

Exhibit No:
Issue: Transmission
Witness: John E. Grotzinger
Type of Exhibit: Rebuttal
Sponsoring Party: Missouri Joint Municipal
Electric Utility Commission
Case No: EA-2005-0180
Date Testimony Prepared: January 31, 2005

FILED

FEB 1 2005

**Missouri Public
Service Commission**

**MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. EA-2005-0180**

**REBUTTAL TESTIMONY
OF
JOHN E. GROTZINGER**

**ON BEHALF OF
MISSOURI JOINT MUNICIPAL ELECTRIC UTILITY COMMISSION**

Columbia, Missouri
January, 2005

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

Application of Union Electric Company)
for a Certificate of Public Convenience and)
Necessity authorizing it to construct, install,)
own, operate, control, manage and maintain)
electric plant, as defined in § 386.020(14), RSMo.)
to provide electric service in a portion of New)
Madrid County, Missouri, as an extension of)
its existing certificated area)

Case No. EA-2005-0180

AFFIDAVIT OF JOHN E. GROTZINGER

STATE OF MISSOURI)
) ss.
COUNTY OF BOONE)

I, John E. Grotzinger, of lawful age, and being duly sworn, do hereby depose and state:

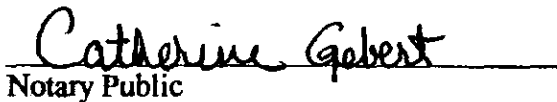
My name is John E. Grotzinger. I am presently Executive Director for Engineering & Operations of the Missouri Joint Municipal Electric Utility Commission, intervener in the referenced matter.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my personal knowledge, information and belief.


John E. Grotzinger

Subscribed and sworn to before me, a Notary Public, this 31st day of January, 2005.


Catherine Gebert
Notary Public



CATHERINE GEBERT
Boone County
My Commission Expires
January 29, 2008

OF
JOHN E. GROTZINGER
CASE NO. EA-2005-0180

A. My name is John E Grotzinger. I am employed by the Missouri Joint Municipal Electric Utility Commission (MJMEUC) as Executive Director for Engineering & Operations.
My business address is 2407 W. Ash St., Columbia, MO, 65203.

Q. Please describe your background and by whom and in what capacity you are currently employed.

I am responsible for engineering and system planning for MJMEUC and operations of the Missouri Public Energy Pool #1(MoPEP) system. My responsibilities include planning for

1 power-supply and transmission needs of MoPEP and securing power supplies and associated
2 transmission arrangements.

3
4 **Q. Please describe MJMEUC and its function.**

5 A. The Missouri Joint Municipal Electric Utility Commission (MJMEUC) is a political
6 subdivision of the state of Missouri. It aggregates municipal utility loads and resources to
7 provide economical supply options. In this role MJMEUC administers MoPEP and provides the
8 long term planning and day to day power supply operations for MoPEP. Our role is similar to
9 that of Associated Electric Cooperative Inc. (AECI) with respect to its member co-ops.

10
11 **Q. What is the purpose of your testimony?**

12 A. The purpose of my testimony is to describe MJMEUC's and its contracting municipalities'
13 (which we generally refer to as "members") use of the transmission system, concerns we have
14 about the anticipated impact of the proposed Ameren service to Noranda on MJMEUC and its
15 members, and proposed measures to mitigate the impact. Essentially, AmerenUE has proposed to
16 serve a new load that represents the approximate equivalent of the combined peak loads of
17 Columbia, Missouri plus Independence, Missouri. The transmission implications of its serving
18 this load at a location outside of Ameren's current service territory are substantial in terms of
19 both reliability and cost impacts on other parties, particularly MJMEUC and municipal utilities.
20 The purpose of my testimony is to point out those impacts, to note that this transaction is being
21 proposed in a manner that avoids the full study that would ordinarily apply to such a transaction,
22 and to propose measures to mitigate the anticipated transmission impacts of granting
23 AmerenUE's Application.

1 **Q. Is it your purpose to oppose the Amren/Noranda transaction?**

2 A. No, MJMEUC does not wish to stand in the way of this transaction but at the same time
3 MJMEUC does not want to get run over by it. As a condition of going forward with this
4 transaction AmerenUE can and should be required to alleviate the transaction's detrimental
5 effects on transmissions and should simply make commitments to do so or be required to do so
6 by the MoPSC.

7
8 **II. Description of MJMEUC's operations and use of the transmission system.**

9 **Q. Please describe how MJMEUC and its members use the transmission system.**

10 A. MJMEUC and its members are transmission dependent utilities. We have traditionally utilized
11 the transmission system to serve the load requirements of member utility customers and have
12 paid transmission owners a proportionate share of the owners' transmission system costs
13 pursuant to rates approved by FERC. As network customers under the Midwest ISO (MISO)
14 open-access transmission tariff, MJMEUC's members utilize the Ameren transmission system in
15 the same manner that AmerenUE uses the system to serve its retail customers. We now take
16 service under MISO just as AmerenUE does to serve its retail and wholesale customers.

17
18 MJMEUC itself also takes point-to-point service from MISO over Ameren's transmission system
19 in order to serve MoPEP loads. Additionally we take service from AECI under a grandfathered
20 transmission agreement to serve members in and across the co-op system and some of our
21 members take network service from Aquila (Missouri Public Service or MPS) for members
22 connected to MPS. Furthermore we have purchased transmission service from Southwest Power
23 Pool (SPP) and Entergy to provide capacity and energy to member cities.

24
25 **Q. What cities does MJMEUC supply full requirements for?**

1 A. MJMEUC operates the Missouri Public Energy Pool # 1(MoPEP) for 26 cities with
2 municipally owned utilities scattered across Missouri. These include 2 cities located in the
3 transmission service area of Aquila MPS, 20 cities within the AECI, transmission system and
4 four located within the AmerenUE transmission system. These four include Farmington,
5 Fredericktown, Owensville, and Rolla. Each of these four cities has a network service agreement
6 with MISO for service that includes use of the AmerenUE transmission system. Their network
7 service agreements were originally entered into with Ameren and were transferred to MISO
8 when Ameren became part of the MISO last year. All 26 cities depend on MJMEUC for the
9 entirety of their retail power supply, and MJMEUC, like all other suppliers of course, relies on
10 the overall interconnected transmission grid in the region to deliver that power.

11
12 **Q. Are there other MJMEUC members that are directly connected to and dependent on**
13 **AmerenUE transmission?**

14 A. Yes, in addition to the four cities in the MoPEP pool there are ten other member systems.
15 They include California, Centralia, Citizens Electric Corporation, Hannibal, Jackson, Kahoka,
16 Kirkwood, Marceline, Perry, and St James. Like the four pool members each of these cities has a
17 network service agreement that was originally entered into with Ameren but was later transferred
18 to MISO.

19
20 Whether or not they are part of MoPEP, MJMEUC members who are connected to the Ameren
21 system are transmission dependent on AmerenUE and MISO for all transmission service.
22 Therefore, changes to AmerenUE transmission usage and availability may significantly affect the
23 reliable delivery of those members' power supplies.

1 **Q. Do any MJMEUC members utilize energy supplies located on the Ameren transmission**
2 **system?**

3 A. Yes, I would say almost all of MJMEUC's members located within the Ameren footprint as
4 well as some outside the Ameren system rely on supplies that are located on the Ameren
5 transmission system. For example many of the non-MoPEP members take nearly all their energy
6 from Ameren under full requirements contracts either with AmerenUE or Ameren Energy
7 Marketing (AEM). AEM supplies approximately 85 MW of capacity and/or energy used to
8 serve MoPEP loads under various contracts--A portion of the MoPEP energy purchased from
9 Ameren is delivered to Ameren/AECI interfaces for use by MoPEP members who are connected
10 to AECI or Aquila (MPS).

11
12 III. Transmission impacts of the AmerenUE application.

13 **Q. Has MJMEUC ever experienced difficulties in getting transmission service from**
14 **Ameren to other Missouri utilities?**

15 A. Yes, MJMEUC in its role as operator for MoPEP has experienced difficulties at various times
16 in obtaining even minimal amounts of firm transmission from Ameren or MISO for portions of
17 our deliveries for our MoPEP members located on other transmission systems. Particularly, for
18 example, attempts to transmit even only 5 MW of energy from Ameren generation to load on the
19 Aquila (MPS) system has been denied both in early 2004 under Ameren requests (before Ameren
20 joined MISO) and again by MISO in the last month. This required us to incur additional
21 generation and transmission costs to source this energy from other resources. This is pertinent
22 since a similar generation re-dispatch from Ameren generation sources to the AECI interface
23 used in the loadflow model could be used for both our request for Ameren generation delivery to
24 Aquila and for the example loadflow provided in the Pfeiffer testimony.

1 The reasons MISO identified for denying the recent 5 MW request cast doubts on Mr. Pfeiffer's
2 claim that AmerenUE service to Noranda will have no adverse effects on transmission flows. On
3 MJMEUC's recent 5 MW MISO request transmission was denied because of the lack of
4 available firm transmission capacity on three southeast Missouri *AmerenUE* facilities. MISO
5 claimed MJMEUC's 5 MW request would cause overloads on these AmerenUE facilities on a
6 single contingency basis. I have attached a copy of a refused MISO transmission request as
7 Attachment 1. The facilities identified as potentially overloading (and the contingencies that
8 would cause the overloads are: Fredericktown tap 161kv line (for loss of the St Francis to
9 Lutesville 345 kV facility), the Rivermines to Fredericktown 161 kV line (for loss of the St
10 Francis to Lutesville line), and the Rush Island to St Francis 345 kV line (for loss of the other
11 Rush Island to St Francis line and 345/138 Rush Island transformer).

12
13 **Q. How do these transmission lines relate to Mr. Pfeiffer's testimony about the impact of**
14 **the Noranda transaction on transmission?**

15 A. In Pfeiffer's testimony he identified Rush Island as the nearest AmerenUE base load unit
16 available to serve Noranda (on page 4 line 19). Furthermore Lutesville facilities that are a key
17 contingency underlying MISO's denial of the refused 5 MW request serve the Kelso substation
18 on page 4 line 12 of his testimony, Mr. Pfeiffer states) as "...the AmerenUE 345/161 kV
19 substation at Kelso is the closest AmerenUE facility capable of supplying load of this magnitude
20 This demonstrates that the facilities considered by MISO to be limiting for 5 MW of
21 transmission are the same facilities Ameren projects to use in serving the Noranda load. On
22 Attachment 2 I have highlighted in orange Noranda's location and AmerenUE generation nearby
23 which Mr. Pfeiffer indicates in his testimony to have output increased serve Noranda. In yellow I
24 have highlighted the lines that caused MJMEUC recent 5 MW request to be denied. You can see
25 very clearly that these same constrained lines are between Ameren generation and Noranda's

1 load. I believe this shows that serving a new requirement of nearly 500 MW over the lines that
2 cause a 5 MW transaction to be refused is a significant concern.

3
4 **Q. Do you agree with Mr. Pfeiffer's testimony on page 7 beginning line 6 that states "We**
5 **have performed a power flow analysis that verified that there will not be any significant**
6 **change to the flows on the transmission systems of AECI and of AmerenUE."?**

7 A. No. In Ameren's own submitted tabulations of loading changes, changes deemed worthy of
8 reporting (i.e. greater than the 50 MW threshold suggested by Mr. Pfeiffer) occurred on more
9 than 35 transmission lines (Pfeiffer Direct Testimony Attachment 2 page 3). And changes of
10 greater than 100 MW occurred on five of these lines (attachment 2 page 4). Mr. Pfeiffer in his
11 deposition indicated that the choice of 50 MW selections was arbitrary, and he further
12 acknowledged that level of change as "significant" while establishing a cutoff to reduce output of
13 his calculations to a manageable level. When branch element ratings levels (indicating capacity
14 of components of the affected grid) are provided it can be seen that for some elements 50 MW is
15 a large percentage of the rating, so even smaller changes are quite significant in affecting
16 transmission availability. For other elements examined under typical contingencies as the
17 limiting elements for transfers across the Ameren system, under the already high base case
18 loadings the changes in power greater than 50 MW significantly exacerbates the already high
19 loadings on these limiting elements.

20
21 **Q. Can you point to an example in Ameren testimony of generation changes proposed for**
22 **its Noranda transaction that would involve transmission service similar or comparable to**
23 **that denied to MJMEUC for your earlier cited 5 MW request?**

24 A. Yes, in Mr. Pfeiffer's testimony the sample loadflow results with the presumed generation
25 redispatch (Attachment 2 page 2) includes increasing generation in Ameren (including

1 Pinckneyville) and reduces generation in AECI (particularly Holden). The effects of such a
2 redispatch are very similar to the transmission system impacts of the 5 MW requests MJMEUC
3 made that were denied by both Ameren last year as the transmission provider and MISO more
4 recently. The Holden generation is reduced by 180 MW which greatly exceeds the 5 MW we
5 were refused for next month. In Attachment 3 in my testimony I have highlighted in orange the
6 Pinckneyville and Holden generators with approximately 180 MW of changes. I have
7 highlighted in yellow the 5 MW changes that should be used to model the MJMEUC 5 MW
8 request.

9
10 I am concerned that Mr. Pfeiffer's testimony and example loadflow results affirms my concerns
11 rather than relieving those concerns, that transmission constraints are likely to become worse as a
12 result of Ameren taking Noranda as a new customer. Contrary to Mr. Pfeiffer's assertions the
13 loadflow study shows that there will be significant changes in loadings on a number of
14 transmission facilities as a result of the proposed transaction. Importantly, in light Mr. Pfeiffer's
15 unsupported claims that the loading changes are not significant, AmerenUE completely fails to
16 provide what the changes in available transmission capacity will be as a results of these changed
17 loadings. Particularly given the concerns I have identified, the MoPSC should insist on such an
18 analysis and must ensure that any adverse impacts on transmission availability will be mitigated
19 before approving the proposed transaction.

20
21 **Q. So are you asserting that the Missouri Public Service Commission can and should**
22 **exercise some responsibility with respect to the transmission impacts of AmerenUE's**
23 **Application in this case to because it has not be examined by MISO?**

24 **A. Yes. Since AmerenUE's proposal to extend its service territory to serve Noranda as a retail**
25 **customer could allow the company to avoid the MISO scrutiny and costs that would otherwise be**

1 applied to the transaction, it is up to this Commission to protect the public interest in terms of
2 service reliability, equitable allocation of transmission and transmission congestion costs, and
3 needed improvements to the transmission system. In the circumstances of this transaction and
4 application, the Commission has authority and responsibility to do so just as it would have had
5 prior to the establishment of MISO. I would suggest that MISO be requested to analyze Ameren
6 generation service to the Noranda load to determine the impacts to available transmission
7 capacity from Ameren to other Missouri utilities (especially to AECI). Ameren should provide
8 the needed mitigation to ensure MJMEUC is held harmless by any negative impacts in the
9 available transmission capacity.

10
11 **Q. What would the process be if another supplier was supplying Noranda such as**
12 **MJMEUC, Cinergy, etc. from within MISO?**

13 A. Noranda or the supplier would submit a request to MISO for point-to-point service from the
14 generator(s) to the AECI interface. This would require a specific study and be approved or
15 refused based upon a loadflow analysis of the available firm transmission capacity. The
16 transmission costs would be subject to MISO through and out charges from MISO. Only by the
17 nature of the unusual grandfathered contract is the lower cost Ameren network zone able to be
18 used for the benefit of this transaction. If Ameren was serving this load as a wholesale customer
19 they would also have to go through that same process.

20
21 **Q. If it appears that MISO would have denied transmission for this transaction if it had**
22 **been proposed to the ISO, is it MJMEUC's position that the Public Service Commission**
23 **should deny AmerenUE's Application in this case?**

24 A. No. MJMEUC's position is that there are adequate alternative remedies available to the
25 Commission, which I will outline later in my testimony, and that AmerenUE's Application

1 should be approved subject to its satisfaction of conditions along the lines of those remedies that
2 would alleviate or mitigate the transmission effects of the proposed transaction.

3
4 **Q. Are you aware of any unusual Ameren interpretations of "Network Service"?**

5 A. Yes, in 2000 Rolla had requested Network Service over AmerenUE to take service from
6 MJMEUC MoPEP operations. In this first case of MJMEUC trying to serve a city connected to
7 AmerenUE as a MoPEP member Ameren had refused to allow network service. MJMEUC
8 finally resorted to the FERC hotline in December of 2000 to require Ameren to provide network
9 service. FERC immediately ordered them to grant service without delay.

10
11 **Q. Can you identify particular constrained areas or loading changes that are of concern?**

12 A. Yes in Mr. Pfeiffer's testimony itself (Mr. Pfeiffer's Direct Testimony Attachment 1) it states
13 "The Montgomery-McCredie 345 KV line section showed an increase of 94.3 MW over the base
14 case....." The Montgomery-McCredie line is part of the major east-west 345 line in central
15 Missouri (the only one in central Missouri). Additionally, in the tabulation (Mr. Pfeiffer's Direct
16 Testimony Attachment 2 page 3) the Bland-Franks 345 kV loads up an additional 64.2 MW in
17 the transmission example given The Bland-Franks line is part of the only other east-west 345 kV
18 line in Missouri has been seen as critical in many past transmission loading relief actions.
19 Transmission loading relief (TLR) is the mechanism used to relieve probable overloads on the
20 transmission system by curtailing transactions that impact the constrained facilities. Bland to
21 Franks has been one of the most frequently identified constraints in Missouri and has triggered
22 numerous TLR events. These events have caused MJMEUC and other entities (including
23 Ameren and AECL) to significantly change from an economic dispatch. Bland to Franks is a
24 facility that Ameren describes in a past case as "one of the most prominent constraints in the
25 Midwest." This statement was made in the Initial Brief of Ameren Energy Generating Company

1 and Union Electric Company d/b/a AmerenUE, filed in FERC Docket No. EC03-53, at 63 (Dec.
2 1, 2003) Ameren relied on the Bland-Franks line constraint in justifying at FERC approval of
3 AmerenUE's proposed acquisition of generating assets from Ameren energy Generating
4 including the Pinckneyville station that Ameren claims will be used to serve Noranda.
5

6 **Q. Is this Pinckneyville asset part of those Ameren is trying to move to AmerenUE because**
7 **other merchant units have transmission constraints?**

8 A. Yes, AmerenUE sought Pinckneyville and other Ameren Energy Marketing units instead of
9 less costly merchants units that it could have acquired or purchased power that it could have
10 obtained. Ameren asserted that these less expensive alternatives were not practical because
11 transmission constraints would prevent Ameren being assured of delivery of these alternatives.
12 The same constraints that would impact Ameren's own reliance to deliver resources other than
13 Pinckneyville limit the ability of other transmission customers such as MJMEUC and its
14 members to obtain firm transmission to deliver resources from within Ameren transmission
15 system and beyond it in other parts of MISO. If AmerenUE is allowed to serve Noranda, Mr.
16 Pfeiffer's own testimony indicates that it is likely that such service will exacerbate those
17 transmission constraints and further limit our power supply options. MJMEUC does not have the
18 easy out of using resources such as Pinckneyville to avoid or mitigate those effects
19

20 **Q. Is Ameren's approach to serving Noranda the same as others would use for this service?**

21 A. No, to my knowledge Ameren has not asked, nor do they plan to ask, MISO for approval of
22 transmission to serve the Noranda load. Instead they represent that it is simply part of changing
23 native load requirements "load growth" under existing network service. This completely dodges
24 having MISO analyze the impact of adding this load or requiring Ameren to make a request
25 comparable to if they served it as wholesale load. This completely evades the comparability

1 requirement because MJMEUC or anyone else would be required to have MISO's analysis of
2 transmission impacts and approval of any needed transmission upgrades. This has the appearance
3 of an effort to hide real impacts of this transmission service of this transaction from public
4 scrutiny by MISO.

5 Ameren is hiding under "grandfathered" agreements where the transaction would not be subject
6 to MISO review. MISO review and approval is what is required for MJMEUC to add
7 transmission service, but it does not seem that Ameren is subject to comparable treatment in the
8 case of serving Noranda's load.

9
10 **Q. Are there any planned improvements that will relieve relative transmission constraints?**

11 A. Yes, MJMEUC does recognize that the Bland to Franks line has already been identified for
12 reinforcement by the addition of the Callaway to Franks line. However, while the Callaway to
13 Franks line will presumably increase available transmission capacity and reduce constraints on
14 the Ameren system, it will not be complete before the Ameren/Noranda transaction is proposed
15 to start. In the meantime as described in Mr. Pfeiffer's testimony the Ameren/Noranda
16 transaction will have a 64 MW impact on an already limited element that is not mitigated in any
17 way and will reduce available transmission capacity for other wholesale and retail customers and
18 degrade reliability. To the extent, Ameren succeeds in its proposal to "grandfather" the Noranda
19 into Ameren network load, uses by other customers relying on the Ameren transmission system
20 may be treated as incremental or marginal and may be denied or require customers to pay for
21 expensive upgrades. In MISO "Day 2" other users of the transmission system may be exposed to
22 greater congestion costs as a result of AmerenUE's service to Noranda.

23
24 **Q. How do you feel Ameren's testimony addresses transmission concerns in Missouri that**
25 **may be impacted by the proposed transaction?**

1 A. Rather than providing examples of planned solutions (like Callaway to Franks) for current
2 and future transmission constraints in the testimony, AmerenUE-sponsored testimony dismissed
3 the issue of transmission constraints without a clear showing that supports available
4 transmission capacity will be adequate to supply the proposed transaction without impacting
5 other parties transmission use.. Ameren has not identified planned transmission improvements
6 that would mitigate the effects of the Noranda transaction much less has it provided information
7 regarding how or when such improvements will be made, including whether any improvements
8 will be required earlier than otherwise proposed.. While they were referred to in Mr. Pfeiffer's
9 deposition the list of improvements were not made available at that time. Further he indicated
10 that none of those improvements were influenced by the impacts of the Noranda transaction nor
11 have they been reviewed by MISO yet. Mr. Pfeiffer indicated that no new facilities or upgrades
12 have been included for service to Noranda.

13
14 **Q. Does Ameren support MISO transmission planned expansions that would improve**
15 **regional reliability?**

16 Ameren supports MISO efforts in transmission planning by providing a list of Ameren proposals
17 for improvements desired by Ameren. This list is rolled up to MISO with MISO review to
18 incorporate in other transmission owners plans.. Even so, no Ameren support of MISO
19 proposed/planned transmission expansion nor Ameren commitment to apply its best efforts to
20 implement the results of MISO planning in its territory is evident in its testimony or in discussion
21 on planned regional projects.

1 **Q. Do you have other reasons to be concerned about Ameren participation in the MISO**
2 **transmission planning process and Ameren's commitment to needed transmission**
3 **improvements?**

4 A. Yes, earlier MJMEUC discussions directly with Ameren has indicated no specific support for
5 MISO planned projects. Ameren did not indicate support for past MISO planning documents and
6 it was stated Ameren would not support any such approach unless Ameren believed it valuable
7 for Ameren. I believe this could significantly undermine regional planning efforts led by MISO.

8
9 AmerenUE is not unique in its apparent motivations to resist many needed improvements to the
10 transmission system in its territory. Among other investment considerations, major
11 transmission-owning utilities that also produce and sell power in wholesale markets generally
12 conclude that many transmission improvements would subject their energy sales to greater
13 external competition. This issue and related relevant matters are presented in the report
14 "Effective Solutions to Getting Needed Transmission Built at Reasonable Cost", which was
15 produced last year by Transmission Access Policy Studies (TAPS) and is appended to this
16 testimony as **Attachment 4**.

17
18 It especially concerns me that Ameren has gone on record at FERC opposing the inclusion of
19 certain transmission improvements as network upgrades that would be initially paid by
20 transmission customers and would qualify those customer investments for credits from MISO for
21 future MISO transmission service costs. The future credits on MISO transmission would offset
22 the cost incurred by transmission customers in funding the upgrades initially, thereby protecting
23 a customer from being charged for use of facilities that it had already paid to build. I believe the
24 MISO does have expansion plans that could alleviate certain transmission constraints in
25 Missouri. However, Ameren's position of wanting to maintain control of transmission

1 development by opposing improvements or opposing assurance of MISO transmission credits for
2 customer-paid transmission investments adds uncertainty to implementing these plans.

3
4 **Q. Do you expect the proposed Noranda transaction to impact MJMEUC in MISO's "Day**
5 **2" markets?**

6 A. Recent actions by MISO involving new transmission requests that MJMEUC has made or
7 Financial Transmission Rights (FTR) nominations by MJEMUC give rise to concerns on our
8 ability to secure transmission from Ameren to AECI transmission interface. This is the same
9 interface needed in Ameren's Noranda transaction. MISO attempts to model MoPEP utilizing
10 additional firm transmission of the Ameren/AECI interface have been met with refused
11 transmission requests. While receiving most of the requested FTRs, we have not been able to
12 fully hedge against increased congestion costs the existing 10 MW reservation even without the
13 added impact of up to 470 MW new transfers needed for serving Noranda from Ameren.

14
15 Furthermore not all of the requested FTRs for transmission service from Ameren generation to
16 MJMEUC member load connected to AmerenUE have been granted. These are for existing
17 supply arrangements that already have approved transmission service. Yet there is no assurance
18 that we will ever receive all the requested FTRs for that service.

19
20 Admittedly some of the problems may be MISO modeling itself, but the potential Ameren to
21 AECI impacts associated with the service to Noranda may exacerbate such problems and
22 certainly will lower the odds that MJMEUC and its members being able to fully hedge their
23 existing power-supply and transmission arrangement much less any new arrangements.

1 Obviously if Ameren is permitted to serve Noranda and as a result competes with MJMUEC for
2 future transmission availability on this path MJEMUC and its members are likely to fall short of
3 getting adequate financial hedges against congestion to even greater degree. While there are
4 many factors involved in the MISO modeling we are convinced that MJMEUC's members will
5 be adversely impacted by the Ameren/Noranda transmission impacts.

6
7 **Q. In MJMEUC and its members do not get sufficient FTRs, what other impacts of the**
8 **AmerenUE/Noranda transaction may result in adding costs to MJMEUC in "Day 2"?**

9 A. Day 2 operation in MISO includes congestion cost for moving power across the grid.
10 Congestion costs are part of the proposed Day 2 market where the economic redispatch of power
11 is used to relieve transmission constraints. Then the increased cost of this generation redispatch
12 is passed to the ultimate utility customer in the form of congestion costs, unless they have FTRs
13 to protect them. While those costs are not accurately known for transmission across Ameren,
14 there is expected to be congestion at some points in the region. Ameren does not address this in
15 its testimony nor does Mr. Pfeiffer address how the Ameren/Noranda transaction changes these
16 costs. We are concerned that we are likely to incur increased costs because of Ameren's proposal
17 and have not been offered any protections or assurances that MJMEUC or its members would be
18 held harmless. We do not want to become "collateral damage" in Ameren strategies and
19 operations.

20
21 **Q. Does Ameren recognize that there could be congestion cost impacts caused by the**
22 **Ameren/Noranda transaction?**

23 A. Yes, in his deposition Mr. Pfeiffer acknowledges that there will be impacts on congestion for
24 the Noranda transaction. He correctly asserts that the nature of that impact is not and will not be
25 known until Day 2 starts. However, there is not any recognition of how these changes caused by

1 the Ameren/Noranda transaction and the potential costs incurred will be absorbed. It seems that
2 MJMEUC will be exposed to potential increased congestion costs that are caused by load and
3 generation shifts resulting from the Ameren/Noranda transaction. It is a further concern that
4 Ameren has wrapped this under MISO differently than any other wholesale supplier could, by
5 lumping Noranda under existing customer network service "load growth".
6

7 **Q. Are there other likely changes in transmission costs expected?**

8 A. Yes, while Ameren retail customers are currently protected by a rate freeze from impacts of
9 increased transmission costs MJMEUC and other transmission customers are subject to increases
10 in Ameren transmission rates. Currently Ameren through MISO is seeking an approximately
11 45% rate increase at FERC. Additionally neither MJMEUC nor retail customers are protected
12 from any adverse impacts upon system reliability caused by the Ameren/Noranda transaction.
13

14 **IV. Conclusions and proposed mitigation**

15 **Q. Can you summarize your concerns with the proposed Ameren/Noranda transaction?**

16 A. Based on the Mr. Pfeiffer's testimony and my experience in coordinating transmission
17 services I am concerned that MJMEUC and its members are poised to become "*collateral*
18 *damage*" in Ameren and Noranda's pursuit of this transaction. Not necessarily an intended
19 damage, but rather just a consequence of striving to achieve the benefits they desire. Ameren
20 does not propose any mitigation of transmission impacts but rather dismisses any transmission
21 impacts entirely. They do not provide any documentation of the available transmission capacity
22 connecting with AECL, instead adopting this approach that avoids having MISO analyze and
23 approve transmission services where any impacts would be under scrutiny. Yet from the very
24 simplified analysis performed by Ameren it is apparent that the transaction will result in
25 "significant" changes on a system that is already a constrained system, as demonstrated by

1 MJMEUC experience with recent MISO transmission requests. While Ameren recognizes that in
2 the changing MISO market operation congestion costs that cannot be fully hedged by FTRs will
3 be influenced by the proposed Ameren/Noranda transaction, no mitigation is proposed.
4 Ameren's reaction is initially to try to prevent MJMEUC from intervening in this proceeding to
5 raise the issue.

6
7 Also while future transmission facilities have been identified that would be expected to alleviate
8 the existing constrained system, Ameren has not clearly delineated any such facilities that it is
9 committed to build or shown their construction will mitigate the effects of the transaction.

10 Further as mentioned above Ameren has resisted MJMEUC interest in investing in transmission.

11 But even if Ameren could show that future construction of network upgrades will resolve the
12 problems interim mitigation would be needed to bridge the gap until the construction has been
13 completed.

14
15 In today's industry environment and structure there is no justification for confidentiality with
16 regard to this planning information. Furthermore Ameren is openly resisting MISO efforts for
17 regional planning and improvement that include proposals for customer funded upgrades that
18 would then receive credits on MISO transmission bills. It is very clear that continued
19 exploitation of monopoly control is part of Ameren's mindset and that open transmission
20 operations will continue to be resisted.

21
22 **Q. Can you suggest how your congestion cost concerns can be mitigated?**

23 A. Yes, until the transmission system had been expanded to accommodate the Noranda service
24 without impairing others access to the system Ameren should be required to hold customers
25 harmless from the impacts of its proposed transaction. The effects of the transaction should be

1 appropriately modeled to compare the congestion costs with and without Noranda being an
2 Ameren load and Ameren should be required to protect MJMEUC and its members from any
3 increase in congestion costs Essentially Ameren could take the risk for the increase constraints
4 from the transaction that they have asserted do not exist. If the assertions of no transmission
5 impact are correct then Ameren does not have any risks. Ameren's only risk would be if their
6 assertions are wrong and there are significant impacts on the transmission system. Additionally,
7 Ameren should include Noranda's load in the next update of its formula rate under the MISO
8 transmission tariff. If this is completed in March 2005 then Ameren should be required to reflect
9 Noranda's load in that calculation for any rates effective in June 2005 Even though it would not
10 be reflected in its 2004 Form 1.

11
12 **Q. Can you suggest how your long term transmission expansion concerns can be mitigated?**

13 A. Yes. Ameren can start by immediately and regularly sharing its proposed improvements with
14 MJMEUC as a part of sending the list of improvements to MISO. MJMEUC's interest is in
15 insuring a reliable and efficient transmission system. Allowing greater participation in expanding
16 and improving the transmission system should only improve the system. Furthermore allowing
17 transmission customers to fund and improve the transmission system (in exchange for credits)
18 will benefit the entire region. Expansion and improvement of the transmission system is one the
19 most critical electric industry needs, but increasing wholesale competition has resulted in the
20 commercial interests of most traditional transmission owners no longer being aligned with the
21 public interest on this issue. Every effort should be made to insure that expanding the
22 transmission system is done efficiently and produces reliable transmission services. Ameren
23 should drop opposition to the MISO plan to allow complete crediting of customer funded
24 transmission network upgrades.

1 Ameren's must abandon its past objections to MJMEUC or its members building or owning
2 transmission. Efficient and reliable transmission services are best pursued in an open,
3 coordinated effort for making transmission improvements. All of Missouri benefits from such
4 joint efforts for transmission capacity expansions. Ameren's ability to impede such development
5 should be discouraged.

6
7 **Q. Can you be specific about expansion plans included in MISO that would solve the**
8 **constraints you have identified?**

9 A Yes, in the MISO Transmission Expansion Plan 2003 many improvements were identified.
10 They include the Callaway to Franks 345 kV line that was mentioned above and that has been
11 adopted by Ameren, but is not yet in service. But there are several others that to my knowledge
12 Ameren has not adopted in their planning. Consideration of these MISO selected improvements
13 should receive a priority consideration in the 1300 MW of transmission import improvements
14 included in the stipulation in Missouri Public Service Commission Case No. EC-2002-1, and
15 Ameren's transmission investment and improvement requirement should be increased if
16 necessary to cover its share of other improvements that have been identified by MISO. We do
17 not have knowledge about the specifics of the improvements to be made as a part of that case.

18
19 To be very project specific, the addition of a Grand Towers to Trail of Tears 161 kV line should
20 be included in planned Ameren improvements. A 345 kV line from the Merino Baldwin plant
21 area to the AmerenUE Rush Island-St Francis area and then on to the AECI Fletcher substation
22 area has been identified in past studies by MISO and others studies. These projects should be
23 included as a part of mandated 1300 MW of improvements mentioned above in order to mitigate
24 the impacts of the Ameren/Noranda transaction on transmission constraints over the long term.

1 However, the best approach is to study the projected impacts and the transmission additions
2 needed to mitigate those impacts.

3
4 **Q. Would you propose these transmission additions be completely financed by Ameren for**
5 **the Ameren/Noranda transaction?**

6 A No, not necessarily. MJMEUC and its members, AECI, and others have expressed a
7 willingness to partner in the construction of these projects. However, financing and/or ownership
8 by MJMEUC and others must include the ability to receive MISO network upgrade credits for
9 the investment in facilities commensurate with the investment in such facilities. It should be
10 recognized that direct connection to AECI would require AECI's consideration. It must be noted
11 that these are major network upgrades that will provide substantial transmission network benefits
12 to the entire region. Similar projects have been undertaken by multiple parties most recently
13 during the 1980's in western Missouri.

14
15 Additionally, these major upgrades will require considerable time to design, build and construct.
16 We do not want to delay the Ameren/Noranda transaction for these concerns. Rather, it is
17 adequate that Ameren commits to include these projects in their planned network upgrades And
18 implements the interim measures I outlined earlier in my testimony for the period before
19 construction of the upgrades is completed. In addition, Ameren's commitment to use "best
20 efforts" to achieve completion within approximately three years should be made to assure
21 reasonable progress is made.

22
23 **Q Does that conclude your rebuttal testimony?**

24 **A. Yes it does.**
25