SUBMISSION COVER SHEET *IMPORTANT*: Check box if Confidential Treatment is requested Registered Entity Identifier Code (optional): 17-212 (1 of 4) **Organization:** New York Mercantile Exchange, Inc. ("NYMEX) \times DCM SDR SEF DCO Filing as a: Please note - only ONE choice allowed. Filing Date (mm/dd/yy): 6/22/2017 Filing Description: Initial Listing of Four (4) **European Electricity Futures 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) § 39.5 **Swap Submission 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: **Rule Numbers:**



June 22, 2017

Legal Department

VIA ELECTRONIC PORTAL

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

RE: CFTC Regulation 40.2(a) Certification. Notification Regarding the Initial Listing of Four (4) European Electricity Futures Contracts.

NYMEX Submission No. 17-212 (1 of 4)

Dear Mr. Kirkpatrick:

New York Mercantile Exchange, Inc. ("NYMEX" or "Exchange") is notifying the Commodity Futures Trading Commission ("CFTC" or "Commission") that it is self-certifying the initial listing of four (4) European electricity futures contracts (the "Contracts") as noted in the table below for trading on CME Globex electronic trading platform and for submission into clearing via CME ClearPort effective Sunday, July 9, 2017 for first trade date Monday, July 10, 2017.

Contract Title	German Power Baseload Calendar Month Futures	
Commodity Code	DEB	
Rulebook Chapter	1070	
Settlement Method	Financial	
Contract Size	1 MWh per hour in the contract period. The contract period consists of	
	all hours from 00:00 to 23:59 local German time each calendar day in	
	the contract month.	
Listing Schedule	Monthly contracts listed for the current year and the next two (2)	
	calendar years. Monthly contracts for a new calendar year will be	
	added following the termination of trading in the December contract of	
	the current year.	
Minimum Price Fluctuation	€0.01 per MWh	
Value per Tick	Between €6.72 and €7.45	
First Listed Month	August 2017	
Block Trade Minimum	5 contracts	
Threshold		
Termination of Trading	Trading shall cease on the first NYMEX business day immediately	
	preceding the last calendar day of the contract month.	
CME Globex Matching Algorithm	FIFO	

Contract Title	German Power Peakload Calendar Month Futures	
Commodity Code	DEP	
Rulebook Chapter	1071	

Settlement Method	Financial
Contract Size	1 MWh per hour in the contract period. The contract period consists of all hours from 08:00 to 19:59 local German time each weekday in the
	Contract Month.
Listing Schedule	Monthly contracts listed for the current year and the next two (2) calendar years. Monthly contracts for a new calendar year will be added following the termination of trading in the December contract of the current year.
Minimum Price Fluctuation	€0.01 per MWh
Value per Tick	Between €2.40 and €2.76
First Listed Month	August 2017
Block Trade Minimum	5 contracts
Threshold	
Termination of Trading	Trading shall cease on the first NYMEX business day immediately
	preceding the last weekday of the contract month.
CME Globex Matching	FIFO
Algorithm	

Contract Title	Italian Power Baseload (GME) Calendar Month Futures
Commodity Code	ITB
Rulebook Chapter	1072
Settlement Method	Financial
Contract Size	1 MWh per hour in the contract period. The contract period consists of all hours from 00:00 to 23:59 local Italian time each calendar day in the contract month.
Listing Schedule	Monthly contracts listed for the current year and the next two (2) calendar years. Monthly contracts for a new calendar year will be added following the termination of trading in the December contract of the current year.
Minimum Price Fluctuation	€0.01 per MWh
Value per tick	Between €6.72 and €7.45
First Listed Month	August 2017
Block Trade Minimum Threshold	5 contracts
Termination of Trading	Trading shall cease on the first NYMEX business day immediately preceding the last calendar day of the Contract month.
CME Globex Matching Algorithm	FIFO

Contract Title	Italian Power Peakload (GME) Calendar Month Futures	
Commodity Code	ITP	
Rulebook Chapter	1073	
Settlement Method	Financial	
Contract Size	1 MWh per hour in the contract period. The contract period consists of all hours from 08:00 to 19:59 local Italian time each weekday in the Contract Month.	
Listing Schedule	Monthly contracts listed for the current year and the next two (2) calendar years. Monthly contracts for a new calendar year will be added following the termination of trading in the December contract of the current year.	
Minimum Price Fluctuation	€0.01 per MWh	
Value per Tick	Between €2.40 and €2.76	
First Listed Month	August 2017	

Block Trade Minimum	5 contracts
Threshold	
Termination of Trading	Trading shall cease on the first NYMEX business day immediately preceding the last weekday of the contract month.
CME Globex Matching	FIFO
Algorithm	

Trading and Clearing Hours:

CME Globex and CME ClearPort	Sunday - Friday 6:00 p.m 5:00 p.m. (5:00 p.m 4:00 p.m. Central
	Time/CT) with a 60-minute break each day beginning at 5:00 p.m.
	(4:00 p.m. CT)

Exchange Fees:

German Power Baseload Calendar Month Future (DEB) & Italian Power Baseload (GME) Calendar Month Future (ITB)

Exchange Fees*	Member	Non-Member
CME Globex	\$4.50	\$5.00
EFP	\$4.50	\$5.00
Block	\$4.50	\$5.00
EFR/EOO	\$4.50	\$5.00
Agency Cross	\$4.50	\$5.00

Other Processing Fees**	Fee
Facilitation Fee	\$0.60
Give-Up Surcharge	\$0.05
Position Adjustment/Position	
Transfer	\$0.10

German Power Peakload Calendar Month Future (DEP) & Italian Power Peakload (GME) Calendar Month Future (ITP)

Exchange Fees*	Member	Non-Member
CME Globex	\$1.80	\$2.00
EFP	\$1.80	\$2.00
Block	\$1.80	\$2.00
EFR/EOO	\$1.80	\$2.00

Agency Cross	\$1.80	\$2.00
TAGETICY CIUSS	ψ1.00	Ψ2.00

Other Processing Fees**	Fee
Facilitation Fee	\$0.60
Give-Up Surcharge	\$0.05
Position Adjustment/Position Transfer	\$0.10

^{*}Fees waived though December 31, 2017

NYMEX is self-certifying block trading on these contracts with a minimum block threshold of five (5) contracts for the Contracts. The block levels are consistent with the Exchange's similar existing products.

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

<u>Compliance with Rules:</u> Trading in the Contracts will be subject to all NYMEX Rules, including prohibitions against fraudulent, noncompetitive, unfair and abusive practices as outlined in Rule Chapter 4, the Exchange's trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the Rulebook, and the dispute resolution and arbitration procedures of NYMEX Rule Chapter 6. As with all products listed for trading on one of CME Group's designated contract markets, trading activity in the Contracts will be subject to monitoring and surveillance by the Exchange's Market Regulation Department. The Market Regulation Department has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.

<u>Contract Not Readily Subject to Manipulation:</u> The Contracts are not readily subject to manipulation because of their structural attributes, active underlying markets and reliance on well administered indexes. The final settlements for the Italian Electricity Futures are based on an auction price published by Gestore Mercati Energetici ("GME") and sub-licensed to the Exchange. The final settlements for the German Electricity Futures are based on the publicly available system reference price for German Power.

<u>Prevention of Market Disruption:</u> Trading in the Contracts will be subject to the Rules of NYMEX, which include prohibitions on manipulation, price distortion, and disruption to the cash settlement process. As with any new product listed for trading on a CME Group designated contract market, trading activity in the futures contract proposed herein will be subject to monitoring and surveillance by CME Group's Market Regulation Department.

<u>Position Limitations or Accountability:</u> The speculative position limits for the Contracts as demonstrated in this submission are consistent with the Commission's guidance.

<u>Availability of General Information:</u> The Exchange will publish information on the contracts' specifications on its website, together with daily trading volume, open interest and price information. In addition, the Exchange will advise the marketplace of the launch of the Contracts by releasing a Special Executive Report ("SER"). The SER will also be posted on CME Group's website.

<u>Daily Publication of Trading Information:</u> The Exchange will publish contract trading volumes, open interest levels, and price information daily on its website and through quote vendors for the Contracts.

^{**}Fees waived through August 31, 2017

Execution of Transactions: The Contracts will be listed for trading on the CME Globex electronic trading and for clearing through 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.

<u>Trade Information:</u> 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.

<u>Financial Integrity of Contract:</u> The Contracts will be cleared by the CME Clearing House, a derivatives clearing organization registered with the Commodity Futures Trading Commission and subject to all CFTC regulations related thereto.

<u>Protection of Market Participants:</u> NYMEX Rulebook Chapters 4 and 5 set forth multiple prohibitions that preclude intermediaries from disadvantaging their customers. These rules apply to trading in all the Exchange's competitive trading venues.

<u>Disciplinary Procedures:</u> 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 contract 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.

<u>Dispute Resolution:</u> 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 non-member 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 the 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 via e-mail at CMEGSubmissionInquiry@cmegroup.com.

Sincerely,

/s/ Christopher Bowen
Managing Director and Chief Regulatory Counsel

Attachments: Appendix A: NYMEX Rulebook Chapters

Appendix B: Position Limits, Position Accountability and Reportable Level Table in

Chapter 5 of the NYMEX Rulebook (attached under separate cover)

Appendix C: NYMEX Rule 588.H. - ("Globex Non-Reviewable Trading Ranges") Table

Appendix D: Cash Market Overview and Analysis of Deliverable Supply

Appendix A

NYMEX Rulebook Chapters Chapter 1070

German Power Baseload Calendar Month Futures

1070100. SCOPE OF CHAPTER

This chapter is limited in application to trading of German Power Baseload Calendar Month Futures. 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. 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.

1070101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month will be determined with reference to prices for the German power bidding zone during the contract period. Where the German power market is priced in conjunction with the Austrian power market, the floating price shall reference the combined DE/AT zone. Where the German power market is priced independently of the Austrian power market, the floating price shall reference the independent DE zone. Should the German power market be priced in conjunction with any other market area, the floating price shall reference the pricing zone which incorporates Germany. The floating price is the arithmetic average of all hourly day-ahead auction prices run by EPEX Spot SE for the applicable pricing zone for the contract period. The Exchange shall confirm details of the applicable pricing zone.

For Baseload Calendar Month Futures, the contract period consists of all hours from 00:00 to 23:59 local German time each calendar day in the contract month. Adjustments will be made to the number of MWh for leap years and daylight savings time to reflect the total number of hours in each contract month.

1070102. TRADING SPECIFICATIONS

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

1070102.A. Trading Schedule

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

1070102.B. Trading Unit

The contract quantity shall be 1 MWh per hour in the contract period. Each contract shall be valued as the contract quantity multiplied by the settlement price.

1070102.C. Price Increments

Prices shall be quoted in Euros per MWh. The minimum price fluctuation shall be € 0.01 per MWh. There shall be no maximum price fluctuation.

1070102.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.

1070102.E. Termination of Trading

Trading shall cease on the first US business day immediately preceding the last calendar day of the contract month. On the last trading day, the trading shall terminate at 12:00 hours local German time (normally 06:00 hours Eastern Time).

1070103. 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.

1070104. DISCLAIMER

New York Mercantile, Inc. ("NYMEX") uses publicly available spot market prices in connection with the trading and/or clearing of the German Power Baseload Futures (the "Product").

Chapter 1071

German Power Peakload Calendar Month Futures

1071100. SCOPE OF CHAPTER

This chapter is limited in application to trading of German Power Peakload Calendar Month Futures. 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. 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.

1071101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month will be determined with reference to prices for the German power bidding zone during the contract period. Where the German power market is priced in conjunction with the Austrian power market, the floating price shall reference the combined DE/AT zone. Where the German power market is priced independently of the Austrian power market, the floating price shall reference the independent DE zone. Should the German power market be priced in conjunction with any other market area, the floating price shall reference the pricing zone which incorporates Germany. The floating price is the arithmetic average of all hourly day-ahead auction prices run by EPEX Spot SE for the applicable pricing zone for the contract period. The Exchange shall confirm details of the applicable pricing zone

For Peakload Calendar Month Futures, the contract period consists of all hours from 08:00 to 19:59 local German time each weekday in the contract month. For the avoidance of doubt, should a public holiday fall on weekday, such weekday shall continue to be considered a Peakload Day.

1071102. TRADING SPECIFICATIONS

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

1071102.A. Trading Schedule

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

1071102.B. Trading Unit

The contract quantity shall be 1 MWh per hour in the contract period. Each contract shall be valued as the contract quantity multiplied by the settlement price.

1071102.C. Price Increments

Prices shall be quoted in Euros per MWh. The minimum price fluctuation shall be € 0.01 per MWh. There shall be no maximum price fluctuation.

1071102.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.

1071102.E. Termination of Trading

Trading shall cease on the first US business day immediately preceding the last weekday of the contract month. On the last trading day, the trading shall terminate at 12:00 hours local German time (normally 06:00 hours Eastern Time).

1071103. 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.

1071104. DISCLAIMER

New York Mercantile, Inc. ("NYMEX") uses publicly available spot market prices in connection with the trading and/or clearing of the German Power Peakload Futures (the "Product").

Chapter 1072

Italian Power Baseload (GME) Calendar Month Futures

1072100. SCOPE OF CHAPTER

This chapter is limited in application to trading of Italian Power Baseload (GME) Calendar Month Futures. 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. 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.

1072101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is based on the hourly PUN Index GME determined for each Baseload Day during the Contract Month, commencing at, and including, the 00:00-01:00 hours auction and ending with, and including, the 23:00-24:00 hours auction for each Baseload Day. The Floating Price shall be the arithmetic average of all such hourly prices in respect of each Baseload Day in the Contract Month.

For Baseload Calendar Month Futures, the contract period consists of all hours from 00:00 to 23:59 local Italian time each calendar day in the contract month. Adjustments will be made to the number of MWh for leap years and daylight savings time to reflect the total number of hours in each contract month.

The term "GME PUN Index" means the hourly price at which electrical power purchased on the MGP is valued expressed in euro per megawatthour (€/MWh).

1072102. TRADING SPECIFICATIONS

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

1072102.A. Trading Schedule

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

1072102.B. Trading Unit

The contract quantity shall be 1 MWh per hour in the contract period. Each contract shall be valued as the contract quantity multiplied by the settlement price.

1072102.C. Price Increments

Prices shall be quoted in Euros per MWh. The minimum price fluctuation shall be \in 0.01 per MWh. There shall be no maximum price fluctuation.

1072102.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.

1072102.E. Termination of Trading

Trading shall cease on the first US business day immediately preceding the last calendar day of the contract month. On the last trading day, the trading shall terminate at 12:00 hours local Italian time (normally 06:00 hours Eastern Time).

1072103. 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.

1072104. DISCLAIMER

Gestore dei Mercati Energetici SpA (GME) licenses the New York Mercantile, Inc. ("NYMEX") to use the "GME PUN Index" price in connection with the trading and/or clearing of the Italian Power Baseload (GME) Calendar Month Futures (the "Product").

Chapter 1073

Italian Power Peakload (GME) Calendar Month Futures

1073100. SCOPE OF CHAPTER

This chapter is limited in application to trading of Italian Power Peakload (GME) Calendar Month Futures. 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. 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.

1073101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month is based on the hourly PUN Index GME determined for each Peakload Day during the Contract Month, commencing at, and including, the 08:00-09:00 hours auction and ending with, and including, the 19:00-20:00 hours auction for each Peakload Day. The Floating Price shall be the arithmetic average of all such hourly prices in respect of each Peakload Day in the Contract Month.

For Peakload Calendar Month Futures, the contract period consists of all hours from 08:00 to 19:59 local Italian time each weekday in the contract month. For the avoidance of doubt, should a public holiday fall on weekday, such weekday shall continue to be considered a Peakload Day.

The term "GME PUN Index" means the hourly price at which electrical power purchased on the MGP is valued expressed in euro per megawatthour (€/MWh).

1073102. TRADING SPECIFICATIONS

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

1073102.A. Trading Schedule

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

1073102.B. Trading Unit

The contract quantity shall be 1 MWh per hour in the contract period. Each contract shall be valued as the contract quantity multiplied by the settlement price.

1073102.C. Price Increments

Prices shall be quoted in Euros per MWh. The minimum price fluctuation shall be € 0.01 per MWh. There shall be no maximum price fluctuation.

1073102.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.

1073102.E. Termination of Trading

Trading shall cease on the first US business day immediately preceding the last weekday of the contract month. On the last trading day, the trading shall terminate at 12:00 hours local Italian time (normally 06:00 hours Eastern Time).

1073103. 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.

1073104. DISCLAIMER

Gestore dei Mercati Energetici SpA (GME) licenses the New York Mercantile, Inc. ("NYMEX") to use the "GME PUN Index" price in connection with the trading and/or clearing of the Italian Power Baseload (GME) Calendar Month Futures (the "Product").

Appendix B

Position Limits, Position Accountability and Reportable Level Table in Chapter 5 of the NYMEX Rulebook

(attached under separate cover)

Appendix C

NYMEX Rule 588.H. – ("Globex Non-Reviewable Trading Ranges") Table

(additions are underscored)

Instrument	Globex code	Non-Reviewable Range (NRR) in Globex format	NRR including Unit of Measure
German Power Baseload Calendar Month Futures	<u>DEB</u>	€2.00 per MWH	<u>200</u>
German Power Peakload Calendar Month Futures	<u>DEP</u>	€2.00 per MWH	<u>200</u>
Italian Power (GME) Baseload Calendar Month Futures	<u>ITB</u>	<u>€2.00 per MWH</u>	<u>200</u>
Italian Power (GME) Peakload Calendar Month Futures	<u>ITP</u>	€2.00 per MWH	<u>200</u>

Appendix D

CASH MARKET OVERVIEW GERMANY

Electric power is the transfer of electrical energy transferred through an electric circuit. Power is produced by generators fed by a diverse range of generation fuels. Power can be transported long distances through high-voltage transportation grids at a relatively high efficiency. Power is a uniform good: there is no distinction to be made between a power unit generated via a nuclear power plant and one unit of power coming from a solar photovoltaic installation.

In Germany, power is produced through a mix of fossil fuels, nuclear power and renewable generation. In 2016, the generation mix was as follows: 29.5% renewables (including wind power, biomass, solar PV, hydropower), 23.1% brown coal, 17.0% hard coal, 13.1% nuclear, 12.1% natural gas and 5.1% others¹. Resulting from government subsidies, the share of renewable power has greatly increased in recent years: in 2000, the renewable share was only 6.6%. Germany's fleet of nuclear reactors are due to be phased-out by 2022, with renewable generation capacity increasing accordingly.

In total, 648.1 TWh were produced in 2016, according to industry reports, making Germany the largest producer in the EU28. Germany has been a net exporter of power since 2003². In 2016, net power exports amounted to 8.5% of gross generation (55 TWh out of 648 TWh produced).

Eurostat provides historical generation data for Germany³:

Table 1: Gross electricity generation in Germany (TWh)- source Eurostat:

2013		2014	2015	Average 2013-2015	
TWh	639	628	647	638	
Lots	875,342	860,274	886,301	873,973	

The yearly generation amount is converted into an equivalent number of monthly baseload lots using a conversion factor of 1 Lot = 730 MWh. This is the average contract size across calendar months. One TWh is equal to one million MWh.

ENTSO-E provides historical import and export data for Germany⁴:

Table 2: Gross electricity imports to Germany (TWh) - source ENTSO-E:

	2013	2014	2015	Average 2013-2015
TWh	38	39	34	37
Lots	52,055	53,425	46,575	50,685

¹ https://www.agora-

energiewende.de/fileadmin/Projekte/2017/Jahresauswertung_2016/Agora_Jahresauswertung_2016_WEB.pdf

² https://www.cleanenergywire.org/sites/default/files/styles/lightbox_image/public/images/factsheet/fig7-german-power-import-export-1990-2016.png?itok=xsKKwAoR

³ http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=ten00087 2015 is the latest year for which data is available at Eurostat.

⁴ https://www.entsoe.eu/db-query/exchange/detailed-electricity-exchange

The yearly import amount is converted into an equivalent number of monthly baseload lots using a conversion factor of 1 Lot = 730 MWh. This is the average contract size across calendar months. One TWh is equal to one million MWh.

ENTSO-E provides data on hourly loads for European markets. This data can be used to assess market size for peakload contracts, Chart 1 below shows the average hourly load for the German market for weekdays and weekends during 2016.

Average German Power Hourly Load 80000 70000 60000 50000 40000 30000 20000 10000 0 00:60 00:90 08:00 10:00 02:00 - 03:00 04:00 - 05:00 12:00 - 13:00 13:00 - 14:00 14:00 - 15:00 15:00 - 16:00 16:00 - 17:00 10:00 - 11:00 11:00 - 12:00 -00:90 05:00 -07:00 --00:80 -00:60 Weekend

Chart 1: German Power Hourly Loads

Source: ENTSO-E

Power load during the peak hours – 08:00 to 20:00 on weekdays – represents 42% of the total power market volume, whereas the peak hour period is just 29% of the time.

Because electric power is a uniform good with no qualitative differences and the market for power is fully liberalized, all generated power may be considered available to meet deliverable supply requirements. All power generated locally in Germany and imported into Germany is available for local consumption and for (re-) export into neighboring countries. Because generated power is not storable on an efficient industrial scale, we can consider that the generated amount is entirely consumed within the same period either locally or in neighboring countries. A yearly average of 675 TWh broken down as 638 TWh electricity generation and a further 37 TWh electricity imports corresponds to a monthly average of 77,054 lots deliverable supply. Unlike physical commodities, there is no single geographically definable delivery point which matches the underlying derivative's contract specifications – the entire German power generation production figures and imports should be considered as the basis for deliverable supply.

The reference prices sourced from EPEX Spot currently refer to the joint bidding-zones for DE/AT (Germany and Austria). However, the national energy regulators are considering splitting the bidding-zones into two separate sectors – one German auction and one Austrian auction. The final decision about the zonal split is expected during 2017. To ensure contractual integrity in the event this split is confirmed, the German Baseload and Peakload contracts will refer to any zonal price which includes Germany (i.e. currently, the joint German-Austrian auction). In the case that the zonal split occurs, the contracts will refer to the national auction for Day-Ahead Power in Germany only. Given the above, the exchange decided not to include any Austrian production and import data into the Deliverable Supply analysis. The Austrian market is comparatively small, accounting for approximately 10% of German electricity consumption.

The exchange also considered whether seasonality affected the deliverable supply as power generation and demand are both affected by seasonal affects. Data sources⁵ indicate that generation is usually lower between the month of May and July. However, generation is only slightly lower than the average yearly production and is likely to be offset by higher than average power imports during that period. Therefore, for now we have excluded the seasonality effect on the power markets in our analysis. The Exchange will continue to evaluate whether there is a need to adjust the spot-month position limit with regards to seasonal effects and will duly notify the CFTC should this change significantly.

CASH MARKET OVERVIEW ITALY

In Italy, power is produced through a mix of fossil fuels, nuclear power and renewable generation. In 2015, the share of renewables in the Energy mix was 17.5% which compares favorably to other European countries⁶.

The generation mix was as follows: 40% renewables (including Biofuels and Waste, Hydro Power, Solar, Geothermal and Wind generation), 16% Coal, 5% Oil and 40% Natural Gas. As a result of government subsidies, the share of renewable power has greatly increased in recent years: in 2004, the renewable share was only 6.3%⁷.

In total, 282⁸ TWh of electricity was produced in 2015 making it the fourth largest electricity producer in the EU 28 member states behind Germany, France and the United Kingdom.

Eurostat provides historical generation data for Italy⁹:

Table 3: Gross electricity generation in Italy (TWh)

Source: Eurostat data

	2013	2014	2015	Average 2013-2015
TWh	289	279	282	283
Lots	395,890	382,192	386,301	387,671

The yearly generation amount is converted into a equivalent number of monthly baseload lots using a conversion factor of 1 Lot = 730 MWh. This is the average contract size across calendar months. One TWh is equal to 1 million MWh.

⁵ https://www.energy-charts.de/energy.htm, under -> Energy -> Bar charts on electricity generation

⁶ Eurostat Energy database – Energy (tables by theme) Energy Statistics – main indicators (electricity generated from renewable source (tsdcc330) http://ec.europa.eu/eurostat/data/database

⁷ http://ec.europa.eu/eurostat/documents/2995521/7155577/8-10022016-AP-EN.pdf/38bf822f-8adf-4e54-b9c6-87b342ead339

⁸ Figures reported in GWh so we have used a conversion factor of 1 TWh = 1,000 GWh

⁹ http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=ten00087

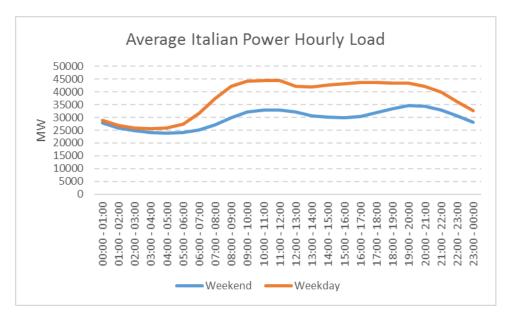
ENTSO-E provides historical import and export data for Italy¹⁰:

Table 4: Gross electricity imports to Italy (TWh) – source ENTSO-E:	2013	2014	2015	Average 2013-2015
TWh	44	47	51	47
Lots	60,274	64,384	69,863	64,384

The same conversation factor as above was used for converting TWh in lots equivalent.

ENTSO-E provides data on hourly loads for European markets. This data can be used to assess market size for peakload contracts, Chart 2 below shows the average hourly load for the Italian market for weekdays and weekends during 2016.

Chart 2: Italian Power Hourly Loads



Source: ENTSO-E

Power load during the peak hours – 08:00 to 20:00 on weekdays – represents 43.8% of the total power market volume, whereas the peak hour period is just 29% of the time.

A yearly average of 330 TWh, broken down as 283 TWh for electricity generation plus a further 47 TWh of power imports, corresponds to a monthly average equivalent of 37,671 lots deliverable supply. Unlike physical commodities, there is no single geographically definable delivery point which matches the underlying derivative's contract specifications – the entire Italian production may be considered.

¹⁰ https://www.entsoe.eu/db-query/exchange/detailed-electricity-exchange

DELIVERABLE SUPPLY ANALYSIS

The Commission defines deliverable supply as the quantity of the commodity meeting a derivative contract's delivery specifications that can reasonably be expected to be readily available to short traders and saleable by long traders at its market value in normal cash marketing channels at the derivative contract's delivery points during the specified delivery period, barring abnormal movement in interstate commerce.¹¹

GERMANY

For German Power, the basis for deliverable supply is the generated amount in Germany plus the gross imports of electricity into Germany as both are contributory elements to the total volume of deliverable power into the market. We have not made any adjustments for volumes that are ultimately exported as this volume remains fully available to the market via normal mechanisms such as the daily auctions: it is bought locally in Germany and then transferred across the border via interconnectors.

Based on the monthly average of 77,054 baseload lots (based on generation production and gross imports), the Exchange proposes a spot month limit of 3,900 monthly lots for the **German Power Baseload Calendar Month Futures** (commodity code DEB) which represents 5.1% of the monthly deliverable supply of Power into the German Market. Peakload supply represents 42% of the German market, i.e. approximately 283 TWh per annum. The **German Power Peakload Calendar Month Futures** (commodity code DEP) has an average contract size of 260 MWh. Peakload supply therefore equates to an average of 90,865 lots per calendar month. The Exchange also applied a spot month limit of 3,900 lots for this contract, equating to 4.3% of the monthly deliverable supply. The Exchange does not propose to have aggregation between baseload and peakload markets with each market having its own separate spot month limit.

ITALY

For Italian Power, the basis for deliverable supply is the generated amount in Italy plus gross imports into Italy.

Based on the monthly average of 37,671 baseload lots (based on generation production and gross imports), the Exchange proposes a spot month limit of 1,500 monthly lots for the **Italian Power Baseload (GME) Calendar Month Futures** (commodity code ITB) which represents 4.0% of the monthly deliverable supply of Power into the Italian Market. Peakload supply represents 43.8% of the Italian market, i.e. approximately 144 TWh per annum. The **Italian Power Peakload (GME) Calendar Month Futures** (commodity code ITP), has an average contract size of 260 MWh. Peakload supply therefore equates to an average of 46,327 lots per calendar month. The Exchange also applied a spot month limit of 1,500 lots for this contract, equating to 3.2% of the monthly deliverable supply of Power. The Exchange does not propose to have aggregation between baseload and peakload markets with each market having its own separate spot month limit.

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¹¹ http://www.ecfr.gov/cgi-bin/text-idx?SID=74959c3dbae469e2efe0a42b45b8dfae&mc=true&node=ap17.1.38 _11201.c&rgn=div9