Danish Utility Regulator

The Danish Electricity and Natural Gas Markets 2020

NATIONAL REPORT **AUGUST 2021**

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FOREWORD

The Danish Utility Regulator (DUR) is the regulatory authority in Denmark for the markets for electricity, natural gas and district heating. The National Report summarises the main developments in the Danish electricity and gas markets during 2020, both at the wholesale and retail levels. This report also presents an overview of the current legal arrangements in Denmark.

In the past year, DUR has advanced a work agenda aimed at simultaneously reaping the benefits of further efficiency gains and ensuring the societal benefits of an efficient utility sector.

In 2020, DUR released an anthology on “Energy Regulation in the Green Transition” with an editorial team of prominent researchers. The anthology seeks to foster interdisciplinary discussions and encourage the development of new regulatory approaches among practitioners, businesses, academics, government officials and regulators.

During the year, DUR also participated in working groups with the Danish Energy Agency and the Danish Ministry of Climate, Energy and Utilities to provide regulatory expertise related to the Clean Energy Package provisions and to maintain and ensure well-functioning and integrated electricity markets.

In the past year, Denmark was a net importer of electricity with a total of 6.1 TWh. The available capacity for trade on the cross-zonal transmission lines was between 58 and 90 per cent of nominal capacity in the export direction and between 70 and 95 per cent in the import direction. DUR has three major focus areas for the future market monitoring: the functioning of the interconnectors to and from Denmark, the market for manual reserves, and the Danish long-term electricity market.

Due to the temporary shutdown of the Tyra platform in the North Sea in 2019, Denmark went from being a self-sufficient exporting gas nation to an importer of most of its consumption. This also made Denmark reliant on only one primary supply route. DUR focuses its monitoring for 2021 strongly on the impacts of the shutdown of the Tyra platform and the utilisation of the Ellund interconnection point between Denmark and Germany. Furthermore, DUR will continue to analyse and monitor whether significant or systematic transportation of gas against price signals is occurring.

2020 was an extraordinary year in several respects. The year was used to establish DUR at our new premises in Northern Zealand, Frederiksværk. The COVID-19 pandemic meant that staff had to work from home for most months of 2020. In 2020, three new DUR units were inaugurated: the Unit for Cross-sectional Analysis, the Unit for the new District Heating Regulation and the Unit for Grid Connection and Tariffs.

Carsten Smidt
Director General
Danish Utility Regulator (DUR)

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1. NOTE ON THE STRUCTURE OF THIS REPORT

The Danish Utility Regulator (DUR) is the national regulatory authority for the markets for electricity, natural gas and district heating. DUR monitors the development of these markets.

The purpose of this report is to describe the development of the electricity and natural gas market, and to present an overview of the current arrangements for network regulation and the technical functioning of the electricity and gas sectors in Denmark, including approved terms, conditions and methodologies (TCMs) throughout the year.

DUR must perform tasks pursuant to the Electricity Directive (2019/944/EC) concerning common rules for the internal market in electricity, and the Gas Directive (2009/73/EC) concerning common rules for the internal market in natural gas. This involves the annual compilation of a report in accordance with the reporting requirements pursuant to Article 59 of the Electricity Directive and Article 41 of the Gas Directive. This report concerns topics related to regulation, competition and the security of supply.

The structure of the present report reflects CEER's "Advice on the Structure of Future National Reports and Relevant Indicators" (Ref: C19-MRM-101-03, March 2020), but there is no one-to-one similarity between this and the structure of the present report.

The text on the functioning of the wholesale gas and electricity markets comes from DUR's comprehensive reports on the development of the Danish wholesale electricity[1] and gas markets[2], which were published in June and July 2020, respectively, in Danish with an English summary.

[1] Danish Utility Regulator, Market Report 2020: The Danish Wholesale Electricity Market - Summary.

[2] Danish Utility Regulator, Market Report 2020: The Danish Wholesale Gas Market - Summary.

The following table clarifies the similarity:

Section/subsection in CEER's Advice Document	Section/subsection in this report
1. Foreword →	1. Foreword
2. Main developments in the gas and electricity markets →	Subsection 2.1 and Table 1: "Main Events in the Danish Wholesale Electricity Market in 2020" Subsection 2.2 and Table 2: "Main Events in the Danish Wholesale Gas Market in 2020"
2.1. Evaluation of the market development and regulation →	Subsection 2.1.1 and Box 1: Wholesale Electricity Market: Focus Areas in 2021 Subsection 2.1.2 and Box 2: Retail Electricity Market: Focus Areas in 2021 Subsection 2.2.1 and Box 3: Wholesale Gas Market: Focus Areas in 2021 Subsection 2.2.2 and Box 4: Retail Gas Market: Focus Areas in 2021
2.2. Report on the implementation of the Clean Energy Package →	Subsection 2.3.
3. The Electricity Market →	Subsection 3.1.
3.1. Network regulation and technical functioning →	Subsections 3.1. and 3.3
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4. The Gas Market →	Subsection 3.2.
4.1. Network regulation →	Subsections 3.2 and 3.3
4.2. Competition and market functioning →	Subsection 3.2
4.3. Security of Supply →	Subsection 3.3

2. COMPETITION AND MARKET FUNCTIONING

2.1. ELECTRICITY

2.1.1. WHOLESALE ELECTRICITY MARKET[3]

2.1.1.1 PRODUCTION, CONSUMPTION AND NET IMPORTS

Electricity generation in Denmark was 27.9 TWh in 2020, which is a decrease of 2 per cent compared to 2019. The four largest sources of generation in 2020 were wind (58 per cent), coal (14 per cent), biomass (10 per cent) and gas (6 per cent). The generation mix in Denmark is undergoing a substantial change whereby the production shares of wind, solar and biomass are growing, at the expense of coal and gas. However, the share of power generation from biomass was lower in 2020 compared to 2019.

Denmark is divided into two bidding zones. West Denmark is labelled DK1 and East Denmark is labelled DK2.

Danish electricity consumption was 34 TWh in 2020, which is an increase of 2 per cent compared to 2019. Consumption of electricity has remained stable in the past few years. Electricity consumption is higher in the winter than in the summer due to the increased need for heating and light. The greatest monthly consumption was in December (3.5 TWh), while the lowest was in July (2.6 TWh)

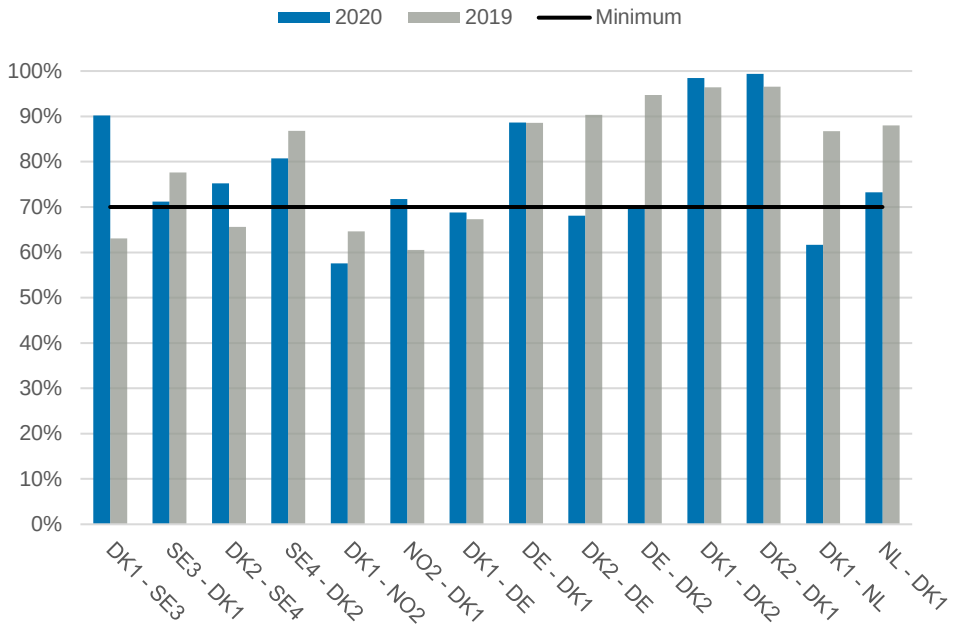
Denmark was a net importer of electricity, with a total of 6.1 TWh in 2020 and has been a net importer since 2011. Net imports increased by 5 per cent compared to 2019. Denmark imported most electricity from Norway (8.3 TWh) and exported most to Germany (7.5 TWh). Imports from Norway increased massively (146 per cent) in 2020 compared to 2019, due to unusually high filling levels in the Nordic hydroelectric reservoirs.

2.1.1.2 CROSS-ZONAL TRANSMISSION LINES

The available capacity for trade on the cross-zonal transmission lines in 2020 was between 58 and 90 per cent of nominal capacity in the export direction. In the import direction, it was between 70 and 95 per cent. The share of nominal capacity in the cross-border interconnectors provides an overview of the available trading capacity, cf. Figure 1.

[3] This section is a summary in English of the annual market monitoring report for the Danish wholesale electricity market: *Markedsrapport for 2020, Engrosmarkedet for El,* published by the Danish Utility Regulator. The report (in Danish) is available here.

FIGURE 1 | **AVAILABLE CAPACITY FOR ELECTRICITY TRADING, MEASURED AS A PERCENTAGE OF THE NOMINAL TRANSMISSION CAPACITY FOR 2020**



Source: Energinet and NordPool.
Note: The figure shows the average available capacity for trade as a percentage of the nominal capacity on the respective interconnectors.

With the Electricity Market Regulation (2019/943), a minimum requirement of 70 per cent capacity for cross-border trade was imposed as of 1 January 2020. The Regulation allows for derogation from the minimum requirement, which is subject to the approval of the relevant national regulatory authority (NRA).

Twice a year, ACER publishes a report in which they monitor compliance with the 70 per cent minimum requirement. ACER has furthermore developed a recommendation with further details of how to assess the minimum requirement. It is the task of the national regulators to enforce the minimum requirement.

The calculated capacities for cross-border trade in this report are not calculated in accordance with ACER's recommendation. Instead, the capacities are calculated as the average available capacity compared to the nominal capacity. In this report DUR therefore has not evaluated whether Energinet or other TSOs are in compliance with the 70 per cent requirement.

Countertrade on the border between West Denmark (DK1) and Germany amounted to 3.9 TWh in 2020. Special down regulation accounted for 3 TWh of the countertrade on the border. The German TSO, TenneT, and the Danish TSO, Energinet, use countertrade to ensure system

security when the allocated trading capacity exceeds the physical capacity on the DK1-German border.

The available capacity for trade from West Denmark (DK1) to Germany was 69 per cent. In the opposite direction, trading capacity was 89 per cent The available capacity in both directions was at the same level as in 2019.

The available capacity for trade from East Denmark (DK2) to Germany was 68 per cent in 2020. In the opposite direction, trading capacity was 70 per cent of the nominal capacity. This is a decrease compared to 2019, which is due to planned maintenance.

Between DK1 and Sweden, the available capacity for trade in the direction from DK1 to SE4 increased from 63 per cent in 2019 to 90 per cent in 2020. In the opposite direction, the available capacity for trade decreased from 78 per cent to 71 per cent Furthermore, available trading capacity from DK2 to Sweden increased to 66 per cent in 2020 from 75 per cent in 2019. In the opposite direction, trade capacity decreased to 81 per cent in 2020 from 87 per cent in 2019.

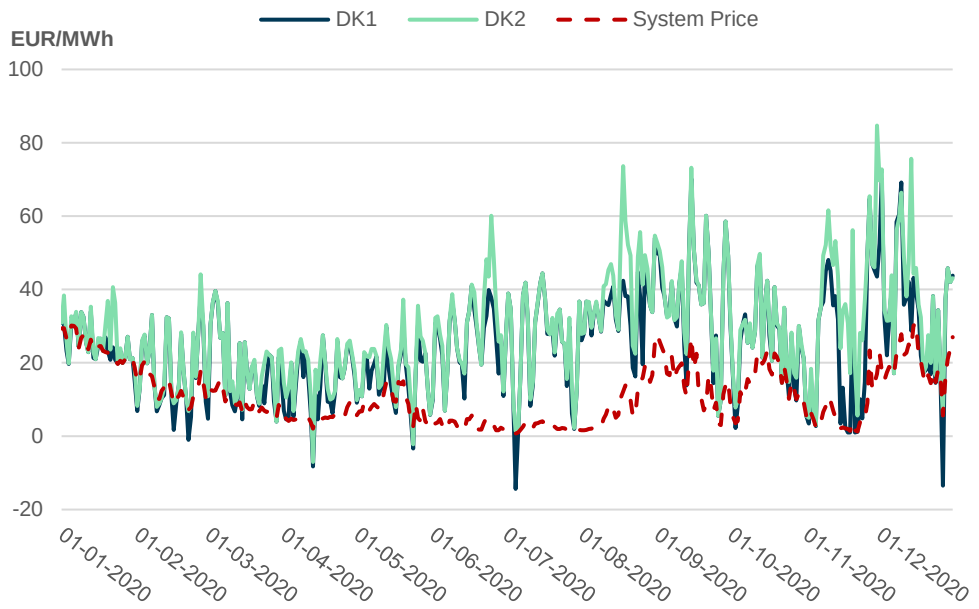
On 25 November 2019, the Swedish TSO, Svenska Kraftnät, applied for a one-year derogation from the minimum requirement of 70 per cent capacity for cross-border trade, which was approved by the Swedish National Regulatory Authority, the Swedish Energy Market Inspectorate (Ei). As a result, Svenska Kraftnät was exempt from the minimum requirement of 70 per cent capacity for cross-border trade in 2020. According to Ei's decision, it is a requirement that Svenska Kraftnät must give Ei an account of the reasons underlying the non-fulfilment of the 70-per cent requirement. In this respect, DUR is continuously monitoring the development of available capacity for trade on the transmission lines to and from Denmark.

2020 was the first full calendar year of the Cobra Cable, which is the interconnector between Denmark and the Netherlands. The Cobra Cable had an available trading capacity of 62 per cent in the direction from DK1 to the Netherlands. In the opposite direction, the available trading capacity was 73 per cent. Cobra Cable capacity during 2020 was affected by planned maintenance and unforeseen errors.

2.1.1.3 PRICES

The average hourly prices in the day-ahead market for DK1 and DK2 in 2020 were 24.98 and 28.41 EUR/MWh, respectively (cf. Figure 2). The system price was 10.94 EUR/MWh. The system price is an unconstrained market clearing reference price for the Nordic region, which is calculated without any congestion restriction, i.e. unlimited transmission capacity. As Denmark is located between the Nordic region's hydropower-based and the Central European thermal and renewable-based electricity generation, Denmark effectively acts as a transit country between two different generation mixes.

FIGURE 2 | **DAILY ELECTRICITY PRICE DEVELOPMENT IN THE DAY-AHEAD MARKET IN 2020**



Source: Energinet.
Note: The development in spot prices for West Denmark, East Denmark, and the system price.

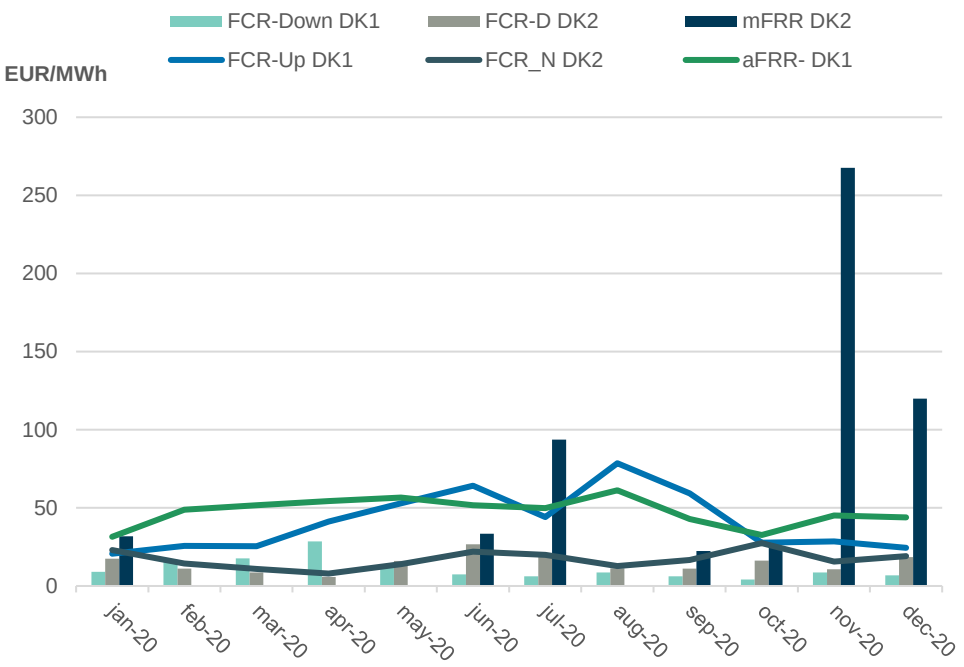
The lowest hourly price in 2019 was -58.8 EUR/MWh in DK1 and -42.6 EUR/MWh in DK2. The maximum price was 200 EUR/MWh in DK1 and 254 EUR/MWh in DK2. In total, in 2020 there were 192 hours with negative prices in DK1 and 89 hours in DK2. These negative prices occur when electricity generation exceeds demand.

The price of electricity in Denmark is affected by the prices of fuel and CO2, and by the filling levels of the Nordic hydroelectric reservoirs. The filling levels in the Nordic reservoirs were much higher in 2020 than in the past six years. In the last six months of 2020, the filling levels were approximately 10-20 percentage points above the average levels for the last five years.

Market participants use the intraday market to balance their consumption and generation portfolios, for instance when they experience an outage or if there is less wind than expected. Due to missing data, DUR has not been able to examine the intraday market for 2020.

Energinet purchases reserve capacity and reserve energy to balance the system before the operating hour. The average price for frequency-controlled reserves for up-regulating (FCR-up) in DK1 was 41.3 EUR/MWh (cf. Figure 3).

FIGURE 3 | **MONTHLY AVERAGE RESERVE CAPACITY ELECTRICITY PRICES IN DK1 AND DK2 IN 2020**



Source: Based on data from Energinet and Danish Energy Agency.

From 2015 to 2019, there was no market for automatic frequency restoration reserves (aFRR) in DK1. Instead, Energinet purchased 100 MW aFRR from Norway. On 1 January 2020, a new market for aFRR opened in DK1. During 2020, DUR had the new aFRR capacity market under intensified monitoring. The price of aFRR capacity was at its highest in August, with a price of 61.2 EUR/MWh, while the average price in 2020 was 47.6 EUR/MWh. The average price is much lower than in 2019, where it was 86.8 EUR/MWh. On the basis of stable price development, DUR will not have the aFRR capacity market under intensified monitoring in 2021.

Prices for replacement purchases of manual frequency restoration reserves (mFRR) in DK2 reached their highest point on 2 November, at a price of 995 EUR/MWh. These replacement purchases only take place when there are outages at the plants that have a long-term agreement with Energinet for the delivery of mFRR. The prices of mFRR in DK1 were on average 1.3 EUR/MWh.

Considering the recent development in the Danish wholesale electricity market, as well as ongoing regulatory changes, in 2021 DUR will focus its market monitoring efforts on specific areas. One focus area is the market for manual frequency restoration reserves (mFRR) in East Denmark (DK2). On 1 April 2020, Energinet submitted a methodology for approval regarding

terms and conditions for the mFRR capacity market, covering both daily and monthly auctions. DUR approved the methodology on 23 December 2021.

In 2021, DUR will complete an evaluation of the Danish long-term electricity market to determine whether market participants have sufficient cross-zonal hedging opportunities. The evaluation is a legal requirement under the Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (FCA GL). Market participants hedge their generation and consumption to manage risk due to price volatility in the market. The available hedging instruments in DK1 and DK2 include trade in long-term transmission rights (LTTR), forward contracts and Power Purchasing Agreements (PPA).

2.1.1.4 FOCUS AREAS FOR 2021

DUR has a number of focus areas for the wholesale electricity market in 2021. The main focus areas are unaltered compared to 2020, cf. Section 1, Box 1. DUR will also follow and monitor the new market for manual frequency restoration reserves in DK2. Furthermore, DUR will complete an evaluation of the Danish financial market

BOX 1 | **WHOLESALE ELECTRICITY MARKET: FOCUS AREAS IN 2021**

DUR's focus areas for the future market monitoring of the wholesale electricity markets are the functioning of the interconnectors to and from Denmark, the market for manual reserves and the Danish long-term electricity market.

Market monitoring in 2021 will continue to focus on the trading capacity of the interconnector between West Denmark and Germany. The market monitoring will also follow the development of the available capacity to and from Sweden, Norway and the Netherlands, in relation to the 70-per cent requirement.

Furthermore, the market monitoring in 2021 will follow the new market for manual frequency restoration reserves (mFRR) in DK2. In 2021, Energinet will deliver an evaluation of this market to DUR.

In 2021, DUR will complete an evaluation of whether market participants in Denmark have sufficient cross-zonal hedging opportunities.

2.1.1.5 IMPORTANT EVENTS IN 2020

Like previous years, this year was also eventful for the wholesale electricity market in Denmark. DUR's decision on approval of Energinet's method for purchasing mFRR capacity in DK2 and approval of terms and conditions in the tender for the system recovery reserve in DK2 were some of the events occurring in the Danish electricity market in 2020, cf. Table 1.

TABLE 1 | **MAIN EVENTS IN THE DANISH WHOLESALE ELECTRICITY MARKET, 2020**

28 January 2020	ACER announces three new decisions. Two of the decisions set the framework for future market platforms for so-called reserves, which are activated automatically and manually, respectively, to restore the frequency and thereby balance the electricity system. In the third decision, ACER establishes a method for pricing balancing energy. Read more here.
28 January 2020	NordREG publishes a number of recommendations for the implementation of new EU requirements, which are intended to promote flexibility in electricity consumption and thereby the framework for the green transition. The requirements are more specifically that EU Member States must ensure access for new market players (aggregators), which specialise in moving electricity consumption from and to different times of the day. Read more here.
4 March 2020	The Nordic regulators reject proposals from the Nordic TSOs regarding rules for a Nordic capacity market for frequency recovery reserves with automatic activation, aFRR. The proposals were then handed over to ACER. Read more here.
1 April 2020	DUR extends intensified monitoring of the aFRR market in DK1 up to and including the third quarter of 2020. Read more here.
4 June 2020	DUR approves Energinet's notification of common rules for the settlement of intended exchanges of energy between asynchronously connected TSOs. Read more here.
15 June 2020	DUR launches an anthology project on regulation in a green transition. Read more here.
16 June 2020	DUR approves Energinet's notification of rules for TSO settlement of intentional and unintentional exchanges of energy within the continental European synchronous area.
18 June 2020	ACER announces three new decisions. One decision establishes a list of standard balancing capacity products. The second establishes a jointly optimised method of allocating cross-border balancing capacity. The third sets the framework for a future market platform for balancing opposing imbalances. Read more here.
16 July 2020	ACER announces three new decisions. The first decision deals with a method for classifying activation purposes for balancing energy and lays down rules for all possible activation purposes. The second decision lays down the rules for the settlement of the planned energy exchange between European system operators. The third decision deals with the harmonisation of the essential elements of the imbalance rules. Read more here.
26 August 2020	DUR approves Energinet's method (TCM) for a system recovery reserve in DK2. Read more here.
29 September 2020	DUR sends comments to the Energy Market Inspectorate on Svenska Kraftnät's application for an extension of the derogation from the EU's 70 per cent requirements. The extension means that Svenska Kraftnät is exempt from granting 70 per cent of the available transmission capacity to the electricity market, when it will affect system security in 2021. Read more here.
1 October 2020	DUR approves Energinet's method (TCM) for a system recovery reserve in DK1. Read more here.
13 October 2020	DUR approves Energinet's method concerning regulations C1, C2, C3, D1 and I. Read more here.
23 October 2020	DUR approves Energinet's notification of changes to the methodology for capacity calculation in the capacity calculation in the Nordic region (CCR Nordic). Read more here.
5 November 2020	DUR approves Energinet's methodology (TCM) for FFR in DK2. Read more here.
18 December 2020	DUR approves Energinet's amendment to a common long-term capacity calculation method for the Capacity Calculation Region Hansa. Read more here.
21 December 2020	DUR's decision on Energinet's methodology for providing balancing services without energy supply. Read more here.
22 December 2020	DUR gives an injunction for violating the ban on insider trading under REMIT. Read more here.
23 December 2020	DUR rejects Energinet's methodology for exchanging capacity via the Great Belt electricity connection. Read more here.
23 December 2020	DUR approves Energinet's methodology (TCM) for mFRR capacity in DK2. Read more here.

Source: Danish Utility Regulator; Danish Ministry of Climate, Energy and Utilities; Energinet; Danish Energy Agency; Agency for the Cooperation of Energy Regulators; European Commission; European Council; Nasdaq.

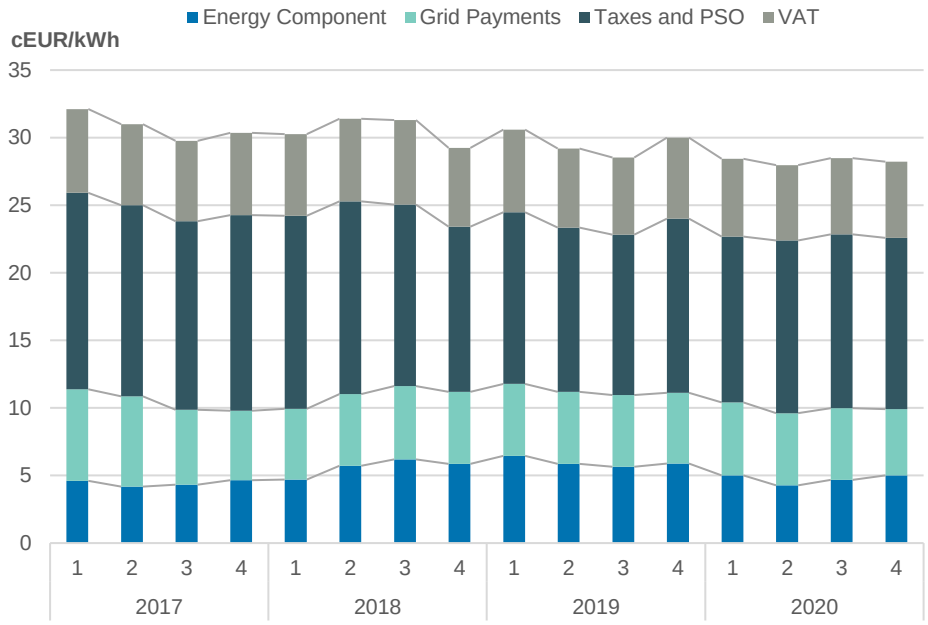
2.1.2. RETAIL ELECTRICITY MARKET

2.1.2.1 RETAIL ELECTRICITY PRICES

DUR publishes different types of electricity price statistics, including an annual report concerning retail prices for household and non-household customers with a consumption of up to 100,000 kWh/year. The purpose of this report is to increase transparency and customer awareness with regard to products and prices in the Danish retail market for electricity, thereby enabling customers to make an informed decision about which product to choose. The report for 2020 was published in June 2021.[4]

In 2020, the average total electricity price for Danish household customers was 28.28 cEUR/kWh, which is a decrease of 4.39 per cent compared to 2019, when the price was 29.58 cEUR/kWh, cf. Figure 4.

FIGURE 4 | **RETAIL ELECTRICITY PRICE FOR HOUSEHOLD CUSTOMERS, 2017-2020**



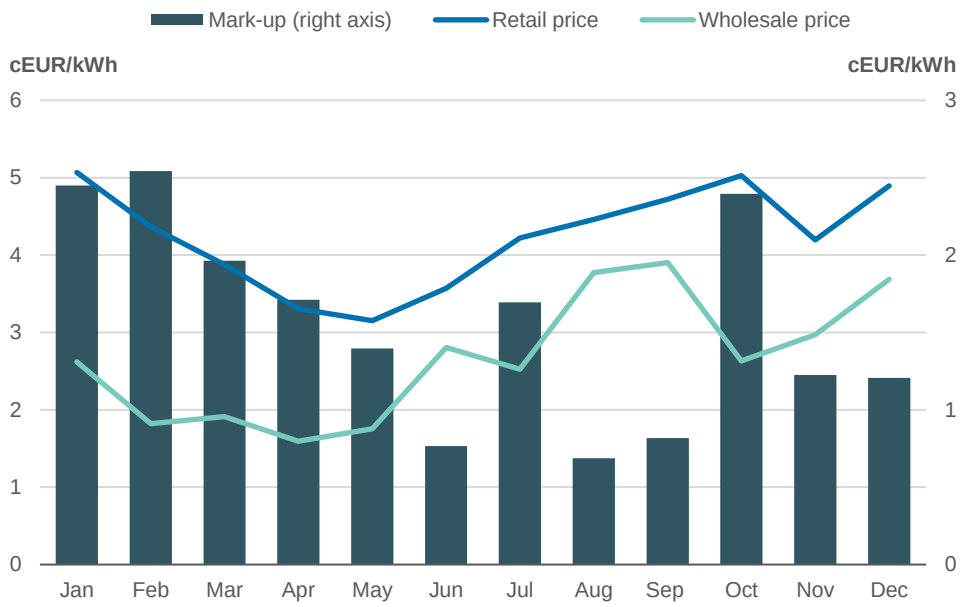
Source: The Danish Utility Regulator.
Note: The calculations are based on annual household consumption of 4,000 kWh.

Throughout 2020 there were moderate variations in the relationship between the retail price for variable electricity products and the wholesale price, cf. Figure 5. For instance, the difference between retail and wholesale prices was greater in January, February, March and October, than in June, August and September 2020. As such, no close correlation is observed, indicating that

[4] The report from the Danish Utility Regulator can be found here. Please note that the report is in Danish.

customers for variable products might not receive price signals that correspond to the price in the wholesale market.

FIGURE 5 | **CORRELATION BETWEEN RETAIL AND WHOLESALE ELECTRICITY PRICES FOR 2020**



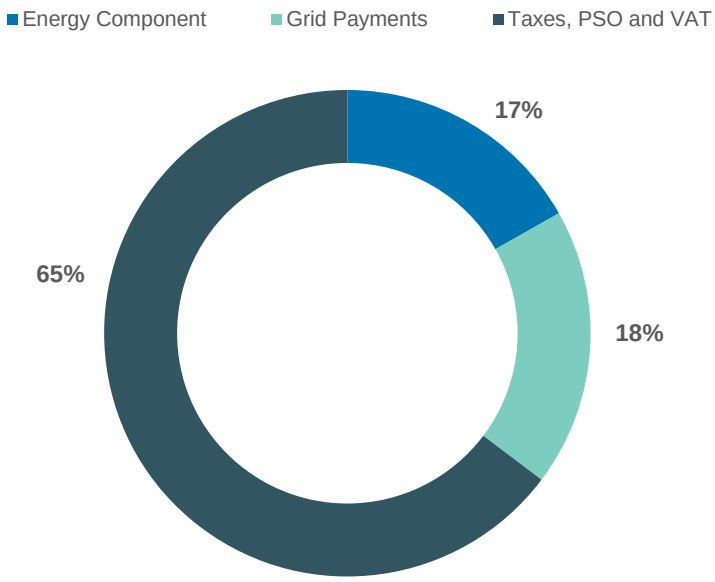
Source: The Danish Utility Regulator.

In 2020, the average price that household customers paid for electricity could be broken down as 17 per cent energy component payments, 18 per cent grid payments[5] and 65 per cent taxes, Public Service Obligation (PSO)[6] and value-added tax (VAT) payments, cf. Figure 6. Taxes, PSO and VAT payments is by far the most predominant price element and is not exposed to competition.

[5] Grid payments cover DSO grid tariffs, DSO subscription fees, TSO grid, and system tariffs.

[6] PSO is an abbreviation for Public Service Obligation. PSO finances subsidies for renewable energy production and development. In 2017, the gradual phasing-out of PSO began. By 1 January 2022 PSO will be phased out completely.

FIGURE 6 | **BREAKDOWN OF TOTAL ELECTRICITY PRICE FOR HOUSEHOLD CUSTOMERS, 2020**



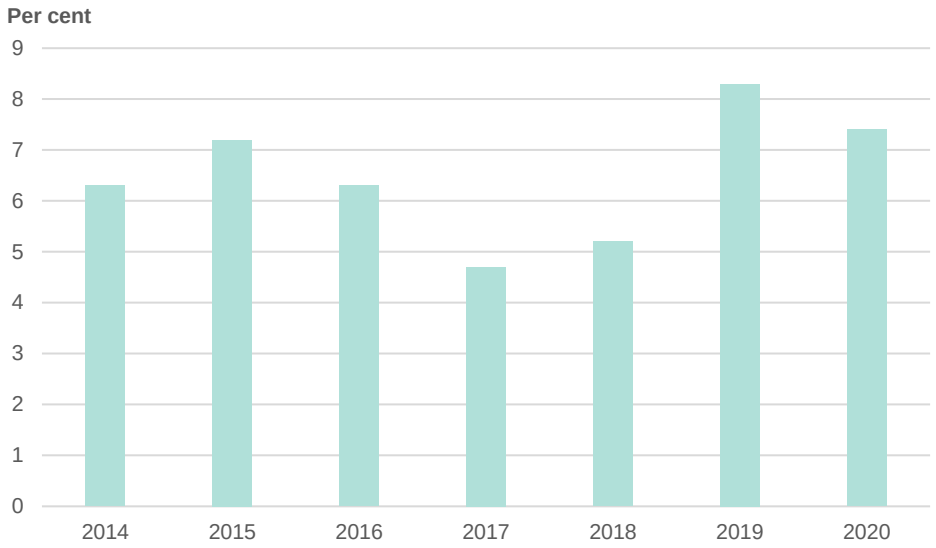
Source: The Danish Utility Regulator.
Note: The calculations are based on annual consumption of 4,000 kWh.

2.1.2.2 MARKET COMPETITION

In 2020, there were 44 electricity suppliers from among which consumers could choose. Despite potential savings, the external switching rate (for household and non-household customers with an annual consumption of up to 100,000 kWh), whereby customers switch to a different supplier, has remained more or less constant since 2014, cf. Figure 7. In 2020, however, the switching rate was 7.4 per cent, which is a decrease compared to 2019, when the switching rate was 8.3 per cent[7]

[7] Source: Energinet, Datahub, Markedsrapport nr. 12 2021, read more here

FIGURE 7 | **ELECTRICITY SUPPLIER SWITCHING RATES FOR 2014-2020**



Source: Energinet

In 2021, DUR will prepare for the new supervisory tasks regarding Executive Order 2254 of 29 December 2020. Executive Order 2254 specifically concerns the duties and legal obligations related to the supply of electricity to consumers ('Elleveringsbekendtgørelsen'), including several legal obligations for electricity suppliers aimed at securing a number of fundamental consumer rights for electricity consumers. The Executive Order contains – among other things – specific requirements pertaining to the content of contracts related to the delivery of electricity, changes to the terms and conditions for the contract, and requirements concerning the notification period for changes to the contract.

2.1.2.3 FOCUS AREAS FOR 2021

BOX 2 | **RETAIL ELECTRICITY: FOCUS AREAS IN 2021**

In 2021, DUR will commence the supervision of Executive Order no. 2254 of 2020 on obligations for electricity suppliers, in order to ensure that suppliers meet their new obligations.

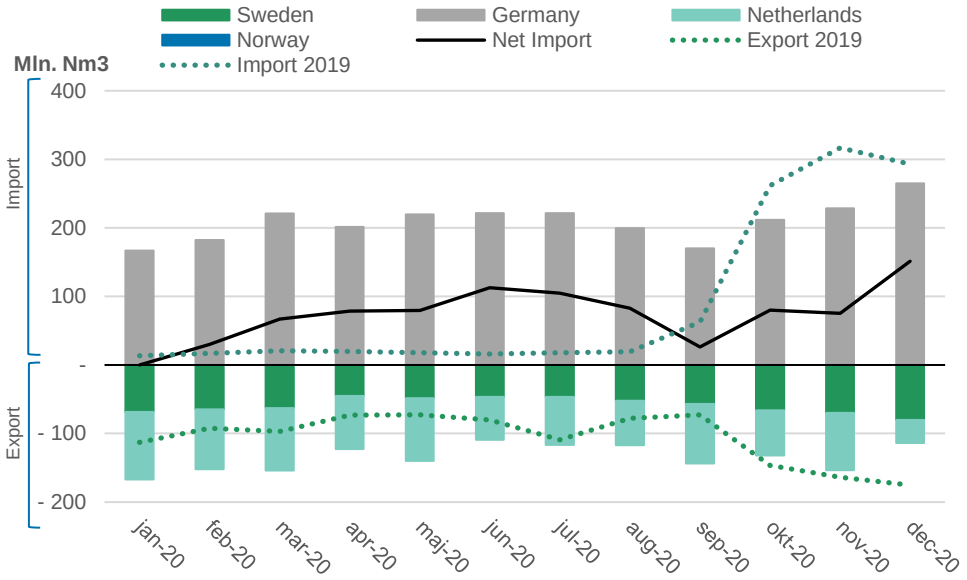
Furthermore, DUR will continue the process of improving the price comparison tool elpris.dk, with the involvement of relevant stakeholders. The ambition is that the steps taken to improve elpris.dk will make it a better price comparison tool that will support the green transition and encourage customers to be active in line with the recast Electricity Directive.

2.2. GAS

2.2.1. WHOLESALE GAS MARKET[8]

Denmark has been a net exporter of natural gas since 1984, but due to the temporary shutdown of the Tyra platform in 2019, Denmark went from being a self-sufficient exporting nation to an importer of most of its gas consumption. Denmark was therefore a net importer of gas throughout 2020, cf. Figure 8.

FIGURE 8 | **GAS IMPORT AND EXPORT PER COUNTRY IN 2020**



Source: The Danish Utility Regulator based on data from the Danish Energy Agency.
Note: Imports from Norway are from Trym field, which is connected to the Danish system and is currently shut down.

2.2.1.1 PRODUCTION AND CONSUMPTION

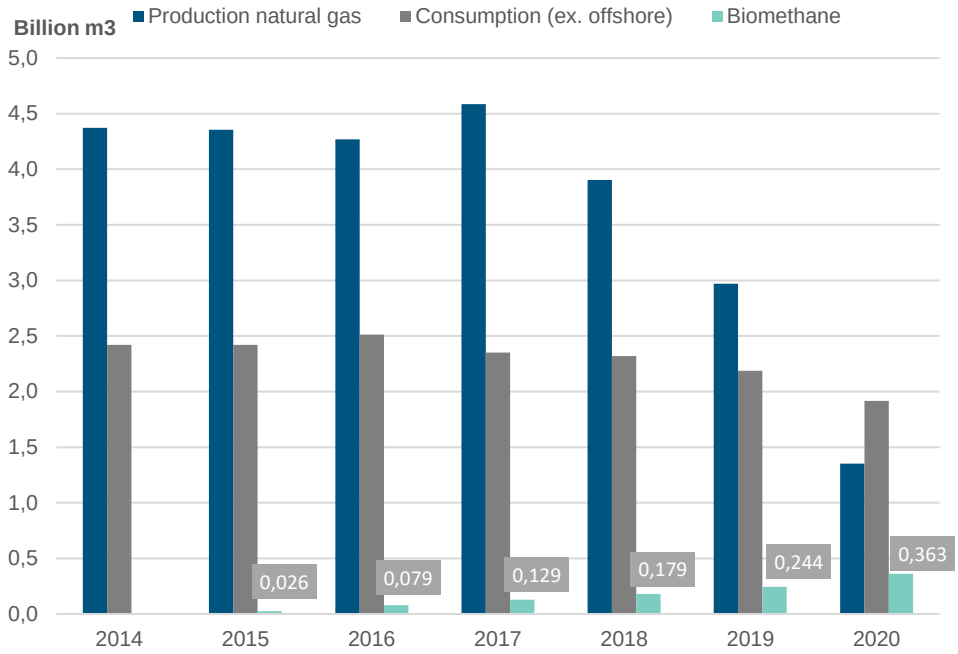
Production of natural gas in Denmark was 1.35 billion m^3 in 2020, which is 54 per cent lower than in 2019 and a decrease of 65 per cent compared to 2018. A large part of the production is transported directly to the Netherlands through the offshore pipeline Tyra Vest-F3. The production of biomethane gas continued to increase and reached 363 million m^3 in 2020, cf. Figure 9. Biomethane gas production as a share of natural gas consumption was 19 per cent in 2020, which is 8 percentage points higher than the year before.

Danish gas consumption was 1.92 billion m^3. Consumption has been decreasing since 2016 and in 2020 reached its lowest level since 2002, cf. Figure 9. Danish gas consumption is affected by

[8] This is a summary in English of the annual market monitoring report for the Danish wholesale gas market: *Markedsrapport for 2020, Engrosmarkedet for Gas* published by the Danish Utility Regulator. The report is available here.

temperature levels. The year 2020 was warmer on average than the previous years and the weather was therefore an instrumental factor in explaining the decrease in consumption.

FIGURE 9 | **ANNUAL GAS PRODUCTION AND CONSUMPTION, 2014-2020**



Source: The Danish Utility Regulator based on data from the Danish Energy Agency and Energinet.
Note: Biomethane gas is upgraded biogas that may be injected into the gas grid and traded in the gas market.It shall be noted that DUR has used comma instead of dot, the correct is dot in this case.

Nonetheless, imports totalled 2.51 billion m^3 in 2020, which is a 133 per cent increase compared to the year before. The dramatic increase was due to the temporary shutdown of the Tyra platform. The import of natural gas exceeded Danish gas consumption, which among other things is due to the fact that some of the imported gas is transported to Sweden and injected into gas storage.

On 1 January 2020, the German TSO, Gasunie Deutschland (GUD), reduced the southbound German capacity at the Ellund interconnection point from 3.6 GWh/h to 0 GWh/h. The reduction did not have any practical impact during the year because Denmark was a net importer of natural gas in 2020. The reduction of capacity at Ellund may be an issue for the future export of North Sea natural gas to Germany, as the lack of export opportunities will negatively impact the functionality of the Danish wholesale gas market and the market integration between Denmark and Northwestern Europe. A project proposal submitted by Energinet and the German TSOs, GUD and Open Grid Europe, entails a project for incremental capacity of 2.5 GWh/h southbound as firm capacity from 2027 at Ellund. A precondition for Energinet's participation in the project proposal is that partial re-establishment of firm capacity must already take place as from 2022. DUR and the German regulator, Bundesnetzagentur, have approved the project proposal in a

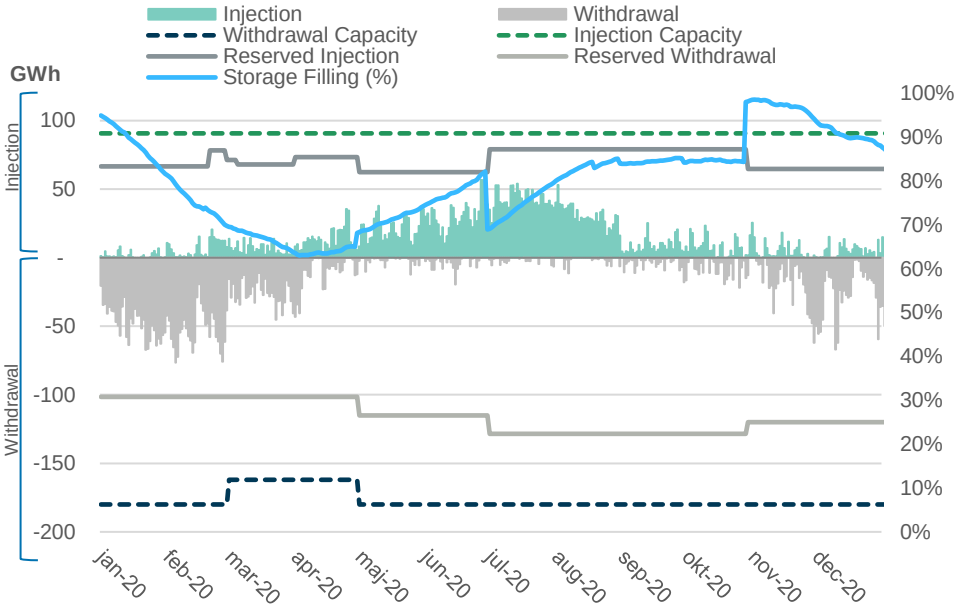
coordinated decision. In addition, DUR and the Bundesnetzagentur have agreed to monitor the re-establishment of firm capacity from 2022 onwards.

In 2020, there was sufficient available northbound capacity on both sides of the Danish/German border. In the coldest winter months, bottleneck situations at the Ellund interconnection point may occur because the import capacity may not be sufficient to fully supply the Danish-Swedish market. In such case, the Danish gas storage must ensure that remaining demand is met.

2.2.1.2 STORAGE

Gas Storage Denmark's two storage facilities had a total available storage capacity of 10,458 GWh in 2020, which is a decrease of 1.7 per cent compared to 2019. The decrease comes despite the successful extension of the technical storage capacity. The gas storage facilities were re-filled with imported German natural gas throughout 2020. The German gas has a lower calorific value than natural gas from the North Sea, which is one of the reasons for the decrease in total available storage capacity. The storage capacity was sold out in 2020, at an average price of 5.14 EUR/MWh, which is 26 per cent higher than in 2019. The gas storage capacity utilisation was at a very high level throughout the year and was never below 60 per cent, cf. Figure 10. This is mainly due to the relatively warm weather throughout the year. The utilisation of the gas storage capacity is also affected by the price development in the gas market.

FIGURE 10 | **GAS STORAGE FILLING, INJECTION AND WITHDRAWAL FOR 2020**

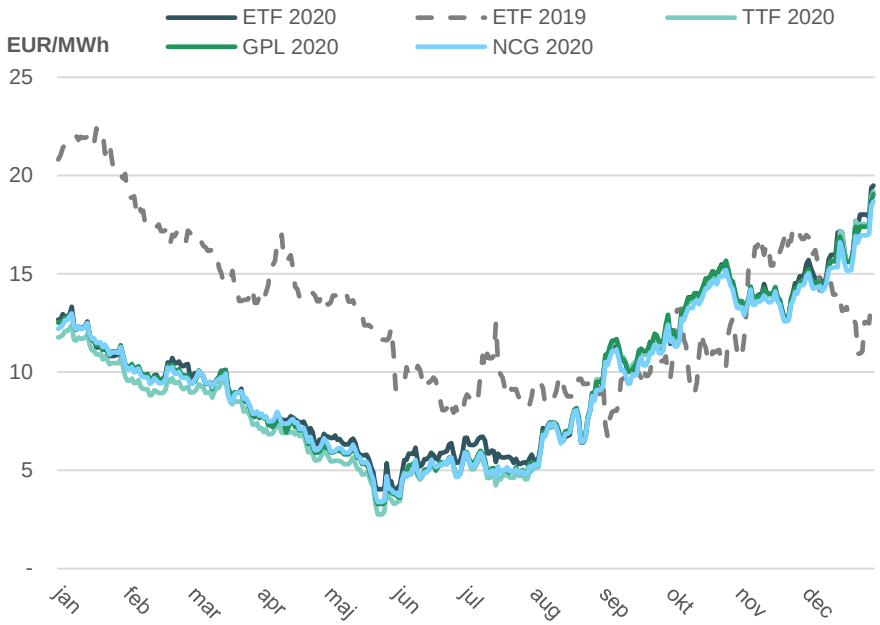


Source: The Danish Utility Regulator based on data from Gas Storage Denmark.

2.2.1.3 PRICES

The average spot price in 2020 was 9.82 EUR/MWh, which is 26 per cent lower than in 2019. On 30 May 2020, the lowest spot price on EEX ETF was registered at 4.03 EUR/MWh. This is the lowest daily spot price since 2008. Throughout 2020 the spot prices in Denmark have generally been at a higher level than the German gas market, with an average price spread of 0.27 EUR/MWh, cf. Figure 11.

FIGURE 11 | **GAS PRICE DEVELOPMENT FOR DAY-AHEAD IN DENMARK, THE NETHERLANDS AND GERMANY FOR 2020**

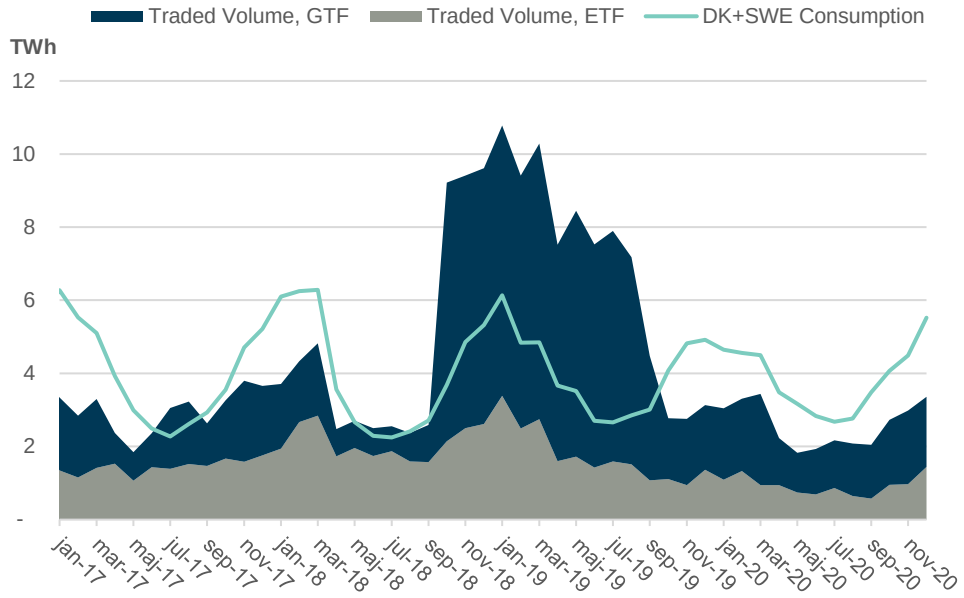


Source: The Danish Utility Regulator based on data from PEGAS and EEX.
Note: Spot prices on the day-ahead market are estimated by the European Gas Spot Index (EGSI) for the Danish Exchange Transfer Facility, the Dutch Title Transfer Facility, and the German Gaspool and NetConnect Germany. EGSI is estimated for each delivery day as a volume-weighted average of day and weekend contracts with delivery on the actual day.

In 2020, 11 TWh was delivered at ETF, which is the delivery point for gas traded on the EEX exchange. There was delivery of 20 TWh at GTF, which is the delivery point for bilateral gas contracts. In 2019, 21 and 61 TWh were delivered at ETF and GTF, respectively. The decrease is mainly due to the temporary shutdown of the Tyra platform, cf. Figure 12.

During the temporary shutdown of the Tyra platform, DUR increased focus on the utilisation of the Ellund interconnection point. The continuous analysis and monitoring shows that there have been systematic flows of small volumes against price signals. During large parts of 2020, there was un-utilised transportation capacity at Ellund, which indicates that market participants had the opportunity to utilise the difference in prices between the Danish and German markets.

FIGURE 12 | **TRADED GAS VOLUME AT ETF AND GTF FOR 2017-2020**



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

2.2.1.4 MARKET COMPETITION

DUR also examines the development in market concentration on the Danish gas market. This is estimated by the Herfindahl-Hirschman Index (HHI) and is used as an indicator of the competitive situation in a specific market. An HHI at 10,000 corresponds to a monopoly status, while an HHI at 0 corresponds to perfect competition. The market concentration of the wholesale market at GTF decreased significantly on the buyer side in 2020, while it increased on the seller side. HHI was below 2,000 on the buyer side, which corresponds to the average level in the past 10 years, ignoring 2019, when HHI was extraordinarily high. In 2020, HHI for the seller side at GTF was almost 2,700, which is the highest level since 2014.

Due to the COVID-19 epidemic, 2020 was an extraordinary year for Danish society. Based on available data, it is not possible to demonstrate that the epidemic had a real impact on the Danish wholesale gas market. However, the extent of the epidemic did lead Total E&P Danmark A/S to announce that the commencement of production from the Tyra platform would be postponed by 11 months until 1 June 2023.

DUR published one major decision during the year. In July, DUR approved an amendment to Energinet's balancing model. The amendment changed the methodology for setting balancing prices when the gas price is negative, thereby upholding the market participants' incentives to balance the system.

Additionally, DUR is considering a number of complaints regarding the tariff level in the Danish offshore system. In April 2020, the Western Division of the Danish High Court ruled on a case regarding the setting of tariffs for transportation in the Danish offshore system in the period from July 2011 to October 2012. The High Court invalidated the previous decisions by DUR and the Danish Energy Board of Appeal. In July 2020, DUR decided to re-examine the original complaint and additional complaints regarding the tariff level in the Danish offshore system. The complaints are expected to be processed in parallel. DUR expects to publish decisions on the complaints within the first six months of 2022.

2.2.1.5 FOCUS AREAS FOR 2021

DUR has a number of focus areas for the wholesale gas market in 2021. The focus areas are unaltered compared to 2020, as the supply and market conditions are unchanged. The market impact from the temporary shutdown of the Tyra platform is a pivotal point for the focus areas in 2021, cf. Box 3. The focus areas are expected to change fundamentally after the commissioning of Baltic Pipe and the commencement of the Tyra platform in the 4th quarter of 2022 and 2nd quarter of 2023, respectively.

BOX 3 | **WHOLESALE GAS MARKET: FOCUS AREAS IN 2021**

The DUR market monitoring for 2021 will be strongly focused on the shutdown of the Tyra platform from September 2019 to June 2023.

The market monitoring will focus especially on the Ellund interconnection point between Denmark and Germany. From the autumn of 2019, Denmark became an import country with only one primary supply route. DUR will continue to analyse and monitor whether significant or systematic transport of gas against price signals is occurring and whether capacity at the Ellund connection is utilised efficiently.

In addition, DUR will closely monitor the development of the process to re-establish German import capacity at Ellund after the commencement of production from the Tyra platform.

DUR's market monitoring will follow the price development in the Danish gas market. In addition, DUR will focus on market dynamics, trade behaviour and market concentration during this period.

The utilisation of the Danish gas storage facilities will be monitored because their efficient and appropriate utilisation is central to the supply situation during the coming years. DUR is responsible for the oversight of the terms for access to storage capacity, as well as other obligations according to the European gas regulation.

2.2.1.6 IMPORTANT EVENTS IN 2020

The temporary shutdown of the Tyra platform in 2019 and the following years have a great impact on the Danish wholesale gas market. Like previous years, this year was also eventful for the wholesale market in Denmark. The ruling of the Western Division of the Danish High Court in the offshore tariff case is one of the events which occurred in the Danish gas market in 2020, cf. Table 2.

TABLE 2 | **IMPORTANT EVENTS IN THE DANISH WHOLESALE GAS MARKET, 2019-2020**

21 September 2019	The Tyra platform shuts down export and production temporarily. Until then, Denmark/Sweden will be supplied through the Ellund IP, from the Syd-Arne field and biogas production. Read more here.
29 April 2020	DUR publishes a report regarding Economic Regulation and Green Transition. DUR among other things assesses that only the gas distribution network should be covered by economic regulation, while other instruments should be used regarding gas production. Read more here.
16 April 2020	The Western Division of the Danish High Court rules in a case regarding the setting of tariffs for transportation in the Danish offshore system during the period from July 2011 to October 2012. The High Court invalidates the previous decisions. DUR assesses the next steps. Read more here.
30 May 2020	The EEX ETF spot price falls to 4.03 EUR/MWh and thus reaches a price level below the lowest spot price in 2019.
22 June 2020	A majority in the Danish Parliament agrees on a climate deal which among other things focuses on promoting biogas and investments in Power-to-X and CCS. Read more here.
8 July 2020	DUR decides to re-examine the complaints regarding the setting of tariffs for transportation in the offshore system. DUR expects that the related complaints may be processed in parallel and that decisions may also be taken in parallel. Read more here.
17 July 2020	DUR approves an addition to the balancing model. It changes the method for setting balancing prices at negative prices. It is necessary to maintain the net users' incentive to balance. Read more here.
2 September 2020	DUR publishes the annual National Report to the CEER. The report among other things concerns the monitoring of the gas market and regulatory development. Read more here.
1 October 2020	The Danish Energy Agency permits the operation of North Stream 2. Read more here.
29 October 2020	Gas Storage Denmark announces that the total technical storage capacity has increased to 10,465 GWh. This was due to an expansion of the aquifer storage facilities at Stenlille, where they utilised the low spot prices to inject additional gas during a period of 120 days. Read more here.
2 November 2020	Energinet sells Evida to the Danish Ministry of Finance at a price of DKK 4.2 billion. Evida is the national gas distribution company and is a result of the consolidation of the former Dansk Gasdistribution and HMN GasNet. Read more here.
6 November 2020	Total E&P Danmark A/S announces in a REMIT message that commencement of operation of the Tyra platform has been postponed to 1 June 2023 due to COVID-19. Read more here (ID: 2980).
11 November 2020	The Danish Energy Agency under the Danish Ministry of Climate, Energy, and Utilities initiates a public consultation on "*Lov om ændring af lov om naturgasforsyning, lov om fremme af vedvarende energi og forskellige andre love*". The purpose of the draft legislation is among other things to ensure improved support for the development of Power-to-X and biogas.
5 December 2020	A majority in the Danish Parliament decides to end Danish oil and gas production in the North Sea from 2050. It is also decided to cancel the 8th licensing round. The cancellation took place after Total withdrew from the licensing round on 4 October 2020. Read more here.
16 December 2020	DUR and Swedish Energy Markets Inspectorate postpone the assessment of the Danish-Swedish wholesale gas market. This is due to the considerable changes faced by the gas market. The assessment has been postponed until the recommencement of operation at Tyra. Read more here.

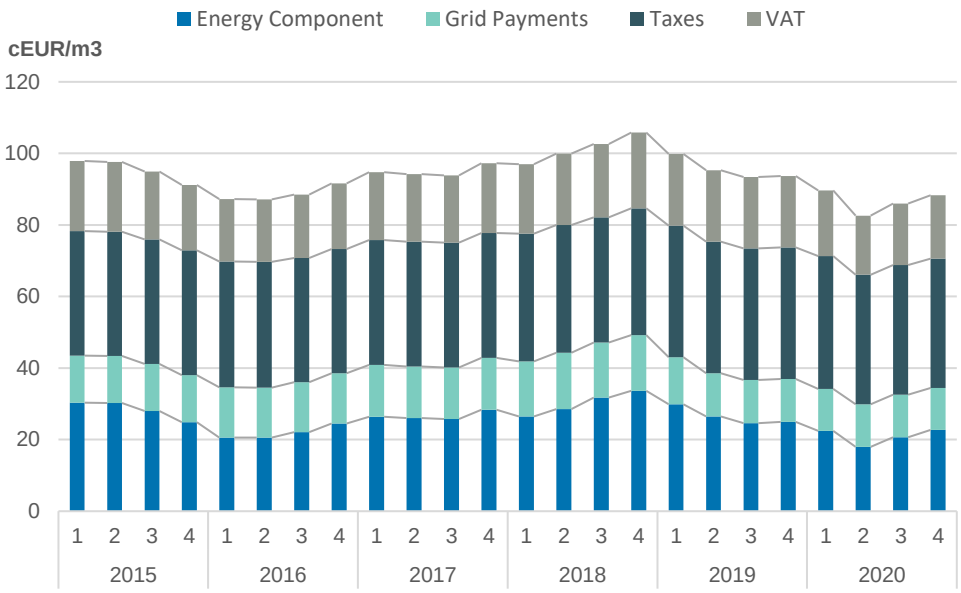
Source: The Danish Utility Regulator based on own decisions; The Danish Ministry of Climate, Energy, and Utilities; The Danish Ministry of Finance; Energinet; The Danish Energy Agency; EEX; gasmarketmessage.dk; Gas Storage Denmark.

2.2.2. RETAIL GAS MARKET

2.2.2.1 RETAIL GAS PRICES

In 2020, the average total gas price for retail customers (both household and non-household) was 86.44 cEUR/m3, which is a decrease of 8.46 per cent compared to 2019, when the price was 94.43 cEUR/m3, cf. Figure 13. This decrease is mainly due to a decrease in the energy component price, as well as a decrease in the grid payments, since there were almost no changes in the remaining price elements (taxes and VAT).[9]

FIGURE 13 | **RETAIL GAS PRICES FOR CUSTOMERS FOR 2014-2020**



Source: The Danish Utility Regulator.

2.2.2.2 MARKET COMPETITION

In 2020, there were ten suppliers offering natural gas products to the approximately 408,000 gas retail customers in Denmark. As of April 2020, one of the ten suppliers was licensed as the default supplier. The default supplier is obliged to supply gas to customers who have not actively chosen a supplier. The Danish Energy Agency grants the default supplier licences on the basis of a tender process, and the licences are granted for a three-year period, with the possibility of renewal.

[9] Data on retail gas prices in 2019 is currently pending.

Customers can choose from among three types of gas products, i.e. universal service obligation products, basic products[10] and market-based products. Most retail customers (approximately 94 per cent) in Denmark have a market-based product.[11]

DUR monitors, among other things, 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 fixed charge for the default supplier's total mark-up. The fixed additional charge is determined in the tender process for obtaining the default supplier licence.

The consolidation of the gas distribution companies has led to changes in the fundamental conditions supporting the gas sector. These changes encourage a review of the existing legislation, including the regulation of the retail market within the gas sector. Box 4 summarises the areas on which DUR focuses its monitoring efforts within the retail gas markets in 2020.

2.2.2.3 FOCUS AREAS FOR 2021

BOX 4 | **RETAIL GAS MARKET: FOCUS AREAS IN 2021**

A proposal has been made to amend the Natural Gas Supply Act. The proposed amendment will implement 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 the implementation of the new regulations as much as possible and this will be DUR's main focus in terms of the gas retail market in the years to come.

[10] After the expiry of the licence, customers supplied with a universal service obligation product by a licensed default supplier will receive a so-called basic product, if they do not choose a different supplier/product.

[11] Data is for the year 2017, since the data is no longer compiled by DUR.

2.3. IMPLEMENTATION OF THE CLEAN ENERGY PACKAGE

In relation to Article 59(1) (u) and the CEER Advice Document (Ref: C19-MRM-101-03), DUR must describe the main changes related to implementing the Clean Energy Package (CEP). In 2020, a significant part of DUR's work related to the CEP has been at the national level, in connection with the transposition of the new electricity directive into Danish law.

From October 2019 to August 2020, an internal working group at DUR participated in a specific CEP implementation project. This project ran was run by the Danish Energy Agency and the Danish Ministry of Climate, Energy and Utilities and was aimed at providing regulatory expertise related to the CEP provisions. According to the Danish institutional set-up, the Danish Energy Agency is responsible for drafting the Danish law implementing the new electricity directive.

DUR played an active role at both steering and casework levels by giving input and participating in discussion of the new Danish provisions relating to consumers' protection and empowerment, aggregators, citizen energy communities, energy storage activities for DSOs and TSOs, fully integrated network components, closed distribution systems and the Nordic Regional Coordination Centre (RCC). The Act to implement the new Electricity Directive was adopted by the Danish Parliament and entered into force on 31 December 2020.

Three of these areas (namely consumer rights, aggregation and RCC) have been points of focus of the organisation for the Danish, Swedish, Finnish, Norwegian and Icelandic energy regulators (NordREG) since 2019 and throughout 2020.

In 2020, DUR and the other Nordic regulators were particularly preoccupied by the negotiations with the four Nordic TSOs (Energinet, Statnett, Svenska Kraftnät and Fingrid) on the establishment of a Nordic RCC in Copenhagen under the new Electricity Directive. The purpose of the RCC is, among other actions, to facilitate more effective use of grid connections within the Nordics and also the regional procurement of balancing capacity. Despite delays in the process related to the regulatory approval of the Nordic RCC proposal from the TSOs, it is set to become operational in July 2022.

3. NETWORK REGULATION AND TECHNICAL FUNCTIONING

This section reports on a range of topics relevant for the network regulation and the technical functioning of energy markets in Denmark. The selection of relevant topics is primarily based on the CEER Document "Advice on the Structure of Future National Reports and Relevant Indicators" (Ref: C19-MRM-101-03, March 2020), with the purpose of reporting the status and development of the network regulation and technical functioning in Denmark, pursuant to the relevant Directive.

The section is divided into three subsections: 3.1 focuses on electricity markets, 3.2 focuses on gas markets, and 3.3 focuses on topics common to both electricity and gas markets.

In general, the legal basis for each area is, respectively, the Electricity Directive (2019/944) and the Gas Directive (2009/73). When necessary, explicit reference to other EU regulations and directives is also made.

3.1. ELECTRICITY

3.1.1 UNBUNDLING OF DSO

Legal basis: Articles 35 and 59(1) (j)

The requirements in the Electricity Directive regarding the legal and functional unbundling of vertically integrated Distribution System Operators (DSO) are transposed into provisions in the Danish Electricity Supply Act and in executive orders issued pursuant to this Act.

In Denmark, the unbundling requirements apply to vertically integrated DSOs with more than 100,000 connected customers[12].

The DSOs are obliged to complete an annual compliance programme and submit this to DUR, as well as a report describing the measures carried out to ensure their fulfilment of the unbundling requirements, cf. Article 26(2) (d), whereby DUR monitors the extent to which the DSOs comply with the rules.

Stricter rules on the communication and branding of vertically integrated DSOs than prescribed in Article 26(3) were adopted by the Danish Parliament in mid- 2017. From 1 July 2018, the DSOs' names and logos must be clearly distinct from the group of companies with which the DSOs are vertically integrated. The DSOs must also ensure that service companies carrying out work on behalf of the DSOs apply an identity that differs from the identities applied by companies that are vertically integrated with the DSOs.

The Danish Ministry of Climate, Energy and Utilities commenced an analysis of competitive conditions in the electricity sector in 2018. Following this, DUR completed a number of analyses

[12] In accordance with the exemption rule in Article 26(4) of the Electricity Directive 2009/72 and Article 35(4) of the recast Electricity Directive 2019/944.

of the electricity sector during 2019 and 2020 with the objective of outlining the challenges related to ensure a high degree of competition.

The analyses had the following findings:

- The current regulation in Denmark fails to ensure the separation of monopolistic activities and competitive activities in net-affiliated companies, creating a risk of distorted competition between net-affiliated and trading companies.

- Although a recent analysis of independence in the electricity sector does not explicitly reveal a violation of the applicable requirements for independence in the electricity sector, other plausible conflicts of interest are identified. However, DUR concludes that the current Danish regulation on unbundling in the electricity sector only addresses those conflicts of interest to a limited extent.

- In addition to this, a lack of transparency together with considerable data problems hinder a thorough, true and fair analysis of companies trading electricity. The main challenge lies within the lack of comprehensive accounting data for each company's electricity trading activity.

Based on the analyses, the Danish Energy Agency identified a number of actions that may address the identified challenges and help improve competition in the electricity sector.

3.1.2 TRANSMISSION AND DISTRIBUTION TARIFFS, CONNECTION AND ACCESS TO NETWORKS

Legal basis: Article 59(1) (o) and (7)

Common to transmission and distribution:

There has been no new regulation of tariffs for access or connection fees in 2019, nor has the methodology for the TSOs' setting of tariffs or connection fees been changed in 2019.

To prevent cross subsidisation of costs between activities, the companies must comply with the rules regarding entity unbundling, accounting unbundling and management unbundling.

Specific to transmission:

DUR approves Energinet's (TSO) tariff methodology and the methodology for setting connection fees. According to the Electricity Supply Act, the methodologies must ensure that tariffs and other payments are set in a fair, objective and non-discriminatory manner and that they are based on necessary costs, whereby each group of customers pays the costs to which they give rise.

Energinet charges tariffs for operation and transport of electricity (network and system services) in transmission networks following a "cost-of-service" principle.

In January 2020, the Danish Ministry of Climate, Energy and Utilities published a report of the electricity tariff structure. The report concluded that the current tariff structure could benefit from introducing geographical differentiated tariffs for production facilities as well as for consumers.

The report therefore advocated that the current prohibition on geographical differentiation in the Danish Electricity Supply Act should be modified. In the context of geographical differentiation, the report also concluded that cost-effective feed-in tariffs and connection charges should be introduced for productions facilities at both DSO and TSO levels, so that production facilities pay for the costs they have caused. Most of the report's recommendations are now in process of being implemented. DUR monitor and contributes to the implementation.

Specific to distribution:

DUR approves the companies' tariff methodology and the methodology of connection fees based, as a general rule, on an industrywide tariff model developed by the Danish Energy Association on behalf of the DSOs. Under the Danish Electricity Act, the methodologies must ensure that tariffs and other payments are set in a fair, objective, cost-reflective, transparent and non-discriminatory manner and that they are based on necessary costs whereby each group of customers pays the costs to which they give rise.

The DSOs' cost data is 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.

A new regulation came into effect on 2018. It is based on five-year regulation periods with a revenue cap, based on a cost cap with efficiency regulation, a cap for returns on historical investments and a return on future investment set as a market-based WACC and, finally, on a reduction of the revenue cap in the event of inadequate quality of supply.

The new regulation also includes annual general efficiency requirements, as well as individual efficiency requirements.

(i) In relation to transmission tariffs (Article 59, no 1 (a)):

- In May 2020, DUR received Energinet's method for non-firm transmission services. The approval process is still ongoing.

- In December 2020, DUR received Energinet's method for a project regarding interruptible transmission services for customers in the distribution network. The approval process is still ongoing.

3.1.3 IMPLEMENTATION OF NETWORK CODES AND GUIDELINES, CROSS-BORDER ISSUES, AND CM

Legal basis: Article 59(7) and (10)

In relation to electricity balancing (Article 59(7) (b)):

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.

In parallel with the implementation of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline for electricity balancing (EB GL), the Nordic TSOs are developing a Nordic balancing model (NBM) for exchange of balancing capacity and energy and for imbalance netting. An element of NBM is to merge the Nordic balancing market for energy will the future European platforms for balancing energy.

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 wish another party to hold this responsibility.

Balancing costs are basically recovered from the market participant causing the cost/imbalance, depending on whether the market participant is consumption-balance responsible or production-balance responsible. Consumption-balance settlement applies a one-price settlement principle, while production-balance settlement applies a two-price settlement principle, reflecting whether the production imbalance supports the system or not. The pricing principles incentivises the balancing responsible party to be in balance. An element of NBM is to move towards single pricing. The Nordic TSOs are coordinating their efforts in preparing terms and conditions for regulatory approval.

As a state-owned, non-profit company, the primary aim of the Danish TSO (Energinet) is to ensure open and effective operation and development of the overall infrastructure and to ensure and open and equal access for all users of the network.

Key actions under EB GL:

In 2020, DUR made the following decisions pursuant to Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing (EBGL):

- On 10 January, DUR approved the terms and conditions submitted by Energinet for unintended exchanges of energy between all asynchronously connected TSOs.

- On 14 April, DUR approved the terms and conditions submitted by Energinet for the intended and unintended exchanges of energy within the Nordic synchronous area.

- On 27 May, DUR approved the terms and conditions submitted by Energinet for intended exchanges of energy between all asynchronously connected TSOs.

- On 15 June, DUR approved the terms and conditions submitted by Energinet for the intended and unintended exchange of energy within the synchronous area of Continental Europe.

- On 22 December, DUR approved the terms and conditions whereby Energinet could participate in an exchange of Frequency Containment Reserves as regards the bidding zone DK1 (Western Denmark) with a number of TSOs from Continental Europe.

Moreover, DUR participated in discussions with ACER, other NRAs and TSOs on proposals for terms and conditions that were subject to regulatory approval by ACER, among other things as a result of a situation whereby the NRAs could not agree to approve the terms and conditions,

cf. Article 6(10) of the recast ACER Regulation (Regulation 2019/942). ACER's decisions on these proposals are published by ACER.

In relation to access to cross-border infrastructures, including the procedures for the allocation of capacity and congestion management (Article 59(7) (c)):

Denmark is a member of two capacity calculation regions (CCR): Nordic and Hansa.

CCR Nordic comprises the electricity transmission lines between:

- Jutland/Funen (DK1) and Zealand (DK2)
- Jutland/Funen (DK1) and Sweden (SE3)
- Zealand (DK2) and Sweden (SE4)
- Internal Swedish bidding zones
- Finland and Sweden

CCR Hansa comprises the electricity transmission lines between:

- Denmark (DK1) and Germany (DE)
- Denmark (DK2) and Germany (DE)
- Sweden (SE4) and Poland

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 2020 were determined through implicit auctions. Residual capacity that was not used in the day-ahead market was given to the intraday market.

At four Danish bidding zone borders, financial transmission rights were issued through monthly and annual auctions. The borders with financial transmission rights were DK1-DK2, DK1-DE, DK2-DE and DK1-NL.

Key actions under CACM GL during 2020:

On 17 April 2020, Energinet submitted the following proposal:
- Methodology for capacity calculation in CCR Nordic, which was approved by DUR on 17 October 2020.

Key actions under FCA GL[13] during 2020:

On 20 December 2019, Energinet submitted the following proposal:
- Methodology for splitting long-term cross-zonal capacity in CCR Nordic, which was approved by DUR on 20 February 2020.

On 3 October 2020, Energinet submitted the following proposal:

[13] Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation.

- Methodology for long-term capacity calculation in CCR Hansa, which was approved by DUR on 18 December 2020.

On 27 August 2019, Energinet submitted the following proposal:

- The regional design of long-term transmission rights in CCR Hansa, which was approved by DUR on 23 March 2020.

Key actions under SO GL[14] during 2020:

During Q1 of 2020, DUR assessed the methodology from Energinet for the scope of data exchange with DSOs and significant grid users in accordance with Article 40(5). DUR issued a request for amendments to the submitted proposal. DUR received a new proposal from Energinet on 20 July 2020. The approval process continued throughout 2020.

- On 18 December 2019, Energinet submitted a proposal for Regional Operation Security Coordination (ROSC) for CCR Hansa, in accordance with Article 76. DUR issued a request for amendments on 7 August 2020. DUR received an amended proposal on 19 October 2020. On 26 November 2020, the NRAs of CCR Hansa activated the process for amendments to Regulation 2019/942, Article 5(6). The NRAs of CCR Hansa issued a position paper on approval of the CCR Hansa ROSC methodology on 4 January 2021.

- On 19 December 2019, Energinet submitted a proposal for Regional Operation Security Coordination (ROSC) for CCR Nordic in accordance with Article 76. DUR issued a request for amendments on 11 June 2020. DUR received an amended proposal on 19 August 2020. The NRAs of CCR Nordic issued a position paper on approval of the CCR Nordic ROSC methodology on 21 September 2020.

- On 17 December 2019, Energinet submitted a proposal for additional properties for FCR in Continental Europa in accordance with Article 154(2). On 5 June 2020, the NRAs of CE jointly activated the process for amendments to Regulation 2019/942, Article 5(6). The NRAs of Continental Europe jointly issued a position paper on approval on 21 January 2021.

- On 29 June 2020, Energinet submitted a proposal for additional properties for FCR in the Nordic synchronous area in accordance with Article 154(2). The NRAs of the Nordic synchronous area jointly issued a position paper on approval on 21 September 2020.

- On 25 September 2020, Energinet submitted a proposal on Ramping restrictions for the Nordic NRAs in accordance with Article 137(3) and (4). Based on the joint feedback from the Nordic NRAs, Energinet (together with the other Nordic TSOs) repealed the proposal on 26 October 2020.

- On 30 October 2020, Energinet submitted a proposal on Ramping restrictions for the Nordic NRAs in accordance with Article 137(3) and (4). The Nordic NRAs issued a joint position paper on approval on 5 November 2020.

[14] Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation.

Key actions under ER GL[15]:

During 2020 DUR undertook the approval process for the following proposals:

a) The terms and conditions to act as defence service providers on a contractual basis in accordance with Article 4 of Regulation 2017/2196 (ER GL).

b) The terms and conditions to act as restoration service providers on a contractual basis in accordance with Article 4 of Regulation 2017/2196 (ER GL).

c) The list of Significant Grid Users (SGUs[16]) responsible for implementing on their installations the measures that result from mandatory requirements set out in Regulations (EU) 2016/631, (EU) 2016/1388 and (EU) 2016/1447 and/or from national legislation, and the list of the measures to be implemented by these SGUs, identified by the TSOs under Article 11(4)(c) and 23(4)(c).

d) The list of high-priority SGUs referred to in Articles 11(4)(d) and 23(4)(d), or the principles applied to define these, and the terms and conditions for disconnecting and re-energising the high-priority grid users, unless defined by the national legislation of Member States.

e) The rules for suspension and restoration of market activities in accordance with Article 36(1).

f) Specific rules for imbalance settlement and settlement of balancing energy in the event of suspension of market activities, in accordance with Article 39(1).

g) The test plan in accordance with Article 43(2).

- On 18 January 2021, DUR approved proposals a) – f).
- On 18 January 2021, DUR approved a test plan in accordance with Article 43(2).

Key actions under national law

In 2020, DUR carried out an inspection of Energinet's technical requirements for grid connection of battery facilities.

[15] Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration.

[16] A significant grid user is a facility which has a significant impact on the grid. In this case, the impact is related to the implementation of mandatory requirements set out in the listed regulations.

3.1.4 ELECTRICITY SMART METERS

Legal basis: Annex II

Pursuant to Executive Order no. 1358 of 2013 on smart meters and metering of end-consumption of electricity, DSOs are obliged to install smart meters in the homes and businesses of all (100 per cent) consumers in Denmark by no later than the end of 2020. The legal requirements of smart meter functionalities are, among other things, registration of metering data every 15 minutes, data storage and transmission of the data to the DSO. The DSOs report the metering data to the Danish DataHub for billing purposes.

3.2. GAS

3.2.1 UNBUNDLING OF DSO

Legal basis: Articles 26 and 41(1) (f)

The unbundling requirements in Article 26 of the Gas Directive 2009/73[17] regarding vertically integrated gas distribution system operators (DSO) are transposed into provisions in the Danish Natural Gas Supply Act and in Executive Order no. 979 of 2011.

These legal acts define a number of obligations the DSOs have to fulfil in order to ensure that they act without being affected by the commercial interests of other vertically integrated associated companies.

DSOs are also required to ensure that their communication and identity strategies do not create confusion about their own distinct identity.

DSOs are obliged to submit a compliance programme annually to DUR, as well as a report describing the measures carried out to ensure their fulfilment of the unbundling requirements, cf. Article 26(2) (d), whereby DUR monitors DSOs' compliance with the rules.

In addition to the unbundling requirements, the DSO licence itself provides for certain limitations in terms of which activities the DSO may engage in.

In 2020, there was one gas DSO in Denmark - Evida A/S.[18] The gas DSO was unbundled and owned by the Danish TSO, Energinet. On 2 November 2020, however, it was announced by Energinet that the Danish Ministry of Finance would take over the ownership of Evida as from 1 January 2021. Up until that date, Evida was owned by Energinet[19].

[17] Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC.

[18] Strictly speaking, there are actually three DSOs in Denmark: Evida Nord, Evida Syd and Evida Fyn. All of them are, however, owned by Evida A/S. See Table 2.

[19] Source: Energinet, read more here.

3.2.2 BALANCING SERVICES

Legal basis: Article 41(6) (b) and (8)

The European network code on balancing (NC BAL) required national implementation by 1 November 2015.

The network code was implemented in Denmark on 1 October 2014 (early implementation), introducing market-based balancing. The gas exchange EEX (previously PEGAS) serves as the trading platform for the within-day product (title product) for daily balancing.

- In 2019, DUR approved small adjustments to the market-based balancing model. Furthermore, DUR and the Swedish regulator approved a joint balancing model for Denmark and Sweden (Joint Balancing Zone).

- In July 2020, DUR approved an addition to the balancing model. The addition changes the methodology for setting balancing prices at negative gas prices. The changes were necessary to maintain the net users' incentive to balance.

The balancing model has full end-of-day cash-out and incentive-based balancing, based on a helper/causer model.

The main purpose of a Joint Balancing Zone is to enhance the efficiency of cross-border trade between the Swedish and Danish markets and to harmonise balancing procedures. Establishing a borderless Danish-Swedish balancing zone is expected to improve competition in the overall region. The creation of one Joint Balancing Zone for Sweden and Denmark will simplify balancing, increase the security of supply and possibly attract more gas traders to the joint market.

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 harmonisation of network tariffs.

3.2.3 MONITORING AND REVIEWING THE ACCESS CONDITIONS FOR STORAGE, LINE-PACK AND OTHER ANCILLARY SERVICES

Legal basis: Article 41(1) (s) (n) and (6)

According to the Danish Natural Gas Act, there is negotiated access to storage and line-pack 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.

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 approximately 10.46 TWh in 2020. The two storage facilities are operated as one

virtual commercial storage point and Gas Storage Denmark sells its storage capacity on a first-come-first-served basis and via auctioning.

Storage capacity was sold out at an average price of EUR 5.14 EUR/MWh in 2020, which was approximately 26 per cent higher than in 2019.

3.2.4 MODEL CRITERIA FOR ACCESS TO STORAGE

Legal basis: Article 41(1) (t)

Gas Storage Denmark is a monopolist in the Danish storage market. However, the negotiated regime for access 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 market with flexible import pipeline capacity from Germany and increased short-term trading opportunities for market participants.

During the Tyra platform rebuild (September 2019 – June 2023), whereby the volumes of gas from the North Sea are reduced considerably, making Denmark totally dependent on imports from Germany, the storage facilities will have a critical role in supporting the Danish gas market.

DUR monitors the criteria supporting the choice of negotiated access. If competition, access conditions or product choices/prices should develop in a way that does not reflect expected market behaviour, but rather seems to reflect the monopoly situation in the Danish storage market, DUR will approach the legislator to discuss whether the access regime should continue to be negotiated or whether it should be changed to a regulated access regime.

3.2.5 NETWORK AND TARIFFS FOR CONNECTION AND ACCESS

Legal basis: Article 41(1) and (6)

<u>In relation to transmission:</u>

Denmark has no LNG (Liquefied Natural Gas) terminals and consequently, the following applies only to gas transmission.

On 31 May 2019, DUR approved Energinet's method for tariff determination, which is valid from 1 October 2020 and for the three following years. The approval of this methodology ensures compliance with (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (NC TAR). Furthermore, the new method re-introduces uniform tariffs, as well as a new split between capacity and volume tariffs.

On 18 December 2019, DUR approved that Energinet reintroduces seasonal tariffs in Ellund from 1 October 2020 until 1 October 2022. The decision supports the security of supply during Tyra’s shutdown. These methods entered into force during 2020. DUR approved Energinet’s (TSO) tariff methodology and the methodology of connection fees. According to the Danish Gas Supply Act, the methodologies must ensure that tariffs and other payments are set on a fair, objective and non-discriminatory basis and that they are based on necessary costs whereby every group of customers pays the costs to which they give rise.

In relation to distribution:

There has been no new regulation on tariffs for access or connection fees in 2020, nor has the methodology for the DSOs' setting of tariffs or connection fees been changed in 2020.

To prevent cross-subsidisation between distribution and supply activities, the companies must comply with the rules regarding entity unbundling, accounting unbundling and management unbundling.

DUR approves the companies' tariff methodology and the methodology for connection fees. According to the Natural Gas Supply Act, the methodologies must ensure that tariffs and other payments are set on a fair, objective and non-discriminatory basis and that they are based on necessary costs whereby every group of customers pays the costs to which they give rise.

According to the approved methodology, the distribution tariffs are set as volume charges and are independent of distance. The methodology ensures that all customers pay a high tariff for the first cubic metres delivered and a lower tariff for volumes that exceed certain intervals.

The methodology was approved in 2005 and has developed on a continuous basis, sometimes independently for each DSO.

The DSOs' cost data is 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.

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 realised OPEX for each regulated company with a calculated OPEX for the same company, using the sector-specific marginal costs.

The model has been applied to set efficiency requirements for the current 2018-2021 regulatory period.

3.2.6 CROSS-BORDER INFRASTRUCTURE, ALLOCATION AND CM

Legal basis: Article 41(6) (c), (8), (9), (10), and (12)

No congestion was experienced in the Danish transmission system in 2020, and the Danish Congestion Management Procedure (CMP) instruments were not used. During the temporary shutdown of the Tyra platform from September 2019 to June 2023, during which Denmark and Sweden are supplied almost entirely from Germany, the interconnection point at Ellund may become a bottleneck during cold winter months. But as the import capacity on the Danish side exceeds the export capacity on the German side it is unlikely that CMP instruments will be activated on the Danish side. In the long term it is very unlikely that congestion will occur in the Danish gas transmission system, as Danish gas

consumption is expected to fall, while the commissioning of Baltic Pipe in 2022 will also increase the flow of natural gas in the Danish system.

3.3. ELECTRICITY AND GAS

3.3.1 DESIGNATION AND CERTIFICATION OF TSO

Legal basis: Electricity Directive, Article 52; Gas Directive, Article 10.

DUR certified the Danish Transmission System Operator (TSO) for electricity and gas (Energinet) as ownership unbundled in February 2012.

During 2017 and early 2018, Energinet was divided into subsidiaries, including TO EL, SO EL, TSO GAS, Datahub, Gas Storage Denmark and Danish Gas Distribution. The new organisation of the company has not impacted the certification of the company.

New economic regulation of Energinet is currently being developed, together with a new process for approval of Energinet's grid planning and actual grid investments. A bill on the economic regulation of the electricity and gas TSO was finalised/passed on December 2020. The new economic regulation is expected to apply from 2023 onwards.

3.3.2 SECURITY AND RELIABILITY STANDARDS

Legal basis: Electricity Directive, Article 59(1) (m); Gas Directive Article 41(1) (h)

Energinet provides information on its activities relating to:

- Performance of scheduled maintenance works
- Revision of maintenance systems or procedures
- Reporting of incidents in 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

3.3.3 MONITORING TIME FOR CONNECTION AND REPAIR

Legal basis: Electricity Directive, Article 59(1) (q); Gas Directive, Article 41(1) (m)

DUR holds quarterly meetings with Energinet on regulatory issues, including monitoring tasks. DUR also requests annual written reports from Energinet on connection and repair.

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.

3.3.4 COORDINATION AND COOPERATION

Legal basis: **Electricity Directive, Article 59(1) (f)**
Gas Directive, Article 41(1) (c)

In accordance with Article 59(1) (f), DUR cooperates with ACER and other NRAs on cross-border issues, in particular through participation in the work of ACER's Board of Regulators pursuant to Article 21 of Regulation (EU) 2019/942. Furthermore, DUR cooperates with the other Nordic regulators within NordREG.

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). It will be replaced by a Regional Coordination Centre, which is described below and in section 2.3

During July 2020, the TSOs of the Nordic System Operation Region (SOR), submitted a joint proposal to the SOR NRAs, including DUR, for the establishment of a Regional Coordination Centre in accordance with Article 35(1) of the Electricity Market Regulation (2019/943). The Nordic SOR NRAs found it necessary to request the TSOs to amend the proposal prior to approval of the proposal and, consequently, sent a request for amendment to the TSOs on 8 December 2020, and on 9 December 2020 requested ACER to extend the deadline to approve the proposal, cf. Article 6(10) in the Recast ACER Regulation (2019/942)[20].

DUR has continuous cross-border cooperation with Sweden, as Sweden has no indigenous gas production and no substantial gas storage or LNG facilities. Sweden therefore depends entirely on Danish gas supplies for its national market‘s annual consumption of approximately 1 billion m^3 per year. Security of supply is therefore a subject that requires continuous cooperation between the Danish and Swedish authorities and system operators. The Danish Energy Agency (DEA) is responsible for the security of supply in Denmark.

In 2020, DUR cooperated with the German NRA, Bundesnetzagentur, regarding the Ellund Interconnection Point (IP) between the two countries. It has been bilaterally agreed that close monitoring of the utilisation of Ellund will continue in the years ahead.

3.3.5 MONITORING TSO INVESTMENT PLANS

Legal basis: **Electricity Directive, Article 59(1) (k), (l)**
Gas Directive, Article 41)(1) (g)

The regulatory authority regarding the Danish TSO’s (Energinet) investments is divided between the Danish Energy Agency (DEA) and DUR.

[20] An amended proposal was approved by the Nordic SOR NRAs in July 2021: NordREG informs on the decision on the establishment of the Nordic Regional Coordination Centre (RCC) | NordREG (nordicenergyregulators.org)

DEA is responsible for the approval of Energinet's investment plans and for approval of actual investments.

DUR is responsible for the monitoring of Energinet's investment plans in the context of compliance with the community-wide 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.

Energinet is responsible for preparing investment plans (transmission) and for submitting 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.

3.3.6 SECURITY OF SUPPLY

Electricity

The DEA, not DUR, is responsible for regulatory tasks relating to security of supply, including monitoring, planning and approving new grids of more than 100 kV.

In general, Denmark has a high degree of security of supply in the electricity sector. In 2019, the average consumer had 20 minutes of interruption, which is a decrease of 2 minutes from 2018.

The DEA is the competent authority for security of supply, including the monitoring of national networks, planning and approval of major infrastructure investments, etc.

In 2020, there were no disruptions to the physical supply of natural gas to the Danish (and Swedish) gas market and therefore no national declarations of early warnings, alerts or emergencies.

Natural gas

The DEA, not DUR, is responsible for regulatory tasks relating to security of supply. DUR is responsible for approving methodology according to relevant law and market monitoring.

The Tyra platform in the Danish North Sea was closed down on 21 September 2019 for a substantial rebuild programme. Until the platform reopens in July 2023, almost all gas for the Danish and Swedish markets will have to be imported from Germany via the Ellund interconnection point. Together with the total Danish storage capacity this will be sufficient to also cover shorter periods of extremely high demand or extreme temperatures. The Danish and Swedish supply situation would only be endangered by the platform shutdown in the event of prolonged cold winter spells. The Danish TSO, Energinet, has therefore increased its reserves for emergency volumes and withdrawal capacity in the Danish gas storage facilities during the period.

3.3.7 CONSUMER PROTECTION AND DISPUTE SETTLEMENT

Legal basis: Electricity Directive, Articles 10, 14, 18, and 59, and Annex 1
Gas Directive, Articles 3 and 41(1), and Annex 1

Contract information (Electricity and Gas):

The minimum requirements regarding the information that must be provided in an electricity or gas supply contract are:

- The identity, address and contact details of the supplier.
- The arrangements for payment, delivery, performance and the time during 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.
- Whether 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 be provided to the consumer before conclusion of the contract.

The requirements regarding information in an electricity supply contract in the Electricity Directive 2009/72[21] are implemented in Executive Order no. 1233 of 2015 on electricity supply. Likewise, the requirements regarding information in a gas supply contract in Annex I of the Gas Directive 2009/73 are implemented in Executive Order no. 1354 of 2014 on gas supply. Both Executive Orders, which are issued by the Danish Energy Agency, explicitly reference information requirements set in the Danish Consumer Contracts Act no. 1457 of 2013.[22]

Billing information (electricity and gas)

Suppliers are required to provide a specified bill free of charge to the consumer, at the consumer's request.

DUR monitors suppliers' compliance with the legal requirements concerning billing information. Furthermore, Executive Order no. 1395 of 2016 on energy companies' duty of disclosure to end-consumers also applies to electricity and gas billing.

[21] Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC.

[22] The Danish Consumer Contracts Act no. 1457 of 2013 is non-energy-specific legislation, whereby among other things the minimum requirements regarding a trader's duty to disclose information before conclusion of a contract with a consumer are regulated. Pursuant to Executive Order no. 1233 of 2015 on electricity supply and no. 1354 of 2014 on gas supply, these requirements also apply to the information that must be provided to a consumer in an electricity or gas supply contract.

Billing information (electricity only)

Following the implementation of the supplier-centric model in the Danish electricity market, suppliers are responsible for all communication with consumers, including billing.

The minimum legal requirements regarding information in the electricity bill include:

- 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 øre/kWh covering payment for electricity, grid and system services, PSO, taxes including VAT, supplied in the billing period[23].
- The consumer's right to receive a specified bill free of charge.

The simplified bill is intended to increase consumer awareness, without overloading consumers with information, by giving an overview of the most significant price information, thereby facilitating consumers' active participation in the retail market.

The requirements regarding billing information in the Electricity Directive 2009/72 are implemented in Executive Order no. 1400 of 2015 on electricity billing issued by the regulator.

Billing information (gas)

The requirements concerning gas billing information in Annex I of the Gas Directive 2009/73 are implemented in Executive Order no. 937 of 2006 on gas billing.

Combined gas billing is not mandatory. As a consequence, customers will either receive one combined bill or a bill from both the gas supplier and the gas distribution system operator.

Customers' access to consumption data (electricity)

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.

Overall, three types of data collected in the DataHub relate directly to customers:

- 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 characteristics, meter reading frequency, settlement type and metering point ID)
- Metering data (consumption data)

[23] One øre is equivalent to DKK 0.01.

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 NemID[24] log-in function on the supplier's website or via the public website *Eloverblik.dk*, operated by Energinet. The data can be downloaded from *Eloverblik.dk* in an Excel file.

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 for the supplier.

A supplier with whom the customer does not have a contractual relationship (i.e. a potential supplier)/a third party can be authorised to access the customer's data. The authorisation is part of the customer-controlled access to data in the DataHub, whereby a customer can grant data authorisation by using the NemID function on the Eloverblik.dk website. The customer may withdraw the authorisation granted at any time.

Customers access to consumption data (gas)

Gas consumers' data is not collected in the DataHub, since the DataHub solely 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.

Electricity comparison tool

Pursuant to the Danish Electricity Supply Act[25], it is DUR's responsibility to establish and operate an online comparison tool for electricity products offered to customers with an annual consumption of up to 100,000 kWh.

The public website and *elpris.dk* comparison tool was established by DUR in 2016. The overall purpose of elpris.dk is to increase transparency and customer awareness with regard to products and prices in the Danish retail market for electricity, thereby enabling customers to make an informed decision about which product to choose.

Gas comparison tool

Information on all gas products and prices is available and comparable on the *gasprisguiden.dk* comparison tool. DUR has regulatory oversight of the comparison tool, which is operated by the Danish TSO, Energinet. In 2023, DUR will inherit the task of operating the comparison tool from Energinet.

Electricity disconnection rates

DUR monitors the electricity disconnection rates in Denmark. In 2020, there were 0.64 per cent instances of electricity disconnection due to household customers' non-payment of collateral, i.e. not non-payment of consumed electricity.

[24] NemID is a common secure log-in solution to the internet, used in Denmark by all residents in the country.

[25] Section 82 b(1) of the Danish Electricity Supply Act.

In Denmark, electricity suppliers cannot disconnect household customers due to non-payment of consumed electricity. If the supplier has justified reasons to expect non-payment, the supplier can require security for the continued supply of electricity. The legal requirements regarding the minimum time between notification to provide security and disconnection depend on whether or not the household customer is in arrears with the supplier.

Consumer complaint handling

DUR does not handle complaints about disputes that arise from the contractual relationship between a consumer and a supplier. As a public authority, DUR has a duty to provide guidance regarding matters that fall within the scope of our competence to anyone who contacts us. DUR has a specific hotline for questions regarding our comparison tool elpris.dk.

Consumer complaints can be submitted to the Energy Supplies Complaint Board. The Energy Supplies Complaint Board handles all complaints from household consumers regarding the purchase and delivery of electricity, heating and/or gas.

Before submitting a complaint, the consumer must have attempted to contact the supplier and sought to resolve the dispute bilaterally. Otherwise, this constitutes grounds for the Board's refusal to take the case.

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 is concluded in favour of the consumer. However, if the case ends in a settlement facilitated by the Secretariat of the Energy Supplies Complaint Board, the company must pay DKK 3,800 (approximately EUR 510).

The average complaint processing time was approximately five months in 2020.

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 for cases decided by the Board. In 2020, energy companies complied with the decisions of the Board in 97 per cent of cases, according to the 2020 Annual Report from the Energy Supplies Complaint Board.[26]

[26] More information regarding the Energy Supplies Complaint Board is available on the Board's website (in Danish only).