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FINANSMINISTERIET

Privatisation alternatives for DONG A/S

A study prepared for the Ministry of Finance, Denmark

ROTHSCHILD

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Definitions

The following definitions apply throughout this document unless the context otherwise requires:

“bbl”	barrels of oil
“bcm”	billion cubic meters
“bcm p.a.”	billion cubic meters per annum
“bn”	billions
“boe/d”	barrels of oil equivalent per day
“b/d”	barrels per day
“cm”	cubic meters
“cm/h”	cubic meters/hour
“GW”	gigawatts
“GWh”	gigawatt hours
“m”	millions
“mcm”	million cubic meters
“mmboe”	million barrels of oil equivalent
“mmcf/d”	million cubic feet per day
“mtoe”	million tonnes of oil equivalent
“MW”	megawatts
“MWh”	megawatt hour
“PJ”	petajoules
“scf/bbl”	standard cubic feet per barrel
“Rothschild”	N M Rothschild & Sons Limited
“TJ”	terajoule
“TW”	terawatts
“TWh”	terawatt hours

Contents

1. Purpose of the Report

N M Rothschild & Sons Ltd ("Rothschild") has been commissioned by the Ministry of Finance of the Kingdom of Denmark to:

- produce an up-to-date description of DONG A/S, its activities and strategy, and assess whether this strategy is consistent with that being adopted by other European energy companies;
- establish the feasible options for privatising the company;
- analyse the political considerations and elaborate the government objectives germane to such a privatisation;
- determine the value likely to be realised under each feasible privatisation option; and
- assess the extent to which each option might achieve the government's objectives.

The report was commissioned in January 2004; the final draft was delivered in May 2004

2. DONG and its strategy

DONG now

2.1. DONG was established in 1972 as the Danish national gas company and remains 100% state-owned. During the first quarter century of its existence, DONG had two principal missions: to build, own and operate a natural gas grid and contract sufficient gas to supply Danish consumers' needs and, from 1984 onwards, to act as the vehicle for State participation in Danish hydrocarbon (exploration and production) licences. More recently, there has been an expansion in DONG's activities: outside of Denmark (with E&P interests acquired in Norway and the UK); downstream in the gas chain (with two of the five Danish distribution/supply companies acquired in 1999-2000) and into the electricity sector, with a majority interest acquired in EnergiGruppen Jylland (the electricity, heating and water distributor in and around Herning), and minorities in NESA (the country's largest electricity supplier) and Elsam (the largest generator). In a move which signalled a major change from its previous role, the State acquired DONG's gas transmission business in 2004, rechristening it Gastra.

2.2. As a consequence of this activity, DONG currently:

- purchases all the gas produced in Denmark (about 7 bcm in 2003), owns the Danish offshore pipelines connecting the gasfields in the North Sea with the transmission system and the onshore processing system, and has substantial interests in the country's three gas export pipelines (one of which is still under construction);

- is the largest gas wholesaler in Denmark, with gas sales of 4.1bcm in 2003 corresponding to 90% of the market, the largest supplier, and was presumably the sole exporter (to Germany and Sweden);

- operates the country's only gas storage business and owns two of the five regional gas distribution systems, through which it supplies over 100,000 customers which, together with its industrial business, gives it two-thirds of the end-market;

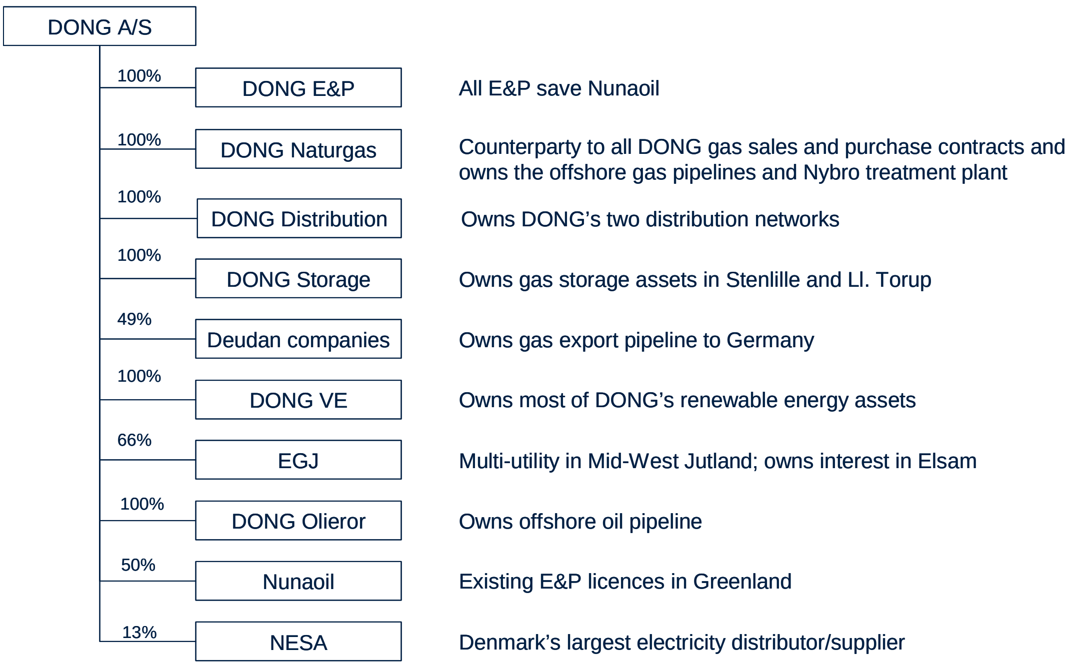
- produces approximately 50,000 boe/d of hydrocarbons (2003), of which around 90% is oil and 10% gas, and has 126 mmboe of proved and probable reserves, rising to 241mmboe under the wider categorisation used in the company's business plan;

- owns the country's offshore oil pipeline; and

- owns 66% of EGJ (which supplies around 40,000 customers with electricity in Jutland), 13% of NESA and (via EGJ) c.9% of Elsam.

- owns renewable assets (71MW of wind power and 7MW of geothermal heat)

2.3. The diagram below is a simplified description of DONG's group structure and the accompanying notes summarise the activities of DONG's principal subsidiaries and affiliates.



2.4. At end 2003, DONG employed 1156 people, had a turnover in that year of DKK14.25bn, earnings before interest, tax, depreciation and amortisation ("EBITDA") of DK5.55bn and profit after tax of DKK1.94bn. It had total year-end assets of DKK33bn and net debt of DKK3.5bn, implying a debt to total capitalisation ratio of 11%, which fell further on 1 January, 2004 with the transfer of DONG Transmission (renamed "Gastra") to government. The table below sets out the evolution of these statistics over the last five years:

Table 1 - DONG – Key Financial and Employment Statistics

	1999	2000	2001	2002	2003
Employees:	572	709	755	900	1156
Revenue (DKKbn)	6.80	11.67	12.72	13.73	14.25
EBITDA (DKKbn)	2.97	5.94	4.53	4.90	5.55
Profit after tax (DKKbn)	0.65	2.53	1.66	1.48	1.94
Total capitalisation (DKKbn)	24.85	29.47	29.97	28.93	33.01
Net debt (DKKbn)	7.95	8.72	8.00	4.58	3.53
Debt:Capitalisation (%)	32%	30%	27%	16%	11%

2.5. The overwhelmingly largest contributors to EBITDA in 2003 were E&P and Naturgas (gas wholesale and offshore pipelines), each with just under 40% of the total. In terms of the breakdown of DONG's *value*, there are four principal components of broadly equal size: E&P, Naturgas, infrastructure (distribution and storage) and the electricity company stakes.

Table 2 - DONG – Employment and EBITDA by Division (2003)

Business	Number of employees	EBITDA (DKKbn)	% of Group EBITDA
E&P	274	1,995	36%
Distribution	172	325	6%
Storage	23	289	5%
Naturgas	184	2,147	39%
Oil Pipelines	5	84	2%
Renewables	13	22	0%
Parent	230	60	1%
EGJ	156	100	2%
Other(1)	99	528	9%
Group		5,550	100%

Source: DONG

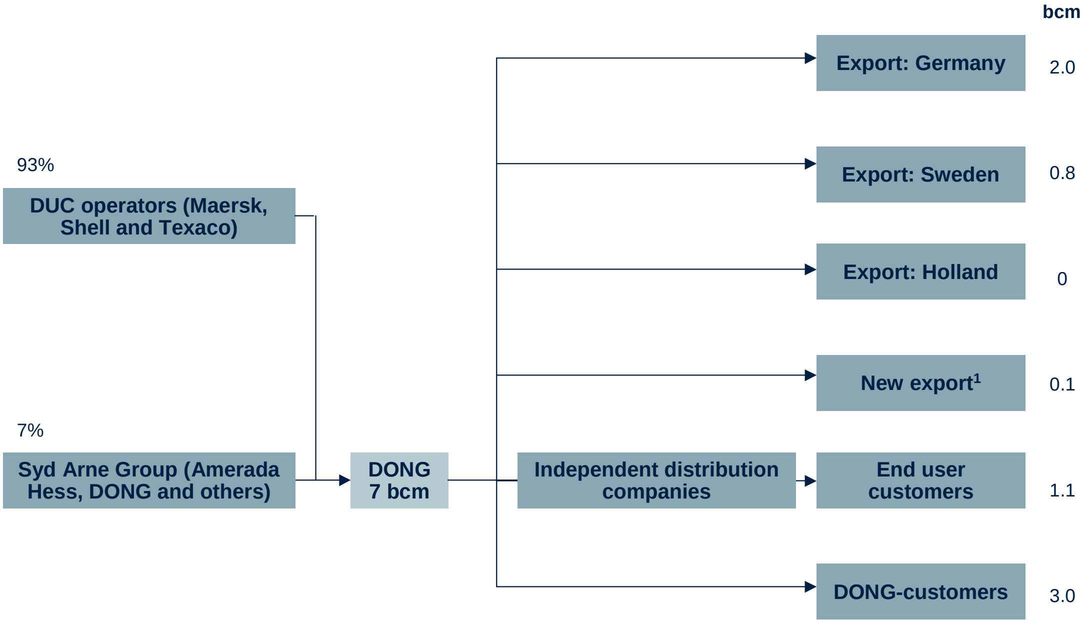
Notes

1 DONG's interest in NESA, Elsam, NOVA, the Deudan pipeline and electricity trading.

2.6. DONG E&P has interests in just under fifty hydrocarbon licences, with around twenty in each of Denmark and Norway and the balance in the UK, Faeroes and Greenland. Proved and probable reserves of 126 mmboe are split 79% oil and 21% gas. Production in 2004 is expected to increase from the 50,000 boe/d in 2003 to ±57,000 boe/d, split roughly equally between Syd Arne (Danish sector and jointly operated by DONG and Amerada Hess) the Siri Trend (Danish sector and operated by DONG) and the Ula-Gyda-Tambar cluster in Norway (operated by BP/Talisman, and in which DONG acquired its initial interest with its purchase of Pelican in 2001). Exploration is now focused on finding gas, particularly in the mid-Norwegian sector and west of Shetlands.

2.7. DONG Naturgas's business is dominated on the "buy" side by a series of purchase contracts with the Danish Underground Consortium ("DUC") comprising Maersk, Shell and Texaco. These provide for purchases of up to 7.5bcm p.a and have accounted for over 90% of Danish supply in recent years. Of the 7.0bcm of gas bought by DONG in 2003, c.60% was sold within Denmark and the balance exported to Germany and Sweden. As part of an agreement reached recently with the EU Commission, DONG has agreed that the next 7.0bcm of uncontracted gas sold by DUC will be to new customers. The figure below summarises DONG's gas purchases and sales in 2003.

Figure 1 - DONG's Gas Purchases and Sales in 2003



Notes

1 Sales to DONG's direct customers in Germany and Sweden

DONG Naturgas owns the offshore gas pipelines between Tyra and the Nybro processing plant (through which the DUC volumes are transported to the Danish mainland) and between Syd Arne and Nybro (through which the remaining ±0.5bcm comes onshore). It also owns 49% of the Deudan link, through which all German exports flow, and will own 50% of the offshore link to the Dutch NOGAT system. Third party access to the offshore gas transportation system is by negotiation, based on published tariffs and oversight as to reasonableness by the Danish regulatory authorities. Spare capacity on the Tyra-Nybro section is limited and, so far, there have been no requests for access to the system.

2.8. In 2003 DONG Naturgas sold 4.1bcm of gas in Denmark and had more than 90% of the market by volume. In S. Jutland and S. and W. Zealand DONG Distribution owns the gas distribution networks and has 95% of the market by volume in these areas, with the balance being supplied by Shell and Statoil. DONG Naturgas also has long-term supply contracts (with no take-or-pay provisions) with two other distribution companies (HNG/MN). The fifth distribution company (Naturgas Fyn) is supplied by Statoil. Access to DONG's distribution networks is on the basis of regulated tariffs set – on an interim basis – by reference to those charged by HNG and MN, which in turn are a function of those companies' debt repayment schedules. A new regulatory regime, based on an income cap, may become effective at the beginning of 2005. Although the entire gas market was opened on 1 January 2004, DONG has so far lost none of its household customers and has only gained a few such customers in the other distribution companies' areas. It has, however, taken industrial and commercial customers accounting for around 30% (by volume) of Naturgas Fyn's market.

2.9. DONG Storage owns and operates the only two gas storage facilities in Denmark, with total capacity of 700mcm. 200mcm of this is sold to Gastra for system integrity and emergency purposes. The balance is used by DONG and offered to third parties at regulated tariffs for seasonal storage/trading optimisation purposes. At present, around 100mcm is sold to four parties other than DONG and Gastra; any remaining storage capacity is currently bought by DONG Naturgas.

2.10. DONG Olieror owns the sole offshore oil pipeline in Denmark which transported 15 million tonnes of oil in 2003. Users pay DONG a tariff equal to cost (including amortisation of capital cost) plus a "profit element" equal to five per cent of the value of the oil transported. DONG pays a 95% tax on this profit element, substantially reducing the value of the pipeline to the company.

2.11. In response to the introduction of competition to its gas market, DONG has sought to move into the Danish electricity sector. Its electricity interests include 13% of NESA, Denmark's largest electricity distributor and owner of a 36% stake in Energi E2, the country's second largest generator; 66% of EGJ, the Herning-area electricity, heating and water supply company and, through EGJ, a c.9% interest in Elsam, Denmark's largest generator. In 2002, Elsam produced 15TWh of electricity and 38PJ of heat (36% and 49% respectively of total Danish production), principally from plant in Jutland. Elsam's generator's are largely coal-powered although there is a significant gas dual-fuel element. DONG also owns 71MW of wind and 7MW of geothermal generation capacity. DONG acquired most of its interest in NESA from Vattenfall in June 2002 and followed this up with an offer for the whole company in September 2003. However, DONG was outbid by Elsam, which received regulatory approval for its takeover of NESA in March 2004, subject to certain divestment conditions.

DONG tomorrow – strategy for the future

2.12. DONG's objective is to become an integrated gas and electricity company, with substantial interests from field to burner in gas, and generator to socket in electricity. It recognises that – as a former monopolist – its gas market share in Denmark must fall, but it expects the losses to be focussed in the lower margin electricity generation and industrial sectors and that it will remain the dominant (direct or indirect) gas supplier to domestic customers. It is also targeting a substantial market share in Sweden and to make inroads as a direct supplier of customers in other countries in northern Europe. Total gas sales within and outside Denmark are, however, projected to grow only modestly.

2.13. The source of this gas is expected to change radically: in order to support its ambition to remain a significant regional gas player when DUC's production enters its steep decline, DONG is re-orienting its E&P business towards gas. Cash flows from the existing oil production are being used to acquire and/or find and develop a significant gas portfolio in mid-Norway and west of Shetland. Its plan calls for production to increase from the current (2003) 50,000 boe/d (90% oil) to over 150,000 boe/d (of which around half gas) within 8 years. This is intended to be achieved in part from exploration success and in part from the acquisition of appraisal/development stage projects.

2.14. Finally, DONG is seeking to diversify further into the Danish electricity sector and to obtain a major position as generator and distributor. The objective is to protect its position in the Danish energy sector, to realise strategic, operational and cost synergies between the gas and electricity businesses and to increase the "utility" weighting of its portfolio of businesses, the stability of its cash flows and hence its overall rating and value.

Getting from here to there – implementing strategic change

2.15. The successful implementation of DONG's strategic rebalancing of its business mix will require the transformation of its E&P business from a largely Danish oil production unit to a Norwegian/UK gas exploration and development operation, without overpaying for acquisitions or overspending on unsuccessful exploration. It will also require the company to grasp opportunities arising from the restructuring currently underway in the Danish electricity sector to acquire a serious power business (or businesses) – again, without overpaying. Over the longer term, it will require the company to balance the competing demands of two very different business-types (E&P on the one hand and gas/electricity utilities on the other) with divergent risk profiles and re-investment requirements, and to maintain its future owners' support for the reinvestment of considerable sums of free cash flow from the mature oil production and Danish utility businesses into the search for and development of new gas fields.

Is the strategy consistent with that of others in the industry?

2.16. As a result of the EU's liberalisation of the electricity and gas markets, significant restructuring is taking place in these sectors. State-owned gas and electricity companies supplying their own domestic markets are gradually being replaced by privatised international energy companies which are trading across borders and regions. Companies are focusing on their core energy business and consolidating in order to protect/develop their market positions through the achievement of synergies and savings resulting from improvements in performance. Gas-power convergence has been a significant element in this consolidation.

2.17. DONG's strategy is consistent with these trends:

- the switch in emphasis from oil to gas in E&P brings greater focus to the company and emphasises its utility "core". Cash flows form the legacy oil production business will be used to implement this strategy;

- the plans to replace declining DUC gas volumes in part with own production is a strategy being pursued by a number of gas utilities which are seeking to integrate upstream;

- DONG's expansion of its gas supply business to end-consumers in other countries in the North European region is a sensible response to the inevitable inroads which others will make into its own domestic market and is consistent with the reaction of many other utilities; and finally

- if successful, the electricity strategy should:

  - create a bigger company, echoing the consolidation occurring elsewhere in Europe;

  - bring economies of scale in operations, marketing and procurement;

  - provide a stronger negotiating position with suppliers;

  - allow DONG to give customers a multi-fuel offering; and

  - potentially provide easier access to the debt market.

3. Political Considerations

Background

3.1. Rothschild's terms of reference specify the following political considerations as impinging on the privatisation of DONG:

- value/sale proceeds to the State;

- competition in the energy markets;

- control and ownership of the infrastructure assets;

- State participation in North Sea licences including, from 2012, the DUC licence;

- DONG's development after its privatisation, and government's long-term view of its position in the oil, gas and electricity sectors in Denmark; and

- minimising the risk of an unsuccessful transaction.

We were asked to develop a proposed set of objectives and policy recommendations from these considerations – and to highlight where these might conflict. Our proposals emerged from an iterative process in which the considerations were first discussed with officials in the Ministry of Finance and the Danish Energy Authority and the various energy sector Political Agreements carefully examined; this was followed by our making suggestions which were in turn the subject of comments and constructive criticism by the officials. The recommendations summarised in the ensuing paragraphs nevertheless remain no more than that and, prior to embarking on a privatisation of

DONG, the government should determine whether they – or some alternative set of proposals – best articulate its objectives from the process.

Value/proceeds

3.2. The narrow goal of maximising proceeds was distinguished from the wider objective of optimising value from the transaction, following which we concluded that:

- since the government has no pressing need for near-term cash, maximising *proceeds* should not be an objective as such. Assets should not be included in the privatisation with the sole purpose of increasing proceeds – and neither should the sale process be structured in a manner which sacrifices long-term value for short-term proceeds; however:

- the government should be concerned with value – although not to the exclusion of its other objectives. Where a trade-off exists between maximising value and one or more of its other objectives the government should assess and, wherever possible, quantify the trade-off, and thereafter take a policy decision as to how much weight to attribute to each objective; and

- once such decisions have been taken, the privatisation process should aim to maximise value within the other established policy constraints.

Competition in the energy markets

3.3. The government's actions and policies demonstrate that it wishes to support and promote the development of competition in the energy sector. The Political Agreements are similarly supportive. We therefore proposed that:

- evaluation of privatisation alternatives should include an assessment of their likely impact on energy prices and the level of service provided to consumers – whether through changes in the competitive environment or otherwise;

- any privatisation method which carried with it a risk of a significant diminution of competition in either the gas or electricity markets should, if and when implemented, be accompanied by arrangements (e.g. auctioning of gas, sale of generation plant) which mitigate such an outcome;

- the privatisation should be preceded by a review of the adequacy and appropriateness of the regulatory regime in the energy sector and the resources available to enforce it;

- if lack of clarity or anti-competitive practices (e.g. in relation to billing arrangements) or charges are found to be restricting access to infrastructural assets, these should be addressed prior to, or as part of, the privatisation;

- since the large volumes of gas exported to Germany could be sold back into Denmark, we do not think that competition is constrained because of lack of gas. Accordingly we doubt that it would improve competition if the government required DONG to auction gas to third parties.

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- it should also consider whether, in the interests of reducing the storage charge element of gas bills, it wishes to require DONG to auction its storage capacity – again recognising that this would reduce its value materially.

Infrastructure ownership and control

3.4. If the political agreements relating to the energy sector preclude the privatisation of DONG's infrastructure assets to any extent, or in any form, this is likely to constrain the privatisation options for the company, since DONG stripped of its infrastructural assets would be a difficult story to sell to stockmarket investors. The choices faced by the government therefore appear to be (i) to remove the infrastructure (and retain these under 100% government control within Gastra) and sell the remaining business to a strategic investor (or more likely, investors, since there would be limited logic in retaining the business intact); (ii) leave the infrastructure with DONG but sell only a minority interest in the company (by public offer to stockmarket investors, or to a strategic investor); or (iii) to renegotiate the Political Agreements to permit a majority – or even 100% – sale of DONG inclusive of infrastructure. Following discussions with the Ministry of Finance and the Danish Energy Agency we have developed proposals which, whilst they may not meet everyone's concerns, would, we hope permit DONG's privatisation to proceed (a) by any one of a variety of means (and, in particular, without eliminating the IPO option); (b) without substantial loss of value; (c) without exposing Gastra's transmission business to the risk of manipulation by a commercial provider of storage services and (d) without prejudicing competition in the supply of gas to the Danish market. Our suggestions are as follows:

- first, we believe that many of the political concerns surrounding ownership of and access to the gas and electricity infrastructure are justified by the currently undeveloped state of much of the applicable regulation and the shortage of resources within the regulatory agencies. We would propose that any privatisation is preceded by a review of the adequacy and appropriateness of the regulatory regime in the energy sector and the resources available to enforce it;

- if it is a priority for government to retain DONG's infrastructure under majority state ownership, it would be feasible to partially privatise DONG such that the government retained a majority interest in DONG following the privatisation transaction. Provided the government gave assurances to investors that it would not use this position to undermine the commercial operation of the company or to prevent it being run for the benefit of all its shareholders, we do not believe this would materially prejudice its privatisation, would have only a limited impact on value and would allow the government to retain a further safeguard in the event of regulatory shortcomings/malfunctions in the period following the privatisation.

- we believe DONG's privatisation story is enhanced by its owning and controlling two distribution networks and, if possible, this should be maintained and the ownership arrangement not complicated. The proposed legislative change to formalise the State's pre-emption right over the distribution networks in the event of a sale of the system to a third party and to extend this to a situation where the State ceased to control DONG would, if and when implemented, ensure majority State ownership of these assets was retained whatever future decisions were taken in respect of the rest of the business. Unless and until the State sold its stake in

DONG below 51%, the two networks would remain under DONG's ownership but, if the State elected to reduce its shareholding below this level (in any subsequent privatisation transaction) it would buy the systems off DONG at independently appraised "fair market value". Since the value of a regulated network business is fairly easily and uncontentiously assessable (provided the regulatory framework is clear), we would not expect the existence of this legislation to detract substantially from DONG's value at privatisation;

- the government might consider whether the infrastructural sensitivities would be further alleviated if DONG transferred to Gastra an undivided interest in its gas storage assets sufficient to meet Gastra's requirements to balance the system. The remainder of the storage facilities would be retained by DONG – which would continue to act as operator – to support its trading business and for it to make available, on a non-discriminatory basis, to third parties requiring as storage services. There may be additional competition benefits from this transfer (if Gastra doesn't use the entire capacity all the time) – but there will also be a likely value loss to the State as vendor and there may be adverse company development implications.

- as regards the upstream, State ownership of pipelines from offshore fields to onshore processing plants is unusual, and we note that the EU Commission has recently approved the existing ownership arrangements. We also believe that a change in ownership is unnecessary to ensure that producers obtain reasonably priced access to such spare capacity as may exist. We therefore suggest that DONG should retain ownership of the upstream pipeline system but that in order (a) to provide the government with confirmation that the existing access rights are fair and do not hinder the development of competition and (b) to provide future private investors in DONG with comfort that the third party access regime to the upstream system is unlikely to be subject to adverse changes in the immediate aftermath of the privatisation, that the proposed pre-privatisation regulatory review re-confirm the fairness of the access conditions shortly before the privatisation occurs, if possible committing to no further revision to access terms for some specified period thereafter; and finally

- the existing arrangement under which DONG collects a 5% *ad valorem* tariff on the offshore oil pipeline system, which is then subject to a 95% tax ought to be reviewed in form, if not in substance. 95% of the "tariff" ought to be converted into a royalty or excise duty which DONG collects on the State's behalf, with the balance representing the genuine profit element of the tariff to which DONG would be entitled to maintain the system.

State participation in North Sea Licences

3.5. We found universal agreement that even a partially privatised DONG should not continue to take new licence participations on the State's behalf. However, provided the privatisation resulted in the State receiving full value for the existing licences we found limited interest in their being retained by the State. Accordingly, we suggest that:

- with the exception of the interest in Nunaoil, the government not compulsorily divest DONG of any its existing E&P assets; rather, its objective should be to privatise these in a manner which maximises value from their disposal;
- DONG be asked to produce a list of those of its Danish licence interests which were originally acquired in its role as vehicle for State participation which it would prefer to surrender to the government;
- a new, non-operating, "caretaker" State-owned entity be established to take up the State's 20% interests in new exploration licences as well as those existing licence interests to which DONG attributes no value but which the government would like to retain;
- this same entity takes over DONG's 50% interest in Nunaoil, while considering the possibilities of maintaining DONG as an operator through an agreement on commercial terms in order to utilise DONG's competencies and knowledge; and
- this same entity also exercises the State's right to the 20% interest in the DUC licence in 2012.

Consideration might also be given to DONG's interests in geothermal licences and the regulatory regime applicable to these. If the government wants to encourage further geothermal exploration and development by the private sector (including DONG following its privatisation) it may wish to consider whether the regime needs to be made more attractive. If not, there may be a case for leaving this activity with the public sector.

DONG's corporate development

3.6. We conclude that DONG's corporate development would be best served by:

- not breaking it up;
- permitting it to retain its remaining infrastructural assets;
- encouraging it to continue with its gas:electricity convergence strategy;
- privatising it as an independent company; and
- maintaining its E&P business as an integrated – and gas-focused – part of DONG.

If a trade partner is introduced, there would only be "company development" benefits of keeping E&P within DONG if the partner intended to develop this part of the business – and the best test of this is probably how much more he is prepared to pay for DONG with, as opposed to without, its E&P division.

Minimising the risk of failure

3.7. The likelihood of DONG's privatisation failing for political reasons will be minimised by:

- ensuring that the objectives of the privatisation are clearly stated and presented;
- being able to demonstrate that the chosen strategy has emerged from an exhaustive evaluation of all practical alternatives against all reasonable political objectives. This report represents the first, technical, step in this evaluation and we understand that it will be made publicly available. We expect it will be followed up by discussions at both the official and political levels of government;
- being able to show that consumers' interests will be protected and any privatised natural monopoly(ies) – e.g. infrastructure – will be subject to adequate regulation and other safeguards of the public interest;
- ensuring a level playing field for all potential purchasers: if the government should decide to bring in a trade partner for DONG it will wish to avoid giving bidders the opportunity to claim they are being discriminated against; and
- minimising the scope for other Danish energy industry participants to claim they are prejudiced by the privatisation. A regulatory review should be capable of addressing this issue too.

The risk of the privatisation failing due to an inadequate response from the market will be minimised by:

- a proper analysis of what buyers/investors want;
- structuring what is offered to buyers/investors in a manner which is cognisant of this; and
- a robust sale process.

In preparing this report we have held discussions with a large number of potential trade investors in all or part of DONG's business, and have sought the views of Rothschild's equity capital market division as to the likely appetite of stockmarket investors to participate in a public offering of the company. The alternatives presented in the report as viable options for DONG's privatisation have been identified on the basis of the feedback received from these discussions.

4. Preliminary valuation

Introduction

4.1. Rothschild has undertaken a preliminary valuation of DONG in order to establish its "hold" value to the State as shareholder. We have also estimated what value would be realised in each of an initial public offering ("IPO") of DONG, a sale to a strategic partner, a sale to a financial investor and a break-up and sale of the company's constituent businesses. In this report we summarise:

- our methodologies and approach;

- how values obtained differ depending on methodologies used, and the likely reasons for this;
- the split of value between DONG's divisions/activities;
- the sensitivity of value to key assumptions made; and
- our view as to the likely relative value to be obtained from each of the sales options (IPO, trade sale, sale to a financial investor, break-up).

This report does not, however, disclose our estimates of either "hold value" or of value likely to be realised from the disposal alternatives, as we consider that making these estimates public may prejudice the State's commercial interests as potential seller of shares in DONG or its component businesses.

Methodology and approach

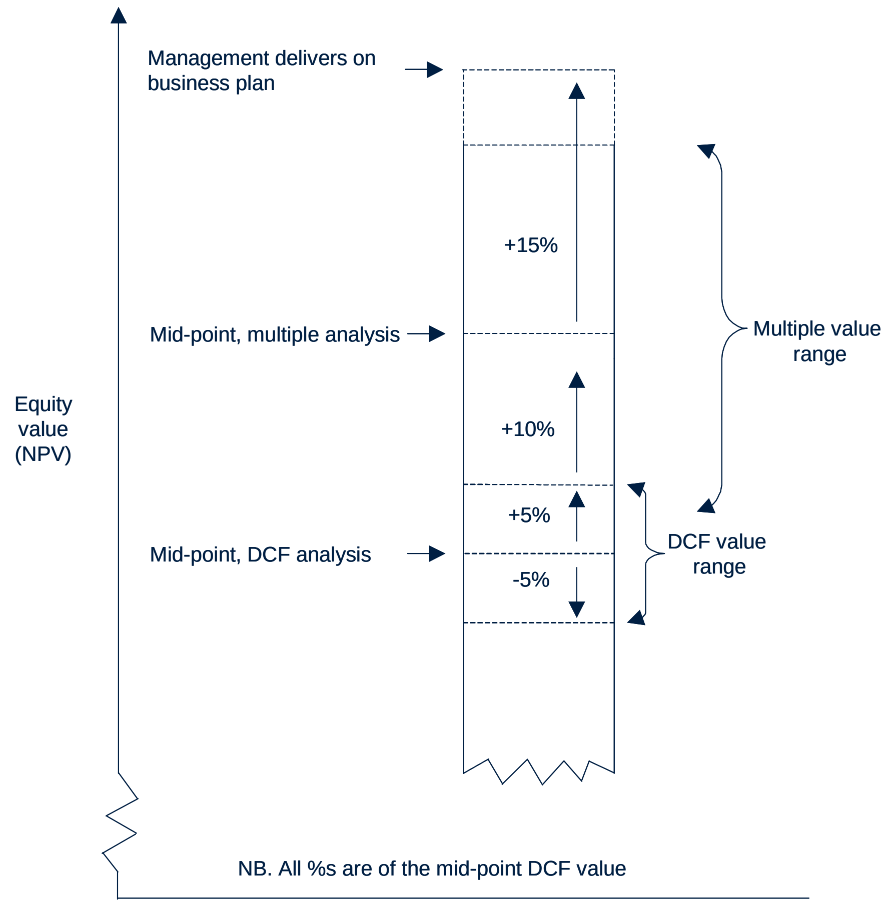
4.2. The preliminary valuation has been conducted on a "sum-of-the-parts" basis, where each of DONG's principal business areas (infrastructure, Naturgas (including supply and offshore pipelines), E&P and electricity) has been valued separately, both on the basis of the businesses as they currently exist and on the basis of the implementation of DONG's current business plan (as described in paragraphs 2.12 – 2.14 above). The enterprise value of the DONG Group (i.e. before balance sheet adjustments) is then taken to be the sum of the value of its constituent business activities. With two exceptions (see later), valuations of these activities have been based principally on discounted cash flow methodology, in each case using a range of discount rates which we consider fairly reflect the costs of capital of each of the businesses (and which therefore differ between them) and various approaches to "terminal value" (where such value needs to be imputed). Net present values derived from the DCF analysis have then been cross-checked first, against valuations derived from the application of multiples based methodology (2004 and 2005 EBITDA trading multiples of comparable listed companies in the case of the utility elements of DONG's business; price:cash flow multiples for E&P) and second, by conducting sensitivity analysis to ascertain the robustness of the valuation to changes in key parameters (oil price, loss of gas market share etc). The two exceptions to the DCF/trading multiple approach are DONG's minority shareholdings in NESA (which was valued on the basis of the Elsam offer price) and Elsam, where the value of the interest was based on DONG's offer price for 16.3%. DONG's net debt was then deducted from the enterprise valuation to obtain an equity value. Having established DONG's sum-of-the-parts equity "hold" value, we then estimated what value would be realised in each of an initial public offering ("IPO") of DONG, a sale to a strategic partner or a financial investor, and a break-up in each case using the methodologies described in paragraphs 4.7 – 4.9 below.

4.3. We have undertaken the DCF valuations using data from DONG's own financial model which incorporates DONG's 2004 budget, and the Company's preliminary strategy plan to 2008.

Results

4.4. The DCF analysis delivered a range of equity net present values for the DONG Group (the range reflecting the ranges of discount rates used for the individual businesses) with the lower and upper values approximately 5% either side of the mid-point. The NPV range overlapped the bottom end of the wider (±10%) spectrum arising from multiples analysis based on broadly comparable companies to DONG. We are unsurprised by the DCF analysis producing values at or below the bottom end of the multiple range since, unlike the comparator analysis, the DCF valuations make allowance for DONG's forecast reductions in margins and loss of Danish market share. Management's successful delivery of DONG's business plan in all three affected areas (E&P, Naturgas and electricity) has the potential to add up to 30% to the mid-point NPV of the existing business. The figure below summarises the "hold" valuation of DONG's existing business based on the different methodologies used:

Figure 2: DONG: "hold" value



4.5. Based on the mid-point enterprise value from the DCF analysis, the value of the existing DONG Group divides broadly into four equal components: E&P, Naturgas, Infrastructure (distribution and storage) and the electricity company stakes.

Sensitivity analysis

4.6. Sensitivity analysis was undertaken to assess the impact on the net present values obtained for DONG's existing business of variations in the oil price, DONG's loss of gas market share in Denmark and allowed rates of return on regulated (distribution and storage) assets. The results, again taking the mid-point of the DCF range are set out in the table below.

Scenario		**Variation in equity value**
Oil price (1):	High case:	+18%
	Low case:	-9%
Loss of market share (2):	Low case:	-2%
Regulatory returns (3):	High case:	+2%
	Low case:	-2%

Source: Rothschild

Notes:

[1]

	Base case:	High case	Low case
2004:	US$28/bbl	US$28/bbl	US$25/bbl
2005:	US$26/bbl	US$26/bbl	US$20/bbl
2006:	US$25/bbl	US$25/bbl	US$20/bbl
2007:	US$25/bbl	US$25/bbl	US$20/bbl
2008-12:	US$23/bbl	US$25/bbl	US$20/bbl
2013 et seq:	US$20/bbl	US$25/bbl	US$20/bbl

All in 2004 prices

[2] The Low case assumes a further 10% loss of market share in the domestic, commercial and other larger customer categories below that in the base case (with the released gas being sold into Europe).

[3] Allowed pre-tax rates of return assumed to be 1% higher/lower than in base case

Value realised in transactions

4.7. In an IPO, forward-looking institutional investors would focus on the expected results in 2005 (assuming that any transaction was effected in late 2004 at the earliest) and would apply multiples at which comparable companies then traded. To estimate the IPO valuation a SOTP approach has been used applying EV/EBITDA multiples for the utility businesses (based on those at which comparators trade); price to cash flow multiples (again based on comparators) for the E&P business; recent transaction prices for Elsam and NESA, and DCF valuations for the remaining smaller parts of DONG business. The multiples range used (lower quartile to mean of each multiple range) reflect DONG's uniqueness and its quasi-conglomerate nature, for which investors are unlikely to be prepared to pay a similar price as for more readily understood businesses.

This results in an equity value range extending from some 15% below to the mid-point of the DCF range for DONG's existing business. However, we would expect that trading would *initially* occur towards the lower end of this range.

Delivery of any significant part of DONG's business plan prior to an IPO will have a beneficial impact on ratings and value, as it will demonstrate the company's ability to implement its strategy, which investors are otherwise being required to take on trust from a management with only a limited track record in the areas in question.

Assuming an initial privatisation transaction within a time frame of one to two years, the electricity element of the strategy is that which has the greatest prospect of advancing before the company is first offered to investors. Substantial progress on this front is likely to result in a higher equity value for DONG at the IPO arising from:

- improved rating, due to the business looking more 'utility-like' and having improved growth prospects;
- value creation from the acquisition itself (e.g. synergies)

The extent of the uplift will depend on how much value the market believes DONG can extract from the business(es), and is likely to increase over time as DONG delivers the benefits of integration. To the extent they – and the potential benefits from the other elements of the business plan – are not reflected in the value of the stake sold in the IPO, their value should be reflected in the government's retained stake if and to the extent DONG's management delivers on the business plan without overpaying.

4.8. A trade investor will undertake a DCF valuation similar to that undertaken in this report and will also look at the multiples of EBITDA upon which comparable companies have recently been purchased. Working from multiples at which comparable companies have recently changed hands yields equity values with a mid-point some 28% higher than the mid-point of the DCF range. Again, we are unsurprised that the multiples valuation exceeds the DCF valuation of the existing business, since the former does not reflect the impact on that business of increased competition, reduced margins and reduced DUC volumes, all of which are incorporated in the DCF valuation – and is derived from comparisons with transactions involving companies with a more conventional business-mix than DONG. As a result we would expect trade investors to focus on the DCF valuation of DONG, in its present form if DONG had not implemented any substantial part of its development strategy by the time it was privatised and inclusive of identified business plan upside to the extent its implementation had occurred or was assured. They would then make adjustments for some or all of:

- upside – based in part on their assessment of the prospect of (and benefits from) implementing the as yet undelivered parts of the business plan;
- cost savings which they could bring about by combining their own business with DONG's; and
- the size of the interest being offered (and ultimately obtainable) and the degree of management control conferred upon them by the intershareholder arrangements.

The extent of these adjustments can only be hazarded at this juncture; however, based on the feedback received from prospective investors whom we have interviewed and our experience of similar sales, and assuming that the privatisation occurs before DONG had implemented its electricity strategy or any of the other major elements of its business plan but that the trade investor is offered management control *ab initio* and a route to a majority shareholding in due course, we would expect the highest bid to value the existing company at a modest (±10%) premium to the net present value of DONG in its present form. If the company was privatised following the implementation of any of the major elements of its business plan we would in addition expect trade investors to pay full value for the resulting synergies.

4.9. If DONG were to be sold to a financial investor such as a private equity house (PEH), the PEH would use a leveraged financial structure to acquire the company. After a period of time, typically up to 5 years, the PEH would sell its interest in DONG either by IPO or trade sale. Based on DONG's existing business (which, save to the extent the business plan had been implemented, is that upon which we would expect a PEH to focus) and assuming the PEH (i) required an equity return of 20-25% p.a.; (ii) considered it would be able to sell on a mid-point NPV after 5 years; and (iii) geared DONG to 70% of its current DCF enterprise value, value realised in a sale to PEH is estimated as some 7-11% below the DCF enterprise valuation, due to the higher returns of equity required by the PEH.

4.10. We would expect a break-up followed by a sale of parts to strategic investors to generate similar value to the trade sale of the DONG Group as a whole (although *proceeds* would be lower if the infrastructure businesses were not sold), with the value from lost internal DONG Group synergies approximately offset by the uplift resulting from greater competition for each component of the business.

5. Description of privatisation options

Introduction

5.1. Four different privatisation methods were considered (with variations on two of them):

- initial public offering (prior to or after implementation of DONG's electricity strategy);
- trade sale (to a strategic or financial investor, prior to or following implementation of the electricity strategy);
- a hybrid of the IPO and trade sale mechanisms; and
- a break up of DONG.

In each case the suitability of the business for sale and the requirements of potential investors were considered. Issues associated with the sale – in particular the size of the stake being offered and capital structure – were also discussed.

Initial Public Offering

5.2. An IPO would involve the sale of shares to the general public and institutional investors, both domestically and internationally, together with a listing on the Copenhagen Stock Exchange (and potentially on one or more other exchanges). There is significant precedent for the privatisation of energy companies by way of an IPO in Western Europe with, in recent years, companies such as Public Power Corporation (Greece), Snam Rete Gas (Italy), Electricidade de Portugal (Portugal) and Enel (Italy) having been privatised by this route. Further similar transactions are also contemplated, with forthcoming IPOs of companies such as EDF, GDF (both France) and Terna (Italy) in prospect. Denmark also has a strong track record of privatisation by way of IPO – though, to date, none have been in sectors comparable to DONG.

5.3. Most of the *privatisations* of energy companies which have taken place in Europe to date have been of oil companies or of electricity companies and there have been relatively few privatisations of pure gas companies. This largely reflects the historic development of the gas industry in Western Europe and the lack of stand-alone gas companies rather than a fundamental dislike by the equity markets of gas companies (indeed there are a number of relatively pure listed gas companies in Europe). In some markets (e.g. Germany) gas is integrated with electricity, whereas in other (e.g. Italy, Spain) gas (at least historically) was integrated with oil companies. Elsewhere (e.g. Greece, Portugal), the gas market is relatively new and has been developed in conjunction with the private sector.

Table 3 - Listed European Gas Companies

Company	Activities	Market cap (DKKm)
Gas Natural	Gas distribution and supply	67,488
Centrica	Gas supply and storage	109,018
Snam Rete Gas	Gas transmission	53,598
Enagas	Gas import, transmission and storage	16,718
Distrigaz	Natural gas trading	8,489
Fluxys	Gas transmission	7,946

5.4. A company's attractiveness to stock market investors depends on:

- investors' familiarity with – and management's ability to explain – the "shape" of the business mix;
- a clear and well-enunciated strategy – and evidence of the company's willingness and ability to implement it;
- the quality of the company's earnings, their projected growth and/or the company's dividend story;
- the market's perception of the quality of management; and
- the company's market capitalisation, liquidity (free float) and the extent to which its share price is included in key market indices.

5.5. The key to a successful IPO would be the DONG "equity story" communicated to potential investors at the time of IPO. This would form the foundation for external evaluation of the business, its prospects and hence its "value" to the financial investment community. Our assessment is that, with some developments, DONG as it is – with its proposed strategy and business plan – can be used to create a viable equity story for the company to be sold to investors at an acceptable price. Although its current business mix, and the likely trends in those businesses, do not themselves provide a *compelling* equity story for DONG, we believe that with some restructuring and refocus on core business areas as proposed in the company's business plan, it should be possible to generate a credible investment case. If, prior to the IPO, DONG had been able to implement a significant part of its strategy (without overpaying to do so) this would improve the equity story and create one which should command a higher rating.

5.6. DONG's existing business comprises an unusual combination of a relatively small, short life and mainly oil producing E&P business, a predominantly wholesale and single-supplier dominated gas supply business, a regulated infrastructure business and minority equity stakes in Elsam and NESA. There is only limited logic in combining the oil production and midstream gas business and the recently adopted "gas production" strategy is as yet unproven. The minority stake in Elsam would provide a source of uncertainty to the equity markets: is DONG a gas company, or will it become a multi-utility? Will it be able to implement the electricity strategy successfully? Will it be able to achieve this at a reasonable/acceptable price? The common theme of successful "equity stories" within the market is highly focused companies which concentrate on a core area of competency and which excel at it to drive returns for the business. The DONG business strategy will need to be presented such that it fits well with this theme.

5.7. In addition, no close comparator to the company exists, which could make marketing DONG to equity investors quite challenging. Investors' lack of familiarity with the current DONG business model will mean that its logic, and ability to deliver shareholder value, will need in-depth explanation. It will therefore be incumbent upon management to make their case to investors. To the extent that investors are convinced of the merits of the story they will consider investment.

5.8. Despite these challenges, it should be possible to position the existing DONG as a viable investment opportunity:

- as a play on energy consolidation in Denmark and the Nordic region;
- with implementation of its multi-utility strategy, an ability to achieve synergies and growth; and with
- existing strong cash flows to fund the gas and electricity strategies.

5.9. If DONG were to complete the implementation of its electricity strategy it would be more recognisable by the stock market as a utility, reduce the E&P content of its earnings – and improve its equity story and rating. The size and "shape" of DONG's business, investors' perception of management's willingness and ability to deliver a multi-utility strategy and the diversity of DONG's earnings would all be improved significantly, *provided* this could be achieved without overpaying. By adding a meaningful electricity business to its existing gas operations, DONG would be marketable as a multi-utility, with gas and electricity businesses under a single corporate ownership. This fits with a convergence trend evident throughout Europe and which commands the support of the investment community.

Sale to a strategic partner or financial investor

5.10. The process of selling a shareholding to a financial investor or to a strategic partner is largely the same, though the valuation achievable for DONG may differ between the two types of investor. A strategic (or "trade") partner has a direct interest in the business of the target company, which transcends purely financial considerations (though the strategic aspects should eventually translate into financial results). In general, the partnership should result in marketing or cost synergies being realised, thereby enhancing the value of both businesses. In order to realise such synergies, the partner will wish to control the management of the target company and will expect either to acquire a majority interest *ab initio* or be in a position to do so over the short to medium term.

5.11. We would expect that a limited number of European utilities would be interested in a strategic partnership with DONG in its current form. We have held discussions with a range of prospective partners/trade buyers for all or part of DONG: four of the companies interviewed expressed an interest in DONG as a whole, and four showed an interest in E&P if sold separately; although those interested in a strategic partnership with DONG as a whole were prepared to acquire a minority interest in the first instance, all would require management control as well as a route to obtaining a majority position in the medium term.

Privatisations by trade sale have been numerous, including in Denmark. They are particularly suitable for the smaller state assets, whilst the largest entities such as telecoms more typically follow the listing route. In Europe, there have been significant privatisations of substantial utility businesses by a trade sale route (Berliner Wasserbetriebe (Germany), Birka (Sweden), Transgas (Czech Republic) and Galp (Portugal), although most European national utilities have been privatised by the IPO route.

5.12. Financial investors, also known as Private Equity Houses (PEH) or Venture Capitalists (VC), are institutions investing funds on behalf of their investors. Their aim is to maximise the return on equity, typically over three to five years. The requirement for financial investors to have an exit is an important distinction to the IPO, where individual investors can freely buy and sell their shares in the market, and the strategic partner, who is expected to retain or even increase his investment over time. The minimum return on equity expected by this investor group is generally above 20% (although in the case of stable infrastructure businesses lower returns are accepted) and achieved through gearing their investments on entry, typically to ±70% debt.

5.13. A number of privatisations have taken place with financial investors (the largest of which may be that of Bundesdruckerei in Germany (DKK7.6 billion)) although none (of which we are aware) of European utilities. There have, however, been a number of other examples of financial investors acquiring utility assets from private sector sellers (Elektrowatt (DKK17.3 billion), Inatta (Iberdrola grid) (DKK6 billion), Southern Water (DKK23 billion)).

5.14. Although DONG exhibits some of the characteristics attractive to financial investors (leading market position, household name, experienced management team and strong cash flows) we would not expect it to attract competitive offers from PEHs. The reasons are:

- lack of control – if the government retains the majority shareholding;
- regulatory risk – impact of liberalisation; price regulation;

- sector risk – impact of competition;
- growth – uncertain growth prospects given current market position;
- size – only a limited number have sufficient financial capacity;
- perceived competitive advantage of trade buyers.

Combination of different methods

5.15. In addition to the straightforward IPO and trade sale processes it is possible to combine the two routes such that a “cornerstone” trade investor acquires a strategic stake in the company at the same time as the company is listed on the stock exchange and a stake in the company sold via an IPO. Under this hybrid structure a trade sale process is conducted alongside the preparation for an IPO. A successful trade buyer is selected and agreements reached on the level of shareholding, control and the size of subsequent IPO process. Details of the trade buyer and associated arrangements are included in the IPO prospectus and the trade buyer’s participation can be conditional on the IPO proceeding. The route has the advantage that the trade buyer provides implicit endorsement of DONG shares as an investment, and allows a benchmark price to be set by the trade buyer (albeit at a premium to the IPO price), so providing optimal proceeds. However by linking the processes, there is a risk of delaying and/or damaging the IPO should the trade sale process run into difficulty.

5.16. It is also possible to run dual track process where an IPO is in effective competition with strategic (and potentially financial) buyers. It is typically used in circumstances where limited competitive tension is expected in a strategic sale process, or if the equity markets are regarded to have a particularly strong appetite for a particular type of stock. However, it is not usually used by governments as these usually do not see proceeds as the sole objective of a privatisation transaction.

Size of shareholding disposed

5.17. In general, privatisation IPOs of major utilities have involved the sale of a significant minority stake, with the Government subsequently selling down further tranches through secondary offerings. The rationale is:

- investor appetite does not always allow the entire company to be sold at a single offering whilst achieving optimum valuation;
- political constraints often require the initial privatisation of a minority only; and
- sale of a minority stake allows the Government to benefit from share price increases post-privatisation (potentially driven by a greater commercial focus within the company post-privatisation).

However, it is important that a sufficiently large stake in the company is floated to ensure it is perceived by investors to be independent of Government and to provide sufficient liquidity in the after market. In the case of DONG, based on its current business and level of gearing and recognising that the final decision on size should be taken with the benefit of a full assessment of investor appetite at the time of any transaction, we would expect that value would be optimised through the IPO of a substantial minority interest in the company. This should avoid oversupply leading to downward pressure on pricing, allow the government to benefit from re-rating of DONG's shares should management be successful in implementing its strategy, provide it with a marketable interest to sell to a strategic partner if management fails to deliver and may also meet the political desire to retain public control of the infrastructure assets.

5.18. The acquisition of 100% of DONG, in its current form, would appeal to trade investors, since it would assure them of full control, thereby allowing the rapid implementation of synergies between the two companies and avoiding the need for (potentially difficult and complicated) joint governance arrangements (see below). Although the value of DONG's equity based on its current level of gearing would make it a "large" acquisition for two of the four companies which have expressed an interest in the company as a whole, DONG's balance sheet is capable of supporting significantly more debt, thereby reducing the strategic partner's funding requirement. Sale of 100% of the company in a trade sale also avoids the risk of the state being left with an interest for which it may have difficulty realising full value at a later stage – notwithstanding arrangements aimed at achieving this (see below).

Exit and governance arrangements upon a partial sale to a strategic investor

5.19. Whereas under an IPO scenario the rights of individual shareholders are defined through company law, the company's articles of association and stock exchange rules and regulations, the situation is somewhat different where less than a 100% shareholding is sold to a private investor (strategic or financial). In this case, the rights and obligations of each party (investor and vendor) need to be well defined at the time of the privatisation (and are likely to be specified in a shareholders' agreement and/or the share acquisition agreement). Two particular issues will feature prominently in this: exit and management control/influence.

5.20. Following a partial sale, the shareholders in DONG would be Government and one or more strategic/financial investors. Both the government and the investor will wish to understand each other's future plans for its shareholding. One would anticipate that:

- the government would want the ability to sell down its shareholding in future, either through a sale to the investor, or through an IPO (or through a combination of the two);
- a strategic investor is likely to want to increase its shareholding, ultimately to 100%; although it will also want to retain flexibility to divest, for example should its strategy change; and
- a financial investor will require a clear exit mechanism as it will ultimately wish to realise its investment. This is likely to be through an IPO or sale to a strategic investor.

Hence:

- government and investor (strategic and financial) are likely to require the right to IPO their stake (with the other party agreeing to assist/not obstruct that process).

- the investor will require the right to sell its stake to a third party. In this case, we anticipate the Government would want the right to participate in any such sale alongside the investor and a consent right (not to be unreasonably withheld) over the new buyer.

- the government will require an exit from its shareholding in addition to the IPO route. This could take the form of:

  - a put option on the investor, at a pre-specified price (or a price to be determined by independent valuation at the time of exit)

  - the right to sell to a third party. However, pre-emption rights, and the degree of management influence exerted by the investor may make it difficult for the government to sell its stake at a good price via this route.

5.21. Both trade and financial investors will seek to exercise a significant degree of management control over any company in which they invest. The implications of this are that they will require:

- a majority stake in DONG; or

- a significant minority stake (at least a blocking minority of 33%) plus a significant degree of management control (which would need to be established through a shareholders' agreement).

As major investors in DONG, both financial investors and a strategic partner would require a considerable degree of influence over the operational management. This is important in order to be able to maximise the value of the investment through appropriate managerial decisions as well as to protect the investment from unfavourable decisions. Other governance issues to be agreed would include who has the right to appoint the Chairman, how any disagreements over management issues will be resolved and what mechanism will be used to agree on staffing (hiring and firing). In the event that a minority stake in the DONG is sold, the investor would not automatically have management control over the business (although it would have "negative control" if it acquired more than a 33% shareholding). The Government will need to consider whether it would be willing to offer management control to the investor (subject to retaining certain blocking right) even in the case where only a minority stake was sold. Such control would make the business significantly more attractive to both financial and strategic investor, and a number of investors have advised us that this would be a *sine qua non* of their buying the company.

Capital structure

5.22. DONG has a low level of gearing in comparison with other European utilities (and even other independent E&P companies);this level of gearing is consistent with DONG's strategic ambitions which if implemented successfully will increase the gearing substantially. It does, however, result in DONG' having an increased cost of capital at present. The Government may wish to raise the gearing in DONG ahead of privatisation, depending *inter alia* on the chosen privatisation option. The most efficient means of doing this is by a return of capital (e.g. through a special dividend) prior to but in conjunction with the privatisation. This could be funded from existing cash and increased debt. A higher gearing would not only reduce the cost of capital (WACC) but also the equity value (as some of the equity portion in the enterprise value is swapped for debt). The proceeds to the government as selling shareholder would be the sum of the special dividend as well as the consideration for a shareholding. This may exceed the proceeds from a transaction without a return of capital even though the theoretical purchase price for the shares would be reduced.

5.23. Different classes of potential buyers of DONG will have different requirements for the capital structure:

- IPO investors will expect to see a growth story for DONG; this is likely to arise in part from cost reductions and in part from growing the business. They would expect that this growth would require acquisitions and hence the Company should be privatised with *some* balance sheet capacity. However, they will be very concerned about re-investment risk and hence *excessive* balance sheet capacity;

- Trade investors, if they are given a significant level of control of the company at privatisation, will be able to increase the level of gearing of the company post privatisation through e.g. a special dividend; hence the exact level of gearing will not be a key concern. If they do not have the power to adjust the capital structure, they are likely to be concerned if the company is underleveraged as (i) this will increase their capital requirement to acquire a stake, and (ii) it is economically inefficient from a cost of capital perspective; and

- Financial investors will only invest if the business can be highly leveraged, as without this leverage, the business is unlikely to be able to generate the equity return they require.

Break up

5.24. As an alternative to privatising DONG intact, or augmenting its businesses ahead of privatisation, the government could decide to divide DONG into two or more parts ahead of privatisations. Such a break-up is not unprecedented in energy privatisations; by way of example:

- The UK Central Electricity Generating Board (the body owning the electricity generating plant in England and Wales before privatisation) was split into three companies at privatisation (National Power, PowerGen, Nuclear Electric), two of which were privatised. The rationale for the split was (i) to facilitate a more competitive electricity market , and (ii) for the Government to retain the nuclear plants which were unattractive to investors;

- The oil E&P business was taken out of British Gas prior to privatisation and privatised separately as Enterprise Oil (both companies were floated).

In DONG's case, its principal business areas are infrastructure, Naturgas and E&P; it also has significant capital invested in its stakes in NESA and Elsam.

5.25. There is limited opportunity to split DONG to create two competing gas companies:

- The E&P business is already small by international standards, operates in a competitive market and produces only small quantities of gas;

- The infrastructure business is a natural monopoly, although it could be split into two (each business would have one storage asset and one distribution network). This would destroy synergies between the infrastructure assets and generate additional costs (although it would create more comparators to assist the Regulator);

- The trading business could be split in two – each half would be given a 50% share in the offshore pipeline, and half of DONG's portfolio of gas sales and purchase contracts. Although this would provide a means to increase competition in the gas market, this could also be achieved through other means e.g. through DONG auctioning gas, and greater regulation of the offshore pipelines.

5.26. There could be a case, however, to split DONG by division at privatisation in order to:

- Allow the state to retain the infrastructure assets; and/or

- Allow the E&P business to attract a trade buyer focussed in that area.

The principal options are summarised in the table below; (we assume that if infrastructure is separated, it will remain state-owned, although it could be possible to privatise as well)

	Option	**Rationale**
1.	Leave intact	Default
2	Sell Naturgas and E&P together, retain infrastructure	Political preference to retain infrastructure under state ownership
3	Sell E&P separately from Naturgas + Infrastructure	Different buyer universe for E&P compared with utility business
4	Sell E&P, Naturgas separately, retain Infrastructure.	As (2) and (3)

Although separating the businesses may make parts of the business more appealing to certain buyers at privatisation, and may fulfil some of the Government's political objectives, it is not without cost. DONG has proposed that there are synergies between these different businesses, and that separating them will increase the businesses' costs – with a consequential detrimental impact on value. These have been estimated as around DKK1 billion for the infrastructure (distribution + storage) businesses.

5.27. We assess the impact of these break-ups on the IPO option as follows:

IPO of:

Naturgas alone: Difficult, as much of the value resides in the

	DUC contracts which are declining assets, and the business "shape" would be unfamiliar to investors. If implemented, an IPO would likely be at a big discount to fundamental value.
Naturgas and E&P:	Difficult, both for the reasons outlined in respect of the previous option and because the E&P gas strategy is unproven. However, better size and a feasible equity story.
Naturgas and infrastructure:	Familiar to investors as a small national/regional utility. Credible equity story could be created – but still heavy reliance on value of DUC contracts.
E&P:	Difficult: Although there are independent listed North Sea E&P companies, their profile differs from that of DONG's E&P business. The possibility of an IPO would depend on satisfying the market on the credibility of DONG E&P's growth story.

5.28. The impact on the trade sale option may be summarised as:

Trade sale of:

Naturgas alone:	Attractive to both domestic and foreign utilities looking to build a gas utility business in Denmark. Buyers would attribute full value to the DUC contracts but unlikely to pay for upside beyond this.
Naturgas and E&P:	Buyers unlikely to attribute significant synergies between the two businesses. Limited interest in E&P from utilities. Little benefit in forcing buyers to acquire both.
Naturgas and Infrastructure:	Likely to be attractive to the same trade buyer universe as Naturgas alone. However, unless the regulatory regime is clarified, buyers will discount the infrastructure businesses heavily. Assuming that it is (on the basis assumed by DONG and on which we have valued them) we estimate a trade sale would realise the assets' full DCF valuation
E&P:	We believe there would be a number of upstream oil companies which would be

interested in acquiring DONG E&P. We would expect them to pay approximately what we value the business at as part of DONG (since most prospective utility buyers of DONG will value it at "resale price").

6. Comparison and assessment of privatisation options

Introduction

6.1. We have compared those of the privatisation options which we consider viable against the proposed government objectives described above under section 3 of this summary. The options reviewed are:

- IPO of DONG as it is;
- IPO following realisation of electricity strategy;
- trade sale/partnership with "strategic investor" as is;
- trade sale/partnership with "strategic investor" following realisation of electricity strategy;
- break-up.

Value

6.2. Taking the mid-point DCF equity "hold" value of DONG as "100%", our estimates of the relative price per share likely to be realised under the various options is as follows. The impact on *value*, taking into account the impact on any part of the business retained by the State, is discussed below. Prices attributed to "trade sale" and "break up" options assume the strategic investor acquires management control of DONG (or its relevant parts) and that attributed to the IPO option assumes the flotation of a large minority interest in the company:

IPO "as is"	85% - 100%
Strategic partner "as is"	±110%
Financial buyer	±90%
"Break-up"	±110%

In general, we would expect a sale to a strategic partner to result in a higher price per share of the company than that achievable in the aftermarket of an IPO, as a trade buyer may:

- be able to extract synergies from the combination of DONG with its own business; and

- ascribe "strategic" value to the company, i.e. to value the future growth and development prospects of DONG in conjunction with its own business.

Under an IPO scenario the company will be priced less highly in the market, due not only to the lack of synergies but also to investors' greater focus on DONG's equity story and strategy, since on an individual basis they will be unable to influence and bring about change. However, the total *value* of DONG to government will depend not only on the price achieved in the sale of the first tranche of its equity but also the value of its retained stake (which will either be the "long term hold" value of the Company or the value realised through future sales of stakes in the company). If there is an IPO of DONG, the government has a relatively straightforward exit route – a secondary offering (although it is taking ongoing market risk in relation to DONG's share price). In the event of a sale of a minority stake to a strategic investor, the government will need to ensure appropriate exit arrangements such that any value premium realised in the original sale is not lost on a subsequent sale.

6.3. For any given privatisation process, we would expect the privatisation of DONG following the successful implementation of its electricity strategy to realise greater value than before this had occurred. Under the trade sale route, we would expect a buyer to value fully the ensuing synergy and strategic benefits. Under an IPO scenario, the extent to which this additional value was reflected in the IPO price would depend on how it was communicated in the equity story, and the market's view of its credibility. Assuming the company was not perceived to have overpaid and presentation of the multi-utility story was well handled, we would expect it to lead to the state realising similar value from the IPO option to that achievable from a trade sale of DONG in its current form. Over time, it would also be increasingly reflected in the value of government's retained stake as DONG delivered the benefits of the transaction.

Competition

6.4. If DONG were to be acquired by a trade investor, it could reduce competition in the Danish market compared with the cases where it is privatised by IPO. If DONG had implemented its electricity strategy the "market" in question may be the electricity and/or the gas market – depending on the identity of the acquirer. This is based on the assumption that had it not bought a stake in DONG, the trade buyer would have participated in the Danish gas and/or electricity market anyway, as a wholesaler/supplier and would have generated additional competition. For the competition impact of the sale of DONG to a trade investor to be material:

- the number of players in the relevant market(s) has to be sufficiently low that the loss of one extra participant would make a material difference to the level of competition; and

- that trade investor would have to have participated in the market(s) anyway in the event that it had not acquired a stake in DONG.

Although one cannot be certain that the future trade partner of DONG would be a supplier already active (or which would otherwise become active) in the market, it is not an unreasonable assumption given such players are likely to have the greatest strategic and synergistic rationale. This implies that sale of a stake in DONG to a trade investor raises the prospect of lower competition than sale by IPO or to a financial investor. However:

- even if DONG remains independent, it is uncertain how quickly competition will develop, and hence the government/regulatory authorities will need to actively monitor progress and take appropriate pro-active measures if necessary;

- if a stake in DONG is sold to a strategic partner, the government will have an even greater need to closely monitor the development of competition and consider mitigating action (such as gas auction/generation divestment requirements).

If DONG is broken up and Naturgas sold either alone or combined with E&P or infrastructure, the same concerns apply in relation to a sale to a trade investor. If DONG acquires a substantial domestic electricity business, the anti-competitive implications of a sale to a trade investor are potentially extended to two markets. The implications of an IPO of the merged entity are probably pro-competitive, *provided* the company remains independent.

Infrastructure Ownership and Control

6.5. If DONG is to remain as it is, it follows that under all of the IPO, trade investor and financial investor scenarios ownership of infrastructure assets will – at least partially – transfer into the private sector. Private ownership of infrastructure assets is a political concern, but we are unable to gauge the relative sensitivity of the sale by IPO (to Danish and foreign institutional investors) against a trade sale to a (foreign) utility or financial investor. In all cases, selling a minority stake in DONG might make the sale compatible with the political agreements (although appropriate alternative management control arrangements would need to be implemented for a sale to a strategic or financial buyer). The break-up option gives the government the flexibility to privatise DONG E&P and Naturgas (either together or separately) whilst retaining the infrastructure under State ownership. However, as indicated above, it may be difficult to implement such a privatisation via an IPO, meaning that a trade sale or sales were the only alternatives. In the case where DONG had “bulked up” and increased its utility content by implementing its electricity strategy, it would be less problematic (if the government so wished) to remove the infrastructure businesses (and leave them under State ownership) and proceed with an IPO of the enlarged multi-utility DONG. Separating the infrastructure businesses would also be consistent with a trade sale of the combined entity. In paragraph 3.4 above, we suggested how storage and distribution could be included as part of a privatisation, whilst giving the State various protections and rights over them; these routes would continue to apply if DONG were to be privatised following completion of its electricity strategy.

North Sea Licence Participations

6.6. We do not believe it is feasible or desirable for DONG, once privatised, to have an automatic right to participate in new North Sea licences, irrespective of the means by which it is privatised. Under all privatisation options, we would propose that DONG retained its existing licences (except those that it wished to surrender and its interest in Nunaoil) and that a new State entity holds the State’s 20% interest in new licences.

DONG's development post privatisation

6.7. DONG's development post privatisation will be dependent on the privatisation route adopted. Under the IPO option, DONG will become an independent company and it will be free to pursue its own growth strategy (which will be part of the equity story and business plan at privatisation). Its future growth will in part be dependent on the capital structure put in place at privatisation, and hence the company's ability to finance acquisitions.

6.8. If it is decided to introduce a strategic investor into DONG:

- it could curtail DONG's development aspirations other than as permitted by the investor;
- however, with the agreed scope of investment, it could promote DONG's development as it would have access to the resources of the strategic investor.

6.9. Under a break-up, DONG as such will cease to exist and the issue of company development scarcely arises.

Minimising risk of failure

6.10. Two classes of risk have been identified:

- political risk – that the process fails to gain sufficient political support to be implemented successfully;
- market risk – that the business fails to attract sufficient interest from investors to enable a sale to take place at an acceptable price.

In relation to political risk, it is for the government to manage, and they are best able to judge the relative risk of the IPO and trade sale option. In relation to market risk, the risks of an IPO and trade sale are somewhat different:

- under an IPO scenario, the government is exposed to stockmarket conditions, and although it will be possible to assess the market's perception of DONG, the pricing of the IPO will be subject to market conditions at the time of flotation – potentially 12 months away from the launch date of the privatisation. This risk can be mitigated through monitoring market developments, and if necessary delaying the IPO if market conditions are not suitable;
- although under a trade sale scenario, it is possible to form a view of how trade investors will value DONG through (i) their behaviour in precedent transaction, and (ii) holding discussions with them, there will be uncertainty over the extent of participation – which will impact the degree of competitive tension and hence proceeds.

6.11. If privatisation is deferred pending DONG's implementation of its electricity strategy, this exposes the government to the risk of this failing (with associated time wasted, poor PR etc). Subject to DONG's acquisitions not being rejected on competition grounds, we see the principal risks of such a deferment as being (i) delay and (ii) the risk of DONG overpaying. The latter is within the government's control and we are not aware of any particular time pressure for the privatisation.

6.12. As regards the impact of implementation of the electricity strategy on the market risk of the privatisation itself:

- under an IPO scenario, the risk would be reduced due to DONG better resembling a conventional utility and its business market being likely to be better understood by the public equity market;
- under the trade sale case, DONG is likely to be more attractive to trade buyers since most of the likely buyers will have (or will want to acquire) an electricity business in the region.

6.13. Compared to processes where DONG is sold intact, the break-up options carry additional risks relating to:

- implementation of the break-up; and
- a more complex sale process

The principal risk is that the government does not sell all the businesses it is seeking to sell and is left owning a business which it had wanted to privatise (whereas had it sold the businesses together, it would have found a buyer for the whole business, on the basis that the benefits of the attractive parts outweighed the downsides of the unattractive part). This risk can be mitigated through gathering significant market intelligence prior to launching the sale process (e.g. through market testing) such that confidence can be established in the likely level of interest in each business.

Conclusions

6.14. The table below rates the principal options against the assumed government objectives. It does so on the assumptions (i) that the "trade sale" options confer management control on the strategic investor(s) but provide the State with a value-preserving exit for any interest it does not initially sell and (ii) that the IPO is of a substantial minority of the Company. More ticks means a higher rating in regard to achievement of that particular objective. Note that we do not – and cannot – attribute weights to the objectives themselves. Government will determine their relative importance and, assuming they are not all considered of equal importance, it follows that a "preferred" option cannot be derived by a simple process of adding ticks.

	IPO (as is)	IPO (with electricity)	Trade investor (as is)	Trade investor (with electricity)	Break-up
Value	✓	✓✓	✓✓	✓✓✓	✓✓
Competition	✓✓✓	✓✓✓	✓✓	✓	✓✓
Infrastructure	✓✓[1]	✓✓✓[1]	✓	✓✓✓[1]	✓✓✓
North Sea Licences	✓	✓	✓	✓	✓
DONG's development	✓✓	✓✓✓	✓	✓	-
Risk minimisation	✓✓	✓	✓✓✓	✓✓	✓✓

[1] IPO (with electricity) and trade investor (with electricity) are still feasible if the infrastructure businesses are removed from DONG; it is unlikely to be feasible to IPO DONG (excluding electricity) without the infrastructure businesses. Trade investor (as is) without the infrastructure business becomes the break-up option.

The introduction of a trade investor to DONG in its current form is likely to realise higher value than an IPO, *however*:

- it is likely to lead to fewer players in the competitive energy market;
- it is likely to be inconsistent with public control of infrastructure – since trade buyers will want a path to majority ownership; and
- the company will be less independent.

If DONG is able to complete the implementation of its electricity strategy:

- its stockmarket value is likely to increase (we estimate to around that achievable from a trade sale in its current form); and
- if floated in an IPO its presence as a robust independent Danish player could be pro-competitive; but
- the potentially anti-competitive impact of a trade sale could extend to one or both of two markets; and
- the company would have greater scope to develop its activities in the region.

If DONG is allowed to retain its remaining infrastructure assets:

- it permits an IPO of the Company in its current form (and government control of infrastructure can, if desired, be retained by offering only a minority interest to the public); and
- it preserves the synergies between the infrastructure assets and the other parts of the business – and hence is good for value.

If, contrary to the recommendation in this report, the infrastructure assets are removed:

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- an IPO is unlikely to be possible unless the electricity strategy has been implemented; and
- without this, a break-up is likely to realise greatest value, since there would be few trade buyers interested in the remaining asset mix.