which is available from its own generating units. The total purchase price—a modest demand charge plus an incremental cost-based energy charge—is less than the incremental generating costs which the buyer would incur if it generated from its own units.

Q. Are there substitute products for nonfirm energy?

A. Yes. Most obviously, any utility that is a buyer of nonfirm energy proper, as distinguished from a short term capacity substitute, must have available its own generating capability to draw upon if the nonfirm supply is interrupted. This generation acts as an important force policing the prices which those selling nonfirm energy may charge. Buyers retain the option to generate from their own sources if sellers attempt to raise prices. Energy taken from longer term purchases can serve precisely the same purpose. More generally, as I described earlier, there is broad substitutability among individual bulk power products in the sense that utilities may use varying mixes of these products to develop the firm power product which they need to sell to their customers.

Q. Who are the buyers and sellers of nonfirm energy?

A. Virtually all generating utilities participate as both buyers and sellers in nonfirm energy markets. Whether they are sellers or buyers at a particular point in time will depend upon relative costs, but can change as a result of load level changes, outages and other factors. Some may be predominately net sellers while others may be predominately net buyers. As described above, both UE and CIPS purchase large amounts of energy to support sales to others. UE tends to purchase heavily from entities located to the north and west of it—e.g.,

NSP, MEC, KCPL—where coal generation costs are less. However, it also may purchase from utilities located to the east (e.g., CIPS and IP) when conditions dictate, such as when the 1993 floods restricted transportation of coal to certain of its generating stations. UE sells large quantities to EEI for resale by EEI to the USEC enrichment plant. It also sells large quantities of energy to Entergy to displace gas fired generation on that system and at times for resale by Entergy to other utilities. For these sales, UE competes not only with other electricity suppliers but also with those who sell gas to Entergy. During summer peaking conditions, however, flows may reverse as it becomes economic to move gas fired generation from south to north. UE then serves as a purchaser and, sometimes, reseller for those transactions. In recent years, CIPS has purchased energy principally from CE to the north and PSI/CINergy to the east. For sales its principal customers have been EEI and TVA to the south and UE to the west.

Q. Are UE and CIPS actual or potential competitors for sales of nonfirm energy?

A. Yes, but there also are many other competitors in the nonfirm markets in which UE and CIPS sell.

Q. How have you proceeded to analyze the effects of the merger on nonfirm energy markets?

A. I have done two things. First, for the same first tier markets discussed above, I have computed the merged firm's share of total generating capacity. FERC in the past has used this "as a measure of capacity that may be available for nonfirm and shorter term sales"

(*KCPL* at page 61,556, line 11), although at the same time recognizing its obvious defect of failing to incorporate native load demands before the computations are made. Second, I have analyzed data on nonfirm and substitutable energy or capacity and energy transactions during 1993 and 1994.

Q. Please describe your analysis of total generating capacity in first tier markets.

A. The first tier markets and participants in them are the same as for the analysis of uncommitted capacity in first tier markets discussed above. The results are summarized in Exhibit ___ (RWF-14). Underlying data and other material supporting this exhibit are contained in my workpapers. I relied on the same raw data sources as I did for my computations reported above concerning uncommitted capacity and treated CSW and TVA in the same way. I define total generating capacity as owned capacity less, as appropriate, the net of capacity purchases and sales. Exhibit ___(RWF-14) is formatted precisely the same as are Exhibits ___ (RWF-11) and ___ (RWF-12). The utilities on whom each first tier market is centered are listed on the left. Then, Columns (1) and (2) provide the premerger shares of UE and CIPS, respectively, of total capacity in each first tier market. Columns (3) and (4) provide the postmerger shares of Ameren, the former before the effects of the open access tariff have been incorporated and the latter after those effects have been incorporated.

Q. What do you conclude from Exhibit __(RWF-14)?

A. Exhibit ___ (RWF-14) indicates that, in all instances but one, the merged firm's share of total generating capacity in first tier markets falls below the 20 percent level which FERC has used in the past to determine whether there is any possible concern about market power. Accordingly, we need not consider these other markets further. The figure exceeds 20 percent only for the first tier market centered on WR, where it is 25.4 percent.

Q. Does this 25.4 percent figure for the first tier market centered on WR suggest possible concern about merger-induced increases in market power?

A. No. WR is interconnected with only one of the merging parties, and so the merger does not take away any direct trading opportunities that were available to it premerger. Second, when the first tier market centered on WR is expanded to include entities accessible under open access tariffs of other utilities connected to WR, as it should be for reasons discussed above, Ameren's share drops below 20 percent. When the first tier market centered on WR is expanded to include entities accessible under the open access tariffs of CSW and KCPL, both of which are directly interconnected with WR, the merged firm's share drops to 12.2 percent. This result is shown in Exhibit ___ (RWF-15). Accordingly, when properly computed, the merged firm's share of total capacity in all first tier markets falls below FERC's 20 percent threshold.

Q. Please describe your analysis of nonfirm and substitutable energy or capacity and energy sales during 1993 and 1994.

A. I have used publicly available data (i.e., Form 1 or equivalent) on nonfirm energy (and substitute short term capacity and energy) sales by UE, CIPS and interconnected utilities to develop market shares and HHIs concerning the merging partners and the effects of the proposed merger.

Q. What geographic market did you examine for nonfirm energy sales?

A. Just as it is difficult to draw clean boundaries between products which should and should not be included in a relevant product market, it likewise can be difficult to determine precise and unambiguous geographic market bounds. For example, through displacement, energy can move relatively long distances. One utility may buy nonfirm energy from suppliers located to the north of its system and resell it to the south, to other utilities who may do much the same thing, i.e., buy in the north and sell in the south, etc. Prices for nonfirm energy may tend to move in the same direction over very broad areas, which could suggest that a broad relevant geographic market definition ought to be employed. The approach which I have employed uses a relatively narrow geographic market—UE, CIPS and their first tier utilities—as a screening device. If it can be shown that the merger presents no market power concerns under such a narrow geographic market definition, it obviously follows that the merger would not present market power concerns if the market were defined more broadly to include additional participants such as described in Mr. Moorman's and Ms. Borkowski's testimony.

Q. Please describe the results of your analysis.

A. The results are shown in Exhibit ___ (RWF-16) and ___(RWF-17), each of which is formatted in the same way. The former pertains to 1993, while the latter pertains to 1994. Column (1) identifies the seller, Column (2) lists the sales of nonfirm energy or closely substitutable products, in gigawatthours, made by each seller in 1993 or 1994 as appropriate, and Column (3) converts those gigawatthour figures into shares of the total sales made by all first tier utilities. Column (4) squares the market shares as is required for the HHI computation. The Column (4) figures sum to provide the premerger HHI. At the bottom I show the HHI increase resulting from the merger as well as the postmerger HHI. Mathematically the merger-induced HHI increase is equal to two times the premerger UE percent times the premerger CIPS percent. Thus, in Exhibit ___ (RWF-16), UE's premerger percent is 8.5 while that for CIPS is 6.2 percent. This converts to a merger-induced HHI increase of 105, i.e., 8.5 x 6.2 x 2 = 105. As can be seen, for both years studied the postmerger HHI is less than 1,000, portraying a market that is unconcentrated under the *Merger Guidelines*. As indicated previously, mergers in unconcentrated markets "ordinarily require no further analysis" under the *Merger Guidelines*. I also note that for both years the combined shares of the two firms—14.7 percent in 1993 and 15.7 percent in 1994—fall below threshold levels for concern for single firm market shares.

Q. What data have you used in the compilation of Exhibits ___(RWF-16) and ___(RWF-17)?

A. I used data filed by the utilities in their Form 1 (or equivalent) annual reports. The compilations include all items from the raw data sources except those that clearly do not

represent nonfirm or closely substitutable transactions, e.g., those which are labeled as requirements sales, long term unit sales, or long term or intermediate term firm sales. Where one utility is shown as making a sale to another, I include only data on the *transaction* from the seller's annual report or the buyer's annual report, but not from both. In this regard, I use the expression *transaction* cautiously, recognizing that the raw data will record as one single annual transaction a number of different sales or purchases that occurred at different times and prices throughout each one-year reporting period.

Q. Do you have any additional comments on the analyses contained in Exhibits ___(RWF-16) and ___(RWF-17)?

A. Yes. While the analyses contained in these two exhibits do not indicate any merger-induced concern about market power in nonfirm energy markets, they nevertheless contain data which significantly overstates the importance of both UE and CIPS in these markets. Were the data appropriately adjusted, the influence of UE and CIPS would be far less than shown in these two exhibits. Accordingly, the merger-induced HHI increase also would be less.

Q. Please explain.

A. As I indicated earlier, most of the nonfirm energy sales of both UE and CIPS are supported by energy simultaneously purchased from others. With such transactions UE and CIPS in effect bundle transmission services along with risk-bearing and aggregation services. While such transactions are important, including them in Exhibits ___ (RWF-16) and ___

(RWF-17) has the effect of overstating both the total market size as well as, more importantly for the analyses here, the individual shares of UE and CIPS. In effect, there is a double count, because the transactions are included both as a sale from another supplier to UE or CIPS, and then also as a sale from UE or CIPS to another purchaser. More properly these transactions ought to be included only once. This double count causes the size of the total market to be overstated. Moreover, the individual shares of both UE and CIPS also are overstated. The purpose of the analyses here is to address principally whether the merger might create an inordinate concentration of generation such that market power might be exercised. Accordingly, we should seek to attribute these transactions to the parties whose generation was used, and not to UE or CIPS which served in "middleman" roles.

Q. **Please provide an example.**

A. Assume that during a particular hour CE sells 500 megawatts to CIPS which CIPS in turn resells to EEI. The development of Exhibits ___(RWF-16) and ___ (RWF-17) will have considered this as both a sale by CE and a sale by CIPS. Accordingly, transactions totaling 1,000 megawatts will be used in determining total market size, and 500 megawatts of sales will be attributed to each of CE and CIPS. A more realistic view is that there has been only a single transaction of 500 megawatts for which CE is the seller and EEI is the buyer. CIPS has functioned principally as a middleman, providing transmission and risk-bearing services, but not as either a generator or consumer of the 500 megawatts.

Q. Does this deficiency also affect the data for utilities included in your analyses other than UE and CIPS?

A. Yes. However, the raw data used in preparing Exhibits ___ (RWF-17) and ___ (RWF-18) do not contain a means to identify and therefore eliminate simultaneous buy-and-resale transactions. It is possible to infer, however, that for most utilities included in my analyses these types of transactions will be much less significant than they are for UE and CIPS or that, if they are significant, it still would be wrong to seek to eliminate them. Some of the utilities included in the analysis actually purchase relatively little energy from others. And so while there may not be publicly available data which tags specific purchase-for-resell transactions, by logic the amount cannot be large. Some of the utilities included in the analysis are not as well situated between selling and buying utilities as are UE and CIPS, and so transmission across their systems, in the form of simultaneous buy-and-resell transactions, is not as desirable. Other utilities are located at the periphery of the region collectively encompassed by the utilities included in Exhibits ___ (RWF-16) and ___ (RWF-17). While they may engage in frequent buy-and-resell transactions, the utilities from whom they buy are not likely to be included in the market as it has been defined for these exhibits, i.e., UE, CIPS and their first tier utilities. Accordingly, their buy-and-resell transactions do not represent a double count of transactions already included as another utility's sales. Were these transactions to be eliminated as sales by the intermediate buying-and-reselling utility, they would inappropriately disappear from the computations entirely.

Q. Please provide an example.

A. In testimony filed in support of its application to merge with Wisconsin Electric Power Company, NSP states that it purchases energy from utilities to the north and west of it to support energy sales to utilities to the south and east of it. Its largest energy suppliers in recent years have been MH and the Basin Electric Power Cooperative (Basin), and the largest purchaser from it has been UE. Neither MH nor Basin is included among the suppliers identified in Exhibits ___ (RWF-16) and ___ (RWF-17). Accordingly, if we were to eliminate purchase-and-resell transactions from NSP's sales—if we had the ability to do this, which we do not—we would have improperly removed them from the computations entirely.

Q. Are there any other utilities included in Exhibits ___ (RWF-16) and ___ (RWF-17) that do engage in buy-and-resell transactions that could represent a significant double count in these two exhibits?

A.. I do not have data to address this question directly. However, it is possible to make some reasonable inferences. AEC's Form 1 equivalents report relatively large purchases from MAPP utilities to the north and from KCPL in the SPP. They also report relatively large sales to Entergy to the south. UE also has interconnections with KCPL and MAPP utilities, as well as Entergy, and makes purchases from KCPL and the MAPP utilities to support its sales to Entergy. Having interconnections that are similar in this respect, it would not be at all unreasonable to infer that AEC uses purchases to support its interchange sales in a fashion that is similar to what UE does. Likewise, IP is interconnected with both CE and

EEI, and its Form 1s report relatively large purchases of energy from CE and relatively large sales to both TVA and EEI. It is probably reasonable to infer that, just as does CIPS, IP purchases energy from CE for simultaneous resale to EEI and TVA.

Q. Do you have any additional comments on Exhibits ___ (RWF-16) and ___ (RWF-17)?

A. Yes. There is another reason that these exhibits overstate any market power concerns that otherwise might be suggested by the merger. The data used to derive these exhibits reflect only transactions that actually occurred and not alternatives that buyers might have available to defeat any merger-created ability to raise nonfirm energy prices. These alternatives include both energy supplied from the buyer's own generation as well as energy that might have been, but was not, purchased from another supplier. However, if the merged firm sought to raise price, buyers by definition could turn to their own generation alternatives in an attempt to counter that would-be price increase. They also presumably could turn to other suppliers. I also note that, because the data are historical, they do not reflect any competition enhancing effects that flow from Ameren's proposed open access transmission tariffs or those filed late last year by MEC. To the extent that these tariffs broaden the scope of the appropriate geographic markets and/or increase the number of participants in those markets, it necessarily follows that historical concentration data overstate the likely effects of the merger.

Q. Earlier you stated that mergers could raise market power concerns if they facilitated collusion among sellers. Is such collusion among sellers likely in nonfirm energy markets?

A. No. One reason is that this is an industry where all market participants are likely to be very well informed about both demand levels and the various features (fuel prices, heat rates, major outages) which determine sellers' costs. They ought to be able to estimate relatively accurately what the market-clearing price for nonfirm energy is likely to be, and therefore determine whether the price which suppliers seek from them is greater than that level. This can help determine whether collusion is present. A second reason is that, depending upon various conditions, individual entities are likely to participate in the market both as buyers and sellers. There is less incentive to participate in a price increasing conspiracy as a seller if the increased prices work to your disadvantage at times when you are a buyer.

Q. Have you also considered whether the merger of UE and CIPS is likely to create concerns about monopsony power in nonfirm energy markets?

A. Yes. The same common sense considerations mentioned earlier suggest that a merger between UE and CIPS is unlikely to present concerns about monopsony power in nonfirm energy markets. The merging parties represent only a small percentage of potential demand in the region of which they are a part. Moreover, with so many other possible buying entities within the region and the availability of transmission service under the merged firm's open access tariff—and the open access tariffs of several other directly interconnected utilities—would-be energy sellers need not rely upon making sales just to

the merged entity. Hypothetically, if the merged entity seeks to restrict purchases and reduce the price that it pays for energy, the aggrieved would-be sellers can simply market their energy elsewhere. They have numerous opportunities to do so. In such circumstances, it is implausible that buyer market power concerns will be present with a merger between UE and CIPS.

Q. Please summarize your conclusions about the effects of the merger on nonfirm energy markets.

A. A merger of UE and CIPS should not present concerns about the exercise of market power in regional nonfirm energy markets. Both UE and CIPS are active participants in these markets, both as buyers and sellers, and so the merger necessarily will reduce the number of participants by one. However, many other participants still will remain in these markets, both as buyers and sellers. Moreover, even when the geographic scope of the market is defined relatively narrowly to include only UE and CIPS and their first tier utilities, aggregate measures of historical transactions and total generating capacity fall below threshold levels for concern about market power. Residual concerns about market power should be mitigated by the open access transmission tariff that Applicants are filing, as well as the open access transmission tariffs that several other regional utilities have filed in recent years. Concern that the merged entity might be able to exercise buyer market power in nonfirm energy markets should be mitigated by the large number of potential buying utilities in the region, the several open access transmission tariffs now on file, and the merged firm's relatively small share of total demand in the region.

D. Other Considerations

Q. Are there any additional topics that you wish to address concerning whether a merger of UE and CIPS is likely to create market power in regional bulk power markets?

A. Yes. Various information presented above, relating to interconnections and market share and concentration indexes derived from historical or contemporaneous data, suggest that this is not a merger that presents competitive concerns for wholesale bulk power markets. I believe that this is a conclusion that can only be reinforced by certain of the changes that now are underway in the industry, e.g., opening up of transmission systems under open access transmission tariffs, proliferation of NUGs and competitive bidding systems, and the potentially increasing role of marketers. Indeed, as I have indicated, the merger actually presents an opportunity for enhancement of wholesale bulk power market competition because of the concomitant filing of the consolidated (one system) transmission tariff. This expands the pool of utilities accessible for a single transmission charge. While short term and nonfirm markets may become more competitive as a result, a more important implication ultimately may be easier entry for those who would construct new generation capacity. Most of the NUG capacity that has come on-line in this country to date has been contracted to a single buyer under a long term arrangement. By increasing the pool of potential buyers and therefore decreasing market risk, the consolidated open access tariff may make it more likely that NUGs are constructed whose output is not entirely under contract, i.e., what are sometimes referred to as "merchant" plants. This can expand the role of the market in decisions about constructing new capacity. When NUG capacity is

constructed as a result of a utility's RFP process, it is a centralized utility (with regulatory oversight) planning process that will have determined the timing and amount of such capacity, and probably influenced other characteristics as well such as fuel type, location and technology. When merchant plants are constructed, it is the marketplace rather than a central planning process that will have determined their attributes.

Q. Several other electric utility mergers have occurred or been announced recently. Does your analysis incorporate trends toward increasing competition in the industry?

A. Several mergers already have taken place among utilities interconnected with Applicants. These include the merger of Iowa Power Inc. and Iowa Public Service Company to form MPSI; the merger of MPSI and IIGE to form MEC; the merger of Iowa Southern Utilities and Iowa Electric Light & Power into IES; the merger of KG&E and Kansas Power and Light Company to form WR; the merger of Entergy and Gulf States Utilities; and the merger of PSI and Cincinnati Gas & Electric to form CINergy. My analyses—concerning number of interconnections, uncommitted and total capacity and nonfirm energy transactions—reflect all of these consolidations which have already taken place and conclude that a merger between UE and CIPS does not present significant competitive concerns. Moreover, as indicated, I believe that many changes now underway in the industry, whose effects do not fully manifest themselves in my analyses, can only reinforce such a conclusion. However, I have not sought to incorporate the effects of mergers which might take place in the future, nor do I believe that it is possible or appropriate to do so. It is not possible to do so because I do not know what mergers might take place in the future.

Properly assessing the effects of any merger requires an analysis of the specific facts which such merger presents and is not something that can be done on a generic basis absent reference to those facts. Moreover, it is not appropriate to seek to incorporate the effects of mergers which *may* occur in the future, because of the very significant risk that an attempt to speculate on what conditions might arise in the future will cause benefits that might be available now, from this merger, to be sacrificed because of future harms which may or may not arise. Far better, I think, is to assess this merger now on its merits, and then to assess any mergers that may in the future be proposed on their merits as perceived at the time they are proposed. Market power concerns which then are believed to be present can be addressed at the time those future mergers are proposed. If significant market power concerns are believed to be present, those future mergers can be conditioned as appropriate or rejected. But we need not speculate now on the extent to which such concerns then may be present or how any such presence should affect the review of this merger.

VI. RETAIL COMPETITION ISSUES

Q. Have you sought to examine whether the proposed merger will create or enhance market power for sales of electricity to retail customers?

A. Yes.

Q. Please describe that examination.

A. There generally are four types of retail electric competition which can be hypothesized to exist—franchise competition, yardstick competition, locational or customer competition, and fringe area competition. I have examined each individually and concluded that the merger is not likely to affect the prospects for such competition significantly. As a threshold matter, the rates charged by UE (in Missouri and Illinois premerger and in Missouri postmerger) and CIPS (in Illinois) are constrained by state regulators. By itself this should greatly reduce any fear that a merger of UE and CIPS will create or enhance market power in retail markets for electricity.

Q. What is franchise competition?

A. Franchise competition is competition for the right to be the exclusive electric supplier within a predefined area.

Q. Will a merger of UE and CIPS significantly affect prospects for franchise competition?

A. No. Instances of franchise competition usually involve an existing or potential municipal distribution system and a nearby investor-owned utility, and so it is almost definitional that the merger of two vertically integrated investor-owned utilities will not significantly affect the prospects for it. Any franchise competition that, but for the merger, would take place between UE or CIPS and an actual or potential municipal distribution system, still can take place postmerger between that actual or potential municipal distribution system and the merged entity.

Q. What is yardstick competition?

A. Yardstick competition usually refers to a striving by utilities to rank more favorably in comparative evaluations (of rates, costs or other performance measures) made by their regulators.

Q. Will a merger of UE and CIPS significantly affect prospects for yardstick competition?

A. No. Because both UE and CIPS provide retail service in Illinois, the merger in principle might reduce the prospects for yardstick competition in Illinois if it were true that Illinois's regulators were able to use only Illinois utilities in any yardstick or performance comparisons that they wanted to make. This is because the merger will reduce the number of vertically integrated IOUs selling electricity in Illinois. (No similar concerns would be faced by Missouri regulators because only UE, and not CIPS, provides service at retail in Missouri.) However, this does not appear to present a significant problem. The electric utility industry can be distinguished by the wide array of data on costs, price and operations which is available publicly. Accordingly, regulators seeking to make yardstick comparisons need not be confined to a sample that includes only utilities under their jurisdiction but can include utilities nationwide if they so desire. Indeed, such larger samples generally will produce more meaningful performance comparisons anyway. Because the universe of utilities available for comparative purposes is so large, the merger

of two, even if they both serve in a single state, does not significantly affect the scope of useful comparisons which can be made.

Q. What is locational or customer competition?

A. Locational or customer competition usually refers to efforts by electric suppliers to keep their prices low so they can induce relatively large electricity consumers to locate or expand operations in their service territory as opposed to the service territory of another supplier.

Q. Will a merger between UE and CIPS significantly affect prospects for locational competition?

A. No. By logic, locational competition can be significant only for the relatively small grouping of customers whose electricity purchases comprise a relatively high percentage of their total costs. But where electric costs are important, customers have the incentive to shop over relatively broad areas, in some cases nationwide and beyond. Area development professionals at both UE and CIPS recognize that in most cases energy costs, including natural gas, are a relatively insignificant locational determinant. They also recognize that an individual "prospect's" alternatives to locating in their service territory will vary from case to case but, where they are known, are likely to encompass broad multistate regions. The merger of two IOUs within such broad areas should not significantly reduce prospects for locational competition.

Q. What is fringe area competition?

A. Fringe area competition refers to competition to serve individual customers located near the boundaries of the service territories of more than one supplier.

Q. Will a merger of UE and CIPS significantly affect prospects for fringe competition?

A. No. Because the retail service territories of most electric suppliers tend to be well defined and exclusive, customers located at a particular site generally do not have a choice of suppliers. As a result, this form of retail competition usually is not significant in this country. More particularly as concerns this merger, the retail electric service territories of CIPS and UE for the most part do not abut, and so there is little prospect for fringe area competition between the two anyway. The limited area where they do abut, near the town of Grafton, Illinois, is rural in nature, and it is my understanding that there are no existing electricity customers in this area which have the option of selecting between service by UE and CIPS. Of course, any fringe area competition that might exist between either of the two and a cooperative or municipal system still could take place after the merger occurs.

Q. Will the merger of UE and CIPS affect interfuel competition between gas and electricity at the retail level?

A. Both UE and CIPS provide both gas and electricity at retail. It is my understanding that there is no overlap between the area where UE sells electricity at retail and the area where CIPS sells electricity at retail, and no overlap between the area where UE sells gas at retail and the area where CIPS sells gas at retail. Accordingly, the merger will not eliminate

direct electricity versus electricity nor gas versus gas competition between the two. However, it is also my understanding that there are several communities in and around Grafton, Illinois, with approximately 900 customers in total, where CIPS sells electricity at retail and UE sells gas at retail. As part of the merger transaction, these retail gas customers of UE will become retail gas customers of CIPS. In theory, therefore, the merger will eliminate the opportunity that these customers have to select between alternative suppliers for applications where natural gas and electricity are competitive. Because of the small number of such customers—there are only 900 such customers, whereas the two companies together have more than 1,700,000 gas and electric customers—and the regulatory protections which exist concerning supply to them, this merger-induced reduction in possible competition seems insignificant.

VII. VERTICAL ISSUES

Q. Are there any significant vertical concerns presented by the proposed merger?

A. No.

Q. Please explain.

A. Principal areas for concern about potential vertical-related effects of a merger of electric utilities appear to relate to any ability that might be present for the merged firm to favor itself or its affiliates in the terms and conditions on which access to key inputs is granted, where such favorable access terms might harm its competitors. Of course, by logic, for this

to represent a merger-induced concern, it must be one that is created or enhanced as a result of the merger and not something which existed previously. In any case, the possibility for such favoritism does not appear to be present here.

As indicated, concurrently with their merger application, Applicants are filing open access transmission tariffs designed to comply with FERC's requirements as set forth in its transmission NOPR. While I believe that wholesale bulk power markets in the region are competitive and will remain so postmerger, as discussed above, the functional unbundling requirement contained in the NOPR and Applicants' tariffs should go a long way toward assuaging residual fears that the merged entity will be able to use its transmission ownership to exercise market power in these markets. I am aware, of course, that some industry observers believe that competitive concerns are inherent in the vertically integrated structure which predominates in the industry today, where generation and transmission are combined under common ownership. These observers would impose more radical solutions to the competitive problems which they perceive than the "mere" functional unbundling requirement that is contained in FERC's NOPR, including "corporate unbundling" or the creation of "independent system operators" that would dispatch generation assets and control access to transmission. Whatever the merits of such arguments, however, I do not believe that they either relate to, or will be altered as a result of, a merger of UE and CIPS. A merger of UE and CIPS is not a merger which creates or exacerbates competitive problems in wholesale bulk power markets, and those who wish to propose radical structural changes for the industry must look beyond the facts presented by

this merger to find support for their positions. If it is desirable to restructure the industry in the fashion which some suggest, that will be true whether or not CIPS and UE merge. Moreover, if such restructurings are not desirable in the absence of a merger between UE and CIPS, they will not become desirable just because the merger occurs.

Because both Applicants own natural gas distribution systems, a potential concern could arise that they will provide gas sales or gas transport services for their own electric generation facilities or those of their affiliates on more favorable terms than for electric generation facilities of their competitors, and that the merger might enhance their ability to do so or increase the benefits realizable from such actions. Because CIPS does not generate any electricity from gas, and because UE generates only a very limited amount, this concern, if valid at all, would apply principally to future generation capacity. In any case, the concern seems misplaced for a merger between UE and CIPS. As discussed in Mr. Pettit's testimony, it is not likely that competing generators would seek to buy gas directly from UE or CIPS, but in any case the maximum rates which UE and CIPS can charge are set by state regulators. As also discussed in Mr. Pettit's testimony, there are six interstate natural gas pipelines that run through CIPS's territory and four that run through UE's territory. A developer wishing to construct a new gas-fired power plant presumably would seek to locate in proximity to one (or more) of these pipelines, thus avoiding costs for transporting gas across CIPS's or UE's distribution system. Moreover, even if it wished to connect directly to the UE or CIPS distribution system rather than one of the interstate pipelines, it could receive local transport service because regulators in both Illinois and

Missouri require the provision of open access transmission service. It does not appear possible, therefore, that the merged firm will be able to block supply or transport of natural gas to its would-be competitors and thereby favor any of its own yet-to-be-constructed natural gas generators.

Q. Have you considered whether there are other business interests of either UE or CIPSCO that could create market power concerns as a result of the merger?

A. Other business interests of UE are identified in Mr. Rainwater's testimony. Other business interests of CIPS are identified in Mr. Koertner's testimony. For UE these business interests include EEI and Union Electric Development Corporation (UEDC). For CIPSCO they include EEI and CIPSCO Investment Company. I have already discussed EEI. Mr. Rainwater indicates that UEDC owns civic-related projects in the UE service area. It is not apparent to me how ownership of civic-related projects could create concerns about market power resulting from the merger. Mr. Koertner describes CIPSCO Investment Company as a company that manages nonutility investments including leveraged leases, marketable securities and energy projects. It is my understanding that some of these investments involve interests in electric generating projects, but also that in all cases CIPSCO is a passive investor with no ability to make decisions affecting the level or dispatch of the project's output. I do not believe that these investment activities suggest potential competitive concerns arising from the merger of UE and CIPS.

Q. Does this conclude your testimony?

A. Yes.

UNITED STATES OF AMERICA

BEFORE THE

FEDERAL REGULATORY COMMISSION

DISTRICT OF COLUMBIA) ss.

Central Illinois Public Service Company
Union Electric Company) Docket No. ER96-___-000

AFFIDAVIT OF RODNEY FRAME

I, Rodney Frame, being duly sworn, depose and say that the statements contained in the Prepared Testimony of Rodney Frame on behalf of Union Electric Company and Central Illinois Public Service Company in this proceeding are true and correct to the best of my knowledge, information and belief, and I hereby adopt said testimony as if given by me in formal hearing, under oath.

Signed this 22nd day of December, 1995

Rodney Frame

SUBSCRIBED AND SWORN to before me this 22nd day of December, 1995

Notary Public

My Commission Expires:

September 30, 1999

TABLE OF EXHIBITS

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Mr. Frame graduated from George Washington University and pursued graduate work there under a National Science Foundation Traineeship. His areas of specialization were public finance and urban economics. He completed all requirements for his Ph.D. degree with the exception of the thesis.

Before joining NERA, he was a senior economist at Transcomm, Inc., where he directed a number of projects concerning market structure and ratemaking in the telecommunications industry, competition among electric utilities, and postal ratemaking.

At NERA he has consulted with electric utility clients on a variety of matters including retail competition, bulk power markets and competition, transmission access and pricing, partial requirements ratemaking, contractual terms for wholesale service, contracting for nonutility generation and retail wheeling. A substantial portion of the work has been in conjunction with litigated antitrust and Federal Energy Regulatory Commission proceedings. Much of his recent work has involved transmission access and pricing issues, topics on which he currently advises several investor-owned utilities.

Mr. Frame frequently speaks before electric industry groups on competition-related topics. He has testified in federal and local courts, before federal and state regulatory commissions, and before the Commerce Commission of New Zealand.

EDUCATION:

GEORGE WASHINGTON UNIVERSITY
B.B.A. 1970

GEORGE WASHINGTON UNIVERSITY
Completed all requirements for Ph.D. in economics
except thesis, 1970-1973

EMPLOYMENT:

NATIONAL ECONOMIC RESEARCH ASSOCIATES, INC.

1990- Vice President. Has participated in projects dealing with retail competition between utilities, bulk power markets, electric utility mergers, transmission access and pricing, partial requirements ratemaking, contractual terms for wholesale service, bidding for new capacity (including that supplied by conservation), least-cost planning and retail wheeling. Principal clients have been investor-owned electric utilities. Has testified in federal and local courts, before federal and state regulatory commissions and before the Commerce Commission of New Zealand and has spoken before various industry and client study groups.

1984-1989 Senior Consultant.

1975-1984 TRANSCOMM, INC.
Senior Economist. Worked on a variety of projects concerning market structure, pricing and cost development in regulated industries. Clients included the U.S. Departments of Commerce, Defense and Energy, the Nuclear Regulatory Commission, the State of Oregon, bulk mailers and various communications equipment manufacturers and service providers. Participated in numerous federal and state regulatory proceedings and was principal investigator for a multi-year Department of Energy study addressing various aspects of electric utility competition.

1974-1975 INDEPENDENT ECONOMIC CONSULTANT
Advised telephone equipment manufacturers concerning cost and rate development for competitive telephone offerings, analyzed alternative travel agent compensation arrangements and examined nonbank activity by bank holding company firms.

1973-1974 PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY
Research Staff.

1973 URBAN INSTITUTE
Research Staff.

SELECTED REPORTS AND SPEECHES

"Moving From Here to There: Some Implications for Electric Transmission," speech presented to the Infocast Power Industry Forum, Palm Springs, California, February 17, 1995.

"What Does `Comparability' Really Mean?," speech presented to The Federal Energy Bar Association, Washington, D.C., November 17, 1994.

"Recent Developments in North American Electric Generation Capacity Procurement Systems," with Mahim Chellappa, prepared for Electricité de France (EDF), Paris, France, August 1994.

"Current Transmission Topics" and "Trans Alta's Unbundled Rate Proposal," presented to the Canadian Electrical Association, Montreal, PQ, Canada, May 9, 1994.

"Retail Wheeling Issues," speech presented to the Edison Electric Institute National Accounts Workshop, Atlanta, Georgia, February 7, 1994.

"Retail Wheeling: Doing It the Right Way," speech presented to the Retail Wheeling Conference, Denver, Colorado, November 8, 1993.

"Retail Wheeling," speech presented to the Missouri Valley Electric Association Division Conference, Kansas City, Missouri, October 22, 1993.

"An Economic Perspective on Current Transmission Pricing Issues," speech presented to the Edison Electric Institute 1993 Fall Legal Committee Meeting, Minneapolis, Minnesota, October 7, 1993.

"Comments on Transmission Reform Proposals," report prepared for the Edison Electric Institute, October 1993.

"Sunk Transmission Cost Recovery Issues," report prepared for The Electricity Industry Committee, New Zealand, September 1, 1993.

"Characteristics of a 'Good' Retail Wheeling System," speech presented to the Second Annual Electricity Conference sponsored by Executive Enterprises, Inc., Washington, D.C., April 21-22, 1993.

"Characteristics of a 'Good' Retail Wheeling System," speech presented to the Electric Utility Business Environment Conference sponsored by Electric Utility Consultants, Inc., Denver, Colorado, March 16-17, 1993.

"Change in the Industry," seminar presentation on privatization and service unbundling presented to Ontario Hydro management and special strategy task force, Ontario, Canada, February 3, 1993.

"The U.S. Experience and What Is To Come," speech presented to NERA Seminar on Competition in the Regulated Industries (Electric/Telecommunications), Rye Town Hilton, Rye Town, New York, October 30, 1992.

"Emerging Transmission Pricing Issues," speech presented to Electric Utility Consultants, Inc.'s 3rd Annual Transmission & Wheeling Conference, Chicago, Illinois, September 22-23, 1992. .

"Emerging Transmission Pricing Issues," speech presented to Executive Enterprises, Inc., 1992 Electricity Conference: Restructuring the Electricity Industry, Washington, D.C., September 15-16, 1992.

"Opportunity Cost Pricing for Electric Transmission: An Economic Assessment," report prepared for Edison Electric Institute, June 1992.

"A Pragmatic Look at Open Access," presented to DOE/NARUC Workshop on Electricity Transmission, Stockbridge, Massachusetts, June 2, 1992.

"Some Thoughts About Open Access," presented to EMA's Issues and Outlook Forum, Atlanta, Georgia, May 5, 1992.

"Transmission Access and Pricing: What Does A Good 'Open Access' System Look Like," NERA Working Paper #14, January 1992.

"Transmission Access: How Should We Proceed?" speech presented to the Second Annual Transmission and Wheeling Conference, Denver, Colorado, November 21, 1991.

"Evaluation of Qualifying Facility Proposals," prepared for Florida Power Corporation, March 1991.

"Design of Capacity Procurement Systems," prepared for Electricité de France, January 1991.

"Issues in the Design of Generating Capacity Procurement Systems," prepared for TransAlta Utilities, January 1991.

"A Critique and Evaluation of the Large Public Power Council's Transmission Access and Pricing Proposal," prepared for Edison Electric Institute, December 1990.

"The Effects of a Premature Shutdown of the Trojan Nuclear Power Plant," prepared for Portland General Electric Company, October 1990.

"Can We Implement Reasonable Transmission Pricing and Access Procedures?" presented to the Edison Electric Institute System Planning Committee, Dallas, Texas, October 24, 1990.

"An Examination of the Proper Role for Utilities in Promoting Conservation Expenditures," prepared for Public Service Electric & Gas Company with T. Scott Newlon, 1990.

"Issues in the Design of Competitive Bidding Systems," presented at the Pennsylvania Electric Association System Planning Meeting," 1990.

"Should We Use Opportunity Cost Pricing for Transmission?" presented to the Edison Electric Institute Interconnection Arrangements Committee, 1990.

"Issues Concerning Selection Criteria Development for Capacity RFPs," prepared for the Bonneville Power Administration, 1990.

"Nonutility Generators and Bonneville Power Administration Resource Acquisition Policy," prepared for the Bonneville Power Administration, with David L. Weitzel, 1990.

"An Evaluation of Resource Solicitation Alternatives," prepared for the Bonneville Power Administration, 1990.

"Recent Changes in the Electric Power Industry and Pressures on the Transmission System," presented at seminar "Competitive Electricity: Why the Debate?" sponsored by the Electricity Consumers Resource Council, 1988.

"Some Thoughts on New Transmission Access and Pricing Proposals," presented at conference "Transmission Pricing and Access: Reinventing the Wheel," sponsored by Cogeneration and Independent Power Coalition of America and American Cogeneration Association, 1988.

"Approaching the Transmission Access Debate Rationally," Transmission Research Group Working Paper Number 1, with Joe D. Pace, 1987.

"The Essential Facilities Doctrine," NERA, 1985.

"The Nuclear Regulatory Commission's Antitrust Review Process: An Analysis of the Impacts," Transcomm, Inc., prepared for the U.S. Department of Energy, 1981.

"Competitive Aspects of Utility Involvement in Cogeneration and Solar Programs," Transcomm, Inc., prepared for the U.S. Department of Energy, 1981.

"An Appraisal of Antitrust Review Extension in the Context of Small Utility Fuel Use Act Compliance," Transcomm, Inc., prepared for the U.S. Department of Energy, 1980.

"Analysis of Proposed License Conditions with Respect to Antitrust Deficiencies," Transcomm, Inc., prepared for the U.S. Nuclear Regulatory Commission, 1978.

"Analysis of NRC Staff's Proposed License Conditions for Midland Units," Transcomm, Inc., prepared for the U.S. Nuclear Regulatory Commission, 1978.

TESTIMONY

Prepared testimony on behalf of Northeast Utilities before the Federal Energy Regulatory Commission in *Northeast Utilities Service Company, Docket No. ER95-1686-000*, concerning FERC's generation dominance standard in support of Northeast Utilities' request for market-based pricing authority, November 13, 1995.

Sur-reply affidavit on behalf of Rochester Gas & Electric before the U.S. District Court, Western District of New York, in *Kamine/Besicorp Allegany L.P. v. Rochester Gas & Electric Corporation, Case No. 95-CIV-6045L,* in response to motion by Kamine/Besicorp Allegany L.P. for a preliminary injunction, July 10, 1995.

Prepared Supplemental Rebuttal Testimony on Transmission NOPR Issues on behalf of Florida Power & Light Company before the Federal Energy Regulatory Commission in *Florida Power & Light Company, Docket Nos. ER93-465-000, et al.*, addressing transmission NOPR issues raised by FERC Staff and Intervenors, May 19, 1995.

Prepared Direct Testimony on Transmission NOPR Issues on behalf of Florida Power & Light before the Federal Energy Regulatory Commission in *Florida Power & Light Company, Docket Nos. ER93-465-000, et al.*, concerning the effects of FERC's recent Notice of Proposed Rulemaking on issues in FPL's ongoing case, April 25, 1995.

Affidavit on behalf of Rochester Gas & Electric before the U.S. District Court, Western District of New York, in *Kamine/Besicorp Allegany L.P. v. Rochester Gas & Electric Corporation, Case No. 95-CIV-6045L,* in support of its opposition to a request by Kamine/Besicorp Allegany L.P. for a temporary restraining order, March 9, 1995.

Testimony on behalf of Virginia Power before the Circuit Court of the City of Richmond in *Case No. LW-730-4, Doswell Limited Partnership v. Virginia Electric Power Company* concerning the level of fixed gas transportation costs associated with the proxy unit which forms the basis for Virginia Power's payments to Doswell, March 2, 1995.

Prepared Rebuttal Testimony on behalf of American Electric Power Service Corporation before the Federal Energy Regulatory Commission in *Docket No. ER93-540-001* addressing issues concerning FERC's new comparability standard and its implications for AEP transmission service offerings, January 17, 1995.

Deposition on behalf of El Paso Electric Company and Central and South West Services, Inc. before the Federal Energy Regulatory Commission in *Docket Nos. EC94-7-000 and ER94-898-000* concerning "comparability" and other transmission issues, December 22, 1994.

Prepared Rebuttal Testimony on behalf of Florida Power & Light Company before the Federal Energy Regulatory Commission in *Florida Power & Light Company, Docket Nos. ER93-465-000, et al.* concerning market power and competitive issues, comparability and other transmission issues, wholesale electric service tariff revisions, and issues concerning interchange contract revisions, December 16, 1994.

Prepared Rebuttal Testimony on behalf of El Paso Electric Company and Central and South West Services, Inc., before the Federal Energy Regulatory Commission, *Dockets Nos. EC94-7-000 and ER94-898-000*, concerning network transmission service and point-to-point transmission service, December 12, 1994.

Prepared Direct Testimony on behalf of Midwest Power Systems, Inc. and Iowa-Illinois Gas and Electric Company before the Federal Regulatory Commission, *Docket No. EC95-4-000,* concerning competitive issues raised by their proposed merger to form MidAmerican Energy Company, November 10, 1994.

Deposition on behalf of Florida Power Corporation in *Orlando Cogen (I), Inc., et al., v. Florida Power Corporation, Case No. 94-303-CIV-ORL-18*, US District Court in and for the Middle District of Florida, Orlando Division, involving a contract dispute between FPC and one of its NUG suppliers, August 30, 1994.

Prepared Direct Testimony on Comparability Issues on behalf of Florida Power & Light Company in *Florida Power & Light Company, Docket Nos. ER93-465-000 and ER93-922-000* concerning a discussion of the differences between types of transmission services, usage of transmission systems by their owners, transmission services that FPL provides, and how those services compare and contrast with FPL's own uses of the transmission system, August 5, 1994.

Prepared Answering Testimony on behalf of Florida Power & Light Company in *Florida Power & Light Company, Docket Nos. ER93-465-000 and ER93-922-000* concerning (1) whether municipal systems should receive billing credits for certain transmission facilities which they own which were argued to be part of an "integrated" transmission grid, and (ii) FPL's obligation to sell wholesale power under its Nuclear Regulatory Commission antitrust license conditions, July 7, 1994.

Deposition on behalf of Virginia Electric & Power Co. in re: *Doswell Limited Partnership v. Virginia Electric & Power Co., Case No. LW-730-4*, Circuit Court for the City of Richmond, involving an alleged fraud and breach of contract relating to payments by VEPCO to one of its NUG suppliers, April 5, 1994.

Prepared Final Rebuttal Testimony on behalf of Central Louisiana Electric Company before the Federal Energy Regulatory Commission in *Docket No. ER93-498-000*, examining an allegation of predatory pricing, March 16, 1994.

Prepared Rebuttal Testimony on behalf of Central Louisiana Electric Company before the Federal Energy Regulatory Commission in *Docket No. ER93-498-000*, examining an allegation of a municipal joint action agency that Central Louisiana's contract to provide bulk power service to a new municipal system customer constituted predatory pricing, December 23, 1993.

"Comments on the Commerce Commission's Draft Determination Concerning Trans Power's Proposal to Recover Fixed/Sunk Transmission Costs," testimony prepared at the request of The Electricity Industry Committee, New Zealand, November 30, 1993.

Prepared Direct Testimony on behalf of Florida Power & Light Company in *Florida Power & Light Company, Docket Nos. ER93-465-000 and ER93-922-000* concerning competitive implications of wholesale tariff revisions, interchange contract revisions and a proposed "open access" transmission tariff, November 26, 1993.

Deposition on Behalf of Florida Power and Light in *Florida Municipal Power Agency v. Florida Power & Light Co. Case No. 92-35-CIV-ORL-22* concerning damage related issues, July 21 and 22, 1993.

Affidavit on behalf of Florida Power and Light in *Florida Municipal Power Agency v. Florida Power & Light Co. Case No. 92-35-CIV-ORL-22* concerning damage related issues, July 14, 1993.

Prepared Direct Testimony on behalf of the Detroit Edison Company *In the Matter of the Application of the Association of Businesses Advocating Tariff Equity for Approval of an experimental retail wheeling tariff for Consumers Power Company, Case No. U-10143*, and *In the Matter on the Commission's own motion, to consider approval of an experimental retail wheeling tariff for The Detroit Edison Company, Case No. U-10176* before the Michigan Public Service Commission, March 1, 1993.

Deposition on behalf of Florida Power and Light in *Florida Municipal Power Agency vs. Florida Power & Light Company, Case No. 92-35-CIV-ORL-22,* February 25, 1993.

Affidavit on behalf of Iowa Power Inc. and Iowa Public Service Company, Federal Energy Regulatory Commission, Concerning the Competitive Effects of a Merger of the Two Companies, 1991.

Testimony on behalf of Defendants Union Electric and Missouri Utilities, in *City of Malden, Missouri v. Union Electric Company and Missouri Utilities Company, U.S. District Court, Eastern District of Missouri, Southeastern Division, Civil Action No. 83-2533-C,* 1988.

Testimony on behalf of Defendant Union Electric, in *City of Kirkwood, Missouri v. Union Electric Company, U.S. District Court, Eastern District of Missouri, Civil Action No. 86-1787-C-6* (deposition testimony),1987.

Testimony on behalf of Defendant Union Electric Company, in *Citizens Electric Corporation v. Union Electric Company, U.S. District Court, Eastern District of Missouri, Eastern Division, Civil Action No. 83-2756C(c),* 1986.

Testimony on behalf of Advo-System, Inc., before the Postal Rate Commission, *Docket No. R84-1*, Concerning Rates for Third Class Mail, 1984.

Testimony on behalf of D/FW Signal, Inc., before the Federal Communications Commission, *Docket No. CC83-945*, Concerning Cellular Telephone Service in Dallas-Fort Worth, 1983.

Testimony on behalf of the Department of Defense, before the Montana Public Service Commission, *Docket No. 82.2.8*, Concerning Telephone Service Rate Structure, 1982.

Testimony on behalf of Multnomah County, before the Public Utility Commissioner of Oregon, *Docket UF 3565*, Concerning Telephone Service Rate Structure.

Testimony on behalf of the Louisiana Consumer League, before the Louisiana Public Service Commission, *Docket No. U-14078*, Concerning Marginal Cost Pricing for Louisiana Power and Light Company, 1979.

Testimony on behalf of the State of Oregon, City of Portland, and County of Multnomah, before the Public Utility Commissioner of Oregon, *Dockets UF3342 and UF3343*, concerning Rates for Centrex and ESSX Telephone Service, 1978.

December, 1995

LIST OF ABBREVIATIONS

AEC	Associated Electric Cooperative, Inc.
AECC	Arkansas Electric Cooperative Corporation
AEP	American Electric Power Company, Inc.
Ames	Ames Municipal Electric System
AP	Alabama Power Company
APL	Arkansas Power & Light Company
APS	Allegheny Power Service Corporation
Atlantic	Atlantic Municipal Utilities
Basin	Basin Electric Power Cooperative
Big Rivers	Big Rivers Electric Corporation
BPU	Kansas City Board of Public Utilities
Cajun	Cajun Electric Power Cooperative, Inc.
CBPC	Corn Belt Power Cooperative
CE	Commonwealth Edison Company
Cedar Falls	Cedar Falls Utilities
Centerior	Centerior Energy Corporation
Central Iowa	Central Iowa Power Cooperative
CILCO	Central Illinois Light Company
CINergy	CINergy
CIPS	Central Illinois Public Service Company
CLECO	Central Louisiana Electric Company, Inc.
Columbia	Columbia Water & Light Department
Consumers	Consumers Power Company
CPA	Cooperative Power Association
CPC	Central Power Electric Cooperative, Inc.
CPL	Carolina Power & Light Company
CSW	Central and South West Corporation
Dahlberg	Dahlberg Light & Power Company
DPC	Dairyland Power Cooperative
DPL	The Dayton Power & Light Company
Duke	Duke Power Company
Duquesne	Duquesne Light Company
ECAR	East Central Area Reliability Coordination Agreement
EEI	Electric Energy, Inc.
EKPC	East Kentucky Power Cooperative, Inc.
Eldridge	Eldridge Municipal Light Department
Empire	Empire District Electric Company
Entergy	Entergy Corporation
EPI	Entergy Power, Inc.
ERCOT	Electricity Reliability Counsel of Texas
ETEC	East Texas Electric Cooperative
FP&L	Florida Power & Light Company
Geneseo	Geneseo Municipal Utilities
GP	Georgia Power Company
GRDA	Grand River Dam Authority
Gulf	Gulf Power Company
Harlan	Harlan Municipal Utilities
Heartland	Heartland Consumers Power District

Hoosier	Hoosier Energy Rural Electric Cooperative
IES	IES Industries, Inc.
IIGE	Iowa-Illinois Gas & Electric Company
IM	Indiana Michigan Power Company
IMEA	Illinois Municipal Electric Agency
IMPA	Indiana Municipal Power Agency
Independence	Independence Power & Light Department
IP	Illinois Power Company
IPL	Indianapolis Power & Light Company
IPW	Interstate Power Company
KAMO	KAMO Power
KCPL	Kansas City Power & Light Company
KGE	Kansas Gas & Electric Company
KU	Kentucky Utilities
Lafayette	Lafayette Utilities System
LEPA	Louisiana Energy Power Authority
LES	Lincoln Electric System
LGE	Louisville Gas & Electric Company
MAIN	Mid-America Interconnected Network
MAPP	Mid-Continent Area Power Pool
MBMPA	Missouri Basin Municipal Power Agency
MEAN	Municipal Energy Agency of Nebraska
MEC	MidAmerican Energy Company
Midwest	Midwest Energy, Inc.
Minnkota	Minnkota Power Cooperative, Inc.
Miss P	Mississippi Power Company
MoPub	Missouri Public Service Company
MPL	Minnesota Power & Light Company
MPSI	Midwest Power Systems, Inc.
Mt. Carmel	Mt. Carmel Public Utility Company
Muscatine	Muscatine Power and Water
NCPC	North Central Power Co., Inc.
NIPSCO	Northern Indiana Public Service Company
NPPD	Nebraska Public Power District
NSP	Northern States Power Company
NTEC	Northeast Texas Electric Cooperative, Inc.
NWPS	Northwestern Public Service Company
OE	Ohio Edison Company
OGE	Oklahoma Gas & Electric Company
OMPA	Oklahoma Municipal Power Authority
OPPD	Omaha Public Power District
OTP	Otter Tail Power Company
OVEC	Ohio Valley Electric Company
Owensboro	Owensboro Municipal Utilities
Plaquemine	Plaquemine City Light & Water Department
PSI	PSI Energy, Inc.
PSO	Public Service Company of Oklahoma
Richmond	Richmond Power & Light
Savannah	Savannah Electric and Power Company
SERC	Southeastern Electric Reliability Council Region
Sho-Me	Sho-Me Power Corp.
SIGECO	Southern Indiana Gas & Electric Company

Sikeston	Sikeston Board of Municipal Utilities
SIPCO	Southern Illinois Power Cooperative
SJLP	St. Joseph Light & Power Company
SMEPA	South Mississippi Electric Power Association
SMMPA	Southern Minnesota Municipal Power Agency
Southern	The Southern Company
Soyland	Soyland Power Cooperative, Inc.
SPA	Southwestern Power Administration
SPP	Southwest Power Pool
Springfield, IL	Springfield City Water, Light & Power
Springfield, MO	Springfield City Utilities
SRMPA	Sam Rayburn Municipal Power Agency
Sunflower	Sunflower Electric Power Corporation, Inc.
SWEPCO	Southwestern Electric Power Company
SWPS	Southwestern Public Service Company
TVA	Tennessee Valley Authority
UE	Union Electric Company
UPA	United Power Association
USEC	United States Enrichment Corporation
Utilicorp	Utilicorp United, Inc.
VEPCO	Virginia Electric and Power Company
WAPA	Western Area Power Administration
Waverly	Waverly Light & Power
WEPCO	Wisconsin Electric Power Company
West Plains	West Plains Electric Cooperative, Inc.
WF	Western Farmers Electric Cooperative
WPL	Wisconsin Power & Light Company
WPPI	Wisconsin Public Power Inc. System
WPSC	Wisconsin Public Service Corporation
WR	Western Resources
WVPA	Wabash Valley Power Association

INTERCONNECTIONS OF UE AND CIPS

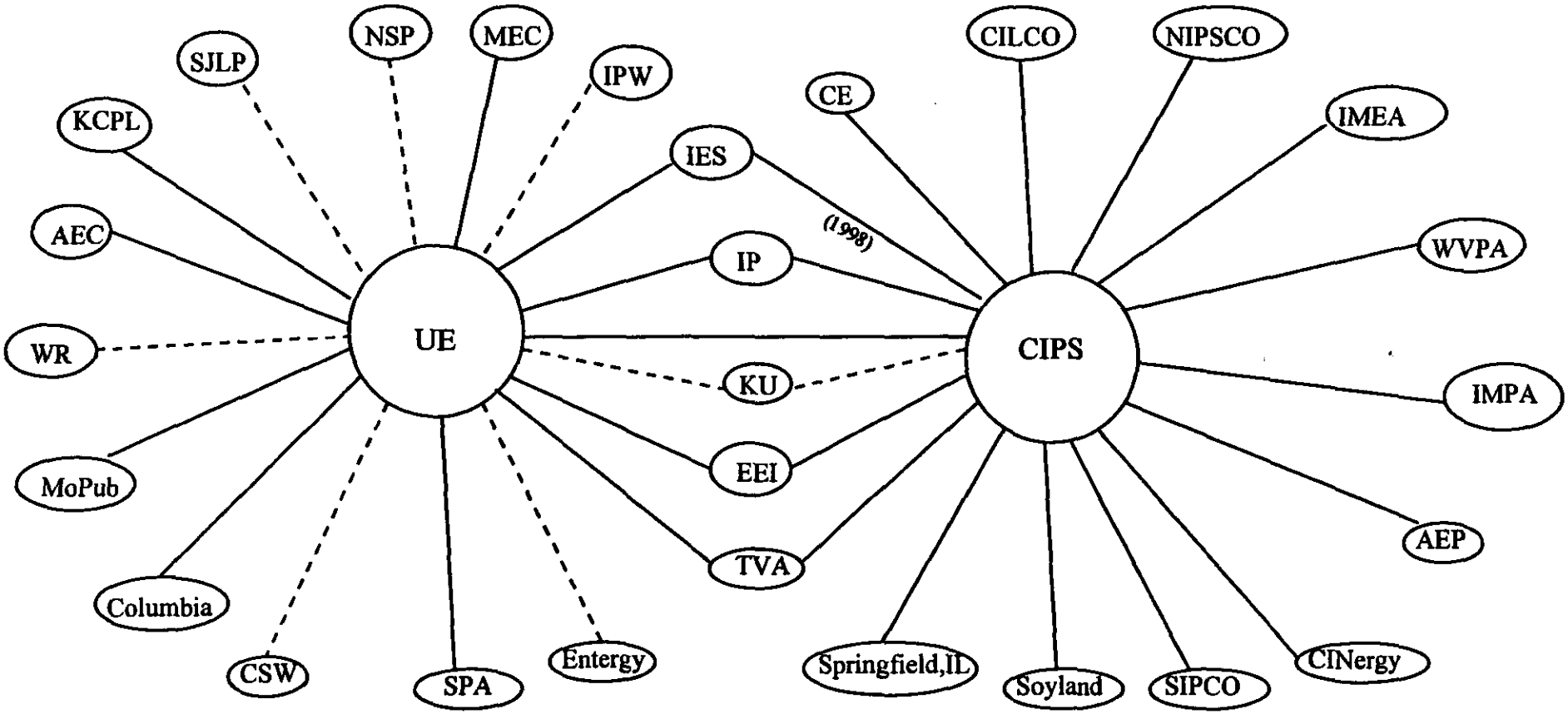
Utilities Interconnected with UE	Utilities Interconnected with CIPS
Direct	
AEC*	CE*
CIPS*	CILCO*
Columbia*	Springfield*
EEI*	**EEI***
IES*	**IES*** (1998)
IP*	IMEA*
KCPL*	IMPA*
MEC*	**IP***
MoPub*	IM/AEP*
SPA*	NIPSCO*
TVA*	PSI/CINergy*
	Soyland*
	SIPCO*
	UE*
	TVA*
	WVPA*
Contractual Only	
APL/Entergy	**KU**
IPW	
KGE/WR	
KU	
NSP	
PSO/CSW	
SJLP*	

Utilities with asterisk (*) are potential receipt and delivery points under merged firms' open access tariffs.

Utilities in bold are interconnected with both UE and CIPS.

NOTE: See Exhibit___(RWF-3) for explanation of abbreviations.

INTERCONNECTIONS OF UE AND CIPS



Direct

Contractual

Exhibit No.___(RWF-5)

Postmerger Interconnections of Entities Interconnected with Both UE and CIPS

Entity	Postmerger Interconnections
IES (8)*	Merged Entity, AEC, CBPC, Central Iowa, MEC, IPW, NSP, WAPA
IP (9)	Merged Entity, AEP, CE, CILCO, KU, MEC, SIPCO, Springfield, TVA
KU (10)	Merged Entity, AEP, Big Rivers, CINergy, EKPC, IP, LGE, OVEC, Owensboro, TVA
TVA (11)	Merged Entity, AEP, Big Rivers, CPL, Duke, EKPC, Entergy, IP, KU, LGE, Southern

See Exhibit No.___(RWF-3) for a list of abbreviations.

*IES is interconnected with UE both directly and through the East Line Agreement. CIPS has a limited purpose interconnection now with IES and will add an additional interconnection in 1998.

Note: List of entities interconnected with both UE and CIPS excludes EEI. Also, EEI is not listed as a separate interconnection of IP, KU and TVA for reasons explained in text.

Exhibit ___ (RWF-6)

INTERCHANGE SALES AND PURCHASES FOR UTILITIES INTERCONNECTED WITH BOTH UE AND CIPS 1991-1994

	IES	IP	KU	TVA*
Total Interchange Sales (gWh)	9,212	9,726	643	16,986
Sales to UE (%)	10.6	2.5	2.8	5.8
Sales to CIPS (%)	0	1.2	2.1	10.5
Sales to UE/CIPS Combined (%)	10.6	3.7	4.9	16.3
Total Interchange Purchases (gWh)	7,432	12,478	4,674	17,686
Purchases from UE (%)	31.5	17.6	20.6	7.2
Purchases from CIPS (%)	0	0.6	1.8	0 .9
Purchases from UE/CIPS Combined(%)	31.5	18.2	22.4	8.1

***Data for TVA cover only 1992-1994.**

UNCOMMITTED CAPACITY
OF UE, CIPS AND INTERCONNECTED UTILITIES
18% RESERVE MARGIN*

	1996 (1)	1996 Share (1)/Sum:(1) (2)
UE	0 MW	0.0 %
CIPS	98	3.4
AMEREN	98	3.4
AEC	342	12.0
AEP	0	0.0
CE	117	4.1
CILCO	0	0.0
CINergy	0	0.0
Columbia	3	0.1
CSW	112	3.9
Entergy	180	6.3
IES	0	0.0
IMEA	0	0.0
IMPA	0	0.0
IP	207	7.2
IPW	89	3.1
KCPL	163	5.7
KU	103	3.6
MEC	219	7.7
MoPub	56	2.0
NIPSCO	68	2.4
NSP	341	12.0
SIPCO	52	1.8
SJLP	2	0.1
Soyland	0	0.0
SPA	0	0.0
Springfield, IL	0	0.0
TVA	551	19.3
WR	153	5.4
WVPA	0	0.0
TOTAL	2,856 MW	100 %

SOURCES:
1995 ECAR OE-411
1995 MAIN OE-411
1995 MAPP OE-411
1995 SERC OE-411
1995 SPP OE-411
CIPS: Exhibit No.___(GWM-2)
Data provided by MidAmerican Energy Company
Data provided by IES Utilities
Union Electric, Energy Resource Plan, June 1995

*Computations use 18 percent reserve margins
for all utilities except SPA, where it is 9.9 percent

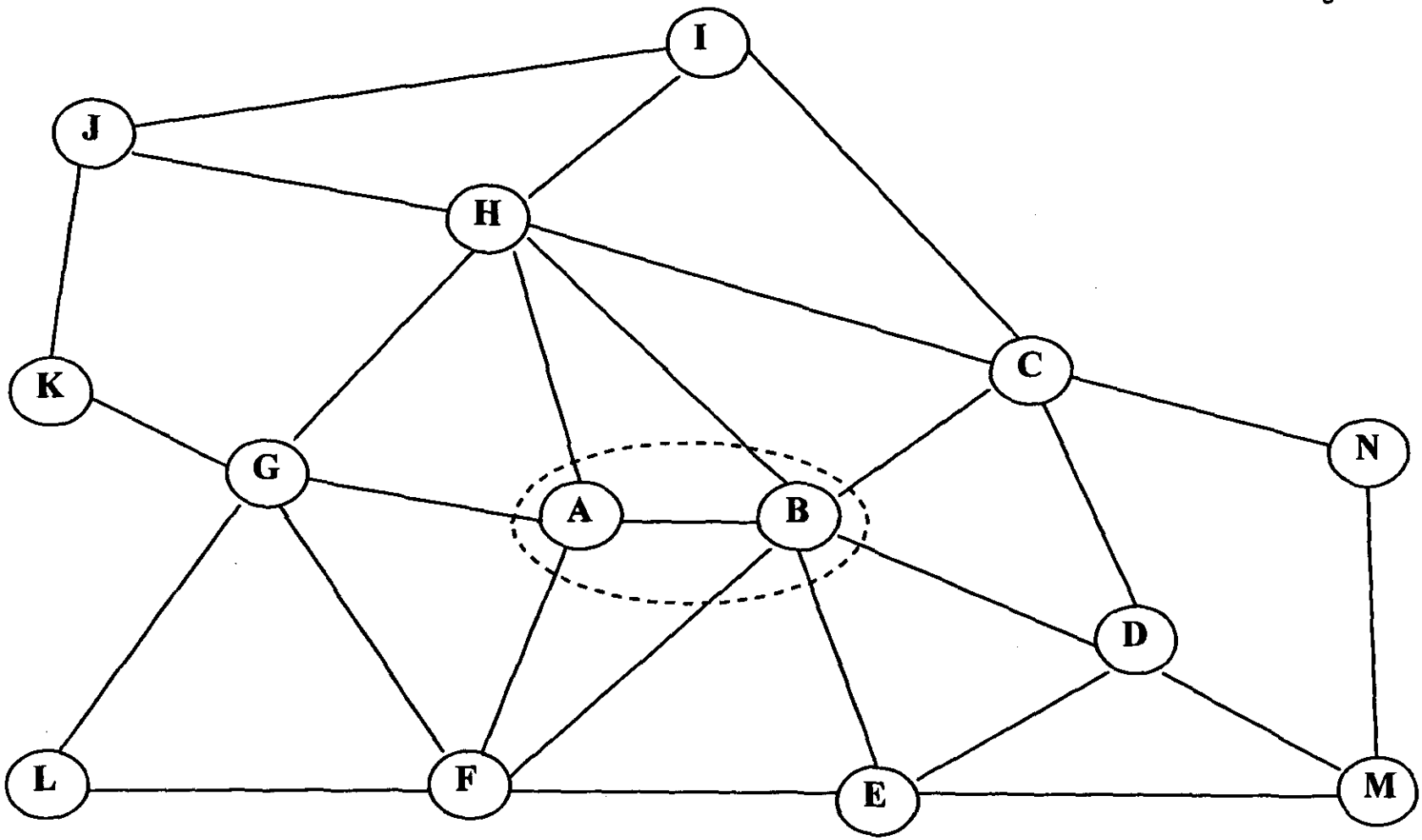
UNCOMMITTED CAPACITY
OF UE, CIPS AND INTERCONNECTED UTILITIES
15% RESERVE MARGIN*

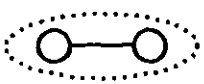
	1996 (1)	1996 Share (1)/Sum:(1) (2)
UE	106 MW	1.7 %
CIPS	166	2.6
AMEREN	272	4.2
AEC	423	6.6
AEP	103	1.6
CE	679	10.6
CILCO	18	0.3
CINergy	254	4.0
Columbia	9	0.1
CSW	323	5.0
Entergy	715	11.2
IES	0	0.0
IMEA	0	0.0
IMPA	0	0.0
IP	318	5.0
IPW	120	1.9
KCPL	254	4.0
KU	205	3.2
MEC	324	5.1
MoPub	87	1.4
NIPSCO	150	2.3
NSP	544	8.5
SIPCO	59	0.9
SJLP	13	0.2
Soyland	0	0.0
SPA	0	0.0
Springfield, IL	0	0.0
TVA	1,253	19.6
WR	281	4.4
WVPA	0	0.0
TOTAL	6,402 MW	100 %

SOURCES:
1995 ECAR OE-411
1995 MAIN OE-411
1995 MAPP OE-411
1995 SERC OE-411
1995 SPP OE-411
CIPS: Exhibit No.___(GWM-2)
Data provided by MidAmerican Energy Company
Data provided by IES Utilities
Union Electric, Energy Resource Plan, June 1995

*Computations use 15 percent reserve margins for all utilities except SPA, where it is 9.9 percent

FIRST TIER UTILITIES





Merging Utilities

FIRST TIER UTILITIES

A's First Tier Utilities	Premerger Market	Postmerger Market/Before Open Access	Postmerger Market/After Open Access
B	N/A	N/A	N/A
F	A, B, E, G, L	A-B, E, G, L	A-B, C*, D*, E, G, H*, L
G	A, F, H, K, L	A-B, F, H, K, L	A-B, C*, D*, E*, F, H, K, L
H	A, B, C, G, I, J	A-B, C, G, I, J	A-B, C, D*, E*, F*, G, I, J

B's First Tier Utilities	Premerger Market	Postmerger Market/Before Open Access	Postmerger Market/After Open Access
A	N/A	N/A	N/A
C	B, D, H, I, N	A-B, D, H, I, N	A-B, D, E*, F*, G*, H, I, N
D	B, C, E, M	A-B, C, E, M	A-B, C, E, F*, G*, H*, M
E	B, D, F, M	A-B, D, F, M	A-B, C*, D, F, G*, H*, M
F	A, B, E, G, L	A-B, E, G, L	A-B, C*, D*, E, G, H*, L
H	A, B, C, G, I, J	A-B, C, G, I, J	A-B, C, D*, E*, F*, G, I, J

* Utilities added as a result of open acces tariff

FIRST TIER MARKET CENTERED ON AEC

Participants	Relationship
AEC	Center
UE	First Tier (Pre Merger)
CSW	First Tier
Empire	First Tier
Entergy	First Tier
IES	First Tier
KCPL	First Tier
MEC	First Tier
MoPub	First Tier
SJLP	First Tier
WR	First Tier
Columbia	First Tier
GRDA	First Tier
LES	First Tier
NPPD	First Tier
OPPD	First Tier
SPA	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON AEP

Participants	Relationship
AEP	Center
CIPS	First Tier (Pre Merger)
APS	First Tier
CPL	First Tier
Centerior	First Tier
CINergy	First Tier
CE	First Tier
Consumers	First Tier
DPL	First Tier
Duke	First Tier
Duquesne	First Tier
IP	First Tier
IPL	First Tier
KU	First Tier
NIPSCO	First Tier
OE	First Tier
VEPCO	First Tier
EKPC	First Tier
OVEC	First Tier
Richmond	First Tier
TVA	First Tier
AMEREN	First Tier (Post Merger)
CILCO	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON CE

Participants	Relationship
CE	Center
CIPS	First Tier (Pre Merger)
AEP	First Tier
CILCO	First Tier
IP	First Tier
IPW	First Tier
MEC	First Tier
NIPSCO	First Tier
WEPCO	First Tier
WPL	First Tier
AMEREN	First Tier (Post Merger)
CINergy	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON CILCO

Participants	Relationship
CILCO	Center
CIPS	First Tier (Pre Merger)
CE	First Tier
IP	First Tier
Springfield, IL	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON
CINergy

Participants	Relationship
CINergy	Center
CIPS	First Tier (Pre Merger)
AEP	First Tier
DPL	First Tier
IPL	First Tier
KU	First Tier
LGE	First Tier
NIPSCO	First Tier
SIGECO	First Tier
EKPC	First Tier
Hoosier	First Tier
OVEC	First Tier
WVPA	First Tier
IMPA	First Tier
AMEREN	First Tier (Post Merger)
CILCO	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON
Columbia

Participants	Relationship
Columbia	Center
UE	First Tier (Pre Merger)
AEC	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON CSW

Participants	Relationship
CSW	Center
UE	First Tier (Pre Merger)
CLECO	First Tier
Empire	First Tier
Entergy	First Tier
OGE	First Tier
SWPS	First Tier
AECC	First Tier
WF	First Tier
WR	First Tier
AEC	First Tier
GRDA	First Tier
Springfield, MO	First Tier
SPA	First Tier
AMEREN	First Tier (Post Merger)

FIRST TIER MARKET CENTERED ON
Entergy

Participants	Relationship
Entergy	Center
UE	First Tier (Pre Merger)
CLECO	First Tier
CSW	First Tier
Southern	First Tier
AEC	First Tier
Cajun	First Tier
Lafayette	First Tier
Plaquemine	First Tier
TVA	First Tier
AMEREN	First Tier (Post Merger)

FIRST TIER MARKET CENTERED ON IES

Participants	Relationship
IES	Center
CIPS	First Tier (Pre Merger, 1998)
UE	First Tier (Pre Merger)
IPW	First Tier
MEC	First Tier
NSP	First Tier
AEC	First Tier
CBPC	First Tier
Central Iowa	First Tier
WAPA	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON IMEA

Participants	Relationship
IMEA	Center
CIPS	First Tier (Pre Merger)
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON IMPA

Participants	Relationship
IMPA	Center
CIPS	First Tier (Pre Merger)
CINergy	First Tier
IPL	First Tier
KU	First Tier
LGE	First Tier
NIPSCO	First Tier
SIGECO	First Tier
Hoosier	First Tier
WVPA	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON
IP

Participants	Relationship
IP	Center
CIPS	First Tier (Pre Merger)
UE	First Tier (Pre Merger)
AEP	First Tier
CILCO	First Tier
CE	First Tier
KU	First Tier
MEC	First Tier
SIPCO	First Tier
Springfield, IL	First Tier
TVA	First Tier
AMEREN	First Tier (Post Merger)
CINergy	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON IPW

Participants	Relationship
IPW	Center
UE	First Tier (Pre Merger)
CE	First Tier
DPC	First Tier
IES	First Tier
KCPL	First Tier
MEC	First Tier
NSP	First Tier
SJLP	First Tier
CBPC	First Tier
Central Iowa	First Tier
SMMPA	First Tier
OPPD	First Tier
AMEREN	First Tier (Post Merger)

FIRST TIER MARKET CENTERED ON KCPL

Participants	Relationship
KCPL	Center
UE	First Tier (Pre Merger)
Empire	First Tier
IPW	First Tier
MEC	First Tier
MoPub	First Tier
NSP	First Tier
SJLP	First Tier
WR	First Tier
AEC	First Tier
BPU	First Tier
Independence	First Tier
LES	First Tier
NPPD	First Tier
OPPD	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON KU

Participants	Relationship
KU	Center
CIPS	First Tier (Pre Merger)
UE	First Tier (Pre Merger)
AEP	First Tier
CINergy	First Tier
IP	First Tier
LGE	First Tier
EKPC	First Tier
OVEC	First Tier
Big Rivers	First Tier
Owensboro	First Tier
TVA	First Tier
AMEREN	First Tier (Post Merger)

FIRST TIER MARKET CENTERED ON MEC

Participants	Relationship
MEC	Center
UE	First Tier (Pre Merger)
CE	First Tier
IES	First Tier
IP	First Tier
IPW	First Tier
KCPL	First Tier
Muscatine	First Tier
NSP	First Tier
SJLP	First Tier
CBPC	First Tier
Central Iowa	First Tier
AEC	First Tier
Ames	First Tier
Atlantic	First Tier
Cedar Falls	First Tier
Eldridge	First Tier
Geneseo	First Tier
Harlan	First Tier
LES	First Tier
Waverly	First Tier
NPPD	First Tier
OPPD	First Tier
WAPA	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON
MoPub

Participants	Relationship
MoPub	Center
UE	First Tier (Pre Merger)
Empire	First Tier
KCPL	First Tier
WR	First Tier
AEC	First Tier
KAMO	First Tier
Independence	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON NIPSCO

Participants	Relationship
NIPSCO	Center
CIPS	First Tier (Pre Merger)
AEP	First Tier
CINergy	First Tier
CE	First Tier
Consumers	First Tier
AMEREN	First Tier (Post Merger)
CILCO	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON NSP

Participants	Relationship
NSP	Center
UE	First Tier (Pre Merger)
Dahlberg	First Tier
IES	First Tier
IPW	First Tier
KCPL	First Tier
MEC	First Tier
MH	First Tier
MPL	First Tier
NCPC	First Tier
NWPS	First Tier
OPPD	First Tier
OTP	First Tier
SJLP	First Tier
UPA	First Tier
WEPCO	First Tier
WPL	First Tier
WPSC	First Tier
Basin	First Tier
CPA	First Tier
CPC	First Tier
DPC	First Tier
Minnkota	First Tier
Heartland	First Tier
MBMPA	First Tier
SMMPA	First Tier
WAPA	First Tier
AMEREN	First Tier (Post Merger)

FIRST TIER MARKET CENTERED ON SIPCO

Participants	Relationship
SIPCO	Center
CIPS	First Tier (Pre Merger)
IP	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON SJLP

Participants	Relationship
SJLP	Center
UE	*First Tier (Pre Merger)*
IPW	First Tier
KCPL	First Tier
MEC	First Tier
AEC	First Tier
Independence	First Tier
LES	First Tier
NPPD	First Tier
NSP	First Tier
OPPD	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON
Soyland

Participants	Relationship
Soyland	Center
CIPS	First Tier (Pre Merger)
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON SPA

Participants	Relationship
SPA	Center
UE	First Tier (Pre Merger)
CSW	First Tier
OGE	First Tier
Empire	First Tier
AEC	First Tier
WF	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON
Springfield, IL

Participants	Relationship
Springfield, IL	Center
CIPS	First Tier (Pre Merger)
CILCO	First Tier
IP	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON TVA

Participants	Relationship
TVA	Center
CIPS	First Tier (Pre Merger)
UE	First Tier (Pre Merger)
AEP	First Tier
CPL	First Tier
Duke	First Tier
Entergy	First Tier
IP	First Tier
LGE	First Tier
KU	First Tier
Southern	First Tier
Big Rivers	First Tier
EKPC	First Tier
AMEREN	First Tier (Post Merger)
CE	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CINergy	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
MoPub	AMEREN Open Access Tariff
NIPSCO	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
WVPA	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
IMPA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

FIRST TIER MARKET CENTERED ON WR

Participants	Relationship
WR	Center
UE	First Tier (Pre Merger)
CSW	First Tier
Empire	First Tier
KCPL	First Tier
Midwest	First Tier
MoPub	First Tier
OGE	First Tier
WestPlains	First Tier
AEC	First Tier
BPU	First Tier
OPPD	First Tier
AMEREN	First Tier (Post Merger)

FIRST TIER MARKET CENTERED ON WVPA

Participants	Relationship
WVPA	Center
CIPS	First Tier (Pre Merger)
CINergy	First Tier
IMPA	First Tier
IPL	First Tier
KU	First Tier
LGE	First Tier
NIPSCO	First Tier
SIGECO	First Tier
Hoosier	First Tier
AMEREN	First Tier (Post Merger)
AEP	AMEREN Open Access Tariff
CILCO	AMEREN Open Access Tariff
CE	AMEREN Open Access Tariff
IES	AMEREN Open Access Tariff
IP	AMEREN Open Access Tariff
KCPL	AMEREN Open Access Tariff
MEC	AMEREN Open Access Tariff
SJLP	AMEREN Open Access Tariff
AEC	AMEREN Open Access Tariff
SIPCO	AMEREN Open Access Tariff
Soyland	AMEREN Open Access Tariff
Columbia	AMEREN Open Access Tariff
IMEA	AMEREN Open Access Tariff
Springfield, IL	AMEREN Open Access Tariff
SPA	AMEREN Open Access Tariff

AMEREN'S SHARE OF UNCOMMITTED CAPACITY
FIRST TIER MARKETS
18% RESERVE MARGIN
1996

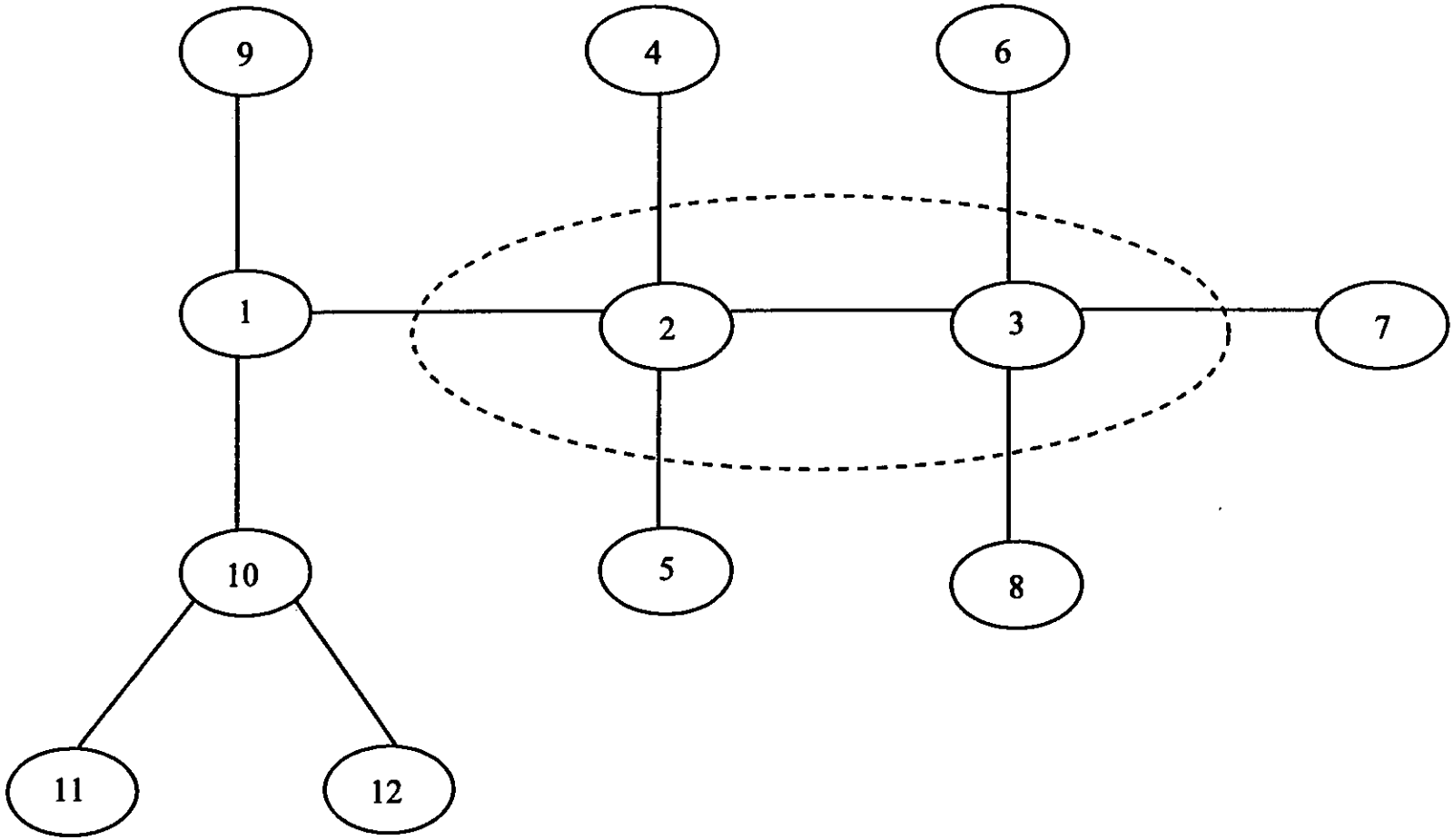
First Tier Market Centered On	Pre Merger		Post Merger	
	UE Share (%)	CIPS Share (%)	AMEREN Share (%)	AMEREN Share With Open Access Tariff (%)
	(1)	(2)	(3)	(4)
AEC	0.0 %	0.0 %	5.7 %	4.6 %
AEP	0.0	3.7	3.7	2.8
CE	0.0	11.4	11.4	6.6
CILCO	0.0	23.2	23.2	7.4
CINergy	0.0	14.0	14.0	5.3
Columbia	0.0	0.0	22.2	7.4
CSW	0.0	0.0	4.9	4.9
Entergy	0.0	0.0	6.1	6.1
IES	0.0	0.0	8.7	5.5
IMEA	0.0	100.0	100.0	7.4
IMPA	0.0	18.2	18.2	5.8
IP	0.0	7.3	7.3	4.9
IPW	0.0	0.0	9.1	9.1
KCPL	0.0	0.0	5.0	4.1
KU	0.0	8.2	8.2	8.2
MEC	0.0	0.0	4.6	4.4
MoPub	0.0	0.0	11.4	6.4
NIPSCO	0.0	34.7	34.7	7.4
NSP	0.0	0.0	3.6	3.6
SIPCO	0.0	27.5	27.5	7.4
SJLP	0.0	0.0	5.9	4.5
Soyland	0.0	100.0	100.0	7.4
SPA	0.0	0.0	6.9	4.3
Springfield, IL	0.0	32.2	32.2	7.4
TVA	0.0	7.7	7.7	4.3
WR	0.0	0.0	5.5	5.5
WVPA	0.0	18.2	18.2	6.0

AMEREN'S SHARE OF UNCOMMITTED CAPACITY
FIRST TIER MARKETS
15% RESERVE MARGIN
1996

First Tier Market Centered On	Pre Merger		Post Merger	
	UE Share (%)	CIPS Share (%)	AMEREN Share (%)	AMEREN Share With Open Access Tariff (%)
	(1)	(2)	(3)	(4)
AEC	3.5 %	0.0 %	8.6 %	5.7 %
AEP	0.0	2.8	4.5	3.8
CE	0.0	7.8	12.2	8.2
CILCO	0.0	14.0	21.1	9.2
CINergy	0.0	10.7	16.4	7.1
Columbia	19.7	0.0	38.6	9.2
CSW	3.2	0.0	7.9	7.9
Entergy	2.7	0.0	6.6	6.6
IES	6.8	0.0	15.7	7.4
IMEA	0.0	100.0	100.0	9.2
IMPA	0.0	14.1	21.2	7.6
IP	3.3	5.1	8.4	6.2
IPW	5.0	0.0	11.8	11.8
KCPL	3.8	0.0	9.3	6.0
KU	3.8	6.0	9.8	9.8
MEC	3.1	0.0	7.6	6.6
MoPub	8.6	0.0	19.5	8.2
NIPSCO	0.0	10.9	16.7	8.7
NSP	3.0	0.0	7.4	7.4
SIPCO	0.0	30.6	42.0	9.2
SJLP	4.7	0.0	11.1	6.6
Soyland	0.0	100.0	100.0	9.2
SPA	5.6	0.0	13.1	6.3
Springfield, IL	0.0	33.1	44.8	9.2
TVA	2.7	4.2	6.9	4.4
WR	4.1	0.0	10.0	10.0
WVPA	0.0	14.1	21.2	7.8

Exhibit No. ___ (RWF-13)

DEFINING FIRST TIER MARKETS SYMMETRICALLY



AMEREN'S SHARE OF TOTAL CAPACITY
FIRST TIER MARKETS

First Tier Market Centered On	Pre Merger		Post Merger	
	UE Share (%)	CIPS Share (%)	AMEREN Share (%)	AMEREN Share With Open Access Tariff (%)
	(1)	(2)	(3)	(4)
AEC	12.8 %	0.0 %	16.3 %	8.2 %
AEP	0.0	1.5	5.7	5.1
CE	0.0	4.0	14.3	10.7
CILCO	0.0	8.8	28.1	11.7
CINergy	0.0	4.6	16.2	9.7
Columbia	68.9	0.0	74.7	11.7
CSW	12.9	0.0	16.4	16.4
Entergy	7.3	0.0	9.5	9.5
IES	27.2	0.0	33.2	10.4
IMEA	0.0	88.2	96.8	11.7
IMPA	0.0	8.9	28.4	10.4
IP	8.5	2.8	11.3	8.8
IPW	15.4	0.0	19.5	19.5
KCPL	19.5	0.0	24.3	9.6
KU	9.3	3.1	12.4	12.4
MEC	12.5	0.0	16.0	10.2
MoPub	35.1	0.0	41.8	10.9
NIPSCO	0.0	4.0	14.3	10.8
NSP	15.4	0.0	19.5	19.5
SIPCO	0.0	36.2	69.6	11.7
SJLP	24.0	0.0	29.5	10.2
Soyland	0.0	90.2	97.4	11.7
SPA	28.5	0.0	34.6	10.0
Springfield, IL	0.0	30.4	63.8	11.7
TVA	5.0	1.6	6.6	5.0
WR	20.4	0.0	25.4	25.4
WVPA	0.0	8.9	28.4	10.5

TOTAL CAPACITY IN ONE WHEEL MARKET
CENTERED ON WR

	Trading Partner	Total Capacity 1996
	(1)	(2)
I	Center Utility	
	WR	5,159 MW
II	Directly Interconnected Merger Partner(s)	
	UE	8,385 MW
III	Other Interconnections	
	CSW	8,420 MW
	Empire	997
	KCPL	3,720
	Midwest	272
	MoPub	1,263
	OGE	6,237
	WestPlains	514
	AEC	3,557
	BPU	619
	OPPD	1,968
	Total (I + II + III)	41,111 MW
IV	Other Merger Partner	
	CIPS	2,766 MW
V	Additional Utilities Accessible Under Open Access Tariff of CSW & KCPL	
	Entergy	21,209 MW
	IPW	1,310
	MEC	4,347
	NSP	8,311
	SJLP	422
	SWPS	3,939
	AECC	1,946
	WF	1,226
	GRDA	789
	Independence	348
	LES	604
	Springfield, MO	753
	NPPD	2,033
	SPA	643
	Total (I + II + III + IV + V)	91,757 MW

UE Premerger Share	(a) :	20.4 %
CIPS Premerger Share	(b) :	0.0 %
Merged Entity Share		
Before CSW & KCPL Tariff	(c) :	25.4 %
After CSW & KCPL Tariff	(d) :	12.2 %

(a) : [8,385/41,111]*100
(b) : [0/41,111]*100
(c) : [(8,385+2,776)/43,887]*100
(d) : [(8,385+2,776)/91,767]*100

NON FIRM ENERGY SALES BY
UE, CIPS AND INTERCONNECTED UTILITIES
ALL TRANSACTIONS

1993

SELLER (1)	Sales (2)	Share (3)	HHI (4)
CE	10,605 GWH	14.5 %	210
AEP	10,052	13.7	188
TVA	6,818	9.3	87
NSP	6,338	8.7	75
UE	**6,230**	**8.5**	**72**
IP	4,762	6.5	42
CINergy	4,730	6.5	42
CIPS	**4,505**	**6.2**	**38**
Entergy	3,479	4.8	23
KCPL	3,343	4.6	21
MEC	3,333	4.6	21
WR	2,398	3.3	11
AEC	2,028	2.8	8
IES	1,885	2.6	7
KU	773	1.1	1
NIPSCO	689	0.9	1
CSW	581	0.8	1
CILCO	203	0.3	0
IPW	117	0.2	0
SIPCO	114	0.2	0
MoPub	107	0.1	0
SJLP	92	0.1	0
IMEA	33	0.0	0
Springfield, IL	12	0.0	0
WVPA	2	0.0	0
IMPA	0	0.0	0
Pre Merger Total	73,228 GWH	100 %	846
Increase in HHI	[2 * UE Share * CIPS Share]		105
Post Merger Total			951

Source: Workpapers

NON FIRM ENERGY SALES BY
UE, CIPS AND INTERCONNECTED UTILITIES
ALL TRANSACTIONS

1994

SELLER (1)	Sales (2)	Share (3)	HHI (4)
AEP	7,688 GWH	11.8 %	139
CE	6,976	10.7	114
UE	**6,443**	**9.9**	**97**
TVA	6,314	9.7	94
CINergy	4,878	7.5	56
NSP	4,841	7.4	55
KCPL	4,207	6.4	42
IP	3,797	5.8	34
CIPS	**3,767**	**5.8**	**33**
AEC	3,405	5.2	27
Entergy	3,404	5.2	27
KU	2,214	3.4	11
MEC	1,895	2.9	8
WR	1,698	2.6	7
IES	1,137	1.7	3
CSW	1,001	1.5	2
CILCO	359	0.5	0
IPW	277	0.4	0
NIPSCO	253	0.4	0
SIPCO	249	0.4	0
SJLP	222	0.3	0
MoPub	158	0.2	0
Springfield, IL	52	0.1	0
IMEA	44	0.1	0
WVPA	12	0.0	0
Pre Merger Total	65,290 GWH	100 %	751
Increase in HHI	[2 * UE Share * CIPS Share]		114
Post Merger Total			864

Source: Workpapers

UNCOMMITTED CAPACITY
OF UE, CIPS AND INTERCONNECTED UTILITIES
15% RESERVE MARGIN*

Market Participant (1)	1996 (2)	1996 Share (3)	HHI (4)
UE	106 MW	1.7 %	3
CIPS	166	2.6	7
AMEREN	272	4.2	18
AEC	423	6.6	44
AEP	103	1.6	3
CE	679	10.6	113
CILCO	18	0.3	0
CINergy	254	4.0	16
Columbia	9	0.1	0
CSW	323	5.0	25
Entergy	715	11.2	125
IES	0	0.0	0
IMEA	0	0.0	0
IMPA	0	0.0	0
IP	318	5.0	25
IPW	120	1.9	3
KCPL	254	4.0	16
KU	205	3.2	10
MEC	324	5.1	26
MoPub	87	1.4	2
NIPSCO	150	2.3	5
NSP	544	8.5	72
SIPCO	59	0.9	1
SJLP	13	0.2	0
Soyland	0	0.0	0
SPA	0	0.0	0
Springfield, IL	0	0.0	0
TVA	1,253	19.6	383
WR	281	4.4	19
WVPA	0	0.0	0
TOTAL	**6,402 MW**	**100 %**	**915**
		Increase in HHI (2 * UE Share * CIPS Share)	**9**
		Post Merger Total	**923**

SOURCES:
1995 ECAR OE-411
1995 MAIN OE-411
1995 MAPP OE-411
1995 SERC OE-411
1995 SPP OE-411
CIPS: Exhibit No.___(GWM-2)
Data provided by MidAmerican Energy Company
Data provided by IES Utilities
Union Electric, Energy Resource Plan, June 1995

*Computations use 15 percent reserve margins
for all utilities except SPA, where it is 9.9 percent