

**Darrin Adams**

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**From:** David A. Shafer [dashafer@cai-engr.com]  
**Sent:** Thursday, August 19, 2004 8:19 AM  
**To:** Darrin Adams; Mary Jane Warner; Michael Spurlock; Paul Atchison  
**Subject:** FW: TVA Case

Mary Jane,

Here is another e-mail between TVA and CAI that you were not copied on.

David A. Shafer, P.E.  
Commonwealth Associates, Inc.  
517-788-3242

-----Original Message-----

**From:** Tiller, William R. [mailto:wrtiller@tva.gov]  
**Sent:** Tuesday, August 10, 2004 2:01 PM  
**To:** David A. Shafer  
**Subject:** TVA Case

Dave,

Here is our equivalent to your Case A. This is the case we see no overloads in.

Billy

**Darrin Adams**

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**From:** David A. Shafer [dashafer@cai-engr.com]  
**Sent:** Thursday, August 19, 2004 8:22 AM  
**To:** Darrin Adams; Mary Jane Warner; Michael Spurlock; Paul Atchison  
**Subject:** FW: Warren Transmission Study

Mary Jane,

I think I did forward this message to you at the time, but just in case I did not, here it is. This is an e-mail from TVA to CAI that does not have a copy to EKPC.

David A. Shafer, P.E.  
Commonwealth Associates, Inc.  
517-788-3242

-----Original Message-----

**From:** Tiller, William R. [mailto:wrtiller@tva.gov]  
**Sent:** Thursday, July 29, 2004 2:55 PM  
**To:** David A. Shafer  
**Subject:** RE: Warren Transmission Study

David,

We studied this from a planning standpoint not operational. One of our cases was set up as if the tie did not exist, just to see the effects on the system. I never looked at the physical to see if it was physically possible.

Billy

-----Original Message-----

**From:** David A. Shafer [mailto:dashafer@cai-engr.com]  
**Sent:** Thursday, July 29, 2004 1:46 PM  
**To:** Tiller, William R.; Corbett, Alfred B  
**Cc:** Chris Bradley (E-mail); Richard D. Cook; Raymond S. Smith; Darrin Adams (E-mail); Mary Jane Warner (E-mail); Mike Spurlock (E-mail); Paul Atchison (E-mail); Donna White (E-mail); Douglas Elliott (E-mail) (E-mail); Thomas PE Martin (E-mail) (E-mail)  
**Subject:** Warren Transmission Study

Billy,

We noted in your contingency list below that you have the Memphis Junction (TVA) -MJN (EKPC) as a single contingency and as part of a double contingency. We have reviewed the breaker arrangement at Memphis Junction and note that TVA has two lines into Memphis Jct each terminated in a 161 kV circuit breaker. The Memphis Junction (TVA)-MJN (EKPC) represents the change in ownership between TVA and EKPC systems (i.e. essentially the bus) and would therefore not be considered a single line contingency. We believe a single contingency simulation would be either the outage of the Franklin-Memphis Jct or the S. Bowling Green-Memphis Jct but not both simultaneously. A double contingency would be both out simultaneously. Please let me know if we have correctly interpreted the switching arrangement at Memphis Junction.

David A. Shafer, P.E.

Commonwealth Associates, Inc.  
517-788-3242

-----Original Message-----

**From:** Tiller, William R. [mailto:wrtiler@tva.gov]  
**Sent:** Friday, July 23, 2004 11:08 AM  
**To:** David A. Shafer  
**Subject:** FW: list

I did not have time to call right now, but wanted to get you the list. These are the worst contingencies for us that we have seen so far. These actually go through several of our scenarios.

I will try to call you later today.

Billy

-----Original Message-----

**From:** Yum, Phil Soo  
**Sent:** Friday, July 23, 2004 11:05 AM  
**To:** Tiller, William R.  
**Cc:** Corbett, Alfred B  
**Subject:** list

Billy,

Here is the N-2 critical contingency list, which violated our criteria in our cases. The selected contingency lines are only based on our first phase study, and it doesn't necessary that it contains every critical N-2. Thanks.

N-1: Memphis Junction (TVA) -MJN (EKPC)  
N-2: Aberdeen Tap -Wilson 161KV and E.Bowling (TVA)- EBG (EKPC)  
MJN(EKPC) -BGMU (EKPC) and Memphis Junction (TVA) - MJN (EKPC)  
Memphis Junction (TVA) -MJN (EKPC) and E.Bowling Green - EBG (EKPC)

**Darrin Adams**

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**From:** Darrin Adams  
**Sent:** Friday, September 24, 2004 9:22 AM  
**To:** 'Lingling Fan'  
**Cc:** Paul Atchison; Mary Jane Warner; 'cbradley@bigrivers.coop'; 'wrtiller@tva.gov'; 'dashafer@cai-engr.com'  
**Subject:** RE: BREC and TVA contacts

Tracking:	Recipient	Delivery	Read
	'Lingling Fan'		
	Paul Atchison	Delivered: 9/24/2004 9:22 AM	Read: 9/24/2004 4:53 PM
	Mary Jane Warner	Delivered: 9/24/2004 9:22 AM	Deleted: 9/24/2004 4:38 PM
	'cbradley@bigrivers.coop'		
	'wrtiller@tva.gov'		
	'dashafer@cai-engr.com'		

Lingling,

Our transmission planning contact for BREC is Chris Bradley. His email address is [cbradley@bigrivers.coop](mailto:cbradley@bigrivers.coop).

Our transmission planning contact for TVA is Billy Tiller. His email address is [wrtiller@tva.gov](mailto:wrtiller@tva.gov).

Also, Dave Shafer at CAI should be included in discussions related to this study.

Chris and Billy,

I am copying you for your information.

Thanks,

Darrin Adams  
 Senior Planning Engineer  
 Power Delivery Expansion  
 East Kentucky Power Cooperative  
 4775 Lexington Road 40391  
 P.O. Box 707  
 Winchester, KY 40392-0707  
 (859) 744-4864 ext. 874  
 (859) 744-6008 (fax)  
 darrin.adams@ekpc.coop

-----Original Message-----

**From:** Lingling Fan [mailto:LFan@midwestiso.org]  
**Sent:** Thursday, September 23, 2004 4:57 PM  
**To:** Darrin Adams  
**Subject:** BREC and TVA contacts

Darrin,

Please give me BREC and TVA contacts related to the WREC project study. I will arrange a conference call for MISO, LGEE, EKPC, BREC, TVA to discuss the scope and preliminary results

9/15/2005

Thanks,  
Lingling

**Darrin Adams**

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**From:** White, Donna [donnaw@wrecc.com]  
**Sent:** Friday, August 27, 2004 12:27 PM  
**To:** Roy Palk; Paul Atchison; Mary Jane Warner; David A. Shafer; Darrin Adams; Michael Spurlock; Ottis Lee Jones (ottisjones@comcast.net); Eastridge, Mike; Elliott, Doug; Martin, Tom; Hayes, Gerald  
**Subject:** MEETING NOTES TVA 81704.doc

Here is the latest draft of the notes from our meeting with TVA on August 17, 2004 for your review. Please feel free to offer any suggestions you may have for clarifying this discussion.

Thanks for your help.

Donna White  
VP - Quality Assurance  
Warren RECC  
P O Box 1118  
Bowling Green KY 42102-1118  
270-842-5214, Ext. 2242  
donnaw@wrecc.com

<<MEETING NOTES TVA 81704.doc>>

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**EKPC/WREC/TVA Meeting  
EKPC Transmission Interconnection Request  
TVA Offices – Chattanooga TN  
August 17, 2004**

**AGENDA**

1. Summary of Studies to date
2. Preliminary results of stability screening
3. Timeline for finishing study
4. Discussion of BREC tie line
5. Interconnection Agreement
6. Caneyville Tap Ownership
7. Action Items

# EKPC/WRECC/TVA Meeting - 8/17/2004

<u>Name</u>	<u>Title</u>	<u>Organization</u>	<u>Company</u>	<u>phone</u>
Dennis To	Trans Strategy Specialist	TPS/EVP staff	TVA	423-751-7109
Jim Whitehead	Mgr. Trans Planning	TPS/ESP	TVA	423-751-3913
Billy Tiller	Mgr. TIP	TPS/ESP	TVA	423-751-7784
Dave Shafer	Mgr. Elect. Systems	CAI		517-788-3242
Roy Palk	Pres/CEO	East Ky. Power Coop		859-744-4812
Conrad Hayes	Pres & CEO	Warren RECC		
Ottis Jones		Warren RECC		615-822-3208
MIKE SPURLOCK	SENIOR ENGR TP	EKPC		859-744-4812
Darrin Adams	SENIOR ENGINEER	Power Delivery Expansion	EKPC	859-744-4812
Paul Atchison	VP - Power Delivery	EKPC		x506 859-744-4812
Johnny Buehner	Mgr. - PD Expansion	EKPC		x344 859-744-4812
Donna White	VP of Quality Assurance	Warren RECC		x2242 270-842-5214
Doug Elliott	Mgr. of Engineering	Warren RECC		x2212 270-842-5214
Mike Eastridge	V.P. of Operations	WRECC		
Tom Martin	VP Tech Serv	WRBCC		270-842-6541
Ron Owens	GM, Customer Relations & Services	TVA		423-751-4630
MARK BROOKS	PROJECT MANAGER	TPS/TVA		423-697-4085
Dwight Hall	VP, Elect. System Projects	TPS/ <del>TPS</del>	TVA*	423-751-3872
Terry Boston	EUP - Tran. TPS	TVA	TVA	423-751-6000



MEETING NOTES  
TRANSMISSION PLANNING DISCUSSION  
AUGUST 17, 2004

Present for the meeting:

East Kentucky Power Cooperative (EKPC)

Roy Palk  
Paul Atchison  
Mary Jane Warner  
Darrin Adams  
Mike Spurlock  
Dave Shafer, Consultant – CAI

Warren RECC (WRECC)

Gerald Hayes  
Mike Eastridge  
Doug Elliott  
Tom Martin  
Donna White  
Ottis Jones, Consultant

Tennessee Valley Authority (TVA)

Terry Boston  
David Hall  
Billy Tiller  
Ron Owen  
Mark Grubbs  
Dennis To  
Jim Whitehead

Paul Atchison opened the meeting by expressing his appreciation for the work done by TVA and others on the interconnection studies to this point. He noted the importance of time to EKPC in moving forward with the transmission system for Warren. He stated the purpose of the meeting today is to see where both parties are in the study process and determine if EKPC can get the interconnection agreements requested.

Dave Shafer was asked to review the scope of the studies he is performing for EKPC relative to the transmission system plans to serve Warren. He outlined the parameters of the various cases reviewed within the study and reported the system performs according to acceptable standards. He noted some of the existing problems on the system today were resolved by the transmission system proposed by EKPC in the models.

TVA indicated they did not see some of the changes reported by CAI as benefits to TVA.

David Hall indicated it was TVA's intention to disconnect from Warren in 2008, noting their contractual obligation to Warren will end at that time. He stated that when a distributor no longer has a contract for transmission and generation services, TVA would expect to eliminate any interconnections. He pointed out the transmission and generation services for a TVA distributor are bundled into one rate and TVA would plan to disconnect unless they have a contractual arrangement. He also stated that TVA is not going to leave Warren high and dry and would be willing to continue the connection, if resources are available on the TVA system, until EKPC has facilities in place to serve the Warren load but some type of contractual arrangement will be needed. Paul Atchison stated it was East Kentucky's assumption that they would stay interconnected. Mr. Hall stated that when a contract expires or is terminated, they don't automatically throw the switch.

Dennis To noted there have been situations where the power distributor doesn't want to continue their contract with TVA and was asked to pay a surcharge on the wholesale rate in order to continue to receive power from TVA. He cited an arrangement with Memphis Light Gas & Water in 1957. He stated that if the distributor wanted to take power past the date the contract ends, certain other conditions would apply and TVA would charge them an interim wholesale rate which could include a surcharge. He further stated this is a Board policy. He noted the surcharge in the Memphis Light Gas & Water situation was 20 percent. When asked if TVA will disconnect when a power contract expires, Mr. To responded that based on what he has seen, TVA would let the distributor know if they take power past the expiration date certain conditions would apply and an interim wholesale rate would apply. He also noted this would depend upon whether or not TVA has the resources available to supply the load.

David Hall reviewed the studies performed by TVA relative to EKPC's interconnection request, noting their base case differs from the CAI base case. He explained that TVA's base case was modeled without the Warren load using the proposed EKPC system with no interconnections.

He noted a comparable example to the 2010 model used by CAI with TVA serving the Warren load was also reviewed and they agreed with four of the overloads cited in the CAI study, noting TVA has some projects underway to address these situations with upgrades.

Paul Atchison expressed his disappointment with the fact that TVA and EKPC are still not in agreement on the base case.

Mr. Hall stated that TVA considers the EKPC Case A where TVA continues to serve Warren to be "what might have been" case. TVA modeled their Base Case on the EKPC proposed system without the new interconnection points and without the Warren load since Warren has terminated their contract and announced plans to buy power from EKPC. When asked about BGMU being in the model, TVA responded that BGMU hasn't left yet, they have just given notice to cancel their contract and they are still included in the TVA planning models and construction plan.

David Hall pointed out that under the plan proposed by EKPC, TVA would be serving 46% of the Warren load through increased flows at Summer Shade (approximately 170 MVA). He also outlined overloads that would exist on the TVA system due to the increased flow at Summer Shade under contingency situations. The TVA studies show more transmission is needed in the Barren County to Summer Shade areas. Paul indicated that EKPC's plan is to upgrade the Summer Shade to Barren County line to a 212° rating..

TVA's Case 2 was modeled with EKPC and the requested interchange points with all ties closed. In this case, TVA would be serving 60% of the load with the remaining 40% being served by Big Rivers. He noted a significant problem at Franklin where TVA would be serving 100% of the load. When told the Warren 69 kV system would be looped, David Hall responded that even if it were, 85% of the load would still be served by TVA. It is TVA's position that with this much load being carried, EKPC would be getting transmission services, not simple interconnections. He said in circumstances where more transmission or additional generation is needed, as indicated here, the service provided would translate to transmission service, not interconnection. He stated it appears that a tie is needed to another source. He further stated that TVA doesn't see any benefits on their system. He stated there is actually degradation of TVA's ability to transfer, particularly export, power as compared to the TVA Base Case and transmission services are sinking into the TVA system. It is TVA's position that loop flows need to go both ways, not just one way. The loss in transfer capability was described as having a commercial impact on the TVA system with a reduction of 731 MW noted. Under peak loading (2010 summer load) this also impacts regional reliability. TVA contends that if power flows predominantly in one direction, transmission service is being provided.

Mr. Hall advised that TVA looked at possible options to relieve some of the problems they saw that were created by the proposed EKPC plan and found that connection to 345 to the north (Mill Creek to Magna) offsets some of the flows that are coming off of the TVA system at Summer Shade. He also suggested that EKPC look at additional generation to help offset some of the problems in this area. He indicated that TVA was not saying they don't want to have an interconnection, they just don't like the plan as it is currently proposed by EKPC. Mr. Atchison asked if TVA would be willing to share the cost if there was some benefit to TVA to which TVA responded they didn't know, they would have to study it.

Following a brief recess, Mr. Atchison offered the following suggestions as possible solutions to the problems cited by TVA:

1. Addition of CT's – TVA responded they didn't know what percentage of time they would have to run, but estimated 50-60%. They indicated that combined cycle would be a better solution since voltage collapse would still be a problem with the CT.
2. Build a 345 kV line from Wilson to Bowling Green – TVA responded that N-1 contingencies would still be a problem and that was the most critical issue to TVA.

Mr. Atchison asked if TVA was looking for N-1 transmission service or if they wanted to see 345 kV service in the area. TVA responded that although the 345 kV line would allow EKPC to pick up more load from Wilson, the N-1 transmission service is most important.

3. Mr. Atchison indicated that the connection to 345 at Mill Creek won't work for EKPC since they would have to have transmission service from LG&E. He noted a connection to 345 kV at Marion County would be the closest for EKPC but it would also be very expensive. TVA indicated that this might work, but they expressed concern as to the strength of the Marion County source because of apparent distance to generation.

Mr. Boston stated that since there is no way for TVA to use or access these facilities, they would not be willing to help pay for them. He suggested that perhaps someone else could finance it for EKPC. He stressed the fact that it would help if EKPC could come up with a plan where all the power didn't flow to the north.

With regard to the 500 kV line to Thoroughbred, Mr. Boston indicated they have put TVA on perpetual hold and basically told them to stop spending money on the project.

A tie between Wilson, Coleman, Elizabethtown and OMU was also discussed. Mr. Atchison indicated this was looked at in the Thoroughbred study.

TVA stated that Summer Shade was a historical problem as a tie line.

Mr. Atchison noted that TVA stated their generation and transmission services are bundled and asked what the cost is for TVA to provide transmission service if EKPC doesn't get the lines build by 2008. He also requested a copy of the published policy relative to disconnecting at the expiration of the power contract. Mr. Boston responded that instead of letting the lights go out, TVA would provide service on an emergency basis, but this would have to be negotiated. He indicated that if EKPC's lines are not ready by April 2008, TVA will try to find capacity in the market and provide transmission service for this power to Warren, but a negotiated arrangement would be needed. He stated there was no published policy on how this would work, the arrangements would have to be negotiated at the time. Mr. Boston stated he did not believe the Board would agree to wheeling, but he was not adverse to asking them. He noted that Bristol Virginia is currently making plans to build around the TVA facilities in their area. He also cited the NERC Operating Guide, Section 5A-7 as setting the criteria under which interconnected utilities may stay connected and disconnect.

With regard to the Summer Shade connection, TVA indicated they are looking for something to work in lieu of the three interconnections proposed by EKPC. The tie to Magna did that and solved the contingencies in the TVA Base Case. TVA stated that the basis for interconnection was that there is benefit for both parties and this is an industry standard. Mr. Boston stated it was EKPC's responsibility to find a way to serve Warren

as they have contracted to do. With regard to disconnecting, TVA again stated they won't let the light go out, but there will be a cost to EKPC to continue to serve Warren.

Mr. Atchison responded that East Kentucky did not intend to not be ready to provide service for Warren. However, if that does happen, TVA could buy the required power from EKPC and sell it to Warren at below market rates. Mr. Boston stated that appears to be a way for EKPC to get around the anti-cherry picking provisions and that area was way over his head.

Mr. Atchison asked if TVA interpreted the anti-cherry picking provisions to be a prohibitive or permissive. Mr. Boston responded that TVA doesn't have to wheel. He further stated that there is no retail open access and the transmission service they provide is for TVA owned energy to direct served customers.

Mr. Atchison stressed that timing is extremely important to EKPC if they are to have the required facilities in place by April 2008 and asked how long TVA anticipates it will take to conclude the studies and finalize the interconnection agreements. TVA responded that EKPC needs to propose some solutions and give them the cases to study.

Mrs. Warner asked what criteria EKPC needed to use in the studies. TVA responded that EKPC needs to develop a system that works with the interconnections. She asked if any loop flows will be allowed after the interconnection and TVA responded that the loop flows need to be equal for both parties.

Mr. Atchison asked for a response to the request to purchase the Caneyville tap facilities. Mr. Boston reported this has been discussed internally and it is the Board policy to not sell transmission assets that might have future benefits. He indicated TVA would be willing to look at other options relative to these facilities such as a lease arrangement or sharing facilities. Mr. Atchison asked if EKPC needs to plan to duplicate these facilities and Mr. Boston responded that TVA doesn't want to set a precedent that if you buy TVA facilities you can get access to TVA customers.

After another brief recess, Mr. Atchison thanked the TVA staff for their time and efforts on the studies and the meeting was concluded.

## **AGENDA**

### **TVA and EKPC TRANSMISSION MEETING**

**March 4, 2004**

**1:00 p.m. @TVA Offices**

**Chattanooga, Tennessee**

- TVA Position on Wheeling to Distributor
- EKPC/Warren Transmission Construction Plan
  - Interconnection Issues
  - Technical Issues
- Transmission to Magna Industrial Substation Near Bristow
- Alternatives to Transmission Construction.
  - Purchase of TVA Facilities
    - Summer Shade-East Bowling Green 161 kV Line
    - East Bowling Green-Bowling Green 161 kV Line
    - Bowling Green-Memphis Junction 161 kV Line
    - Bowling Green-Aberdeen 161 kV Line
    - Caneyville 69 kV Tap Line
  - Other Ideas
- Implementation Action Items
- Implementation Schedule

MEETING WITH TVA AND EKPC  
TRANSMISSION ISSUES  
March 4, 2004

Present for the meeting:

Paul Atchison, VP Power Delivery, EKPC  
Mary Jane Warner, Manager Power Delivery Expansion, EKPC  
Alan Robbins, Legal Counsel for EKPC

Mike Eastridge, VP of Operations, Warren RECC  
Tom Martin, VP of Technical Services, Warren RECC  
Donna White, VP of Quality Assurance, Warren RECC  
Ottis Jones, Consultant for Warren RECC  
Tom Trauger, Legal Counsel for Warren RECC

Terry Boston, EVP Transmission, TVA  
Myron Callaham, Customer Service Manager – KY, TVA  
David Hall, Transmission, TVA  
Rockey Hall, Transmission Planning, TVA  
John McCay, Legal Counsel for TVA  
Frank Rapley, Customer Communications, TVA  
Dennis To, Specialist-EVP Staff, TVA

Paul Atchison opened the meeting by providing some background information relative to Warren RECC's decision to seek alternatives to their wholesale power supply with TVA. He noted Warren RECC had given notice to TVA of their intentions to terminate their current power contract as of April 1, 2008 and East Kentucky Power had responded to an RFP issued by Warren with a proposal for full membership in East Kentucky Power. He noted the purpose of this meeting was to discuss East Kentucky's plans for serving the Warren load with TVA and determine what actions were necessary relative to transmission arrangements to carry out this transition.

**TVA's Position on Wheeling:**

Mr. Atchison stated that EKPC understands that TVA's position is that it cannot wheel power to Warren RECC for EKPC and indicated the group's desire to verify and clarify TVA's position.

Mr. Boston responded that it is not only TVA's position, it is the law. Mr. McCay cited language in legislation passed in 1992 and 1959 relative to the wheeling of power over TVA's transmission system and TVA's inability to sell power outside the "fence". Mr. Boston noted 85% of TVA's business was the sale of wholesale power compared to 15% for Duke Energy. He stated that unless the fence comes down and TVA has access to other markets, it cannot allow others to use their transmission system to take revenue away from TVA. He also stated that Amendment 217(j) to the Federal Power Act allows

TVA to solely determine whether they will wheel power which is consumed inside the fence.

Mr. McCay noted the Consensus Title contained language that would remove the anti-cherry picking provisions and allow TVA to sell power outside the TVA area, and then any distributor could get transmission, but the outcome of that legislation is not known at the present time. TVA's position in the future cannot be determined at this time due to the uncertainty of future legislative actions.

Paul indicated that EKPC does not want to build new transmission to serve the Warren load and have TVA's position change at a later date, with TVA asking EKPC to pay twice. Mr. McCay responded that if the laws change, the TVA system could become subject to being required to be available for wheeling. Paul suggested that if TVA's facilities were not needed, TVA would not require EKPC to use them. Mr. Boston responded by saying the situation today is very clear: at the present time, the TVA system is not to be used to wheel power.

Mr. Robbins indicated this point was being raised to make sure EKPC and Warren understand TVA's position on wheeling, noting that they do not necessarily agree with it. On behalf of Warren, Mr. Trauger noted that Mr. McCay was well aware that he does not share TVA's views on the transmission issue.

Mr. Boston also commented on the problems caused by lines becoming overloaded and how this type of problem was being linked to the blackouts experienced last year in the Northeast. He noted the final report on this incident was expected to be released in the near future.

#### **EKPC/Warren Transmission Construction Plan:**

Paul Atchison reviewed a map of the EKPC transmission system and outlined the plans to build new transmission lines to serve the Warren load. EKPC will build a 161 kV line from Barren County to East Bowling Green to Memphis Junction and to Aberdeen. He noted there are five interconnection points that have been identified as part of this plan. They are:

1. Bristow
2. East Bowling Green
3. Memphis Junction
4. Aberdeen
5. Franklin

It was noted there is a three-way tie at the Franklin location between TVA, Warren, and the City of Franklin. Warren plans to operate the 69 kV line in Franklin as a network and it is recommended the billing metering be converted to interconnect metering at this point.



Following the review of the EKPC plans, Mr. Atchison asked if there were any issues relative to the EKPC transmission plans that TVA saw that needed to be discussed further. Mr. Boston responded that he did not know at this time since TVA hasn't studied the plans. Mr. Hall indicated the timeframe for completing the interconnection studies relative to the plans is unknown at this time. The requests from EKPC will be placed in line with other studies that have been requested and scheduled into the work that the TVA staff is currently doing. He suggested that EKPC send a letter to request the interconnection studies in accordance with the procedures outlined in the Transmission Service Guidelines. This request should be directed to Mr. Jim Whitehead. Mr. Atchison indicated EKPC will file the appropriate request. He also noted EKPC did not see any problems with these interconnections in the studies they have done on this plan.

### **Transmission to Magna Industrial Substation:**

During the discussion of the EKPC/Warren Transmission Construction Plan, Mr. Atchison also outlined plans being developed by Warren to serve a new large industrial load in their area (Magna). TVA indicated a study is needed on this new load and asked Warren to provide information on the load characteristics and the plans to serve this load. A delivery point arrangement may need to be developed although Tom Martin indicated Warren does not see this as a new delivery point. He noted all of these facilities will be constructed and paid for by Warren RECC. Terry Boston indicated he didn't think he saw any issues with this, but the study would help them make this determination. Tom Martin will forward the requested information to Myron Callaham to initiate this study.

Mr. Boston stated the area served by the Paradise plant is heavily loaded and TVA is in the process of looking at other north to south interconnections. He noted major voltage problems exist as far south as the Bowling Green area and on south to Nashville. He cited problems experienced during the August 14 [2004] blackout relative to overloads and noted this area was the lowest voltage section on the TVA system during this time.

He reported the Midwest ISO has targeted this area as their highest priority and an Extra High Voltage (EHV) connection from Rockport [AEP's plant in Indiana] to the TVA Paradise Plant is the most likely path for this connection. A request has also been received from Thoroughbred Energy for an interconnection with TVA at Paradise. .

TVA has developed a plan to improve the voltage situation and address the requests from MISO and Thoroughbred Energy that involves building a 500 kV line from Thoroughbred to Paradise and on to TVA's Wilson substation east of Nashville. . The public review process for this line has been started.

An alternate plan to build a 500 kV line from Paradise to Lebanon, Tennessee was also reviewed. TVA indicated that removing Warren's load from the 161 kV line from Paradise to Bowling Green would allow them to replace it with the 500 kV line. It was noted this plan would allow TVA to recapture the transmission right-of-way and

construct this line on that right-of-way in lieu of the line from Paradise to Wilson. Mr. Boston noted it would be easier to do this than to try to obtain new right-of-way for the construction of the line from Paradise to Wilson, because it could tap into existing right of way that TVA has owned since 1975 for its [abandoned] Hartsville plant and would require only 15 miles of new right of way in a very rural area, as compared with 90 miles of new right of way that TVA would need to buy, including partly in the congested Nashville area, where they can't even get I-840 built. As TVA studies the 500 kV option, they will also consider a 500 kV intertie with EKPC at East Bowling Green.. .

East Kentucky will look at other options for serving Aberdeen which would allow TVA to make this change to their plans.

### **Alternatives to Transmission Construction:**

Mr. Atchison noted the acquisition of some facilities has been identified as an alternative to constructing new transmission lines at the following locations:

- Summer Shade to East Bowling Green 161 kV Line
- East Bowling Green to Bowling Green 161 kV Line
- Bowling Green to Memphis Junction 161 kV Line
- Bowling Green to Aberdeen 161 kV Line
- Caneyville 69 kV Tap Line

He discussed the need for TVA to help find a way to sell or lease these facilities instead of EKPC building new facilities at this location. He noted the radial tap line at Caneyville would not be needed by TVA once the Warren load moved to EKPC. He stated that EKPC needs an answer on these facilities within a couple of months so they will know how to proceed with their planning. Mr. Hall indicated the procedures for requesting the studies necessary to make this determination are contained in the Transmission Service Guidelines and should be directed to him. He estimated a timeframe of more than a month and less than six months for his staff to complete these studies. Paul stated that an answer is needed on the interconnection study within two months.

Mr. Boston indicated that TVA would prefer that EKPC build the facilities needed to serve Warren and cited the value of getting some of the load off of the Paradise bus. He also stated that TVA doesn't want to build something that won't have value past 2008. TVA will look at the Caneyville tap as part of their studies to see if this line will be needed once the Warren load moves to East Kentucky.

### **Other Points of Discussion:**

A question was raised about the load Warren currently receives off of KU/LGE. Mr. Atchison reported that EKPC plans to wheel power through KU/LGE and agreements currently exist between KU/LGE and EKPC.

Mr. To asked what plans were being made relative to a new delivery point at Meredith, noting TVA had proposed construction of these facilities a few years ago. Tom Martin advised that Warren plans to build this station. A meeting needs to be scheduled with KU and TVA to work out an interconnection agreement at this location to cover the time period prior to April 1, 2008 at which time the agreement will transfer to EKPC, and it will become an EKPC-KU connection.

Mr. McCay stated that TVA has no ideas to offer to help East Kentucky Power do what they need to do to serve Warren. He also pointed out that the legal process doesn't let them make decisions without going through the process studies.

Mr. Atchison asked if the April 2008 date is movable to which Mr. Boston responded he didn't think so, that the date was "locked in."

(Group took a break here and the EKPC/Warren group met independently to discuss the course of action to be pursued.)

Mr. Hall indicated the number of interconnections requested by EKPC would impact the time it takes to complete the studies and asked that the requests be prioritized and reduced to as few as possible.

It was noted that eliminating the Aberdeen connection might be helpful in freeing up the 161 kV line for TVA to pursue the alternate route for the 500 kV line to Lebanon, Tennessee. East Kentucky will need to take a look at this option. Mr. Atchison indicated that if another option to the ones proposed by East Kentucky was uncovered during the study, it would be beneficial if the two parties could look at it before the final report is issued. Mr. Hall responded that typically TVA looks at the initial results and will call. They will sit down with the first results and look at the impacts together.

Mr. Boston stated that TVA has never done five interconnection studies at one time and it was hard to say how long it might take, however this type of report is not as detailed as a generator interconnect study.

Mr. To asked what happens if East Kentucky Power isn't ready by April 1, 2008. Mr. Boston commented that it would be a problem for TVA contractually to serve Warren past that date.

Paul noted again that EKPC needs TVA to tell it what it will do on the Caneyville tap, since EKPC would bypass it if TVA will not sell, which would be in no one's interest. Mr. Boston said it could be affected by legislation, that it is not a show-stopper compared to the others, but that they recently had to construct a similar bypass in Dalton, which he felt was a shame.

**Action Items:**

1. East Kentucky Power will submit a request to David Hall for interconnect studies needed to determine issues relative to the EKPC/Warren Transmission Construction Plan. After TVA receives the request, Paul will contact David Hall to work up a schedule.
2. Under separate letter to David Hall, EKPC will request the 69 kV tap line at Caneyville be sold to Warren or EKPC.
3. Tom Martin will provide load information to Myron Callaham relative to the Magna project.

MEETING NOTES  
TRANSMISSION PLANNING DISCUSSION  
AUGUST 17, 2004

Present for the meeting:

East Kentucky Power Cooperative (EKPC)

Roy Palk  
Paul Atchison  
Mary Jane Warner  
Darrin Adams  
Mike Spurlock  
Dave Shafer, Consultant – CAI

Warren RECC (WRECC)

Gerald Hayes  
Mike Eastridge  
Doug Elliott  
Tom Martin  
Donna White  
Ottis Jones, Consultant

Tennessee Valley Authority (TVA)

Terry Boston  
David Hall  
Billy Tiller  
Ron Owen  
Mark Grubbs  
Dennis To  
Jim Whitehead

Paul Atchison opened the meeting by expressing his appreciation for the work done by TVA and others on the interconnection studies to this point. He noted the importance of time to EKPC in moving forward with the transmission system for Warren. He stated the purpose of the meeting today is to see where both parties are in the study process and determine if EKPC can get the interconnection agreements requested.

Dave Shafer was asked to review the scope of the studies he is performing for EKPC relative to the transmission system plans to serve Warren. He outlined the parameters of the various cases reviewed within the study and reported the system performs according to acceptable standards. He noted some of the existing problems on the system today were resolved by the transmission system proposed by EKPC in the models.

TVA indicated they did not see some of the changes reported by CAI as benefits to TVA.

David Hall indicated it was TVA's intention to disconnect from Warren in 2008, noting their contractual obligation to Warren will end at that time. He stated that when a distributor no longer has a contract for transmission and generation services, TVA would expect to eliminate any interconnections. He pointed out the transmission and generation services for a TVA distributor are bundled into one rate and TVA would plan to disconnect unless they have a contractual arrangement. He also stated that TVA is not going to leave Warren high and dry and would be willing to continue the connection, if resources are available on the TVA system, until EKPC has facilities in place to serve the Warren load but some type of contractual arrangement will be needed. Paul Atchison stated it was East Kentucky's assumption that they would stay interconnected. Mr. Hall stated that when a contract expires or is terminated, they don't automatically throw the switch.

Dennis To noted there have been situations where the power distributor doesn't want to continue their contract with TVA and was asked to pay a surcharge on the wholesale rate in order to continue to receive power from TVA. He cited an arrangement with Memphis Light Gas & Water in 1957. He stated that if the distributor wanted to take power past the date the contract ends, certain other conditions would apply and TVA would charge them an interim wholesale rate which could include a surcharge. He further stated this is a Board policy. He noted the surcharge in the Memphis Light Gas & Water situation was 20 percent. When asked if TVA will disconnect when a power contract expires, Mr. To responded that based on what he has seen, TVA would let the distributor know if they take power past the expiration date certain conditions would apply and an interim wholesale rate would apply. He also noted this would depend upon whether or not TVA has the resources available to supply the load.

David Hall reviewed the studies performed by TVA relative to EKPC's interconnection request, noting their base case differs from the CAI base case. He explained that TVA's base case was modeled without the Warren load using the proposed EKPC system with no interconnections.

He noted a comparable example to the 2010 model used by CAI with TVA serving the Warren load was also reviewed and they agreed with four of the overloads cited in the CAI study, noting TVA has some projects underway to address these situations with upgrades.

Paul Atchison expressed his disappointment with the fact that TVA and EKPC are still not in agreement on the base case.

Mr. Hall stated that TVA considers the EKPC Case A where TVA continues to serve Warren to be "what might have been" case. TVA modeled their Base Case on the EKPC proposed system without the new interconnection points and without the Warren load since Warren has terminated their contract and announced plans to buy power from EKPC. When asked about BGMU being in the model, TVA responded that BGMU hasn't left yet, they have just given notice to cancel their contract and they are still included in the TVA planning models and construction plan.

David Hall pointed out that under the plan proposed by EKPC, TVA would be serving 46% of the Warren load through increased flows at Summer Shade (approximately 170 MVA). He also outlined overloads that would exist on the TVA system due to the increased flow at Summer Shade under contingency situations. The TVA studies show more transmission is needed in the Barren County to Summer Shade areas. Paul indicated that EKPC's plan is to upgrade the Summer Shade to Barren County line to a 212° rating..

TVA's Case 2 was modeled with EKPC and the requested interchange points with all ties closed. In this case, TVA would be serving 60% of the load with the remaining 40% being served by Big Rivers. He noted a significant problem at Franklin where TVA would be serving 100% of the load. When told the Warren 69 kV system would be looped, David Hall responded that even if it were, 85% of the load would still be served by TVA. It is TVA's position that with this much load being carried, EKPC would be getting transmission services, not simple interconnections. He said in circumstances where more transmission or additional generation is needed, as indicated here, the service provided would translate to transmission service, not interconnection. He stated it appears that a tie is needed to another source. He further stated that TVA doesn't see any benefits on their system. He stated there is actually degradation of TVA's ability to transfer, particularly export, power as compared to the TVA Base Case and transmission services are sinking into the TVA system. It is TVA's position that loop flows need to go both ways, not just one way. The loss in transfer capability was described as having a commercial impact on the TVA system with a reduction of 731 MW noted. Under peak loading (2010 summer load) this also impacts regional reliability. TVA contends that if power flows predominantly in one direction, transmission service is being provided.

Mr. Hall advised that TVA looked at possible options to relieve some of the problems they saw that were created by the proposed EKPC plan and found that connection to 345 to the north (Mill Creek to Magna) offsets some of the flows that are coming off of the TVA system at Summer Shade. He also suggested that EKPC look at additional generation to help offset some of the problems in this area. He indicated that TVA was not saying they don't want to have an interconnection, they just don't like the plan as it is currently proposed by EKPC. Mr. Atchison asked if TVA would be willing to share the cost if there was some benefit to TVA to which TVA responded they didn't know, they would have to study it.

Following a brief recess, Mr. Atchison offered the following suggestions as possible solutions to the problems cited by TVA:

1. Addition of CT's – TVA responded they didn't know what percentage of time they would have to run, but estimated 50-60%. They indicated that combined cycle would be a better solution since voltage collapse would still be a problem with the CT.
2. Build a 345 kV line from Wilson to Bowling Green – TVA responded that N-1 contingencies would still be a problem and that was the most critical issue to TVA.

Mr. Atchison asked if TVA was looking for N-1 transmission service or if they wanted to see 345 kV service in the area. TVA responded that although the 345 kV line would allow EKPC to pick up more load from Wilson, the N-1 transmission service is most important.

3. Mr. Atchison indicated that the connection to 345 at Mill Creek won't work for EKPC since they would have to have transmission service from LG&E. He noted a connection to 345 kV at Marion County would be the closest for EKPC but it would also be very expensive. TVA indicated that this might work, but they expressed concern as to the strength of the Marion County source because of apparent distance to generation.

Mr. Boston stated that since there is no way for TVA to use or access these facilities, they would not be willing to help pay for them. He suggested that perhaps someone else could finance it for EKPC. He stressed the fact that it would help if EKPC could come up with a plan where all the power didn't flow to the north.

With regard to the 500 kV line to Thoroughbred, Mr. Boston indicated they have put TVA on perpetual hold and basically told them to stop spending money on the project.

A tie between Wilson, Coleman, Elizabethtown and OMU was also discussed. Mr. Atchison indicated this was looked at in the Thoroughbred study.

TVA stated that Summer Shade was a historical problem as a tie line.

Mr. Atchison noted that TVA stated their generation and transmission services are bundled and asked what the cost is for TVA to provide transmission service if EKPC doesn't get the lines build by 2008. He also requested a copy of the published policy relative to disconnecting at the expiration of the power contract. Mr. Boston responded that instead of letting the lights go out, TVA would provide service on an emergency basis, but this would have to be negotiated. He indicated that if EKPC's lines are not ready by April 2008, TVA will try to find capacity in the market and provide transmission service for this power to Warren, but a negotiated arrangement would be needed. He stated there was no published policy on how this would work, the arrangements would have to be negotiated at the time. Mr. Boston stated the he did not believe the Board would agree to wheeling, but he was not adverse to asking them. He noted that Bristol Virginia is currently making plans to build around the TVA facilities in their area. He also cited the NERC Operating Guide, Section 5A-7 as setting the criteria under which interconnected utilities may stay connected and disconnect.

With regard to the Summer Shade connection, TVA indicated they are looking for something to work in lieu of the three interconnections proposed by EKPC. The tie to Magna did that and solved the contingencies in the TVA Base Case. TVA stated that the basis for interconnection was that there is benefit for both parties and this is an industry standard. Mr. Boston stated it was EKPC's responsibility to find a way to serve Warren



as they have contracted to do. With regard to disconnecting, TVA again stated they won't let the light go out, but there will be a cost to EKPC to continue to serve Warren.

Mr. Atchison responded that East Kentucky did not intend to not be ready to provide service for Warren. However, if that does happen, TVA could buy the required power from EKPC and sell it to Warren at below market rates. Mr. Boston stated that appears to be a way for EKPC to get around the anti-cherry picking provisions and that area was way over his head.

Mr. Atchison asked if TVA interpreted the anti-cherry picking provisions to be a prohibitive or permissive. Mr. Boston responded that TVA doesn't have to wheel. He further stated that there is no retail open access and the transmission service they provide is for TVA owned energy to direct served customers.

Mr. Atchison stressed that timing is extremely important to EKPC if they are to have the required facilities in place by April 2008 and asked how long TVA anticipates it will take to conclude the studies and finalize the interconnection agreements. TVA responded that EKPC needs to propose some solutions and give them the cases to study.

Mrs. Warner asked what criteria EKPC needed to use in the studies. TVA responded that EKPC needs to develop a system that works with the interconnections. She asked if any loop flows will be allowed after the interconnection and TVA responded that the loop flows need to be equal for both parties.

Mr. Atchison asked for a response to the request to purchase the Caneyville tap facilities. Mr. Boston reported this has been discussed internally and it is the Board policy to not sell transmission assets that might have future benefits. He indicated TVA would be willing to look at other options relative to these facilities such as a lease arrangement or sharing facilities. Mr. Atchison asked if EKPC needs to plan to duplicate these facilities and Mr. Boston responded that TVA doesn't want to set a precedent that if you buy TVA facilities you can get access to TVA customers.

After another brief recess, Mr. Atchison thanked the TVA staff for their time and efforts on the studies and the meeting was concluded.

## Paul Atchison

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**From:** Kevin Osbourn

**Sent:** Thursday, September 30, 2004 2:31 PM

**To:** Barry Mayfield; Eric Gregory; Hank List; Jerry McDonald; Gary Crawford; Paul Atchison; Mary Jane Warner; Joe Settles; Jeff Hohman; Gary Dillard (E-mail); Rick Carroll (E-mail)

**Subject:** FERC application media talking points

Dale Henley just approved the following talking points should we get any media calls on the FERC application after it is filed Friday. Wanted you all to have a copy in case you need these, or you get questions from your contacts.

\*\*Please note that my email address has changed to kevin.osbourn@ekpc.coop\*\*

## **Points: FERC Application for TVA Interconnection**

- EKPC plans to construct new transmission facilities to serve Bowling-Green based Warren RECC and its 54,000 customers by April 2008.
- EKPC has filed an application with the Federal Energy Regulatory Commission for interconnection with TVA for three reasons that are in the interest of the public.
  1. First, an interconnection would increase grid reliability in the entire region.
  2. Second, obtaining the interconnection will save Warren RECC members millions of dollars and is the lowest cost option.
  3. Third, without the interconnection EKPC would need to build unnecessary additional lines and duplicate existing facilities
- The fact that EKPC is seeking this interconnection with TVA is nothing unusual. EKPC currently have existing interconnections with TVA, and we desire the interconnection with Warren as a normal course of doing business.
- The transmission facilities outlined in the application for interconnection will minimize costs to Warren RECC consumers in Barren, Butler, Edmonson, Grayson, Logan, Ohio, Simpson and Warren counties.
- The potential corridors and routes for the lines needed cannot be determined until engineering studies are completed. EKPC currently only has estimates that about 90 miles of transmission line will be needed.
- Wherever possible, EKPC will run the transmission lines along existing rights-of-way. EKPC's desire is to minimize impacts upon communities, while at the same time minimizing costs and providing reliable electric service.
- The public will be given opportunities to provide input into the projects.

## Telephone Conference Notes (draft 9/7/04)

**Date:** September 7, 2004

**Participants:** LGEE Mike Toll, MISO Jerry Fohey, Eric Laverty, HE Lou Magyard, EKPC Darrin Adams, Mike Spurlock, CAI Dave Shafer. (MISO had also invited Cinergy and Vectren that did not participate in the conference call.)

**Subject:** Review of EKPC Transmission Study Service to WRECC

**Purpose of Call:** Review CAI transmission study and ask for comments from MISO transmission members.

The report was reviewed and the following comments provided:

1. LGEE firm contract for service to load at Leitchfield is 35 MW. Table 2 of the report lists 63.3 MW at Leitchfield. However, Rosine (8.1 MW) and Caneyville (8.7 MW) should be subtracted, leaving 46.5 MW. This is above the 35 MW contract limit.
2. The generation for supply to WRECC was added into the power flow model at JK Smith. Transmission was added at JK Smith as listed on page 4 of the report. This generation plan has not been studied and approved.
3. CAI needs to make a request from MISO for permission to use the short-circuit and transient stability data previously provided by MISO members for input into the Big Rivers Thoroughbred Generation Study.
4. CAI study does not include generation contingencies. CAI intends to add a Paradise generator outage contingency. Other generator contingencies of interest for this study have not been identified.
5. The Blue Lick – Bullitt County area needs to be studied in greater detail. This has been a problem area and it is close to the Summershade transmission connection point.
6. The study needs to evaluate the impact of the Trimble County Unit #2 generator and its associated transmission being removed from the model. The service to WRECC is expected to take place in 2008, which is several years and before the Trimble County Unit #2 generator and associated transmission comes in service. This needs to be evaluated.
7. The transient stability model should not include Green River Units #1 and #2. These units have been retired.
8. CAI will add a table into the report quantifying other benefits such as loss reduction.

MISO will discuss with LGEE and other MISO members the approach that MISO will take with regard to review of the proposed transmission plans, the scope of such review, the schedule, and what additional data is needed from EKPC. MISO will get back with EKPC by end of this week with the results of these discussions.

## Paul Atchison

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**From:** Darrin Adams  
**ent:** Monday, January 10, 2005 4:09 PM  
**To:** Thomas PE Martin (E-mail); Doug Elliott (E-mail)  
**Cc:** Paul Atchison; Mary Jane Warner; Michael Spurlock; Greg McKinney  
**Subject:** Salmons-Franklin Area Analysis

Tom, Doug:

I have attached my summary of the results from the analysis I have performed for the Salmons alternatives. Please look over this and let me know if you have any questions. I will try to get some one-line diagrams put together for the Alternatives. Let me know if there is anything else you would like me to do.



Salmons&Franklin  
Area Transmis...

Thanks,

Darrin Adams  
Senior Planning Engineer  
Power Delivery Expansion  
East Kentucky Power Cooperative  
4775 Lexington Road 40391  
P.O. Box 707  
Winchester, KY 40392-0707  
(359) 745-9664 (**Direct-dial**)  
(359) 744-6008 (fax)  
darrin.adams@ekpc.coop

## **Salmons/Franklin Area Transmission Alternative Comparison**

The transmission studies performed by Commonwealth Associates, Inc. (CAI) for EKPC transmission service to Warren have assumed that the Franklin interconnection that presently exists between the City of Franklin (COF) and Warren will remain unchanged. The Warren 69 kV system between Memphis Junction, Franklin, and East Bowling Green must be closed together to form a free-flowing network. This is necessary to avoid Warren loads being served radially from the Franklin source, since TVA has declined to wheel power to Warren for EKPC. Therefore, the service plan includes the construction of 69 kV breaker stations at the COF junction, at the Plano-Greenwood-Weyburn junction, and at the junction near Salmons.

As a result of networking the 69 kV system, the Franklin 161-69 kV, 50 MVA transformer overloads for normal conditions. The proposed plan includes a project to replace this transformer with a 100 MVA transformer as a placeholder. Since the transformer is owned by COF, this solution would need to be agreed to by COF.

Three potential alternatives that would eliminate the need for the Franklin interconnection between COF and Warren (and therefore the need to replace the Franklin transformer) have been evaluated for comparison purposes. These are:

- Construction of 11.3 miles of 161 kV line from Memphis Junction to Salmons, and construction of a new 161-69 kV, 150 MVA substation at Salmons. (This will be referred to as Alternative 2).
- Construction of 1.4 miles of single-circuit 161 kV line from TVA's Memphis Junction-Franklin 161 kV line to provide a tap to Salmons, and construction of a new 161-69 kV, 150 MVA substation at Salmons. (This will be referred to as Alternative 3A).
- Construction of 1.4 miles of double-circuit 161 kV line from TVA's Memphis Junction-Franklin 161 kV line to loop the line through Salmons, and construction of a new 161-69 kV, 150 MVA substation at Salmons. (This will be referred to as Alternative 3B).

**Alternative 1 (Proposed Plan): Replace Franklin 161-69 kV Transformer**

This is the presently proposed plan. This plan keeps the Franklin interconnection in-service, enlarges the Franklin transformer, and constructs three 69 kV breaker stations to network WRECC's 69 kV transmission system between Memphis Junction, Franklin, and East Bowling Green. This plan is outlined in Table 1 below.

<b>Table 1</b>				
<b>Alternative 1 - Proposed Plan</b>				
<b>Install Year</b>	<b>Project Description</b>	<b>2004 Cost</b>	<b>Inflated Cost</b>	<b>Present Worth</b>
2008	Replace the Franklin 161-69 kV, 50 MVA transformer with a 100 MVA transformer	727,000	843,662	963,558
2008	Construct a 69 kV, three-breaker station at the junction with the City of Franklin	612,000	710,208	811,138
2008	Construct a 69 kV, three-breaker station at the Plano-Greenwood-Weyburn Tap	612,000	710,208	811,138
2008	Construct a 69 kV, three-breaker station near Salmons	612,000	710,208	811,138
2016	Reconductor the Rockfield-Woodburn-Anaconda-Salmons 69 kV line sections (10.7 miles) using 556 MCM ACSR conductor	652,700	1,017,030	425,031
<b>Totals</b>		<b>3,215,700</b>	<b>3,991,316</b>	<b>3,822,003</b>

**Alternative 2: Memphis Junction-Salmons 161 kV & Salmons 161-69 kV Substation**

This plan opens the Franklin interconnection and constructs a Memphis Junction-Salmons 161 kV line and Salmons 161-69 kV substation. With the new source at Salmons connected to the EKPC 161 kV system at Memphis Junction, WRECC's 69 kV system can continue to be radial, since all WRECC load would normally be fed from EKPC and WRECC sources. This plan is outlined in Table 2 below.

<b>Install Year</b>	<b>Project Description</b>	<b>2004 Cost</b>	<b>Inflated Cost</b>	<b>Present Worth</b>
2008	Construct 11.3 miles of 161 kV line between Memphis Junction and Salmons using 954 MCM ACSR conductor	3,560,000	4,131,274	4,718,383
2008	Construct a 161 kV line exit at Memphis Junction for the Memphis Junction-Salmons 161 kV line	278,000	322,611	368,458
2008	Construct a 161-69 kV, 150 MVA substation at Salmons with a 161 kV circuit-switcher and three 69 kV circuit breakers	1,500,000	1,740,705	1,988,083
2014	Reconductor the Rockfield-Woodburn-Anaconda-Salmons 69 kV line sections (10.7 miles) using 556 MCM ACSR conductor	652,700	970,117	483,306
<b>Totals</b>		<b>5,990,700</b>	<b>7,164,707</b>	<b>7,558,230</b>



**Alternative 3A: Tap TVA's Memphis Junction-Franklin 161 kV to Salmons & build Salmons 161-69 kV Substation**

This plan opens the Franklin interconnection, taps TVA's Memphis Junction-Franklin 161 kV line and constructs a Salmons 161-69 kV substation. Since the source for the Salmons 161 kV substation is a TVA 161 kV line, the WRECC 69 kV system must be networked to provide a contract path for all loads to the EKPC/WRECC system. Therefore, a 69 kV breaker station at the Plano-Greenwood-Weyburn junction point is needed. This plan is outlined in Table 3A below.

<b>Install Year</b>	<b>Project Description</b>	<b>2004 Cost</b>	<b>Inflated Cost</b>	<b>Present Worth</b>
2008	Construct 1.4 miles of 161 kV line from TVA's Memphis Junction-Franklin 161 kV line to Salmons using 954 MCM ACSR conductor.	425,000	493,200	563,290
2008	Construct a 161-69 kV, 150 MVA substation at Salmons with a 161 kV circuit-switcher and three 69 kV circuit breakers	1,500,000	1,740,705	1,988,083
2008	Construct a 69 kV, three-breaker station at the Plano-Greenwood-Weyburn Tap	612,000	710,208	811,138
2016	Reconductor the Rockfield-Woodburn-Anaconda-Salmons 69 kV line sections (10.7 miles) using 556 MCM ACSR conductor	652,700	1,017,030	425,031
<b>Totals</b>		<b>3,189,700</b>	<b>3,961,143</b>	<b>3,787,542</b>

**Alternative 3B: Loop TVA's Memphis Junction-Franklin 161 kV through Salmons & build Salmons 161-69 kV Substation**

This plan is a slight modification of Alternative 3A. Electrically, the two Alternatives are very similar. However, it cannot be determined at this point if tapping TVA's Memphis Junction-Franklin 161 kV line is feasible from a protection standpoint. Even if feasible, it may not be desirable from TVA's perspective, since it increases the exposure of the line to a fault. Therefore, this Alternative has been developed to include building double-circuit 161 kV line from TVA's Memphis Junction-Franklin 161 kV line to Salmons and installing 161 kV breakers at Salmons to loop the TVA line through the new substation. This obviously results in a higher cost for this Alternative. Otherwise, Alternatives 3A and 3B are identical. This plan is outlined in Table 3B below.

<b>Table 3B</b>				
<b>Alternative 3B - Loop TVA's Memphis Jct.-Franklin 161 kV through Salmons</b>				
<b>Install Year</b>	<b>Project Description</b>	<b>2004 Cost</b>	<b>Inflated Cost</b>	<b>Present Worth</b>
2008	Construct 1.4 miles of 161 kV double-circuit line from TVA's Memphis Junction-Franklin 161 kV line to Salmons using 954 MCM ACSR conductor.	574,000	666,100	760,773
2008	Construct a 161-69 kV, 150 MVA substation at Salmons with three 161 kV and three 69 kV circuit breakers	2,334,000	2,708,537	3,093,457
2008	Construct a 69 kV, three-breaker station at the Plano-Greenwood-Weyburn Tap	612,000	710,208	811,138
2016	Reconductor the Rockfield-Woodburn-Anaconda-Salmons 69 kV line sections (10.7 miles) using 556 MCM ACSR conductor	652,700	1,017,030	425,031
<b>Totals</b>		4,172,700	5,101,875	5,090,399

### Economic Comparison of Plans

In addition to the present worth of construction costs for the four plans evaluated, the impact on transmission-system losses for the EKPC/WRECC system was also analyzed. The powerflow analysis shows that Alternative 1 provides the greatest benefit in loss reduction. Of the four plans, Alternative 2 provides the smallest loss reduction. The primary reason is that this Alternative does not network WRECC's 69 kV transmission system. The radial system results in higher loss values than the networked system. Alternatives 3A and 3B both network WRECC's 69 kV system between Memphis Junction, Salmons, and East Bowling Green, but abandoning the Franklin interconnection and adding the Salmons station results in higher losses than in Alternative 1. Table 4 presents a cost comparison of the four Alternatives. The costs of losses are presented as incremental costs. That is, the Alternative that provides the greatest reduction in losses (Alternative 1) is chosen as the baseline, and the cost of losses for that plan is shown as zero. Then, the costs of losses for the other Alternatives are shown as compared to this baseline Alternative.

<b>Table 4</b>					
<b>Economic Comparison of Alternatives</b>					
<u>Alternative</u>	<u>Alternative Description</u>	<u>Present Worth of Construction Costs</u>	<u>Present Worth of Transmission Losses (Incremental)</u>	<u>Total Present Worth</u>	<u>Incremental Cost Compared to Lowest-Cost Plan</u>
1	Proposed Plan (replace City of Franklin transformer, maintain Franklin interconnection, construct 69 kV breaker stations)	3,822,002	0	3,822,002	0
2	Construct Memphis Junction-Salmons 161 kV Line; Construct Salmons 161-69 kV, 150 MVA substation; Open Franklin interconnection	7,558,231	1,485,690	9,043,921	5,221,919
3A	Tap TVA's Memphis Junction-Franklin 161 kV line with 1.4 miles of 161 kV to Salmons; Construct Salmons 161-69 kV, 150 MVA substation; Open Franklin interconnection	3,787,542	1,031,827	4,819,369	997,367
3B	Construct 1.4 miles of 161 kV double-circuit to loop TVA's Memphis Junction-Franklin 161 kV line through Salmons; Construct Salmons 161-69 kV, 150 MVA substation; Open Franklin interconnection	5,090,399	965,074	6,055,473	2,233,471

## Advantages/Disadvantages of the Four Alternatives

A summary of the advantages and disadvantages of the four alternatives is given below.

### ○ **Alternative 1**

#### *Advantages*

- Provides greatest loss benefit
- Lowest overall cost
- Requires no additional line construction
- Very high probability of capability to implement this plan by April 2008

#### *Disadvantages*

- Requires significant investment in facilities belonging to City of Franklin
- Maintains the interconnection at Franklin, which requires agreements with both City of Franklin and TVA
- Networks the WRECC 69 kV system, which has always been operated radially
- Does not add any new sources into the southern part of WRECC's system to enhance contingency support.

### ○ **Alternative 2**

#### *Advantages*

- All investment is for EKPC and WRECC facilities
- Allows an interconnection with TVA and City of Franklin to at least be opened, and possibly eliminated
- Allows the WRECC 69 kV system to continue to be operated radially
- Adds a new 69 kV source into the southern part of WRECC's system connected directly to EKPC's 161 kV system at Memphis Junction

#### *Disadvantages*

- Requires significant modification of the plan already presented to TVA
- Provides the least benefit for system losses
- The overall cost is much higher than the other Alternatives
- For an outage of the Memphis Junction-Salmons 161 kV line or the Salmons 161-69 kV transformer, switching on the WRECC 69 kV system will be required
- Requires significant new line construction, which could be delayed by right-of-way acquisition, siting and certification processes, etc.
- Lower probability of capability to implement this plan by April 2008

### ○ **Alternative 3A**

#### *Advantages*

- Lowest construction costs
- All investment is for EKPC and WRECC facilities
- Allows the interconnection with TVA and City of Franklin to at least be opened, and possibly eliminated
- The 161-69 kV source for the Salmons/Franklin area would be owned, operated, and maintained by WRECC rather than COF

### ***Disadvantages***

- Overall cost is \$1.0M higher than Alternative 1
- Requires significant modification of the plan already presented to TVA
- Requires establishment of a new interconnection with TVA
- Feasibility of system protection with a tap added to TVA's line needs to be determined
- TVA must agree to allow EKPC to tap the TVA line
- Requires new 161 kV line construction in excess of a mile, which could be delayed by right-of-way acquisition, siting and certification processes, etc.
- Networks the WRECC 69 kV system, which has always been operated radially

### ○ **Alternative 3B**

#### ***Advantages***

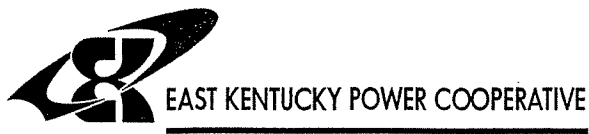
- Allows the interconnection with TVA and City of Franklin to at least be opened, and possibly eliminated
- The 161-69 kV source for the Salmons/Franklin area would be owned, operated, and maintained by WRECC rather than COF
- Decreases exposure of TVA's Memphis Junction-Franklin 161 kV line by adding breakers at Salmons
- Provides two 161 kV feeds to the Salmons substation

#### ***Disadvantages***

- Overall cost is \$2.2M higher than Alternative 1
- Requires significant modification of the plan already presented to TVA
- Requires establishment of a new interconnection with TVA
- TVA must agree to allow EKPC to connect to the TVA line
- TVA is likely to require ownership of 161 kV facilities at Salmons
- Requires new 161 kV line construction in excess of a mile, which could be delayed by right-of-way acquisition, siting and certification processes, etc.
- Networks the WRECC 69 kV system, which has always been operated radially

#### **Additional Notes**

- ✓ While Alternatives 2, 3A, and 3B allow the Franklin interconnection to be eliminated, it may be desirable for both the City of Franklin and WRECC to maintain the interconnection as a normally-open interconnection for backup purposes. For an extended outage of the Salmons 161-69 kV transformer, having the capability to close the Franklin interconnection would provide insurance. Likewise, the City of Franklin would need a source in case of an extended outage of the Franklin transformer. This is not a requirement of the plan, but is mentioned as a possibility to maintain an extra source of backup support.



March 10, 2004

David Hall, Vice President, Electric System Projects  
Tennessee Valley Authority  
1101 Market Street MR3F  
Chattanooga, TN 37402

Dear Mr. Hall:

Subject: System Impact Studies & Facilities Studies-Request

East Kentucky Power Cooperative, Inc., (EKPC) hereby requests the initiation of studies (System Impact Studies and Facilities Studies) by Tennessee Valley Authority (TVA) to initiate free flowing interconnections between EKPC and TVA at the following locations on the proposed EKPC System to serve the Warren Rural Electric Cooperative Corporation (WRECC) system. The locations are listed in priority order.

1. East Bowling Green
2. Memphis Junction
3. Franklin

These interconnections are needed for EKPC to become the power supplier for WRECC. I have enclosed a one-line diagram indicating the system improvements we propose and details of the respective interconnection points.

Please note that EKPC has also requested studies with Big Rivers Electric Corporation (BREC) for a 161 kV transmission interconnection between Aberdeen and the BREC Wilson Plant. This reconfiguration is indicated on the one-line diagram and should be modeled accordingly in the study. We believe this connection will eliminate the need for a fourth interconnection between EKPC and TVA at Aberdeen (as originally considered), and provide enough support for the East Bowling Green area to eliminate dependence on your existing 161 kV line from Paradise to East Bowling Green. This plan will also enhance reliability by providing a second major feed to the WRECC system that would be critical in the event of an outage of the proposed Barren County –Magna line, which is to serve as the main tie to EKPC's system.

Mr. David Hall  
Tennessee Valley Authority  
March 10, 2004  
Page - 2

In addition to the three, free flowing interconnections requested above, we would like to maintain the normally open tie at Bristow after the Barren County-Magna 161 kV line is added. If you prefer, these switches could be interlocked, so they could never be closed at the same time and become free flowing.

For the transition period from December 2004 until the Barren County-Magna 161 kV Line is completed, we request the configuration shown on the attached single line diagram labeled Bristow Transition Plan. The first step in this plan is for Warren to build one mile of 161 kV transmission line from Bristow to Magna. The in-service date for this line is December 2004. As soon as possible thereafter, Warren will build the 2.5-mile section of 161 kV line from General Motors to Magna. Warren plans to operate this system as a free flowing loop until the Barren County-Magna Line is completed.

Please contact us as soon as possible to discuss your study plan and schedule, any other parties that should participate and additional data we may need to provide. Our primary contact for model information will be Mike Spurlock ([mikes@ekpc.com](mailto:mikes@ekpc.com)) and I would like for you to copy our consultant, Bob Rusch ([ruschrobert@stanleygroup.com](mailto:ruschrobert@stanleygroup.com)) and me ([mj@ekpc.com](mailto:mj@ekpc.com)) with each communication.

Sincerely,



Mary Jane Warner, P.E., Manager  
Power Delivery-Expansion

MJW:jkr

Attachments

c: Gerald Hayes  
Roy Palk

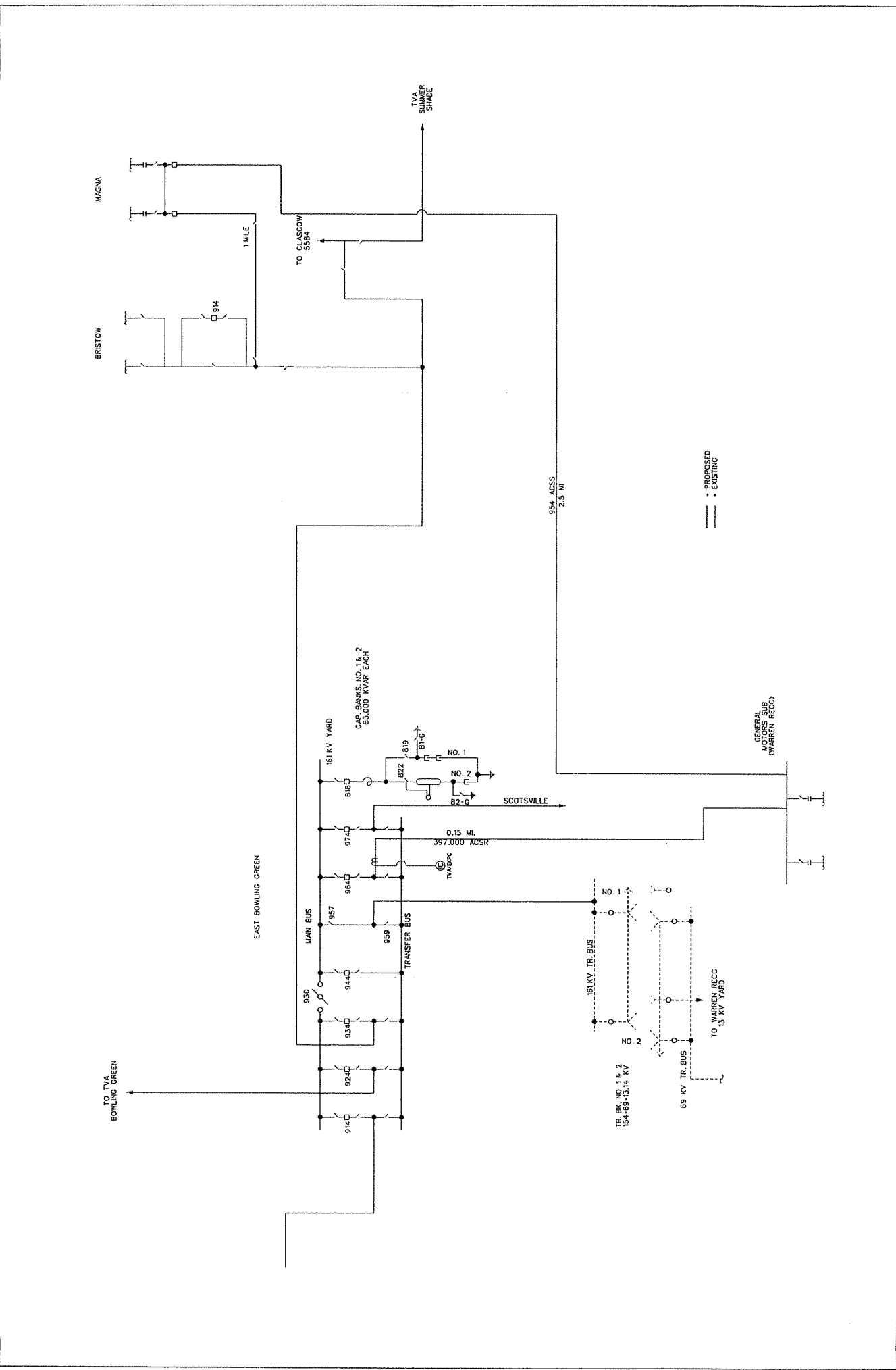
(h:admin\TVADavidHallltr.doc)

BRISTOW TRANSITION PLAN

EAST KENTUCKY POWER COOPERATIVE  
 WINCHESTER, KENTUCKY 40391



DATE	BY	CHKD	APP'D	DATE	REVISIONS
1-13-04	MDA	PKA			
2-13-04	MDA	PKA			
3-13-04	MDA	PKA			
4-13-04	MDA	PKA			



• PROPOSED  
 • EXISTING

1. UPDATE SOME KEY COSTS  
 2. UPDATE DRAWING  
 3. REVISE TO REFLECT  
 4. REVISE TO REFLECT



## Mary Jane Warner

---

**From:** Mary Jane Warner  
**Sent:** Tuesday, August 03, 2004 8:19 AM  
**To:** Michael Spurlock; Darrin Adams; Greg McKinney; Paul Atchison; Billy Tiller (E-mail); Al Corbett (E-mail); Douglas Elliott (E-mail); Chris Bradley (E-mail); 'donnaw@wrecc.com'; 'psyum@tva.gov'; 'sgcullom@tva.gov'; 'tismith3@tva.gov'; Mary Jane Warner; David Hall (E-mail); Thomas Martin (E-mail); Dave Shafer (E-mail); 'jrgardner@tva.gov'; Ottis Jones (E-mail)  
**Cc:** Roy Palk; 'WTBoston@tva.gov'  
**Subject:** EKPC-WREC-TVA Interim Conference Call

I spoke with Billy Tiller this morning and would like to propose that we hold a conference call on Tuesday morning August 10th at 9:00 (eastern) to discuss results thus far on our respective studies. This will give us a few days before our meeting (scheduled for the 13th) if there are issues we need to examine or resolve prior to our "end of study" discussions.

Please let me know if you are available for this call.

Thank you

Mary Jane

Mary Jane Warner

Please note my e-mail address change - maryjane.warner@ekpc.coop

## Mary Jane Warner

---

**From:** Mary Jane Warner  
**Sent:** Tuesday, August 03, 2004 8:19 AM  
**To:** Michael Spurlock; Darrin Adams; Greg McKinney; Paul Atchison; Billy Tiller (E-mail); Al Corbett (E-mail); Douglas Elliott (E-mail); Chris Bradley (E-mail); 'donnaw@wrecc.com'; 'psyum@tva.gov'; 'sgcullom@tva.gov'; 'tismith3@tva.gov'; Mary Jane Warner; David Hall (E-mail); Thomas Martin (E-mail); Dave Shafer (E-mail); 'jrgardner@tva.gov'; Ottis Jones (E-mail)  
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Please let me know if you are available for this call.

Thank you

Mary Jane

Mary Jane Warner

Please note my e-mail address change - maryjane.warner@ekpc.coop

## Mary Jane Warner

---

**From:** Mary Jane Warner  
**Sent:** Tuesday, August 03, 2004 8:13 AM  
**To:** Mary Jane Warner  
**Subject:** FW: EKPC-WREC-TVA mtg Aug 13th

Mary Jane Warner

Please note my e-mail address change - maryjane.warner@ekpc.coop

-----Original Message-----

**From:** Mary Jane Warner  
**Sent:** Monday, August 02, 2004 9:24 AM  
**To:** Michael Spurlock; Darrin Adams; Greg McKinney; Paul Atchison; Billy Tiller (E-mail); Al Corbett (E-mail); Douglas Elliott (E-mail); Chris Bradley (E-mail); 'donnav@wrecc.com'; 'psyum@tva.gov'; 'sgcullom@tva.gov'; 'tismith3@tva.gov'; Mary Jane Warner; David Hall (E-mail); Thomas Martin (E-mail); Dave Shafer (E-mail); 'jrgardner@tva.gov'; Ottis Jones (E-mail)  
**Cc:** Roy Palk  
**Subject:** EKPC-WREC-TVA mtg Aug 13th

August 13th was confirmed by all parties as the date we will meet to discuss the results of our coordinated interconnection study.

Please reserve August 13, 2004 at 9:00 a.m. (eastern) for a meeting at TVA's offices in Chattanooga. Visiting parties intend to arrive the prior evening.

Billy - Please let me know any logistical information that might be necessary. Per your recent message, please also send me the name of the person we should contact to initiate the interconnection agreement.

Thank you - we look forward to seeing you in Chattanooga.

Mary Jane Warner

Please note my e-mail address change - maryjane.warner@ekpc.coop

## Mary Jane Warner

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Mary Jane Warner

Please note my e-mail address change - maryjane.warner@ekpc.coop

## **Mary Jane Warner**

---

**From:** Mary Jane Warner  
**Sent:** Monday, August 02, 2004 9:59 AM  
**To:** 'Tiller, William R.'  
**Subject:** RE: EKPC-WREC-TVA mtg Aug 13th

Thank you - I didn't understand that was his role when you asked that he be included in the e-mail list. Do you have a telephone number for John?

Mary Jane Warner

Please note my e-mail address change - maryjane.warner@ekpc.coop

---Original Message---

**From:** Tiller, William R. [mailto:wrtiller@tva.gov]  
**Sent:** Monday, August 02, 2004 9:26 AM  
**To:** Mary Jane Warner  
**Subject:** RE: EKPC-WREC-TVA mtg Aug 13th

You already have it. The person that will be the contact is John Gardner.

Billy

-----Original Message-----

**From:** Mary Jane Warner [mailto:maryjane.warner@ekpc.coop]  
**Sent:** Monday, August 02, 2004 9:24 AM  
**To:** Michael Spurlock; Darrin Adams; Greg McKinney; Paul Atchison; Tiller, William R.; Corbett, Alfred B; Douglas Elliott (E-mail); Chris Bradley (E-mail); donnaw@wrecc.com; Yum, Phil Soo; Cullom, Shirley G.; Smith, Tim L.; Mary Jane Warner; Hall, David; Thomas Martin (E-mail); Dave Shafer (E-mail); Gardner, John R.; Ottis Jones (E-mail)  
**Cc:** Roy Palk  
**Subject:** EKPC-WREC-TVA mtg Aug 13th

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Mary Jane Warner

Please note my e-mail address change - maryjane.warner@ekpc.coop

## Mary Jane Warner

---

**From:** David A. Shafer [dashafer@cai-engr.com]  
**Sent:** Thursday, July 29, 2004 3:28 PM  
**To:** Chris Bradley (E-mail); Darrin Adams; Mary Jane Warner; Michael Spurlock; Paul Atchison; Elliott, Douglas (E-mail); Martin, Thomas PE (E-mail); White, Donna (E-mail)  
**Cc:** Richard D. Cook; Raymond S. Smith  
**Subject:** FW: Warren Transmission Study

FYI

David A. Shafer, P.E.  
Commonwealth Associates, Inc.  
517-788-3242

-----Original Message-----

**From:** Tiller, William R. [mailto:wrtiller@tva.gov]  
**Sent:** Thursday, July 29, 2004 2:55 PM  
**To:** David A. Shafer  
**Subject:** RE: Warren Transmission Study

David,

We studied this from a planning standpoint not operational. One of our cases was set up as if the tie did not exist, just to see the effects on the system. I never looked at the physical to see if it was physically possible.

Billy

-----Original Message-----

**From:** David A. Shafer [mailto:dashafer@cai-engr.com]  
**Sent:** Thursday, July 29, 2004 1:46 PM  
**To:** Tiller, William R.; Corbett, Alfred B  
**Cc:** Chris Bradley (E-mail); Richard D. Cook; Raymond S. Smith; Darrin Adams (E-mail); Mary Jane Warner (E-mail); Mike Spurlock (E-mail); Paul Atchison (E-mail); Donna White (E-mail); Douglas Elliott (E-mail) (E-mail); Thomas PE Martin (E-mail) (E-mail)  
**Subject:** Warren Transmission Study

Billy,

We noted in your contingency list below that you have the Memphis Junction (TVA) -MJN (EKPC) as a single contingency and as part of a double contingency. We have reviewed the breaker arrangement at Memphis Junction and note that TVA has two lines into Memphis Jct each terminated in a 161 kV circuit breaker. The Memphis Junction (TVA)-MJN (EKPC) represents the change in ownership between TVA and EKPC systems (i.e. essentially the bus) and would therefore not be considered a single line contingency. We believe a single contingency simulation would be either the outage of the Franklin-Memphis Jct or the S. Bowling Green-Memphis Jct but not both simultaneously. A double contingency would be both out simultaneously. Please let me know if we have correctly interpreted the switching arrangement at Memphis Junction.

David A. Shafer, P.E.  
Commonwealth Associates, Inc.  
517-788-3242

-----Original Message-----

**From:** Tiller, William R. [mailto:wrtiller@tva.gov]

**Sent:** Friday, July 23, 2004 11:08 AM  
**To:** David A. Shafer  
**Subject:** FW: list

I did not have time to call right now, but wanted to get you the list. These are the worst contingencies for us that we have seen so far. These actually go through several of our scenarios.

I will try to call you later today.

Billy

-----Original Message-----

**From:** Yum, Phil Soo  
**Sent:** Friday, July 23, 2004 11:05 AM  
**To:** Tiller, William R.  
**Cc:** Corbett, Alfred B  
**Subject:** list

Billy,

Here is the N-2 critical contingency list, which violated our criteria in our cases. The selected contingency lines are only based on our first phase study, and it doesn't necessary that it contains every critical N-2. Thanks.

N-1: Memphis Junction (TVA) -MJN (EKPC)  
N-2: Aberdeen Tap -Wilson 161KV and E.Bowling (TVA)- EBG (EKPC)  
MJN(EKPC) -BGMU (EKPC) and Memphis Junction (TVA) - MJN (EKPC)  
Memphis Junction (TVA) -MJN (EKPC) and E.Bowling Green - EBG (EKPC)

## Mary Jane Warner

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**To:** Tiller, William R.; Alfred B Corbett (E-mail)  
**Cc:** Chris Bradley (E-mail); Richard D. Cook; Raymond S. Smith; Darrin Adams; Mary Jane Warner; Michael Spurlock; Paul Atchison; Donna White (E-mail); Douglas Elliott (E-mail) (E-mail); Thomas PE Martin (E-mail) (E-mail)  
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**Cc:** Corbett, Alfred B  
**Subject:** list

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MJN(EKPC) -BGMU (EKPC) and Memphis Junction (TVA) - MJN (EKPC)  
Memphis Junction (TVA) -MJN (EKPC) and E.Bowling Green - EBG (EKPC)





Please use the list of touch-tone commands below to help facilitate your audio conference:

OPERATOR SUPPORT:

For individual assistance, press \*0

JOINING OPTIONS:

To mute or unmute your own line, press \*6

Mary Jane Warner

Please note my e-mail address change - maryjane.warner@ekpc.coop

-----Original Message-----

**From:** Mary Jane Warner  
**Sent:** Tuesday, July 20, 2004 7:56 AM  
**To:** Michael Spurlock; Darrin Adams; Greg McKinney; Paul Atchison; 'Billy Tiller (E-mail)'; 'Al Corbett (E-mail)'; 'David Hall (E-mail)'; 'Thomas PE Martin (E-mail)'; 'Douglas Elliott (E-mail)'; 'Chris Bradley (E-mail)'; 'Dave Shafer (E-mail)'; 'donnaw@wrecc.com'  
**Subject:** Calls & Meeting

Per the action items we developed during our recent call, I want to set up our next group communications.

Please check your calendars for a conference call on Wednesday July 28, 2004 at 3:00 eastern and confirm via e-mail in the next day or so if possible. If this is a suitable time I will notify you of the call arrangements.

We also need to set a time and place for a meeting. Please let me know if you are available on Friday August 6th or Friday August 13th and offer suggestions for a meeting time. I have assumed that EKPC and WREC will travel to Chattanooga, but if there are reasons to consider another location, please let me know.

Thank you

Mary Jane Warner

Please note my e-mail address change - maryjane.warner@ekpc.coop

**Mary Jane Warner**

---

**From:** Judy Riddell  
**Sent:** Thursday, July 22, 2004 8:24 AM  
**To:** Mary Jane Warner  
**Subject:** FW: Presenter Invitation - Mary Jane Warner - 9513315

-----Original Message-----

**From:** ConferenceCenter@meetme.net [mailto:ConferenceCenter@meetme.net]  
**Sent:** Wednesday, July 21, 2004 4:14 PM  
**To:** Judy Riddell  
**Subject:** Presenter Invitation - Mary Jane Warner - 9513315

Lightyear

The following information contains the details for your scheduled conference call. If you have any questions or require additional assistance, please contact one of our conferencing specialists at (800) 782-3330 and reference confirmation number 9513315.