

**SUBMISSION COVER SHEET**

**IMPORTANT:** Check box if Confidential Treatment is requested

**Registered Entity Identifier Code (optional):** 22-105 (3 of 3)

**Organization:** New York Mercantile Exchange, Inc. ("NYMEX")

**Filing as a:**  DCM  SEF  DCO  SDR

**Please note - only ONE choice allowed.**

**Filing Date (mm/dd/yy):** 07/14/22 **Filing Description:** Initial Listing of Three (3) Dutch TTF Natural Gas Futures and Option Contracts

**SPECIFY FILING TYPE**

**Please note only ONE choice allowed per Submission.**

**Organization Rules and Rule Amendments**

- Certification § 40.6(a)
- Approval § 40.5(a)
- Notification § 40.6(d)
- Advance Notice of SIDCO Rule Change § 40.10(a)
- SIDCO Emergency Rule Change § 40.10(h)

**Rule Numbers:**

**New Product**

**Please note only ONE product per Submission.**

- Certification § 40.2(a)
- Certification Security Futures § 41.23(a)
- Certification Swap Class § 40.2(d)
- Approval § 40.3(a)
- Approval Security Futures § 41.23(b)
- Novel Derivative Product Notification § 40.12(a)
- Swap Submission § 39.5

**Product Terms and Conditions (product related Rules and Rule Amendments)**

- Certification § 40.6(a)
- Certification Made Available to Trade Determination § 40.6(a)
- Certification Security Futures § 41.24(a)
- Delisting (No Open Interest) § 40.6(a)
- Approval § 40.5(a)
- Approval Made Available to Trade Determination § 40.5(a)
- Approval Security Futures § 41.24(c)
- Approval Amendments to enumerated agricultural products § 40.4(a), § 40.5(a)
- "Non-Material Agricultural Rule Change" § 40.4(b)(5)
- Notification § 40.6(d)

**Official Name(s) of Product(s) Affected:** See filing.

**Rule Numbers:** See filing.

July 14, 2022

**VIA ELECTRONIC PORTAL**

Mr. Christopher J. Kirkpatrick  
 Office of the Secretariat  
 Commodity Future Trading Commission  
 Three Lafayette Centre  
 1155 21st Street, N.W.  
 Washington, DC 20581

**Re: CFTC Regulation 40.2(a) Certification. Initial Listing of Three (3) Dutch TTF Natural Gas Futures and Option Contracts.  
 NYMEX Submission No. 22-105 (3 of 3)**

Dear Mr. Kirkpatrick:

New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) is certifying to the Commodity Futures Trading Commission (“CFTC” or “Commission”) the initial listing of the Dutch TTF Natural Gas (USD/MMBTU) Futures, Dutch TTF Natural Gas (USD/MMBTU) Average Price Option, and Dutch TTF Natural Gas (USD/MMBTU) Futures-Style Margined Average Price Option contracts (the “Contracts”) for trading on the CME Globex electronic trading platform (“CME Globex”) and for submission for clearing via CME ClearPort effective Sunday, August 7, 2022 for trade date Monday, August 8, 2022.

<b>Contract Title</b>	<b>Dutch TTF Natural Gas (USD/MMBTU) Futures</b>
<b>CME Globex/CME ClearPort Code</b>	TFU
<b>Rulebook Chapter</b>	1017
<b>Settlement Type</b>	Financial
<b>Contract Size</b>	10,000 MMBTu
<b>Listing Schedule</b>	Monthly contracts listed for the current year and the next 5 calendar years. List monthly contracts for a new calendar year following the termination of trading in the December contract of the current year.
<b>Pricing Quotation</b>	U.S. dollars and cents per MMBTu
<b>First Listed Month</b>	September 2022
<b>Minimum Price Fluctuation</b>	\$0.001 per MMBTu
<b>Value per tick</b>	\$10
<b>Block Trade Minimum Threshold</b>	5 contracts – subject to a minimum 15-minute reporting window
<b>Termination of Trading</b>	Trading terminates at 17:00 London time on the second last London business day of the month prior to the contract month. If this is not a U.S. business day, trading terminates on the prior U.S. and London business day.
<b>CME Globex Matching Algorithm</b>	First in First Out (FIFO)

<b>Contract Title</b>	<b>Dutch TTF Natural Gas (USD/MMBTU) Average Price Option</b>
<b>CME Globex/CME ClearPort Code</b>	TFP
<b>Rulebook Chapter</b>	1018
<b>Settlement Type</b>	Financial
<b>Contract Size</b>	10,000 MMBTu
<b>Listing Schedule</b>	Monthly contracts listed for the current year and the next 5 calendar years. List monthly contracts for a new calendar year following the termination of trading in the December contract of the current year.
<b>Pricing Quotation</b>	U.S. dollars and cents per MMBTu

<b>First Listed Month</b>	September 2022
<b>Minimum Price Fluctuation</b>	\$0.001 per MMBTu
<b>Value per tick</b>	\$10
<b>Block Trade Minimum Threshold</b>	5 contracts – subject to a minimum 15-minute reporting window
<b>Termination of Trading</b>	Trading terminates at 17:00 London time on the second last London business day of the month prior to the contract month. If this is not a U.S. business day, trading terminates on the prior U.S. and London business day.
<b>CME Globex Matching Algorithm</b>	First in First Out (FIFO)
<b>Underlying Futures Contract Title / Commodity Code</b>	Dutch TTF Natural Gas (USD/MMBTU) Futures / TFU
<b>Strike Price Increment</b>	\$0.500 per MMBTu
<b>Strike Price Listing Rule</b>	At-the-money strikes for the nearest 12 months then dynamic thereafter
<b>Option Type</b>	European Style
<b>Margining Style</b>	Equity Style

<b>Contract Title</b>	<b>Dutch TTF Natural Gas (USD/MMBTU) Futures-Style Margined Average Price Option</b>
<b>CME Globex/CME ClearPort Code</b>	TFF
<b>Rulebook Chapter</b>	1019
<b>Settlement Type</b>	Financial
<b>Contract Size</b>	10,000 MMBTu
<b>Listing Schedule</b>	Monthly contracts listed for the current year and the next 5 calendar years. List monthly contracts for a new calendar year following the termination of trading in the December contract of the current year.
<b>Pricing Quotation</b>	U.S. dollars and cents per MMBTu
<b>First Listed Month</b>	September 2022
<b>Minimum Price Fluctuation</b>	\$0.001 per MMBTu
<b>Value per tick</b>	\$10
<b>Block Trade Minimum Threshold</b>	5 contracts – subject to a minimum 15-minute reporting window
<b>Termination of Trading</b>	Trading terminates at 17:00 London time on the second last London business day of the month prior to the contract month. If this is not a U.S. business day, trading terminates on the prior U.S. and London business day.
<b>CME Globex Matching Algorithm</b>	First in First Out (FIFO)
<b>Underlying Futures Contract Title / Commodity Code</b>	Dutch TTF Natural Gas (USD/MMBTU) Futures / TFU
<b>Strike Price Increment</b>	\$0.500 per MMBTu
<b>Strike Price Listing Rule</b>	At-the-money strikes for the nearest 12 months then dynamic thereafter
<b>Option Type</b>	European Style
<b>Margining Style</b>	Futures-Style

### **Trading and Clearing Hours**

<b>CME Globex Pre-Open</b>	Sunday 4:00 p.m. - 5:00 p.m. Central Time/CT Monday - Thursday 4:45 p.m. - 5:00 p.m. CT
<b>CME Globex</b>	Sunday - Friday 5:00 p.m. CT with a daily maintenance period from 4:00 p.m. - 5:00 p.m. CT
<b>CME ClearPort</b>	Sunday - Friday 5:00 p.m. - 4:00 p.m. CT with no reporting Monday - Thursday from 4:00 p.m. - 5:00 p.m. CT

NYMEX is certifying block trading on the Contracts with a minimum block threshold of five (5) contracts which is commensurate with the Exchange's other similar products.

The Exchange reviewed the designated contract market core principles ("Core Principles") as set forth in the Commodity Exchange Act ("CEA" or the "Act") and identified that the Contracts may have some bearing on the following Core Principles:

- **Compliance with Rules:** Trading in the Contracts will be subject to the rules in Rulebook Chapter 4 which includes prohibitions against fraudulent, noncompetitive, unfair and abusive practices. Additionally, trading in these Contracts will also be subject to the full range of trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the Rulebook. As with all products listed for trading on one of CME Group's designated contract markets, activity in these products will be subject to extensive monitoring and surveillance by CME Group's Market Regulation Department. The Market Regulation Department has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.
- **Contracts Not Readily Subject to Manipulation:** The Contracts are not readily subject to manipulation due to the deep liquidity and robustness in the underlying cash market.
- **Prevention of Market Disruption:** Trading in the Contracts will be subject to Rules of NYMEX, which include prohibitions on manipulation, price distortion and disruption to the delivery process. As with any new products listed for trading on a CME Group designated contract market, trading activity in the Contracts proposed herein will be subject to monitoring and surveillance by CME Group's Market Regulation Department.
- **Position Limitations or Accountability:** The speculative position limits for the Contracts as demonstrated in this submission are consistent with the Commission's guidance.
- **Availability of General Information:** The Exchange will publish on its website information regarding the Contract's specifications, terms, and conditions, as well as daily trading volume, open interest, and price information.
- **Daily Publication of Trading Information:** The Exchange will publish the Contracts' trading volumes, open interest levels, and price information daily on its website and through quote vendors for the Contracts.
- **Execution of Transactions:** The Contracts will be listed for trading on the CME Globex electronic trading and for clearing through the CME ClearPort. The CME Globex trading venue provides for competitive and open execution of transactions. CME Globex affords the benefits of reliability and global connectivity.
- **Trade Information:** All requisite trade information for the Contracts will be included in the audit trail and is sufficient for the Market Regulation Department to monitor for market abuse.
- **Financial Integrity of Contract:** The Contracts will be cleared by the CME Clearing House, a derivatives clearing organization registered with the CFTC and subject to all CFTC regulations related thereto.
- **Protection of Market Participants:** NYMEX Rulebook Chapters 4 and 5 set forth multiple prohibitions that preclude intermediaries from disadvantaging their customers. These rules apply to trading in all of the Exchange's competitive trading venues and will be applicable to transaction in the Contracts.
- **Disciplinary Procedures:** Chapter 4 of the Rulebook contains provisions that allow the Exchange to discipline, suspend or expel members or market participants that violate the Rulebook. Trading in the contracts will be subject to Chapter 4, and the Market Regulation Department has the authority to exercise its enforcement power in the event rule violations in the product are identified.
- **Dispute Resolution:** Disputes with respect to trading in the Contracts will be subject to the arbitration provisions set forth in Chapter 6 of the Rulebook. Chapter 6 allows all non-members to submit a claim for financial losses resulting from transactions on the Exchange to arbitration. A

member named as a respondent in a claim submitted by a nonmember is required to participate in the arbitration pursuant to Chapter 6. Additionally, the Exchange requires that members resolve all disputes concerning transactions on the Exchange via arbitration.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.2(a), the Exchange hereby certifies that listing the Contracts complies with the Act, including regulations under the Act. There were no substantive opposing views to listing of the Contracts.

The Exchange certifies that this submission has been concurrently posted on the Exchange's website at <http://www.cmegroup.com/market-regulation/rule-filings.html>.

Should you have any questions concerning the above, please contact the undersigned at (212) 299-2200 or e-mail [CMEGSubmissionInquiry@cmegroup.com](mailto:CMEGSubmissionInquiry@cmegroup.com).

Sincerely,

/s/Christopher Bowen  
Managing Director and Chief Regulatory Counsel

Attachments: Exhibit A: NYMEX Rulebook Chapters 1017, 1018, 1019  
Exhibit B: Position Limit, Position Accountability, and Reportable Level Table in Chapter 5 of the NYMEX Rulebook (attached under separate cover)  
Exhibit C: NYMEX Rule 588.H. – (“Globex Non-Reviewable Trading Ranges”) Table  
Exhibit D: Exchange Fees  
Exhibit E: Cash Market Overview and Analysis of Deliverable Supply

**EXHIBIT A**  
**NYMEX Rulebook**

**Chapter 1017**  
**Dutch TTF Natural Gas (USD/MMBTU) Futures**

**1017100. SCOPE OF CHAPTER**

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

**1017101. CONTRACT SPECIFICATIONS**

The Floating Price for each contract month is equal to ICE Dutch TTF Gas 1st Line Financial Futures (USD/MMBTU) final settlement price for the corresponding contract month on the last trading day for that contract month.

**1017102. TRADING SPECIFICATIONS**

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

**1017102.A. Trading Schedule**

The hours of trading for this contract shall be determined by the Exchange.

**1017102.B. Trading Unit**

The contract quantity shall be 10,000 MMBtu. Each contract shall be valued as the contract quantity (10,000) multiplied by the settlement price.

**1017102.C. Price Increments**

Prices shall be quoted in U.S. dollars and cents per MMBtu. The minimum price fluctuation shall be \$0.001 per MMBtu.

**1017102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels**

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5. A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion. Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

**1017102.E. Termination of Trading**

The contract shall terminate at 17:00 London time on the second last London business day of the month prior to the contract month. If this is not a U.S. business day, trading terminates on the prior U.S. and London business day.

**1017103. FINAL SETTLEMENT**

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

## Chapter 1018

### Dutch TTF Natural Gas (USD/MMBTU) Average Price Option

#### 1018100. SCOPE OF CHAPTER

This chapter is limited in application to put and call Dutch TTF Natural Gas (USD/MMBTU) Average Price Options on the Dutch TTF Natural Gas (USD/MMBTU) Futures contract. In addition to the rules of this chapter, transactions in Dutch TTF Natural Gas (USD/MMBTU) Average Price Option shall be subject to the general rules of the Exchange.

#### 1018101. OPTION CHARACTERISTICS

The number of months open for trading at a given time shall be determined by the Exchange.

##### 1018101.A. Trading Schedule

The hours of trading shall be determined by the Exchange.

##### 1018101.B. Trading Unit

Dutch TTF Natural Gas (USD/MMBTU) Average Price Call Option traded on the Exchange represents differential between the Floating Price and the strike price, multiplied by the contract quantity, or zero, whichever is greater. A Dutch TTF Natural Gas (USD/MMBTU) Average Price Put Option traded on the Exchange represents the differential between the strike price and the Floating Price, multiplied by the contract quantity, or zero, whichever is greater.

##### 1018102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per MMBtu. The minimum price fluctuation shall be \$0.001 per MMBtu.

##### 1018101.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

Position Limits, Exemptions, Position Accountability and Reportable Levels The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5. A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion. Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

##### 1018102.E. Termination of Trading

Trading terminates at 17:00 London time on the second last London business day of the month prior to the contract month. If this is not a U.S. business day, trading terminates on the prior U.S. and London business day.

##### 1018102.F. Type of Option

The option is a European-style option cash settled on expiration day.

#### 1018102. EXERCISE PRICES

Transactions shall be conducted for option contracts as set forth in Rule 300.20.

## Chapter 1019

### Dutch TTF Natural Gas (USD/MMBTU) Futures-Style Margined Average Price Option

#### 1019100. SCOPE OF CHAPTER

This chapter is limited in application to put and call Dutch TTF Natural Gas (USD/MMBTU) Futures-Style Margined Average Price Options on the Dutch TTF Natural Gas (USD/MMBTU) Futures contract. In addition to the rules of this chapter, transactions in Dutch TTF Natural Gas (USD/MMBTU) Futures-Style Margined Average Price Options shall be subject to the general rules of the Exchange.

#### 1019101. OPTION CHARACTERISTICS

The number of months open for trading at a given time shall be determined by the Exchange.

##### 1019101.A. Trading Schedule

The hours of trading shall be determined by the Exchange.

##### 1019101.B. Trading Unit

Dutch TTF Natural Gas (USD/MMBTU) Futures-Style Margined Average Price Call Option traded on the Exchange represents differential between the Floating Price and the strike price, multiplied by the contract quantity, or zero, whichever is greater. Dutch TTF Natural Gas (USD/MMBTU) Futures-Style Margined Average Price Put Option traded on the Exchange represents the differential between the strike price and the Floating Price, multiplied by the contract quantity, or zero, whichever is greater.

##### 1019102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per MMBtu. The minimum price fluctuation shall be \$0.001 per MMBtu.

##### 1019101.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

Position Limits, Exemptions, Position Accountability and Reportable Levels The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5. A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion. Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

##### 1019102.E. Termination of Trading

Trading terminates at 17:00 London time on the second last London business day of the month prior to the contract month. If this is not a U.S. business day, trading terminates on the prior U.S. and London business day.

##### 1019102.F. Type of Option

The option is a European-style option cash settled on expiration day.

##### 1019102.G. Settlement Variation and Option Value

This contract is a future-style margin option. Settlement variation rules for futures-style margin options conform to those set forth for non-options stipulated in NYMEX Rule 814. As such, when a clearing member or its customers is long or short any amount of any commodity for a settlement cycle, as indicated by Clearing House records, settlement for any outstanding exposure shall be made with the Clearing House based on the settlement price for that settlement cycle. For futures-style margin options, each clearing member and its customers shall pay to, or collect from, the Clearing House any loss or profit, as the case may be, represented by the difference between (x) the settlement price of the futures-style margin option for such settlement cycle and (y) the settlement price of the futures-style margin option for the prior settlement cycle (or, for the first settlement cycle after the purchase/sale of such option, the price at which the option was purchased or sold).

#### 1019102. EXERCISE PRICES

Transactions shall be conducted for option contracts as set forth in Rule 300.20.



**EXHIBIT B**  
**NYMEX Rulebook**  
**Chapter 5**  
**(“Trading Qualifications and Practices”)**  
**Position Limit, Position Accountability, and Reportable Level Table**  
  
(under separate cover)

**EXHIBIT C**

**NYMEX Rulebook**

**Chapter 5**

**(“Trading Qualifications and Practices”)**

**NYMEX Rule 588.H. – (“Globex Non-Reviewable Trading Ranges”) Table**

(additions underscored)

Instrument	Globex Symbol	Outrights			Spreads	
		Globex Non-Reviewable Ranges (NRR)	NRR: Globex Format	NRR:Minimum Ticks	NRR: Globex Format	NRR: Outright Minimum Ticks

<u>Dutch TTF Natural Gas (USD/MMBTU) Average month Futures</u>	<u>TFU</u>	<u>\$.10 per MMBtu</u>	<u>100</u>	<u>100</u>	<u>25</u>	<u>25</u>
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	Globex Symbol	Globex Non-Reviewable Ranges (NRR)
<u>Dutch TTF Natural Gas (USD/MMBTU) Average month Futures-Style Margined Options</u>	<u>TFF</u>	The greater of the following: • <u>Delta multiplied by the underlying futures non-reviewable range</u> • <u>20% of premium up to ¼ of the underlying futures non-reviewable range</u>
<u>Dutch TTF Natural Gas (USD/MMBTU) Average month Options</u>	<u>TFP</u>	• <u>5 ticks</u>

## **EXHIBIT D**

### **Exchange Fees**

	<b>Member</b>	<b>Non-Member</b>
CME Globex	\$4.00	\$5.00
EFP	\$4.00	\$5.00
Block	\$4.00	\$5.00
EFR/EOO	\$4.00	\$5.00

<b>Processing Fees</b>	<b>Member</b>	<b>Non-Member</b>
Cash Settlement	\$1.00	\$1.00
Facilitation Fee		\$0.60
Give-Up Surcharge		\$0.05
Position Adjustment/Position Transfer		\$0.10

## EXHIBIT E

### Cash Market Overview and Analysis of Deliverable Supply

#### Cash Market Overview

The Exchange relied on a number of publicly available source to determine Deliverable Supply (“DS”) in Dutch TTF Natural Gas.

NYMEX used data from the European Union’s statistical office, [Eurostat](#), the European Network of Transmission System Operators for Gas, [ENTSOG](#), and the European Association of Renewable and Low-carbon Gases Infrastructure Operators, [GIE](#). In addition, we are using data from [Gasunie Transport Services \(GTS\)](#), the gas transmission system operator operating in the Netherlands.

Physical market participants can deliver natural gas into the TTF virtual trading hub via various routes. TTF is not a single-location hub, in which one specific entry point (and the capacity of that point) may determine deliverable supply. Instead, TTF is a virtual trading point that includes all of all of the Netherlands’ natural gas entry and exit points. Market participants can produce gas within the Netherlands, import gas from neighboring countries, import gas from undersea pipelines, or take delivery from gas molecules from LNG cargoes via LNG import terminals. Finally, they can also make use of local gas storage sites to take delivery of natural gas that was previously injected into storage -- all these components add potential to deliver gas molecules into the TTF trading system. Following this approach, TTF DS will be defined as the sum of:

- Netherlands internal production of natural gas
- Netherlands pipeline import capacity – pipelines that connect into the TTF hub
- Netherlands LNG import capacity – capacity of LNG terminals to feed into the TTF
- Gas storage capacity – gas storage sites which can release natural gas into the TTF

Because capacity figures are not subject to seasonal fluctuations, we do not include a seasonality adjustment on pipeline and storage capacity. However, domestic production of natural gas in the Netherlands is seasonal: typically, domestic gas fields produce more during the winter months to match increased heating demand. Because of this seasonality, we propose to adjust domestic production figures to account for that seasonality effect.

TTF DS is not adjusted for long-term contracts. We believe that this is not required, as the TTF market is highly developed and spot market liquidity across exchanges and OTC provides ample access to natural gas to meet short term supply requirements. Public data sources provide a good overview of prevalent market liquidity to assess the suitability of this methodology. Gasunie tracks monthly churn rates which documents the significant increase in TTF liquidity across the past few years. The market churn is defined as the volume of gas traded (OTC and on exchange) as a ratio to nominated volume. Over the past years, market churn rates in TTF have increased from an average of 54x (in 2018) to 91x (in 2020) and 98x (in 2021) as depicted in Table 1 below.

**Table 1 – Monthly Churn Rates at the TTF Virtual Trading Hub**

Monthly Churn rates TTF			
	Minimum	Average	Maximum
2011	10x	18x	26x
2012	10x	20x	31x
2013	13x	20x	30x
2014	20x	34x	54x
2015	25x	40x	53x

2016	23x	46x	78x
2017	25x	42x	59x
2018	30x	54x	85x
2019	36x	72x	107x
2020	70x	91x	128x
2021	65X	98X	144X

Source: [Gasunie Transport Services](#)

Table 2 provides natural gas primary production in the Netherlands. Table 3 provides a monthly primary production breakdown in the Netherlands (the latest available data is December 2019) Compared to the annual average production, production during the lowest active months (in Q2 and Q3) amount to between 80-90% of the annual average.

**Table 2 – Annual Natural Gas Primary Production in the Netherlands**

	2017	2018	2019	Average
Terajoules	1,544,415	1,297,096	1,122,222	1,321,244
GWh	429,008	360,307	311,731	367,015
TWh	429	360	312	367

Source: [Eurostat](#)

**Table 3 – Monthly Natural Gas Primary Production in the Netherlands**

Terajoules	2017	2017%	2018	2018%	2019	2019%
Jan	150,840	117%	129,613	120%	147,157	157%
Feb	143,942	112%	109,499	101%	100,345	107%
Mar	137,045	106%	133,728	124%	106,564	114%
Apr	136,979	106%	101,178	94%	87,082	93%
May	119,885	93%	103,877	96%	94,662	101%
Jun	107,490	84%	99,894	92%	87,415	93%
Jul	116,820	91%	102,643	95%	84,380	90%
Aug	124,284	97%	98,219	91%	87,468	94%
Sep	112,288	87%	97,519	90%	77,663	83%
Oct	122,118	95%	93,324	86%	69,198	74%
Nov	136,845	106%	108,589	100%	87,757	94%
Dec	135,879	106%	119,013	110%	92,531	99%
Average	128,701		108,091		93,519	
Total	1,544,415		1,297,096		1,122,222	

Source: [Eurostat](#)

Table 4 provides the Netherlands' pipeline import capacity – from neighboring countries as well as underwater pipelines and LNG import terminals.

**Table 4 – Netherlands Pipeline Import Capacity – Border Countries**

Netherlands Import capacity (GWh/day)					
Gas year	18/19	19/20	20/21	3-year average	

Belgium	394	393	331	378
Germany( Gaspool+NCG)	503	593	594	563
Norway (underwater)	963	963	963	963
LNG import terminals	385	418	385	396
Sum				2300

Source: [ENTSOG system development maps](#)

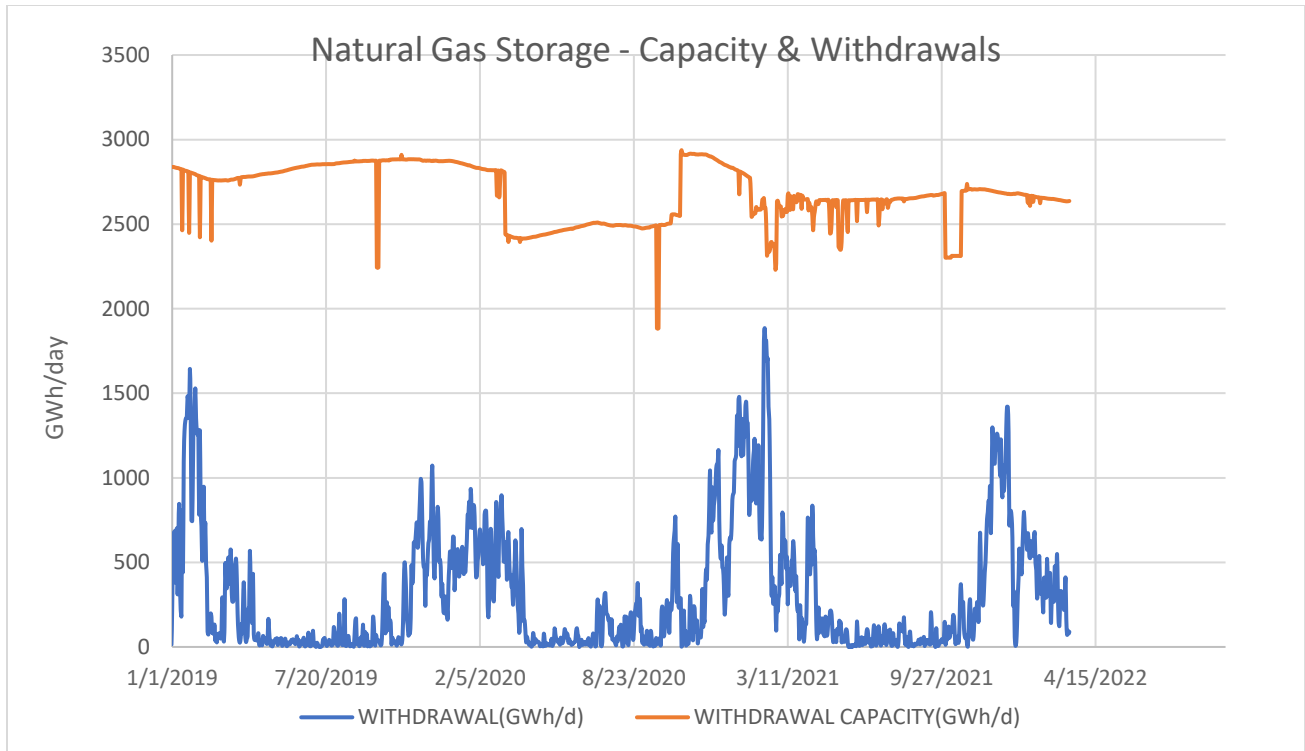
Finally, [GIE](#) provides domestic gas storage volume data for the Netherlands. Table 5 shows the average of the technical withdrawal capacity of each operator from January 1, 2019 to December 31, 2021. The aggregated capacity across all storage sites in the Netherlands was 2,687 GWh/day.

**Table 5 – Netherlands Storage Capacity**

Operator	Facility/Location	Status	Investment	Start-up year	Withdrawal technical GWh/day
EnergyStock BV	EnergyStock	operational	existing	2011	424
EnergyStock BV	EnergyStock	planned	planned		-
NAM	Grijpskerk	operational	existing	1997	719
NAM	Norg (Langelo)	operational	existing	1997	763
TAQA Gas Storage	Bergermeer	operational	existing	2015	497
TAQA Piek Gas	Alkmaar	operational	existing	1997	282
Sum					2,687

Source: [GIE](#)

The below chart shows that withdrawals from Dutch storage sites occur mainly during winter months to respond to seasonal heating demand. It also shows that storage capacity is stable across the years.



### Analysis of Deliverable Supply

Table 6 summarizes the capacity and volume information for physical gas deliveries within the Netherlands. To account for lower production during summer months, domestic production figures are adjusted downwards by 20%.

**Table 6 – TTF Deliverable Supply and Spot-Month Position Limit**

Natural gas domestic production	367	TWh
Natural gas domestic production seasonally adjusted	294	TWh (A)
Netherlands import capacity	2300	GWh/day
	840	TWh (B)
Netherlands storage withdrawal capacity	2,687	GWh/day
	981	TWh (C)
Deliverable Supply (annual)	2,114	TWh (A+B+C)
Deliverable Supply (monthly)	176	TWh
	176,187,917	MWh
	601,256,100	MMBTU
	60,126	Contracts*
Spot month Position limit	12,000	Contracts
% of DS	19.96%	

\* Note = 10,000 MMBTU contract equivalent

For the **Dutch TTF Natural Gas (USD/MMBTU) Futures, Dutch TTF Natural Gas (USD/MMBTU) Futures-Style Margined Average Price Option, and the Dutch TTF Natural Gas (USD/MMBTU) Average Price Option** are 10,000 MMBTu units, the Exchange proposes a spot month position limit of 12,000 contracts, equivalent to 19.96% of Deliverable Supply.