###### Kentucky Municipal Energy Agency

**Trading Authority Policy**

**Draft 2/2019**

**POLICY:**

The purpose of the trading authority policy is to define the authority granted by the Kentucky Municipal Energy Agency (“KYMEA”) Board of Directors (“Board”) to the Chief Executive Officer (“CEO”) to execute and delegate authority to execute energy related transactions. Furthermore, it sets forth clarity and empowerment among those with trading authority and is designed to encourage communication among individuals with trading authority and the Board.

OBJECTIVE:

# The objective of KYMEA’s Trading Authority Policy is to define:

* Who has authority to execute transactions,
* The commodities and products that can be transacted,
* The authorized lead time and term for each transaction,
* The authorized maximum price and volume,
* Counterparty contract and credit requirements,
* The process for approving new commodities, products or locations,
* KYMEA’s intentions regarding hedging and speculating, and
* Other relevant factors associated with due diligence in authorizing transactions to be executed.

# PROCEDURAL REQUIREMENTS:

# The following defines procedural requirements that apply to all commodities and products transacted upon this trading authority policy.

###### Execution Authority

Execution Authority is outlined by commodity in the authority matrix sections found below. All column limits in these matrices are applied independently of one another for each authority level, in that no individual column limit may be exceeded without authorization, regardless of whether a transaction does not exceed another column limit for that same authority level.

The trading limits apply to both purchases and sales. Per Trading Day and Aggregate Limits are applied to gross amounts transacted in total, and not to buys and sells netted together.

This policy identifies the Board’s authorized levels for the CEO and explicitly gives the CEO the authority to delegate authority levels to KYMEA staff and ACES. The CEO has the authority to modify authority levels at his sole discretion as long as the delegated authority does not exceed his own authority per this policy.

Individuals who are listed in the authority matrices in this policy are authorized to execute trades under the stated limits and may delegate their authority to others as long as the delegated authority does not exceed their own authority per this policy.

Prior to entering into Dodd Frank energy swaps or related trading strategies that are recommended by an applicable Dodd Frank swap dealer, such Dodd Frank energy swaps or trading strategies will be evaluated by individuals that are capable of determining that such Dodd Frank energy swaps or trading strategies are economically appropriate to the reduction of risks in the conduct and management of KYMEA.

###### Contract Requirements

 Transactions with counterparties shall only be permitted if KYMEA has:

* An active, valid, and executed agreement enabling such trading activity with that counterparty.
* Long-form confirmations may be used as a valid agreement in lieu of a permanent agreement, when necessary if approved by the Vice President of Finance and Accounting/Chief Financial Officer (“CFO”). A long-form confirmation is a confirmation that is used to confirm a transaction when no underlying enabling agreement exists between the parties. In addition to confirming the transaction details, the long-form confirmation may incorporate by reference the terms and conditions of the underlying enabling agreement to be executed. For example, a long-form confirmation for a physical power transaction may incorporate by reference the terms and conditions of the EEI agreement.

###### Credit Requirements

Credit limits for each counterparty shall not be intentionally exceeded. *(Note: Since credit exposures are a function of not only positions traded, but also a function of market pricing and volatility, credit exposure to a counterparty may unintentionally exceed a credit limit purely due to changes in the forward market).*

Entering into unsecured transactions with a counterparty that has total credit exposure greater than or equal to its open line of credit and the total of any security currently provided, will not be allowed unless approved in writing by the CFO.

###### Sleeving

No sleeving transactions for credit or contract purposes shall be executed. Credit sleeving is an arrangement where a more financially reputable entity acts as a middleman for a smaller undercapitalized entity in the execution of a transaction. Contract sleeving is an arrangement where an entity acts as a middleman between two entities to bridge a contract gap that exists between the two entities.

###### Trading on Premises

All bilateral trades must be executed via a recorded communication method such as a voice recorded communication line, instant messaging or an online broker account that is maintained and controlled by personnel who are independent of the trading function.

###### Deal Capture

Any transactions executed by a KYMEA employee must be promptly forwarded to ACES after deal execution for capture in ACES’ risk management system.

###### Speculation

###### No speculative trading activities shall be permitted, and no speculative trading positions shall be initiated. Trading will be permitted only for purposes of hedging and portfolio optimization.

###### Non-Standard Products

###### The Board must approve any transaction that involves commodities not listed in this policy.

###### Transactions Requiring Board Approval

Transactions, which meet any of the following criteria, must be approved by the Board prior to execution:

* The transaction is a new commodity not previously traded by KYMEA;
* The transaction is in a new market area;
* The transaction is for something other than: a physical spot or forward electricity, ancillary services, capacity, or power transmission transaction, financial transmission rights transaction, exchange traded transaction, over-the-counter financial transaction, or over-the-counter (OTC) option.

Examples of new instruments would include the use of derivatives with different risk characteristics or the use of derivatives to implement different business strategies or goals. New instruments or locations would also include those instruments or locations that may be traded on a “one-off” basis, which would be implementation of a derivative instrument or entry into a commodity market that, despite the anticipation of being transacted just once, would still fit the definition of a new instrument or location.

The purpose of defining a process for such transactions as noted above is to ensure that the exposures associated with them are thoroughly reviewed and understood by the Board and appropriate trading controls are in place. The Board must approve the use of such transactions prior to execution using the process defined below:

* Transaction Proposal - The proposal is the responsibility of the person or business group proposing the transaction. The proposal should address the business need, risks, trading controls, valuation methodology, accounting methodology, operations workflow/methodology, and assessment of legal and regulatory issues.
* Internal Risk Management Committee Review - The Internal Risk Management Committee will perform a review of the benefits and risks of the proposed transaction. The Board will assess the proposed transaction and make a determination whether to add the proposed transaction to the approved list.
* Approval (Pilot Program) - The Board may approve limited use of the proposed transaction to insure that proper controls are in place to monitor the activity. The Board may approve the proposed transaction without instituting a Pilot Program, if the proposed transaction is going to be used once (one off) where it would not be prudent to test it in a shorter time frame or smaller quantity, due to constraints such as liquidity or length of term of product. The Board will use more scrutiny in approval of one-off transactions.

Non-Energy Swaps: All Dodd Frank swap dealer recommendations regarding non-energy Dodd Frank swaps shall be reviewed and approved by the Board.

**BILATERAL ELECTRIC POWER & TRANSMISSION TRADING AUTHORITY**

The following outlines transaction limits, definitions, and procedural requirements for power and power transmission transactions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Per Transaction Limits**  | **Per Trading Day Limits** | **Aggregate Limits** |
| **Title** | **Product** | **Term** | **Lead Time** | **MW Size** | **$/MWh** | **Total Volume MWh** | **Total $** | **Total Volume MWh** | **Total $** |
| Board | Electric Power and Trans. | No Limit | No Limit | No Max. | No Max. | No Max. | No Max. |
| CEO | Electric Power and Trans. | > 1 Year< 2 Years | < 3 Years | 50 | $50 | 876,000 | $40 Million | 1,314,000 | $60 Million |
| > 1 Month < 1 Year | 100 | $75 |
| < 1 Month | < 1 Year | No Max. | No Max. |
| Vice President of Market Analytics | Electric Power and Trans. | > 1 Month < 1 Year | < 2 Years | 50 | $50 | 438,000 | $20 Million | 876,000 | $40 Million |
| > 1 Week < 1 Month | < 1 Year | 100 | $75 |
| < 1 Week | < 1 Month | No Max. | No Max. |
| ACES | Financial Electric Power | KYMEA will authorize the execution of any financial power transaction prior to execution by ACES. |
| Physical Electric Power and Trans. | < 1 Day | < 1 Week | 100 | $250 | 12,000 | $1.5 Million | 12,000 | $1.5 Million |

###### Bilateral Electric Power and Transmission Trading Authority Matrix Explanations

* Transaction Limits represent the MW volume per hour and dollars/MWh for each transaction executed.
* Per Trading Day Limits represent the total MWh volume and dollars for all transactions executed in a trading day.
* Aggregate Limits represent the sum total MWh volume and dollars for all forward transactions.
* Lead time represents the time period from the date a trade is executed to the start of the trade.
* The dollar limits are based upon electric power only and do not include transmission service, however, the Term, Lead Time, and Volume limits do apply to transmission service.
* Authorized products include electric power and transmission service, including both physical and financial derivatives, as well as bilateral capacity and ancillary services. Financial derivatives may only be over-the-counter electric forwards and options or exchange-traded products.
* Authority for ISO/RTO products is defined in the authority matrix sections below.

###### Delivery Locations

Trading at delivery locations that are normal to the daily course of business for KYMEA, to the extent transmission is available, is authorized as follows:

### Unrestricted Delivery Locations

* PJM
* MISO
* SERC Region

 Trading at any other delivery locations shall be restricted as follows:

### Restricted Delivery Locations

* All other interconnection locations: only with approval by the Vice President of Market Analytics or above.

###### Firmness of Power

###### The product firmness of all transactions must be provided for in an executed agreement between KYMEA and the appropriate counterparty. Sales commitments must never be more firm than the supply source, including the purchase side of back-to-back sales, swaps, sleeves or spreads unless the Vice President of Market Analytics or above gives explicit written authority to sell power that is more firm than the supply source.

###### Transmission Service Firmness and Volume

Transmission service purchases need to be of equal or greater firmness and of equal volume to the energy component that such transmission service purchase is associated with, unless pre-approved otherwise by the Vice President of Market Analytics or above. Purchasing small percentages of additional transmission service to cover transmission losses is permitted.

**PJM TRADING AUTHORITY**

The following outlines transaction limits, definitions, and procedural requirements for PJM products.

|  |  |  |
| --- | --- | --- |
|  |  | **PJM Per Transaction Limits** |
| **Title** | **Product** | **Delivery****Lead Time** | **Term** | **MW****Size** | **$/MWh** |
| Board | All PJM Products | No Limit | No Limit | No Max. | No Max. |
| CEO | Generation Awards | As Required by PJM | 1 Operating Day | No Max. | No Max. |
| Demand Awards |
| Virtual Transaction Awards |
| Imports/Exports |
| Ancillary Service Awards |
| Capacity | < 3 Years | < 2 Years | 100 | $12 |
| Financial Transmission Rights | < 3 Years | < 2 Years | 100 | $10 |
| Vice President of Market Analytics | Generation Awards | As Required by PJM | 1 Operating Day | 100 | PJM Price Cap |
| Demand Awards | 100 |
| Virtual Transaction Awards | 100 |
| Imports/Exports | 100 |
| Ancillary Service Awards | 100 |
| Capacity | < 2 Years | < 1 Year | 100 | $10 |
| Financial Transmission Rights | < 2 Years | < 1 Year | 100 | $8 |
| ACES | Generation Awards | As Required by PJM | 1 Operating Day | 100 | PJM Price Cap |
| Demand Awards | 100 |
| Virtual Transaction Awards | 100 |
| Imports/Exports | 100 |
| Ancillary Service Awards | 100 |
| Capacity | None | None | None | None |
| Financial Transmission Rights | < 1 Year | < 1 Month | 100 | $5 |

**PJM Trading Authority Matrix Explanations**

* Generation Award Limits are per generating unit.
* Demand Award Limits are per each load location.
* Virtual Transaction Award Limits are per each Bid/Offer nodal point.
* Imports and Exports are by location and are each monitored separately.
* Limits for Ancillary Service Awards apply to the Regulation and Operating (Spinning and Supplemental) Reserve Market only.
* Capacity limits apply to capacity transacted via the PJM Capacity Auction.
* Only Financial Transmission Rights that are bought and sold via the annual and monthly auctions are monitored per the limits above. This excludes financial transmission rights allocated in the Annual Allocation.
* Term applies to either the calendar year or planning year.

**MISO TRADING AUTHORITY**

The following outlines transaction limits, definitions, and procedural requirements for MISO products.

|  |  |  |
| --- | --- | --- |
|  |  | **MISO Per Transaction Limits** |
| **Title** | **Product** | **Delivery****Lead Time** | **Term** | **MW****Size** | **$/MWh** |
| Board | All MISO Products | No Limit | No Limit | No Max. | No Max. |
| CEO | Generation Awards | As Required by MISO | 1 Operating Day | No Max. | No Max. |
| Demand Awards |
| Virtual Transaction Awards |
| Imports/Exports |
| Ancillary Service Awards |
| Capacity | < 3 Years | < 2 Years | 100 | $5 |
| Financial Transmission Rights | < 3 Years | < 2 Years | 100 | $10 |
| Vice President of Market Analytics | Generation Awards | As Required by MISO | 1 Operating Day | 100 | MISO Price Cap |
| Demand Awards | 100 |
| Virtual Transaction Awards | 100 |
| Imports/Exports | 100 |
| Ancillary Service Awards | 100 |
| Capacity | < 2 Years | < 1 Year | 100 | $3 |
| Financial Transmission Rights | < 2 Years | < 1 Year | 100 | $8 |
| ACES | Generation Awards | As Required by MISO | 1 Operating Day | 100 | MISO Price Cap |
| Demand Awards | 100 |
| Virtual Transaction Awards | 100 |
| Imports/Exports | 100 |
| Ancillary Service Awards | 100 |
| Capacity | None | None | None | None |
| Financial Transmission Rights | < 1 Year | < 1 Month | 100 | $5 |

**MISO Trading Authority Matrix Explanations**

* Generation Award Limits are per each generating unit.
* Demand Award Limits are per load nodal point.
* Ancillary Service Award Limits apply to the regulation and operating reserve (spinning and supplemental) markets only.

• Virtual Transaction Award Limits are per each Bid/Offer nodal point.

• Imports and Exports are per location and are each monitored separately.

• Capacity limits apply to transactions executed via the MISO Capacity Auction.

* Only Financial Transmission Rights that are bought and sold via the annual and monthly MISO FTR auctions are monitored per the limits above. This excludes financial transmission rights allocated in the Annual Allocation.
* Term applies to either the calendar year or planning year.

###### NATURAL GAS AND TRANSPORTATION TRADING AUTHORITY

The following outlines transaction limits, definitions, and procedural requirements for natural gas and transportation transactions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Per Transaction Limits**  | **Per Trading Day Limits**  | **Aggregate Limits** |
| **Title** | **Product** | **Term** | **Lead Time** | **MMBtu Volume per Day** | **$/****mmBtu** | **Total MMBtu Volume** | **Total $** | **Total MMBtu Volume** | **Total $** |
| Board  | Physical and Financial Natural Gas  | No Limit | No Limit | No Max. | No Max. | No Max. | No Max. | No Max. | No Max. |
| CEO | Physical and Financial Natural Gas  | > 1 Year < 2 Years | < 3 Years | 10,000 | $8 | 4,000,000 | $30 Million | 7,500,000 | $50 Million |
| > 1 Month < 1 Year | 20,000 | $10 |
| < 1 Month | < 1 Year | No Max. | No Max. |
| Vice President of Market Analytics | Physical and Financial Natural Gas | > 1 Month < 1 Year | < 1 Year | 10,000 | $8 | 2,000,000 | $15 Million | 4,000,000 | $30 Million |
| > 1 Week < 1 Month | 20,000 | $10 |
| < 1Week | < 1 Month | No Max. | No Max. |
| ACES | Financial Natural Gas | KYMEA will authorize the execution of any financial natural gas transaction prior to execution by ACES. |
| Physical Natural Gas | < 1 Day | < 1 Week | 20,000 | $10 | 100,000 | $750,000 | 100,000 | $750,000 |

1. **Natural Gas and Transportation Trading Authority Matrix Explanations**
* Transaction Limits represent the mmBtu volume per day and dollars/mmBtu for each transaction executed.
* Per Trading Day Limits represent the total mmBtu volume and dollars for all transactions executed in a trading day.
* Aggregate Limits represent the total mmBtu volume and dollars for all forward transactions.
* Lead time represents the time period from the date a trade is executed to the start of the trade.
* The dollar limits are based upon commodity natural gas only and do not include transportation, however, the Term, Lead Time, and Volume limits do apply to transportation.
* Authorized products include physical and financial natural gas as well as transportation, imbalance and storage. Financial derivatives may only be over-the-counter natural gas forwards and options or exchange-traded products.

### Natural Gas Firmness

The product firmness of all trades must be provided for in an executed agreement between KYMEA and the appropriate counterparty. Sales commitments must never be more firm than the supply source unless pre-approved by the Vice President of Market Analytics or above.

### Transportation Firmness

Natural gas purchases should be delivered using the most firm transportation available, unless pre-approved otherwise by the Vice President of Market Analytics or above.

### Delivery Locations

Financial natural gas transactions may only be executed at the following locations:

* Henry Hub
* Mid Continent Region

Physical natural gas transactions may only be executed for delivery to KYMEA facilities or at delivery locations in which an approved transportation agreement is in place to transport the natural gas to KYMEA facilities.

###### ACKNOWLEDGEMENTS:

**a. Clear Authority**

Any situation where authority is in question from a “clearly authorized” standpoint, should be reviewed and authorized by written signature prior to execution by the next authority level up.

**b.** **Violations and Sanctions**

Violations of this Trading Authority Policy must not occur. Should it be deemed that non-compliance incidents did occur by a KYMEA employee, ACES will notify the CFO of such incidents, and the responsible party(ies) will be sanctioned according to KYMEA’s Human Resource Policy.

**c. Policy Effective**

This Trading Authority Policy is in effect upon the Board’s approval and shall remain in effect until a replacement policy has been approved by the Board superseding this Trading Authority Policy.

**RESPONSIBILITY:**

It shall be the responsibility of the Board, through the duly appointed Internal Risk Management Committee, the CEO and the CFO, to assure compliance with this policy.