelin, Jakob (Jakob.Windelin@maerskoil.com)
Cc: Trine Fugmann (TFU@ens.dk)
Fra: Nikolaj Lomholt Svensson (nls@efkm.dk)
Titel: Opfølgning på afklaringsmødet den 17. august
Sendt: 22-08-2016 11:31:58

Kære Jakob

Efter aftale med Trine sender jeg her dels præsentationen af forudsætninger vedr. produktionspotentialer, dels regneark med provenuprofiler og gaspriser.

Bh
Nikolaj

Med venlig hilsen / Best regards

Nikolaj Lomholt Svensson
Fuldmægtig / Advisor
Center for Global Rådgivning og forhandling / Centre for Global Cooperation

Mobil / Cell +45 4133 9478
E-mail nls@ens.dk

Energistyrelsen

Danish Energy Agency - www.ens.dk
- part of the Danish Ministry of Energy, Utilities and Climate

Brevdato	03-01-2017
Afsender	Kirsten Lundt Erichsen (Sagsbehandler, TFU)
Modtagere	Jesper Brandrup (Sagsbehandler, TFU)
Akttitel	Vs: Opfølgning på afklaringsmødet den 17. august
Identifikationsnummer	502368
Versionsnummer	1
Ansvarlig	Kirsten Lundt Erichsen
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Dokumenter uden PDF-version (ikke vedlagt)	
Udskrevet	03-01-2017

[redacted]

Udvalget vedrørende en
olie og gasstrategi fase 2

Renovering af Tyra feltets anlæg

Teknisk gennemgang af forudsætninger vedrørende produktionspotentialer til brug for økonomiberegninger

17-08-16 FORTROLIGT

Datagrundlag for økonomiske beregninger

Medlemmer af udvalget udpeget af Energistyrelsen har til brug for økonomiberegninger leveret data for:

- Produktionsprofiler for olie og gas med tilhørende OPEX, CAPEX og ABEX fra alle eksisterende felter i Eneretsbevillingen ved
  - delvis genopbygning og
  - fuld genopbygning
- Upside potentiale fra Eneretsbevillingen ved fuld genopbygning
  - produktionsprofiler for olie og gas med tilhørende OPEX, CAPEX og ABEX

Datagrundlag for økonomiske beregninger

- Efterforskningsbidrag (geologisk og kommercielt vægtet):
    - produktionsprofiler med tilhørende OPEX, CAPEX og ABEX for prospekter indenfor Eneretsbevillingen og
    - tarif for prospekter udenfor eneretsbevillingen
- Produktionsprofiler for fund fra tredjepart med tilhørende tarif

Metodik for tilvejebringelse og behandling af data

- Mærsk Olie og Gas A/S (MOGAS) har i foråret til brug for arbejdet fremlagt data for
  - felter omfattet af Tyra projektet og
  - på aggregeret niveau for øvrige procescentre

- Disse data afviger væsentligt fra tidligere data:
  - Omkostningsniveauet er markant lavere end i olie og gasstrategiens fase 1
  - Produktionsprofilerne er generelt mere positive end i den årlige rapportering fra 1. februar 2016

Metodik for tilvejebringelse og behandling af data

- Data er vurderet på grundlag af foreliggende viden i ENS fra tilsyn med Eneretsbevillingen og andre rettighedshaveres virksomhed
- Data er drøftet med MOGAS på møder
- ENS' skriftlige og mundtlige spørgsmål til data er besvaret undervejs i arbejdet. Endvidere er modtaget opdateringer og supplering af de modtagne data
- For at sikre konsistens i data er kun anvendt data fra foråret 2016

Metodik for tilvejebringelse og behandling af data

- MOGAS data i de endelige dataark (TA sheets) er anvendt på feltniveau for det nordlige område (mindre korrektion for Svend feltet)
- ENS har på grundlag af data for procescentre i det sydlige område af Eneretsbevillingen udarbejdet data på feltniveau
- Anvendte data er "Mid Case"
- Der er ikke forudsat produktionsbidrag fra teknologiudvikling i datagrundlaget for eneretsbevillingen (teknologibidrag indgår i ENS' samlede produktionsprognose for dansk område)

Upsides, tredjeparts- og efterforskningspotentiale

- Ved fuld genopbygning er for Upside anvendt data (TA-sheets) for projekter i præsentationen Tyra Upside – Volume Potential
- Baseret på MOGAS vurderinger fremsat på møde 4. maj 2016 er anvendt potentialer for upsides Part 1 og 2

- For tredjeparts- og efterforskningspotentiale er anvendt ENS´ data

- Upside-, tredjeparts- og efterforskningsprojekter er analyseret i forhold til kriterierne, som blev brugt i olie og gasstrategien
  - [redacted]
  -

Tyra Upside –Volume Potential (data fra 4. maj)

[redacted]

Metodik for data for efterforsknings-, teknologi- og tredjepartsbidrag

- ENS' data er anvendt for efterforskningsbidrag (geologisk og kommercielt vægtet) fra prospekter indenfor og udenfor eneretsbevillingen, som er placeret indenfor ca. 25 km fra Tyra
- ENS' data er anvendt for tredjepartsbidrag for fund (sandsynlighedsvægtet for tilslutning til Tyra); forudsat tarif: [redacted] USD/boe

Estimeret produktion i Eneretsbevillingen ved delvis vs. fuld udbygning, 2016 - 2042

[redacted]

1. Teknisk justeret i forhold til Mærsks præsentation af 3. marts 2016.
2. Inklusiv potentiale i tilladelse 8/06B, hvor DUC er rettighedshaver. Tilladelsen omfatter en del af Valdemar feltet. Det er ikke muligt, at udskille potentialet i tilladelse 8/06B.
3. Estimeret kommercielt potentiale fra videreudbygninger af nuværende felter og fra efterforskning i det nordlige område.

Anvendte kilder

3/3	Møde mellem FM/SKM/EVM/EFKM/ENS og Mærsk
10/3	Mærsk e-mail med TA-sheets
29/3	Mærsk e-mail med opdaterede TA-sheets
29/4	Mærsk e-mail med TA-sheets (Tyra Upsides part 1og 2 og Southern Portfolio)
2/5	Energistyrelsens spm. til Mærsk vedr. datamateriale i TA-sheets modtaget den 10/3 og den 29/4
3/5	Energistyrelsens yderligere spm. til Mærsk vedr. datamateriale i TA-sheet Southern Portfolio modtaget den 29/3 og til projekter i Tyra Upsides part 1 og 2
4/5	Energistyrelsen møde om data med Mærsk
9/5	Energistyrelsen anmoder Mærsk om data på feltniveau for den sydlige portefølje
12/5	Mærsk e-mails med udestående svar på spm. fra møde 4/5 (Energistyrelsens spm. fra 2/5 og 3/5)
12/5:	Energistyrelsens e-mail Mærsk med spm. til "TA-sheet Southern Portfolio" fremsendt 29/3 (med reference til grafer præsenteret på TAC-møde den 15/4)

Anvendte kilder

12/5	Energistyrelsens e-mail til Mærsk med spm. vedr. fordeling af ABEX på Tyra Main og Tyra Sydøst plus anmodning om supplerende data
17/5	Energistyrelsens e-mail til Mærsk med spm. vedr. OPEX og transportation costs.
18/5	Mærsk e-mail med TA-sheets vedr. det sydlige område fordelt på Dan, Gorm og Halfdan og Other. Desuden svar om opsplitning af ABEX på Tyra Main og Tyra Sydøst
26/5	Energistyrelsens e-mail med spørgsmål til Mærsk vedr. oplysninger fra e-mail af 18/5
26/5	Telefonisk kontakt til Mærsk vedr. spørgsmål om forudsætninger og antagelser gjort for TA-sheets for det sydlige område (fra 18/5). Mærsk e-mail som opfølgning.
1/6	Telefonisk kontakt til Mærsk vedr. diverse spørgsmål til datafiler.

Statens samlede indtægter under forskellige genopbygningsscenarier for Tyra

Mio. kr. løbende priser	Fuld genopbygning med tillægspotentiale	Fuld genopbygning	Delvis genopbygning
2016	[redacted]		
2017	[redacted]		
2018	[redacted]		
2019	[redacted]		
2020	[redacted]		
2021	[redacted]		
2022	[redacted]		
2023	[redacted]		
2024	[redacted]		
2025	[redacted]		
2026	[redacted]		
2027	[redacted]		
2028	[redacted]		
2029	[redacted]		
2030	[redacted]		
2031	[redacted]		
2032	[redacted]		
2033	[redacted]		
2034	[redacted]		
2035	[redacted]		
2036	[redacted]		
2037	[redacted]		
2038	[redacted]		
2039	[redacted]		
2040	[redacted]		
2041	[redacted]		
2042	[redacted]		

Anm.: Skatteindtægterne er opgjort i løbende priser. Tabellen omfatter alene perioden 2016-2042, hvorved evt. udbetaling af skatteværdien af underskud ved ophør ikke indgår.

Kilde: Skatteministeriet på baggrund af oplysninger fra Energistyrelsen og Finansministeriet

Gaspriser for APM anvendt ifm. arbejdet i Olie- og gasstrategiens fase II

År	DKK/m3 - løbende priser
2016	[redacted]
2017	[redacted]
2018	[redacted]
2019	[redacted]
2020	[redacted]
2021	[redacted]
2022	[redacted]
2023	[redacted]
2024	[redacted]
2025	[redacted]
2026	[redacted]
2027	[redacted]
2028	[redacted]
2029	[redacted]
2030	[redacted]
2031	[redacted]
2032	[redacted]
2033	[redacted]
2034	[redacted]
2035	[redacted]
2036	[redacted]
2037	[redacted]
2038	[redacted]
2039	[redacted]
2040	[redacted]
2041	[redacted]
2042	[redacted]

Anm.: Gasprisen beregnes som en fast andel af de skønnede oliepriser fra Finansministeriet.