

Minerals Management Service

Royalty in Kind Risk Management Policy

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1. Introduction

Purpose

In May 2004, the Minerals Management Service (MMS) adopted its *Five Year Royalty in Kind Business Plan* (Plan) that outlines business principles, goals, objectives, and specific strategies to guide and evolve the Federal royalty in kind (RIK) program from fiscal years 2005 through 2009. The first two years of the Plan are focused primarily on enhancing the RIK internal control environment, including the critical initiative of fully developing a RIK risk management framework.

Publication of this Risk Management Policy represents a major stride forward within this initiative, which will be initially realized upon completion of associated risk procedures and metrics. Because RIK exists within a dynamic commercial environment, this document is also anticipated to be dynamic, with periodic updates necessary.

The purpose of this document is to array the principles and policies that drive risk management decisions and guide and underlie the day-to-day operations of the Federal RIK program. The principles and policies provide a framework aimed at balancing risk management controls and operational flexibility; mitigating exposure to and results of undesirable outcomes; assigning responsibilities and accountabilities for risk management; and monitoring, quantifying, and reporting on risk exposures.

MMS recognizes that all organizations operate in an environment of uncertainty and no organization can eliminate all potential risks. Organizations that can identify and manage risks within an acceptable tolerance level are in the best position to accomplish their mission and achieve their goals and objectives. It is in this spirit that MMS has developed this RIK Risk Management Policy.

Background

Governing Federal statutes and oil and gas lease terms provide the Secretary of Interior with two options for managing oil and gas royalties. Payments may be received either as royalty in value (RIV) cash payments or payments of produced commodities in kind (RIK). The MMS's Minerals Revenue Management (MRM) organization manages the use of both these management options.

Historically, most oil and gas royalties have been managed as RIV payments. However, in recent years MMS has developed a robust RIK program in which title to the royalty commodity is taken at or near the producing lease; competitive sales are transacted; and resulting revenues are collected from RIK purchasers and disbursed to Federal and state recipients per statutory authorities.

The origins of the RIK program date back to 1976 when the MMS predecessor agency began a RIK program to provide small refining companies access to crude oil supplies. MMS first piloted a broader commercial RIK program in 1995, followed by four additional pilot programs. The experience with the RIK pilot programs convinced MMS

that RIK is a viable approach to be used along with RIV in managing the Nation's oil and gas royalty assets.

The strategic use of both the RIK and RIV options defines the royalty asset management strategy that is employed by the MMS. RIK not only creates opportunities to realize additional royalty revenues relative to RIV, but RIK also has established that it is a more cost effective business process than RIV. Market conditions and RIK's competitive position at specific locations have resulted in greater revenues for the taxpayer than from the RIV calculated revenues. As such, the option to utilize either RIK or RIV allows for a systematic and deliberate analysis of the federal royalty portfolio to selectively apply each of these methods to optimize returns and efficiencies for the taxpayer.

The Federal RIK program has adopted a conservative business model, based on sound and widely-used commercial practices, in itself a risk mitigation mechanism. RIK operates as a price-taking seller of energy commodities into the wholesale upstream market. The business model is based on physical transactions and does not include the use of financial futures or derivative instruments. Competition for sales in an open marketplace is foundational to the business model. In addition, RIK operates with clear and distinct separation of operations and with strong internal controls. Governance and oversight mechanisms provide numerous safeguards, provided that the mechanisms are diligently executed. These operating practices coupled with government specific oversight result in a prudent risk profile.

The drivers of the RIK performance risks are generally similar to those drivers found in a strictly commercial enterprise. But, specific RIK statutory authorities and oversight processes create unique attributes for performance measurement and unique attributes for the oversight processes. Therefore, the foundation for the risk management principles and policies will be based on commercial best practices, while the measurement and control processes will exhibit unique attributes.

2. Objectives of the Policy

The RIK Risk Management Policy serves as a declaration to all stakeholders, public and private, that MMS has clearly identified its key RIK risk drivers and implemented appropriate controls and mitigation strategies regarding the identified commercial risks.

The major objectives of the RIK Risk Management Policy are as follows:

- Provide the principles and policies that drive RIK's operating framework, governance mechanisms, and internal controls, including policies that:
 - identify and communicate commercial activities that are approved, require further approval, or are prohibited;
 - govern transactional boundaries and limits for RIK staff and management; and
 - guide RIK management/staff in making day to day decisions and assessing commercial opportunities.
- Provide the governing principles underlying MMS's Executive Committee (EC) oversight of RIK
- Provide the policies that govern effective management of these risks and changes in these risks
- Provide clear controls that will mitigate risk exposure consistent with the risk tolerance of the EC

3. Risk Principles

The EC is responsible for the approval of RIK risk management principles and policies. Primary RIK governance for the RIK Program resides within the EC and effective RIK governance requires an appropriate level of EC oversight, defined as ensuring that: 1) policies are prudent; 2) effective measures exist for monitoring the risk profile; and 3) controls can reasonably be judged effective at managing risks.

The principles and policies incorporated in this document define the framework for both the EC RIK governance and the boundary conditions under which RIK operates. The principles governing risk tolerance are the lynchpins between executing the RIK mission and managing the risk exposure of the RIK program.

The following are the key principles that provide guidance in implementing the Policy.

1. Provide principles and policies that govern risk management limits and types of allowable commercial transactions. The objective is to provide RIK management the flexibility to manage commercial risks at a prudent level of risk, while achieving performance objectives.
2. Provide clear lines of management responsibility and accountability, including delegations of authority and policies governing authorization levels.
3. Provide for segregation of operating responsibilities, reporting, and policy oversight that facilitate compliance, and provide effective internal controls.
4. Provide for risk monitoring activities and reporting requirements that utilize risk metrics that are quantitative where possible. The metrics will provide the basis for systematic, timely reporting on the risk profile for operational, management, and governance purposes.

4. Sources of Risk in the Federal RIK Program

As with any commercial sales organization, the MMS RIK program is exposed to risks. The MMS risk profile however deviates significantly from private counterparts in two major areas. First, since authority does not exist for MMS to make capital expenditures, MMS has no capital at risk. However, the taxpayer faces the opportunity costs associated with the risks that the Federal government will receive less net value in RIK relative to RIV. Second, since authorization statutes prescribe receipt of fair market value (FMV), the risk of failing to achieve this benchmark is unique to the Federal government. Thus, the FMV benchmark is unique to and the basis of the RIK and RIV risk profiles.

Many producers and marketers engage in risk management activities to meet specific revenue targets, ensure a return on capital and reduce earnings volatility. Given the RIK statutory FMV requirement, MMS is not concerned with revenue variations associated with commodity price volatility. Rather than manage the absolute price received, MMS strives to, on average, achieve or exceed the market price of oil and gas at any location.

The different exposures in the RIK program can be classified into four main risk categories: fair market value risk, credit risk, operative risk, and oversight risk.

4.1. Fair Market Value Risk

The Fair Market Value (FMV) risk is unique to the RIK commercial operations. Given the fiduciary responsibility to the taxpayer, RIK's performance is measured against a calculated FMV benchmark that approximates the royalty value that the RIV program would have received. Market price and basis volatility create risk exposure that RIK performance could be below the FMV benchmark due to the difference between the pricing mix used by RIK for selling the commodity and the pricing mix used in the FMV benchmark. Transportation costs and natural gas processing income or fees also impact the realized value received by RIK. These drivers not only create risk relative to the calculated FMV, but also create opportunities to exceed FMV. Finally, the ability for RIK to effectively utilize market intelligence and to effectively increase competition during the sales process serves to mitigate while poor performance in these areas will exacerbate FMV risk.

4.2. Credit Risk

As a commercial energy commodity seller, MMS is exposed to credit risks. Credit risk faced by the RIK program manifests itself in two primary areas: (1) outright default in payment, and (2) late payment. Payment default by a RIK counterparty can be the result of any of several events. Filing of Chapter 7 or 11 in a bankruptcy court would most likely result in a failure of the counterparty to tender payment to MMS. But negligence, either intended or unintended, may also result in failure to pay. Finally, if a company is experiencing severe degradation in its creditworthiness or financial solvency, it may be unable to obligate sufficient cash to make an RIK payment. Ancillary effects of payment default are the significant damages MMS may accrue due to contract termination and

associated pipeline penalties, stranded gas costs, and price discounts in selling defaulted gas/oil on short notice.

The ability to collect after a default or delinquent account scenario poses the primary area of risk for RIK. In this situation, the risk of collection falls primarily on the unsecured amount of delivered production since the secured portion is generally collectible by the surety or financial assurance provided. Additionally, litigation involving the defaulting counterparty may be far more costly than the initial credit exposure.

The second type of credit risk concerns late payment, which leads to increases in administrative costs for debt collection, and may also portend financial solvency issues.

4.3. Operative Risk

Operational Risk: The risk of direct or indirect loss resulting from inadequate or failed planning, internal processes, people, or systems. This is a risk inherent in any organization. Inadequate business planning, lack of clear corporate strategies, ineffective policies, and unattainable goals can all place an organization's success at risk. Lack of comprehensive and generally accepted accounting practices and systems undermines an organization's ability to effectively monitor performance and execute value maximizing course corrections. Weak or absent internal controls result in ineffective management of operations and governance. Without viable automated systems, performance, accountability, and efficiencies cannot be attained and bottom-line results suffer. Highly competent staff, properly trained with the appropriate skill sets to accomplish mission critical tasks, is also imperative. In the RIK arena acquiring and maintaining knowledge of current industry market practices, developments, and trends is essential to the program in meeting statutory requirements, management directives, and strategic goals.

Production (volume) Risk: Production risk represents the risk of not meeting contractual obligations due to variances in production volume. Production volume variances are driven by expected and unexpected shutdowns, general production declines, well workovers, etc. Additionally, production imbalances between entitlements and takes create the risk of losing contractual volume entitlements. If data required to reconcile imbalances is not available in a timely manner, then there is an increased risk of receiving less than the entitled royalty volume or settling at an unfavorable price.

Transportation Cost Risk: Contractual fees for transporting oil and gas from production areas to market centers are risk drivers for the MMS. Pipeline rates are either a regulated tariff or a negotiated transportation charge that reflects market demand for transportation services. Since the current RIK business model utilizes negotiated interruptible transportation services on pipelines, it runs the risk of not having access to transportation capacity. Another aspect of transportation risk is that producers may be able to obtain cheaper transportation costs than RIK.

Transportation Imbalance Risk: Imbalances exist between pipeline nominations and actual delivered volumes. These imbalances can create the risk of losing contractual volume entitlements if they are not resolved in a timely manner. Additionally, there can be a significant price risk depending on the pipeline's provisions for imbalance resolution and for penalties on excessive imbalances.

Processing Risk: Gas processing income/fees are driven by the price spread between natural gas ("NG") and natural gas liquids ("NGL") and the processing contract structure. The value of gas processing can increase with an increasing spread between NG and NGL. RIK's ability to capture this value depends on the contract terms between MMS and processors. Processing risk represents the exposure that RIK pays higher than market costs for the processing contracts that are generally available to other producers and commercial entities. This risk is especially significant when there is a requirement that the natural gas should be processed before transportation on downstream pipelines.

4.4. Oversight Risk

Oversight risks for the RIK program are for the most part outside the control of MMS and involve issues that affect budget authority, statutory authorities and other governance functions for the program. Oversight risk would include the risk that the RIK program's decisions, processes, marketing strategies, performance, and procedures would not meet the expectations of its external stakeholders, including the statutory authorities to take royalties in kind. Obviously, without sufficient funding, the RIK program would be severely constrained and potentially shut down. The authorizing committees of the two houses of Congress also have an impact on direction and viability of the program. Congress can directly impact the operational flexibility of the program and therefore its ability to optimize the value for the taxpayer (e.g., the statutory right to enter into long-term contracts). Additionally, the Government Accountability Office, White House, OMB or other government oversight authorities can each have a direct or indirect impact on the continuance of, and support for, the program. Public perception through the press or other means can also affect the program.

4.5. Risk Assessment

The above-described risks associated with RIK generally interrelate and are cumulative. An adequate understanding of the overall risk profile requires management judgment as to the organization's capabilities to address and mitigate the full suite of risks. This judgment is best informed by periodic risk assessments.

Two such risk assessment have been conducted before initial release of this Policy. Both assessments concluded that risk mitigation mechanisms are in place to address the preponderance of current RIK risks. Due to these mitigation mechanisms and the conservative business model employed, the RIK risk profile is low and is below average for an energy commodity sales operation. The risk assessments focused on FMV and credit risks as the critical drivers, and concluded that actual exposures, based on historical RIK data, were well below 5% of revenues sold.

It is critical that RIK risk assessments are routine and are based as much as possible on quantitative measures of risk. MMS will continue to refine a suite of quantitative risk metrics to the extent practicable to employ in the risk assessments mandated within this Policy.

5. Oversight Responsibilities

Within MMS, there are four distinct levels of risk policy oversight responsibility: MMS Executive Committee (EC); the MRM Associate Director (AD); the MRM Chief Risk Officer (CRO); and the RIK Program Director (PD).

The MMS EC is responsible for governance over RIK and the approval of the RIK risk management principles and policies. Effective RIK governance requires the appropriate level of oversight from the EC, defined as ensuring that: 1) policies are prudent; 2) measures for monitoring the risk profile and business practices are effective; and 3) controls can reasonably be judged effective at managing the risks. The principles and policies incorporated in this document provide the framework for the EC RIK governance.

The MMS EC has responsibility for the leadership of the organization. It sets policies that govern the management of operations and management of risk. The EC develops goals and objectives, delegates authorities, and sets boundaries and limits on acceptable activities within specific programs. In addition, the EC provides a critical interface with other Federal agencies, as well as the Congress and the major outside stakeholders. The body of the EC encapsulates mechanisms that provide for the consideration of the MMS stakeholders' needs in the development of the policies. Major responsibilities of the EC with respect to these policies include:

- approves the RIK risk policies;
- annually reviews the risk management program and policies in light of current market conditions and provides guidance on modifications as necessary;
- reviews and approves programs and transactions outside the risk policy framework such as new markets, new products, or new approaches for selling a commodity; and

The MRM Associate Director is a member of the Executive Committee and acts on behalf of the Executive Committee in reviewing and implementing the Policy. Major responsibilities of the AD with respect to these policies include:

- ensures that the procedures are consistent with the policies;
- approves transaction authority levels and delegations of authority;
- reports to the EC any violations of the Policy including deviations from the approved transaction list;
- recommends risk management and risk control processes to the EC;
- completes an annual risk assessment of the RIK program including current exposure position, current marketing strategies, and internal controls; and

- takes actions to resolve significant deviations from approved policies with notification to the EC of the deviation and of the ADs action...

The Chief Risk Officer is responsible for the functions of assessing and monitoring the risk profile, monitoring overall compliance with policy, and reporting on the effectiveness of the risk management policies and controls. The CRO reports to the AD, and is accountable to the Executive Committee. This function is independent of the RIK program management, and specifically, the CRO does not approve transactions. Major responsibilities of the CRO with respect to these policies include:

- monitors enforcement of the risk policy by MRM management;
- develops/updates procedures that will drive the administration of the Policy;
- monitors that the risk management objectives, risk tolerances, limits, and procedures are employed throughout the organization;
- approves risk management reports prepared by the RIK Program Office;
- recommends specific risk limits consistent with MMS risk management objectives, risk tolerance, and risk management policy; and
- reviews proposed new transactions with respect to their consistency with risk tolerance and compliance with risk management policy.

The RIK Program Director manages and oversees all the functions and activities associated with the RIK program. He/she uses all reasonable efforts to ensure that the risk management policies are observed in the RIK operation, and advises the AD and the CRO of any violations of the policy or abuses of the boundaries or limits set by this policy. Major responsibilities of the Program Director regarding these policies include:

- enforces risk policies, procedures, and guidelines within the RIK staff;
- ensures that marketing and risk management personnel are appropriately trained and have the required skill sets;
- provides a reporting mechanism to monitor and report market risk exposure, operational exposure, and credit exposure;
- recommends/implements risk mitigation strategies after consulting with the CRO;
- researches, develops, tests, and implements risk measurement methodologies and models in conjunction with the CRO; and
- recommends changes to risk management policies, parameters, and controls to address changes in market conditions, statutes, regulations or other factors.

6. Risk Management Policies

The risk management policies are intended to provide the RIK program with the flexibility to optimize RIK performance objectives while still providing appropriate limits and active mitigation strategies for FMV, credit, operative, and oversight risks. The policies address operational parameters with respect to sales and marketing; separation of functions within the RIK organizational structure; and policies governing the approval levels for classes or types of transactions. The RIK Risk Procedures Manual addresses specific details that reasonably can be expected to change with adjustments to the business model, operational procedures, market conditions, industry structure, and other dynamic and/or exogenous factors. The RIK Risk Procedures Manual also includes an approved schedule of transactions and contract types that RIK management can enter into in the normal course of business.

6.1. Sales and marketing functions operational policies

The RIK policies governing the operations of its business model provide critical risk control and mitigation features.

- All sales are competitively made and revenues are received based on the spot market for physical sales transactions as reported by the major price reporting publications at highly liquid and transparent market centers/pooling points.
- Industry standard base contracts are used for general terms and conditions. These standard commercial contracts significantly reduce any contract risk that can arise due to a misunderstanding or misinterpretation of counterparty obligations.
- Sales are transacted at or near the lease with value differentials from transparent market centers/pooling points expressed or implied in sales contracts. The exception to this policy is when structural market conditions provide a very favorable risk to reward relationship for transporting the commodity to, or pricing the commodity at, downstream locations.

6.2. Organizational structure and separation of functions

Organizational structure and separation of functions provides for very effective risk control features. RIK has clear delineation of functions between the Front Office, Mid Office, Back Office, and Economic Analysis Office. The following is a brief review of risk mitigation efforts within each functional area:

The Front Office is responsible for selling physical commodities (marketing execution) and initial capturing and logging of a transaction's terms and conditions. The Front Office mitigates exposure to price volatility by using highly liquid market indices that would be common for comparable producer transactions. In order to maximize the royalty revenue, the marketing functions utilize a competitive bid process. However, the small refiner program limits the set of bidders for these statutorily authorized sales. A critical component of the analysis that determine whether to utilize RIK or RIV is the

assessment that RIK will yield sales values at least as high as RIV. The Front Office staff also searches for new buyers to increase the level of competition. Using shorter term contracts also helps to mitigate this risk. The Front Office also monitors the historical basis differentials very closely and tries to mitigate basis risk by using well-established, liquid indices as defined by standard industry methods.

To mitigate production volume risk, MMS does not make firm volume commitments in its sales agreements that can expose it to volume risk in the eventuality of production losses. A two-way “financial keep whole agreement” is used instead to mitigate volume risk. Pooling production volumes, as proposed in the RIK business plan, would act as an additional mitigation strategy.

Although RIK utilizes industry standard processing transaction pricing methods, the industry standard methods do not mitigate the price risk associated with the spread between natural gas liquids and dry natural gas. However, RIK is measured against a Fair Market Value benchmark that accounts for changes in the spread between natural gas liquids and dry natural gas.

The RIK Mid Office monitors and mitigates credit risk within the RIK program. In order to assess creditworthiness, the RIK Mid Office uses credit scoring model(s) that establishes a suggested line of unsecured credit. In addition, the Mid Office analyzes a company’s financial statements (balance sheet, income statement, and statement of cash flow) to provide a greater level of detail in evaluating a company’s creditworthiness. Corporate credit ratings issued are also weighed heavily in assigning an approved credit line. Industry market trends have a significant impact on the financial performance of individual companies and must be monitored accordingly. Companies below investment grade generally do not receive an approved line of credit, although exceptions may be granted in limited cases where financial performance is exceedingly robust¹.

MMS has adopted a Credit Management Policy to monitor and mitigate credit risk. The Credit Management Policy is considered a part of this Policy and is administered by the RIK Mid Office.

Contract administration is also coordinated in the Mid Office. All contracts must be reviewed and approved by the Contracts Officer that is functionally part of the Mid Office, but reports directly to MMS’s Administration and Budget Office. This provides a very strong internal control for contract terms and conditions. This control feature is unique in the Federal government given the statutory accountability vested in the contracts officer.

The RIK Back Office accounts for RIK transactions by entering MMS Form-2014² information for the RIK leases; managing volume imbalances; and monitoring receivables and payments. Production imbalances between entitlements and takes can

¹ Ratings provided by the credit agencies are primarily for the benefit of the bond investors. The credit agencies address a different market need than the RIK commercial market. Strong short-term financial performance may not be reflected in the credit agencies’ rating.

² The standard form for reporting royalty payments to MMS by royalty payors

create risk of losing contractual volume entitlements or create price exposure. Mitigation efforts include close monitoring of any differences in volume and in price to estimate the value of the imbalance. If an unusual pattern is detected, differences can be reconciled and settled prior to the normal cycle for RIV. Reconciling volume imbalances within a 6-month cycle can significantly mitigate imbalance exposure.

The Economic Analysis Office analyzes the relative economic value of taking the royalties through RIK verse RIV. The ability to utilize either RIK or RIV based on market conditions and RIK's relative market position significantly limits exposure to knowable adverse market conditions. In addition, the pre-transaction analysis identifies opportunities to utilize operational flexibility and mitigate risk during the execution of transaction. The Front Office utilizes the Economics Analysis Office analytics to develop strategies to optimize value and mitigate risk.

6.3. Approved RIK Transactions

The EC has approved certain types of transaction structures and provided guidelines for counterparty exposure, embedded options, and contract terms. The policies governing allowable transactions are intended to conform to an acceptable risk tolerance level and operate within the adopted business model. The following is a brief discussion of selected transactions.

Basis transactions allow MMS the ability to choose specific pricing indices among many potential producing area indices and downstream market center prices for physical sales in the production area. This type of transaction can be an important tool in mitigating basis risk. However utilizing this type of transaction will introduce basis risk, and therefore the risk profile of this option must be assessed by RIK management.

Counterparty credit exposure results from unsecured credit sales to the RIK customer base. Part of a risk mitigation strategy is to diversify the exposure among the customer base, where practical. The approved guideline for gas is 25% of the total value of outstanding gas sales contracts to any single counterparty. There are far fewer participants in the Gulf of Mexico oil marketplace, so the approved guideline is 50% of the total value of outstanding sales contracts to any single counterparty. Any sales contract that would extend the value to more than 30% for gas and more than 55% for oil will require EC approval. The AD can approve a contract that would extend the value to 30% for gas and to 55% for oil. These credit exposure thresholds are included in the RIK Risk Procedures Manual where they will be further reduced when market conditions permit.

Embedded options are contractual terms/conditions that can be part of a physical sales or transportation/processing contract and allow one of the parties the right, but not the obligation, to exercise a provision in the contract depending on market factors or other underlying circumstances. One of the approved types of embedded options would allow MMS the right to exercise a predetermined price floor if the underlying price indices dip below that floor price. Typically there would be some form of premium to obtain the

embedded option; therefore an economic analysis must be completed to demonstrate that, even with a premium, the expected value will meet/exceed a fair market value test.

Embedded options inherent in a transportation/processing agreement are also allowed but it requires an economic test to demonstrate that the expected cost of the contract with the embedded option is equal to or lower than the lowest transportation/processing cost without the option.

These types of embedded options would require the purchaser to receive some value for entering into this type of transaction. The intent is for MMS to be able to transfer risk to the purchaser for some value, but only if an economic analysis indicates a risk neutral expectation of receiving Fair Market Value.

The purchase of oil and gas for pipeline imbalances is authorized with the approval of RIK management. These transactions are only authorized for spot market purchases and only when they are required to meet pipeline imbalance demands. This would be considered as providing oil or gas in lieu of cash. Purchase of natural gas to settle a pipeline imbalance may be necessary to participate in pipeline pooling agreements. As part of the RIK business plan, there will be a need to enter into transportation contracts with pipeline operators that allow pooling of gas. This marketing strategy allows MMS significant flexibility in attracting additional participation in its gas sales. On a month to month basis there may be a need to settle with the pipeline operator to avoid significant penalties. The approval to purchase gas is limited to resolving pipeline imbalances.

Short-term storage is permitted when required for operational reasons. There can be a need to inject certain quantities of natural gas in gas storage for short-term operational requirements. This is typically defined to be less than a month; usually until normal production or pipeline operations can resume. The ability to utilize storage for short periods can mitigate the economic impact of discounted prices in distress situations.

The purchase of short-haul firm transportation is approved and is understood to be only utilized for receipt and delivery points within the producing area. Unlike interruptible transportation, firm transportation customers pay a reservation charge, which gives firm transportation priority over interruptible transportation. There can be situations where MMS has a high degree of certainty for the expected volumes and therefore a firm commitment is needed to insure that the production volumes can reach the desired market. MMS may accept some volume risk due to the reservation charge, but can mitigate the price volatility and basis risk.

Both long haul interruptible and firm transportation transactions will require further review and approval. Procedures will need to be developed and approved by the Executive Committee before they will be used in the RIK Program.

Selling NGLs via a processing agreement is an approved guideline. It is routine for producer/marketers to contract with the plant operator to sell the NGLs that are extracted from the natural gas stream. The operator will then remit payment to MMS based on the actual sales proceeds or NGL indices. Transactions in which MMS would itself market/sell NGLs would require further review and approval by the MRM AD.

6.4. Transactions that Require Further Approval

There are other transactions that are expected to be considered as part of the evolution of the RIK business model. Within this category of transactions, the EC must approve the first application of the following classes of transactions: production exchanges, fixed priced contracts, and sales transactions to downstream market centers. Thereafter, the AD can provide both approvals for specific transactions and categorical approvals for a class of transactions. Multi year sales, transportation, and processing agreements have been considered by the EC and now come under the approval authority of the AD.

Production Exchanges are a type of contractual arrangement whereby MMS and a counterparty have agreed to swap physical volumes, usually between two different locations. Production exchanges can effectively mitigate transportation/processing and basis risk exposure by aggregating volumes onto a pipeline system with favorable economics or more liquid markets. This type of physical volume exchange may require multi-year terms.

Fixed price contracts are considered to be beyond the scope of the approved RIK business model, but may be appropriate under certain circumstances. However there may be circumstances where a portion of the sales portfolio should be fixed as part of a price volatility mitigation strategy.

Sales transactions to downstream market centers would be an extension to the existing business model and requires further approval. An example would be contracting to sell and deliver royalty gas to a utility in the New York City market area. Although this type of transaction may have favorable economics, it also can increase the transportation and price basis risk.

Sales transactions utilizing multi-year transportation and/or processing agreements would allow RIK to lock in specific transportation and/or processing economics for multi-year terms. Although longer-term agreements may introduce the potential for greater risk, these types of agreements can result in locking in very favorable economics due to structural inequities. An example would be an integrated producer with an equity interest in a pipeline or processing plant that locks the producer into a cost structure. The producer may be willing to sell below their costs to provide for incremental returns on underutilized capacity.

6.5. Transactions that are prohibited

Financial derivatives including any type of NYMEX futures contracts or negotiated Over the Counter (OTC) instruments are prohibited. Embedded options with price caps including collars are prohibited because RIK would almost always be subject to increased risk. RIK sells the commodity and providing the purchaser a price cap would transfer the price risk from the purchaser to RIK. Purchase of oil or gas for resale or using storage for price arbitrage opportunities is outside the scope of the existing business model and not allowed under this policy.

6.6. Principles Guiding Monitoring and Reporting

Implementing asset management strategies requires an understanding of the risks and rewards associated with each strategy and its potential impact on the organization. Generally, risk exposure is also accompanied by an upside or reward potential. Controls or measures undertaken for the purpose of risk monitoring and mitigation can result in an accompanying reduction in the reward potential or increased costs that can affect the net margin. To support the RIK operational program and MMS policy oversight functions, it is important to develop a risk monitoring framework that reflects MMS's business objectives.

The principles for monitoring and reporting are:

- provide the ability to assess, monitor, and manage risks;
- provide timely access to relevant information for operational, management and governance purposes;
- measure risk quantitatively when the benefits of quantifying the risks exceed the costs of the analytical analysis and reporting mechanisms; and
- assess the risk qualitatively if it is not possible to measure risk quantitatively or if costs of quantification are disproportionate or the quantitative precision is lacking.

The EC needs information pertaining to the achievement of MMS's strategic goals and objectives, efficiency of operations, and compliance with MMS policies and applicable laws and regulations. In addition, MMS will prepare an RIK Annual Report to Congress on the overall status of the RIK program. The frequency of the reporting will be defined in the RIK Risk Procedures Manual. However, the Executive Committee will be notified anytime an outcome or incident is observed which is outside the parameters of the Policy. The CRO will ensure that reports are provided to the Executive Committee and to Congress under the time frames established within the procedures and that they have been prudently reviewed by the CRO.

Specific reports to be provided to the Executive Committee include:

- RIK Performance Report
 - Net revenue and comparison to FMV benchmarks
 - Administrative cost trends and comparison to RIV
- Risk Exposure Report
 - Credit exposure
 - Other risks, based issued on reporting capabilities
- Attestation of Compliance with Risk Policy

These reports measure the performance goals and the efficiency goals of the RIK Program, plus ensure compliance with the Risk Policy or identify instances of discrepancies.

Two additional measures, Revenue Collection Time and Transaction Cycle Time, will be included when they can be prepared efficiently. All of these reports, except the Attestation of Compliance, will be prepared by the RIK Program Office and will be approved by both the RIK Program Director and the CRO. The Attestation of Compliance with Risk Policy will be jointly prepared and signed by the RIK Program Director and the CRO.

The RIK management team needs more detailed information and reporting as they have line responsibility for the design implementation, and monitoring of all aspects of the RIK operation. These reports are identified below and will be available to the Executive Committee. All of these reports are described more fully in the Risk Procedures Manual.

- Quarterly Risk Exposure Report:
 - Developed with approved risk metrics
- Quarterly Credit Reports:
 - Credit exposure
 - A/R aging report including specific delinquent accounts
- Quarterly Financial Sales Reports:
 - Percent of sales to individual counterparties
 - Percent of sales to targeted customer portfolio

7. Conclusion

The MMS manages a substantial Federal monetary asset on behalf of the American taxpayer. Revenues from mineral leasing on public lands have recently averaged over \$8 billion annually. As such, MMS is entrusted with performing an important fiduciary role for the Nation. MMS believes that these principles, policies, and specific guidelines provide for the performance of our fiduciary role at the highest professional and ethical level.

All organizations exist in a dynamic environment and their activities evolve in response to these changes. MMS will continue to assess and refine its RIK risk management policies. MMS will make every effort to ensure RIK continuously provides an unequaled government organization, measured by both performance and strict adherence to our fiduciary responsibilities.

Filename: RIK Risk Policy Final.doc
Directory: C:\Documents and Settings\fieldsm\Local
Settings\Temporary Internet Files\OLK90
Template: C:\Documents and Settings\fieldsm\Application
Data\Microsoft\Templates\Normal.dot
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