Regulators' 2008 National Report to the European Commission

Denmark

Danish Energy Regulatory Authority (DERA)

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1. Foreword

The EU "3rd energy liberalization package" stresses the need for EU energy regulators to cooperate. The work of DERA during the last couple of years confirms this requirement. We already have some experience in regulatory cooperation between the Nordic regulatory authorities within NordREG. This has proved not only the regulatory necessity of cooperation but also how much you can learn from each other. The ERGEG Regional Initiative in a similar way is a necessary operational cooperation to close regulatory gaps – not always legally but by way of better understanding each other and making informal agreements.

This regulatory cooperation additionally shows the importance of close cooperation with stakeholders – including the various parties whom we are also to regulate. In DERA we tend to believe that the main value of our efforts lies with our behavioural influence and overall work for efficient and transparent energy markets. Our rulings and guidelines as well as our informal dialogues influence both the market and behaviour of players and we get an insight into the effect legislation can have in practice.

An important example for DERA is the development of "compliance programmes" to promote the functional unbundling and non discriminatory behaviour of TSO and DSOs. Experience shows us that the most important probably are not the formal rules but the introduction of an "unbundling culture" in all aspects of activities. Beside the regulatory aspect DERA has the function of being "catalyst". The same role is experienced in relation to the ERGEG Regional Initiative of our region.

It is therefore encouraging to see initiatives being launched and progressing – even – or especially – if they are not initiated by DERA. In the Danish gas-sector we have during the last year witnessed increased use of the TSO initiated "hub" – Gas Transfer facility – GTF. Danish national TSO Energinet.dk in cooperation with Nord Pool Spot has launched a gas exchange – Nord Pool Gas, which hopefully, may be in cooperation with similar market places abroad, can develop into something more international. And the pipelines from Danish North Sea fields for the first time have been used by other shippers than the owner DONG Energy. In the electricity retail market a couple of new entrants offering new products might be promising for our hope to see the market for smaller consumers progress more vividly. And also the introduction of a German-Danish intra-day capacity trading platform as well as the scheduled (for September 2008) market coupling are developments in exactly the right direction.

Finn Dehlbæk
Danish Energy Regulator

2. Summary \ Major Developments in the last year[1]

2.1. Basic organisational structure and competences of the regulatory agency

The primary task of the Danish Energy Regulatory Authority (DERA) is to monitor/regulate the monopoly companies in the Danish Energy sector, i.e. the electricity, gas and heating network companies. DERA's primary focus in performing this statutory task is by regulating prices, but the authority also holds responsibilities in regulation of terms of delivery, grid access, to facilitate transparency and to monitor compliance programmes on unbundling and non discriminatory behaviour.

The regulatory tasks of Directives 2003/54 and 2003/55 as well as Regulations 1228/2003 and 1775/2005 are shared between DERA and the Danish Energy Authority (DEA), which is a directorate under the Ministry of Climate and Energy. For instance the responsibility of issuing licences and the responsibility of monitoring compliance according to the license issued is held by the DEA. The same goes for questions on security of supply, planning/approval of infrastructure investments and contingency planning and crisis management. Three acts on electricity, gas and heat respectively form the legal basis. Pure competition issues are not dealt with in these legal acts and are monitored/regulated by the Danish Competition Authority (DCA).

The enforcement role of setting secondary legislation is held by the Minister of Climate and Energy or on her behalf by the DEA. However, DERA is entitled to set up rules/regulations regarding transparency facing the customers and on data to be reported or notified.

Normally, companies will act in accordance with decisions taken by DERA. However, DERA has a number of enforcement powers in individual cases as orders, daily and weekly fines as a coercive measure (since June 2006 broadening the scope of use) and traditional fines imposed by police authorities.

DERA board members are appointed by the minister of Climate and Energy. DERA comprises a chairman and 6 members of which one is designated as vice chairman. Furthermore 2 substitutes are appointed. The law stipulates that the members shall be independent of the parties in the energy sector and they shall represent legal, economic, technological, environmental, business and consumers expertise.

The costs of DERA are recovered by fees levied on the regulated companies. There is a historically fixed framework budget. Amendments to the budget due to new tasks imposed by new legislation must be approved by government. The costs as well as the income from fees are included in the state budget. However, as it in this way is financially neutral, general cuts in public expenditure will not have impact on the DERA budget. Yearly deviations from budget are to be balanced over a 4 years period.

[1] In general, the report should seek to cover developments during the period from January 2007 to December 2007 and data should reflect this period as far as possible. Where data for the calendar year is requested, 2007 is the appropriate reference year.

The staff of the secretariat of DERA are seconded from the Danish Competition Authority.

Decisions taken by DERA or by its secretariat cannot be changed by the minister. However, such decisions can be taken to the "Energy Board of Appeal" (and subsequently to civil court). According to the Electricity Supply Act DERA has an obligation to inform the Minister about matters which in the opinion of the Board is considered of relevance to tasks in relation to licensing issues and to the legal framework governing the tasks of DERA.

The secretariat of DERA also serves as secretariat for the private Energy Supplies Complaint Board established in co-operation between the Consumer Council and the Danish Energy Association, DONG Energy, Greater Copenhagen Natural Gas/Natural Gas Middle-North, Natural Gas Funen and Danish District Heating Association. The Board has a mandate to handle disputes arising from the contractual relationship between energy consumers and an electricity supply company, natural gas supply company or district heating supply company.

2.2. Main developments in the gas and electricity markets

There were no major structural changes in the Danish **electricity market** during 2007. The whole sale market set-up was improved by introducing the Nordic intra-day market Elbas (Nord Pool Spot) also in Western Denmark in April 2007. Since September 2006 Elbas also offers intra-day trading on the German- East Danish interconnector KONTEK. In order to improve the utilization of the German – Danish interconnectors, TSOs Energinet.dk, Vattenfall Europe Transmission and E.ON Netz and power exchanges EEX and Nord Pool Spot since October 2006 have prepared to establish day ahead market coupling on German-Danish interconnectors. DG Comp approval of the market coupling notification took place in August and launching of the market coupling project is now scheduled to start end of September 2008. This initiative is closely coordinated with the ERGEG Regional Initiative of the Northern Europe Region. This will also replace the market splitting operated by Nord Pool Spot on the KONTEK interconnector. It should be added that the capacity of the German – West Danish interconnector has been upgraded by 150 MW.

An important step to connect Western and Eastern Denmark was taken in April 2007, when the Ministry of Transportation and Energy approved the Energinet.dk application to establish a 600 MW DC interconnector to be commissioned in 2010. But already now major efforts have been done by Energinet.dk to align the market-rules of Western and Eastern Denmark subsequent to the establishment of Energinet.dk as national TSO by 1 January 2005. An additional 600 MW interconnector to Norway by 2014 has recently been decided by Energinet.dk and Statnett – subject to approval. Also reinforcements on German – West Danish interconnector by 2012 has recently been approved by Energinet.dk and E.ON Netz – from 950 MW to 1500 MW northbound and from 1500 MW to 2000 MW southbound. The increased capacity will first of all be made possible by reinforcement of internal Danish and German transmission networks

The operation of Danish-Swedish interconnectors – especially Eastern Denmark – Southern Sweden - still suffered from occasional reductions in capacity employed by Svenska Kraftnät as a measure to tackle internal congestions and Energinet.dk continuously urged Svenska Kraftnät to substitute this practice by market based congestion management of internal congestions. A Swedish decision to reinforce internal north-south transmission (element of joint Nordel planning) is expected to improve the Danish-Swedish congestion management.

Energinet.dk has acquired the 150 kV network of former NESA (now part of DONG Energy). Energinet.dk according to legislation has a right and an obligation to acquire 132/150 kV lines for sale. Another focus relating to Danish transmission network is the planning for integration of major shares of wind-energy (much off shore) in the system. An Electricity Infrastructure Committee has delivered its analysis and a political choice between 5 scenarios – including various degrees of cabling – is expected in autumn 2008.

In continuation of a Danish Competition Board ruling that generating company Elsam A/S in 2002-2003 abused their dominant position by raising prices in Western Denmark by their bidding behaviour on Nord Pool Spot, a subsequent ruling in June 2007 states a similar misbehaviour by the generator during 2005-2006 – the last part of the period as DONG Energy Generation A/S.

Subsequent to high whole sale electricity prices during 2006 a warm winter and abundant precipitation has generally lowered prices (in the entire Nordic area) in 2007 with an increase in autumn. Danish area prices, however, in addition, occasionally has been influenced by contrary effects. Congestions on interconnectors to Norway and Sweden combined with higher German price level in periods have resulted in Danish area prices far above system price. On other occasions as moments of major generation on wind turbines at times of low load resulting Danish area prices (especially in west Denmark) have been much lower than system price – even down to zero.

The Danish electricity retail market of small customers is still not very active. However, a couple of newcomers might contribute to more vivid competition.

An important change in the structure of Danish **gas market** was the selling off of one of the two storage facilities of DONG Energy. It was acquired by Energinet.dk and established in a separate company. Consequently as from May 2007 there have been two storage companies in Denmark offering storage facilities to market participants.

For the first time ever DONG Energy owned transportation pipelines from off shore gas fields in the North Sea, during 2007, was used by other shippers.

The gas market has been positively influenced among other things by the first gas release auctions of DONG Energy. This was part of the preconditions for DONG Energy acquiring part of generators ELSAM and Energy E2. The number of active shippers has increased. The gas release increased demand for transmission capacity on Danish-German interconnector.

The use of the Gas Transfer Facility (GTF) operated by national TSO Energinet.dk, whereby the physical execution of bilateral contracts can be facilitated, has increased immensely in 2007. In March 2008 Energinet.dk and Nord Pool Spot jointly established a Danish gas exchange (Nord Pool Gas), the liquidity, however, still being low.

In the field of Danish **energy policy** the government in January 2007 presented a follow-up of the “Energy Strategy 2025” from 2005. The new move is entitled “A visionary Danish Energy policy”. It set up goals for increase in the efficiency in generation and consumption of energy, share of use of renewable energy sources and public financing of R&D in energy. In continuation of this initiative, in February 2008 a broad political agreement on energy policy for 2008-2011 was concluded.

2.3 Major issues dealt with by the regulator

A DERA executive order on invoicing electricity was finalized in 2007 and put into operation as of 1. January 2008. It states minimum requirements for the contents of invoices to electricity customers in order to improve transparency in the market. Similar rules for gas already came into force 1. January 2007.

Another DERA executive order updates the rules on notifications to DERA by the gas companies.

Developing of functional unbundling by way of more specific requirements in relation to compliance programmes has been an important task of DERA during the last 2 years. A recent decision by DERA specifies the requirements on keeping information concerning distribution network companies and supply companies separate on websites and in other information material to consumers. DERA has also carried out a number of reviews in companies on their practical implementation of compliance programmes. Generally, companies seem to establish kind of "unbundling culture", which is exactly the goal of DERA.

Since 2004 income caps for electricity distribution companies are fixed in principle equalling network prices January 2004 – without any individual efficiency requirements. This political decision remains valid, but during 2007 a new efficiency benchmarking model was developed and in setting the 2008 income caps a number of distribution network companies in addition have been subject to individual efficiency requirements. In addition a model for comparing quality of supply has been developed. This will be used for the setting of income caps from 2009.

It is the task of DERA to evaluate market codes and technical codes notified by Energinet.dk to DERA. Previously this notification was done to Danish Energy Authority. In order to deal with this quite demanding task in an efficient, realistic and transparent way - DERA in December 2007 decided and published the methodology of this work.

Concerning international cooperation, within both the electricity and gas areas, one important issue is that international connections are not used optimally. Several initiatives have been launched in this area, including the ERGEG "regional initiatives". DERA is "lead regulator" for the North Europe region for electricity and is very focussed on developing this important work. New transparency rules of the whole sale market have been agreed - to be implemented in 2 steps during 2008. An intraday capacity trading platform is established on German west Danish interconnector in June 2008 and market coupling is scheduled to be introduced on both German-Danish interconnectors by September 2008. It is expected that Swedish-German Baltic Cable will join the market coupling shortly after. The basis of the entire work is a close cooperation with TSOs and power exchanges of the region.

In the gas Regional Initiative DERA is especially active in the work on establishing efficient and liquid market places in north Europe. DERA regards the start of the new Danish gas exchange as an important first step.

The DERA secretariat is part of the Danish Competition Authority. In both 2007 and 2008 DERA secretariat staff has contributed to the annual review of the Danish Competition Authority. In 2007 the analysis focussed on the gas whole sale market – proposing a number of improvements. In 2008 the subject of the DERA secretariat contribution was the electricity retail market – proposing a number of improvements as well.

3. Regulation and Performance of the Electricity Market

3.1. Regulatory Issues [Article 23(1) except "h"]

3.1.1. General

The Danish electricity market was opened to all customers in 2003. However, at that time the free choice was somewhat constrained by the obligation for every customer to take his share of environmentally friendly electricity with "priority" status. Since 1 January 2005 all electricity generated is sold on the competitive market and customers can choose supplier for their entire electricity consumption.

3.1.2. Management and Allocation of interconnection capacity and mechanisms to deal with congestion

Internal congestion
In Eastern Denmark (the Nord Pool price area DK2) there are practically no congestion problems as the transmission lines are sufficiently strong to transport the requested power.

In Western Denmark (the Nord Pool price area DK1) since autumn 2004 when the reinforcement of the transmission line in the Northern part of Jutland was finished, there have been practically no internal congestion problems.

Congestion on cross border links
Depending on market conditions, congestions occur recurrently on all interconnectors. However, almost all interconnector congestion from Sweden to East Denmark (Nord Pool price area Sweden → Nord Pool price area DK2) are caused by the process of solving internal congestion within Sweden, as available trading capacity (NTC) on the interconnectors is curtailed in order to reduce demand

Hours of congestion in cross border links in 2007 as a percentage of total hours

%	2007
Nord Pool price area Denmark 1 --> Nord Pool price area Norway south	17,3
Nord Pool price area Norway south --> Nord Pool price area Denmark 1	53,4
Nord Pool price area Denmark 1 --> Nord Pool price area Sweden	22,7
Nord Pool price area Sweden --> Nord Pool price area Denmark 1	26,1
Nord Pool price area Denmark 2 --> Nord Pool price area Sweden	5,9
S --> DK2	17,9

The figures have been calculated as the percentage of hours where the planned day-ahead flow equals the NTC. The calculation does not include hours where the interconnector has been completely closed down, i.e. NTC=0 in both directions, due to forced outages, planned maintenance etc.

The frequent congestions on N-->DK1 indicates need for reinforcement of these interconnector due to a major demand for capacity. The interconnector is among the 5 prioritized transmission investments in Nordel planning and Energinet.dk and Statnett in June 2008 agreed to increase the capacity by 600 MW by 2014.

The congestions on S-->DK2 on the other hand primarily are due to curtailments in available NTC as mentioned above.

Based on information from Nord Pool Spot, NordREG has illustrated (see table below) the frequency of congestions by calculating how much of the time separate price areas are created. The figures not only reflects price differences at two sides of each interconnector but also price differences between areas not interconnected.

Price differences between Nordic spot areas, 2007

2007		NO1	NO2	NO3	SE	FI	DK1	DK2
		Less than						
NO1	Higher than		10%	12%	11%	13%	16%	10%
NO2		43%		6%	4%	8%	21%	10%
NO3		42%	0%		3%	7%	21%	9%
SE		40%	10%	14%		4%	19%	6%
FI		40%	11%	13%	1%		19%	6%
DK1		47%	33%	34%	27%	29%		15%
DK2		44%	26%	28%	19%	22%	23%	

Congestion management and the requirements of Regulation on cross border electricity exchanges

The requirements of the Cross Border Trade regulation is basically covered by the Danish Electricity Supply Act and secondary legislation:

- Charges for access to networks: Approval of methodologies as well as notification of tariffs for network access by DERA
- Information on interconnection capacities as well as principles of congestions management are established by the TSO and coordinated with other Nordic TSOs within Nordel.
- Approval on new interconnectors is the task of DEA.

Congestion is managed by market based instruments in line with the EU regulation on cross border trade, i.e. implicit auctions (market splitting) on the interconnectors to Norway, Sweden and between Eastern Denmark and Germany (KONTEK) and explicit auctions on the interconnector between Western Denmark and Germany, cf. below.

For all the interconnectors where implicit auctions are applied all NTC is put at the disposal of Nord Pools day-ahead market (Elspot). After nomination of the day-ahead trade it is available for

Nord Pools intra day market (Elbas), except the interconnector to Norway as Elbas is not yet implemented in Norway (planned for 2009). Since June 2008 an intra-day capacity trading platform has been in operation on the German – west Danish interconnector.

The international interconnectors

Interconnection between Denmark and the Nordic area.

Interconnections between Denmark and the other Nordic countries consist of three interconnectors. "Skagerak" is a 1040 MW DC-interconnector between Jutland and Norway, "Konti-skan" is a 740 MW DC- interconnector between Jutland and Sweden and "Øresund" is a 1900 MW AC-interconnector between Zealand and Sweden of which "only" max 1300 MW is available in the direction Sweden -> Denmark and 1700 MW in the direction Denmark -> Sweden due to system operation constraints. As mentioned above all NTC is put at the disposal of Nord Pool Spot and used for implicit auction day ahead, and subsequently – except for the interconnector to Norway – made available for Nord Pools intra day market (ELBAS).

The Nordic TSOs and Nord Pool Spot have signed an agreement on exchange of data and price sensitive information. According to this agreement, the Nordic TSOs are obliged to provide Nord Pool Spot with information in case of reduced NTC. Nord pool Spot will make it available to the market. In addition to the daily delivery of NTC-values to Nord Pool Spot, each TSO is obliged to notify Nord Pool Spot in case of disturbances and revision plans concerning reductions in NTC of more than 100 MW. This agreement is also valid regarding the interconnectors between Denmark and Germany.

Kontek DC interconnector between Zealand (Eastern Denmark) and Germany

"Kontek" is a 600 MW DC- interconnector owned by Energinet.dk. The utilisation rights are from 1.7.2006 shared equally between Energinet.dk, Vattenfall AB (VAB) and Vattenfall Europe Transmission (VET) - 200 MW in both directions. Of the total capacity 50 MW in both directions is reserved for system services.

In October 2005 Nord Pool established a bidding area (called KONTEK) in VET´s control area. At the same time the major part of the interconnector was put at the disposal of Nord Pool in order to establish the first implicit auction between the Nordel and UCTE areas. Since January 2006 all NTC (i.e. maximum 550 MW in both directions) have been put at Nord Pools disposal and used for implicit auctions on basis of the agreements between Nord Pool, VAB, VET and Energinet.dk Intraday trade (Elbas) on Kontek started in September 2006. In other words it is handled in exactly the same way as the interconnectors between Denmark and Sweden.

Jutland – Germany interconnection

The main connections between Jutland and Germany is owned by the TSOs E.ON Netz and Energinet.dk a and is an AC-link with a maximum NTC of 1500 MW in southern direction and 950 MW in northern direction, the difference being due to system operation constraints. In addition there is 150 MW connection to Flensburg Stadtwerke used for local exchange as there are only very weak connections between Flensburg Stadtwerke and the rest of Germany.

All NTC on the main connections is offered to the market on annual, monthly and daily auctions. The capacities sold on the annual and monthly auctions are sold as "use it or lose it". The unused capacity is resold on the daily auctions. Netting is used in the calculation of ATC available for daily auctions.

From October 2005 part of the capacity has been used for "voluntary" implicit auctions. This implies that players with capacity bought on the daily auction can put this at the disposal of Nord Pool, which use it for implicit auction between Western Denmark and the bidding area KONTEK in Germany, cf. above.

Computation of transmission capacity by the TSOs
NTC values on interconnectors are calculated based of load flow calculations. Load flow scenarios include:

- Planned outages of central coal fired combined heat and power plants (CHP)
- Expected production from wind turbines and decentralized CHP
- Power plants connected to the transmission grid, information given from the dispatch centers (not given priority instead of import/export)

Calculations are made for 8 different scenarios (example for Nord Pool price area Denmark1):

- DK1 -> Sweden (no power exchange with Norway)
- DK1 <- Sweden (no power exchange with Norway)
- DK1 -> Norway (no power exchange with Sweden)
- DK1 <- Norway (no power exchange with Sweden)
- DK1 -> Norway+Sweden
- DK1 <- Norway+Sweden
- DK1 -> Germany (normally fixed values based on planned outages)
- DK1 <- Germany (normally fixed values based on planned outages)

In general all calculations are made taking the N-1 criteria into account. Given normal grid operation conditions expected production from wind turbines and decentralized combined heat and power plants will not cause congestions. Minimum three major units must be operated inside each area (DK1 and DK2) due to system operation requirements (reactive reserve etc.), but are not given any priority relative to interconnectors.

TSOs on both side of an interconnector calculate hourly NTC and the lowest capacity figure makes up NTC of that hour.

Further development of transparency and mechanisms to deal with congestions
A new set of transparency rules to be applied also for the interconnectors were published in September 2007 as part of the ERGEG Regional Initiative for North Europe. TSOs and PXes of the region agreed to implement them by 2008 – in two stages. The first monitoring report was published in August.

E.ON Netz, Vattenfall Europe Transmission, Energinet.dk, European Energy Exchange Gmbh and Nord Pool Spot in October 2006 agreed on a MoU on establishing day-ahead market coupling on German-Danish interconnectors. The original deadline end 2007 had to be postponed and the start is now planned for 29 September 2008. The project is integrated in the ERGEG Regional Initiative of North Europe region. On the KONTEK interconnector the market coupling will replace the present Nord Pool Spot market splitting. There will be no capacity reservations (explicit auctions). On the German – West Denmark interconnector yearly and

monthly capacity reservations through explicit auctions will continue. Regulators have required that the TSOs establish the “use it or get paid” methodology from 2009. Based on discussions so far it seems likely that Baltic Cable and NorNed will join the market coupling in the near future.

An intra day mechanism was introduced on German-Danish interconnectors end June 2008. It is a continuous capacity trading platform using “first come first served” capacity nomination operated by E.ON Netz and Energinet.dk. The very same mechanism is already used on other European borders.

3.1.3. The regulation of the tasks of transmission and distribution companies

Transmission and distribution system operators
There is in Denmark by end 2007 one TSO (Energinet.dk which covers both electricity and gas), 10 operators of the regional transmissions networks (132/150 kV and some 60 kv) and 101 distribution network companies. The TSO owns and operates the 400 kV network and international interconnectors as well as part of the 132/150 kV network. They also operate all other networks of > 100 kV reimbursing the owners. The TSO has an obligation to acquire networks of 100-200 kV (in practice > 100 kV) put out for sale. Energinet.dk in 2007 acquired the 132 kV network of DONG Energy in north Zealand (former NESA). The 101 DSOs owns the networks operated. Ownership of network assets is a requirement of the Electricity Supply Act.

The national TSO Energinet.dk is state owned. The 10 regional transmission companies are owned by various electricity company groups. 3 DSOs are owned by DONG Energy, a state owned energy company. 22 DSOs are owned by municipalities while 70 DSOs are co-operative companies owned by the local electricity consumers. The remaining 6 DSOs are organized as "autonomous funds". 5 companies – each with more than 100,000 network customers – represent 45% of all network customers. 43 companies – each with less than 10,000 network customers represent 5% and the remaining 53 companies represent 50%.

The network
Total length of the network by end 2007 was 171,000 km, of which 147,000 km are cabled.

The length of above 100 kV level is 6,300 km of which 1035 km is cabled – 213 km being submarine cables. The over 100 kV network on shore consists of 400 kV and 132/150 kV lines.

Network Tariffs and economic regulation

Transmission (Energinet.dk)
The Danish transmission system consists of two not interconnected systems: A western system synchronous with UCTE (Nord Pool price area Denmark 1) and an eastern system synchronous with Nordel(Nord Pool price area 2). One national TSO Energinet.dk owns and operates 400 kV system of both areas and part of 132/150 kV system. The rest of the 132/150 kV system is at the disposal of Energinet.dk.

Rules on economic regulation of Energinet.dk as well as the basic tarification methodology of transmission is laid down in the Energy Supply Act and Act on Energinet.dk. Tarification rules are based on a cost plus system at economically efficient operation. It should be mentioned that Energinet.dk is not allowed to pay any dividends to the Danish state as owner of Energinet.dk.

Transmission tariffs
Only methodologies of tarification are approved ex ante by DERA. Energinet.dk must inform DERA about any change in tarification methodology. There is no specific format for this information, but it must allow DERA to evaluate the methodology.

Prices/tariffs must be notified to DERA ex ante, and DERA has a legal competence to require amendments to prices/tariffs (as well as to methodologies) if they are not in accordance with legislation e.g. are discriminatory between groups of customers.

Transmission tariffs consist of the following elements:

For Load:
- Network tariff: Costs of transmission network
- System tariff: Costs of operating the system, of generation reserve capacity etc.
- PSO tariff: Energinet.dk costs related to various public service obligations stipulated in the Electricity Supply Act. The major cost is various subsidies to "environmentally friendly" generation. This has nothing directly to do with transmission, but the PSO-tariff is calculated and collected by Energinet.dk (via the DSOs). As the majority of subsidies are linked to Nordic spot prices, changes in these prices make the PSO tariff vary a lot from one 3-month period to the next. During 2007 PSO tariff thus varied from 0.077 DKK/kWh (1.0 cent/kWh) to 0.168 DKK/kWh (2.3 cent/kWh). In order to assist market participants in forecasting the PSO tariffs, Energinet.dk offers a kind of "tariff calculator" on the website with Nord Pool Spot prices as the most important parameter.

The tariffs for load are paid by distribution network companies connected to the transmission network. The costs are "re-invoiced" to end-users connected to the distribution network.

The tariffs as of 1st quarter 2008 are the following:

For Load: DKK/kWh (cent/kWh)

	East	West
Network tariff	0.041 (0.55)	0.033 (0.44)
System Tariff	0.021 (0.28)	0.022 (0.30)
Total – excl. PSO	0.062 (0.83)	0.055 (0.74)
PS0 tariff	0.052 (0.69)	0.043 (0.58)
Total – incl. PSO	0.114 (1.52)	0.098 (1.32)

For generation:

DKK/kWh (cent/kWh)

Total G-tarif	0,002 (0.03)	0.004 (0.05)

Certain "environmentally friendly" generation (for which legislation stipulates a TSO obligation to take) do not pay any G tariff.

Economic regulation
Economic regulation of prices and regulation of the entire company economy are integrated. The regulation is a cost-plus type of regulation on an overall level – not for individual cost elements. "Cost" are "necessary costs" for all operational purposes, for depreciations, for taxes and for financial commitments. "Plus" is the return on capital, which is necessary to maintain the real net value of assets of the opening balance of 2005 plus new investments. This might to some extent be in the form of ex ante consolidation (appropriations) if this is necessary for an economically efficient operation of Energinet.dk.

Energinet.dk each year makes up "cost" and "plus" ex ante (budget) and ex post (accounting). Any revenue in excess of ex post "cost plus" must be settled during the next year. DERA must review this revenue in excess of ex post "cost plus" and is entitled to amend the figures if they are not made up in accordance with legislation. DERA is also entitled to order another settlement than proposed. The data are contained in an annual report, more specified accounting data and investment-/financing-plans submitted to DERA. The report is audited by the "auditor of state" and must be approved by the minister of Climate and Energy (as owner) prior to the submission to DERA.

The focus of DERA regulation according to legislation is to evaluate this revenue in excess of ex post "cost plus". In practice the most important element is reviewing if the "plus" made up by Energinet.dk does recover more than maintaining the value in real terms of the assets of the company in 2005, where Energinet.dk was created as the state owned TSO. The other main element formally is the "necessity" of costs. This has not been addressed in details up till now, but international benchmarking is considered as a future important element.

Congestion revenue
Reported congestion revenue of Energinet.dk for 2007 is DKK 723 million (Euros 97 million) – of which DKK 254 million (Euros 34 million) are revenue from explicit auctions on Germany – West Denmark interconnector.
The entire revenue is "….income to be taken into account by regulatory authorities when approving the methodology for calculating network tariffs"….art. 6.6.c.

Distribution and regional transmission

Distribution tariffs
Only methodologies of tarification are approved ex ante by DERA. DSOs must inform DERA about any change in tarification methodology. They is no specific format for this information, but it must allow DERA to evaluate the methodology. Many DSOs apply a recommended tarification methodology by the Danish Energy Association. This methodology has been notified to DERA and DERA has approved it in principle.

Prices/tariffs must be notified to DERA ex ante, and DERA has a legal competence to require amendments to prices/tariffs if they are not in accordance with legislation e.g. are discriminatory between groups of customers.

Each distribution network company has its own network tariff. This means that there are around 100 different set of network tariffs. Distribution network companies pay for transmission

network tariffs to Energinet.dk and to regional transmission companies. Thus distribution network tariffs include these payments as a component in the distribution tariff.

For statistical purposes (Eurostat and nationally) all tariffs are reviewed as at 1 January each year and the averages are calculated weighted by energy transported (= supplied). Quarterly prices through the year reflect average tariff development for a sample of 34 network companies compared to the 1 January situation.

Average network tariffs 2007
(based on Eurostat data for 1 January and 1 July - excl. payment to cover specific public service obligations)

		Range
Household customer		
- without standing charge	18.9 øre/kWh (2.54 cent/kWh)	
- with standing charge	35.1 øre/kWh (4.71 cent/kWh)	10 – 65 øre/kWh
Commercial customer		
- without standing charge	16.5 øre/kWh (2.21 cent/kWh)	
- with standing charge	20.3 øre/kWh (2.72 cent/kWh)	7 – 40 øre/kWh
Industrial customer		
- without standing charge	8.9 øre/kWh (1.19 cent/kWh)	
- with standing charge	9.0 øre/kWh (1.21 cent/kWh)	7 – 15 øre/kWh

The major differences in network charges among the distribution network companies are not only reflecting different income caps and cost differences of these companies. An important explanation is that a number of network companies (mainly cooperatives owned by local consumers) have tariffs far below income caps. These low distribution network tariffs allow the return of accumulated funds to the local consumers, who are also the owners of the local distribution company. The funds accumulated to some degree originate from before Danish electricity price regulation was introduced in 1977 and to some degree from selling off of ownership shares in generating companies/plants.

A typical (average) household in Denmark has an annual electricity consumption of 3500 kWh.

Economic regulation
Economic regulation of prices and regulation of the entire company economy are integrated. The economic regulation is a revenue cap type of regulation.

Prior to the tariff-setting of each transmission- and distribution-company (except for the national TSO) DERA will inform about the revenue cap to be respected. From 2004 to 2007 - according to a political agreement and subsequent amendment of the legislation - the regulation has been more of a price-cap-regulation (the revenue cap being based on freezing the network tariffs in real terms of 1. January 2004). Network companies with investment needs, due to security of supply, might obtain exemptions from the cap. Data for this regulation is delivered through an electronic reporting system of the DERA concerning costs, delivered quantities and information on investments.

During 2004-2007 no requirements of cutting back costs in the distribution and transmission companies has been announced. During this period, however, in order to gradually obtain a higher return on capital, companies had to increase cost-efficiency, as the price-cap was basically not increased. In order to understand this mechanism one must keep in mind that prior to 2004 part of the equity capital was allowed only a "sub-normal" return on capital, due to the regulatory set up.

A new benchmarking model has been developed for the post 2007 period to reintroduce efficiency requirements in the setting of revenue caps. The model is a "network volume" type of benchmarking. Having benchmarked the DSOs, revenue caps are fixed for each DSO, the cap on inefficient DSOs being lowered more than the cap for the more efficient ones. It should be noted that the tariff-level of 1. January 2004 remains as a constraint.

Until now quality of service has not been taken into account in setting revenue-/price caps. This, however, is gradually becoming a part of the regulatory model. According to detailed guidelines on data-collection and reporting, distribution network companies report yearly accumulated data on interruptions as duration of interruptions per customer (SAIDI) – including break down on types of interruption. These figures are coupled with the economic benchmarking to give the required efficiency increase of the individual DSO (decrease in revenue cap). The quality benchmarking will have impact on revenue caps from 2009.

Secondary legislation formulates requirements on publication on web-sites in a way that allows comparison of prices and conditions of delivery. DERA is entitled to establish more elaborated requirements taking into account interests of both customers and electricity companies.
Tariffs must also be reported to a central web-portal – www.Elpristavlen.dk – operated by the Danish Energy Association.

Quality of service
SAIDI for 2007 was 29.5 minutes/customer – around one third planned and two thirds unplanned interruptions.

SAIDI is not available for more than 2 years, as previous fault statistics did not cover the lowest voltage levels. The yearly accumulated duration of interruptions at 10-20 kV station level, however, is available for a long period. Apart from major incidents as hurricanes (1999 and 2005) and major system defects (2002 in western Denmark and 2003 in eastern Denmark) the figures are quite stable (23-39 minutes. There is however a trend towards an increasing share of planned outages due to building/rebuilding/cabling.

Balancing

Balancing power procurement
The Nordic TSOs to a high degree cooperate on ensuring the physical balance. The regulation resources available for physical balancing in the Nordel area are the following (also mentioning the equivalent UCTE concepts):

Frequency controlled reserves (UCTE: Primary regulation), which are automatically activated in order to restore 50 Hz frequency.

Around 600 MW at dedicated plants are available in the Nordel system for normal situations. Around 1000 MW at dedicated plants are available in the Nordel system for disturbance situations – covering a situation with loss of a major generating unit.

Fast reserves – manually activated (within 10-15 minutes) to restore a situation of balance, e.g. where frequency controlled reserves have first restored frequency (UCTE: Tertiary regulation).

Operated in a joint Nordic "regulation power" market – see below.
In Denmark fast disturbance reserves are procured also in the "regulation power" market.

In UCTE (incl. Western Denmark) physical balancing also comprises secondary regulation: automatic regulation guided by signals from TSO, which restores frequency and planned exchange.

Hourly bids from generation (and consumption) for fast reserves are pooled on a common Nordic "bid ladder" (The NOIS list) according to price of bids for up- and down-regulation. The balancing interval is 60 minutes. Regulating bids can be submitted until half an hour before the hour of operation.

Bids are chosen for activation in price sequence – subject to any congestions or other system constraints. In other words an imbalance in e.g. Eastern Denmark is neutralized by regulation in e.g. Finland if the cheapest bid is offered in Finland and it is feasible taking grid constraints into account.
It should be mentioned that in addition to balancing, bids on NOIS are also used for countertrade (prior to choosing bids for balancing).

All balance responsible parties are allowed to bid. In Denmark generators (consumers) might chose to receive a fixed capacity payment if they undertake to bid. The payment is a compensation for not being able to alternatively bid in the Nord Pool Spot market.

The actual activation of each generator (consumer) is the task of the TSO of the area (country).

As a main rule regulation power prices for each hour paid to all activated bidders is:
- For up-regulation highest sales bid activated
- For down-regulation lowest purchase bid activated

In certain cases – especially balancing power trading with Germany – "pay as bid" is employed.
Imbalance prices are currently available at: www.Nordpool.com. The difference between the day-ahead and imbalance prices is on average quite small in the Nordic countries.

Rules on balancing must be notified to DERA. DERA is entitled to order changes in system or conditions. According to legislation, the TSO must make all rules and criteria available to both actual and potential balance responsible parties.

In principle all generators and consumers are subject to the requirement to pay for imbalances. However, most RES based generators and smaller CHP have their costs of imbalances covered

partly or entirely. In some cases a fixed amount per kWh is paid to the generator as part of the RSE subsidy to cover costs of imbalances. In other cases, the TSO is selling the RES electricity in the market and will cover the balancing costs.

In Denmark two balancing areas exist:

- Eastern Denmark which is synchronously connected to the Nordic area and regulated by the rules of system operation of Nordel
- Western Denmark which is synchronously connected to UCTE and regulated by the UCTE rules of system operation.

Settlement of imbalances
The players receive reports on the balance settlement hour-by-hour from the TSO 5 working days after the day of operation. The actual invoicing is done on a monthly basis in the middle of the next month..

The variable costs of acquiring balancing services (costs of activation) in the market are in principle covered by the generators and consumers giving rise to the imbalances. However, the much larger fixed costs (payment for availability of the capacity) are "socialized" and paid by the consumers via the grid/system-tariff

Any generator (except certain RES generators) and any electricity consumer thus, is economic responsible for differences between planned and actual generation /consumption. In practice the balance-responsibility is merged - on a voluntary basis – on a small number of balance-responsible actors contracting directly or indirectly with individual generators/consumers.

Imbalances in the same direction as the total imbalance of the balancing area in that hour are settled at prices on the regulation power market. Imbalances in the opposite direction – are settled at prices of the Nord Pool Spot market. The same goes for imbalances in hours of total balance.

The Nordic TSOs have since 2007 worked on establishing a common Nordic balancing mechanism and a common balancing settlement. Presently, a common Nordic bidding list for offers and bids in the balancing market is set up.

In the beginning of 2007, the Nordic TSOs agreed on common principles of setting balancing fees based on common Nordic cost recovery of fixed shares of frequency controlled normal operation reserve (100%), frequency controlled disturbance reserves (10%-33%) and fast active disturbance reserves (10% - 33%). The common Nordic cost recovery system is planned to be in force in 2009.

Within this Nordic balancing cost regime, set up by the TSOs, the Nordic regulators have to approve the resulting balancing tariffs or the cost methodology, depending of the powers of each Nordic regulator. The methodology of recovering the balancing costs according to the regime set up by the Nordic TSOs were approved in Denmark in the first part of 2008.

Intra-day trading and revision of nominations

Intra-day trading using Nord Pools intraday market Elbas is possible in the whole of Denmark. Trade on Elbas is possible until 1 hour before the hour operation. Elbas trading integrating revisions of nominations is possible on interconnectors to Sweden and on the KONTEK interconnector to Germany. From June 2008 on the interconnector Germany - Western Denmark an intra-day capacity platform is introduced, allowing continuous revisions of nominations. Recently, it has been communicated that from 2009 Norway will participate in Elbas (Danish – Norwegian interconnector).

3.1.4. Effective unbundling

TSO and DSOs
There are by 1. January 2008 in Denmark one TSO – Energinet.dk – and 101 DSOs. 95 of the 101 DSOs have less than 100,000 customers. 43 of these have less than 10,000 customers.
10 regional transmission companies operates according to "transmission licences", but partly put their 132/150 kV grid at the disposal of Energinet.dk, partly operate 50/60 kV networks.

Unbundling – ownership and legal
The TSO of Energinet.dk is ownership unbundled – state-owned - since its establishment as of 1. January 2005. The state-ownership is represented by the Minister of Climate and Energy. The major energy company – DONG Energy – is also state-owned, but represented by the Minister of Finance. Details and implications of TSO state-ownership is described in the specific Act on Energinet.dk.

All DSOs are legally unbundled. Almost all DSOs belong to company groups also containing electricity trading/supply companies and other companies. Apart from DONG Energy ,and a couple of other companies the company groups have only little generation. In many cases trading/supply companies have joint ownership, implying only minority ownership of each electricity "company group".

The "company groups" are owned by:

State (DONG Energy):	3	970,000 network customers	8.8	TWh
Municipalities:	22	381,000 network customers	4.0	TWh
Cooperatives etc.:	76	1,885,000 network customers	21.4	TWh

The TSO and all DSOs are asset owners as well. This is a precondition for licensing of DSOs according to the Electricity Supply Act. For TSO Energinet.dk it is a precondition according to the Act on Energinet.dk.

Denmark does not apply the 100,000 customers rule neither for legal unbundling, nor for compliance programmes. The 100,000 customers rule, however, is applied for management unbundling.

Unbundling - functional
The ownership unbundled TSO Energinet.dk is located separately from generation, trading/supply etc. For DSOs the situation varies. Jointly owned trading/supply companies will be located separately from most or all of the owners and related network companies.

Concerning separate branding or separate presentation in other ways the situation varies. For some company-groups the "signal" of separate entities on their website and in promotional material is not obvious. As part of the compliance programme monitoring DERA requires clear indication on websites of DSO versus trading activities.

The unbundling structure is also underlined on the central price comparison website of The Danish Energy Association – www.elpristavlen.dk - which is much used. On this website in order to calculate your total electricity price you have to choose relevant network company and alternative suppliers in two separate processes – underlining the basic unbundling.

Unbundling - accounting
As all electricity companies are legally unbundled separate accounts are published and separately audited. It is allowed to have the same auditor for the network accounts and for the trading accounts.

Sanctions
Companies failing to comply with legal or management unbundling can be subject to an order from the Danish Energy Authority and ultimately loss of licence. Account unbundling normally follow from legal unbundling, but if specific unbundling rules of accounts are infringed, DERA can issue an order and subsequently ask the police to impose fines.

Evaluation of unbundling and use of compliance programmes
DERA is focussing on compliance programmes and annual reports on compliance programmes as the major vehicle to ensure and develop functional unbundling. It is the view of DERA that an "unbundling culture" is developing in the gas companies. However, additional specific DERA initiatives are necessary. Recently, DERA issued guidelines on how to distinguish more clearly between distribution company and trading company of the same company group when addressing the consumers.

- A website of the distribution company may never contain any promotional information on the trading company. A common portal of entry – without any promotional information – is allowed, but the path to the distribution website must be well defined and easy to find.

- Magazines of the company group containing information on both distribution and trade activities is not allowed

- Letters from distribution company to consumers may never contain promotional information on the trading company. It must be clearly stated that the sender is the distribution company.

The TSO has been legally unbundled for a number of years and ownership unbundled since 2005. DERA is not in a position to trace specific changes in attitude in relation to network investments and security of supply during this period.

Legal unbundling of TSO and DSOs has already been a legal requirement in Denmark for a number of years. The "formal" legal unbundling took place from the start as required. The use of shared services and employees vary. The network company, however, must at least have in-house the employees necessary for taking the overall decisions on operation and economy. Both shared services and shared employees are allowed, but these shared services/employees are exactly the focus of the compliance programmes required.

Management unbundling was realized with a transitional period. The management unbundling rules apply both to employees ("managers") and to appointed members of board. Nobody

employed in managing functions of a DSO can simultaneously be employed in a trading/supply company of the group. An equivalent restriction covers board members. In addition a person employed in managing functions of a DSO cannot be employed in a holding company of the group also owning a trading/supply company.

Functional unbundling is gradually developing with compliance programmes as the major vehicle.

3.2. Competition Issues [Article 23(8) and 23(1)(h)]

3.2.1. Description of the wholesale market

Denmark is an integrated part of the North Europe electricity whole sale market. The integration is especially close with the other Nordic countries, where synergies between capacity dimensioned systems as Denmark (large share of thermal generation) and energy dimensioned systems (like the hydro generation of Norway) are exploited for many years. The exploitation is made possible by rather strong interconnections and close cooperation between TSOs within Nordel. The joint power exchange of Nord Pool contributes to a high degree of competition in the whole sale market.

Consumption
In 2007 the consumption of electricity in Denmark amounted to a total of 35.7 TWh, with a peak load of 6.4 GW.

Generation
The net generating capacity end 2007 is 12.7 GW. 3.1 GW is wind power and almost all other is thermal – the majority coal- or gas fired CHP plants. The actually available capacity is less than the 12.7 GW. Nordel in its Annual Statistics 2007 has estimated it – at a cold winter day – to be just 7.4 GW.

Generation in 2007 was 37.4 TWh.

Two companies have at least a 5 % share of installed available capacity (and generation volume): DONG Energy and Vattenfall. Their proportion of total generation capacity is around 70 % - DONG Energy owning 6.6 GW and Vattenfall 2.1 GW of generation. Both major generators own a mix of base load and peak load. The majority of the residual capacity consists of distributed generation – smaller decentralized CHP stations and wind turbines. In the Nordic market hydro and nuclear are the other major base load types of units. Danish peak load is mainly oil fuelled.

Transmission
Denmark is still divided into two non interconnected areas, eastern Denmark being synchronous with Nordel and western Denmark with UCTE. A DC-interconnector across the Great Belt (Storebælt) to become commissioned in 2010 will link the two areas. Interconnections with Norway, Sweden and Germany are quite strong compared to the Danish peak load. Interconnectors physically allow a max. import capacity of 4580 MW compared to a 2007 peak load of 6400 MW. Interconnectors between western Denmark and Norway/Sweden as well as between eastern Denmark and Germany are DC-lines (linking non synchronous systems).

Despite the quite strong interconnections lines are frequently congested. This is due to a quite active north Europe whole sale market – also using Danish grid for transit. In addition for various reasons (security of supply etc.) max. NTC is not always available. In 2007 average NTC was 3580 MW to Denmark and 4235 from Denmark (compared to max. NTC 5590 MW from

Denmark). The degree of network interconnection is 28% measured as average NTC divided by max generating capacity.

In 2007 physical imports were 10.5 TWh and exports 11.4 TWh – making total gross flows: 21.9 TWh.

2007 imports to Denmark from (TWh)

Norway	3.9
Sweden	5.1
Germany	1.5
Total	10.5

2007 exports from Denmark to (TWh)

Norway	1.2
Sweden	2.4
Germany	7.8
Total	11.4

Trading

Within the Nordel area all NTC is put at the disposal of Nord Pool Spot for market-splitting. The creation of price areas (areas with prices different from system price) reveals congestions in a transparent way. The interconnector Kontek linking eastern Denmark and Germany is operated by market splitting (Nord Pool Spot) and the Germany – west Denmark interconnector is operated by explicit auctions. On both of these interconnectors day ahead market coupling will be introduced in September 2008.

There are 9 Danish "direct participants" on Nord Pool Spot and 7 "clearing customers".
According to Nord Pool Spot Danish companies traded 35.4 TWh on Nord Pool Spot in 2007. During the same period Danish companies cleared 104.3 TWh – spot and OTC – making the spot share 34% and the OTC share 66%.

It should be noted that according to the previous investigations, no contracts between producers and suppliers were long term contracts (more than 3 years).

There is explicit demand side participation (demand bids) on the Nordic whole sale power market of Nord Pool Spot. Nordel is conducting studies to improve active demand response to price changes. In Denmark projects of Energinet.dk focus at making active both bigger and smaller consumers as well as generation plants at customers (negative demand). One benefit of increased demand response would be a reduction of the need for expensive peak load generation for which the incentives for investors to build often is quite low.

The whole sale price level was lower in 2007 than in 2006. Monthly average system prices on Nord Pool Spot during 2007 peaked in November with 351 DKK/MWh (47 Euro/MWh), while the lowest price level was in August with 123 DKK/MWh (16.5 Euro/MWh). Monthly average area prices in both western and eastern Denmark were in the range of 179 to 380 DKK/MWh (24-52 Euro/MWh).

The markets for ancillary services
The main groups of ancillary services are.

1) automatic reserves
2) manual reserves
3) reactive reserves (voltage control)
4) black-start capability

Automatic reserve capacity s are bought from the 2 major players and other Nordic/German TSO´s.
Manual reserve capacity are bought from a broad spectrum of large and small producers (local CHP plants), partly on daily auctions.
Reactive reserves and black start capability are only bought from the 2 major players

Smaller generators are encouraged to participate in the ancillary power markets – especially the regulation power market – often on a collective basis. In addition Energinet.dk is working on promoting demand side participation in the market. One area of great prospects is the possibility to consume electricity for district heating produced on electric boilers. This could balance high electricity generation from wind turbines when "normal" electricity consumption is low. In order to promote this technology, the energy taxation for electric boilers has recently been reduced.

Evaluation of the electricity whole sale market
In general there is a high degree of integration between Denmark and the other Nordic countries partly due the well functioning of Nord Pool.

But there are still some important shortcomings which in the case of Denmark limit the relevant market to be sub national:

- A lot of critical hours where Nord Pool Spot price areas of West and East Denmark are segmented from the system price. This is due to lack of transmission capacity, to occasional sub-optimal utilization of the Nordic interconnectors, to the challenge of dealing with major shares of intermittent wind power etc..
- At present West Denmark and East Denmark are not directly connected, and the Great Belt interconnection will not be commissioned until 2010.
- Cross border trade on the Danish-German interconnectors still has room for improvement.

These elements mean that the dominant players in West and East Denmark are not exposed to effective competition. However, a number of initiatives are being taken to improve the situation:

- The Great Belt interconnector between west and east Denmark will be commissioned in 2010.

- Nordic TSOs are planning strengthening interconnections as part of their coordinated planning. A reinforcement of internal Swedish transmissions links is expected to increase NTC between Sweden and Denmark. A reinforcement of Danish-Norwegian interconnector is decided in principle. NTC on German – west Danish interconnector has recently been increased and major reinforcements are under discussion.
- Linked to the ERGEG Regional initiative TSOs Energinet.dk, Vattenfall Europe Transmission and E.ON Netz as well as power exchanges EEX and Nord Pool Spot are developing day-ahead market coupling on German-Danish interconnectors from September 2008.

There have been no important mergers or acquisitions during 2007. In the National Report from last year an in depth description of preconditions for the acquisition by DONG Energy of Elsam (and E2) was given as well as of the cases on Elsam's abuse of dominant position concerning their bidding on Nord Pool Spot having major impact on area price levels in western Denmark.

3.2.2. Description of the retail market

Total end user consumption in the Danish electricity market in 2007 was 34 TWh:

Industry	9.8 TWh
Services	11.2 TWh
Households	9.7 TWh
Other	3.4 TWh
Total	34.1 TWh

There is very little energy intensive manufacturing industry. Average consumption of households is only around 3,500 kWh/year. Electric heating is rare – only 5% of households. Electric heating – as a main rule – is not allowed in new houses. This is originally one element of the comprehensive heat-planning developing district heating and individual gas-heating.

All consumers have access to free choice of supplier. Customers with a consumption of more than 100,000 kWh/year must have hourly metering. Smaller customers are "load profile customers". Some distribution network companies, however, introduce hourly metering ("smart meters") also for smaller customers.

Suppliers in the market
There are 77 suppliers. 45 of these have a licence for "obligation to supply" of smaller customers ("load profile customers") in a geographical delimited area. "Obligation to supply prices" are regulated. This means that they are default suppliers and will supply consumers who have not actively chosen another supplier. The "obligation to supply companies" might also supply customers outside their supply area, but they rarely do.

There are 32 other supply companies in the market. Supply on fully competitive terms does not require any licence, but they must be registered in the TSO run Ediel-register. The activity of these suppliers is very different. Around half only address the bigger customers (hourly metering). The other half addresses customers more generally in part of the country or in the entire country.

All suppliers with an "obligation to supply" and some of the other suppliers belong to vertically integrated company groups of "incumbents". "Vertically integrated" normally means that they also include a distribution network company. Only few also have generation. A number of supply companies – with or without "obligation to supply" – are jointly owned by a number of incumbents. 9 supply companies are independent of these company groups – 3 being "foreign" companies. During the last year at least 2 quite active "independent" supply companies have entered the market – focussing on smaller customers.

Evaluation of retail market – by segments
The bigger customers (hourly metered) seem quite active in the market. Switching statistics indicate that most have switched supplier during the period of eligibility. However, there are no statistics on market shares for this customer segment.

The activity in the market for smaller customers is quite limited. Switching-statistics indicate that around 6% of "load profile customers" have switched supplier during the period of eligibility. As mentioned above the suppliers of this market segment is a mix of suppliers with "obligation to supply" and without. Many are quite small – 75% with an estimated market share below 1% and only 10% (6-7 suppliers) with above 5%. The market share of the 3 largest is estimated to around 50%.

The switching-procedure allows the customer to have contact with the new supplier only. The new supplier has the contact with the distribution network company, which is responsible for metering and settles with the old supplier. Switching can only take place by the 1st of each month – and the new supplier must forward the request to the distribution network company at least 30 days in advance. It is the impression of DERA that the switching process works reasonably well. However, faults and delays in communicating data from the distribution network company to the (potential) new supplier is still an issue of concern. A statistics on the issue is monitored closely and in close contact to the Danish Energy Association, representing the electricity companies. In addition it might be a complicated procedure – especially for new entrants – to establish information exchange with a major number of distribution network companies.

In the recent annual status from the Danish Competition Authority the electricity retail market for smaller customers was analysed. The report regards the activity in the market as unsatisfactory – with a high degree of passivity both on the consumers' side and from the suppliers. The report recognizes that the potential economic savings for households are limited and that so are the profit margins for suppliers. The report, however, expects that the following initiatives will promote activity, contributing to allocate more benefits of competition to the consumers:

- Improving the level of information for consumers by
  - developing the price-information portal and price calculator www.elpristavlen.dk operated by the Danish Energy Association. This is also proposed in a recent report from DEA
  - introducing smart metering in a coordinated way
- Balancing the situation of incumbents and new suppliers by establishing a central "data-hub"

Realisation of such improvements of information and data access resulting in better market functioning constitute preconditions for termination of the present price regulation of electricity sold on "obligation on supply" terms.

Electricity retail prices
The average prices by categories of consumers for 2007 were the following

DKK/ kWh (cent/kWh)

	Households		"Commercial"		"Industrial"	
Energy including standing charge	0.387	(5.2)	0.365	(4.9)	0.201	(2.7)
Networks including standing charge	0.351	(4.7)	0.241	(3.2)	0.090	(1.2)
PSO	0.115	(1.5)	0.115	(1.5)	0.115	(1.5)
Taxes (excl VAT)	0.666	(8.9)	0.097	(1.3)	0.073	(1.0)
VAT	0.357	(4.9)	0.000		0.000	
TOTAL	1.899	(25.5)	0.818	(11.0)	0.479	(6.4)

As explained in chapter 3.1, PSO tariff varies from one 3-months period to the next due to – among other things – variations in subsidies to "environmentally friendly" electricity linked to Nord Pool Spot prices. In chapter 3.1 in the statistics on network tariffs, the implication of counting network average prices including or excluding standing charge is illustrated.

The energy part of the price statistics for households and commercial is calculated as an average of regulated "obligation to supply" prices (regulated cap of margin) for the country as a whole based on a very representative sample. Industrial energy prices reflect prices in the competitive market. The regulation of "obligation to supply" prices is explained in chapter 6. The method of regulation caps prices with a time lag compared to the whole sale price level at Nord Pool Spot. This explains the much energy higher price for households and commercial compared to industrial, reflecting high Nord pool Spot prices in the last part of 2006.

The purpose of the energy price regulation (obligation to supply prices) of the legislation is to protect smaller consumers in a market with lack of adequate de facto competition.

Consumer complaints and inquiries

The Energy Supplies Complaint Board deals with complaints (inquiries resulting in formal cases) arising from the contractual relationship between household energy consumers and a natural gas supply undertaking (also electricity and district heating). It is established in co-operation between the Consumer Council and the Association of Danish Energy Companies, DONG Energy, Greater Copenhagen Natural Gas/Natural Gas Middle-North, Natural Gas Funen and Danish District Heating Association.

The Board is composed of a neutral chairperson and four members. The chairperson is a city court judge. The Consumer Council appoints two members, and two members are appointed to represent the respectively energy trade area.

The Danish Competition Authority serves as secretariat to the Board. The secretariat also deals with inquiries from consumers (any contact for information or expressing discontent, which does not result in a formal case).

In 2007 146 complaints on electricity were settled and 854 inquiries were answered. The figures for 2006 were 183 and 1140. There is no statistics available on the nature of the complaint/inquiry.

3.2.3. Measures to avoid abuses of dominance

Whole sale market
At the Nordic power exchange Nord Pool Spot relevant information is given to the market. This includes information on plants broken down or for other reasons not able to produce. Any participant on Nord Pool Spot must supply such information timely to Nord Pool Spot. Nord Pool Spot also publishes relevant prices for the following day.

It should be noted that Nord Pool Spot publishes only the actual prices while information regarding the bidding process is never published. Hereby, the individual bidder has a minimum of knowledge of the others behaviour.

The daily bidding behaviour on Nord Pool Spot is monitored by a fully separate body "Nord Pool Market Surveillance". Nord Pool Spot is regulated by Norwegian regulator NVE. There is an agreement among Nordic regulators on cooperation concerning this regulation.

In Denmark national TSO Energinet.dk is monitoring the market and informs Danish Competition Authority on alleged abuse. The cases on former Elsam's abuse of dominant position in the whole sale market (described in the National Report of last year) were initiated in this way.

Retail market
As described in chapters 2.3 and 3.1 DERA has en explicit legal role of ensuring transparency in the retail market in order to promote the well functioning of the market. In relation to pre-contractual information to customers, DERA in an executive order has required all suppliers to publish standard supply offers on own website and on a central electricity price web-portal – www.elpristavlen.dk – operated by the Danish Energy Association.

Concerning the post contractual stage, DERA in 2007 published an executive order on minimum requirements of invoicing.

DERA, also in relation to setting price caps for retail supply on "obligation to supply terms", has an important task in ensuring the balance between customer protection and minimum impact on the functioning of the market – implementing the rules of the Energy Supply Act.

4. Regulation and Performance of the Natural Gas market

4.1. Regulatory Issues [Article 25(1)]

4.1.1. General

The Danish natural gas market was fully liberalized as of January 1, 2004. This implied a free choice of supplier for any customer.

4.1.2. Management and allocation of interconnection capacity and mechanisms to deal with congestion

Generally there are no congestions in the Danish transportation system. There are 3 entry points: Ellund (from Germany), Dragør (from Sweden) and Nybro (from Danish part of the North Sea). The following aspects should be mentioned:

- There is currently no firm capacity in the Northbound direction at the Ellund German-Danish border, as the DEUDAN-operator BEB can not provide firm physical capacity for Denmark nor a higher pressure than 60 bar. Interruptible capacity is available depending on southbound trading flow(backhaul). During spring/summer 2007 for the first time southbound trade was so low compared to planned northbound trade that a physical northbound flow should have occurred if possible. For one month there was no physical flow to Germany.
- Congestions have occurred southbound at Ellund, where all the firm technical capacity as well as additional volumes of interruptible capacity between Denmark and Germany is booked, a couple of times during 2006/2007
- In 2007, excess demand for storage capacity occurred for the first time. Apparently, it was an isolated event due to the record mild winter of 2007 as there was no excess demand when capacity was allocated for the present storage year 2008-2009.

Congestion management
Energinet.dk offers capacity contracts to shippers on non-discriminatory and regulated terms. The regulated tariffs are available from Energinet.dk's website. The tariffs consist of a capacity and a commodity element. The split between these are 75% / 25%, respectively. Energinet.dk facilitates trading of capacity between shippers (a secondary market) through the Capacity Transfer Facility (CTF). Rules for use-it-or-lose-it are included in the Danish Network Code. However, the use-it-or-lose-it clause has not been used up to this point, due to the fact that such a situation has not occurred.

With respect to utilization of capacity, the TSO Energinet.dk publishes both data and information on its website. This information and data includes aggregated hourly and daily flows and aggregated booked capacity on each entry and each exit point. Also, total available capacity is published, as are information regarding planned investments and maintenance.

The secondary capacity market in Denmark is facilitated by Energinet.dk and is free of charge for the shippers. By using the online booking system "Energinet.dk Online", shippers can transfer capacity up to 13:00 the day before the transfer should take place. The payment for the capacity stays with the original shipper, and the commodity charge for transporting the gas is transferred to the new shipper. There have hardly been any trades of secondary capacity in the Danish system. Approximately, 10 trades have taken place, most of them between different entities of the same company.

Swaps are not as today used in the Danish transmission system. However, the similar "instrument" *backhaul* is used at the German-Danish border at Ellund. Major southbound flows allow northbound trades – or equivalent: Northbound trades allow more trade southbound without creating congestions.

Since Energinet.dk is ownership unbundled and totally independent, Energinet.dk has no incentives of assessing less technical capacity than actually possible. Thus, Energinet.dk's methodology for assessing maximum technical capacity is robust, and based on calculations, experience, actual flows, pressure measures, expectations of future flows etc.

4.1.3. The regulation of the tasks of transmission and distribution companies

Transmission and distribution system operators
There is one national transmission system operator (Energinet.dk) and 5 distribution companies (6 distribution areas). Two of these, HNG and Midt-Nord are cooperating closely, including same trading and tariff conditions.

The network
Total length 26,050 km, of which TSO Energinet.dk 860 km.

Network Tariffs and economic regulation

Transmission (Energinet.dk)
Rules on economic regulation of Energinet.dk as well as tarification of transmission is laid down in the Energy Supply Act and Act on Energinet.dk. Tarification rules are based on a cost plus system at economically efficient operation. It should be mentioned that Energinet.dk is not allowed to pay any dividends to the Danish state as owner of Energinet.dk.

Transmission tariffs
The transmission tariff system is an entry-exit system. There are 3 entry-points: Nybro (from North Sea), Ellund (from Germany) and Dragør (from Sweden). The entire Denmark makes up one exit zone. Tariffs are the same in all entry-points and the exit zone. The tariff consists of a capacity payment and a volume payment. The capacity payment makes up around 75% of the total tariff – reflecting the majority of fixed costs. The capacity payment refers to capacity-reservations of durations of year, month, week and day payments for monthly, weekly and daily reservations vary according to time of year, reflecting expected level of utilization of the system – highest capacity payment during winter.

Only methodologies of tarification are approved ex ante by DERA. Energinet.dk must inform DERA about any change in tarification methodology. There is no specific format for this information, but it must allow DERA to evaluate the methodology. The latest approval of methodologies was in September 2007.

Prices/tariffs must be notified to DERA ex ante, and DERA has a legal competence to require amendments to prices/tariffs (as well as to methodologies) if they are not in accordance with legislation e.g. are discriminatory between groups of customers.

Tariffs are normally set yearly at 1. October – making the “gas-year” 1. October to 30. September. Minor adjustments of tariffs might take place during the year.

Economic regulation
Economic regulation of prices and regulation of the entire company economy are integrated. The regulation is a cost-plus type of regulation on an overall level – not for individual cost elements. “Costs” are “necessary costs” for all operational purposes, for depreciations, for taxes and for

financial commitments. “Plus” is the return on capital, which is necessary to maintain the real value of net assets of the opening balance of 2005 plus new investments. This might to some extent be in the form of ex ante consolidation (appropriations) if this is necessary for an economically efficient operation of Energinet.dk.

Energinet.dk each year makes up “cost” and “plus” ex ante (budget) and ex post (accounting). Any revenue in excess of ex post “cost plus” must be settled during the next year. DERA must review this revenue in excess of ex post “cost plus” and is entitled to amend the figures if they are not made up in accordance with legislation. DERA is also entitled to order another settlement than proposed. The data are contained in an annual report, more specified accounting data and investment-/financing-plans submitted to DERA. The report is audited by the “auditor of state” and must be approved by the minister of Climate and Energy (as owner) prior to the submission to DERA.

The focus of DERA regulation according to legislation is to evaluate this revenue in excess of ex post “cost plus”. In practice the most important element is reviewing if the “plus” made up by Energinet.dk is in accordance with legislation. The other main element formally is the “necessity” of costs. This has not been addressed in details up till now, but international benchmarking is considered as a future important element.

Distribution

Distribution tariffs
Only methodologies of tarification are approved ex ante by DERA. DSOs must inform DERA about any change in tarification methodology. No specific format for this information is required, however it must allow DERA to evaluate the methodology.

All distribution tariffs are distance-independent volume tariffs. Larger volumes transported/supplied imply lower unit-payment of transportation due to the “block-tariff” employed offering different (declining) tariffs for different (increasing) intervals of transportation/supply.
Prices/tariffs must be notified to DERA ex ante, and DERA has a legal competence to require amendments to prices/tariffs if tariffs or amendments are not in accordance with legislation e.g. are discriminatory between groups of customers.

The table shows network charges, excluding a VAT of 25 %, for 2007. In genera,l no end-users are directly transmission users and due to the fact that there can be a pooling effect - which reduces the average transmission tariff - it has not been possible to identify a concrete charge pr. end-user. As an approximation, the transmission charges are calculated by taking the TSOs total income from gas-transportation and divide it by total transported volume in 2007.

Network charges, excluding VAT of 25 %, Euro per MWh

	Distribution charge	Transmission charge -estimated[2]	Total network charges
418,6 TJ load factor 250 days, 4000 hours	2.93	0.91	3.84
418,6 GJ no load factor	12.96	0.91	13.87
83,7 GJ no load factor	12.96	0.91	13.87

Source: Energinet.dk and distribution companies' websites

The distribution companies have quite similar tariffs. The differences which do exist are mainly due to the fact that the companies have chosen different length of the debt repayment period.

Average storage charges – based on a "standard-product" – are 0.6 cent/kWh.

Economic regulation
Economic regulation of prices and regulation of the entire company economy are integrated. The economic regulation is a revenue cap type of regulation. Prior to the tariff-setting of each distribution-company, DERA will inform about the revenue cap to be respected.

The length of the regulatory period is 4 years. The present regulatory period covers 2006-2009.

The revenue cap is the sum of 4 elements:
- Operational costs and depreciations. For the present regulatory period the basis is company data of 2004 adjusted for exceptional costs. For future periods, a historical 4 years average will be used
- Interest and repayment on liabilities originating from the initial investments in developing the Danish gas system
- Regulated return on investments since 2005
- Actual costs of certain specific activities imposed on the companies by legislation

The companies are benchmarked against each others on economic efficiency as part of the regulation. The benchmarking model is of a network volume type. In continuation of the benchmarking, DERA has imposed general efficiency demands on all companies (+1.5% p.a.) and individual efficiency demands on the least efficient companies (+1 % p.a. on one company). The demand on increasing efficiency is related to the element "operational costs and depreciations" only, but other elements might be included. Quality of service is not a parameter taken into account in economic regulation. Interruptions (non-planned) of supply are extremely rare.

[2] In 2007 Energinet.dk's revenues from transportation were 549 mill. DKK (73.7 mill. Euro) while 81 mill. MWh were transported. This gives an average charge of 0,91 Euro/MWh. In addition Energinet.dk users pay an security of supply charge of 0.35 Euro/MWh on average. This payment for a public service obligation is regarded as a levy.

Yearly revenues in excess of the revenue cap might be "neutralized" by lower tariffs the following max. 3 years - or they might be transferred to the next regulatory period to be "neutralized" by lower tariffs the first 2 years. Yearly revenues short of revenue cap might be "neutralized" by higher tariffs the following years.

At least 50% of profits from actual yearly costs below the element "operational costs and depreciations" minus efficiency requirement must be used to lower tariffs the following years. The remaining profit might be used for appropriations or increased return on capital.

Tariffs and conditions – according to legislation – must be published on own web-sites and on a price-portal selected by DERA. Gas tariffs and prices must be published on www.gasprisguiden.dk operated by national TSO Energinet.dk. www.gasprisguiden.dk contains a price calculator.

Quarterly information meetings arranged by TSO Energinet.dk – "Shippers Forum" – also contributes to information and dialogue.

Balancing

Balancing gas procurement

Energinet.dk uses several tools to ensure system balance. These include the use of line pack and the use of both of the two Danish Storages. In addition, Energinet.dk can always procure or sell energy to DONG Energy via contract**.** The system need reflects the seasonal fluctuations in consumption (due to the temperature differences between summer and winter).

The balancing area corresponds to Energinet.dk's transmission system. Interactions from other balancing areas are not possible in the Danish system.

The sum of Energinet.dk purchase and selling of balancing energy was 54 MWh/hour in 2007.

Settlement of imbalances

Balancing responsible companies are subject to the rules below. New shippers in the Danish gas market might enter into an agreement with Energinet.dk for 2 months of free balancing services in order to gain experience.

Balancing is on a daily basis – no hourly restrictions or constraints apply. The gas day begins and ends at 6.00 a.m. Imbalances are settled hereafter, and shippers are informed of their gas balance at 11.00 a.m. at the latest. The shipper can pool imbalances of his portfolio.

Energinet.dk prices for balancing gas are based on a so called neutral gas price (which is based on an average of the TTF price in Holland). It is split in 2 levels – step 1 & 2.

Energinet.dk buying price:

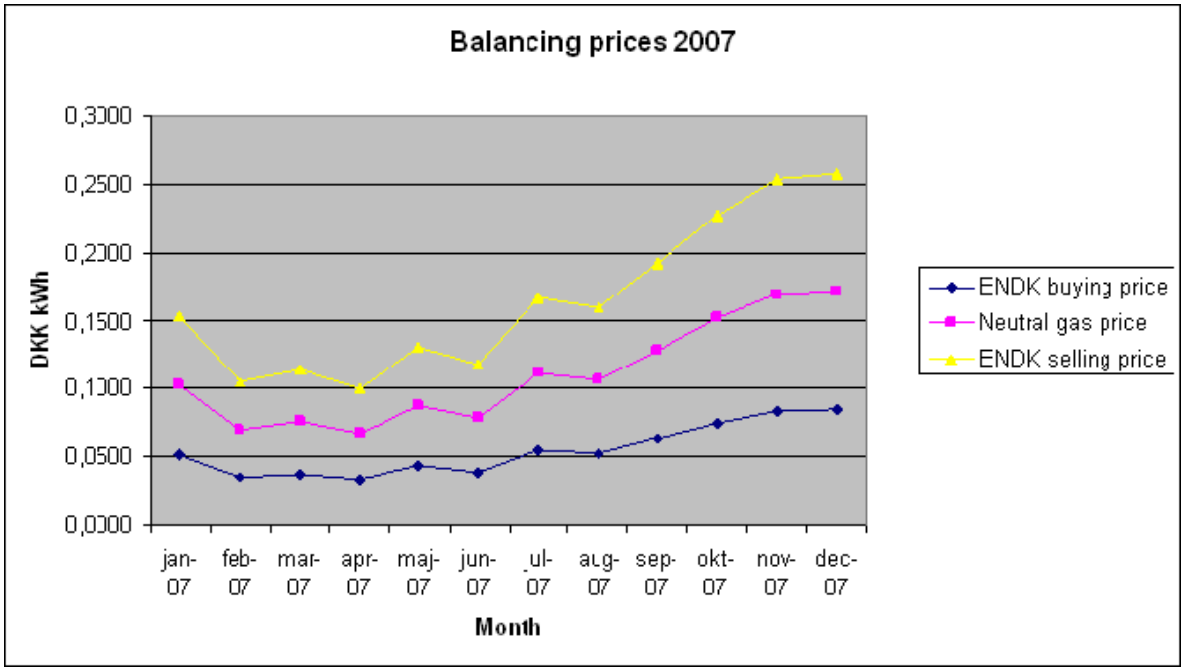
Step 1: 50 % af the neutral gas price
Step 2: 25 % of the neutral gas price.

Energinet.dk selling price:
Step 1: 150% of the neutral gas price
Step 2: 200% af the neutral gas price.

When the shippers buy an exit zone capacity contract, the shipper receive a free balance margin – a free tolerance is bundled to the exit zone capacity.
In summer the tolerance level (free balance margin) is equal to 15 % of the daily maximum capacity (corresponding to 360 % of the maximum hourly capacity).
In winter the tolerance level (free balance margin) is equal to 5 % of the daily maximum capacity (corresponding to 120 % of the maximum hourly capacity).
Otherwise, no tolerance levels exist.

Energinet.dk average buying price in 2007 was 2.2 cent/kWh and the average selling price was 0.8 cent/kWh.

Below the development of balancing prices during 2007 is shown:



Energinet.dk has to publish the methodology of the terms and conditions regarding balancing

Market model

The Danish market model is an entry-exit model with the following specificities:

- 3 entry points: At Nybro (from the North Sea), Ellund (from Germany) and from Dragør (from Sweden). Sweden, however, is neither a gas producer nor connected to other systems.
- One exit-zone covering the entire Denmark. Within this zone, Danish gas consumers are supplied via the distribution network. 6 distribution areas cover the exit-zone – each represented by one distribution company (two companies belonging to the same company group).
- 3 transit exit points – Nybro, Ellund and Dragør (see above) – from where gas can be exported from Denmark.
- 2 virtual trading points: Gas Transfer Facility (GTF) which is a hub facilitating physical implementation of contracts and Nord Pool Gas Facility (NPTF) which is the new Danish gas exchange, both serving the shippers of the market.
- 2 physical storage points – Stenlille and Lille Thorup gas-storages – serving the storage customers.

In general Energinet.dk is not allowed to discriminate between shippers. There is a difference between entry and exit flows, because there is a commodity charge for the flow of gas exit Denmark, but not entry.

Capacity reservation in the TSO system is purchased at a price by kWh/h. However, a number of different capacity products are offered (at different prices): Daily, weekly, monthly and yearly. Distribution system: distance-independent volume-tariffs. Larger volumes transported/supplied imply lower unit-payment of transportation due to the “block-tariff” employed offering different (declining) tariffs for different (increasing) intervals of transportation/supply.

All capacity at Energinet.dk is sold on a First Come First Served basis. Annual capacity can only be bought from 3 months before the capacity period starts. This means that an annual capacity starting 1. October can not be purchased before 1. July and beyond.

Not firm capacity is offered by Energinet.dk on an interruptible basis. Interruption in case of congestion will take place pro rata.

Any reserved capacity might be traded bilaterally between shippers via the Energinet.dk operated Capacity Facility Transfer (CTF). In order to gain information on the “market” for capacity, the Bulletin Board of Energinet.dk might be used. This is a web-based meeting place and secondary market for shippers where contracts for energy, capacity and balance-margins can be traded.

The UIOLI principle for not used capacity is employed, but has never been used in practice, as need has not occurred.

An exceptional situation concerning capacity reservation occurred in 2007, where a different allocation mechanism was used. In spring 2007, Energinet.dk discovered a large over-demand for Entry Ellund capacity. Because there was a chance that this over-demand would carry on in

the next gas year (October 2007-October 2008), Energinet.dk decided to change the allocation mechanism for this specific point, to make sure that the capacity was not hoarded.

Energinet.dk informed all shippers on beforehand that on 1. July 2007 there would be a so called "open window" where all capacity orders received within a certain time frame would be seen as having been received at the same time. If there had been an over-demand on this Entry Ellund capacity, the capacity would have been allocated pro-rata.

National TSO Energinet.dk according to legislation is required to develop the transmission system as needed seen from a socioeconomic point of view (security of supply, contingency planning and well functioning markets). A yearly System Plan on development of the network is published and investment plans must be notified to the minister of Climate and Energy. Quarterly meetings with Danish Energy Authority and DERA are also an important element.

Energinet.dk plans to employ an open season procedure for future infrastructure projects, as for instance the Scanled project linking Denmark, Sweden and eastern Norway with western Norway.

4.1.4. Effective Unbundling

TSO and DSOs
There is only 1 TSO in Denmark – the state owned Energinet.dk. Moreover there are 5 DSOs.

The DSOs are Naturgas Fyn A/S, DONG Distribution A/S (2 distribution areas), Naturgas Midt-Nord I/S (MN), Hovedstadsregionens Naturgas I/S (HNG I/S) and Aalborg Kommune Gasforsyningen. The 2 DSOs Naturgas Midt-Nord I/S (MN) and Hovedstadsregionens Naturgas I/S are closely cooperating on a number of issues, and therefore considered as one DSO. 2 DSOs in Denmark has less than 100.000 customers (Aalborg Kommune, Gasforsyning and Naturgas Fyn).

DONG Distribution A/S is an integrated part of DONG Energy A/S which is the biggest player in the Danish gas market. DONG Energy A/S is state-owned. The other distribution companies are owned by municipalities.

Unbundling – ownership and legal
The national TSO - Energinet.dk - is ownership unbundled – state-owned - since its establishment as of 1. January 2005. The state-ownership is represented by the Minister of Climate and Energy. The major energy company – DONG Energy – is also state-owned, but represented by the Minister of Finance.

The DSOs belong to company groups, which – apart from state-owned DONG Energy - are municipally owned. These company groups also comprise gas-trading companies.

The national TSO Energinet.dk as well as the DSOs are asset owners.

All distribution companies have been legally unbundled since 1. January 2003. Denmark does not apply the 100,000 customers rule neither for legal unbundling, nor for compliance programmes or functional/management unbundling.

Unbundling - functional
The ownership unbundled TSO Energinet.dk is located separately from trading/supply etc.
As a general rule, the distribution companies are located together with their affiliates.

They use the same logo and use the same main websites. The only exception is the supply company partly owned by Naturgas Fyn I/S named Statoil Gazelle A/S which has its own location, logo and website. As an element of compliance programme monitoring, DSOs are required to distinguish clearly between specific DSO-part of websites and other parts.

Note that the unbundling between network and energy is well illustrated in the official price-calculator of Energinet.dk – www.gasprisguiden.dk

Unbundling - accounting
All DSOs prepare and publish annual accounts for all their legally unbundled entities.

Unbundled accounts to be submitted for regulatory purposes must be so specified that they allow the DERA fixing of revenue caps and the comparisons of revenue caps with actual revenue. Fines might be imposed in case of failure to submit information required or submission of misleading information.

Accounts of each legally unbundled company is subject to separate audit. However, the auditor of a distribution company and a trading company might be the same.

Sanctions
Companies failing to comply with legal or management unbundling can be subject to an order from the Danish Energy Authority and ultimately loss of licence. Account unbundling, normally, follow from legal unbundling, but if specific unbundling rules of accounts are infringed, DERA can issue an order and subsequently ask the police to impose fines.

Evaluation of unbundling and the use of compliance programmes
DERA is focussing on compliance programmes and annual reports on compliance programmes as the major vehicle to ensure and develop functional unbundling. It is the view of DERA that an "unbundling culture" is developing in the gas companies. However, additional specific DERA initiatives are necessary. Recently, DERA issued guidelines on how to distinguish more clearly between distribution company issues and trading company issues of the same company group when addressing the consumers:

- A website of the distribution company may never contain any promotional information on the trading company. A common portal of entry – without any promotional information – is allowed, but the path to the distribution website must be well defined and easy to find.

- Magazines of the company group containing information on both distribution and trade activities is not allowed

- Letters from the distribution company to consumers may never contain promotional information on the trading company. It must be clearly stated that the sender is the distribution company.

The TSO has been legally unbundled for a number of years and ownership unbundled since 2005. DERA is not in a position to trace specific changes in attitude in relation to network investments and security of supply during this period.

Also, for DSOs legal unbundling has already been a legal requirement in Denmark for a number of years. The "formal" legal unbundling took place from the start as required. The use of shared services and employees vary. The network company, however, must at least have in-house the employees necessary for taking the overall decisions on operation and economy. Both shared services and shared employees are allowed, but these shared services/employees are exactly the focus of the compliance programmes required.

Management unbundling was realized with a transitional period. The management unbundling rules apply both to employees ("managers") and to appointed members of board. Nobody

employed in managing functions of a DSO can simultaneously be employed in a trading/supply company of the group. An equivalent restriction covers board members. In addition, a person employed in managing functions of a DSO cannot be employed in a holding company of the group also owning a trading/supply company.

Functional unbundling is gradually developing with compliance programmes as the major vehicle.

A recent important unbundling aspect was the purchase in 2007 by TSO Energinet.dk of one of the two Danish gas-storages from DONG Energy. The transaction (divestment of one storage) was one of the requirements of the Commission to allow the DONG Energy acquisitions in the Danish electricity market.

Competition Issues [Article 25(1)(h)]

4.1.5. Description of the wholesale market[3]

Consumption
Total consumption was approximately 40 TWh in 2007. Peak consumption was 0.220 TWh/day.

The average calorific value in consumption is 11 kWh/Nm3 (lower calorific value).
In transmission the upper calorific value is used – in 2007 measured to 12.155 kWh/Nm3.

Indigenous production and other sources
Danmark has a major indigenous gas-production in the North Sea.
DONG Energy – in addition to some own production – is the major buyer of gas from major producer DUC (Danish Underground Consortium) on long term take-and-pay contracts. In order to promote competition in the Danish whole sale market DUC has been required to sell 17% to other companies than DONG Energy. For the same reason DONG Energy as a precondition for acquiring major Danish power generators has been required to divest one of two gas storages (sold to Energinet.dk) and to offer 400 mio cub.meters/year to potential competitors in the Danish wholesale market. In total around 10 market participants are active in the Danish gas whole sale market.

Transmission and storage
From Danish production fields in the North Sea the gas can be transported to onshore Denmark (Nybro entry point) or to Holland.
Gas can also be brought into the Danish whole sale market from Germany at entry point Ellund.
The transmission is also connected to Sweden (entry point Dragør) but Sweden is neither a gas-producer nor connected to other gas-producing countries. Thus, the Danish gas-market peripheral and somewhat isolated.

The important interconnection between Denmark and Germany ("Continent") at Ellund is linked to the DEUDAN transmission line to the Hamburg area.

Imports and exports in 2007 were the following:
Export to Holland (via North Sea pipelines) …. 24 TWh (2.2 bcm)
Export to Germany..…….23 TWh (2.1 bcm)
Import from Germany……..10 TWh (0.9 bcm) (backhaul: Net physical flow to Germany 13 TWh (1.2 bcm)
Export to Sweden…….11 TWh (1 bcm)

The import and export capacities available are the following:

Entry Ellund (from Germany): There is no firm capacity. Physical gas can only flow from north to south. However depending on soutbound capacity reserved interruptible capacity ("level 1") is offered to a max of 0.0018 TWh/h (measured at upper calorific value). Additional interruptible capacity is offered at "level 2".

[3] Defined as covering any transaction of gas between market participants other than final end-use customers.

Exit Ellund (to Germany): Max technical capacity is 0.0042 TWh/h. Firm capacity is offered up to that capacity. “Level 1” interruptible capacity is offered up to 0.0049 TWh/h and above that “level 2”.

Entry Dragør (from Sweden): No firm capacity offered as the only gas in Sweden is exactly the amount supplied from Denmark at that entry point. Interruptible capacity “level 1” is offered up to 0.00001 TWh/h.

Exit Dragør (to Sweden): Firm capacity offered is max. 0.0044 TWh/h.

Entry Nybro (from North Sea): Firm capacity offered is max 0.0165 TWh/h.

Exit-DK (zone – national market): Firm capacity offered is max 0.0147 TWh/h.

The utilization of the pipelines can be described in the following way:

Entry Ellund: No firm capacity. For 8 out of 12 months more than all “level 1 ”interruptible capacity is reserved.

Entry Dragør: No firm capacity as there will be no import from Sweden.

Entry Nybro (transport route from North sea fields): In 2007 0.0014 TWh/h free capacity.

It could be added that “exit Ellund” there was no free firm capacity during 2007. Total capacity reservations amounted to 0.0051 TWh/h compared to a technical capacity of 0.0042 TWh/h.

At the two gas storages total working gas volume is 9.7 TWh (881 million Nm3)
Max withdrawal capacity is: 0.24 TWh/day (21.6 million Nm3/day)

Trading

DONG Energy disposes of around 85 % of the gas from the Danish part of the North Sea, either by purchasing from major producer DUC on long term contracts or by own production. Since 2007 also other shippers than DONG Energy use the DONG Energy owned off shore pipelines from off shore fields to onshore Denmark. A number (7) of companies in the primary wholesale market also dispose of shares of gas imported via the German-Danish border. In the secondary wholesale market (especially wholesalers purchasing from DONG Energy), in addition to DONG Energy, the company Statoil Gazelle has more than 5% share of gas available.

The three companies DONG, HNG/MN, and Statoil Gazelle together have access to around 95 % of the total amount of gas available in the wholesale market.

Currently, the following companies (partly or totally owned by foreign companies) are also active and important on the whole sale market in Denmark – with market shares of less than 5%:

- Dansk Shell (Shell)
- Vattenfall Danmark
- E.ON Ruhrgas
- E.ON Danmark (E.ON)

Statoil Gazelle is a joint venture, from which Statoil owns 50 % and the Danish DSO Naturgas Fyn owns 50 %.

Dansk Shell is a Danish energy supplier, owned partly by Royal Dutch Petroleum Company (60 percent) and Shell Transport and Trading Company p.l.c. (40 percent). Dansk Shell's natural gas activities on the Danish market are currently very limited with only a few large industrial customers.

Vattenfall Danmark has taken over some of former electricity generator Energy E2's gas consuming power production plants.

Organized market places in Denmark are
- TSO operated GTF (Gas Transfer Facility) which facilitates physical implementation of bilateral contracts
- Gas exchange Nord Pool Gas

The use of GTF (Gas Transfer Facility) increased immensely in 2007. Almost half (48%) of Danish gas consumption was traded via GTF compared to 9 % in 2006. 13-14 shippers are active on GTF.

Nord Pool Gas was not established until 4. March 2008 and the liquidity is still low. 5 traders are active on Nord Pool Gas. It organizes physical trade of natural gas. The products offered are day contracts and a following-month contract. Nord Pool Gas AS is owned by Energinet.dk and Nord Pool Spot with a share of 50 % each. Trading at Nord Pool Gas is based on continuous trading and is performed electronically through the internet.

The liquidity of Nord Pool Gas is still low, however, DERA regards it as a first step of a subsequent integration with other North European market places.

Both the contract between DONG and the DUC consortium (producer) and the contract between DONG and the Syd Arne consortium (producer) are long term contracts..

Evaluation of the gas wholesale market
In view of the geographical constraints the Danish gas wholesale market is regarded as reasonably well-functioning (DERA and the Commission). However, a number of elements can be improved.

The interconnection to Germany suffers from certain inefficiencies. For technical reasons net gas flows cannot move north. Therefore, any import to Denmark must take place simultaneously with south-bound flows. In 2007 Ellund southbound was congested at certain times. Also the utilization of the DEUDAN transmission line is not optimal. Measures of better utilization and probably a strengthening of the Ellund-connection are being analysed. In the 2007 annual status

of the Danish Competition Authority the gas whole sale market functioning was analysed and a number of improvements were proposed. These were described in the national report of last year.

A number of initiatives are initiated to increase integration with continental Europe as part of the ERGEG Gas Regional Initiative.

Finally the “status” of the off shore pipelines is worth monitoring. Until now they have been operated for platform to onshore transport only, but with the development and integration of the North Sea gas network, it might change function towards transport of gas between markets . This will raise the question of the possible need for some kind of unbundling, as DONG Energy group is the owner and operator of the pipelines as well as a gas-producer and gas-trader. Since 2007, also other shippers than DONG Energy use the DONG Energy owned off shore pipelines from off shore fields to onshore Denmark.

4.1.6. Description of the retail market

Gas consumption 2006 (2007 figures not available yet)

• power plants (incl. CHP);	91875 TJ	25.5 TWh (incl. CHP)
• industry;	31933 TJ	8.9 TWh
• services;	10614 TJ	2.9 TWh
• households;	28118 TJ	7.8 TWh
• other	-	-
Total	162659 TJ	45.1 TWh

Suppliers in the market
Any consumer can choose supplier. Consumers who do not actively choose supplier will be supplied by the licensed default supplier of the geographical area ("supplier with obligation to supply"). There are 5 suppliers with obligation to supply. To become a supplier on competitive terms requires no licence but an agreement with national TSO Energinet.dk. The 5 suppliers with obligation to supply (or a sister company) also trade on competitive terms. In addition, 7 other traders are registered. It seems that the 7 companies mentioned primarily focus on business customers.

DONG Energy, HNG/MN and Statoil Gazelle each have market shares of above 5 %.
Dansk Shell, Sydkraft Gas, Vattenfall and E.ON have no connection to DSOs in Denmark. No suppliers have affiliate connection to national TSO Energinet.dk.

The state owned DONG Energy group consists of companies active in both production, off shore transmission, distribution and supply/trade. As mentioned earlier, the DUC consortium sells most of its gas to DONG Energy on long term take-or-pay agreements. DONG has no ownership in the DUC consortium. However, DONG owns a part in the Syd Arne group and is also the owner of a couple of minor groups.

In order to switch supplier, the consumer will have to agree on a contract with the new supplier. This must be concluded at least 30 days prior to switching as this is deadline for the new supplier to inform the local distribution company about the switching. The distribution company will take care of metering in relation to the switching.

National TSO Energinet.dk has established a web-site to inform consumers as well as suppliers in the retail market: http://www.naturgasmarked.dk. This also includes http://www.gasprisguiden.dk/, which is a price information website for smaller consumers, including a tariff calculator.

Evaluation of gas retail market
It is estimated that in 2007 0.9% of customers switched supplier (excluding company group internal switches). In volume, the share of total consumption is estimated to 29%. Though there is no detailed break down on consumer categories, it is evident that switching is much more frequent among the bigger customers. Around 15% of the hourly metered customers (35% by volume) switched supplier in 2007. Among the load profile customers, for customers of less than

5000 m3 switching amounted to around 0.6 % and for customers above 5000 m3 to 5.7 % (8.7% by volume).

For the entire period since total opening of the market in 2004, around 4 % of all gas customers have switched supplier. The accumulated volume being switched amounts to around 80 % of total consumption, but this high figure includes major consumers having switched more than once.

Analysis of Danish Competition Authority from recent years estimates that only a small part of the Danish retail market is foreclosed by long-term contracts. The majority of the end users are requesting supplier contracts with short duration (1-3 years), and it seems like the competitive suppliers are willing to enter into such contracts. Some power plant end users are an exception to this tendency. Both the central and the decentralised combined heat and power plants have generally longer duration in their contracts than other end users.

DONG Energy used to own both gas storage facilities in Denmark. This was regarded as a competitive advantage. Dong Energy gave as a remedy in the DONG/Elsam/Energi E2 merger, that DONG would divest one of the two storage facilities in Denmark (Ll. Torup). This storage facility has been sold to Energinet.dk. This divestment will improve new entrants and non-incumbents access to gas-flexibility in Denmark.

Gas retail prices

2007 – Eurostat category (old):	D3 ("household")	I1 (commercial")	I4 ("Industrial")
Cent/kWh			
Network charges:	1.4	1.4	0.38
Energy price:	4.0	4.0	1.52
Taxes:	2.7	1.7	0.7
VAT:	2.1	-	
Total:	10.2	7.1	2.6

The current retail prices are found on the following homepage: www.gasprisguiden.dk of Energinet.dk.

Consumer complaints and inquiries
The Energy Supplies Complaint Board deals with complaints (inquiries resulting in formal cases) arising from the contractual relationship between household energy consumers and a natural gas supply undertaking (also electricity and district heating). It is established in co-operation between the Consumer Council and the Association of Danish Energy Companies, DONG (Danish Oil and Natural Gas), Greater Copenhagen Natural Gas/Natural Gas Middle-North, Natural Gas Funen and Danish District Heating Association.

The Board is composed of a neutral chairperson and four members. The chairperson is a city court judge. The Consumer Council appoints two members, and two members are appointed to represent the respectively energy trade area.

The Danish Competition Authority serves as secretariat to the Board. The secretariat also deals with inquiries from consumers (any contact for information or expressing discontent, which does not result in a formal case).

In 2007, 13 complaints on gas were settled and 42 inquiries were answered. The figures for 2006 were 10 and 71. There is no statistics available on the nature of the complaint/inquiry.

4.1.7. Measures to avoid abuses of dominance

In Denmark national TSO Energinet.dk is monitoring the market and informs Danish Competition Authority on alleged abuse.

When DONG Energy was going to acquire the generating assets of former major power producer ELSAM (and Energy E2) it was required to divest one of two gas storages and to release yearly 400 mill. m3 of gas. Energinet.dk has acquired the gas storage.

DERA is taking various initiatives to integrate the rather isolated Danish gas market with the continental gas market and to improve transparency. Active participation in the ERGEG Regional Initiative for gas is one way.

Based on a cooperation between Nord pool Spot and Energinet.dk on developing the Danish gas market, a Danish gas exchange – Nord Pool Gas – started in March 2008. Each of the two owns 50%. The initiative is in accordance with the overall strategy of Energinet.dk to create an appropriate framework for an efficient and well functioning gas market in Denmark. DERA regards the new gas exchange as an important first step to further integration of the Danish gas market with that of continental Europe.

DERA has en explicit legal role of ensuring transparency in the retail market in order to promote the well functioning of the market. In relation to pre-contractual information to customers, DERA - in an executive order - has required all suppliers to publish standard supply offers on own website and on a central electricity price web-portal www.gasprisguiden.dk – operated by Energinet.dk.
Concerning the post contractual stage, DERA has published an executive order on minimum requirements of invoicing gas-customers.

DERA also in relation to setting price caps for retail supply on “obligation to supply terms” has an important task in ensuring the balance between customer protection and minimum impact on the functioning of the market – implementing the rules of the Energy Supply Act.

5 Security of Supply

5.1. Electricity [Article 4][4]

A general description of the ongoing supply-demand situation.
The supply-demand situation in Denmark is generally favourable. Peak load in 2007 was 6.4 GW. Total installed generation capacity was 12.8 GW, of which 3.1 GW are wind turbines. Nordel estimates the "available" production capacity to 7.4 GW. 2007 was very mild and the Energinet.dk/Nordel projections estimates "once in 10 years" peak load in 2011/12 to 7.3 GW.

Generation by category 2007 (Source: Nordel Annual Statistics 2007)

Wind turbines:	7.2	TWh
Hydro Power:	0.0	TWh
Other Renewable energy	1.9	TWh
Natural gas (incl. refinery gas)	7.1	TWh
Oil	0.3	TWh
Coal	20.3	TWh
Total	37.2	TWh

Max. import capacity on foreign interconnectors is 5.3 GW.

Nordel in May 2008, analysed the energy balance in 2011 and power balance 2011/12. The balances seem more favourable for the Nordic countries as a whole than one year ago, due to new generation and adjusted forecasts for temperature and precipitation. It is estimated that the system is able to meet the estimated consumption and the corresponding typical power demand pattern in average conditions without imports. Low inflow conditions will make import necessary. Peak demand at a "once in 10 years" peak can be handled by the system.

Additions to Danish generation capacity until 2011 are expected to be almost entirely wind turbines (550 MW). Also, in the longer term wind is expected to become a major source of electricity generation in Denmark. New wind turbines will replace major thermal generation units of which more than 50% are over 25 years old. The long term energy policy of the Danish government is contained in "A visionary Danish energy policy 2025" presented in January 2007, The Danish long term energy policy could be seen as the first step towards realising the vision of making Denmark independent of fossil fuels.

Danish national TSO Energinet.dk is incorporating the political goals in its system planning. Integrating wind energy (a major share off-shore) of up to 50% of electricity consumption is regarded as a major challenge. Seen from a security of supply point of view, this is especially demanding – both ensuring import possibilities at high load when "the wind is not blowing" and ensuring export capacity at low load with much wind.

[4] This section may make reference to supply demand forecasts compiled by TSOs where appropriate

Energinet.dk in its analysis assumes that 6.5 GW of a total of 12.9 GW in 2025 will be wind generation capacity – and with a peak load of 7.2 GW. Based on this scenarios with

- present interconnectors plus the 600 MW Great Belt link (to be commissioned in 2010)
- additional import capacities of 2150 MW (strengthening of Germany-Denmark and Norway-Denmark interconnectors) plus additional 600 MW over the Great Belt

are analysed.

It seems evident that such a major change of the Danish generation system will require such major strengthening of interconnectors – even with almost no increase in electricity consumption. It will imply an increase in trading with neighbouring countries. The construction of a Great Belt interconnector of 600 MW spanning the Eastern and the Western part of Denmark has begun for commissioning in 2010. An additional 600 MW interconnector to Norway by 2014 has recently been decided by Energinet.dk and Statnett – subject to approval. Also reinforcements on German – West Danish interconnector by 2012 has recently been approved by Energinet.dk and E.ON Netz – from 950 MW to 1500 MW northbound and from 1500 MW to 2000 MW southbound. The increased capacity will first of all be made possible by reinforcement of internal Danish and German transmission networks. It should be added that the German – West Danish interconnector was upgraded with 150 MW in 2007.

The development will also require a major reinforcement of the internal Danish transmission grid. This issue has been addressed in a recent report from the so-called "Electricity Infrastructure Committee". The alternatives of reinforcement presented in the report for political decisions also address the issue of possible cabling of the above 100 kV grid.

Planning and authorisation of new generation and transmission

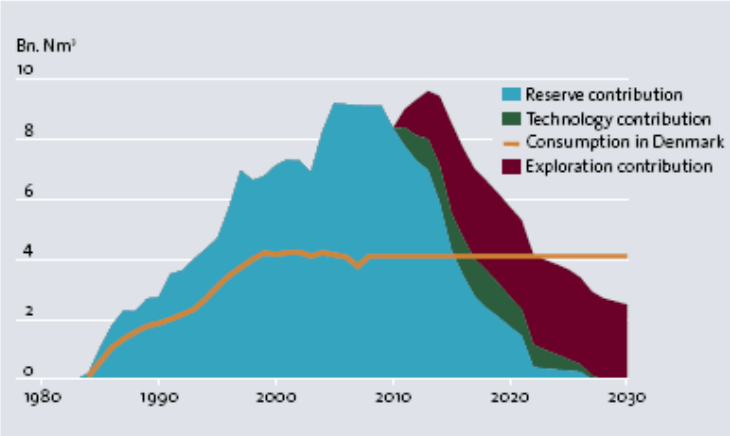
New electricity generation capacity must be approved by the Danish Energy Authority (DEA). The approval is based on a number of criteria contained in secondary legislation. The criteria mostly refer to environmental requirements and requirements on thermal efficiency.

Investments in interconnectors between the Nordic countries as well as internal links having impact on the cross border trade is planned in a comprehensive Pan-Nordic process within Nordel. All investments to be carried out by Energinet.dk must be contained in a comprehensive plan to be sent to the minister of transport and energy prior to initiation of any work. Projects of a certain size must have the prior approval by the minister. In addition, environmental approvals etc. are needed.

5.2. Gas [Article 5] and 2004/67/EC [Article 5]

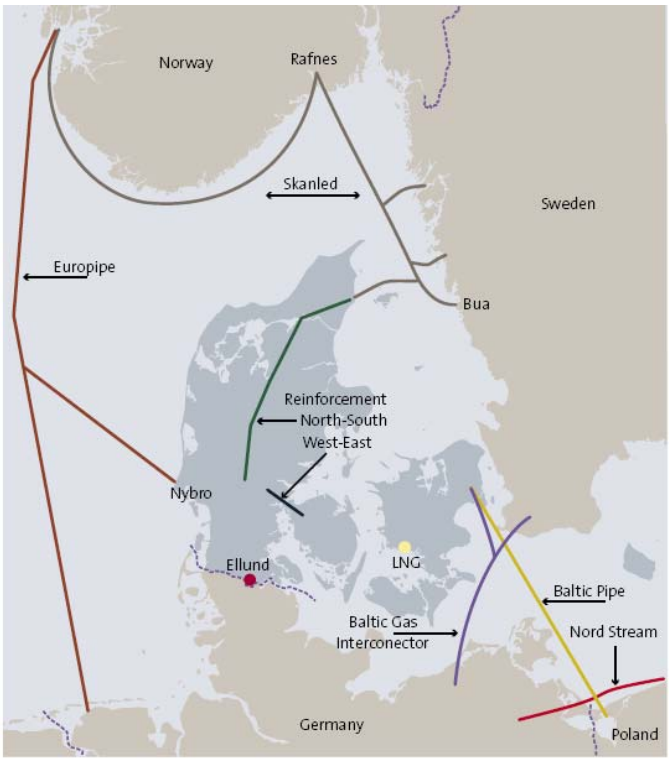
A general description of the ongoing supply-demand situation
The Danish gas consumption is reasonably stable at a level of 4 bcm/year. As the market is mature no important change is expected in the level of consumption. Most of the gas originates from fields in the Danish part of the North Sea. The transmission system is basically designed to transport this gas to the domestic market and to Germany and Sweden. Gas can be imported from Germany, but at present physical import is not possible, so imports are based on backhawl.

Danish indigenous gas production seems to be at its peak and is expected to decline over the coming years.



Therefore, the key security of supply issue is to plan and build transport routes allowing imports from other sources. National TSO Energinet.dk estimates that new natural gas supply routes to Denmark are needed within the next 5-10 years.

Currently, a number of transmission-projects with relation to Danish territory are under discussion



Energinet.dk assesses that the Skanled project is promising and is joining this. Skanled will establish a transport route for Norwegian gas from western Norway to energy intensive industries in eastern Norway and in Sweden as well as to the Danish market. Skanled will be commissioned in 2012 at the earliest. Energinet.dk has entered an agreement that will make Energinet.dk control 5% of the pipeline capacity. The investment needs of Energinet.dk are estimated to 0.4 – 0.6 billion euro.

Energinet.dk is also participating in analysing the potential of the Baltic Pipe project linking Denmark and Poland. If realized the interconnector probably will be Polish owned and operated.

According to the Natural Gas Supply Act the TSO, Energinet.dk, is responsible for security of supply. In this connection Energinet.dk is responsible to ensure that there is sufficient gas in storage together with other measures to handle an emergency situation. Energinet.dk has recently acquired one of two Danish storage facilities from DONG Energy. Gas suppliers are required to have a certain percentage of gas in storage during the winter months due to security of supply. Increase in trade implies increase in need for storage capacity. Therefore, also needs and possibilities for additional storage capacity is analysed.

Emergency measures
In case of disruptions in gas supply to the Danish market Energinet.dk as a minimum must make possible the continued supply to non interruptible customers (i.e. contracts on non interruption in emergency situations). The continued supply must be available at least

- for 3 days of extremely cold weather ("once in 20 years")
- for 60 days at normal winter conditions

Energinet.dk every year (from 2007) submits a plan for dealing with emergency situations to the Danish Energy Authority.

Energinet.dk has formulated and published the approach to be used in case of emergency. It includes prices and conditions for supply in emergency situations. The default situation is that all consumers will be supplied in emergency situations according to the rules mentioned above. This is regarded as a public service obligation and the cost are covered by a kind of levy.

A number of larger customers might enter into agreement with Energinet.dk to allow their supply to be interrupted in case of emergency. This implies a reduction in the levy mentioned.

During a storm on 8. December 2007, an emergency situation was declared – due to planned interruption of production in the North Sea was declared in Denmark for the very first time.. The emergency situation was called off after just one day and no consumers were interrupted, as gas from storages could cover the entire demand.

6. Public Service Issues [Articles 3(9) electricity and 3(6) gas]

Labelling of primary energy sources (electricity)
The requirements on labelling/disclosure are implemented by a Danish Energy Authority executive order. Energinet.dk has a central role in ensuring the information needed.

Consumer protection as stated in Annex A of the electricity and gas market directives
Parts of Annex A of the European Electricity and Gas market Directives are implemented in general Danish Consumer Law – itself implementing EU Directives on Consumer Protection - and therefore are not contained in the statutory orders of the electricity and natural gas supply acts. This applies for instance to the provision of litra d that the consumers should be protected against unfair and misleading selling methods, and that terms and conditions shall be fair and transparent.

According to the statutory orders, for any agreement between a consumer and a supplier there shall be a contract specifying the information and conditions mentioned in Annex A, litra a.

The supplier shall give an adequate notice if he intends to modify contractual conditions, and the consumer has a right to withdraw from the contract, if he cannot accept the new conditions. The supplier shall notify the consumer directly of any increase in tariffs compared to the previous metering period. The notice shall be given at the time of the next metering at the latest. In case of a substantial increase, the notice shall be given at the next invoice.

According to the orders, the supplier is not allowed to charge the consumer for his changing supplier.

Complaints about violation of the orders are attended to by DERA.

Disputes between a supplier and a consumer according to civil law, for instance involving compensation, cf. Annex A, litra f, will be settled by The Energy Supplies Complaints Board, which is a private board, approved by the Minister for Family and Consumer Affairs.

Provision of litra g) that customers have a right to be informed about their right to be supplied with gas and electricity of a specified quality and to a reasonable price is implemented through the obligation, according to the Electricity Supply Act and the Natural Gas Supply Act, of distribution companies to inform customers in the necessary way. Costumers may complain about violation of the information obligation to the DERA. According to the Electricity Supply Act, distribution companies are, moreover, specifically directed to inform customers about their right to be supplied.

Vulnerable customers
Danish energy legislation contains no specific measures on “vulnerable customers”. In Denmark, customers are protected by general consumer law, which contains provisions regulating incidents

of non fulfilment, for instance in case of non payment. “Vulnerable customers” in the sense that they might have hard to pay their energy bills are covered by general social security legislation.

Moreover, the companies´ procedures for disconnection are reported to DERA according to the Electricity Supply Act and the Natural Gas Supply Act. DERA can prescribe that the procedures be amended if they are not in accordance with the law. There are no data available on number of disconnections, but this is not a major issue.

Regulation of “obligation to supply energy prices”
All energy customers have access to the competitive market – without any price regulation. It requires an active action of choosing a supplier and contracting to enter this market.

For passive customers, customers having lost their supplier (SLR customers) and customers actively deciding to return to “obligation to supply” the following groups can be distinguished for electricity:
- Load profile customers (not hourly metered): Regulated price – market price level (see below)
- Hourly metered – households: Regulated price – Nord Pool Spot area price plus costs of balancing and administration
- Hourly metered – business - having lost supplier (SLR customers) – Nord Pool Spot area price plus costs of balancing and administration
- Hourly metered - business – “passive”/default: No price regulation.

For gas:
- All customers: Regulated price: Cost plus. Profit regulated according to economic efficiency in energy purchase and other costs. However, in practice, almost no hourly metered customers (above 300,000 NM^3/year) purchase according to the regulated price, but are active in the competitive market.

The system of “obligation to supply” as well as for the regulation of “obligation to supply prices” serve as consumer protection. In the 2008 Annual review of the Danish Competition Authority realisation of an appropriate transparency for household customers (e.g. including smart metering) and a central “data hub” for access for all actual and potential suppliers to necessary information on individual customers resulting in better market functioning constitute preconditions for termination of the present price regulation of electricity sold on “obligation on supply” terms.

The general methodology of price regulation is stated in the Electricity Supply Act – stating the “products” to be the reference.
The specification of this methodology – the calculations and control-procedure - is done by DERA in its practical implementation.

The DERA methodology is described in detail on its website www.energitilsynet.dk:

Electricity (see relevant consumer categories above):
- Regulation reflecting market price level (for similar consumer-segments and terms of supply)
  By comparing non-regulated prices with Nord Pool Spot prices a mark-up or gross

margin of the competitive market is identified. This mark-up constitutes the cap of mark-ups identified for the notified obligation to supply prices of individual supply companies. If the cap is exceeded prices must be lowered accordingly.

- Regulation based on Nord Pool Spot area price plus costs of balancing and administration.
  The "allowed" costs of balancing and administration are fixed at an average level according to reported historical costs.

Gas

For each company with an obligation to supply licence the profit is capped according to an "allowed" rate of return on equity capital. This rate of return depends on the benchmarked efficiency of the individual company.
If the company performs better than average economic efficiency during the regulation period it can earn a higher rate of return in practice and vice versa.

The regulation is not below costs so no compensations to supply companies are made.

It is estimated that 95% of electricity customers are supplied according to regulated prices. By volume this, however represents less than half of total electricity sales.

Transparency in the retail market

It is the dedicated task of DERA according to the energy supply acts to promote transparency in the retail market.
As a contribution to improve transparency in the retail market in 2005 DERA issued two new executive orders, one on publication by electricity supply companies of prices, tariffs, discounts and terms, and a second on publication by natural gas companies of prices, tariffs, discounts and terms (executive orders nos. 770 and 771 of 8 August 2005).

There are requirements that electricity and gas supply companies publish their standard prices and terms on their own websites. Energy supply companies must also report their prices to the consumer-portals on the Internet designated by the Authority. The Association of Danish Energy Companies' portal www.elpristavlen.dk is currently the portal designated for electricity. For gas it is the portal www.gasprisguiden.dk operated by national regulator Energinet.dk. On these portals (primarily) private consumers can compare the prices of different suppliers, including having access to a price calculator.

There are indications the information websites mentioned are not easy enough to understand for the consumers. An improvement of www.elpristavlen.dk is under way.