UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Arizona Independent Scheduling Administrator Association	)	Docket No. ER00-____-000

AFFIDAVIT OF JERRY W. SMITH

I, Jerry W. Smith, being duly sworn, depose and state as follows:

BACKGROUND

1. I am employed by Arizona Public Service Company (APS), where I am an Engineering Section Leader in Transmission Technical Services of Power Operations. My mailing address at APS is: Mail Station 2260, P.O. Box 53999, Phoenix, Arizona 85072-3999. As part of my overall duties at APS, I provide engineering support to the real time operators of the APS transmission system on such matters as development of seasonal operating studies, and contingency analysis for outages or unexpected high loading. In addition, I represent APS Transmission Operations at various organizations such as the Western Systems Coordinating Council ("WSCC") and the North American Electric Reliability Council ("NERC"), and also in discussions related to the development of entities such as the Arizona Independent Scheduling Administrator Association (Az ISA) and an independent system operator that will serve the

southwestern United States.

2. While working at APS over the past twenty-two years, I have had the opportunity to engage in activities related to the sale and delivery of electric energy to wholesale and retail customers by APS and other electric utilities in the State of Arizona. In addition to my experience with transmission related activities, I spent six years (before FERC issued Order No. 888) working with System Operations on power supply matters. Based on all of this experience, I am familiar with each of the electric utilities operating in the State of Arizona, and have general knowledge of each utility's transmission system.

3. I have been actively involved in the planning and development of the Az ISA. Early on in the planning process, I was one of the primary authors of the first draft of the Protocols Manual. Over the past two years, I have attended at least 70 meetings - probably more - held by the Az ISA Board and the Az ISA Operating Committee at which revisions to the Protocols Manual were proposed, discussed and adopted. Those meetings, and less formal gatherings in which I participated, led to the version of the Protocols Manual that the Az ISA Board conditionally accepted on April 7, 2000.

4. In this affidavit, I review the requirements and obligations delineated in the Protocols Manual, explain how those aspects of the Protocols Manual that differ from the requirements specified in FERC Order Nos. 888 and 889 (as reflected in the pro forma Open Access Transmission Tariff ("OATT") and FERC's regulations) are consistent with or superior

to such requirements, and elaborate on the reasons for specific limited deviations required to facilitate implementation of retail access in the State of Arizona, as required by the Arizona Corporation Commission (AACC@).

BACKGROUND

5. The Protocols Manual, as it exists today, is the product of discussions that were guided, in part, by decisions issued by the ACC. On December 26, 1996, after more than two years of meetings and workshops, the ACC issued Decision No. 59943, adopting a Competition Plan that provided for retail competition in Arizona. Although the ACC modified the Competition Plan on August 10, 1998, as described in Decision No. 61071, the decision to implement retail competition was affirmed. On September 28, 1999, APS filed with FERC in Docket No. ER99-4577-000 a proposed revised OATT to accommodate retail direct access under the ACC's Retail Competition Plan effective September 29, 1999. On December 10, 1999, Tucson Electric Power Company (ATEP@) filed with FERC in Docket No. ER00-771-000 a proposed revised OATT to accommodate retail direct access under the ACC's Retail Competition Plan effective January 28, 2000. By orders issued November 24, 1999 and February 8, 2000, FERC permitted the APS and TEP OATT filings to take effect, subject to suspension and conditions.

6. The stakeholders in the Az ISA have been meeting regularly since 1997 to

negotiate the terms of the Protocols Manual, which establishes the requirements, rules and procedures to be followed by Transmission Providers ("TPs") and Scheduling Coordinators ("SCs"), including those SCs that schedule power transactions for retail customers purchasing commodity electricity from the competitive marketplace, ("Competitive SCs") and those SCs scheduling power transactions for bundled retail loads under standard offer rates ("Standard Offer SCs"). Upon implementation of the Protocols Manual, there are expected to be four participating TPs: Arizona Electric Power Cooperative, Inc. ("AEPCO"), APS, Citizens Utilities Company ("Citizens"), and TEP. The number of Competitive SCs that will participate in the retail market is unknown at this time. To date, there has been limited Competitive SC participation in the individual open access retail markets within the APS and TEP distribution service territories. It is hoped that implementation of the statewide Az ISA retail access program will encourage more Competitive SCs to participate.

7. As noted previously, on April 7, 2000, the Az ISA Board conditionally accepted the Protocols Manual. Once the Az ISA implements the Protocols Manual, each of the TPs will continue to operate its transmission system as it is operated today. However, each TP will now be providing retail transmission services pursuant to the terms and conditions of the Protocols Manual, as well as their own OATTs and other tariffs. As discussed more fully below, during the initial phase of Az ISA implementation of the Protocols Manual, the Az ISA will perform limited oversight of PM activities, limited monitoring of the operations of the

Interconnected Transmission System and provide dispute resolution services. In addition, the individual TPs will immediately implement, under the oversight of the Az ISA, certain other Protocols Manual features (most notably, a temporary transmission capacity and energy imbalance mechanism), in an effort to "jump start" retail competition.

8. Under most circumstances, the Protocols Manual imposes identical requirements on both TPs and Control Area Operators ("CAOs"). However, in a few instances the Protocols Manual establishes requirements that apply to either a TP or a CAO, but not both. This distinction must be maintained because two TPs, AEPCO and Citizens, are not considered CAOs. AEPCO fulfills some of the functions typically provided by a CAO, but for purposes of the Protocols Manual, it is deemed a TP only because in the area that it serves, most CAO functions are provided by the Western Area Power Administration. Nor does Citizens operate a control area. While Citizens does operate the 69 kV transmission system within its service territory, transmission service into Citizens' service area is provided exclusively by the Western Area Power Administration. Thus, for purposes of implementing retail competition in Arizona, Citizens is considered a TP.

9. Before turning to specifics, I want to emphasize that the FERC, in its review of the Protocols Manual, should keep in mind that the Protocols Manual as a whole is a carefully crafted package that reflects significant compromises by a wide variety of stakeholder groups.

Each of the limited deviations from the pro forma OATT is a necessary ingredient of the overall compromise. This compromise package, developed with the active assistance of the ACC staff, represents a reasonable plan to stimulate retail competition in Arizona and will in no way impede, and may facilitate the eventual transition to the Regional Transmission Organization ("RTO") format envisioned by FERC in Order No. 2000.

IMPLEMENTATION ISSUES

10. Prompt FERC action on the Az ISA filing will substantially assist in the immediate development and success of a robust retail market in the State of Arizona. Even in its Phase I implementation, the Az ISA's oversight and dispute resolution services, and the availability of standardized statewide operational and administrative protocols, will immediately enhance public perceptions of market integrity and market opportunities, and presumably attract new Competitive SC entrants to the Arizona retail market. In addition, Az ISA Protocols Manual Phase I implementation will provide immediately, through the cooperation of the TPs, a new transmission allocation mechanism that will enhance each Competitive SC's ability to serve retail markets. Although a RTO of some kind could fulfill such a role, it is not certain how soon such an organization could be fully functional in Arizona. Although we are mindful of the ambitious schedule set by the FERC in Order No. 2000, actual experience at the Az ISA and at RTOs around the country suggests that it is likely to take substantial time to complete the development process and actually implement such an organization. The State of Arizona has

made clear that it does not want to further delay the consumer benefits that will result from robust retail competition. Immediate implementation of the Az ISA Protocols Manual will not in any way delay implementation of a southwestern RTO. Rather, in my opinion, allowing this limited scope organization to move ahead now will permit my company, APS, and other Az ISA participants to devote greater resources to RTO discussions and perhaps accelerate that process.

11. The requirements in the Protocols Manual are to be implemented in two phases. Under Phase I, which begins as soon as FERC approves the Protocols Manual, the Az ISA will initiate limited oversight of each TP's OASIS, limited monitoring of the operations of the Interconnected Transmission System and provide an Alternative Dispute Resolution (AADR@) function, as described in more detail below. Each TP will also immediately implement temporary ARNT, Energy Imbalance and Must Run procedures, also described below. Implementation of Phase II of the Protocols Manual will be considered by the Az ISA Board when there is 300 MW of competitive retail load and the Board has approved a business plan demonstrating the Az ISA's ability to implement the expanded Phase II functions.

12. This "modular" approach to implementation of the Protocols Manual permits substantial statewide retail access without any further delay. As already noted, several years have passed since the state legislature and the ACC decided to promote retail access.

Development of the infrastructure needed to implement some of the Phase II procedures (particularly the trading mechanisms for ARNT and Energy Imbalances) would take additional time and substantial additional money. Further, recall that the Az ISA is an interim organization, intended to provide retail access during the transition to a RTO. Depending on how fast a southwestern RTO develops, Phase II features may be subsumed within that organization. However, should RTO development require more time, the Az ISA Board can implement the Phase II mechanisms to further the development of retail competition in the state. The Protocols Manual is a flexible document that allows for either eventuality.

PROTOCOLS

This section provides some details about each of the specific protocols except for Protocol I, which is an introduction, and Protocol II, which provides definitions.

PROTOCOL III
(Total Transmission Capability)

13. A transmission provider must determine the Total Transmission Capability (ATTC@) and Committed Uses for the paths on its transmission system. This is nothing more than a codification of the TPs' existing practices, with the minor addition of the Az ISA's monitoring function.

14. These requirements are consistent with the requirements described in Order

No. 889, and imposed upon TPs pursuant to Section 37 of FERC's rules and regulations, which already require transmission providers to calculate and post TTC.

PROTOCOL IV
(Statewide OASIS)

15. In Phase I, the Az ISA will monitor the OASIS sites currently used by the individual TPs. In Phase II, the Az ISA must implement a statewide OASIS site, which will be used to administer reservations related to Retail Network Integration Transmission Service (ARNITS@) as well as wholesale transmission service.

16. Phase I OASIS requirements are consistent with FERC's mandate in Order No. 889 since the TPs will continue to operate their respective OASIS sites, as required by FERC. The Protocols Manual also specifies that the Az ISA will monitor those sites to ensure compliance. The requirements implemented during Phase II are superior to the requirements in Order Nos. 888 and 889. The fundamental purposes of an OASIS site are to provide an open forum in which any transmission customer may request service and to facilitate dispersal of information on reservations to all potential transmission customers in a timely manner so that they can be certain that they are receiving non-discriminatory treatment. A statewide OASIS adopts the concept of "one stop shopping," making it easier for transmission customers to access information that they might need over several transmission systems. Thus, for example, this expanded OASIS would assist a marketer who is purchasing generation from different sources and needs to deliver that generation to multiple loads located in multiple control areas throughout Arizona.

17. A slight variation on the concept of the statewide OASIS site is almost in existence already. Of the four TPs subject to the terms of the Protocols Manual, APS and TEP both use the OASIS site maintained and operated by APS, which is found at www.azpsoasis.com. Arrangements have been made for AEPCO to begin using that site as well. The Az ISA will have a same-time view of this site.

PROTOCOL V
(Allocated Retail Network Transmission)

18. This protocol describes the method of allocating RNITS among those Competitive SCs who participate in the competitive retail electricity market in Arizona and Standard Offer SCs who schedule power to meet the load requirements of the standard offer customers that continue to take what amounts to bundled service. During Phase I, the TPs will trade capacity reserved for standard offer customers over certain critical transmission paths to Competitive SCs in exchange for their capacity on other paths. In that way, the Competitive SCs can aggregate their transmission rights on these critical paths. SCs value the ability to aggregate their transmission rights because it allows them to obtain a meaningful amount of capacity on particular paths, thereby facilitating their ability to deliver power to centrally located hubs from diverse generating resources. The amounts reserved on each of these critical transmission paths are: 200 MW from Palo Verde to the APS Load Zones (which includes much of the greater Phoenix area); 80 MW from Four Corners to the TEP Load Zone (which includes much of the greater Tucson area); and 4 MW from Westwing to Vail to serve the

Southeastern Arizona Load Zone and 5 MW at Westwing to serve the Mojave Electric Cooperative Load Zone.

19. The original allocation to Competitive SCs of capacity over multiple transmission paths is consistent with the principles adopted by FERC in Order No. 888, where it decided not to abrogate the existing requirements contracts for customers already using the transmission system. Although not always set by formal contract, retail load in Arizona has relied on the transmission system to serve its requirements. Thus, the capacity reserved on the system for retail native load will continue to be used to serve retail load. The aggregation mechanism is critical because SCs are unable to effectively serve retail load using the smaller amounts of capacity scattered over the entire transmission system as originally allocated. Aggregated capacity linking important hubs with diverse generation facilitates enhances the ability of the SCs to serve the retail market. Moreover, this is consistent with FERC precedent, which holds that a transmission customer should not be limited to its load ratio share of capacity on each interface.

20. Phase II implementation provides for an auction and trading mechanism that allows SCs to bid for capacity on transmission paths, and trade that capacity amongst themselves. The auctions will be administered by an independent trading entity, under the direction and control of the Az ISA, not by the TPs. However, the capacity reservations will be

reported to the TPs so that they may operate their transmission systems reliably, and bill those who use the system the appropriate amount.

21. Under the auction mechanism, SCs will submit bids for capacity rights over specified transmission paths. (As there is only one ARNT transmission path into each of Citizen's Load Zones, the ARNT auction procedure will not apply for Retail Network Load in Citizens' Load Zones). Once all bids have been received, the trading entity will order the bids from highest to lowest, and then begin accepting bids starting with the highest. The auction entity will continue accepting the next highest bid until the capacity associated with those bids exhausts the total available capacity on that particular path. The price offered by the last bid that the auction entity accepts will be the clearing price, which applies to all accepted bids, regardless of the price offered in the bids.

22. The trading entity will collect all of the monies paid in association with the accepted bids, and redistribute such monies to all SCs (both Competitive SCs and Standard Offer SCs) on a pro rata basis based on the ratio of the load served by each SC to the total load served by all SCs.

23. The auction mechanism provides a reasonable way of establishing the price of transmission rights without violating FERC's "or" pricing policy. Prior FERC decisions (such as the "Order Conditionally Accepting Tariff And Market Rules" found at 86 FERC **&** 61,062 (2000)) have held that bidding for transmission congestion rights does not violate FERC's pricing policy because the revenues from those auctions effectively reduce transmission rates.

The same is true for the ARNT auction because the monies that the trading entity collects pursuant to the bidding process are redistributed to all SCs. In effect, those monies offset in part the charges that SCs pay for transmission service.

24. The auction and trading of reservation of capacity, to be implemented in Phase II, is superior to the reservation process described in the pro forma tariff. Under Order No. 888, reservations on the transmission system are made on a first-come, first-served basis, without regard for the value that other customers may assign to those transmission rights. Under the auction mechanism, market participants' transmission rights will be valued appropriately as determined by the bids submitted by the SCs. Furthermore, the trading mechanism provides a forum for market participants to exchange their rights. Together, these mechanisms ensure that the transmission system is used to serve load in a more efficient manner.

PROTOCOL VI
(Scheduling)

25. The standardized scheduling mechanism described in this protocol, pursuant to which information is provided to the TPs and CAOs by specified deadlines established two days ahead, one day ahead and on the day that service is taken, reflects the same process already used by TPs. Accordingly, this mechanism is consistent with the requirements in the pro forma tariff.

26. Under the Protocols Manual, TPs will determine losses on an hourly basis, and give notice of the loss factors for the upcoming month on or before the 15th of the current month so that retail customers can make whatever arrangements are necessary to provide for the appropriate amount of losses experienced. This procedure is important because it helps to mitigate the amount of Unaccounted for Energy (AUFE@)(as described below in the description of Protocol IX). This is consistent with the requirements in the pro forma tariff, which give TPs broad discretion to determine loss factors as they see fit. Wholesale customers will continue to use the loss factor stated in the individual TP's OATT or tariff.

PROTOCOL VII
(Ancillary Services)

27. Consistent with the requirements established by the Commission in Order No. 888, Ancillary Service No. 1 (Scheduling, System Control and Dispatch Service) and Ancillary Service No. 2 (Reactive Supply and Voltage Control from Generation Sources Service), must be provided by the Transmission Provider and purchased by the SCs. Ancillary Service No. 3 (Regulation and Frequency Response Service), Ancillary Service No. 5 (Operating Reserve - Spinning Reserve Service) and Ancillary Service No. 6 (Operating Reserve - Supplemental Reserve Service), must be offered by the Transmission Provider, but the SCs are permitted to self supply these services or purchase them from a third party, which is also consistent with Order No. 888. Ancillary Service No. 4 (Energy Imbalance Service) is described below in connection with Protocol IX.

PROTOCOL VIII
(Must-Run Generation)

28. This Protocol addresses the need to run generation in certain load zones. There are three load zones where generators must run during certain periods: (1) that portion of the metropolitan Phoenix and surrounding areas that are in the APS service territory; (2) the area in and around Tucson (which is part of the TEP service territory); and (3) the area in and around the City of Yuma (which is in the APS service territory). The rates charged for must-run generation will be charged by each of the TPs where these load zones are located, with the Az ISA providing oversight to ensure that SCs are being treated fairly.

29. During Phase II, this Protocol establishes a comprehensive scheduling procedure over the course of the month ahead of the operating month, leading up to two days and one day ahead of the operating day. These procedures ensure that the necessary must-run generation is known so that the available ARNT on a transmission path can be determined properly. In that way, these requirements facilitate the auction and trading of ARNT rights. As explained above, those mechanisms are superior to the reservations requirements in Order No. 888.

30. During Phase I, a modified form of the Phase II procedures are used because full implementation of this protocol is contingent upon the auction and trading of ARNT, which does not become effective until Phase II. They differ from the procedures associated with Phase II in that: (1) there is no ARNT trading among SCs; (2) the SCs' ARNT shares and

shares of the local generation requirement are specified by the TPs on the day ahead of the operating day; (3) generators committing to provide service outside the load zone by seven days ahead of the operating day will decrease the local generation requirement; and (4) for hours during which non-zero local generation requirement is anticipated, the TPs will use the SC's previous day total retail network load in the load zone to determine the SC's share of the local generation requirement for the corresponding day and hour of the subsequent week.

PROTOCOL IX
(Energy Imbalance)

31. This Protocol establishes an energy imbalance mechanism that is superior to the mechanism described in Order No. 888, during both Phase I and Phase II. During both phases there is a dead band minimum of 2 MW, as required by FERC. In addition, during Phase I, the dead band is defined to equal 10 percent, which is much broader than the 1.5 percent dead band requirement provided in Order No. 888. As a result, SCs are permitted substantial room for error in their scheduling before a penalty is imposed.

32. During Phase II, the dead band is reduced to 1.5 percent, but the implementation of trading allows SCs to offset their imbalances, which in many cases will reduce or eliminate any penalty charges. In addition, in Phase II, the Protocols require implementation of a mechanism that can be used to trade imbalances. This is superior to the requirements in Order No. 888 because the imbalances will be traded to cancel each other out (to the extent

there are over-schedules and under-schedules experienced on the TPs' systems). As a result, the TPs will assess penalties based on the overall imbalance experienced on their systems, which more accurately reflects the impact of the improper uses of their systems.

33. In addition to Energy Imbalance, Protocol IX permits Transmission Providers to recover UFE. UFE is important because it accounts for errors in certain assumptions when transmission and energy imbalance are calculated. For example, Transmission Providers predict a certain loss factor for the facilities in their systems. External factors, outside the control of the transmission providers, such as temperature, can alter dramatically the actual losses experienced on the system. Another example is accuracy of the meters on the system. Sometimes meters malfunction. In addition, customers manage to circumvent the meter while still taking electric energy off the system. As a result, the electricity placed on the system and the energy taken off the system is not necessarily captured by the difference between the amount scheduled and the amount metered. Supplementing Energy Imbalance with UFE is superior to using Energy Imbalance alone since it makes up for these flawed assumptions and permits the Transmission Provider and the SCs (depending on situation) to be made whole. In fact, SCs that are allocated a portion of UFE may, under certain circumstances, use UFE to offset energy imbalances.

PROTOCOL X
(Congestion Management)

34. Protocol X describes the methods used to mitigate congestion on transmission paths to ensure that the total reservation over a transmission path does not exceed the TTC on that path. In general, these methods include curtailment as well as redispatch. The particular method used depends on the circumstances that cause the congestion. For example, different requirements apply when congestion is attributable to planned maintenance, versus forced outages or emergency conditions.

35. The proposed methods for relieving congestion are consistent with the terms of the pro forma tariff, which allows the use of redispatch and curtailment to ensure reliable operation of the transmission system provided that they are employed in a non-discriminatory manner. These concepts have been incorporated into existing procedures, such as the WSCC Unscheduled Flow Mitigation Procedure, to which Protocol X refers as the appropriate congestion management procedure under some circumstances. Other methods described in Section 4 of Protocol X also rely on these concepts.

36. The methods described in Protocol X reflect current practices on the transmission system in the State of Arizona. Since it is necessary for TPs to maintain an effective method of addressing congestion, in order to assure reliable service to and consistent treatment of all customers, including retail customers, the most reasonable and efficient method

is to continue using the procedures already established and working.

PROTOCOL XII
(Emergency Operations)

37. This Protocol is designed to ensure system reliability and compliance with the Emergency Operations Policies of various organizations, including NERC, WSCC and SRSG. When an emergency condition is experienced on the transmission system, the transmission provider must take quick and effective action so that system operation can return to normal as soon as possible. TPs and CAOs are permitted to dispatch generation, trip interruptible service, curtail service, and shed load. Should a TP or CAO implement emergency operations, this Protocol also requires that it inform interested parties such as adjacent TPs and CAOs, and also SCs, of the events taking place.

38. The procedures described in this Protocol are consistent with the terms of the pro forma tariff, which give a TP the latitude necessary to address an emergency condition. Such latitude is necessary because the nature and scope of an emergency condition cannot be predicted. Moreover, the procedures described in the Protocol reflect the procedures currently used by TPs and CAOs in the State of Arizona. Consequently, all transmission customers will continue to receive reliable service.

PROTOCOL XII

(After-The-Fact Checkout)

39. The After-The-Fact Checkout Protocol describes the process that TPs follow to settle transmission and ancillary services. The Protocol permits TPs to select one of two processes, each of which is currently employed by transmission providers in Arizona. Under either method, the TP reviews the final schedules, identifies any discrepancies, and attempts to resolve such discrepancies with the particular SC. In the event a discrepancy cannot be resolved by the parties to the transaction, the Az ISA will resolve the matter pursuant to its dispute resolution procedures.

40. The checkout procedures described in this Protocol reflect the current practices that the TPs use in the State of Arizona. The checkout procedures are a critical element of the overall retail access plan. Without it, the TPs would not be able to confirm that the scheduled services were actually taken.

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Jerry W. Smith

Subscribed and sworn to

before me on this ____ day of

August, 2000.

_____
Notary Public

My Commission expires on: _____