UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Credit and Capital Issues Affecting The Electric Power Industry — Docket No. AD09-2-000

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I. Introduction

My name is Dan Sarti and I am the Credit Risk Manager for Arizona Public Service Company. I hope to provide you with a front-line risk manager's perspective of contractual credit and collateral requirements on an electric utility trading floor. When considering the broad credit issues that are affecting the electric power industry, it is helpful to understand not just how contracts create credit risk, but what credit and collateral provisions are typical in purchased power contracts, the types of risks those provisions are intended to address for both sellers and buyers, and the role those provisions have in managing risk for utilities and, ultimately, for our customers. This will be particularly important because credit risk in our industry continues to grow.

Arizona Public Service Company is a vertically-integrated electric utility serving over one million retail customers throughout Arizona, as well as 73 wholesale customers. APS owns and controls 6,267 MW of diversified generation resources. Our peak load this past summer was 7,026 MW. From that difference, you can see that APS relies heavily on purchases to meet our native load requirements, and our need to buy both energy and capacity from wholesale markets is increasing. Additionally, although we are a net buyer of energy and capacity, we are frequently selling surplus power in wholesale markets. And, like many utilities, we buy and sell

frequently in short-term and real-time markets to optimize the dispatch of our generation. We have contractual exposure, as both a buyer and seller, to approximately 100 counterparties at any given time. As a result, we are keenly attuned to credit and collateral risks. One of the standard platforms APS uses for bilateral transactions is the WSPP Agreement, a standard contract with terms and conditions that provide for any WSPP member to transact with any other WSPP member using the agreement. WSPP members are found throughout the country, as the WSPP agreement is used nationwide.

II. Credit Risk

Credit risk can be defined as the potential economic loss caused by either the nonpayment of amounts owed, which is called "receivable risk," or the nonperformance of contractual obligations by a customer or counterparty, which is called "performance risk." Credit risk occurs for both parties at the moment any contractual relationship is entered into. Receivable risk is perhaps the most common form of credit risk, since it is inherent in virtually all commercial transactions, including energy commodity transactions. Performance risk is the potential loss incurred by one party if the other party to the contract does not perform on the remaining contractual obligations. In energy commodity transactions, such a loss would occur when the non-defaulting party has to replace a purchase or sale in the market at a price that is disadvantageous relative to the original contract. The most common method of mitigating the risk created by energy commodity contracts is through the use of collateral.

III. Contractual Creditworthiness and Collateral Provisions

Most energy commodity contracts have some provisions related to the creditworthiness of the parties. As a general rule, these credit provisions require some amount of credit enhancement or financial collateral to secure credit risk created by their contracts. There are

several common elements to contractual provisions that allow collateral to be requested or posted.

The first of these elements is the "triggering event." This is the specific event or condition, whether objective or subjective, that requires a party to provide credit enhancement or post collateral. Once a party reaches a triggering event, it is routinely required to maintain adequate collateral to cover the entire contract credit exposure. In the WSPP Agreement, which is commonly used for energy commodity transactions, creditworthiness is addressed in Section 27 of the WSPP Agreement. The provision states that if party has a reasonable basis for questioning the other party's creditworthiness, financial responsibility, or performance viability, it may demand reasonable assurances. The contract creates a "safe harbor" list of events which allow questioning of a party's performance including:

- Knowledge that the party or its guarantor are failing to perform or defaulting under other contracts;
- The party has exceeded credit or trading limits;
- A party's debt is downgraded below investment grade or a below investment grade debt is downgraded further; or
- Substantial changes in market prices which materially and adversely affect a party's ability to perform.

The second common element of a contractual credit provision is the form of collateral. Many contracts list specific forms of collateral which are acceptable to each party. Generally accepted forms include cash, letters of credit from highly rated banks, guarantees from investment grade companies and government securities. The WSPP Agreement provides that

reasonable assurances include a letter of credit, cash prepayment, posting of other acceptable collateral, a guarantee agreement, or some other mutually agreeable method.

To supplement both the triggering event and form of collateral provisions, the WSPP Agreement provides a sample Collateral Annex that may be negotiated, that sets forth the conditions under which a party will be required to deliver performance assurance and the conditions under which a party will be required to release and return performance assurance. This annex may establish collateral threshold (open credit) levels corresponding to specific credit ratings, and may also establish "ratings triggers" or other objective standards which would require adequate collateral to cover the entire credit exposure.

The third common element in a credit provision is the amount of collateral. Contracts should specify the amount or methodology used to compute the amount of collateral required. In bilateral wholesale energy transactions, collateral is typically required only for the amount of current exposure, including current receivable exposure and current performance exposure. For example, the WSPP Agreement limits the level of assurances to what the performing party could reasonably expect to receive in damages.

Importantly, creditworthiness provisions in energy commodity contracts benefit both buyers and sellers. Without a contractual means to ensure that a sufficient amount of collateral will be posted by a less creditworthy counterparty, a buyer may not enter into a purchase transaction. Should the seller default when power prices are higher than in the contract, the buyer could not secure the power at the price it had negotiated, and may not be able to recover damages from the seller. Similarly, without a creditworthiness provision, a seller may not enter into a power sale transaction because the buyer may be unable to pay after power is delivered, or the seller might lose profitable opportunities to sell to others.

Managing exposure to credit risks, whether buying and selling power, has long been important, and it is becoming more important. Today there continues to be significantly increased possibilities of corporate defaults. This fact is evidenced by higher credit default swap premiums, higher corporate bond spreads, more rating agency downgrades, and the state of our equity markets. Also amplifying the importance of managing credit risk is higher commodity price volatility. Price volatility increases credit risk as energy contracts move further "in the money" or "out of the money." Also, price volatility increases liquidity risk as parties to either side of a transaction may have increased contractual collateral requirements in order to securitize higher dollar levels of performance risk

IV. Collateral and Its Relationship to Liquidity

The use of collateral has had the effect of decreasing credit risk, but it also has had the commensurate effect of increasing the financial liquidity requirements (and risk) of energy businesses. In order to provide collateral or other credit enhancement, companies require access to large amounts of readily available financial liquidity, such as cash or bank lines of credit. The amount of financial liquidity required to support contractual obligations depends on the level of credit risk created by the contracts as well as the specific requirements in the credit provisions. As a result of the current strain in the financial markets, companies may find reduced access to liquidity impacting their ability to take on further counterparty risk or grant credit. Thus, the difficulty of satisfying potential liquidity calls on new transactions may mean fewer transactions are consummated.

V. Conclusion

Any time an unsecured contractual exposure is created, such as in an energy commodity contract, it is reasonable and prudent for a company to require that collateral be posted in the

event its counterparty's creditworthiness deteriorates. There is no single perfect indicator of a company's creditworthiness. As recent events have proven, financial statements based on historical accounting are too "historical" to be relied upon as an indicator of rapidly changing credit quality. As a result, contractual creditworthiness provisions, such as those in the WSPP Agreement, need to be sufficiently flexible to provide the level of assurance needed for parties to enter into energy commodity transactions. And, these creditworthiness provisions are critical to both parties in a typical energy contract.

However, with collateral protection comes potential liquidity risk. Contingent liquidity commitments must be anticipated. Since liquidity is a finite resource, it must be budgeted and allocated across the organization. It is important to establish an aggregate limit for the acceptance of credit risk and contingent liquidity commitments. If a company is near its limit on available liquidity, few transactions are attractive enough to risk bankruptcy by creating a liquidity crisis. Recognition of these risks as they currently exist may result in a decreased level of activity in the wholesale power markets, at least for a period of time. But ultimately, strong contractual creditworthiness and collateral provisions and sound risk management practices that help mitigate credit risks are essential in order to avoid potentially catastrophic losses that would impact both utility companies and their customers.