



Danish
Utility Regulator

National Report 2019 for Denmark

Developments in 2018

DANISH UTILITY REGULATOR, OCTOBER 2019

**DANISH UTILITY
REGULATOR**

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FOREWORD

The Danish Utility Regulator (DUR) was established 1st of July 2018 as an independent Authority under the ministry for Climate, Energy and Utilities and replaced the former Danish Energy Regulatory Authority (DERA).

The main task for DUR is to be a strong independent regulatory authority who contributes to securing consumers interest in the utility sectors (electricity, natural gas and central heating). DUR will have a strong focus on efficiency in the utility sectors, lowest possible consumer prices, a stable, secure supply and cost effective development of technology and green transition.

Among the most important developments of 2018 is the adoption of the Clean Energy Package, which updates the existing regulatory framework and adds new tasks and duties. This will demand a strong focus and attention from energy regulators in 2019, e.g. regarding consumer rights and protection, aggregation and aggregators, the new RCC etc. In this respect, DUR looks forward to participating in meeting the new challenges both nationally and at the EU-level.

This National Report presents an overview of the functioning and main developments in the Danish wholesale and retail markets for both electricity and gas during 2018. The annex to the report contains a systematic presentation of the two sectors regarding network regulation, competition, security of supply and consumer protection.

The National Report has been distributed to the Agency for the Cooperation of Energy Regulators and to the European Commission in October 2019.

Carsten Smidt
Director-General
Danish Utility Regulator

MAIN DEVELOPMENTS IN THE ELECTRICITY AND GAS MARKET

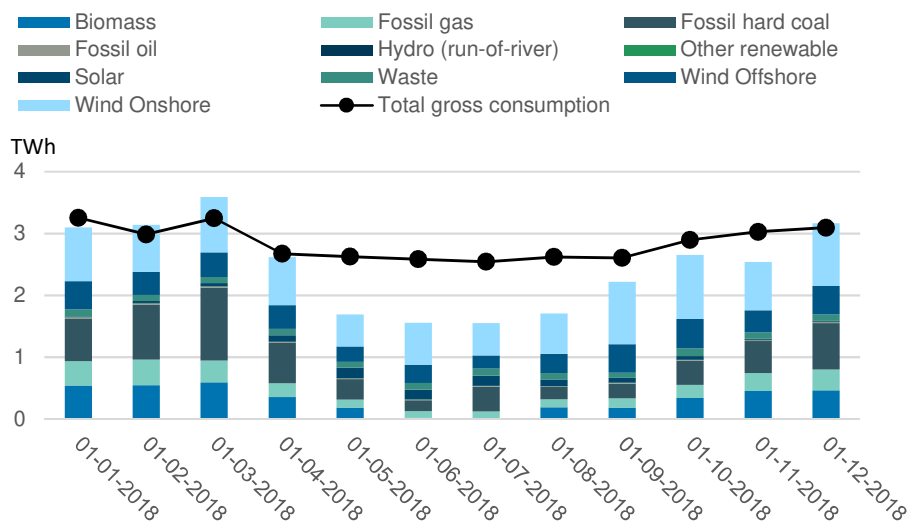
ELECTRICITY

WHOLESALE ELECTRICITY MARKET

In 2018, the four largest sources of electricity production in Denmark¹ were wind (47 pct.), coal (22 pct.), biomass (13 pct.) and gas (10 pct.). The production mix in Denmark is undergoing a transformation where production based on wind, solar and biomass is gaining production shares at the expense of coal and gas. The electricity production in Denmark was 28.9 TWh in 2018, which is a slight decrease of 1.5 pct. compared to 2017, see figure 1. The production in Denmark has been stable in recent years.

The Danish electricity consumption has also been relatively stable in recent years. In 2018, the electricity consumption was 34.2 TWh, see figure 1. The largest consumption categories were housing (25 pct.), services, trade, etc. & other consumers (18 pct.), manufacturing/industry (17 pct.) and public enterprises (12 pct.).

FIGURE 1 | DANISH ELECTRICITY PRODUCTION AND CONSUMPTION, 2018

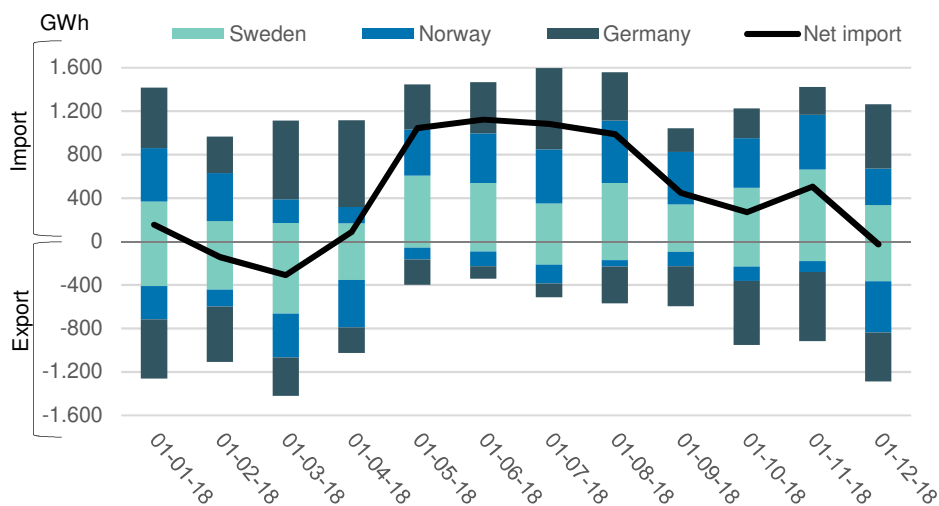


Source: Danish Utility Regulator based on data from ENTSO-E Transparency Platform.
 Note: *Production from solar is estimated and is therefore not an actual production number.

In 2018, Denmark was again a net importer of electricity – which has been the case since 2011 – with net import of 5.2 TWh. Compared to 2017, imports increased by 15 pct. Based on average volumes for 2018, Germany was Denmark’s main tradingpartner with import and export amounts of 5.8 TWh and 4.5 TWh respectively, see figure 2.

¹ DUR has published a market report for 2018 for the Danish electricity Market. The report can be found [here](#).

FIGURE 2 | DANISH ELECTRICITY IMPORT AND EXPORT, 2018



Source: The Danish Utility Regulator based on data from the Danish Energy Agency and Energinet
 Note: The figure shows average monthly export and import respectively from Sweden, Norway and Germany as well as the net import.

The Danish electricity system has been challenged in recent years by limited transmission and trading capacity on the interconnectors with some of our neighbouring countries. However, actions have been taken to mitigate the impact of these limitations.

The available trading capacity between West Denmark and Germany has increased from 11 percent of the nominal transmission capacity in 2016 to 58 pct. in 2018. The development is a result of the “Joint Declaration” (June 2017) agreed by the Danish Ministry of Climate, Energy & Utilities (KEFM) and the German Federal Ministry for Economic Affairs and Energy (BMWi), as well as the national regulators of both countries. The declaration states that the available trading capacity shall gradually increase, following a stepwise approach, until it reaches 1100 MW in 2020. According to the “Joint Declaration” the minimum capacity in the end of 2018 must be 700 MW.

Furthermore, in December 2018 the European Commission Competition Authority accepted the commitment by the German transmission operator in North Germany, TenneT, to increase the trading capacity to 1.300 MW already by the end of 2018.

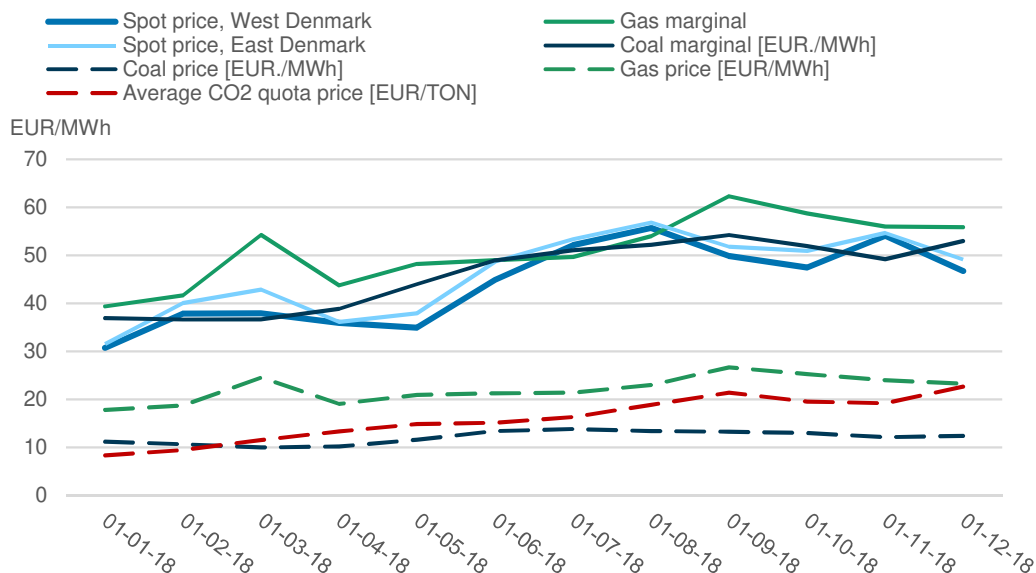
Another challenge that arose in 2018 was due to the reduction in transmission capacity by the Swedish transmission operator, Svenska Kraftnät. Specifically, during 37 pct. of the operating hours (equivalent to 3.260 hours in a year), the capacity from Eastern Denmark to Sweden (DK2-SE4) was reduced due to congestions at Sweden’s West Coast Corridor. Furthermore, in 14 pct. of the 3.260 hours with reduced capacity, the electricity prices were higher in Sweden than in Denmark making it profitable to export from Denmark to Sweden.

In connection to this issue, NordREG (the Forum of Nordic Energy Regulators) has held stakeholder meetings in collaboration with the Nordic TSOs, most recently in June 2019. Svenska Kraftnät announced at the NordREG meeting of June 2019 that they will take measures to reduce the impact of the West Coast Corridor on the connections to and from Sweden. NordREG will follow up on the topic during the first half of 2020.

The remaining interconnectors between Denmark and neighboring countries functioned with considerable normality, as these had available trading capacities of 71-97 pct., as a share of the 2016 nominal transmission capacity.

To a large extent, electricity spot prices in Denmark are affected by the price-setting power plant in Northern Europe, i.e. the marginal power plant. Thus, fuel and CO2 prices, as well as the filling levels of reservoirs of Nordic hydropower producers have an impact on Danish spot prices. When the water reservoirs are not full, Nordic hydropower plants bid according to the marginal power plant in the spot market, which often is a coal power plant. The coal margin, which indicates the marginal cost of producing electricity with coal as fuel, has been below the prices for both Western (DK1) and Eastern Denmark (DK2) for five out of twelve months in 2018. This indicates that the sales bids from coal-fired power plants during these five months were accepted in the electricity auctions and thereby affected the spot price, see figure 3.

FIGURE 3 | COAL, GAS, CO2 AND SPOT PRICES AND MARGINAL COSTS FOR PRODUCING ELECTRICITY, 2018

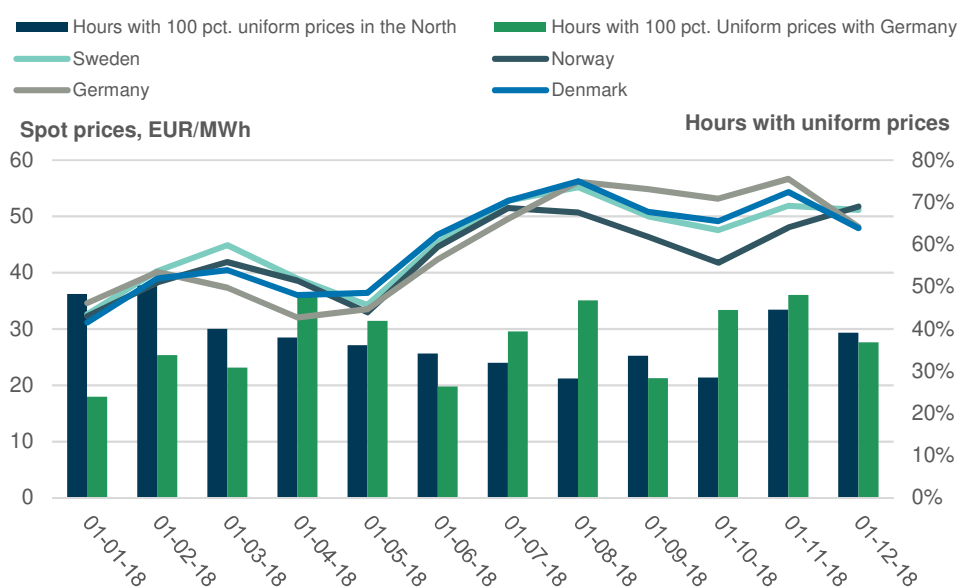


Source: The Danish Utility Regulator based on data from Energinet, The World Bank, PEGAS ETF (gas exchange) and The Danish Energy Agency.

Note: Coal and gas margin indicate the marginal costs of producing electricity with respectively coal and gas as fuels, incl. CO2 prices. Assumed power plants utilisation rates: coal 38 pct. and gas 49 pct..

The average hourly spot prices for Western Denmark (DK1) and Eastern Denmark (DK2) were respectively 44.1 EUR/MWh and 46.2 EUR/MWh in 2018. In the intraday market, average prices followed the trend in the spot market. These were respectively 40.4 EUR/MWh and 41.9 EUR/MWh in Western Denmark (DK1) and Eastern Denmark (DK2). Market participants use the intraday market to balance their consumption and production portfolios.

FIGURE 4 | MONTHLY SPOT PRICES AND HOURS WITH 100 PCT. UNIFORM PRICES, 2018



Source: The Danish Utility Regulator based on data from Nord Pool and Energinet.

The Danish TSO, Energinet, purchases reserve capacity and reserve energy to balance the power system before the operating hours. The DUR observed high prices in many of the reserve capacity markets in 2018.

For example, the price for automatic capacity reserves (automatic frequency restoration reserves, aFRR) in Western Denmark were unusually high in 2018. The average aFRR price was 2.522 EUR/MWh for one month of capacity, which is an increase of 1.517 pct. compared to 2017. Similarly, the price for manual capacity reserves (manual frequency restoration reserves, mFRR) in Eastern Denmark was very high in 2018. This may be attributed to the unavailability of the Kyndbyværket power plant in October, due to inspection. In consequence, there was a need to hold an extra tender for manual capacity reserves, which resulted in a price of 1.400 EUR/MWh.

In December 2018, DUR published a report on Energinet’s purchase of reserves in the electricity system which analyzed the state of competition and described roles and responsibilities in the development of the electricity market for reserves. The analysis found that the supply side in the reserve markets is characterised by a high concentration with few participating market players. The DUR recommended, among other things, that Energinet:

- i) identifies barriers and challenges and works to remove these in order to make use of new technologies
- ii) publishes a report on potentials from new technologies with the involvement of new actors, and
- iii) sends a development plan for the mFRR market in DK2 with a focus on how mFRR is purchased and priced until a Nordic mFRR market is actually implemented.

Focus areas

Going forward, the Danish Utility Regulator (DUR) will focus on the monitoring of the transmission interconnectors and the market for reserves.

Compliance of the agreement of minimum available transmission capacity between Western Denmark and Germany (the "Joint Declaration") will also continue to be a focus area in 2019.

DUR will monitor the development of the available transmission capacity between Eastern Denmark and Sweden.

DUR's market monitoring activities will continue to focus on the prices of capacity reserves due to high capacity reserve prices in 2018.

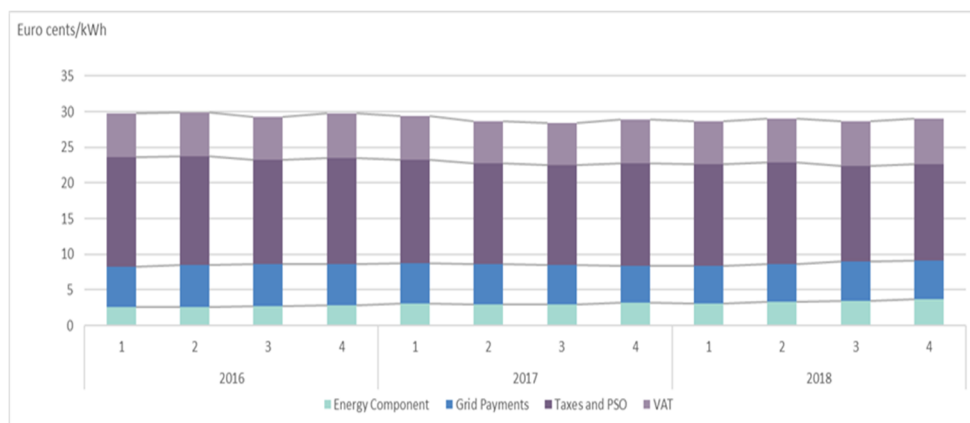
The market for automatic reserve capacity (aFRR) in Western Denmark will be monitored. After the expiration of the reservation on the Skagerrak 4 interconnector between Western Denmark and Norway on 31st December 2019, Energinet will purchase automatic reserve capacity in Western Denmark.

DUR will follow up on the recommendations in the report on Energinet's purchase of reserves in the electricity system. The DUR will monitor whether Energinet's development plan for manual reserve capacity (mFRR) in Eastern Denmark sufficiently manages the challenges in this reserve market until the implementation of a Nordic market for manual capacity reserves. Furthermore, the DUR will look into the potential for market design changes and barriers for new technologies in selected reserve markets.

RETAIL ELECTRICITY MARKET

In 2018 the average total electricity price for household customers was 31.01 cEUR/kWh, which is an increase of 2.6 per cent compared to 2017, where the price was 30.21 cEUR/kWh, cf. figure 5.

FIGURE 5 | RETAIL ELECTRICITY PRICES FOR HOUSEHOLD CUSTOMERS (EURO CENTS/KWH), 2016-2018

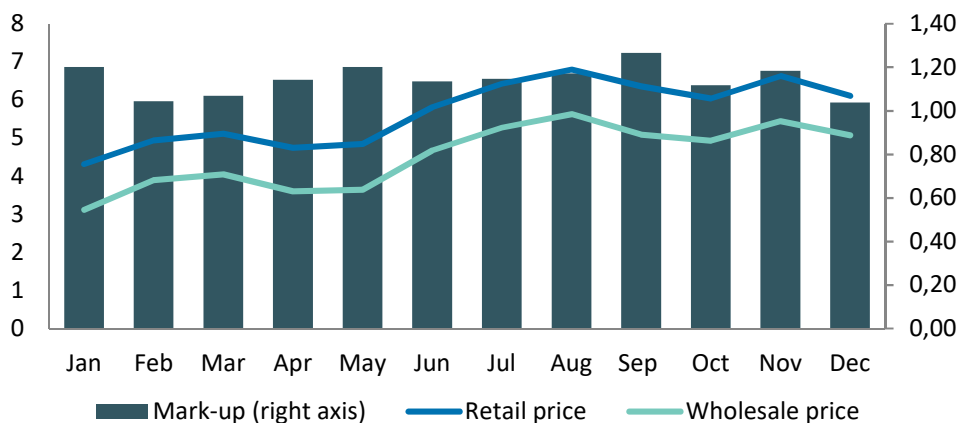


Source: DUR

Note: The calculations are based on an annual consumption of 4.000 kWh.

Throughout 2018 there has been a close correlation between the retail price and wholesale price in terms of variable electricity products, cf. figure 6. The close correlation means that customers on variable products receive price signals that correspond with the price on the wholesale market.

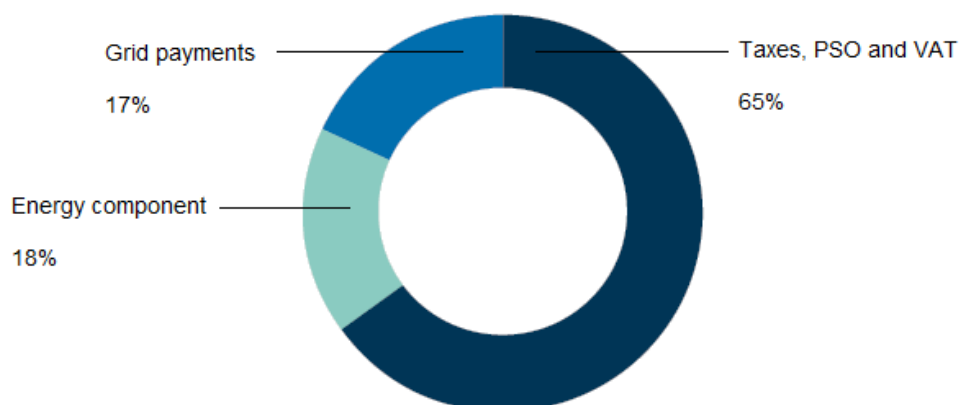
FIGURE 6 | CORRELATION BETWEEN RETAIL AND WHOLESALE ELECTRICITY PRICE (EURO CENTS/KWH), 2018



Source: DUR

In 2018, the price household customers paid for electricity was made up by 18 per cent in energy component payments, 17 per cent in grid payments² and 65 per cent in taxes, PSO³ and VAT payments, cf. figure 7. Taxes, PSO and VAT payments is by far the most predominant price element and it is not exposed to competition.

FIGURE 7 | **COMPOSITION OF THE TOTAL ELECTRICITY PRICE FOR HOUSEHOLD CUSTOMERS, 2018**



Source: DUR

Note: The calculations are based on an annual consumption of 4.000 kWh.

DUR publishes different types of electricity price statistics, including an annual report concerning the retail prices for household and non-household customers with a consumption of up to 100,000 kWh/year.⁴

The purpose of the report is to increase transparency and customer awareness with regards to products and prices on the Danish retail market for electricity, thereby enabling customers to make an informed decision about which product to choose.

In the report DUR estimates potential savings that customers can obtain, if they decide to switch to one of the lowest priced products.⁵ In 2018 a household customer living in an apartment (consumption 1.800 kWh/year) could on average save between 12 to 66 EUR/year. If the customer lived in a house without electric heating (consumption 4.500 kWh/year) the average potential savings were between 20 to 105 EUR/year. If the

² Grid payments cover DSO grid tariffs, DSO subscription fees, TSO grid and system tariffs.

³ PSO is an abbreviation for Public Service Obligation. PSO finances subsidies for renewable energy production and development. In 2017 the gradual phase out of PSO began. By the 1st of January 2022 PSO will be phased out completely.

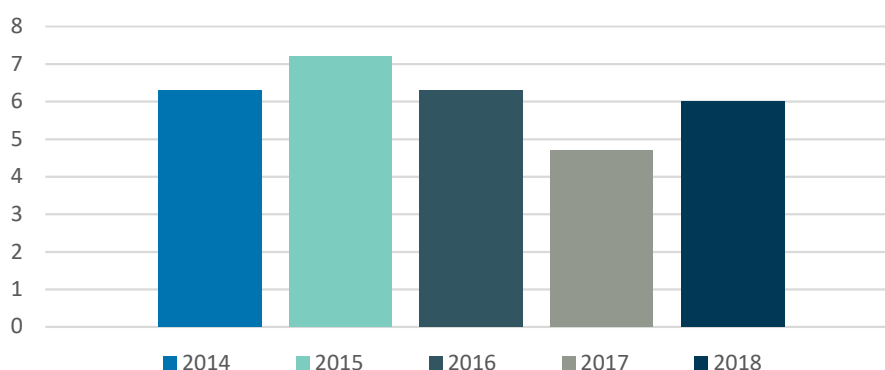
⁴ The retail prices report for the year 2018 will be published in October 2019.

⁵ Introduction products that are specifically targeted new customers are not included in the report, since they are characterised by being very inexpensive for a fixed and short period of time compared to other available products.

house has electric heating (consumption 15,000 kWh/year) the average potential savings were 32 to 246 EUR/year.

Despite potential savings, the external switching rate (for household and non-household customers with an annual consumption up to 100,000 kWh) has remained rather constant and low since 2014, cf. figure 8. In 2018 the switching rate was 6.0 per cent, which is an increase compared to 2017, where the switching rate was 4.7 per cent.

FIGURE 8 | EXTERNAL SWITCHING RATES (PER CENT), 2014-2018



Source: Energinet

Focus areas

In 2018, an in-depth analysis about vertically integrated DSOs' impact on the competition in the Danish retail electricity market was initiated by DUR, the Ministry of Climate, Energy and Utilities, the Danish Energy Agency and the Danish Competition and Consumer Authority. The analysis will include recommendations in order to ensure a competitive and well-functioning retail market in Denmark. The analysis is expected to be finalised by the end of 2019.

One of DUR's main focus areas in the years to come will be monitoring compliance with the arm's length principle in arrangements between associated enterprises in particular with regards to net loss and energy savings.

In 2018, DUR started the process of improving the comparison tool *elpris.dk*, in order for it to become a better and more active tool for customers in line with the green transition and the new requirements in the recast Electricity Directive.

DUR will continue this work in 2019 and initiate a tender process in terms of the technical operation, support and improvement of *elpris.dk*.

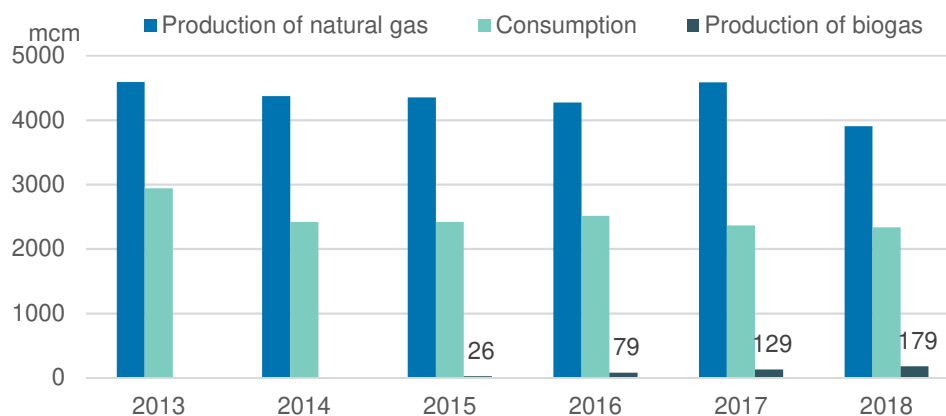
GAS

WHOLESALE GAS MARKET

Denmark⁶ is a self-sufficient gas producing country and the production of natural gas in 2018 amounted to 3.9 billion cubic meter (bcm). This figure is 15 pct. lower than the production in 2017 and the lowest level in five years.

The production of biogas has increased significantly during the same period and reached a level equivalent to 9 pct. of the Danish gas consumption in December 2018, see figure 9.

FIGURE 9 | DANISH GAS PRODUCTION AND CONSUMPTION, 2013-2018



Source: The Danish Utility Regulator based on data from the Danish Energy Agency and Energinet

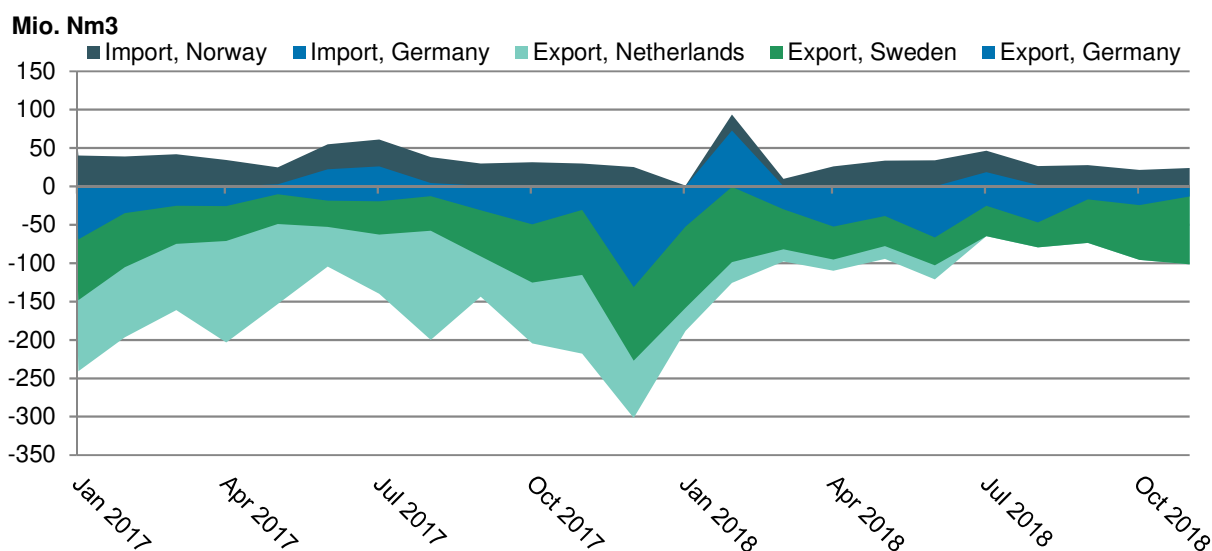
The Danish gas consumption has been relatively stable since 2014 and amounted to 2.3 bcm in 2018, see figure 8. Gas consumption is seasonally affected by low temperatures, as more than half of the consumption is used by households for heating or for the generation of power and district heating, see figure 9. Consumption increased in February and March 2018 when an unusual, Siberian cold spell hit Europe. With a longer horizon in perspective, the Danish Energy Agency estimates that Danish gas consumption will decrease by 23 pct. during the next ten years. The development will be mainly driven by households and generation of power and district heating.

During 2017 and 2018, the ownership structure in the Danish part of the North Sea has changed due to several acquisitions. The Danish Underground Consortium (DUC) and the upstream gas pipeline Tyra West-F3, which brings gas to the Netherlands, is now owned by the French energy company Total, the Norwegian oil and gas company Noreco and the Danish state-owned company Nordsøfonden.

⁶ DUR has published a market report for 2018 for the Danish gas market. The report can be found [here](#).

Denmark was a net exporter of gas in 2018 but exported 37 pct. less than the previous year. This was due to reduced exports to the Netherlands from July 2018, when the Tyra West-F3 pipeline was closed for a period of 14 months. Imports of gas mainly took place during March when the cold spell hit Europe and demand increased, see figure 10. Initially, large amounts of gas were exported to Germany in spite of increased Danish gas demand, because the German gas prices exceeded the Danish balancing price. Therefore, the Danish gas TSO Energinet declared an Early Warning due to concerns about the supply situation. The Early Warning lasted 20 days during without any consumer interruption.

FIGURE 10 | DANISH IMPORT AND EXPORT OF GAS, 2017-2018



Source: The Danish Utility Regulator based on data from the Danish Energy Agency.

The Tyra platform, which processes 90 pct. of the gas produced in the Danish part of the North Sea, will be shut down between 19 of September 2019 and 1 of July 2022, in order to be rebuilt. During this period, the Danish gas market will be primarily supplied with gas from Germany and, to a lesser extent, with gas from the Danish South Arne field and biogas production. The closure of the Tyra platform will significantly change the supply situation, as Denmark will go from being a self-sufficient net exporter to having to import the majority of the gas from Germany.

At the Ellund connection between Denmark and Germany, gas was mainly exported to Germany in 2018. There was sufficient firm transmission capacity in both directions compared to the actual gas flows. About half of the Danish import capacity appears to be reserved on long-term contracts, while the Danish export capacity appears to be reserved on shorter-term contracts.

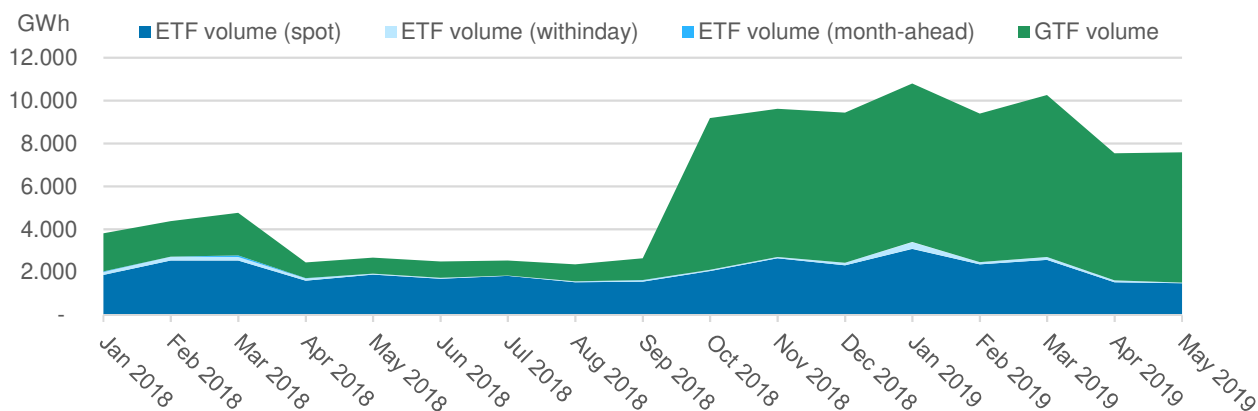
An analysis conducted by the Danish Utility Regulator compares the gas flows at Ellund with the price signals, composed of the price spreads and transportation costs, for

the Danish and German markets. The analysis for 2018 showed no significant or systematic transportation of gas against the price signals, which is a notable improvement compared to 2015 when the analysis was first conducted.

Gas Storage Denmark’s two storage facilities, Lille Torup and Stenlille, had in 2018 a combined capacity of 858 million cubic meters (mcm) which was sold at an average price of 1.44 EUR/MWh. The year 2018 was quite unusual due to the cold spell and Energinet’s Early Warning declaration. The storage customers extracted gas amounting to the maximum capacity on four consecutive days and the storage facilities were only 12 pct. full in the middle of April.

The traded volume on the Danish gas exchange PEGAS ETF (formerly Gaspoint Nordic) amounted to 25 TWh in 2018, which is the highest amount since the establishment of the exchange in 2008. The majority of trade on the exchange was spot products. Within-day products amounted to 4 pct. of the traded volume and 11 pct. of all trades in 2018, while the share of month-ahead products was very limited in 2018. The share of gas traded on bilateral contracts and delivered on the virtual delivery point Gas Transfer Facility (GTF) increased sharply from October 2018, according to figure 11. The significant increase in volumes delivered on GTF could be caused by an increase in the number of transactions, an increase in volume per transaction or that GTF is used as virtual delivery point to a larger extent than previously. The Danish gas supply sources includes domestic production in the North Sea, import from Germany and production of biogas. The total supply from these sources has not increased substantially in 2018, which indicates that the volume increase on GTF of approximately 7,000 GWh per month is not caused by an increase in the supply of gas to the Danish market.

FIGURE 11 | TRADED VOLUME IN THE DANISH WHOLESALE GAS MARKET IN 2018

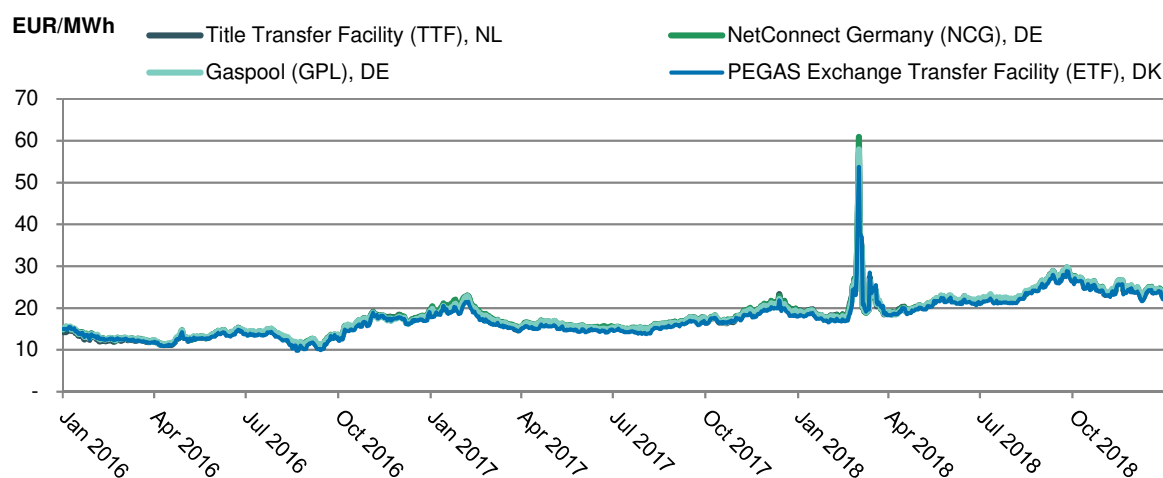


Source: The Danish Utility Regulator based on data from PEGAS ETF

In 2018, gas prices recovered to some extent from the price levels in 2016 and 2017. The average Danish spot price was 22.19 EUR/MWh, which is 26 pct. higher than in 2017. The gas prices increased significantly in Denmark and the rest of Northwestern

Europe in the end of February due to the unusual cold period. The prices in Denmark, Germany and the Netherlands peaked on 2 March around 54-61 EUR/MWh before returning to a price level of 18-20 EUR/MWh in April. The Danish prices were generally lower than the German and Dutch prices in 2018 and the average price spread was - 0.65 EUR/MWh. However, in March 2018 during Energinet's declaration of Early Warning the Danish prices were higher than the German and Dutch, see figure 12.

FIGURE 12 | SPOT PRICE DEVELOPMENT FOR GAS, 2016-2018



Source: The Danish Utility Regulator based on data from PEGAS ETF and EEX.
 Note: Spot prices are calculated as PEGAS' European Gas Spot Index (EGSI)

Focus areas

The Danish Utility Regulator's market monitoring for 2018 and the coming years will follow the shutdown of the Tyra Platform from September 2019 to July 2022 closely.

The utilisation of the Danish gas storage facilities will be monitored as the efficient and appropriate utilisation is central for the supply situation during the next three years. The Danish Utility Regulator is responsible for the oversight of the terms and access of the storage company as well as other obligations according to the European gas regulation.

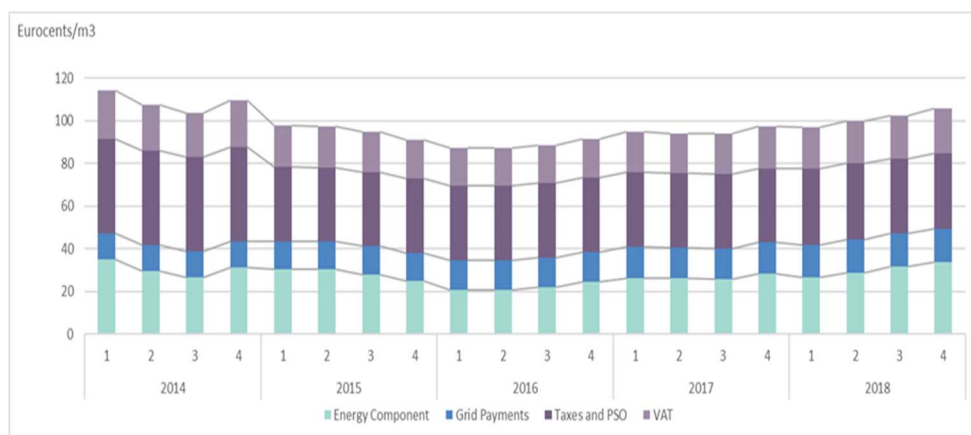
Market monitoring activities will be especially focused on the Ellund connection between Denmark and Germany. The Danish Utility Regulator will continue to analyse whether significant or systematic transport of gas against the price signals is taking place.

The price development will be monitored during the period 2019-2022 where Denmark will have one primary supply route. Furthermore, the Danish Utility Regulator will monitor whether the market dynamics, trade behaviour and market concentration change during this period.

RETAIL MARKET

In 2018, the average total gas price for customers (both household and non-household) was 101.35 cEUR/m³, which is an increase of 6.7 per cent compared to 2017, where the price was 95.00 cEUR/m³, cf. figure 13. This increase is mainly due to an increase of the energy component price, since there was only a minor increase in grid payments and the remaining price elements (taxes, PSO and VAT) were rather constant.

FIGURE 13 | RETAIL GAS PRICES FOR CUSTOMERS (EURO CENTS/M³), 2014-2018



Source: DUR

There are 14 suppliers that supply natural gas products to the approximately 408,000 gas customers in Denmark.⁷

Two of the 14 suppliers are licensed default suppliers. Licensed default suppliers are obliged to supply gas to customers, who have not actively chosen a supplier. The Danish Energy Agency grants the default supplier licenses on the basis of a tender process, and the licenses are granted for a 3-year period with the possibility of an extension. The current licenses will expire by the end of March 2020.

Customers can choose between three types of gas products, i.e. universal service obligation products, the so-called basic products⁸ and market based products.

DUR monitors i.a. that the price of universal service obligation products does not exceed the sum of the wholesale gas price, the cost of transmitting the gas and an additional charge for the default supplier's mark-up. The additional charge is determined in the tender process for obtaining the default supplier license.

⁷ As of 31st of December 2018

⁸ Customers supplied with a universal service obligation product by a licensed default supplier will after expiration of the license receive a so-called basic product, if they do not choose a different supplier/product.

Most customers in Denmark are on a market based product (approximately 94 per cent).⁹

Focus areas

The Danish Energy Agency is currently looking into the possibilities of implementing a new gas retail market design that mirrors the current electricity retail market design i.e. a supplier centric model with combined mandatory billing and removal of the universal service obligation of licensed default suppliers. DUR will participate in this work as much as possible and it will be DUR's main focus in terms of the gas retail market in the years to come.

⁹ Data is for the year 2017, since data for 2018 is not available.

APPENDIX 1

CERTIFICATION AND UNBUNDLING	
<p>Certification of electricity transmission system operator (TSO)</p> <p>Regulation 714/2009 art. 3 EL Directive art. 10</p>	<p>The Danish Utility Regulator (DUR) certified the Danish TSO for electricity (Energinet) as ownership unbundled in February 2012.</p> <p>Energinet has during 2017 and early 2018 been divided into subsidiaries, including TO EL, SO EL, TSO GAS, Datahub, Gas Storage Denmark and Danish Gas Distribution. The new organization of the company has not impacted the certification of the company.</p> <p>Presently, a new financial regulation of Energinet is being developed together with a new process for approval of Energinet's grid planning and actual grid investments.</p>
<p>Unbundling of Electricity distribution operators</p> <p>EL Directive art. 26</p>	<p>The requirements in art. 26 regarding legal and functional unbundling of vertically integrated DSOs are transposed into provisions in the Danish Electricity Supply Act and in executive orders issued pursuant to this act.</p> <p>In Denmark, the unbundling requirements in article 26 apply to vertically integrated DSOs with more than 100,000 connected customers, cf. the exemption rule in art. 26 (4).</p> <p>The DSOs are obliged to turn in a compliance program annually to DUR as well as a report describing the measures carried out to ensure their fulfilment of the unbundling requirements cf. art. 26 (2) (d), whereby DUR monitors DSOs' compliance with the rules.</p> <p>Stricter rules on communication and branding of vertically integrated DSOs, than prescribed in art. 26 (3), was adopted by the Danish Parliament in mid 2017. From the 1st of July 2018, the DSO's name and logo, must be clearly distinct from the group of companies, with which the DSO is vertically integrated. The DSO must also ensure, that service companies etc. carrying out work on behalf of the DSO, apply an identity that differs from the identities applied by companies that are vertically integrated with the DSO.</p>
<p>Certification of gas Transmission System Operator</p>	<p>The Danish Utility Regulator (DUR) certified the Danish TSO for gas (Energinet) as ownership unbundled in February 2012.</p>

<p>Regulation 715/2009 art. 3 Gas Directive art. 10</p>	
<p>Unbundling of Gas Distribution System Operator</p> <p>Gas Directive art. 26</p>	<p>The unbundling requirements in art. 26 regarding vertically integrated gas DSOs are transposed into provisions in the Danish Natural Gas Supply Act and in executive order No. 979 of 2011.</p> <p>These legal acts define a number of obligations the DSOs have to fulfil to ensure that they act without being affected by commercial interests of other vertically integrated associated companies.</p> <p>The DSOs are also required to ensure that their communication and identity strategies do not create confusion about the own distinct identity.</p> <p>DSOs are obliged to submit a compliance program annually to DUR as well as a report describing the measures carried out to ensure their fulfilment of the unbundling requirements cf. art. 26 (2) (d), whereby DUR monitors DSOs' compliance with the rules.</p> <p>In 2018, there were two gas DSOs in Denmark – Dansk Gas Distribution A/S (owned by the Danish TSO Energinet) and HMN Gasnet (owned by 57 municipalities). In 2019, Energinet, the owner of Dansk Gas Distribution A/S, acquired HMN Gasnet. Both DSOs meet the requirements in art. 26.</p> <p>In addition to the unbundling requirements, the DSO license itself provides certain limitations in terms of which activities the DSO can engage in.</p>
<p>TECHNICAL FUNCTION OF THE MARKETS</p>	
<p>Balancing services (EI)</p> <p>EL directive art. 37, 6 (b), 37 (8)</p>	<p>The basic principles of recovery of balancing costs and the principles for settlement of imbalances used by the Danish TSO were approved by DUR in 2012.</p> <p>The Electricity Balancing Guideline (EBGL) entered into force 18 December 2017. The main platforms for exchange of balancing energy are MARI, PICASSO and Imbalance netting, which are to be developed by the TSOs within one year after entry into force of the EBGL and approved by all NRAs after six months.</p> <p>The Nordic TSOs are simultaneously planning to develop a Nordic balancing market for exchange of balancing capacity and energy and for imbalance netting within 2021. When the European platforms for exchange of balancing energy are implemented, the</p>

	<p>Nordic balancing market for energy will merge with the European platforms.</p> <p>Electricity producers hold balance responsibility for the electricity produced at their own plants and are required to assign the balance responsibility to a <i>Balance Responsible Party</i> (BRP) if they wish for another party to hold this responsibility.</p> <p>Balancing costs are basically recovered by the market participant, causing the cost/imbalance according to whether the market participant is <i>consumption balance responsible</i> or <i>production balance responsible</i>. Consumption balance settlement applies a one-price settlement, and the production balance settlement applies a two-price principle, reflecting whether the production imbalance supports the system or not. The pricing principles incentivise the balance responsible to be in balance.</p> <p>This method is the same in the four Nordic countries participating in the common Nordic balancing market "<i>The Nordic regulation Power Market</i>".</p> <p>Being a state owned non-profit company, the primary aim of the Danish TSO (<i>Energinet</i>) is to maximise social welfare when deciding on market design etc.</p>
<p>Balancing services GAS</p> <p>Gas directive art. 41, (6) (b), 41, (8)</p>	<p>The European network code on balancing (NC BAL) required national implementation by 1 November 2015.</p> <p>The code was implemented in Denmark by 1 October 2014 (early implementation) introducing market based balancing. The Danish gas exchange, pegas, serves as trading platform for the trading of the within-day product (title product) for daily balancing.</p> <p>The Danish balancing model has full end-of-day cash-out and incentive-based balancing based on a helper/causer model.</p> <p>In September 2017, the Danish TSO (Energinet) and the Swedish TSO (Swedegas) announced that the two TSOs would launch a joint project aiming at creating one common Danish-Swedish balancing zone.</p> <p>The main purpose of a Joint Balancing Zone is to enhance the efficiency of cross-border trade between the Swedish and Danish markets and harmonize balancing procedures. Establishing a borderless Danish-Swedish balancing zone is expected to improve competition in the region as a whole. The creation of one joint balancing zone for Sweden and Denmark will simplify balancing, increase security of supply and possibly attract more gas traders to the joint market.</p>

	<p>As a result of the Joint Balancing Zone, the current gas deliveries and offtakes in Sweden and Denmark will take place in one merged Balancing Zone. The Joint Balancing Zone does not include harmonization of network tariffs.</p> <p>DUR approved the Joint Balancing Zone by March 28th 2019.</p>
<p>Security and reliability standards, quality of services and supply (EL and GAS)</p> <p>EL directive art. 37 (1) (h) GAS directive art. 41 (1) (h)</p>	<p>Energinet provide information on Energinet activities relating to:</p> <ul style="list-style-type: none"> - Performance of scheduled maintenance works, - Revision of maintenance systems or procedures, - Report of incidents on the transmission network due to third party interference, - Provision of data to ENTSO-E for preparation of e.g. ENTSO-E Winter and Summer Outlook Reports, - Monthly reports for operations and projects, - Provision of plant maintenance reports created in SAP, the ERP system used by Energinet Asset Management system at Energinet in accordance with the PAS55 standard.
<p>Monitoring time it takes to connect and repair (EL and GAS)</p> <p>EL directive art. 37 (1) (m) GAS directive art. 41 (1) (m)</p>	<p>DUR has quarterly meetings with Energinet on regulatory issues, including monitoring tasks. DUR also requests annual written reports from Energinet on connect and repair.</p> <p>DUR monitors the time taken by the DSOs' to make connections and repairs based on annual reports from the Danish Energy Association. The annual benchmarking of DSOs includes the duration and frequency of interruptions.</p>
<p>Monitoring safeguard measures (EL)</p> <p>EL directive art. 37 (1) (t)</p>	<p>According to the Danish Emergency Management Act all Danish authorities - municipalities, regions and central authorities - are required to plan for maintaining their most critical functions in event of major accidents and crises.</p> <p>Energinet is, as a transmission system operator, responsible for emergency preparedness in the Danish electricity and gas sectors and for coordinating the emergency preparedness of the sectors before, during and after a crisis. Energinet has been granted authority by the Danish Energy Agency to supervise and ensure emergency preparedness in the electricity and gas sectors.</p> <p>Pursuant to the Danish Electricity Supply Act All the companies in Denmark providing electricity production, transmission, and distribution, have prepared the necessary planning and taken the necessary steps to safeguard the electricity supply during crises and other extraordinary situations.</p>

	<p>In case of a crisis the power sector plan states that Energinet decides how to minimize market disturbance based on an evaluation of the specific crisis and the rules laid down in the Market Regulations prepared by Energinet.</p> <p>Energinet and the Danish Energy Agency are members of Nord-BER (<i>Nordic contingency Planning and Crisis Management Forum</i>) together with the other Nordic TSOs and the Nordic energy authorities.</p>
<p>Renewable Energy Sources (RES) regulatory framework (EL)</p> <p>Regulation 713/2009, art. 11</p>	<p>Energinet establishes the criteria for reducing prioritized electricity generation and these criteria are approved by the Danish Utility Regulator.</p> <p>New installations that produce electricity from renewable sources have the right to be connected to the grid. Energinet and the network companies cooperate to ensure this network access.</p> <p>Electricity generation from decentralized co-generation plants and electricity generation installations that produce electricity from renewable energy or use waste products as fuel, have priority access to the grid. Prioritized access also applies to electricity from tendered offshore wind farms in accordance with the Danish RE Act.</p> <p>Electricity producers hold balance responsibility for the electricity produced at their own plants and are required to assign the balance responsibility to a Balance Responsible Party (BRP) if they do not want to hold the responsibility themselves.</p> <p>RES-E is traded under the same conditions as other electricity generation.</p> <p>Until July 1st 2015, Energinet handled the balance responsibility for wind turbines and small-scale RE installations under the purchase obligation. Energinet is still responsible, but from July 1st 2015 to December 31st 2018. Following a tender process, two Danish BRPs are handling this balance responsibility. For the period from 1st January 2019 to 31st December 2021 a new tender process has been carried out.</p> <p>Onshore wind turbines > 25 kW on market terms (meaning no longer eligible to receive a premium tariff) are required to assign the balance responsibility to a BRP. These wind turbines then receive a balancing subsidy for a maximum of 20 years of 1.8 øre (approx. € 0.0024) per kWh because of the balancing costs they face. Off shore, wind farms also hold balancing responsibility, but do not receive the balancing subsidy. In these cases, the developers instead include this cost in the tender amount.</p>

<p>Monitoring access to storage, linepack and other ancillary services (GAS)</p> <p>GAS directive art. 41 (1) (n)</p>	<p>According to the Danish Natural Gas Act, there is negotiated access to storage and linepack in Denmark. There is no price regulation under the Danish Natural Gas Act, but DUR still has a legal obligation to ensure that third party access to storage is provided in a manner that is transparent, non-discriminatory and objective – including the way in which tariffs are set.</p> <p>The Danish storage company, Gas Storage Denmark, is a wholly owned subsidiary of the Energinet Group and operates the two Danish physical storage facilities with a combined storage capacity of approx. 950 million m³, see figure 2 below.</p> <p>The two storages are operated as one virtual commercial storage point, and Gas Storage Denmark sells its storage capacities on a first-come-first-served basis and via auctioning.</p> <p>In 2017, the storage market continued to be very difficult to operate in for the storage operator due to the very narrow summer/winter spreads in the European gas market. This is in line with the general picture in Europe.</p> <p>Additionally, Gas Storage Denmark had to devalue the recorded storage volumes of the company by approx. 120 million Nm³ due to disappointing withdrawal tests for Stenlille and due to a cavern at Lille Torup being partly filled with water after planned maintenance. Thus, the Danish Environmental Complaints Board has suspended a prior permission to let the salty water from the cavern maintenance flow into the Danish bay, Limfjorden.</p> <p>In response to the difficult market situation in the past few years, Gas Storage Denmark seeks to develop more tailor-made products and solutions for the gas market. This trend continued in 2018.</p>
<p>Monitoring correct application of criteria that determined model of access to storage (GAS)</p> <p>GAS directive 41 (1) (t)</p>	<p>Gas Storage Denmark is a monopolist in the Danish storage market. However, the negotiated access regime to storage has so far been maintained as there is no indication that the monopoly situation in the Danish storage market can be abused in a very competitive flexibility market with flexible import pipeline capacity from Germany and increased short-term trading opportunities for market participants.</p> <p>Under the Thyra platform rebuild (November 2019 – July 2022), where the volumes from the North Sea will be reduced severely thus making Denmark totally dependent on imports from Germany, the storages will have a critical role in supporting the Danish gas market.</p>

	<p>DUR monitors the criteria supporting the choice of negotiated access. If competition, access conditions or product choices/prices should develop in a way that do not reflect expected market behavior but rather seem to reflect the monopoly situation in the Danish storage market, DUR will approach the legislator to discuss if the access regime should continue to be negotiated or whether it should be changed to a regulated access regime.</p>
<p>NETWORK TARIFFS FOR CONNECTION AND ACCESS</p>	
<p>Electricity TSO – tariff methodology and connection fees</p> <p>EL directive art. 37 (1) (a), 37 (6) (a), 37 (8), 37 (10), 37 (12), 37 (3) (c) (d)</p>	<p>There has been no new regulation on tariffs for access or connection fees in 2018 nor has the methodology for the TSO setting tariffs or connection fees been changed in 2018.</p> <p>To prevent cross subsidization between transmission and supply activities, the companies must comply with the rules regarding entity unbundling, accounting unbundling and management unbundling.</p> <p>DUR approves the Energinet's (TSO) tariff methodology and the methodology for setting connection fees. The methodologies must, according to the Electricity Supply Act, ensure that tariffs and other payments are set in a fair, objective and non-discriminatory manner and that they are based on necessary costs, where every group of costumers pay the costs that they give rise to.</p> <p>Energinet charges tariffs for operation and transport of electricity (network and system services) in transmission networks following a "cost-of-service" principle.</p> <p>In spring 2019, the Danish Ministry of Climate, Energy and Utilities have initiated an analysis of the electricity tariffs in order to ensure that the electricity tariffs will support an efficient use of the electricity grid and strengthen the climate friendly electrification of the Danish society. DUR is participating in the work.</p>
<p>Network tariffs for connection and access (GAS TSO) – tariff methodology and connection fees</p>	<p>Denmark has no LNG (Liquefied Natural Gas) terminals and consequently, the following applies only to gas transmission.</p> <p>There has been no new regulation on tariffs for access or connection fees in 2018 nor has the methodology for the TSOs setting tariffs or connection fees been changed in 2018. By 7 December 2018, Energinet Gas TSO notified a new methodology for tariffs in the Danish transmission system, cf. Commission regulation (EU) 2017/460 of 16 March 2017 establishing a network</p>

<p>GAS directive art. 41 (1) (a), 41 (6) (a), 41 (8), 41 (10), 41 (12)</p>	<p>code on harmonized transmission tariff structures for gas (NC TAR). DUR approved the new methodology on 31 May 2019.</p> <p>DUR approves Energinets' (TSO) tariff methodology and the methodology of connection fees. The methodologies must, according to the Danish Gas Supply Act, ensure that tariffs and other payments are set in a fair, objective and non-discriminatory manner and that they are based on necessary costs where every group of costumers pays the costs that they give rise to.</p>
<p>Network tariffs for connection and access (electricity distribution)</p> <p>EL directive art. 37 (1) (a), 37 (6) (a), 37 (8), 37 (10), 37 (12)</p>	<p>There has been no new regulation on tariffs for access or connection fees in 2018 nor has the methodology for the DSOs setting tariffs or connection fees been changed in 2018.</p> <p>To prevent cross-subsidization between distribution and supply activities, the companies must comply with the rules regarding entity unbundling, accounting unbundling and management unbundling.</p> <p>DUR approves the companies' tariff methodology and the methodology of connection fees based, as the main rule, on an industry wide tariff model developed by the Danish Energy Association on behalf of the DSOs. The methodologies must, according to the electricity act, ensure that tariffs and other payments are set in a fair, objective and non-discriminatory manner and that they are based on necessary costs where every group of costumers pay the costs that they give rise to.</p> <p>The DSOs' cost data are checked annually in connection with the determination of the revenue caps (necessary costs). The revenue caps are based on the DSOs' annual accounts as audited by a certified accountant and subsequently submitted to DUR.</p> <p>A new regulation came into effect from 2018. It is based five years regulation periods with a revenue cap, built on a cost cap with efficiency regulation, a cap for allowed returns on historical investment and an allowed return on future investment set as a market based WACC and finally on a reduction of the revenue cap in case of inadequate quality of supply.</p> <p>The new regulation includes as well yearly general efficiency requirements as individual requirements.</p>
<p>Network tariffs for connection and access (GAS distribution)</p>	<p>There has been no new regulation on tariffs for access or connection fees in 2018 nor has the methodology for the DSOs' setting tariffs or connection fees been changed in 2018.</p> <p>To prevent cross-subsidization between distribution and supply activities, the companies must comply with the rules regarding</p>

<p>GAS directive art. 41 (1) (a), 41 (6) (a), 41 (8), 41 (10), 41 (12)</p>	<p>entity unbundling, accounting unbundling and management unbundling.</p> <p>DUR approves the companies' tariff methodology and the methodology of connection fees. The methodologies must, according to the Natural Gas Supply ACT, ensure that tariffs and other payments are set in a fair, objective and non-discriminatory manner and that they are based on necessary costs where every group of costumers pays the costs that they give rise to.</p> <p>According to the approved methodology, the distribution tariffs are set as volume charges and independent of distance. The methodology ensures that all customers pay a high tariff for the first cubic meters delivered and a lower tariff for volumes that exceed certain intervals.</p> <p>The methodology was approved in 2005 and has developed on a continuous basis, sometimes independently for each DSO.</p> <p>The DSOs' cost data are checked annually in connection with the determination of the revenue caps (necessary costs). The revenue caps are based on the DSOs' annual accounts as audited by a certified accountant and subsequently submitted to DUR.</p> <p>The applied benchmarking model used by DUR has been unchanged since the introduction of revenue cap regulation in 2005. The benchmarking model calculates sector specific marginal cost (OPEX) for predefined output. The model then compares realized OPEX for each regulated company with a calculated OPEX for the same company, using the sector specific marginal costs.</p> <p>The model has been applied for setting efficiency requirements for the current regulatory period 2018-2021.</p>
<p>CROSS-BORDER ISSUES</p>	
<p>Access to cross-boarder infrastructure, allocation and congestion management (Electricity)</p> <p>EL directive art. 37 (6) (c), 37 (8), 37 (9), 37 (3) (f)</p>	<p>Denmark is a member of the two capacity calculation regions (CCR) Nordic and Hansa.</p> <p>Nordic CCR comprises the electricity transmission lines between</p> <ul style="list-style-type: none"> • Jutland/Funen (DK1) and Sealand (DK2) • Jutland/Funen (DK1) and Sweden (SE3) • Sealand (DK2) and Sweden (SE4) • Internal swedish bidding zones • Finland and Sweden <p>It should be noted, that although formally Norway and the Norwegian connections to Denmark & Sweden are not member of CCR Nordic yet, in practice these connections are operated as if so.</p>

	<p>Hansa CCR comprises the electricity transmission lines between</p> <ul style="list-style-type: none"> • Denmark (DK1) and Germany (DE) • Denmark (DK2) and Germany (DE) • Denmark (DK1) and the Netherlands (NL) • Sweden (SE4) and Poland (PL) <p>Allocation of all day-ahead cross-border capacity follows the implementation of the Single Day-Ahead Coupling (SDAC) pursuant to terms and conditions or methodologies developed in accordance with Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (CACM GL). Flows and prices in 2018 were determined through implicit auctions. Residual capacity that was not used in the day-ahead market was given to the intraday market.</p> <p>There are financial transmission rights (FTRs) on both Danish bidding-zone borders to Germany (DK1-DE and DK2-DE), the bidding zone border to the Netherlands (DK1-NL) as well as the internal border (DK1-DK2).</p> <p><u>Key actions under CACM GL</u></p> <p>Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a Guideline on Capacity Allocation and Congestion Management (CACM GL) entered into force on 15 August 2015.</p> <p>On 15 September 2017 Energinet submitted the following proposals:</p> <ul style="list-style-type: none"> - Methodology for capacity calculation for CCR Hansa, which was approved by DUR on 12 December 2018 following a request for amendment process. - Methodology for capacity calculation for CCR Nordic, which was approved by DUR on 17 July 2018 following a request for amendment process. <p>On 16 March 2018 Energinet submitted a proposal on:</p> <ul style="list-style-type: none"> - Coordinated Redispatching and Countertrading Methodology (CRCM) for Capacity Calculation Region Nordic, which was approved by DUR on 14 January 2019 following a request for amendment process. <p>On 16 March 2018 Energinet submitted a proposal on:</p> <ul style="list-style-type: none"> - Coordinated redispatching and countertrading cost sharing methodology for Capacity Calculation Region Nordic, which was approved by DUR on 14 January 2019 following a request for amendment process.
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	<p>On 16 March 2018 Energinet submitted a proposal on:</p> <ul style="list-style-type: none"> - Coordinated Redispatching and Countertrading Methodology (CRCM) for Capacity Calculation Region Hansa, which was approved by DUR on 20 February 2019 following a request for amendment process. - <p>On 16 March 2018 Energinet submitted an all-Hansa TSOs proposal on:</p> <ul style="list-style-type: none"> - Coordinated redispatching and countertrading cost sharing methodology for Capacity Calculation Region Hansa, which was approved by DUR on 20 February 2019 following a request for amendment process. <p>On 21 February 2018 Energinet submitted a proposal on:</p> <ul style="list-style-type: none"> - Methodology to calculate scheduled exchanges resulting from day-ahead coupling (SCH EXC) which after a request for amendment process was approved by DUR on 24 January 2019. <p>On 21 February 2018 Energinet submitted a proposal on:</p> <ul style="list-style-type: none"> - Methodology to calculate scheduled exchanges resulting from intraday coupling, which after a request for amendment process was approved by DUR on 13 March 2019. <p><u>Key actions under FCA GL</u></p> <p>On 6 July 2017 Energinet submitted a proposal:</p> <ul style="list-style-type: none"> - Methodology for a common grid model which was approved by DUR on 4 July 2018 following a request for amendment process. <p><u>Key actions under SO GL</u></p> <p>Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (SO GL) entered into force on 14 September 2017</p> <p>On 19 March 2018 DUR received the following proposals from Energinet, cf. SO GL:</p> <ul style="list-style-type: none"> - Key organizational requirements, roles and responsibilities in relation to data exchange related to operational security in accordance with Article 40(6) (KORRR), which was approved by DUR in January 2019 following a request for amendment process. - The methodology for building the common grid models in accordance with Article 67(1) and Article 70 (CGMM), which was approved by DUR in September 2018.
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	<ul style="list-style-type: none"> - The assumptions and methodology for a cost-benefit analysis in accordance with Article 156(11); (CBAM), which was approved by ACER in June - The methodology for coordinating operational security analysis in accordance with Article 75. (CSAM), which was approved by ACER in June 2019 following an all-NRA submission for approval to ACER. <p>On 22 August 2018 Energinet submitted a proposal:</p> <ul style="list-style-type: none"> - Methodology for assessing the relevance of assets for outage coordination in accordance with Article 84 (RAOC), which was approved by ACER in June 2019 following an all-NRA submission for approval to ACER. <p>On 18 September 2018 Energinet submitted:</p> <ul style="list-style-type: none"> - The methodologies which are approved as part of the Nordic and Continental European Synchronous Area and Nordic and DK-DE-LUX LFC-Block Operational agreements, cf. art. 118 and 119. The Nordic operational agreement methodologies were approved by DUR in July 2019 following a request for amendment process. The CE and DE-DK-LUX operational agreement methodologies were approved by DUR in April 2019 and August 2019 respectively. <p><u>Key actions under EB GL</u></p> <p>In 2018, DUR has made the following decisions pursuant to Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (EBGL):</p> <p>On 14 June 2018 Energinet submitted:</p> <ul style="list-style-type: none"> - A proposal from all TSOs for the establishment of an imbalance netting platform. Following agreement with all NRAs DUR sent a request for amendment agreed upon by all NRAs on the proposal to Energinet on 15 November 2018. <p>On 26 April 2018 Energinet submitted:</p> <ul style="list-style-type: none"> - A proposal for a common market for Frequency Containment Reserves by TSOs in Austria, Belgium, Denmark, France, Germany, the Netherlands, and Switzerland (with an exemption granted to the TSOs to allow balancing service providers to transfer their obligations to provide balancing capacity). Following agreement with all NRAs in these six countries, DUR approved the market design on 19 December 2018. <p>On 18 December 2018 Energinet submitted:</p>
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	Proposals from all TSOs on platforms for automatically, respectively, manually activated frequency restoration reserves, activation purposes, imbalance settlement, pricing of balancing energy and TSO-TSO-settlement.
<p>Access to cross-border infrastructure, allocation and congestion management (GAS)</p> <p>GAS directive art. 41 (6) (c), 41 (8), 41 (9), 41 (10), 41 (12)</p>	<p>In general, there is no congestion in the Danish transmission system, and the Danish CMP instruments have not been used. In view of the expected future fall in the Danish, gas consumption and the improved capacity situation it is very unlikely that congestion will occur in the future.</p>
<p>Cooperation (Electricity)</p> <p>EL directive art. 37 (1) (c)</p> <p>Cooperation (GAS)</p> <p>GAS directive art. 41 (1) (c)</p>	<p>According to art. 37 (1) (c) the regulatory authority must cooperate with other regulatory authorities and ACER on cross border issues and tasks.</p> <p>DUR cooperates with ACER and other NRAs on cross-border issues as obliged to by Article 37(1)(c) of the Electricity Directive. Furthermore, DUR cooperates with the other Nordic regulators within NordREG.</p> <p>In 2016, the Copenhagen-based Nordic Regional Security Coordinator (RSC) was established. The Nordic RSC is the joint office for the four electricity TSOs in the Nordic Region (Fingrid, Statnett, Svenska Kraftnät and Energinet).</p> <p>DUR has a continuous cross-border co-operation with Sweden as Sweden has no indigenous gas production and no gas storage or LNG facilities. Sweden therefore depends entirely on Danish gas supplies for its national market with an annual consumption of approx. 1 billion m³ per year. Security of supply is therefore a subject that requires continuous cooperation between the Danish and Swedish authorities and system operators.</p>

<p>Monitoring TSO investment plans in view of TYNDP and PCI (Electricity and GAS)</p> <p>EI directive art. 37 (1) (g)</p> <p>GAS directive art. 41 (1) (g)</p>	<p>The regulatory authority regarding the Danish TSO's (Energinet) investments is divided between the Danish Energy Agency (DEA) and DUR, where DEA is responsible for the approval of Energinet's investment plans etc. as well as approval of actual investments.</p> <p>DUR is responsible for the monitoring of Energinet's investment plans in the context of compliance with the communitywide TYNDP which comprises projects of common interest (PCI projects) as well as other cross border investment projects by Energinet. The monitoring process has revealed no discrepancies between Energinet's plans and the community wide TYNDP.</p> <p>Energinet is responsible for preparing investment plans (transmission) and to submit the plans to the Danish Ministry of Climate, Energy and Utilities (owner of Energinet) for approval and to DUR for monitoring compliance and compatibility with the European TYNDP.</p>
<p>SECURITY OF SUPPLY</p>	
<p>Security of supply (Electricity)</p> <p>Electricity directive art. 4</p> <p>Security of supply (GAS)</p> <p>Gas directive art. 5</p>	<p>The Danish Energy Agency (DEA) is responsible for regulatory tasks relating to security of supply, including monitoring, planning and approving new grids of more than 100 kV.</p> <p>In general, Denmark has a high degree of security of supply in the electricity sector. In 2018, the average consumer had 22 minutes of interruptions, which is a decrease of 3 minutes from 2017.</p> <p>The Danish Energy Agency (DEA) is the competent authority for security of supply, including the monitoring of national network, planning and approval of major infrastructure investments etc.</p> <p>In 2018, there have been no disruptions in the physical supply of natural gas to the Danish (and Swedish) gas market and therefore no national declarations of early warning, alert or emergency.</p> <p>The Tyra platform in the Danish North Sea will have to close down for maintenance. During the shutdown period (November 2019 until March 2021), all gas for the Danish (and Swedish) market will have to be imported from Germany via the IP Ellund. Together with the total Danish storage capacity this will be sufficient to cover also shorter periods of extremely high demand or extreme temperatures. So only in case of prolonged cold winter</p>

	spells should the Danish and Swedish supply situation be endangered by the platform shutdown.
CONSUMERPROTECTION AND DISPUTE SETTLEMENT	
<p>Contract information and notification of contractual changes (Electricity and GAS)</p> <p>Electricity Directive art. 37 (1) (n) and Annex I (1) (a) and (b)</p> <p>Gas Directive art. 41 (1) (o) and Annex I (1) (a) and (b)</p>	<p><u>Contract information:</u> The requirements regarding information in a supply contract are implemented in executive order no. 1233 of 2015 on electricity supply and executive order no. 1354 of 2014 on gas supply. Both explicitly reference information requirements set in the Danish Consumer Contracts Act no. 1457 of 2013.¹⁰</p> <p>The minimum requirements regarding information that must be provided in an electricity or gas supply contract are:</p> <ul style="list-style-type: none"> • The identity, address and contact information of the supplier. • The arrangements for payment, delivery, performance and the time by which the supplier undertakes to deliver the services. • The duration of the contract, where applicable, or, if the contract is of indeterminate duration or is to be extended automatically, the conditions for terminating the contract. • Where information about up-to-date applicable prices and fees can be obtained. • If the consumer can continue the contractual relationship with the supplier at a different delivery address, and the terms for this. • The supplier's deadline for final settlement. • Information about where compensation and other remedies for defective performance can be claimed, if the contractual terms are not met, including inaccurate and delayed billing. • Information on complaint handling and how to complain. • The terms of the supply contract must be fair, transparent, and easily understandable and provided to the consumer before conclusion of the contract. <p><u>Notification of contractual changes:</u> In Denmark, if a supplier intends to make significant changes in the contractual conditions to the detriment of the consumer, the supplier must notify the consumer directly, in a transparent and comprehensible manner, at least three months in advance, cf.</p>

¹⁰ The Danish Consumer Contracts Act No. 1457 of 2013 is non-energy specific legislation, where i.a. the minimum requirements regarding a trader's duty to disclose information before conclusion of a contract with a consumer are regulated. Pursuant to executive orders no. 1233 of 2015 on electricity supply and no. 1354 of 2014 on gas supply, these requirements also apply to information that must be provided to a consumer in an electricity or gas supply contract.

	<p>executive order no. 1233 of 2015 on electricity supply and executive order no. 1354 of 2014 on gas supply.</p> <p>In terms of insignificant changes to prices or fees, the consumer must be notified by the supplier in the subsequent billing period after the change has entered into force – at the latest.</p> <p>The consumer has the right to terminate the contract effective from when the contractual change enters into force, if the consumer does not accept the significant or insignificant change.</p>
<p>Billing information and payment methods</p> <p>Electricity Directive art. 37 (1) (n) and Annex I (1) (c), (d) and (i)</p> <p>Gas Directive art. 41 (1) (o) and Annex I (1) (c), (d) and (i)</p> <p>Energy Efficiency Directive (2012/27/EU) art. 10-11 and annex VII</p>	<p>Following the implementation of the supplier centric model, electrical suppliers are responsible for all communication with the consumers, including billing.</p> <p>The requirements concerning billing information and payment methods are implemented in executive order no. 1400 of 2015 on electricity billing and executive order no. 937 of 2006 on gas billing. Furthermore, executive order no. 1395 of 2016 on energy companies' duty of disclosure to end-consumers etc. also applies to electricity and gas billing.</p> <p>The minimum legal requirements regarding information in the electricity bill are i.a:</p> <ul style="list-style-type: none"> • The total payment and consumption (kWh) in the billing period. • Type of price (e.g. fixed or variable price). • Subscription fee to the supplier and the DSO. • The total price in øre¹¹/kWh covering payment for electricity, grid- and system services, PSO, taxes incl. VAT, provided in the billing period. • The consumer's right to receive a specified bill free of charge. <p>The simplified bill is intended to increase consumer awareness, without overloading consumers with information, by giving an overview of the most significant price information, and thereby facilitating consumers to participate actively in the retail market.</p> <p>Suppliers are required to provide a specified bill free of charge to the consumer, upon the consumer's request.</p> <p>DUR monitor suppliers' compliance with the legal requirements concerning billing information.</p> <p>In 2018, DUR initiated the first preparatory steps concerning revision of executive order no. 1400 of 2015 on electricity billing, in</p>

¹¹ One øre is DKK 0.01.

	<p>order to ensure timely and correct implementation of the new provisions in the recast Electricity Directive (2019/944) regarding billing information. In 2018, DUR also initiated the process of improving <i>elpris.dk</i>, in order for the comparison tool (CT) to become a better and more active tool for customers in line with the green transition and the new requirements in the recast Electricity Directive.</p> <p>DUR seeks to combine and interconnect the process of revision of the executive order on electricity billing with the process of improving the CT. This will hopefully make it easier for customers to compare their current electricity product/price with electricity products from other suppliers by using the CT, i.e. to a greater extent empower customers to participate actively in the retail market.</p> <p><u>Payment methods:</u> Suppliers are required to offer a broad selection of payment methods. Any differences in terms and conditions due to the consumer's chosen payment shall reflect the supplier's costs of different payment system.</p> <p>The general terms and conditions of payment must be reasonable and transparent. They must be stated in a clear and understandable language and must not contain any non-contractual barriers to the exercise of the consumer's rights such as unnecessary documentation requirements.</p> <p>The following payment methods are typically available for electricity and gas consumers in Denmark:</p> <ul style="list-style-type: none"> • Direct debit • Bank transfer • Credit card • Pre-payment
<p>Right to change supplier free of charge and to receive final settlement (Electricity and GAS)</p> <p>Electricity Directive art. 37 (1) (n) and Annex I (1) (e) and (j)</p>	<p>Pursuant to provisions in the Danish Electricity Supply Act and the Danish Natural Gas Supply Act, consumer's' have a free choice of electricity/gas supplier and a right to change supplier free of charge.</p> <p>Furthermore, the consumer must receive a final electricity/gas settlement within six weeks after the switch has taken place, cf. executive order no. 1233 of 2015 and no. 1354 of 2014 on electricity and gas supply respectively.</p>

<p>Gas Directive art. 41 (1) (o) and Annex I (1) (e) and (j)</p>	
<p>Access to consumption data (Electricity)</p> <p>Electricity Directive art. 37 (1) (n), 37 (1) (p) and Annex I (1) (h)</p> <p>Energy Efficiency Directive (2012/27/EU) art. 11</p>	<p><u>Electricity customers access to consumption data etc.:</u> The DataHub is an IT-platform, established and operated by the Danish TSO Energinet, that handles data communication and business processes between market participants in the Danish electricity market.</p> <p>Overall, there are three types of data collected in the DataHub, which directly relates to customers:</p> <ul style="list-style-type: none"> • Customer-related master data (e.g. the customer’s name and address) • Metering point-related master data (location address of the metering point, meter reading characteristic, meter reading frequency, settlement type and metering point ID) • Metering data (consumption data) <p>Customers can access their data (i.e. customer-related master data, metering point-related master data and metered data) in the DataHub free of charge. Customers can access the data by using either the NemID¹² log-in function on the supplier’s website or on the public website <i>Eloverblik.dk</i>, operated by Energinet. The data can be downloaded from <i>Eloverblik.dk</i> in an Excel file.</p> <p>When a customer enters into a supply contract the supplier obtains access to the customer’s data in the DataHub, i.e. only the data relevant to the supplier.</p> <p>A supplier with whom the customer does not have a contractual relationship with (i.e. a potential supplier)/a third party can be authorised with access to the customer’s data. The authorisation is part of the customer-controlled access to data in the DataHub, whereby a customer can give data authorisation by using the NemID function on the website <i>Eloverblik.dk</i>. The customer may at any time withdraw the granted authorisation.</p> <p><u>Gas customers access to consumption data etc.:</u> Gas consumers’ data is not collected in the DataHub, since the DataHub only covers the electricity market. Gas consumers can typically access their consumption data etc. by using the NemID-login function on the gas supplier’s website.</p>
<p>Smart meters (Electricity)</p>	<p><u>Electricity smart meters:</u></p>

¹² NemID is the common secure log-in solution in Denmark.

<p>Electricity Directive art. 37 (1) (n) and Annex I (2)</p> <p>Smart meters (GAS)</p> <p>Gas Directive art. 41 (1) (o) and Annex I (2)</p>	<p>Pursuant to executive order no. 1358 of 2013 on smart meters and metering of end-consumption of electricity, DSOs are obligated to install smart meters in the homes etc. of all consumers (100 pct.) in Denmark no later than the end of 2020.</p> <p>The legal requirements of smart meter functionalities are i.e. registration of metering data every 15 minutes, data storage and transmission of the data to the DSO. The DSO will send the metering data to the Danish DataHub for billing purposes.</p> <p><u>Gas smart meters:</u> Gas DSOs are, unlike electricity DSOs, not legally required to install smart meters in the homes etc. of all consumers in Denmark. There are currently no formalized plans regarding adoption of such regulation.</p>
<p>Dispute settlement (EI and GAS)</p> <p>Electricity Directive art. 3 (13), art. 37 (1) (n) and Annex I (1) (f)</p> <p>Gas Directive art. 3 (13), art. 41 (1) (o) and Annex I (1) (f)</p>	<p><u>Effective complaint handling:</u> The Energy Supplies Complaint Board handles all complaints from household consumers relating to energy. This includes consumer complaints regarding trade and delivery of electricity, heating and gas.</p> <p>The Board has a mandate to handle disputes arising from the contractual relationship between an energy consumer and an electricity supplier, a natural gas supplier or a district heating supplier.</p> <p>The Energy Supplies Complaint Board is an official alternative dispute resolution body pursuant to Directive 2013/11/EU of the European Parliament and of the Council of 21 May 2013 on alternative dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC (Directive on consumer ADR).</p> <p>There are no thresholds as regards the value of the dispute. The Board does not handle disputes settled by court judgment. On the other hand, a case, which has been brought before a court of law, must be postponed and transferred to the Board.</p> <p>Before submitting the complaint, the consumer must have attempted to contact the supplier and tried to resolve the dispute bilaterally. Otherwise, it constitutes a ground for refusal for the Board to take the case.</p> <p>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 respective energy trade areas.</p>

	<p>When submitting a complaint to the Board, the consumer must pay a fee of DKK 160 (approximately EUR 22). The fee is refunded, if the Board upholds the consumer's contention. The energy company has to pay a fee of DKK 8.500 (approximately EUR 1.140) if the case ends in favour of the consumer. However, if the case ends in a settlement facilitated by the Secretariat of the Energy Supplies Complaint Board (the Secretariat), the company shall pay DKK 3.800 (approximately EUR 510).</p> <p>All case proceedings are conducted in writing. The Secretariat has to ensure that all relevant information is presented and that the defendant is given the opportunity to comment on the case. The Secretariat has to take a neutral attitude. It may take an initiative to an amicable solution or present an opinion based on previous decisions made by the Energy Supplies Complaint Board.</p> <p>In cases brought before the Board, the Secretariat presents a summary with an adequate overview of the case and the comments of the parties. The Board states its reasons for the decision and whether the decision is unanimous. If the decision is split, it is indicated which representative(s) dissented and the reason for the dissent.</p> <p>The average complaint processing time was approximately three months in 2018.</p> <p>When the Board has reached a decision, it will be possible for either party to bring the matter to court. Decisions of the Board are not binding or enforceable. Nevertheless, there is a high compliance percentage in cases decided by the Board.</p> <p>In 2018, energy companies complied with the decisions of the Board in 86 pct. of the cases according to the 2018 Annual Report from the Energy Supplies Complaint Board.</p> <p>If the Board's decision is not complied with, the Secretariat has an opportunity to send the case to the Consumer Rights Division of the Danish Competition and Consumer Authority. The Division will then bring the matter to the court, at the request and on behalf of the consumer.</p> <p>If the consumer has not initiated court proceedings, the Board will publish the decision on its website with name and address of the energy company.</p>
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