ACADIA Energy Partners

Risk Management Policy

Version 1.4

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# Risk Policy Governance

## Governance Structure

Acadia Energy Partners is an energy trading fund that seeks to maximize the return on capital allocated to the business through means of trading: i) Financial Transmission Right (FTR) auction products; ii) Independent System Operator (ISO)Day-Ahead and Real-Time energy products; and iii) futures, swaps and options on various energy commodity products.

Oversight for all risk management activity within Acadia resides with the Acadia Steering Committee.

The Acadia Steering Committee is comprised of the Acadia Managing Partner (MP), the Acadia Risk Officer (RO) and the designated Argus representative. Until such time as a permanent Risk Officer is hired all responsibilities and actions of the Risk Officer considered under this policy will be handled by an additional person chosen by the Argus representative. The membership of The Acadia Steering Committee will be recorded in Schedule 1 of the Risk Policy.

The Acadia Steering Committee will have standing quarterly meetings scheduled in the last two weeks of each calendar quarter. Meetings may be held in person or by telephone conference call. Ad hoc meetings may be requested at any time. Steering Committee functions including approval of the Risk Policy may also be conducted by unanimous email consent.

The Acadia Managing Partner will also designate a Steering Committee Secretary that will also be recorded in Schedule 1 of this policy . The Secretary will be responsible for recording, circulating and confirming the accuracy of meeting minutes. The Secretary may be a voting or non-voting member.

A quorum of three voting members is required for any Steering Committee meeting.

Credit Risk will be addressed separately as necessary. It is envisaged at startup that the only credit relationships that will exist will be between Acadia and the various Independent System Operators (ISOs) and between Acadia and its Futures Commission Merchants (FCMs). As such, the associated credit risks are viewed as minimal.

The Acadia Principals Committee will be comprised of the Managing Partner, the Risk Officer and any Acadia Principals with ownership positions in the fund.

## Risk Policy Approval

The Acadia Risk Management Policy is approved by the Acadia Steering Committee. Any changes to this Risk Policy must receive unanimous approval from the Steering Committee.

Separate policies on Compliance and Code of Conduct will be prepared for Acadia.

All Acadia employees covered by this Risk Policy should be familiar with all aspects of the Risk Policy and any other associated policies or procedures. All such employees will acknowledge receipt of the Risk Policy and comply with all the terms of the Risk Policy.

Violations of the Risk Policy by any employee may result in disciplinary action up to and including termination. Any and all violations of the Risk Policy will be reported in the first instance to the Risk Officer and the Managing Partner and subsequently to the Steering Committee.

## Organizational Structure

All Acadia staff report up through the Managing Partner with the exception of the Risk Officer and any staff reporting to the Risk Officer.

All Risk staff including the Risk Officer will report to the designated Argus representative.

Risk staff will not under any circumstance be given trade authority. Risk staff will not be allowed to trade.

No Acadia staff will be allowed to trade commodities and instruments approved by this Risk Policy in their own personal accounts.

# Risk Limits

All Risk Limits are specified in the attached Risk Policy Schedules.

There are certain high level risk limits that may only be changed with Steering Committee approval. They include:

* Overall OTC Trading VaR limit
* Overall FTR VaR limit
* Overall Virtual Bidding Limit

Initial limits for each of these high level limits have been included in Schedule 3.

Sub-limits appearing in the Risk Policy Schedules may be changed with Managing Partner and Risk Officer approval. Any changes to the sub-limits will be communicated to the Argus representative on the Steering Committee at the earliest opportunity.

Prior to the appointment of a Risk Officer all sublimit changes occurring in the Risk Policy Schedules will require Steering Committee approval.

A complete list of trade books is provided in Schedule 3

## FTRs Limits

There will be a trade book for each FTR region and each type of auction.

Volume and cost limits will be specified for each region in Schedule 3.

Portfolio Value at Risk limits will be specified for each region in Schedule 3 as well as for the FTR portfolio as a whole.

Portfolio short metrics by volume and value will be reported daily for each portfolio. and for the aggregate portfolio across all regions but they will not be limiting.

These limits will be populated prior to the commencement of trading.

PJM

* Long Term Auctions
* Annual Auctions
* Monthly Auctions

MISO

* Annual Auctions
* Monthly Auctions

New York

* Capability Period Auctions
* Monthly Auctions

California

* Annual Auctions
* Monthly Auctions

ERCOT

* 2 year - 6 Month Auction cycles
* Monthly Auctions

SPP

* Annual Auctions
* Monthly Auctions

New England (most likely inactive)

* Annual Auctions
* Monthly Auctions

## Virtual Bidding Limits – Not Yet Active

Virtual bidding will involve two potential forms of participation: fundamentally based virtual bidding and automated virtual trading,

There will be a book for each fundamentally based virtual bidding region. Virtual bids in those books will be subject to the Virtual Bidding Compliance Policy. That policy requires that the fundamental reason(s) behind each virtual trade is recorded contemporaneously with the bid submittals.

Volumetric fundamental virtual bidding limits for will be specified in Schedule 3 for each ISO.

These limits will be populated prior to the commencement of trading.

To the extent that automated virtual bidding constructs are developed they will reside in their own books. They will receive different treatment under the Virtual Bidding Compliance Policy requiring only an exception report for any instance where the virtual bids are not submitted.

## OTC Limits

The overall OTC Trading VaR limit is specified in Schedule 3.

The primary measure of OTC risk for term positions will be VaR measured at a 1-day 95% confidence level.

During initial operations and until all risk reporting is in place we will use the initial margin calculations provided by ICE using a 99% 2-day VaR methodology to limit our positions. This methodology is a much tighter restriction and will more tightly limit our participation in the initial stages.

Short-term risk will be modeled using a 60 day look-back on the most recent relevant period of pricing adjusted for historical underlying fuel prices

There will be a book for each trader authorized for OTC trades. A complete list of OTC books is provided in Schedule 2.

To the extent that FTRs are bought at liquid locations those FTRs may be moved to the OTC books if they are offsetting OTC risk.

The tenor of products is a rolling 36 months. Products with a longer time horizon than 36 months will require approval by both the Risk Officer and the Managing Partner.

A list of approved products and locations is provided in Schedule 4. Schedule 4 may be modified by Managing Partner and Risk Officer approval. Any changes to the Schedule 4 will be communicated to the Argus representative on the Steering Committee at the earliest opportunity.

Prior to the appointment of a Risk Officer, Schedule 4 changes may be made by the Managing Partner concurrent with email notification to the Steering Committee.

# Trader Execution Procedures and Limits

In order to be authorized to trade a trader must: (i) receive email confirmation from the Managing Partner that they are authorized to trade; (ii) receive, read and review the Acadia Energy Partners Risk Management Policy; (iii) sign the Acadia Energy Partners Risk Management Policy Consent.

Each OTC trader will be assigned an individual VaR limit by the Managing Partner.

The sum of the individual trader VaR limits may exceed the overall VaR limit.

The individual trader VaR limits can be revised by the Managing Partner at any time, with an email notification to the Steering Committee.

Each OTC trader may also be assigned two trading thresholds in addition to their VaR limit.

Threshold 1 is the level at which they must seek execution confirmation from the Managing Partner or Supervising Trader prior to executing the trade.

Threshold 2 will generally be set at 25% of the Trader’s VaR limit.

Threshold 1 and 2 are set by the Managing Partner and may be specified in either volumetric, $ value, potential loss or VaR form.

Trades that exceed the minimum of Threshold 2 or $500,000 potential loss must be reviewed by the Trading Committee prior to their execution.

Individual OTC trader VaR limits, threshold 1, threshold 2 and the Supervising Traders are all specified in Schedule 2 of this Risk Policy.

Each FTR/VB trader must be trained in their market prior to receiving trade authority. Limits for FTR and VB activity are defined by book not by trader. Multiple traders may be active in a book at any one time. Authorized FTR/VB traders are listed in Schedule 2a) of this Risk Policy.

## Trading Committee

The Trading Committee will meet every morning to: review prior day performance; discuss the current state of the market; review any loss triggers; and present new trade ideas.

The Trading Committee will comprise of all Acadia staff with trading authority.

By design, the Trading Committee is intended to be the forum where core strategy discussions are held and where core strategy approvals are sought.

## Trader X Positions

In addition to the trader books there will also be a Trader X book designed to hold large core position strategies that are entered into as a group. Entry into these positions is approved only by the Principals Committee.

These positions will be separately tracked and reported in position reporting, risk reporting and P&L reporting. Trader X positions may be executed with anyone with trade authority at the request of the Managing Partner or Principals Committee.

# Risk Reporting

## Daily Reporting

Daily reports will be produced by Risk including but not limited to:

* P&L reporting for all positions and books
* Credit report indicating where all money is sitting with ISOs/FCMs
* Trade summary report indicating all trades executed on the prior day
* Overall OTC Portfolio Position including VaR
* OTC Portfolio Position by Trader including VaR
* OTC Net Delta report for overall portfolio and by trader.
* OTC Gas position report
* OTC Gas options report (strike table, greeks and stress cases)
* OTC Power position report
* OTC Power options report (strike table, greeks and stress cases)

Risk will also constantly be monitoring for concentration and liquidity risks within the portfolio.

Additional reports will be produced as necessary including stress tests, scenario analysis and look-back analysis.

Risk will also be responsible for periodic stress analysis on the FTR portfolios.

We will use third party sources for pricing curves. To the extent that there is a dispute between the Traders and Risk about the validity of a particular price curve it may be modified solely at the discretion of the Risk group.

OTC positions will be marked daily according to exchange published prices for all positions. To the extent that a price is not available or is considered unreasonable by the Risk Group the Risk Group will use reasonable normal business practices to determine a suitable replacement mark.

FTR positions will be marked at the conclusion of any auction that changes the price of existing FTR obligation or option positions. P&L for that change will be reflected in the next published daily P&L report.

FTR and VB P&L realizations using day-ahead and real-time posted ISO prices will be included in the next day’s daily P&L report. To the extent the ISOs revise or correct DA or RT prices those adjustments would be included in the next published daily P&L report following the price adjustment.

## Loss Triggers

1-day losses by a trader exceeding 50% of their VaR limit will be reported by the Risk Officer to the Principals Committee and the Steering Committee. The positions will be specifically reviewed in the first scheduled Trading Committee meeting following the occurrence of the loss trigger.

3-day cumulative losses exceeding 100% of their VaR limit will be reported by the Risk Officer to the Principals Committee and the Steering Committee. The positions will be reviewed in the first scheduled Trading Committee meeting following the occurrence of the loss trigger. A specific meeting of the Principals Committee will also review the positions in this instance including an independent review of the positions prepared with the Risk Group.

The Managing Partner, after discussion with the Principals Committee, will have sole discretion in determining when positions must be closed.

# Document History

Version 1.0 – Author: Andrew Hartshorn; March 15th 2017 effective date

* Initial framework

Version 1.1 – Changes: Andrew Hartshorn; April 17th 2017 effective date

* Add Document History tracking section
* Added references to Trading Policy Schedules
* Tightened a lot of the language
* Added language for initial operations
* Reduced CRO to RO in case we start with more junior Risk Officer
* Added language to allow for operations prior to Risk Office appointment

Version 1.2 – Changes: Andrew Hartshorn; May 15th 2017 effective date

* Minor edits for wording in a few sections
* Added FTR/VB trader limit language
* Added mtm methodology for OTC and FTRs

Version 1.3 – Changes: Andrew Hartshorn; May 17th 2017 effective date

* Added specific language disallowing trading authority to Risk staff (Section I Part C)
* Added language disallowing all Acadia staff from trading approved products in their own accounts (Section I Part C)
* Modified the loss trigger section such that all triggers are reported to the Principals Committee and the Steering Committee. Added an independent Risk Group review of positions incurring 3-day loss. (Section IV Part B)
* Added liquidity to the list of aspects the Risk Reporting is responsible for performing. (Section IV Part A).