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EARLY COMPLIANCE – PUBLICATIONS ACCORDING TO CHAPTER VIII, ARTICLE 29 AND 30 OF REGULATION (EU) 2017/460

REGULATION (EU) 2017/460 establishes a network code on harmonised transmission tariff structures for gas, including rules on the application of a reference price methodology and calculation of reserve prices for standard capacity products. The set out of Union-wide rules have the objectives of contributing to market integration, enhancing security of supply and promoting the interconnection between gas networks.

A crucial step in reaching these objectives is to increase the transparency of transmission tariff structures and procedures towards setting them. In this regard the network code set out requirements for publishing the information related to the determination of the revenues of transmission system operators and to the derivation of different transmission and non-transmission tariffs.

In order to enhance market transparency, under the coordination of European Network of Transmission System Operators for Gas (ENTSOG), the transmission network operators have facilitated the access to information provided to network users and market participants through the implementation of a common standardized format for publication of the required data.

Energinet as member of ENTSOG has implemented the harmonized template in this section of the web page. It contains the information required by Article 29 and 30 of REGULATION (EU) 2017/460.

1. Art. 29 (a): Information on firm capacity

Information on standard capacity products for firm capacity (reserve prices, multipliers, seasonal factors, etc.)

- Energinet has multipliers but no seasonal factors. Multipliers and reserve prices can be found in the pricelist

2. Art. 29 (b): Information on interruptible capacity

Information on standard capacity products for interruptible capacity (reserve prices and an assessment of the probability of interruption)

Interruptible capacity
- Price in % of the annual capacity charge

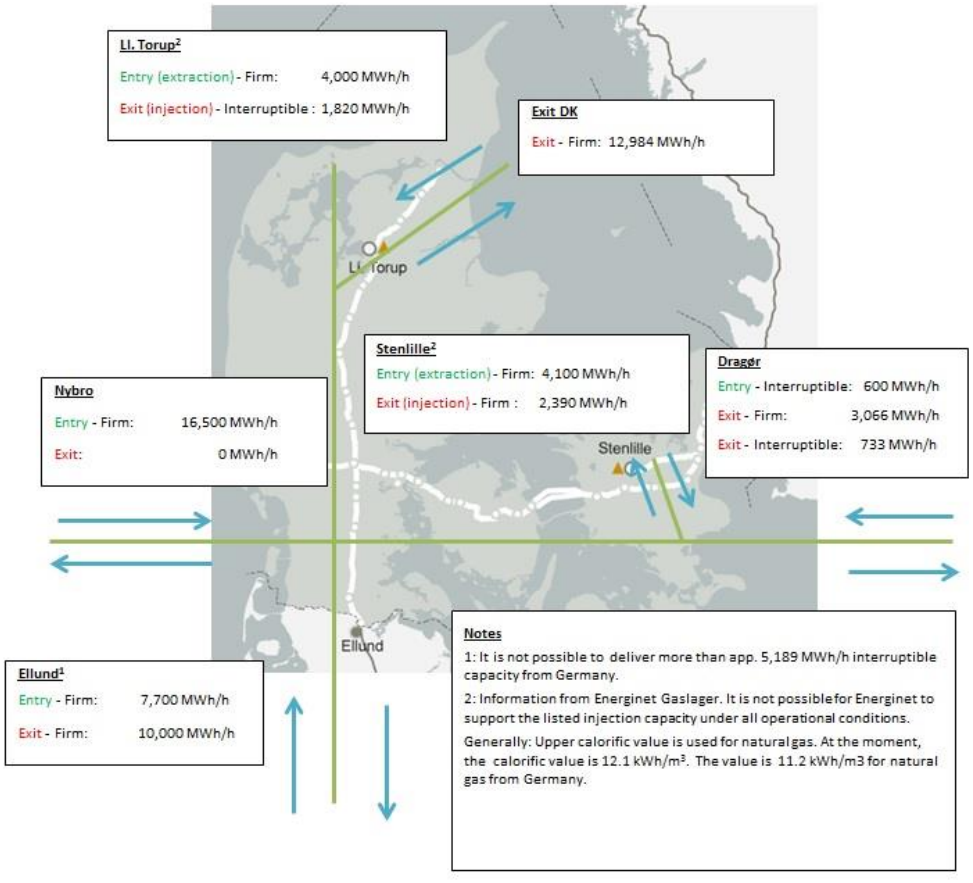
		Level 1	Level 2
Ellund:			
	Entry	-	-
	Exit	90%	-
Dragør:			
	Entry	95%	-
	Exit	95%	-
BNG:			
	Entry	100%	

- See pricelist:

3. Art. 30 (1)(a): Technical and method parameters

Information on parameters used in the applied reference price methodology related to the technical characteristics of the transmission system.

- Technical capacity:



- https://en.energinet.dk/-/media/Energinet/Analyser-og-Forskning-RMS/Dokumenter/Engelsk/Analysis-assumptions/Energinets-Analysis-Assumptions-2017---Spreadsheet.XLSX
- Forecasted capacity booking and flow

	2017/2018	2018/2019
Commodity (mn. kWh)		
Denmark	31,872	28,900
Export Sweden	10,890	10,890
Export Germany	8,804	1,262
Total	51,566	41,052
Capacity (kWh/h/year)		
Exit zone	4,296,844	3,645,417
Exit Dragør	1,497,865	1,425,000
Exit Ellund	1,074,417	158,333
Exit capacity	6,869,126	5,228,750
Entry Nybro	5,211,231	3,210,000
Entry Ellund	3,105,405	3,313,738
Entry BNG	150,000	425,167
Entry Capacity	8,466,636	6,948,905

- Structural representation of the transmission network:

4. Art. 30 (1)(b)(i): Information on the allowed and/or target revenue

Information on the allowed and/or target revenue.

Energinet is allowed to have all necessary and reasonable costs covered. See Art. 30(1)(b)(ii) for information used for the calculation of tariffs.

5. Art. 30 (1)(b)(ii): Revenue changes

Information relating to changes in the revenue.

- Cost base:

	2016/2017	2017/2018	2018/2019
OPEX	193	197	189
CAPEX	227	213	192
Compressor, Ellund-Egtved	23	21	20
Pipeline, Ellund-Egtved	25	22	22
TOTEX	**420**	**410**	**381**

The main change in the revenue is I due to lower interest rates.

6. Art. 30 (1)(b)(iii): Parameters related to CAPEX

Information relating to the following parameters: types of assets, cost of capital, capital and operational expenditure, incentive mechanisms and efficiency targets, inflation indices.

Operational expenditures (OPEX) and cost of capital (CAPEX), can be found under Art. 30(1)(b)(ii). For determining depreciatiatioon the straight-line method is used. The depreciation and asset lifetime is found in the tabrl below.

	Pipelines	Compressors	Controllers, metering stations	SCADA, telecom	Other
Depreciation (mDKK)	20	22	85	16	6
Average asset lives (years)	35	35	54* (* exp. end of life 2054)	3-5	-

7. Art. 30 (1)(b)(iv,v): Split on transmission services revenue

Information on the transmission services revenue including capacity-commodity split, entry-exit split and intra-system/cross-system split.

- The different splits are listed in the table below. Since half of the revenue is generated from commodity tariffs the splits are made both with and without commodity revenue.

	2017/2018		2018/2019	
Split	Capacity only:	Including commodity:	Capacity only:	Including commodity:
Intra	68%	42%	37%	54%
Cross-use	32%	58%	63%	46%
Entry	53%	27%	52%	25%
Exit	47%	73%	48%	75%
Capacity	-	50%	-	51%
Commodity	-	50%	-	49%

8. Art. 30 (1)(b)(vi): Reconciliation of the regulatory account

Information related to the previous tariff period regarding the reconciliation of the regulatory account.

- Energinet adjusts the allowed annual revenue by sums received as a result of discrepancy between the actually received annual revenue and the realized costs for a given year. The operator keeps a special regulatory account to allow for the instance in which the annual differences between the actually received revenue and the revised costs accumulate on a yearly basis.
- Energinet is obliged to include any over or underrecovery in the following year's tariffs.

Regulatory accont	**2015**	**2016**	**2017**	**2018**
Balance primo	147	19	24	24
Returned in the year	-128	5	0	3
Over recovery ultimo	**19**	**24**	**24**	**27**

9. Art. 30 (1)(b)(vii): Auction premium

Information on the intended use of the auction premium.

- No revenue generated by an auction premium has been accounted for as of the pricing period (01.10.2017-30.09.2018). When/if such revenue is generated, it will be included in the general sum of the revenue collected.

10. Art. 30 (1)(c): Transmission and non-transmission tariffs

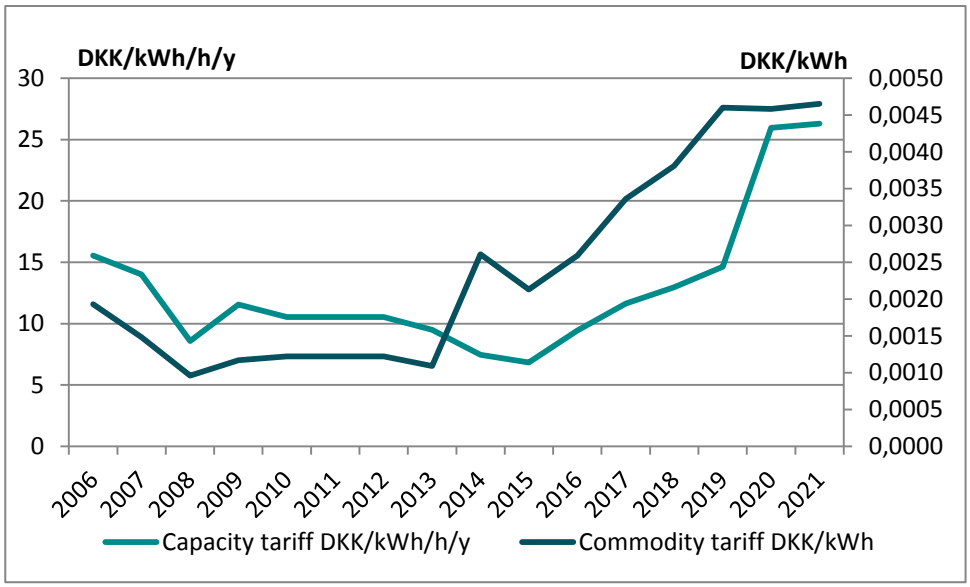
Information on transmission and non-transmission tariffs accompanied by the relevant information regarding their derivation.

- Transmission
  - See Art. 30 (2)(b)
- Emergency
  - The emergency-supply tariff is equal to the total cost base relating to emergency divided by the Danish consumption (protected and non-protected). The tariffs are charged by the DSO company.

11. Art. 30 (2)(a): Changes and trends

Information on transmission tariff changes and trends.

Forecast to the gas year 2020/2021. The increase in the forecasted tariffs in 2020 and 2021 is due to the Tyra shutdown and the resulting decreased in expected capacity bookings and flows.



12. Art. 30 (2)(b): Model and calculations

Information about the applied tariff model and an explanation on how to calculate the transmission tariffs applicable for the prevailing tariff period.

- Energinet applies as its basis a uniform/postage stamp tariff methodology with an ex-post entry-exit-split meaning that the resultning tariffs will be the same at all entry and all exit points, that cover the CAPEX relating to existing assets before 2013.
- Some points have an initial element that covers the CAPEX relating to the Ellund-Egtved expansion (compressor and pipeline).
- Correction of over-recovery (7,500,000 DKK) is also included.

<u>2017/2018:</u>

Calculation of capacity tariffs:

$$Tariff_{\substack{Nybro\ Entry \\ BNG\ Entry \\ Ellund\ Exit}} = \frac{CAPEX_{\substack{Existing\ assets \\ All\ except\ Ellund\ Entry}} - Correction\ of\ over\ recovery}{Forecasted\ capacity_{\substack{Nybro\ Entry \\ BNG\ Entry \\ Ellund\ Exit}}}$$

$$= \frac{135{,}287{,}744 - 7{,}500{,}000}{12{,}230{,}357} = 10.45\ \text{DKK/kWh/h/year}$$

$$Tariff_{\substack{DK\ Zone \\ Dragør\ Exit}}$$

$$= \frac{CAPEX_{\substack{Existing\ assets \\ All\ except\ Ellund\ Entry}} - Correction\ of\ over\ recovery}{Forecasted\ capacity_{\substack{Nybro\ Entry \\ BNG\ Entry \\ Ellund\ Exit}}}$$

$$+ \frac{\frac{2}{3}CAPEX_{Pipeline} + \frac{1}{3}CAPEX_{Compressor}}{Forecasted\ capacity_{\substack{DK\ Zone \\ Dragør\ Exit}}}$$

$$= \frac{135{,}287{,}744 - 7{,}500{,}000}{12{,}230{,}357} + \frac{14{,}949{,}858 + 6{,}978{,}871}{5{,}794{,}709}$$

$$= 10.45 + 3.78 = 14.23\ \text{DKK/kWh/h/year}$$

$$Tariff_{\substack{Ellund \\ Entry}} = \frac{CAPEX_{\substack{Existing\ assets \\ Ellund\ Entry}}}{Forecasted\ capacity_{Ellund\ Entry}} + \frac{\frac{1}{3}CAPEX_{Compressor} + Correction\ of\ over\ recovery + compressor\ fuel}{Forecasted\ capacity_{\substack{Ellund \\ Entry}}}$$

$$= \frac{34{,}347{,}122}{3{,}105{,}405} + \frac{6{,}978{,}871 + 7{,}500{,}000 + 300{,}000}{3{,}105{,}405}$$

$$= 11.06 + 4.76 = 15.82\ \text{DKK/kWh/h/year}$$

Calculation of commodity tariffs:

$$Tariff_{Exit\ points} = \frac{OPEX}{Forecasted\ flow_{Exit\ points}} = \frac{196{,}600{,}000}{51{,}565{,}858{,}267} = 0.00381\ DKK/kWh$$

Resulting tariffs:

Entry Points	T_En (DKK/kWh/h/year)
Nybro Entry	10.45
Ellund Entry	14.23
BNG Entry	10.45

Exit Points	T_Ex (DKK/kWh/h/year)
DK-Zone	15.82
Ellund Exit	10.45
Dragør Exit	15.82

Exit Points	(DKK/kWh)
Commodity tariff	0.00381

2018/2019:

See excel spredsheat.