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August 7, 2014

Via Electronic Filing and
Via Federal Express

Tennessee Regulatory Authority
c/o Sharla Dillon, Dockets and Records Manager
502 Deaderick Street, 4th Floor
Nashville, Tennessee 37243

Re: *In the Matter of the Petition of Plains and Eastern Clean Line LLC for a
Certificate of Convenience and Necessity Approving a Plan to Construct a
Transmission Line and to Operate as an Electric Transmission Public Utility*
Docket No. 14-00036 – Responses to TRA Data Requests

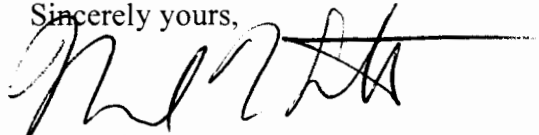
Dear Ms. Dillon:

We have enclosed for filing an original and four (4) copies of the public responses of Plains and Eastern Clean Line LLC to the TRA's first set of data requests.

We will also overnight an original and 4 copies of the confidential version of these responses, submitted under seal, containing an unredacted version of the responses and the confidential exhibits.

If you have questions or need further information in connection with this filing, please let us know.

Sincerely yours,



Mark W. Smith

MWS:cjb

Enclosures

cc: David Foster, Chief, Utilities Division (public version via email)
Cary J. Kottler
Larry L. Cash



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August 12, 2014

Via Electronic Filing and

Via Hand Delivery

Tennessee Regulatory Authority
c/o Sharla Dillon, Dockets and Records Manager
502 Deaderick Street, 4th Floor
Nashville, Tennessee 37243

Re: *In the Matter of the Petition of Plains and Eastern Clean Line LLC for a
Certificate of Convenience and Necessity Approving a Plan to Construct a
Transmission Line and to Operate as an Electric Transmission Public Utility*
Docket No. 14-00036 – Responses to TRA Data Requests – Substitute Exhibit

Dear Ms. Dillon:

In Thursday's electronic filing in this Docket, we inadvertently included a confidential exhibit in the public version of the filing. Plains and Eastern's Response to Staff-03.Attachment 01 should have been designated as a confidential exhibit and filed under seal.

With this letter, we are enclosing five (5) copies of a redacted version of this exhibit for the public filing. This redacted version contains the key conclusions from the MLGW system study but has redacted the specific load flow and other infrastructure sensitive information underlying the conclusions. We would appreciate your moving the exhibit that was attached to the original responses into the confidential version that was filed under seal, and we have attached a spacer page to correct the designation of this exhibit.

I apologize for this oversight. If you have questions or need further information in connection with this filing, please let us know.

Sincerely yours,

Mark W. Smith

MWS:cjb

Enclosures

cc: David Foster, Chief, Utilities Division (public version via email)
Cary J. Kottler

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**BEFORE THE
TENNESSEE REGULATORY AUTHORITY**

IN RE:)
)
IN THE MATTER OF THE PETITION OF)
PLAINS AND EASTERN CLEAN LINE LLC FOR)
A CERTIFICATE OF CONVENIENCE AND) Docket No. 14-00036
NECESSITY APPROVING A PLAN TO)
CONSTRUCT A TRANSMISSION LINE AND TO)
OPERATE AS AN ELECTRIC TRANSMISSION)
PUBLIC UTILITY)

**RESPONSES OF PLAINS AND EASTERN CLEAN LINE LLC TO JULY 24, 2014
STAFF DATA REQUESTS**

To: David Foster, Chief
Utilities Division
Tennessee Regulatory Authority
502 Deaderick Street, 4th Floor
Nashville, Tennessee 37243

Plains and Eastern Clean Line LLC submits these responses to the data requests dated July 24, 2014. The sponsoring witness for each response is identified in the responses.

REQUEST NO. 1. The Petition of Plains and Eastern Clean Line LLC (“Plains and Eastern” or “Company”) states that power will be delivered via an interconnection at the Tennessee Valley Authority’s (“TVA”) Shelby Substation.¹ Does the Company currently have an interconnection agreement/contract with TVA for the interconnection of facilities between the two entities? If so, provide a copy. If not, provide a status update for negotiations related to such interconnection of facilities. Also, discuss whether the TVA has approved Plains and Eastern’s proposed design and technical specifications for interconnection at the Shelby Substation (include any written correspondence).

¹ Petition, P. 3, (April 7, 2014)

RESPONSE:

The Plains & Eastern Project is proceeding through TVA's interconnection process and TVA is actively processing this interconnection request, as demonstrated in a letter from TVA's Executive Vice President Rob Manning. The letter describes TVA's general support for transmission expansion and TVA's involvement with the Project to date (See Exhibit DB-1 to Mr. Berry's testimony). TVA's interconnection process is outlined in its Large Generator Interconnection Procedures (LGIPs)² and generally follows an industry standard process as follows:

- 1) The developer submits one or more interconnection requests for an identified Point-of-Interconnection (POI).
- 2) A feasibility study is performed for each POI in order to provide the developer with an understanding of acceptable locations to interconnect the new project.
- 3) The developer determines which POI to move forward into a System Impact Study (SIS) by executing a System Impact Study Agreement. The SIS is performed to determine the potential impacts that the new project may have on the existing electric grid and identifies mitigations that may be required through modification to the project, operating guides, or new transmission improvements to the existing electric grid.
- 4) The developer then moves into a Facilities Study by executing a Facilities Study Agreement. The Facilities Study will further refine the cost estimates for the facilities identified in the SIS in addition to providing timelines for completion of construction of the facilities identified in the SIS.
- 5) After the Facilities Study is complete, the developer will begin negotiations with TVA over the terms and conditions of an Interconnection Service Agreement.

TVA has completed the feasibility study and SIS (steps 1-3 above) for the Plains & Eastern Project whereby TVA has identified the required interconnection facilities and network upgrades within the TVA transmission system in order to accommodate the interconnection of the Plains and Eastern Project to the Shelby substation. TVA and Plains and Eastern executed a Facilities Study Agreement in July 2014 and the Facilities Study is underway. TVA has agreed that an interim Interconnection Service Agreement (ISA) can be negotiated prior to the completion of the Facilities Study and therefore Plains and Eastern anticipates beginning those negotiations in late 2014. This interim ISA will allow the Plains and Eastern Project to fully interconnect and operate under a temporary operating guide (also referred to as a temporary Special Protection System) while the identified system upgrades, which include a new 500 kV line between the Lagoon Creek and Jackson 500 kV substations, are constructed.

² TVA's LGIPs can be found on the TVA Open Access Same Time Information System (OASIS) at: <https://www.oasis.oati.com/TVA/TVAdocs/TVALGIP2014.pdf>

As far as approval of “Plains and Eastern’s proposed design and technical specifications for interconnection at the Shelby Substation,” TVA, not Plains and Eastern, is tasked with identifying the required interconnection facilities to connect the Plains and Eastern Project’s 500 kV substation to the Shelby 500 kV Substation. TVA has designed these interconnection facilities, which are outlined in the System Impact Study report and described below:

Create a double breaker arrangement by adding three (3) bays³, 10 breakers, 16 switches, line relays, and interchange metering at the Shelby 500-kV substation.

Plains and Eastern’s Response to Staff-01.Attachment 01.Confidential includes the *Confidential, TVA Business Proprietary, and CEII Confidential* System Impact Study report. Please note the Critical Energy Infrastructure Information (CEII) is redacted from this document.

Plains and Eastern is coordinating the design of the HVDC system with TVA engineers. This will help to ensure TVA’s own design methodologies, in addition to industry standards such as those of the IEEE and IEC, are considered in the ultimate design of the Plains and Eastern Project. The ultimate approval of the design of the Plains and Eastern Project and its interconnection with TVA will be memorialized in the interim and final Interconnection Service Agreements.

Sponsoring witness: Wayne Galli

REQUEST NO. 2. Provide an update on the studies performed by TVA, SPP and MISO regarding the interconnection of the Company’s new transmission facilities with their respective systems. If known, provide an estimated completion date.

RESPONSE:

Plains and Eastern will only interconnect to the transmission grid upon completion of all the necessary interconnection studies required by the utilities and/or Regional Transmission Organizations (RTOs) to which each of the Project’s converter stations interconnect. Plains and Eastern has already initiated the applicable interconnection process within each utility and/or RTO. The current status of these studies is provided below.

In response to the request for an update as to any TVA studies – please see the answer to Staff Data Request 1, above.

³ **Footnote from TVA’s SIS Report:** TVA is still investigating the possibility of utilizing substation equipment, which will allow the HVDC lines to be interconnected by adding 2 bays instead of 3 bays. The final interconnection arrangement will be determined during the Facilities Study.

SPP – In November 2012, SPP’s Transmission Working Group unanimously confirmed that the Project’s reliability studies are “...consistent with SPP planning processes and [have] met their coordinated planning requirements under SPP Criteria...”⁴ As the Project progresses towards operation, additional studies will be conducted, which will be outlined as prerequisites in the necessary Interconnection Service Agreements. Southwestern Public Service Company (SPS) is finalizing the Facilities Study for the interconnection facilities necessary to interconnect the Project to the SPS transmission system in Oklahoma. Plains and Eastern has also begun negotiations with SPS on an Interconnection Service Agreement. Certain additional studies will ultimately be required in advance of operating the Project. These additional studies will require information related to the location and technology of the generation projects that will interconnect to the Project. This generation information will be available prior to commencement of construction of the Project, therefore allowing ample time to perform the additional studies in cooperation with SPS and SPP.

MISO – The proposed intermediate converter station in Arkansas is being studied by MISO pursuant to MISO’s Open Access Transmission Tariff (OATT) and Attachment X to that OATT. MISO’s interconnection process involves a feasibility study, followed by a decision by the developer to either “park” the interconnection request or move into a Definitive Planning Phase (DPP). Plains and Eastern has parked the MISO interconnection request and anticipates moving into the DPP in 2015. Once the MISO interconnection request is moved into the DPP, a System Impact Study and a Facilities Study will be conducted, which are estimated by the MISO OATT Attachment X to take 180 days in total. After the DPP studies are complete, Plains and Eastern will negotiate an Interconnection Service Agreement with MISO and Entergy Arkansas, Inc.

Sponsoring witness: Wayne Galli

REQUEST NO. 3. Provide a copy of MLGW’s Affected Impact Study.

RESPONSE:

The MLGW Affected System Impact Study is provided as Plains and Eastern Response to Staff-03.Attachment 01.

Sponsoring witness: Wayne Galli

⁴ Southwest Power Pool Transmission Working Group Meeting minutes, posted November 19th, 2012. <http://www.spp.org/publications/TWG%2011.7%20&%208.12%20Minutes%20&%20Attachments.pdf> (last accessed August 5, 2014).

REQUEST NO. 4. The Petition states that the Company will provide wind power to TVA and other potential customers.⁵ Please identify all other potential customers that Plains and Eastern has had discussions with regarding the purchase of power and provide copies of any agreements reached with these customers.

RESPONSE:

The Company has held discussions with the following entities regarding the purchase of low-cost wind energy delivered through the Plains & Eastern Clean Line:

Tennessee Valley Authority
Mississippi Power
Georgia Power
Alabama Power
Duke Carolinas
Entergy Arkansas
Entergy Louisiana
SCANA
Kentucky Power
Dominion
PowerSouth
Clarksville Light & Water (Arkansas)
North Little Rock Municipal Utility
SMEPA
Oglethorpe
LEPA
MEAG
East Texas Cooperatives

Several of these entities have signed confidentiality agreements with the Company or its parent, Clean Line Energy Partners LLC. The agreements provide for the exchange of confidential information to evaluate the Company's delivered energy product. In addition, TVA has signed two memoranda of understanding to allow them to study the Project, which are provided in response to Staff Data Request 7.

Sponsoring witness: Dave Berry

⁵ Petition, P. 4, (April 7, 2014)

REQUEST NO. 5. On page 6 of David Berry's testimony, he provides a list of wind power purchase agreements involving the TVA (purchaser). To your knowledge, discuss the TVA's process for choosing to enter into such projects, including whether the projects go through the RFP process.

RESPONSE:

While Plains and Eastern has limited direct knowledge of TVA's decisions regarding past wind power purchases, Mr. Berry is aware that in December 2008 TVA launched a request for proposals (RFP) for renewable energy resources. All renewable energy resources could respond, including wind, solar, biomass, new hydro, ocean and tidal power. After reviewing all proposals, TVA decided to enter into a number of power purchase agreements with wind farms in the central United States. TVA's evaluation preferred high capacity factor wind power options from the central U.S. over "in-region" wind power, solar or other renewable technologies. As discussed on pages 13-14 of Mr. Berry's pre-filed direct testimony, high capacity factor wind power is the lowest cost renewable energy option. Mr. Berry understands that some, but not all, of TVA's wind power purchases stemmed from the RFP. The RFP originally called for up to 1,000 MW of "as available" renewable resources. Since the RFP's publication, TVA has purchased more than 1,500 MW of wind power from the central United States.

A copy of TVA's RFP is attached to this response as Plains and Eastern Response to Staff-05.Attachment 01.

Sponsoring witness: Dave Berry

REQUEST NO. 6. Is TVA or other potential wholesale purchasers under any obligations (including any state or federal requirements) to purchase additional wind power to meet its renewable energy objectives? Provide supporting documentation. To your knowledge, is TVA currently meeting its renewable energy objectives? Will TVA be able to meet its renewable energy objectives absent approval of Plains and Eastern's petition?

RESPONSE:

TVA's Board of Directors set a goal of obtaining 50% of its electricity from low or zero carbon sources by 2020. See footnote 8 in the pre-filed Direct Testimony of Mr. Berry. TVA has made significant progress towards meeting this target. According to TVA's annual report, its use of coal, natural gas and oil-fired generation has declined from 61% in 2011 to 55% in 2013.

(Available at <http://www.snl.com/xbrl/XBRLViewer.aspx?keyfile=20876667> at p. 12). Wind power delivered by the Project is the lowest cost way to meet the demand for clean energy. See Mr. Berry's pre-filed direct testimony at page 13-14. Without the Project, TVA will not be able to buy the lowest cost clean energy, which is generated by high capacity factor wind turbines located in the central U.S.

To the knowledge of the Applicant, TVA and other Tennessee electric companies are not subject to state or federal requirements to purchase additional renewable energy. North Carolina investor-owned utilities are subject to a 12.5% renewable portfolio standard by 2020. Virginia utilities are subject to a 15% renewable portfolio standard by 2025. See pre-filed direct testimony of Mr. Berry at pages 8-9.

Sponsoring witness: Dave Berry

REQUEST NO. 7. Provide a copy of all Memorandums of Understanding with TVA.

RESPONSE:

Please see Plains and Eastern Response to Staff-07.Attachment 01, Plains and Eastern Response to Staff-07.Attachment 02, and Plains and Eastern Response to Staff-07.Attachment 03.

Sponsoring witness: Mario Hurtado

REQUEST NO. 8. Please explain and describe in detail any guarantees or assurances that Plains and Eastern can provide lower cost renewable energy to TVA than TVA currently purchases.

RESPONSE:

The Plains & Eastern Clean Line is designed to connect the outstanding wind resource of the Oklahoma Panhandle to TVA's 500 kV transmission system. The Project will enable TVA and other Southern utilities to purchase wind energy from one of the windiest regions of the central United States. This serves the public interest because the wind resource and other favorable conditions in the Oklahoma Panhandle region result in an inexpensive cost to generate clean energy. The ability to access low cost clean energy allows TVA and other utilities to keep rates low and stable even as coal plants retire and their electric generation mix becomes more sustainable.

A number of factors, discussed below, support the fact that the Project can provide the lowest cost clean energy.

1. Wind energy is the low cost renewable resource

As a general matter, wind energy is lower cost than solar energy, biomass, and other renewable energy options. The Company's analysis in this proceeding as well as third party analyses both support wind's cost effectiveness. See pre-filed direct testimony of Mr. Berry at pages 21-25; Lazard Levelized Cost of Energy Analysis version 7.0 attached as Plains and Eastern Response to Staff-08.Attachment 01.Confidential.

2. High capacity factor wind is especially affordable

The advantage of wind energy over other resources is even stronger when energy is sourced from the best wind resource areas. Areas of high wind speed have a significant cost advantage over areas with lower wind speeds. Due to excellent wind speeds, favorable construction conditions, and suitable sites, wind generators in the Oklahoma panhandle can now produce in the range of 2.4 cents per kWh. See pre-filed direct testimony of Mr. Berry at pages 19-20.

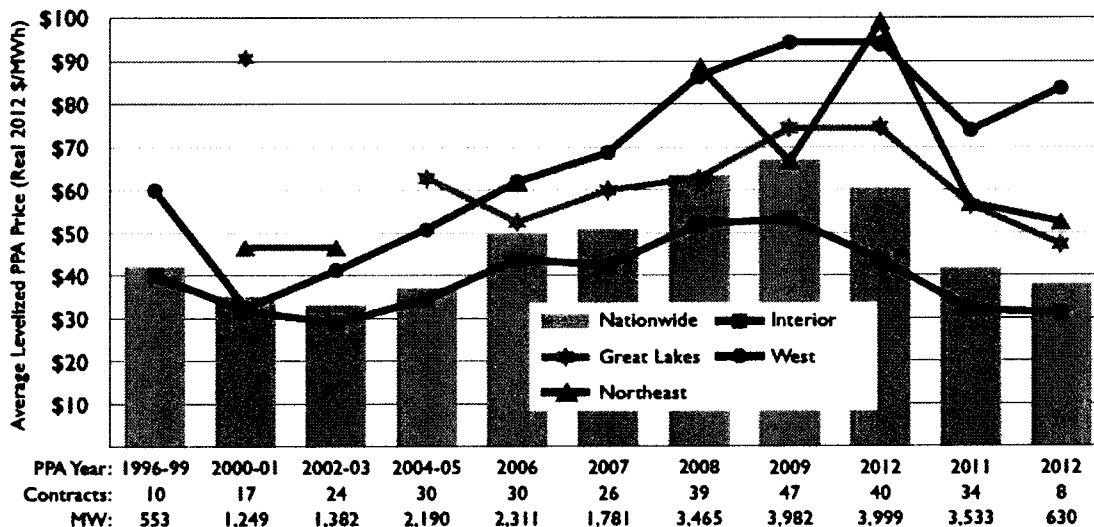
3. HVDC is an economic means of delivery

Compared to the AC system, direct delivery via an HVDC line has several economic advantages. Multiple wheels or transmission rates are not required. Plains and Eastern's rates are not subject to change over time as a result of regulatory changes or rate cases, as would be the case with the AC system. Wind power delivered to TVA via an HVDC line would not be subject to congestion costs, or the difference in electric prices at different locations on the grid. See pre-filed direct testimony of Mr. Berry at page 17.

4. Wind power prices are declining

In addition, wind power prices have declined since TVA purchased most of its wind power in 2009 and 2010. The decline is especially prevalent in the central United States. The below graph from the U.S. Department of Energy's 2012 Wind Technologies Market Report documents the decline in pricing. The purple line for the "Interior" region includes the Oklahoma Panhandle region where the Plains & Eastern Project will source wind generation. See pre-filed direct testimony of Mr. Berry at page 7-8; report is cited at footnote 2.

Levelized PPA prices by PPA execution date
2012 \$/MWh



5. Abundant wind sites can supply the Project

The Plains & Eastern Project sources from an area where there are many wind developers advancing projects. This large supply will assure that TVA receives the most competitive pricing. Plains and Eastern conducted a request for information for wind generators in the Oklahoma panhandle region. A total of 16,510 MW of wind projects responded – approximately four times the capacity of the Project. See pre-filed direct testimony of Mr. Berry at page 18. Since Mr. Berry’s testimony was filed, Plains and Eastern has completed an open solicitation for shippers to deliver power to TVA and elsewhere in the Mid-South and Southeast. Through this open solicitation process, potential customers can begin the process of subscribing for capacity on the transmission line. [REDACTED] [REDACTED] companies requested a total of [REDACTED] MW of transmission service. This response highlights the strong demand for transmission service to reach the Southeast and the strong supply of low-cost wind generation resources.

6. Market competition assures low-cost choices

Finally, market forces will discipline the price TVA pays for energy delivered by the Project. TVA is under no obligation to purchase delivered power from the Project. Both Plains and Eastern and the wind developers supplying power must compete to win TVA’s business. They must beat other alternatives on pricing and value to TVA to build their projects.

Sponsoring witness: Dave Berry

REQUEST NO. 9. Please list all available state and federal tax credits that Plains and Eastern currently receives related to projects in other states and federal credits that the Company anticipates receiving upon completion of the project proposed in this docket. Are these federal credits figured into the pricing model used by Plains and Eastern? If so, please explain in detail the impact on rates, as well as the Company’s overall operations, that would result if these federal credits were discontinued by the federal government.

RESPONSE:

Plains and Eastern does not currently receive any state and federal tax credits. The Company does not anticipate receiving any such tax credits upon completion of the Project. The price that

Plains and Eastern charges for transmission service does not depend on federal or state tax credits. Plains and Eastern may benefit from local property and sales tax exemptions that are not unique to its business. For example, the Project may benefit from manufacturing exemptions or property tax abatements. However, the Project will remain a net payer of sales and property tax in all jurisdictions.

The generation connected to the Project, which will most likely be wind power, may benefit from federal tax incentives such as the federal production tax credit under Section 45 of the Internal Revenue Code. If this credit is discontinued and not replaced with a similar credit, it will, all other things equal, increase the cost for utilities to buy wind power delivered by the Project. Other sources of clean energy, including solar and nuclear, receive similar tax credits. If federal tax policies favor solar or nuclear over wind power, the Project's delivered energy may be less economic. However, if all federal tax incentives are discontinued, wind power in the central U.S. should remain the lowest cost source of clean energy.

Sponsoring witness: Dave Berry

REQUEST NO. 10. On page 9 of Michael Skelly's direct testimony, he states, "The TVA and other load serving entities have a strong and growing demand for cost-effective electricity from renewable resources." Provide the source from TVA and other potential entities stating they have a growing demand for renewable resources.

RESPONSE:

TVA and other Southern utilities are retiring large portions of their coal-fired power fleet and transitioning to a clean energy mix. TVA has retired or plans to retire 44% of its coal units. Over 14,000 MW of coal plants around the South are slated for retirement. The energy generated by these retired plants must be replaced by other sources, including renewable energy. See pre-filed direct testimony of Dave Berry, including citations, at pages 9-10.

The Plains & Eastern Clean Line offers TVA and other Southern utilities abundant access to the lowest cost wind energy. Experience around the region indicates that low-cost wind energy is an attractive option. Over the last four years, TVA procured over 1,500 MW of wind power; a total of 3,600 MW was procured by utilities in the South.

TVA has a goal of sourcing 50% of its electricity from low or zero carbon resources. In addition, TVA stated in its 2011 IRP that "[r]enewable generation above existing wind contracts plays a key role in future resource portfolios." See pre-filed direct testimony of Dave Berry at page 6 (citation in footnote 9); page 12-13 (citations in footnotes 16 and 17).

Other utilities in the region also have an increasing demand for renewable generation due to (1) the declining cost of renewables; (2) policy support for wind power, including renewable portfolio standards in North Carolina and Virginia; (3) increased environmental regulation of coal power and coal retirements; and (4) increasing reliance on natural gas. These trends are documented in Mr. Berry's pre-filed direct testimony at pages 7-12.

Sponsoring witness: Dave Berry

REQUEST NO. 11. On page 11 of Michael Skelly's direct testimony, he states, "The Project will allow TVA and other utilities in the South to reliably and consistently access the country's most cost-effective wind energy resources." Please provide all underlying support and rationale relied upon for the assertion that this project will allow access to "the country's most cost-effective wind energy resources."

RESPONSE:

The Company began developing the Project and has raised private capital on the basis of the business plan to provide TVA and other utilities in the South access to affordable wind resources. Because of its track record in the industry, the Company's management is well situated to identify the best opportunities to source low-cost wind power.

Mr. Skelly and other members of the Company's management team are experienced in developing and constructing wind farms. Mr. Skelly worked on over 2,600 MW of successful wind projects throughout the U.S., including over 300 MW in Oklahoma. He is therefore familiar with the cost of wind power in different regions. In his experience, wind power in the Oklahoma panhandle region is some of the cheapest in the country.

The low cost to produce wind power in the Oklahoma Panhandle region derives from the outstanding wind resource. Wind speeds at 80 meters above ground, a typical wind turbine hub height, commonly reach above 8.5 meters per second. The higher wind speed allows for more production from wind turbines. See pre-filed direct testimony of Mr. Berry at page 21; Exhibit DB-3.

The Oklahoma Panhandle region has many sites that are suitable for wind energy development. This increases the competitiveness of wind procurement and assures the lowest cost supply. Over 16,510 MW of wind projects under development responded to the Plains and Eastern RFI. The most competitive 4,000 MW of RFI responses were 2.4 cents per kWh, which is competitive with the best wind prices seen anywhere in the United States. See pre-filed direct testimony of Mr. Berry at page 18-19. In response to Plains and Eastern's open solicitation, over

[REDACTED] MW of transmission service requests were filed.

Finally, the low cost to produce wind power in windy sites in the central United States has been confirmed by external parties. See Plains and Eastern Response to Staff 08 for DOE statistics on regional wind prices. The average price in the “Interior Region” which includes Oklahoma is substantially lower than in other regions.

Sponsoring witness: Dave Berry

REQUEST NO. 12. For clarification, please provide the estimated number of construction jobs that would be created in Tennessee if the petition is approved. Also provide the estimated duration of these temporary construction jobs.

RESPONSE:

As part of the work completed in 2014 to support environmental and socioeconomic analyses on the Project, the consulting firm Ecology & Environment researched and compiled estimated employment data for the Project. These data are summarized in the memorandum from Ecology & Environment (“Tennessee Employment Report”), which is attached as Plains and Eastern Response to Staff-12.Attachment 01. Based on this data, we expect construction activities for the converter station in Shelby County to support an estimated 274 jobs, consisting of 138 direct jobs and 136 indirect and induced jobs. Based on the Tennessee Employment Report, we anticipate that construction of the transmission line in Tennessee would support an average of 32 jobs over the estimated 36-month duration of construction. These consist of 16 direct jobs and 16 additional indirect and induced jobs.

As discussed above and in my response to Request No. 13 below, the Project’s total economic impact on employment in Tennessee comprises a direct effect, an indirect effect, and an induced effect. The direct effect on employment consists of jobs directly supported by the Project; in other words, work done directly on the construction or operation and maintenance of the Project. The indirect effect consists of jobs supported by the purchase of goods and services and suppliers’ purchases of goods and services from their suppliers, and so on down the supply chain. Induced economic impacts arise as the Project employees and suppliers’ employees spend a portion of their income in the local economy, supporting further job creation. These are typical definitions used in regional economic impact studies using input/output models.

Sponsoring witness: Mario Hurtado

REQUEST NO. 13. For clarification, please provide the estimated number of permanent full-time jobs that would be created in Tennessee upon completion of the project.

RESPONSE:

Based on the economic impact and benefit/cost analysis performed for the Economic Development Growth Engine for Memphis and Shelby County and to support the PILOT agreement in Shelby County (see Exhibit MH-1), we expect the operation and maintenance of the Project's converter station in Shelby County would support an estimated 40 jobs, consisting of 16 direct, permanent, full-time jobs and 24 indirect jobs in Tennessee. In addition, based on current construction plans, I anticipate that the operations and maintenance of the transmission line would support an additional estimated 10 direct, permanent jobs and 15 indirect and induced jobs in western Tennessee and eastern Arkansas.

Sponsoring witness: Mario Hurtado

REQUEST NO. 14. Please describe any assurances and/or guarantees that Plains and Eastern will hire Tennesseans for the temporary construction and permanent jobs detailed above.

RESPONSE:

Plains and Eastern strives to create alliances that benefit the communities and states where the Project will be located. In its contracts with vendors and contractors and in its own hiring, Plains and Eastern will provide opportunities for Tennesseans to participate in the project.

Plains and Eastern held a competitive and extensive request for proposals to select an advisor for engineering, procurement and construction services. Fluor Enterprises, Inc. (Fluor) was ultimately selected. One of the key factors in Fluor's selection was its proven experience in local sourcing and contracting in the development of major infrastructure projects in the Southeast and elsewhere around the world. Plains and Eastern and Fluor are committed to use qualified local and regional suppliers and contractors to meet Project demands whenever possible.

Plains and Eastern and Fluor hosted a series of Local Business Opportunity Meetings in western Tennessee to provide information about the types of local and regional suppliers and contractors that could assist in the development, construction, and maintenance of the Project. See pre-filed direct testimony of Mr. Hurtado at page 15. Twelve companies located in Tennessee have registered to-date with Fluor for consideration and prequalification as potential vendors. A list of those vendors is attached as Plains and Eastern Response to Staff-14.Attachment 01.

By nature of their tasks, some of the labor for the Project will require specialty trades that may not be available locally, in such areas as tower assembly and erection, wire stringing, blasting, and construction inspection. Most of the jobs involved in other activities, such as surveying, right-of-way clearing, access road and pad construction, foundation construction, restoration, and materials management, would employ local workers. In addition, expenditures for forming materials, miscellaneous tools and equipment, fuel, rental equipment, local restaurants, hotels, and other retail outlets will result in significant local supply chain opportunities. The need for

these goods and services will create more jobs and help communities derive additional economic benefits from the Project.

Through our commitment to EDGE, the City of Memphis, and Shelby County, Plains and Eastern will implement a diversity plan to hire and maintain an annual average level of 20% of the 16 permanent jobs at the converter station through the Workforce Investment Network, the Memphis Career Center, or a mutually acceptable source. Plains and Eastern is committed to reflecting the diversity of local communities in its local sourcing and contracting efforts for the Project.

Sponsoring witness: Mario Hurtado

REQUEST NO. 15. As set forth on page 14 of Michael Skelly's direct testimony, discuss the process by which Plains and Eastern has already acquired rights-of-way (please include all written supporting documentation).

RESPONSE:

Clean Line seeks to negotiate all easement agreements in Tennessee on a voluntary basis and has created a market-leading compensation package for landowners that represents a full, fair, good-faith offer to compensate for the use of the easement and impacts of the line. In addition, Plains and Eastern has established a Code of Conduct for its right-of-way acquisition agents to help establish a tone of respectful dialogue and to support the voluntary transmission line easement acquisition. The Code of Conduct is attached to the pre-filed direct testimony of Mr. Hurtado as Exhibit MH-14. Offers and negotiations of easements are done in accordance with the Federal Uniform Act. Prior to formal negotiations with landowners in Tennessee, Clean Line, in accordance with the requirements of the Uniform Act, ordered an appraisal from an independent certified appraiser. In exchange for a grant of an easement, Clean Line is offering a one-time easement payment representing 100% of the fair market value of the land within the easement area, as determined by the appraisal. In addition to the easement payment, Clean Line will pay the landowner for each transmission structure on the landowner's property. This payment for structures will be offered as a one-time payment or an escalating annual payment (at the preference of the landowner) for as long as the transmission structures are on the property. Clean Line will also compensate landowners for any damages to crops or yields, marketable timber, livestock, and improvements caused by the construction and maintenance of the project.

Easement agreements are negotiated individually with each landowner and to date, landowners representing 37 of the 50 parcels of land required for the transmission line in Tennessee have executed easements or other land agreements. Upon full execution of these easements, the easements are recorded in the real property records of the county in which the land is located. Attached is a list of the tracts and landowners with whom we have executed easements, and the draft form of easement that we typically use in Tennessee. With respect to one tract, we entered into a Purchase and Sale Agreement with the owner to purchase the land in fee to be used for the

right-of-way for the transmission line. A copy of such agreement is attached. Negotiations are on-going with landowners representing the remaining 13 parcels. Please see Plains and Eastern Response to Staff-15.Attachment 01.Confidential, Plains and Eastern Response to Staff-15.Attachment 02, and Plains and Eastern Response to Staff-15.Attachment 03.Confidential.

Sponsoring witness: Mario Hurtado

REQUEST NO. 16. Provide a copy of the TVA interconnection Feasibility Study and System Impact Study referred to on page 5 of Mr. Hurtado's pre-filed Direct Testimony.

RESPONSE:

The Feasibility Study and System Impact Study for the Shelby Point of Interconnection are provided as Plains and Eastern Response to Staff-16.Attachment 01 and Plains and Eastern Response to Staff-01.Attachment 01.Confidential, respectively.

Sponsoring witness: Wayne Galli

REQUEST NO. 17. Provide all written studies, white papers, etc. prepared by the Tennessee Department of Transportation, the Tennessee Division of Environment and Conservation, the Tennessee Wildlife Resources Agency, the U.S. Army Corp of Engineers, the U.S. Fish and Wildlife Service or the Natural Resources Conservation Service of the U.S. Department of Agriculture regarding the proposed project. If studies have not been performed, have these agencies indicated to you that they will conduct studies at a later date? If so, provide estimated dates for completion of these studies.

RESPONSE:

Plains and Eastern is not aware of any written studies, white papers, or similar documents that have been prepared by these agencies regarding the Project to date. These agencies, and perhaps others, will perform a thorough analysis of potential environmental effects through the ongoing National Environmental Policy Act (NEPA) process and through future permitting processes. Plains and Eastern anticipates that these agencies may prepare studies, comments or analyses when responding to the U.S. Department of Energy (DOE) during the forthcoming comment

period in late 2014 or early 2015. Plains and Eastern also anticipates that other reviews or studies would include, but may not be limited to, consultation and reviews under the following federal regulations: Section 7 of the Endangered Species Act, Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, 33 USC 408, the National Historic Preservation Act, and/or the Farmland Protection Policy Act. See also response to 18, below.

Sponsoring witness: Jason Thomas

REQUEST NO. 18. Provide the latest update on the environmental impact statement being prepared by the DOE under NEPA. Also provide the latest update on all federal reviews/environmental studies being performed by the DOE.

RESPONSE: Plains and Eastern anticipates that the DOE will publish a draft environmental impact statement (DEIS) in late 2014. By regulation, a comment period follows, during which public hearings would be held. Following completion of the comment period, Plains and Eastern anticipates that DOE would publish a final environmental impact statement (FEIS) in mid to late 2015. Please also see the pre-filed direct testimony of Mr. Hurtado, pages 16-19.

The DOE is performing a review of federal-listed threatened and endangered species through an informal consultation process with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act. The DOE is also performing a review of cultural resources through their consultation process with the Tennessee Historical Commission pursuant to Section 106 of the National Historic Preservation Act. Plains and Eastern is not aware of any other federal reviews/environmental studies being performed by the DOE.

Sponsoring witness: Jason Thomas

REQUEST NO. 19. On page 20 of Mario Hurtado's Direct Testimony, he states that "Plains and Eastern has obtained the exclusive rights to purchase approximately 208 acres on two parcels adjacent to the north and east of the TVA Shelby Substation." Provide all written documentation supporting this claim.

RESPONSE:

Please see Plains and Eastern Response to Staff-19.Attachment 01.Confidential, which is the Option Agreement for the referenced tract of land, and Plains and Eastern Response to Staff-19.Attachment 02, which is a copy of the Option Agreement that has been recorded in the Office of the Shelby County Register. Please note that the actual acreage is approximately 219 acres, as evidenced by the survey prepared for Plains and Eastern by a licensed surveyor.

Sponsoring witness: Mario Hurtado

REQUEST NO. 20. Provide an update regarding Plains and Eastern's CCN application in Arkansas.

RESPONSE:

The Plains & Eastern Project traverses three states: Tennessee, Oklahoma and Arkansas.

To obtain requisite authority for siting the Project in Tennessee, in this proceeding Plains and Eastern filed a Petition for a Certificate of Convenience and Necessity from the Tennessee Regulatory Authority.

The Oklahoma Corporation Commission previously designated Plains and Eastern's affiliate, Plains and Eastern Clean Line Oklahoma LLC, a public utility in Oklahoma, providing the requisite authority to construct and operate the project in Oklahoma.

Plains and Eastern is not pursuing a CCN from the Arkansas Public Service Commission. Instead, to obtain the requisite authority in Arkansas, Plains and Eastern has proposed, under Section 1222 of the Energy Policy Act of 2005 ("Section 1222") that the United States Department of Energy ("DOE") and Southwestern Power Administration ("Southwestern") participate in the Project.

Southwestern is a federal power marketing administration that markets power and operates 1,380 miles of high voltage transmission lines in six states, including Arkansas and Oklahoma. In July 2010, DOE issued a *Request for New or Upgraded Transmission Line Projects Under Section 1222 of the Energy Policy Act of 2005*, 75 Fed. Reg. 32940 (June 10, 2010) ("DOE Request"). Section 1222 was passed to encourage public participation to develop third party, privately financed transmission upgrades and new construction in states within the service territory of Southwestern and similar agencies.

In April 2012, DOE found that Clean Line's proposal for the Plains & Eastern Project was responsive to the DOE Request and decided to carry out a full environmental review pursuant to the National Environmental Policy Act ("NEPA Review") before proceeding to a decision on participation in the Project. Since Southwestern's service territory does not include Tennessee and therefore DOE lacks the authority to select a route for the Project in Tennessee, the NEPA Review process does not preclude Plains and Eastern from simultaneously identifying a proposed route in Tennessee. In fact, securing the appropriate state approvals in advance of completing the NEPA Review process can best ensure the appropriate environmental impacts are assessed. Therefore, Plains and Eastern is seeking to permit the Project in Tennessee by acquiring the requisite certificate from the Tennessee Regulatory Authority concurrently with the NEPA Review process.

Sponsoring witness: Mario Hurtado

Dated: August 6, 2014

Plains and Eastern Response to
Staff Data Request 1

CONFIDENTIAL – FILED UNDER SEAL

Plains and Eastern Response to
Staff Data Request 3

REDACTED VERSION ATTACHED

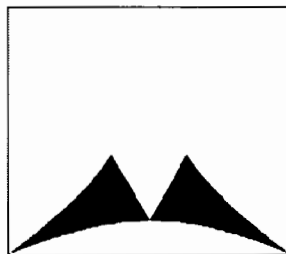
CONFIDENTIAL VERSION FILED UNDER SEAL

MEMPHIS LIGHT, GAS & WATER DIVISION

SYSTEM IMPACT STUDY

MAR 2014
(REVISION 3)

CLEAN LINE ENERGY PARTNERS
SHELBY - 3500 MW



PLANNING & SYSTEMS ENGINEERING
(901) 528 - 4292

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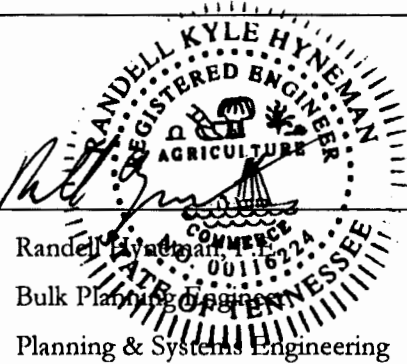
Disclaimer

While every effort has been made to ensure that the content of this report is accurate, the engineering staff makes no representation or warranties in relation to the accuracy or completeness of the information found within. The content of this report is provided in good faith, according to the study inputs that were provided from the interconnecting party and the other affected parties.

SIGNATURES

CLEAN LINE SYSTEM IMPACT STUDY REV. 3

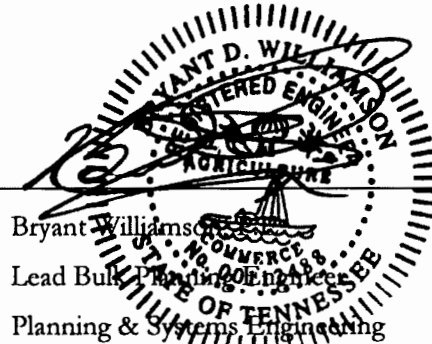
PREPARED:


Randall Hyneman
Bulk Planning & Engineering
Planning & Systems Engineering

DATE:

3-25-14

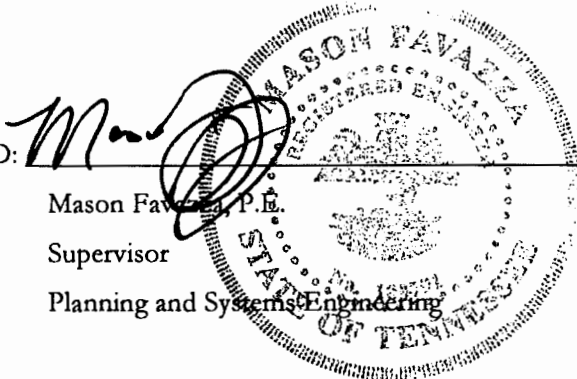
PREPARED:


Bryant Williams
Lead Bulk Planning & Engineering
Planning & Systems Engineering

DATE:

3-25-14

APPROVED:


Mason Fava, P.E.
Supervisor
Planning and Systems Engineering

DATE:

3/25/14

EXECUTIVE SUMMARY

CLEAN LINE SYSTEM IMPACT STUDY REV. 3

The proposed 3500 MW interconnection at Shelby was studied for both MLGW peak and off-peak conditions, using the full generation capacity at Allen Steam Plant. Each case demonstrated a 2016 power flow model which included TVA's proposed system improvements as a result of the interconnection. The cases also include an Entergy system upgrade not evaluated in earlier versions of this system impact study. A fault study was also performed with ASPEN software to compare pre and post interconnection injected fault models using equivalents at all TVA/MLGW delivery points. TVA contracts a third party to run a stability study on their service area. MLGW is included in the TVA system therefore is covered by the TVA stability study.

The MLGW results are as follows:

Shelby:

Contingency #1 Result Pg #: 7,8,16,17

Uprate Allen – Holmes transmission line (35 – 47):
[REDACTED]

[REDACTED] Result Pg #: 7,9,16,17

Uprate Allen – Pidgeon transmission line (35 – 82):
[REDACTED]

[REDACTED] Result Pg #: 7,10,16-18

Mitigation Plan – Close Normally-Open Sectionalizing Breaker at Shelby (65)
[REDACTED]

[REDACTED] Result Pg #: 7,11-13,16,17,19,20

Uprate Shelby – NE Gate transmission line #1 (65 – 33):
[REDACTED]

Uprate Shelby – NE Gate transmission line #2 (65 – 33):
[REDACTED]

TOTAL impact cost ~ [REDACTED]

* Colors correspond to contingencies throughout the System Impact document.

Expiration:

A new System Impact Study may be required if a Facility Study is not requested by June 25, 2014 (90 calendar days from the date of this document's approval)

ACKNOWLEDGEMENTS

CLEAN LINE SYSTEM IMPACT STUDY REV. 3

MLGW's Bulk Transmission Planning team would like to acknowledge the technical assistance and expertise received from the Transmission Interconnection Planning team at TVA. The collaboration of both teams made the success of this study possible.

PROCESS

CLEAN LINE SYSTEM IMPACT STUDY REV. 3

As stated above, this System Impact Study (SIS) consists of a power flow analysis and a short circuit analysis. A stability analysis for the MLGW system is included in TVA's impact study.

The purpose of this impact study is to provide a preliminary cost estimate and project time duration that is necessary to rectify the impacts identified in this study. A detailed cost estimate and construction schedule is to be included in the Facility Study, to be performed at the request of the interconnecting party, as outlined in the latest MLGW Facility Connection Requirements document. This System Impact Study is valid for 90 days after the report submission to the interconnecting party. If the Requesting Entity decides to proceed with the proposed interconnection, the Requesting Entity should request a Facility Study before this System Impact Study expires. (See page 2)

All costs presented within the content of this study are present value.

DEFINITION OF SYSTEM IMPACT

CLEAN LINE SYSTEM IMPACT STUDY REV. 3

MLGW defines a “system impact” as follows:

A loading increase $\geq 5\%$ on transmission lines or transformers	AND	Loading on transmission lines and/or transformers $\geq 100\%$	For Category A, B and select Category C power flow studies
A total fault current increase $\geq 5\%$	AND	Any breaker that is susceptible to total fault currents $\geq 95\%$ of rating	In Isc studies
Bus voltage change $\geq 5\%$	AND	Bus voltage ≤ 0.95 nominal	For Category A, B and select Category C power flow studies
Any new transient stability issues**			In dynamic studies performed by TVA
Any new negative impacts on existing stability issues**			In dynamic studies performed by TVA

Table 1: MLGW System Impact Criteria

These criteria definitions are listed MLGW’s most recent Facility Connection Requirements document that is published by MLGW’s Bulk Planning Engineering department. This document is also available for evaluation at <http://www.mlgw.com/images/content/files/pdf/FacilityConnectionReqmts.pdf>. MLGW’s Category A, B and C power flow study definitions are defined in MLGW’s annual Transmission Reliability Assessment and are available upon request to approved parties.

** -- TVA has performed the associated transient stability studies for MLGW’s system for this study, and TVA’s report will include any transient stability issues on MLGW’s system.

SHELBY STUDY – 3500 MW

METHODOLOGY

SHELBY STUDY – 3500 MW

Prior to this MLGW Revision 3 study, TVA performed an additional power flow system impact study and determined the impacts to their system. TVA has developed solutions to these impacts, which MLGW has included in the power flow cases that were shared by TVA for analysis. MLGW has verified that the TVA cases model accurate data for the MLGW system.

MLGW then studied peak and off-peak case conditions with full generation capability at Allen Steam Plant. The generation level at the TVA-owned Allen Steam Plant has a direct impact on transmission loadings in Shelby County. Under normal conditions, the coal-fired units are running without the gas-fired units; however, there are times when both the coal-fired and gas-fired units are online. Furthermore, MLGW's peak loadings occur in the summer while TVA experiences peak loading conditions in the summer as well as the winter. For this study, TVA and MLGW have chosen to examine what is considered "worst case" scenarios. These cases include the proposed Shelby interconnection in both summer and winter peak cases, with coal-fired and gas-fired units online.

Below are the cases examined for the Shelby Study:

- 2016 Summer base case, Allen coal & gas units
- 2016 Winter base case, Allen coal & gas units
- 2016 Summer with 3500 MW inject at "Shelby", with TVA's improvements, Allen coal & gas units
- 2016 Winter with 3500 MW inject at "Shelby", with TVA's improvements, Allen coal & gas units

TVA provided fault analysis equivalents for cases with and without the proposed 3500 MW Clean Line interconnection. MLGW verified that the TVA cases modeled the MLGW system accurately. MLGW then compared the fault current for each bus within its system, considering the symmetrical and unsymmetrical portions of the fault to determine the impacts. See page 4 for the definition of an impact.

RESULTS

SHELBY STUDY – 3500 MW

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

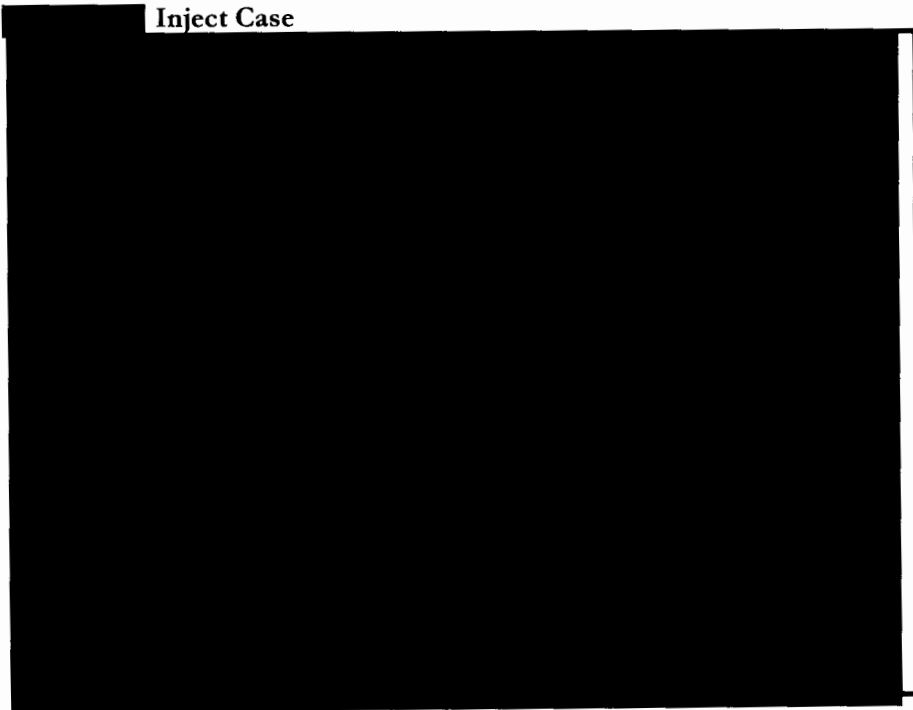
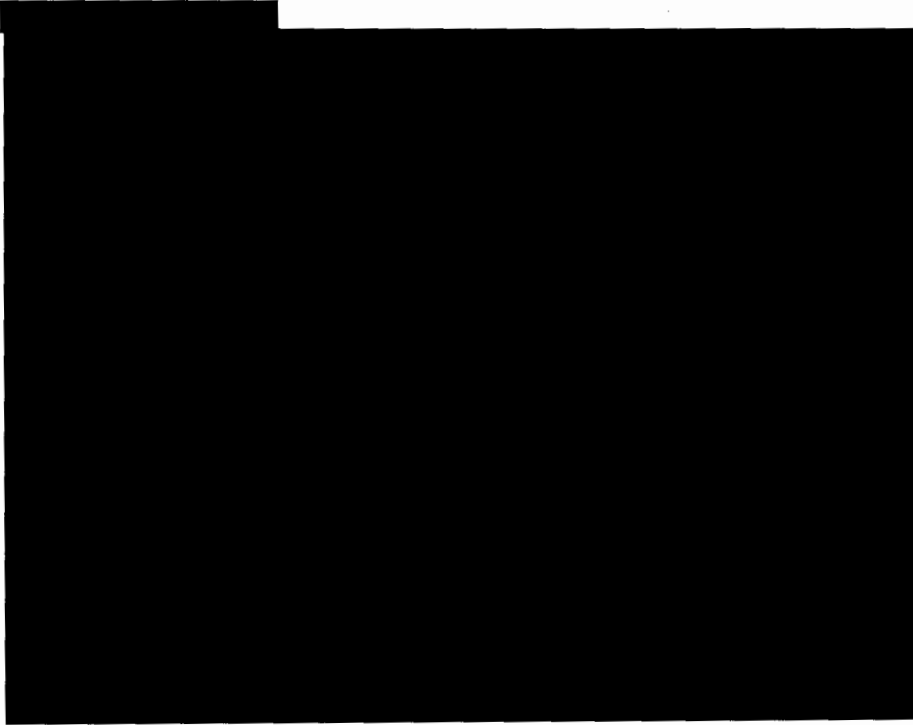
[REDACTED]

[REDACTED] impact cost of the Shelby 3500 MW interconnect case is estimated to be [REDACTED]

ONE – LINE: TRANSMISSION LINE

SHELBY STUDY – 3500 MW

Loss of circuit Allen – Pidgeon (35-82)



Proposed generation causes the overload of MLGW circuit #35661. Due to a previous system study, circuit #35561 will be uprated to its 100°C rating. No cost will be associated with this uprate.

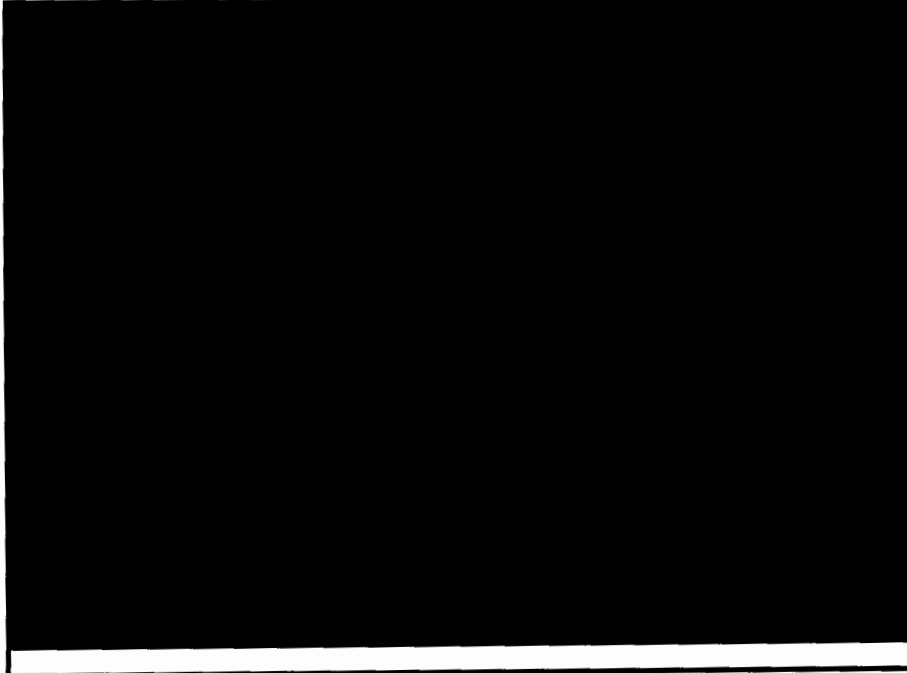
ONE – LINE: TRANSMISSION LINE

SHELBY STUDY – 3500 MW

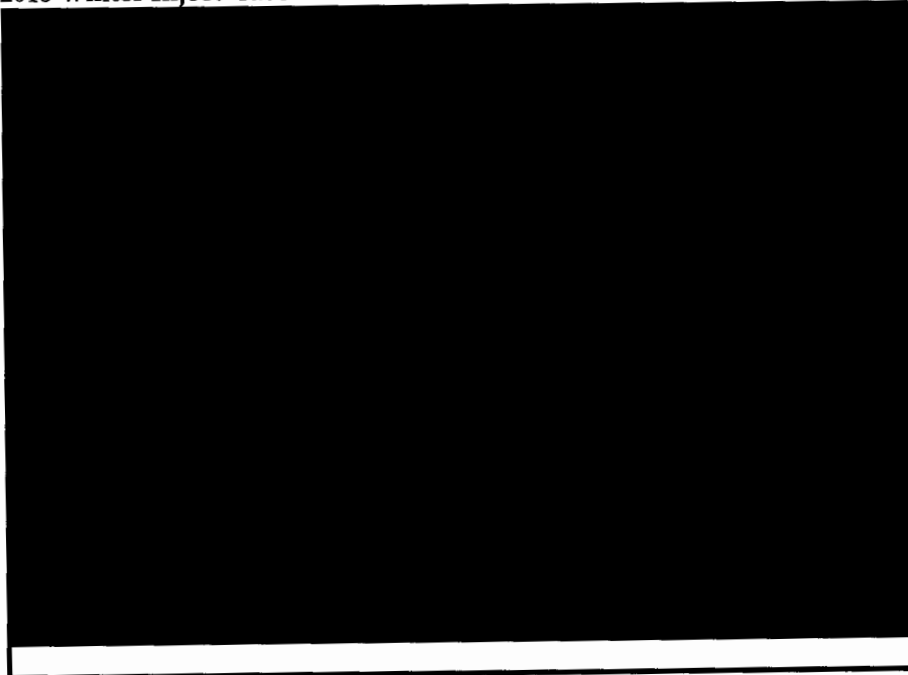
Horn Lake)

Loss of double circuit tower, Allen – Holmes AND Allen – Horn Lake (35-47, 35-

2016 Winter Base Case



2016 Winter Inject Case



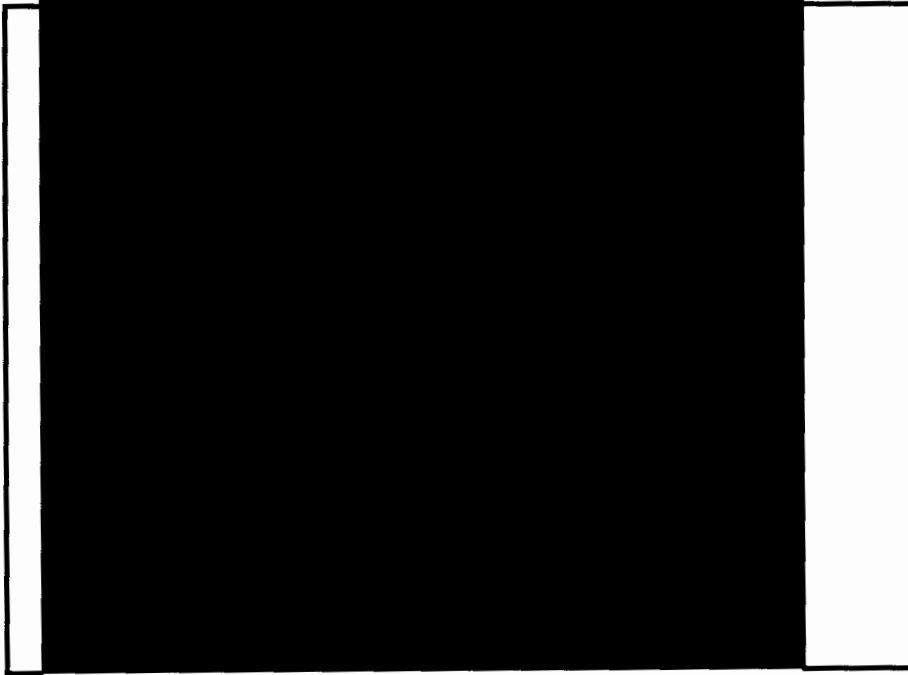
Proposed generation causes the overload of MLGW circuit #35671. Due to a previous system study this circuit was identified to be updated to its 100°C rating. The update reduces the cost for this overload to \$0.

ONE – LINE: TRANSMISSION LINE

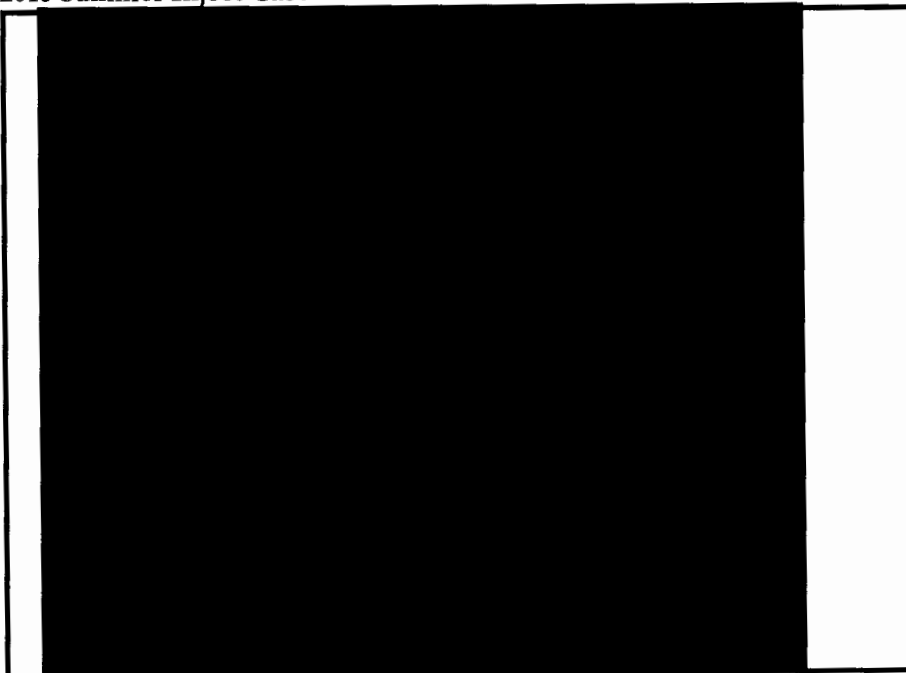
SHELBY STUDY – 3500 MW

N-1-1 Contingency, Shelby#1 Transformer & Fite -- Shelby (65-36)

2016 Summer Base Case



2016 Summer Inject Case



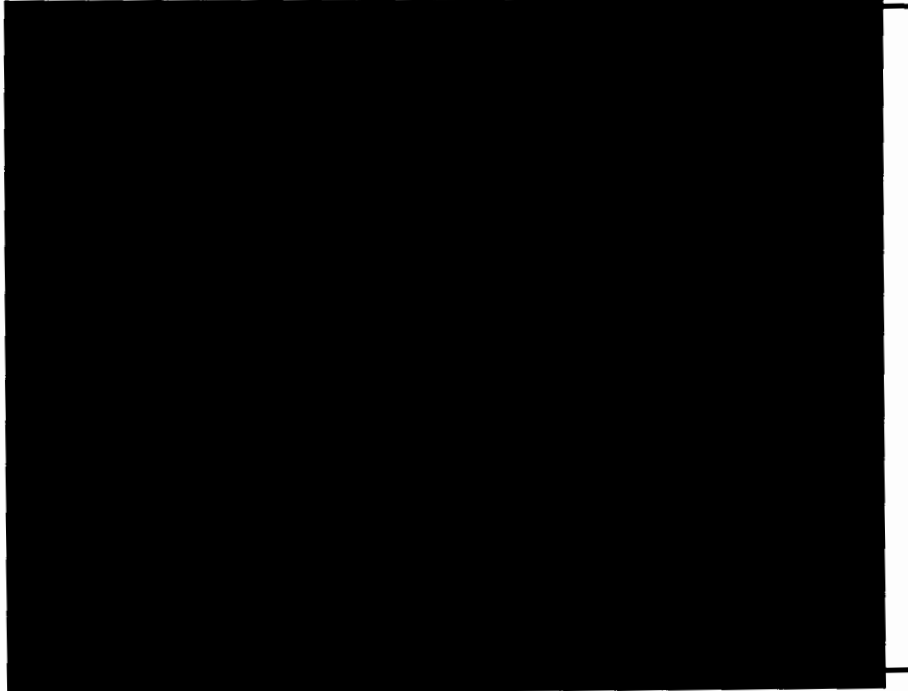
Proposed generation causes the overload of circuit #33629. MLGW will relieve the overload on circuit #33629 by operating the normally-open sectionalizing breaker at Shelby substation.

ONE – LINE: TRANSMISSION LINE

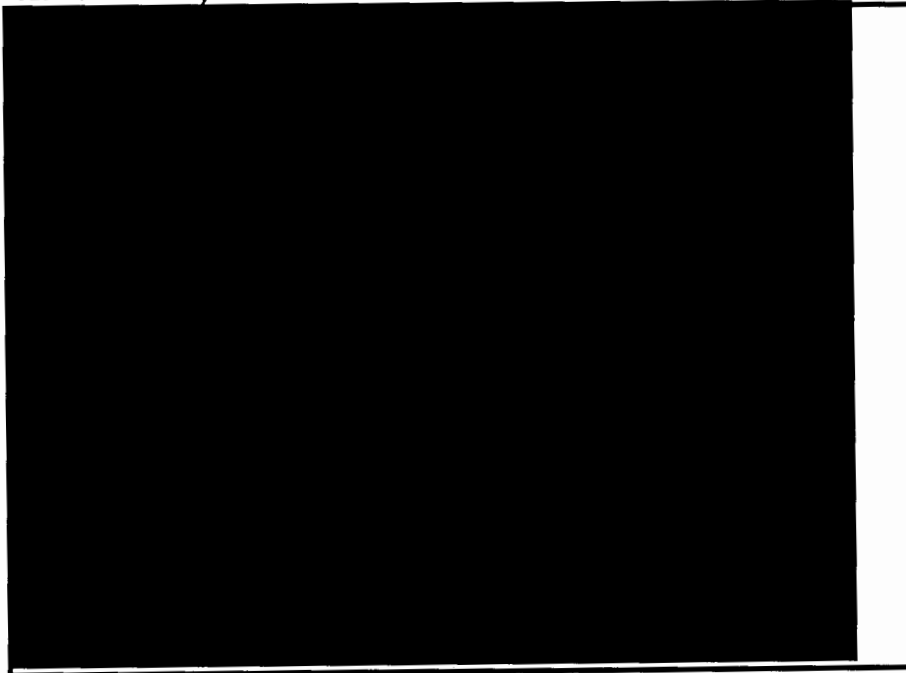
SHELBY STUDY – 3500 MW

Loss of double circuit towers, Shelby – Fite AND Shelby – Millington (65-36, 65-15)

2016 Summer Base Case



2016 Summer Inject Case



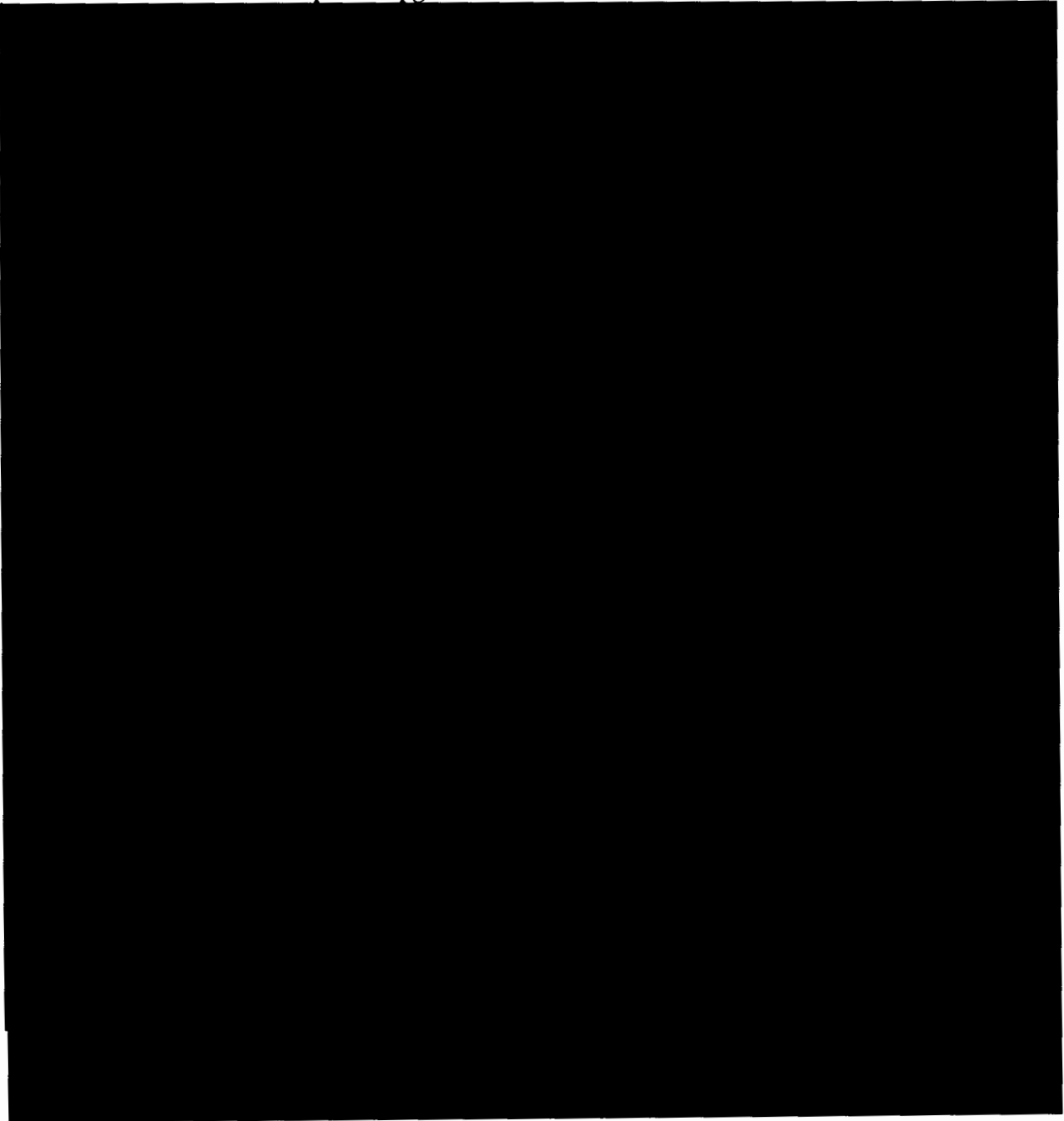
Proposed generation causes the overload of circuits #33629 and #33687. During a previous system study, these lines were identified to be uprated to their 100°C rating. Despite this, the terminal equipment still limits the circuits to ratings that are unacceptable for these conditions. The upgrades and costs are discussed on the following pages.

ONE – LINE: TERMINAL EQUIPMENT

SHELBY STUDY – 3500 MW

For [REDACTED], proposed generation causes the bus cable, wave trap, relay and meters at Substations 33 and 65 to need replacing at a total approximate cost of [REDACTED]. The following figures show the one-line diagrams of current and proposed upgrades.

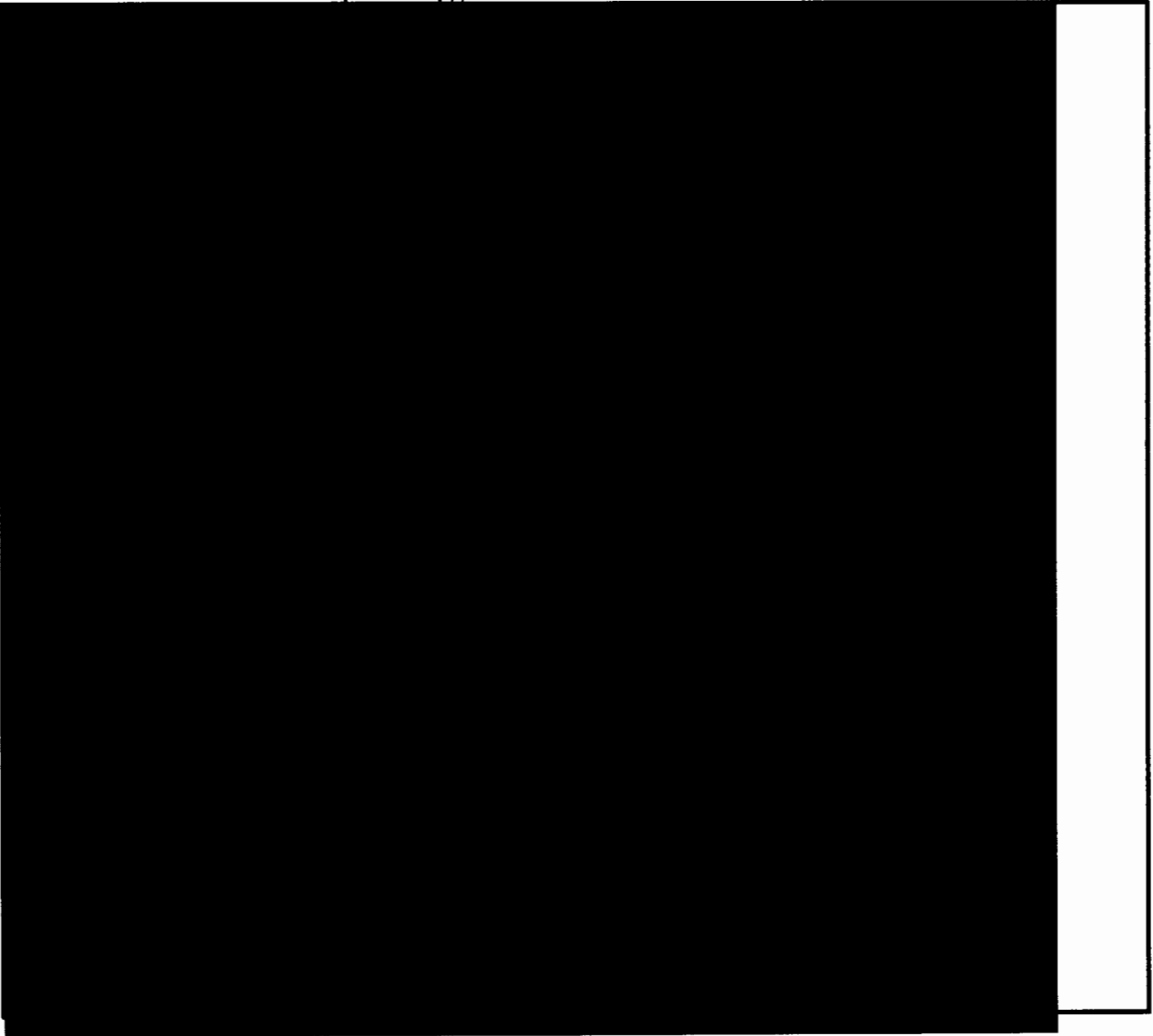
Circuit 33629: Current and Proposed Upgrades



ONE – LINE: TERMINAL EQUIPMENT

SHELBY STUDY – 3500 MW

Circuit 33687: Current and Proposed Upgrades



ALTERNATIVES CONSIDERED

SHELBY STUDY – 3500 MW

Alternatives considered in this SIS include the possible addition of a transmission switching station on the MLGW BES. However, as in iteration 1 of this study, that proposal was proved to be cost ineffective.

SUPPORTING DOCUMENTATION

	Contingency			
	Outage of Allen 35 to Pidgeon 82	Outage of Allen 35 to Horn Lake & Allen 35 to Holmes 47	Outage of SHELBY#1 Xfrmr & Shelby2 65 to Fite 36	Outage of Shelby 65 to Millington 15 & Shelby 65 to Fite 36
<i>Element Overloaded</i>	Allen 35 to Holmes 47	Allen 35 to Pidgeon 82		
16 Summer Base Case			┌	┌
16 Summer Inject Case			└	└
16 Winter Base Case	┌	┌		
16 Winter Inject Case	└	└		

Colors correspond to outage records on next page

[illegible]

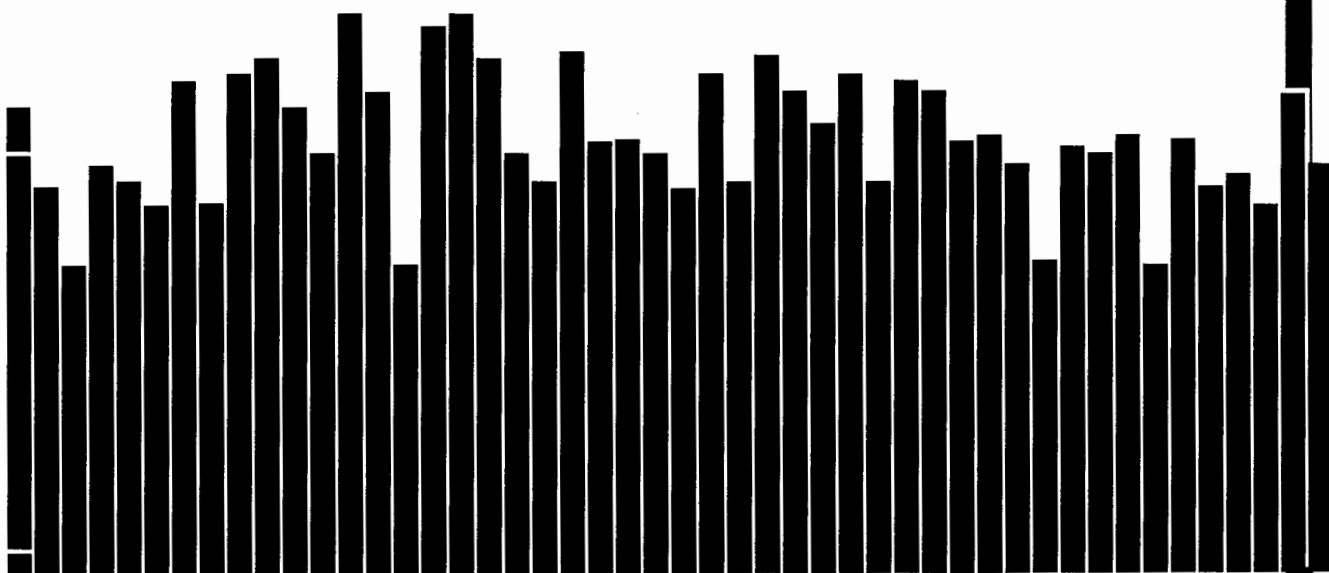
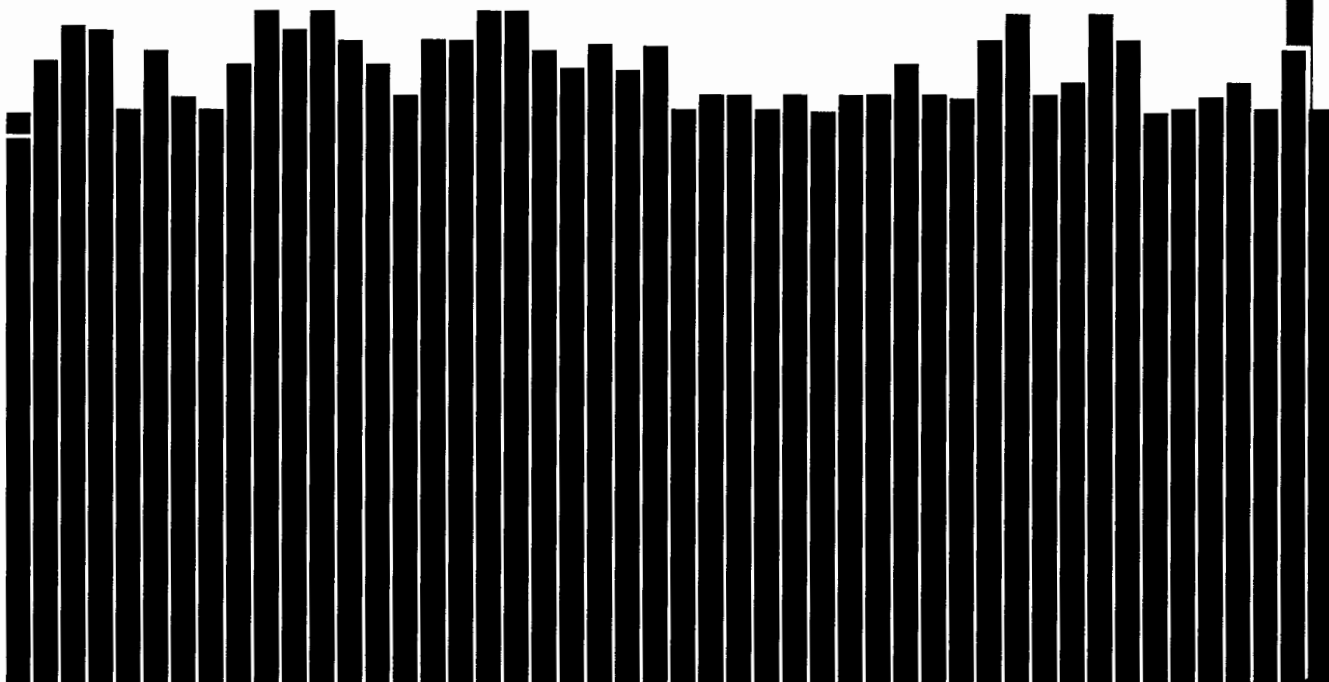
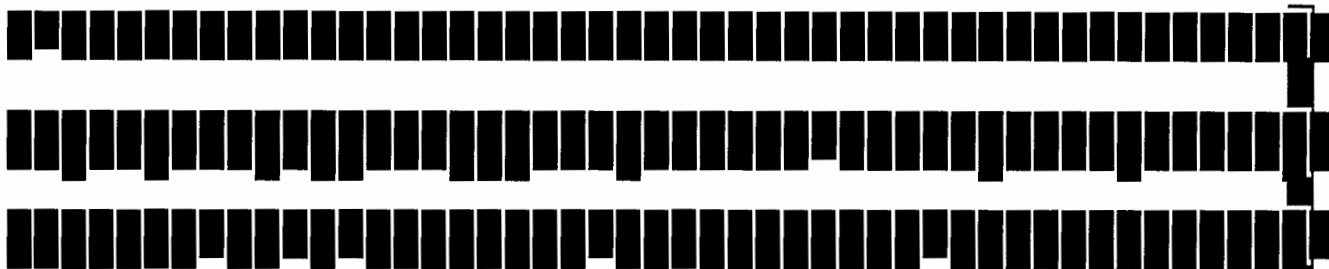
16S Inject

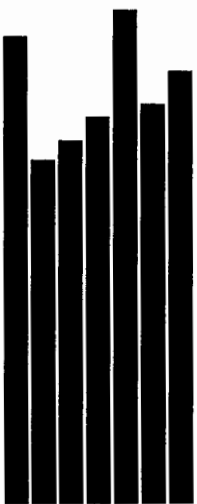
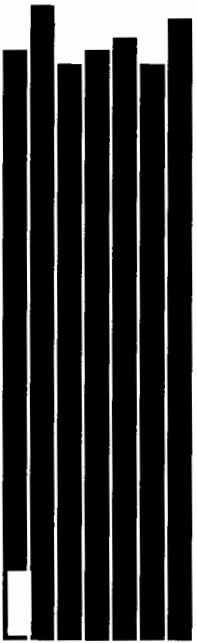
29 Allen 35 to Weaver 41, Allen 35 to Nonconnah 61

5ALLEN FP (360174) -> SMTSUBSHI 95 (365777) CKT 1 at SMTSUBSHI 95

690.15

799.68





Short Circuit analysis

BUS NAME	NOM. KV	Base Case	Maximum Isc
		<i>Total Isc</i>	increase
01 S Gate	115	28334	0.0%
02E N Gate	115	24991	0.0%
02W N Gate	115	25365	0.0%
03 Third St	115	12407	0.0%
04 Front	115	12339	0.0%
05 Poplar	161	17817	0.1%
06 Willett	115	19358	0.0%
07 Chelsea	161	21797	0.1%
11 Mallory	161	25221	0.0%
13 Woodstock	115	12508	0.0%
14 Frayser	115	15203	0.0%
15 Millington	161	15099	0.1%
21 Crump	115	20148	0.0%
23 Brookfield	161	33370	0.1%
24 DuPont	115	13051	0.0%
25 Getwell	115	18014	0.0%
26 Macon	115	16902	0.0%
27 Millbranch	115	14930	0.0%
28 Winchester	161	26761	0.1%
31 S Primary	161	42935	0.1%
32 N Primary	161	33116	0.1%
33 NE Gate	115	21657	0.0%
33 NE Gate	161	47373	0.1%
34 SE Gate	115	25461	0.0%
34 SE Gate	161	51754	0.1%
35 Allen Steam Plant	161	58293	0.1%
36 Fite Rd	115	11571	0.0%
36 Fite Rd	161	21820	0.1%
38 Raleigh	161	22103	0.1%
39N Cordova	161	48330	0.1%
39 S Cordova	161	42724	0.1%
41 Weaver	161	23876	0.0%
42 Southern	161	19362	0.0%
43 Elmore	161	27842	0.1%
44 Oakville	161	27193	0.1%
45 McLemore	161	26244	0.0%
46 N Frayser	161	18759	0.1%
47 Holmes	161	42536	0.1%
48 Yale Rd	161	28986	0.1%

BUS NAME	NOM. KV	Base Case	Maximum Isc increase
		<i>Total Isc</i>	
49 University	161	22587	0.1%
61 Nonconnah	161	29453	0.0%
62 Valero Refinery	161	25181	0.0%
65 Shelby	161	43346	-0.5%
66 Collierville	161	30562	0.1%
67 Buoy St	161	27048	0.0%
68 Arlington	161	18758	0.1%
69 Freeport	161	52861	0.1%
71 Clarke Rd	161	19551	0.0%
72 TrinityRd	161	30314	0.1%
73 Houston Levee	161	26137	0.1%
74 Shelby Drive	161	24136	0.0%
76 Dunlap	115	19340	0.0%
77 Poplar Estates	161	33132	0.1%
79 Shelton	161	16254	0.0%
81 Fletcher Creek	161	28907	0.1%
82 Pidgeon	161	41692	0.0%
84 N Bartlett	161	15296	0.0%
85 Lakeland	161	27210	0.1%
86 Collierville Gate	161	31360	0.1%
87 Shady Grove	161	30102	0.1%
93 Praxair	115	12695	0.0%

Plains and Eastern Response to
Staff Data Request 5



TENNESSEE VALLEY AUTHORITY

2008 REQUEST FOR PROPOSALS

FOR

**RENEWABLE ENERGY and/or
CLEAN ENERGY RESOURCES**

December 2, 2008

Reference: DEC2008RFP

**TVA REQUEST FOR PROPOSAL
FOR RENEWABLE ENERGY and/or
CLEAN ENERGY RESOURCES**

Purpose

TVA is seeking proposals from qualified and eligible proposers to supply capacity and/or energy from Renewable Energy and/or Clean Energy Resources (RECER) beginning as early as June 1, 2009 and as late as June 1, 2011. TVA is interested in term proposals for such power supply of 1 to 20 years in duration.

Description of RECER Interest

TVA is issuing a Request for Proposal seeking proposals which may result in TVA obtaining up to a total of 500 Megawatts of Renewable Energy and/or Clean Energy Resources (RECER) "Dispatchable" capacity capable of being delivered by June 1, 2009, increasing to a total of 750 Megawatts of RECER "Dispatchable" capacity capable of being delivered as of June 1, 2010, and further increasing to a total of 1,000 Megawatts of RECER "Dispatchable" capacity capable of being delivered as of June 1, 2011.

In addition, TVA will entertain proposals for up to a total of 500 Megawatts of RECER "As-Available" energy capable of being delivered by June 1, 2009, increasing to up to a total of 750 Megawatts of RECER "As-Available" energy capable of being delivered as of June 1, 2010, and further increasing to up to a total of 1,000 Megawatts of RECER "As-Available" energy capable of being delivered as of June 1, 2011.

Contractual delivery periods of up to 20 years will be considered. TVA desires to contract for the output of RECER acquired pursuant to this RFP by means of Power Purchase Agreements (PPAs).

- **Renewable Energy Resources:** means new or existing commercially proven technologies for the production of electric energy. Generation technologies eligible for the purposes of this RFP include:

1. Solar,
2. Wind,
3. Ocean,
4. Tidal,
5. Geothermal energy,
6. Landfill gas,
7. Other biologically derived methane gas,
8. Incremental hydropower*,
9. Hydrokinetic energy*, and
10. Biomass**.

* Dams under TVA control are not eligible as locations for non-TVA hydroelectric generation.

**Biomass means the direct firing or co-firing of the following:

- (A) Any of the following forest-related resources: mill residues, pre-commercial thinnings, slash, and brush, or non-merchantable material;
 - (B) Solid wood waste materials, including dunnage, manufacturing and construction wood wastes (but not pressure-treated, chemically-treated, or painted wood wastes), and landscape or right-of-way tree trimmings, but not including municipal solid waste (e.g. garbage);
 - (C) Agriculture wastes, including orchard tree crops, vineyard, grain, legumes, sugar, and other crop by-products or residues, and livestock waste nutrients; or
 - (D) A plant that is grown exclusively as a fuel for the production of electricity.
- Clean Energy Resources: means new or existing commercially proven technologies for the production of electric energy. Generation technologies eligible for the purposes of this RFP include:
 - 1. Combined Heat and Power,
 - 2. Waste heat Recovery, and
 - 3. Other Low Carbon emitting resources with emission rates less than 700 lb CO₂/MWh.
 - While TVA supports and is interested in nuclear energy, for the purposes of this RFP, we are excluding nuclear generation.
 - Size: Proposers should only propose and price capacity and/or energy from an individual Renewable Energy Resource project(s) or an individual Clean Energy Resource project, which will have a minimum nameplate capacity of 1 MW per project in either case.
 - Vintage: Proposers should provide the commercial operation date (if existing) or proposed commercial operation date of the RECER.
 - Product Type:
 - (A) Dispatchable – means energy and capacity that can be scheduled by TVA for delivery on an hour-ahead or on a day-ahead basis. A proposer providing a Dispatchable product should be capable of sustaining a guaranteed minimum run time of eight (8) consecutive

hours per day.

- (B) As-Available – means intermittent energy and capacity deliveries that are not directly amenable to scheduling by TVA or controllable by the generator. The technologies included within this product category are (1) wind; (2) solar; (3) run of river hydro; or (4) any other technology that TVA determines to qualify as As-Available.

- Guarantees Regarding Power Supply

- (A) Dispatchable: Proposals for Dispatchable products should include a guaranteed availability of the full nameplate capacity of the RECER when dispatched by TVA on either a monthly or seasonal basis and the implications of the RECER's failure to meet that guaranteed availability for unexcused reasons.
- (B) As-Available: Proposals for As-Available products should include a guaranteed minimum annual total quantity of kWhs of qualifying energy to be delivered to TVA from the RECER and the implications of the RECER's failure to meet that guaranteed minimum annual total quantity for unexcused reasons.

Delivery to the TVA System

This RFP requests proposals from RECERs for the delivery of qualifying energy to the TVA transmission system or, if interconnected to the distribution system of a distributor of TVA power, to that distribution system. Information submitted must include identification of proposed transmission and proposed interconnection points, identifying the transmission provider, and the control area. For any RECER directly interconnecting to the TVA transmission system or to a distribution system of a distributor of TVA power, said interconnection shall be in accordance with instructions to be provided by TVA and proposer shall bear the full cost of such interconnection.

Pricing

Proposals must provide a detailed description of the pricing terms and conditions. For consideration in the evaluation process, proposals must contain the information outlined below, as applicable.

Proposed energy rates shall include all fuel; start up, losses, ancillary services, transmission and other charges associated with delivery to designated delivery point. If a monthly charge is proposed for a Dispatchable product, such charge shall be stated on a Dollars per kWh/Month basis. The proposer shall provide the initial energy rate and

applicable formula for escalation, if any, with proposed indices or a schedule of energy rates for the proposed contract term. The actual hourly delivered energy, in any month, shall be determined in accordance with the metering procedures as set forth in the contract which will be negotiated between TVA and the successful proposer, and proposer will be responsible for the full costs of metering facilities as determined to be necessary by TVA with regard to the RECER being proposed. As applicable, the proposal should include all formulae that will be used to calculate the full energy rate, or any other rate that the proposer may specify, with all its respective components well defined. A sample calculation illustrating the application of each formula is also required.

The proposer must provide a schedule projecting for each contract year, quarter, or month, as appropriate, depending upon how frequently the Supplier's rate(s) or its respective components will be updated, for the full term of the proposed contract of the following: energy and/or capacity payment. It is the Supplier's obligation to provide sufficient explanatory information to allow TVA to replicate the schedule projections of any independent variables that are to be used in the calculation of payments.

Energy pricing that is based on a heat rate must clearly state the associated guarantees with all aspects of pricing clearly stated, as well as the implications of failures to meet such guarantees.

Associated Attributes

For purposes of this solicitation, the sale of renewable energy to TVA includes the transfer of all capacity, ancillary services (if any) and any current or of future environmental attributes, including but not limited to associated renewable energy certificates (RECs), and any current or future greenhouse gas emission reductions, including avoidance of carbon dioxide and other greenhouse gas emissions, associated with the quantity contracted and received by TVA from the project for the term of the PPA.

Environmental and Regulatory Requirements

Each proposal (and correspondingly the proposer's plant operation) must comply with all applicable federal, state, and local laws. Except as provided immediately below, all federal, state, and local approvals, permits, licenses, fees, emissions allowances, environmental reviews, and other environmental requirements are the responsibility of the proposer for the entire term covered by each proposal. This should include any rezoning, land-use permits, and other discretionary approvals that may be required by the local government. The proposer is responsible for assuring the availability and adequacy of all fuel handling and transportation facilities, including all necessary infrastructures to support such transportation.

TVA is an agency of the Federal government and accordingly shall be responsible for any environmental review necessary under the National Environmental Policy Act (NEPA) and other applicable provisions of Federal law and regulations which require the consideration of other interests as part of agency decisionmaking processes (hereinafter “environmental reviews”). The successful proposer(s) will be responsible for reimbursing TVA for all reasonable costs of performing the necessary environmental reviews. In addition to the other qualifications set forth herein, TVA must determine that all necessary environmental reviews have been satisfactorily completed and that the RECER will not result in significant environmental impacts in order for the RECER to qualify hereunder.

Proposers will be responsible for any and all applicable approvals and other regulatory actions required under the Federal Power Act, PURPA, and other applicable Federal and State laws.

Other Terms and Conditions

Proposals must include detailed descriptions of guarantees and related remedies for failure to perform. Each proposal must provide, as applicable, guarantees for in-service dates, contract capacity, heat rates (if applicable to the pricing proposal), and availability. Operational characteristics such as (but not limited to) capacity limitations, ramp limitations, maximum or minimum run-times, maximum or minimum down-times, and fuel limitations should also be specified. If a resource included in a proposal is not yet in-service, a detailed description of all arrangements for constructing and/or placing the facility in service, and a milestone schedule describing major project activities leading up to commencement date for commercial service shall be provided.

Credit Assurance

The proposer will be required to provide certain financial information in order to establish creditworthiness with TVA. Proposers should provide the following information as part of the proposal:

- Audited financial statements for the three (3) preceding years that include balance sheets, income statements, statements of cash flows, and notes to the financial statements.
- Bank name, address, phone number, and officer contact.
- Credit references from three (3) sources that include name, address, phone number, and contact.
- Annual report or company brochure, if available.

Submission of a proposal constitutes consent for TVA to contact the bank and references provided and any other persons with regard to TVA's assessment of proposer's creditworthiness and responsibility.

TVA requires secure and reliable physical delivery of the energy resources corresponding to all purchase power agreements. Security and reliability of physical delivery (credit assurance) covering both the option and the physical delivery of energy resources will be provided in the form of either a:

- (A) Letter of Credit issued by a financial institution that has a long-term debt rating by Standard & Poor's of A- or better and by Moody's Investors Service of A3 or better;
- (B) Parent guaranty issued by an entity located in the United States that has a long-term debt rating by Standard & Poor's of BBB- or better and by Moody's Investors Service of Baa3 or better; or
- (C) Various combinations of the foregoing, as determined by TVA.

The cost of such credit assurance must be borne by the proposer.

Reservation of Rights

TVA reserves the right, without qualification and at its sole discretion, to amend or withdraw this request for proposals and to reject any or all proposals or portion of proposals received. In addition, TVA reserves the right to consider other alternatives outside of this solicitation at its sole discretion in order to satisfy its desired capacity and energy objectives. Those who submit proposals to TVA do so without recourse against TVA for either rejection by TVA or failure to execute a PPA or other agreements for any reason, and in no event shall TVA be liable for any costs associated with preparation or submission of a proposal. TVA also reserves the right in its sole discretion: (i) to request of and discuss with proposers, individually or collectively, further information as part of its evaluation of the proposals received, (ii) to waive any requirements of this RFP, and (iii) to negotiate separately with any proposers or other parties at any time.

Procedures for Submission of Proposals

Proposers are requested to submit their proposals via e-mail to the e-mail address below. In addition, an original proposal (to be marked so) signed by an authorized officer, plus four (4) copies must be mailed or hand-delivered. The mailing/delivery address is:

- By Courier or U.S. Mail

Tennessee Valley Authority
Attention: Mr. Jim Howell, Senior Trader-Energy Origination
1101 Market Street, SP 6A
Chattanooga, TN 37402-2801

- By e-mail

jthowell@tva.gov

All proposals must arrive via e-mail by January 16, 2009, 12:00 noon Eastern Prevailing Time (EPT). Paper copies must arrive at TVA's Chattanooga office by 4:45 p.m. EPT the same date. TVA is not obligated to contact proposers concerning missing or incomplete forms.

The proposer must designate a contact person with whom TVA can communicate with questions about the proposal.

All proposals should include any additional information required to support evaluation of the proposal. Documents requested in support of the Credit Assurance must accompany the mailed versions of the proposals.

Confidentiality

TVA recognizes that certain information contained in proposals submitted may be confidential, and TVA will take reasonable precautions and use commercially reasonable efforts to protect any claimed proprietary and confidential written information contained in a Proposal; provided that such information is clearly identified by the proposer as "PROPRIETARY AND CONFIDENTIAL" on the page on which proprietary and confidential material appears. If TVA is formally requested and required by any regulatory or judicial authority, or is otherwise required by law, to disclose information with regard to a proposal, TVA will disclose such information in accordance with applicable laws and regulations.

TVA also reserves the right to disclose any or all of the information submitted in response to this request to any consultant(s) retained by TVA to assist with the various aspects of this process. TVA will take reasonable steps to ensure that its consultant(s) will also treat information received from proposers as confidential; however, TVA will not be liable for any failure of any consultants(s) to do so.

Proposers are required to treat this RFP in its entirety and any submissions to or communications with TVA as confidential to at least the same degree they treat their own

confidential information. If a proposer is formally requested and required by any regulatory or judicial authority or otherwise required by law to disclose information with regard to a proposal, such proposer will disclose such information only in accordance with, and to the extent required by, applicable laws and regulations.

Communication

This RFP is available to interested parties as of November 25, 2008. The RFP is available by TVA website, e-mail, fax, or U.S. mail.

If interested parties have any questions or desire any additional information related to this RFP, such questions or requests should be made in writing and directed via fax to (423) 751-3387 or via e-mail to the address above to Mr. Jim Howell, Senior Trader, Energy Origination.

Schedule

The tentative schedule as outlined below is based on TVA's expectations as of the release date of this RFP.

Release of RFP	December 2, 2008
Proposal Submittal	January 16, 2009
Notification of Short List	March 1, 2009
Completion of Negotiation	May 1, 2009
Contract Signed	Prior to June 2009

Plains and Eastern Response to
Staff Data Request 7

Attachment 01

Memorandum of Understanding The Plains & Eastern Clean Line

MS Final DRAFT OF Oct 23, 2009
REM

Whereas, the Tennessee Valley Authority ("TVA") operates the nation's largest public power system and supplies power to consumers in , Alabama, Georgia, Kentucky, Mississippi, North Carolina, Tennessee, and Virginia;

Whereas, in May 2008, the TVA Board of Directors adopted an Environmental Policy that established a goal of meeting part of its load growth through lower-carbon-emitting energy sources, including affordable renewables;

Whereas, TVA seeks to add cleaner energy resources to its generating mix to help reduce carbon emissions while minimizing costs and maintaining a reliable power supply;

Whereas, Clean Line Energy Partners LLC ("Clean Line Energy") is dedicated to the development, construction, ownership and operation of high voltage electric transmission lines primarily for transportation of electric energy generated from renewable resources;

Whereas, Clean Line Energy is developing the Plains & Eastern Clean Line (the "Project"), a high voltage direct current transmission project intended to transport up to 7000 MW of electrical energy generated primarily from wind and other renewable resources from the area in and around western Oklahoma (Texas County) to the vicinity of Memphis, Tennessee; and

Whereas, TVA is interested in exploring the possibility of purchasing capacity on the Plains & Eastern line in order to access affordable renewable energy resources,

It is hereby agreed that the above-named entities ("Participants") enter into this Memorandum of Understanding ("MOU"), to evidence their mutual intent to cooperate on certain aspects to determine the viability of the Project.

1. Project Definition

The Plains & Eastern Clean Line will consist of two parallel circuit 500 kilo-volt ("kV") overhead High Voltage Direct Current ("HVDC") transmission lines which will transmit energy from renewable projects in northwestern Oklahoma, southwestern Kansas, and the Texas Panhandle (the "Resource Area") to the vicinity of Memphis, Tennessee. The

Project would interconnect up to 7000 MW of energy to the TVA transmission system beginning in late 2015.

AC substations coupled with converter stations and the commencement point of the HVDC transmission lines will be located in the vicinity of Texas County, Oklahoma. Converter station locations will be determined after consultation with state, local, environmental and other stakeholders.

Wind energy and other renewable generation projects developed, built, operated and owned by third parties would interconnect to the Project at one of the western terminals. The lines will traverse Oklahoma in a common right of way in an easterly direction and are expected to cross Arkansas from west to east, cross over the Mississippi River in the vicinity of the city of Memphis and terminate at an eastern terminal and inverter in the vicinity of Memphis, Tennessee.

2. Actions to be Undertaken to Assess Project Viability

Clean Line Energy has submitted two Interconnection Requests (each request in the amount of 3,500 MW) to TVA relating to the Project pursuant to TVA's Large Generator Interconnection Procedures ("Procedures"). On August 20, 2009, TVA and Clean Line Energy executed an Interconnection Feasibility Study Agreement, under which TVA is studying the effects of the injection of 3500 MW and 7000 MW at several points in and around Memphis, Tennessee. Clean Line and TVA will continue to study the Project as specified in TVA's Procedures.

It is anticipated that the Project will be structured as an independent transmission project, such that interested parties can contract for long-term fixed capacity rights to transmit electrical energy on the lines consistent with the Federal Energy Regulatory Commission's recent orders on similar independent transmission projects.

Studies will be conducted to advance the various aspects of the Project, including technical and commercial aspects. Unless otherwise agreed in a separate written document, all such studies and other work will be undertaken at Clean Line's sole expense and risk.

Technical aspects of the Project to be studied include:

1. Electrical studies for the interconnection of the Project with TVA's transmission system, consistent with the terms of the Procedures, as may be adjusted by agreement to account for the unique aspects of a direct current interconnection;
2. Studies relating to the electrical control and integration of power received onto TVA's transmission system from the Project, including TVA's ability to manage the intermittent nature of energy generated from wind or solar sources;
3. Studies on the potential need, impact, and feasibility of energy storage and balancing facilities in the Resource Area and/or near the Project's eastern terminus;

4. Studies which establish the parameters for and guide the optimization of the dimensions and geographic limits to the physical area in the Resource Area where generating projects would interconnect to the Project's western terminus;
5. Studies focused on establishing routing objectives for the Project, including the Preliminary Routing Study currently being conducted by Clean Line Energy; and
6. Other technical studies including those currently underway on equipment; and electrical aspects, and other design, construction, and operational parameters relating to the use of HVDC equipment and its interconnection to the TVA transmission system.

Clean Line Energy and TVA will discuss the possibility of TVA making a commitment to purchase long-term, fixed capacity rights to transmit power on the Project. These discussions will be undertaken in parallel with cooperation on technical issues. As the discussions progress, TVA may conduct a "request for information" (RFI) process to identify and prequalify renewable energy providers in the Area. Clean Line Energy has identified wind and other generation projects totaling tens of thousands of megawatts under active development, and will provide support as requested by TVA for TVA's RFI process.

3. Permitting and Environmental Issues

In order to assure compliance with all applicable environmental and other permits, Clean Line Energy will conduct the necessary studies and actions, including those required under the National Environmental Policy Act (NEPA) and other federal laws including the Clean Water Act (CWA) the National Forest Management Act (NFMA) and the Endangered Species Act (ESA). Once entered into a binding contractual agreement, TVA may assist Clean Line Energy with the NEPA process associated with the Project.

4. Transmission Planning

Due to TVA's extensive involvement and leadership in Eastern Interconnection planning processes, it is expected that TVA will lead the Plains & Eastern effort to include the project in the Eastern Interconnection Transmission Planning Process, and other regional planning processes. Clean Line Energy will be an active participant in the multiple regional and inter-regional planning processes underway to study additions and changes to the transmission system in the Eastern Interconnection.

5. Project Ownership and Participation

It is anticipated that the Project will be owned by a Project Company which may subsequently have ownership participation by other parties. .

6. Subsequent Agreements

The purpose of this MOU is to explore the viability of the Project. Following the assessment of Project viability, TVA and Clean Line Energy may decide to proceed to execute one or more agreements regarding the responsibilities, financial contributions, ownership rights and operational duties of the Project. This MOU is merely an expression of mutual intent with respect to such subsequent agreement(s) and does not constitute a binding agreement between the Participants with respect to such subsequent agreement(s). Neither Participant may bring any claim or action against the other Participant as a result of a failure to agree to or execute any subsequent agreement(s).

7. Term

This MOU shall continue in full force and effect until the earlier of (a) the execution of a subsequent agreement(s) concerning the Project or (b) April 26, 2011, provided, however, that the Participants may extend the term of this MOU upon written amendment.

The signatories to this MOU represent that they are authorized to enter into this MOU on behalf of the party for whom they sign. This MOU may be executed in counterparts. This MOU is executed this 26th day of October, 2009.

Tennessee Valley Authority

By: 

Name: Robin E. Manning

Title: Exec VP - Power System Operations

Date: 10-26-09

~~Clean Line Energy Partners, LLC~~

By: 

Name: Michael Skelly

Title: CEO

Date: 10-26-09

Plains and Eastern Response to
Staff Data Request 7

Attachment 02



CLEAN LINE
ENERGY PARTNERS

Memorandum of Understanding The Plains & Eastern Clean Line

This MEMORANDUM OF UNDERSTANDING ("MOU"), effective as of October 24, 2011, is made and entered into by and between Plains and Eastern Clean Line LLC ("Clean Line"), and the Tennessee Valley Authority ("TVA"), a corporation created by and existing under the Tennessee Valley Authority Act of 1933 ("TVA Act"), as amended (individually, the "Party" and collectively, the "Parties").

Whereas, Current planning processes have not yet resulted in significant inter-regional transmission expansion despite widespread acceptance of its benefit;

Whereas, Clean Line has solicited TVA's assistance in establishing the need for its Plains & Eastern Clean Line (the "Project") to support siting and construction of this High Voltage Direct Current ("HVDC") inter-regional project to transmit primarily wind and other renewable power;

Whereas, TVA seeks to determine the benefit of inter-regional HVDC transmission in fulfilling its goal to be one of the nation's leading providers of low-cost and cleaner energy by 2020, consistent with its mandate in the TVA Act;

Whereas, TVA and Clean Line have undertaken certain actions related to Project viability under a Memorandum of Understanding dated October 26, 2009, which has expired; and

Whereas, the Parties desire to continue their efforts concerning Project viability under this new MOU;

NOW, THEREFORE, the Parties agree as follows:

1. Project Description

The Plains & Eastern Clean Line will consist of two overhead HVDC transmission lines, the first of which will transmit energy from renewable projects in northwestern Oklahoma, southwestern Kansas, and the Texas Panhandle (the "Resource Area") to the vicinity of Memphis, Tennessee. The first line would transmit up to 3500 MW of power to the TVA transmission system beginning in late 2016.



CLEAN LINE
ENERGY PARTNERS

Alternating current substations coupled with converter stations and the commencement point of the HVDC transmission lines will be located in the vicinity of Texas County, Oklahoma. Converter station locations will be determined after consultation with state, local, environmental, and other stakeholders.

Wind energy and other renewable generation projects developed, built, operated and owned by third parties will interconnect to the Project at one of the western terminals. The first line will traverse Oklahoma in an easterly direction and is expected to cross Arkansas from west to east, cross over the Mississippi River in the vicinity of the city of Memphis and terminate at an eastern terminal and inverter in the vicinity of Memphis, Tennessee.

A second overhead HVDC transmission line will enable an additional 3500 MW of power to be transmitted to the TVA transmission system at a location to be determined. The locations of the eastern and western terminals for the second line have not yet been determined.

2. Foundational Accomplishments of Note Under the October 26, 2009 Memorandum of Understanding

- Project feasibility study successfully completed.
- Clean Line hosted HVDC Technical Seminar featuring industry experts in Memphis, Tennessee.
- Correlation of simulated Resource Area wind output to TVA actual loads successfully completed.
- Clean Line filed utility applications in Oklahoma and Arkansas.
- Clean Line and TVA contributed respectively to scenario formulation and macro-economic studies being performed by the Eastern Interconnection Planning Collaborative ("EIPC") for the Department of Energy (DOE) to inform policymakers of, among other things, transmission infrastructure necessary to move renewable energy from wind-rich into wind-poor regions and associated costs.

3. Transitional Activity

- Clean Line hosted a Project Reliability Workshop in Dallas, Texas, for engineers charged with maintaining reliability at both source and sink ends of the Project.

4. Actions Under this MOU

- The Parties will conduct collaborative and independent studies to identify HVDC benefits to TVA.



CLEAN LINE
ENERGY PARTNERS

- With regard to Clean Line's application to partner with DOE and the Southwestern Power Administration on development of the Project pursuant to Section 1222 of the Energy Policy Act of 2005, TVA will provide a letter expressing support for transmission expansions such as the Project, but will not specifically endorse the Project for competitive advantage. TVA might offer a future letter with its conclusions regarding technical merits and viability of the Project.
- The Parties will complete joint exploration of potential wind output impact on TVA net load variability and baseload generation.
- The Parties will jointly investigate the technical merits of source-end grid integration versus isolation relative to effective operation of HVDC such as the Project.
- The Parties will share the status and results of ongoing studies related to wind-integration, energy storage, or other control of variable sources as allowed by the terms of the studies.
- The Parties will identify any additional studies sufficiently independent of those in progress to warrant joint pursuit.
- The Parties will pursue collaborative and/or independent exploration of methods/deal structures that will support TVA's use of independent transmission such as the Project to enhance stakeholder value.

5. Limitations

Nothing in this MOU obligates either Party to the planning, construction, funding, or use of the Project. Nothing in this MOU conveys any rights regarding the Project or any subsequent agreement(s) concerning the Project. Nothing in this MOU obligates either Party to execute any additional agreement(s) concerning the Project. Neither Party may bring any claim or action against the other Party regarding any aspect of the Project, including but not limited to, the failure to execute any subsequent agreement(s) concerning the Project. Unless otherwise agreed to in writing, each Party shall bear its own costs for any actions undertaken pursuant to this MOU.

6. Term

This MOU shall continue in full force and effect until the earlier of (a) the execution of a subsequent agreement(s) concerning the Project or (b) April 26, 2014; provided, however, that the Parties may extend the term of this MOU upon written amendment.

7. Counterparts

This Agreement may be executed in several counterparts, each of which shall be considered an original and all of which shall constitute but one and the same instrument.



CLEAN LINE
ENERGY PARTNERS

IN WITNESS WHEREOF, the Parties, by their respective duly authorized representatives, have executed this MOU as shown below.

PLAINS AND EASTERN CLEAN LINE LLC

By: _____

Michael Skelly

Chief Executive Officer & President

**TENNESSEE VALLEY
AUTHORITY**

By: _____

Robin E. Manning

Executive Vice President

Plains and Eastern Response to
Staff Data Request 7

Attachment 03



Amendment 1 to Memorandum of Understanding

This Amendment 1 to Memorandum of Understanding (this "Amendment"), dated as of April 26, 2014, is by and between Plains and Eastern Clean Line LLC ("Plains and Eastern") and the Tennessee Valley Authority ("TVA").

WHEREAS, Plains and Eastern and TVA entered into a Memorandum of Understanding (the "MOU"), effective as of October 24, 2011, whereby the parties agreed to take certain actions with respect to the Plains & Eastern Clean Line project;

WHEREAS, Plains and Eastern and TVA desire to enter into this Amendment, whereby the MOU is amended as set forth herein.

NOW, THEREFORE, the MOU is amended as follows:

1. Paragraph 6 of the MOU is amended and restated as follows:

This MOU shall continue in full force and effect until the earlier of (a) the execution of a subsequent agreement(s) concerning the Project or (b) April 26, 2015; provided, however, that the Parties may extend the term of this MOU upon written amendment.

2. Effect on the MOU. Except as expressly provided herein, the MOU shall remain unchanged and in full force and effect.
3. Execution in Counterparts. This Amendment may be executed in multiple counterparts, each of which when so executed and delivered shall be deemed to be an original and all of which taken together shall constitute one and the same instrument.

[Signature page follows.]

IN WITNESS WHEREOF, Plains and Eastern and TVA have duly executed this Amendment as of the day and year first written above.

PLAINS AND EASTERN CLEAN LINE LLC

By: 

Name: Michael Skelly

Title: President

TENNESSEE VALLEY AUTHORITY

By: 

Name: Jacinda Woodward

Title: Senior Vice President – Transmission

Plains and Eastern Response to
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Plains and Eastern Response to
Staff Data Request 12



ecology and environment, inc.

Global Environmental Specialists

BUFFALO CORPORATE CENTER

368 Pleasant View Drive, Lancaster, New York 14086

Tel: (716) 684-8060, Fax: (716) 684-0844

To: Mario Hurtado, Plains & Eastern Clean Line

From: Carl Sadowski, Ecology & Environment

Date: August 5, 2014

Subject: Tennessee Employment Data

In response to your request for information supporting employment data for Tennessee, we have compiled the following information. These data were researched and compiled by Ecology & Environment in 2014 to support environmental and socioeconomic analyses presented to Plains & Eastern Clean Line. These data represent the best available information for direct, indirect and induced employment and earnings estimates for the converter station and transmission line. The data presented below are estimates, and actual employment impacts may vary depending on individual hiring and location decisions during construction.

Mario Hurtado, Plains & Eastern Clean Line
 August 5, 2014
 Page 2

Employment data for the Plains & Eastern Clean Line, Tennessee Portion

Construction of the Project may result in temporary impacts to socioeconomic issues including employment. The following outlines the potential construction-related impacts of the Project within Shelby and Tipton Counties, Tennessee.

Employment and Income

Converter Station

The estimated total construction spending needed to build the Shelby Converter Station is approximately \$250 million. Clean Line expects the construction activities to require an average of 138 construction workers over an approximately 32-month construction period.

As shown on Table 2, "Jobs and Earnings Supported by the Construction of the Shelby Converter Station in Tennessee," Clean Line expects 274 jobs to be supported by the construction of the Shelby Converter Station, consisting of 138 direct jobs and 136 indirect and induced jobs. The annual employee earnings in the state supported by the Project would be approximately \$11.7 million (approximately \$6.1 million in direct impacts and approximately \$5.7 million in indirect and induced impacts). Over the approximately 32-month construction period, the total employee earnings in the state supported by the Project would be approximately \$31.3 million (approximately \$16.2 million in direct impacts and approximately \$15.1 million in indirect and induced impacts).

Table 2 Jobs and Earnings Supported by the Construction of the Shelby Converter Station in Tennessee			
Impacts	Employment (Jobs)	Annual Earnings	Earnings Over the Construction Period
Direct Impact	138	\$6,079,000	\$16,210,000
Indirect & Induced Impacts	136	\$5,656,000	\$15,084,000
Total Impacts	274	\$11,735,000	\$31,294,000

Source: U.S. Bureau of Economic Analysis 2012.

Note: Totals may not sum exactly due to rounding.

Transmission Line

Clean Line anticipates that the HVDC transmission line will cost approximately \$2 million per mile to construct and will employ an average of 690 construction workers over a 36-month construction period. The length of the transmission line segment in Tennessee is 16.4 miles.

It would cost approximately \$33 million to construct the 16.4 miles of transmission line in Tennessee. Clean Line estimates that this segment of the transmission line would require an average of 16 construction workers over the construction period. Assuming an average annual salary of \$44,050 (U.S. Bureau of Labor Statistics 2012), these construction workers would receive annual earnings of approximately \$705,000.

Mario Hurtado, Plains & Eastern Clean Line
 August 5, 2014
 Page 3

Table 3, "Jobs and Earnings Supported by the Construction of the Transmission Line in Tennessee," shows Clean Line anticipates 32 jobs would be supported by the construction of the transmission line, consisting of 16 direct jobs and 16 indirect and induced jobs. The total employee earnings in the state supported by the Project would be approximately \$1.4 million (approximately \$705,000 in direct impacts and approximately \$656,000 in indirect and induced impacts). Over the 36-month construction period, the total employee earnings in the state supported by the Project would be approximately \$4.1 million (approximately \$2.1 million in direct impacts and approximately \$2 million in indirect and induced impacts).

Table 3 Jobs and Earnings Supported by the Construction of the Transmission Line in Tennessee			
Impacts	Employment (Jobs)	Annual Earnings	Earnings Over the Construction Period
Direct Impact	16	\$705,000	\$2,115,000
Indirect & Induced Impacts	16	\$656,000	\$1,969,000
Total Impacts	32	\$1,361,000	\$4,084,000

Source: U.S. Bureau of Economic Analysis 2012.

Notes: Totals may not sum exactly due to rounding.

Table 4, "Direct Jobs and Earnings Due to the Construction of the Transmission Line by County In Tennessee," presents estimates of jobs and employee earnings supported by the Project in Tennessee by county based on the total economic impacts shown in the table and the length of the transmission line segment in each county.

Table 4 Direct Jobs and Earnings Due to the Construction of the Transmission Line by County In Tennessee			
County	Employment (Jobs)	Annual Earnings	Earnings over the Construction Period
Shelby	10	\$415,000	\$1,244,000
Tipton	22	\$947,000	\$2,840,000

Source: U.S. Bureau of Economic Analysis 2012.

Notes: The entries in this table may not sum to totals shown on the previous table due to rounding.

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Plains and Eastern Response to
Staff Data Request 15

Attachment 01

CONFIDENTIAL – FILED UNDER SEAL

Plains and Eastern Response to
Staff Data Request 15

Attachment 02

THIS DOCUMENT PREPARED BY:

Plains and Eastern Clean Line LLC
1001 McKinney Street
Suite 700
Houston, Texas 77002

AFTER RECORDING RETURN TO:

Contract Land Staff, LLC
1004 Decathlon Drive
Waterloo, IA 50701

Tract # - []

TRANSMISSION LINE EASEMENT AGREEMENT

This Transmission Line Easement Agreement ("Agreement") is entered into between _____, (collectively, "Landowner"), and Plains and Eastern Clean Line LLC ("Plains and Eastern"), an Arkansas limited liability company. Plains and Eastern has its principal place of business at 1001 McKinney St., Suite 700, Houston, TX 77002.

1. Landowner owns that certain real property (the "Property") as identified on the attached Exhibit "A," located in _____ County, State of Tennessee.
2. Landowner does hereby grant and convey unto Plains and Eastern, a perpetual, exclusive easement (the "Easement") to construct, operate and maintain an overhead transmission line, as further described below.

a. In exchange for receiving the Easement, Plains and Eastern has paid Landowner an initial payment of \$10.00 and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged. Plains and Eastern may pay Landowner additional consideration pursuant to that certain Easement Calculation Sheet executed by Landowner concurrently with this Agreement. If Plains and Eastern does not pay the additional consideration by the date(s) provided in and in accordance with the terms of the Easement Calculation Sheet, then, subject to the cure provisions in Section 10 of this Agreement, this Agreement shall automatically terminate. Additionally, to the extent applicable, Plains and Eastern will pay Landowner for certain damages as set forth in and in accordance with the terms of the Structure and Damages Calculation Sheet executed by Landowner concurrently with this Agreement.

b. The Easement includes rights to construct, reconstruct, repair, expand within the Easement, improve, alter, replace, operate, use, inspect, maintain and remove an overhead transmission line, which transmission line shall include poles, towers and structures such wires and cables as Plains and Eastern shall from time to time suspend therefrom, foundations, footings, attachments, anchors, ground connections, communications devices, or other equipment, accessories and appurtenances, as Plains and Eastern may deem necessary or desirable in connection therewith (the

Draft of June 3, 2013

"Facilities"). The Easement will be used for the transmission of electrical energy, whether existing now or in the future in order to deliver electrical energy and for all communication purposes related to delivering electrical energy and for all communications purposes, including without limitation fiber optic circuits.

- c. The location of the Easement is generally as depicted on the attached Exhibit "B." Landowner and Plains and Eastern agree that after the final engineering design and construction of the Facilities have been completed, Plains and Eastern will commission a surveyor to create a precise legal description for the Easement, which will be a strip of land designated by Plains and Eastern not to exceed 100 feet on each side of the center-line of the "as built" Facilities. Landowner authorizes Plains and Eastern to unilaterally record a legal description and or drawings of the "as built" Facilities to reflect the precise location of the Easement. However, upon the request of Plains and Eastern, Landowner agrees to cooperate with Plains and Eastern and to join Plains and Eastern in the execution of an amendment to this Agreement or any other documents in recordable form for the purpose of documenting and recording the precise location of the Easement.
 - d. The Easement includes the right of ingress, egress and regress over the Easement itself, over the Property of Landowner in order to obtain access to the Easement, and over the property of Landowner adjacent to the Easement and lying between public or private roads and the Easement in such manner that shall cause the least practicable damage and inconvenience to Landowner.
3. Plains and Eastern will repair or pay, at Plains and Eastern's option, Landowner or its tenants for any damage to Landowner's or Landowner's tenants' improvements, livestock and or crops as a result of Plains and Eastern exercising its rights under this Agreement. Certain of these damages are addressed in and will be paid in accordance with that certain Damages Calculation Sheet executed by Landowner concurrently with this Agreement. Notwithstanding the foregoing, Plains and Eastern shall, without being liable for damages, have the right from time to time, including after the initial construction of the Facilities, to: (a) clear the Easement of all buildings or other structures, except fences (provided Plains and Eastern shall at all times have access through any such fence by means of a gate (at Plains and Eastern's cost)); (b) control, cut down, trim and remove trees and underbrush from the Easement; and (c) cut down and trim any tree located outside the Easement that in the opinion of Plains and Eastern may interfere with the safety, proper operation and/or maintenance of the Facilities.
4. Landowner shall have the right to use the Easement for normal farming and grazing purposes and have the right to install and maintain fences (provided Plains and Eastern shall at all times have access through any such fence by means of a gate), provided such uses do not interfere with Plains and Eastern's rights and permitted use of the Easement for the purposes described herein. Landowner shall not, however, engage in any activity or grant any rights to third parties that would interfere with Plains and Eastern's use of the Easement,

including, without limitation, the drilling or operation of any well, construction of any building or other structure, changing of the existing grade, or installation of any utility or other line, main, conduit, fixture or other appurtenance within, under, upon or over the Easement, without in each case the prior written consent of Plains and Eastern, which consent shall not be unreasonably withheld. Landowner acknowledges and agrees that during the initial construction of the Facilities or any major work on the Facilities, Landowner may not have access to or use of the Easement for any purpose so as to avoid interfering with such construction or other repair work and in order to allow Plains and Eastern to maintain the safety of persons and property during such construction or other repair work.

5. Landowner, for themselves, their heirs, successors and assigns, represent, warrant and covenant that they are the true and lawful owners of the Property and have full right and power to grant and convey the Easement as herein provided.
6. Plains and Eastern may terminate this Agreement at any time by providing written notice to Landowner and removing the Facilities (if such Facilities exist) within one hundred eighty (180) days of such notice whereupon all further obligations under this Agreement shall terminate.
7. All notices given or permitted to be given under this Agreement shall be in writing. Notice is considered given either (i) when delivered in person to the recipient named above, (ii) upon receipt after deposit in the United States mail in a sealed envelope or container, postage and postal charges prepaid, return receipt requested or certified mail, addressed by name and address to the party or person intended, or (iii) twenty-four (24) hours from proper and timely delivery by an overnight courier service addressed by name and address to either party to this Agreement. Either party may, by notice given at any time, require subsequent notices to be given to another individual person, whether a party or an officer or representative, or to a different address, or both.
8. The rights of Plains and Eastern under this Agreement may be sold, assigned, mortgaged or leased, in whole or in part, by Plains and Eastern at any time. In the event of any such sale, assignment or lease by Plains and Eastern of its interests in this Agreement (in whole or in part), Plains and Eastern shall be released from its obligations under this Agreement to the extent of such sale, assignment or lease, provided that any such purchaser, assignee or lessee assumes Plains and Eastern's obligations.
9. The Easement and any restrictions of this Agreement shall run with the Property and land affected and shall be binding on Landowner and Plains and Eastern, together with their mortgagees, assignees, and respective successors and assigns, heirs, personal representatives, tenants or persons claiming by, through or under them. In furtherance of the foregoing, Landowner acknowledges and agrees that any and all sums due under this Agreement, including without limitation, under the Easement Calculation Sheet and the Structure and Damages Calculation Sheet shall be paid to the then owner of record of the Property at the time the applicable payment is due.

10. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Tennessee. In the event of any breach of a monetary obligation by Plains and Eastern under this Agreement, Landowner shall provide Plains and Eastern written notice and Plains and Eastern shall have thirty (30) days after Plains and Eastern's receipt of said notice to cure the breach. In the event of any non-monetary breach by Plains and Eastern under this Agreement, Landowner shall provide Plains and Eastern written notice and Plains and Eastern shall have sixty (60) days after Plains and Eastern's receipt of said notice to cure the breach; provided, however, if the nature of the breach is such that it cannot reasonably be cured within sixty (60) days, Plains and Eastern shall not be deemed in breach under this Agreement so long as Plains and Eastern commences the cure within thirty (30) days and thereafter diligently pursues the cure to completion. Notwithstanding anything to the contrary contained herein, Landowner shall have no rights to terminate this Agreement for a breach by Plains and Eastern before the foregoing cure periods have expired. Landowner and Plains and Eastern agree to first attempt to settle any dispute arising out of or in connection with this Agreement by good faith negotiation. If Landowner and Plains and Eastern are unable to resolve amicably any dispute arising out of or in connection with this Agreement, each shall have all remedies available at law or in equity in state and federal courts in the State of Tennessee.
11. Indemnification; Waiver of Claims
 - a. Plains and Eastern shall indemnify and hold harmless Landowner from any and all liability, claims, suits, demands, actions, loss, damage and expense, including court costs and reasonable attorney's fees ("Claims"), for injury to persons or damage to property caused by Plains and Eastern, or Plains and Eastern's agents and representatives, in the exercise of Plains and Eastern's rights under this Agreement, except to the extent resulting from Landowner's breach of the terms of this Agreement or from Landowner's negligence or intentional misconduct.
 - b. Plains and Eastern's indemnification obligation hereunder includes all Claims brought by Plains and Eastern's employees, agents, contractors, subcontractors or other representatives related to any work performed on Landowner's property in connection with the exercise of Plains and Eastern's rights in this Agreement.
 - c. Plains and Eastern agrees that it shall not pursue, and hereby waives, any Claims against Landowner, except to the extent caused by Landowner's breach of this Agreement, gross negligence or intentional misconduct; provided however, this Section 11(c) shall not limit any of Plains and Eastern's remedies for breach of the terms of this Agreement.
12. Landowner hereby consents to Plains and Eastern contacting any lender, mortgagee or other pre-existing holder of a lien or interest in the Property in order to secure a subordination and or non-disturbance agreement in recordable form for the benefit of Landowner. Upon the request of Plains and Eastern, Landowner agrees to fully cooperate with Plains and Eastern in order to secure a subordination and or non-disturbance agreement

from each lender, mortgagee or other pre-existing holder of a lien or interest in the Property. Landowner shall not be required to incur any third party out of pocket expenses in connection with assisting Plains and Eastern in the pursuit of the foregoing subordination and or non-disturbance agreements; all such third party out of pocket expenses relating to the same shall be paid by Plains and Eastern. At no additional cost to Landowner, Landowner further agrees to cooperate with Plains and Eastern's efforts to obtain financing, including providing any documents reasonably requested by Plains and Eastern, its lenders or as otherwise reasonably required to effectuate the purposes of this Agreement.

13. Landowner hereby releases and waives all rights and benefits under applicable homestead exemption laws.
14. This Agreement may be executed in multiple counterparts and, when executed by all parties, shall constitute one agreement effective and binding on all parties.

[Signature page follows]

Draft of June 3, 2013

IN WITNESS WHEREOF, Landowner and Plains and Eastern have hereunto set their hands this _____ day of _____, 20____.

Landowner:

Plains and Eastern:

Plains and Eastern Clean Line LLC,
an Arkansas limited liability company

Print Name:_____

Landowner Address:

By:_____

Print Name:_____

Print Name:_____

Landowner Address

Its:_____

Print Name:_____

Landowner Address

Print Name:_____

Landowner Address

SIGNATURE PAGE TO
TRANSMISSION LINE EASEMENT AGREEMENT

ACKNOWLEDGMENTS

STATE OF _____,
COUNTY OF _____,

Before me, the undersigned, a Notary Public of the state and county aforesaid, personally appeared _____, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath, acknowledged him/herself to be the _____ (capacity) of Plains and Eastern Clean Line LLC, the within named bargainor, a limited liability company, and that s/he as such _____, executed the foregoing instrument for the purpose therein contained, by signing the name of the limited liability company by him/herself as _____.

Witness my hand and seal, this _____ day of _____,
20____.

Notary Public

[SEAL]

My Commission Expires: _____

[insert appropriate acknowledgement from form acknowledgments file]

Draft of June 3, 2013

STATE OF _____)
COUNTY OF _____)

The actual consideration or value, whichever is greater, for this transfer is \$ _____

Affiant

Subscribed and sworn to before me, this _____ day of
_____, 20_____.

Notary Public

My Commission Expires: _____

EXHIBIT "A"

[RECITE LEGAL DESCRIPTION AND TAX PARCEL IDENTIFICATION NUMBER(S)]

EXHIBIT "B"

This is the sketch

CH2\11263028.7

Plains and Eastern Response to
Staff Data Request 15

Attachment 03

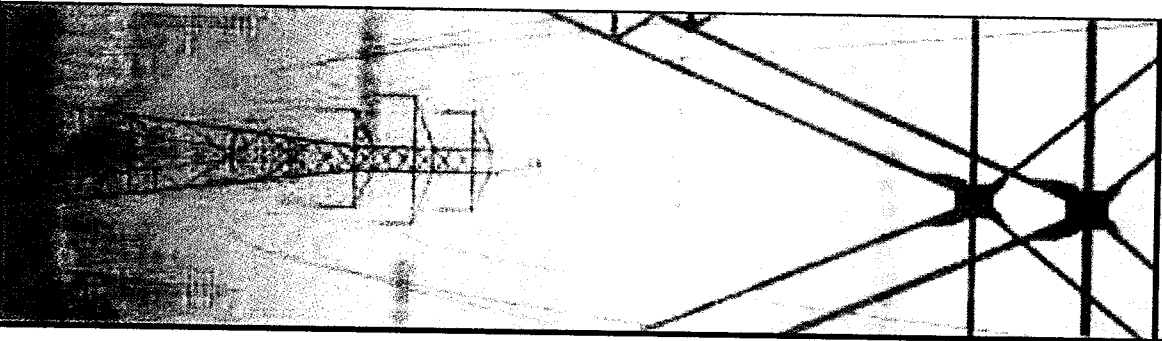
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Plains and Eastern Response to
Staff Data Request 16



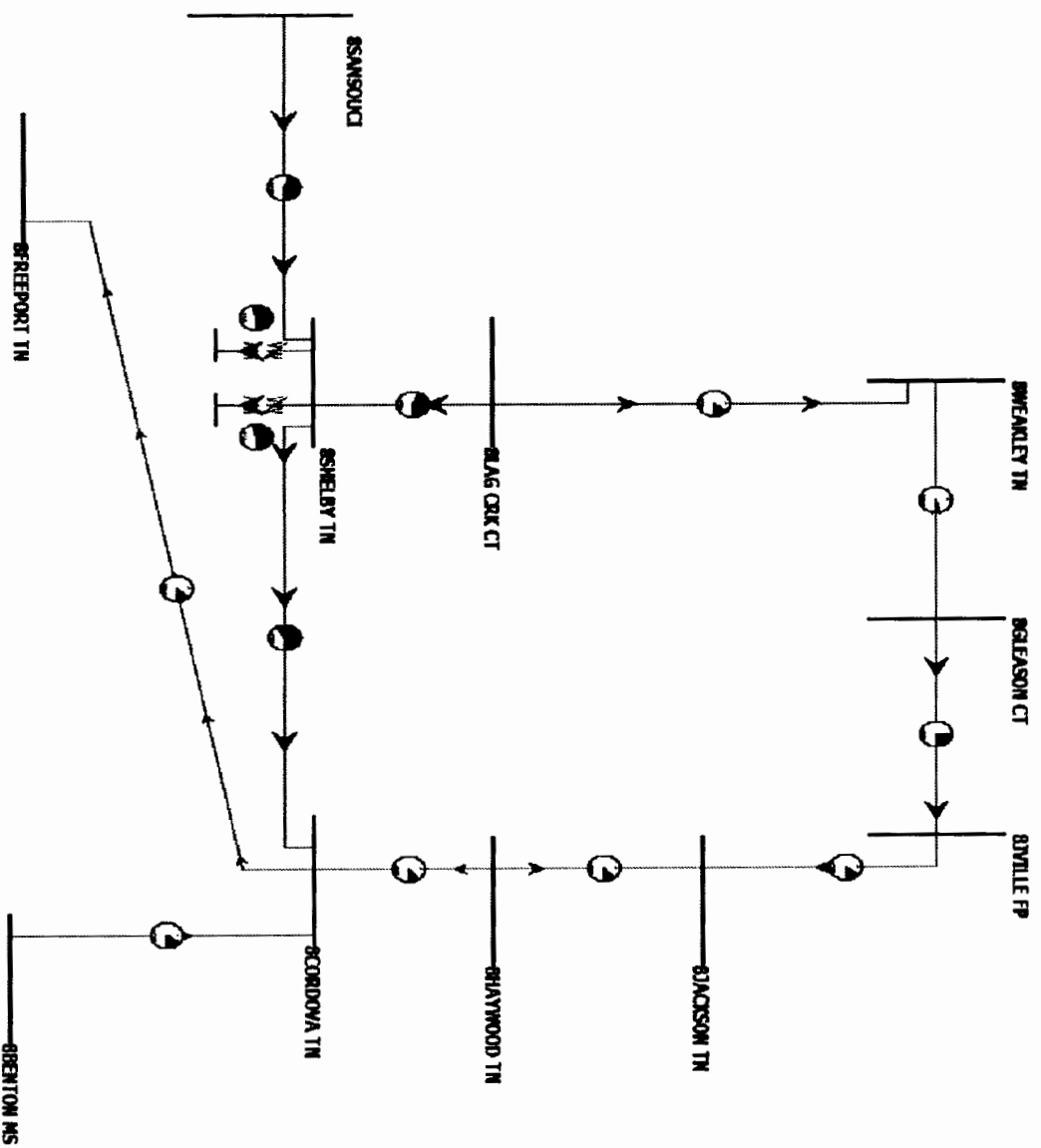


Overview of Options

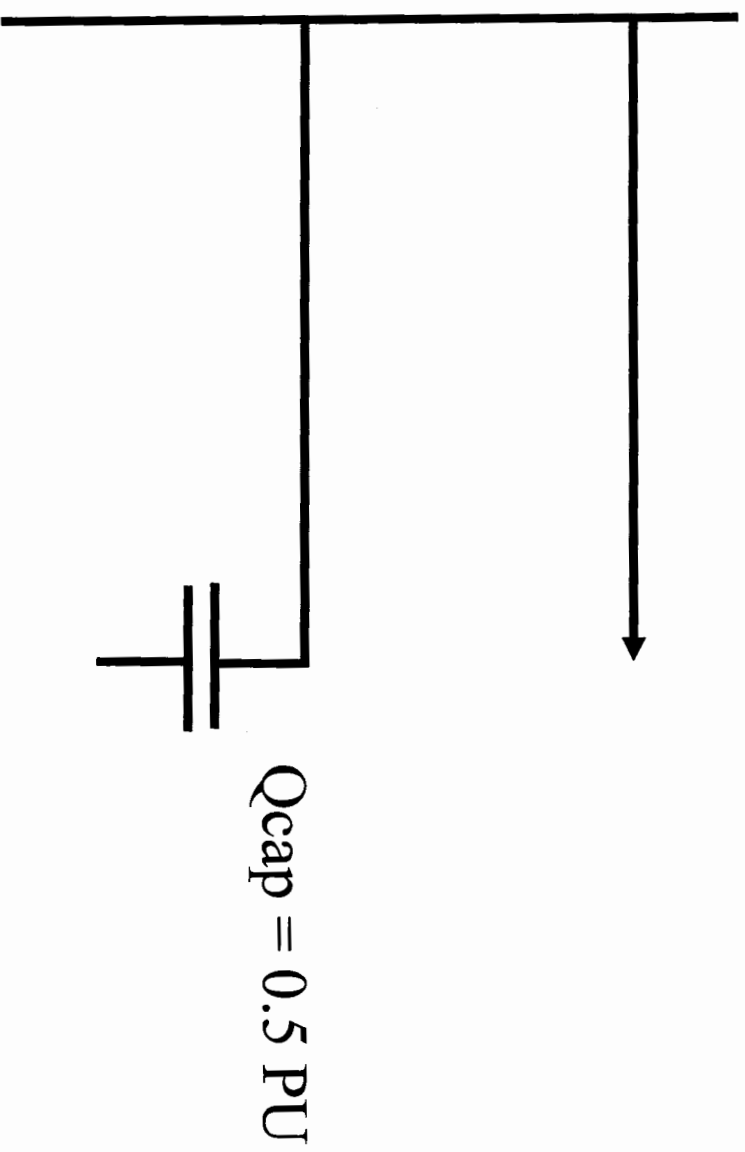


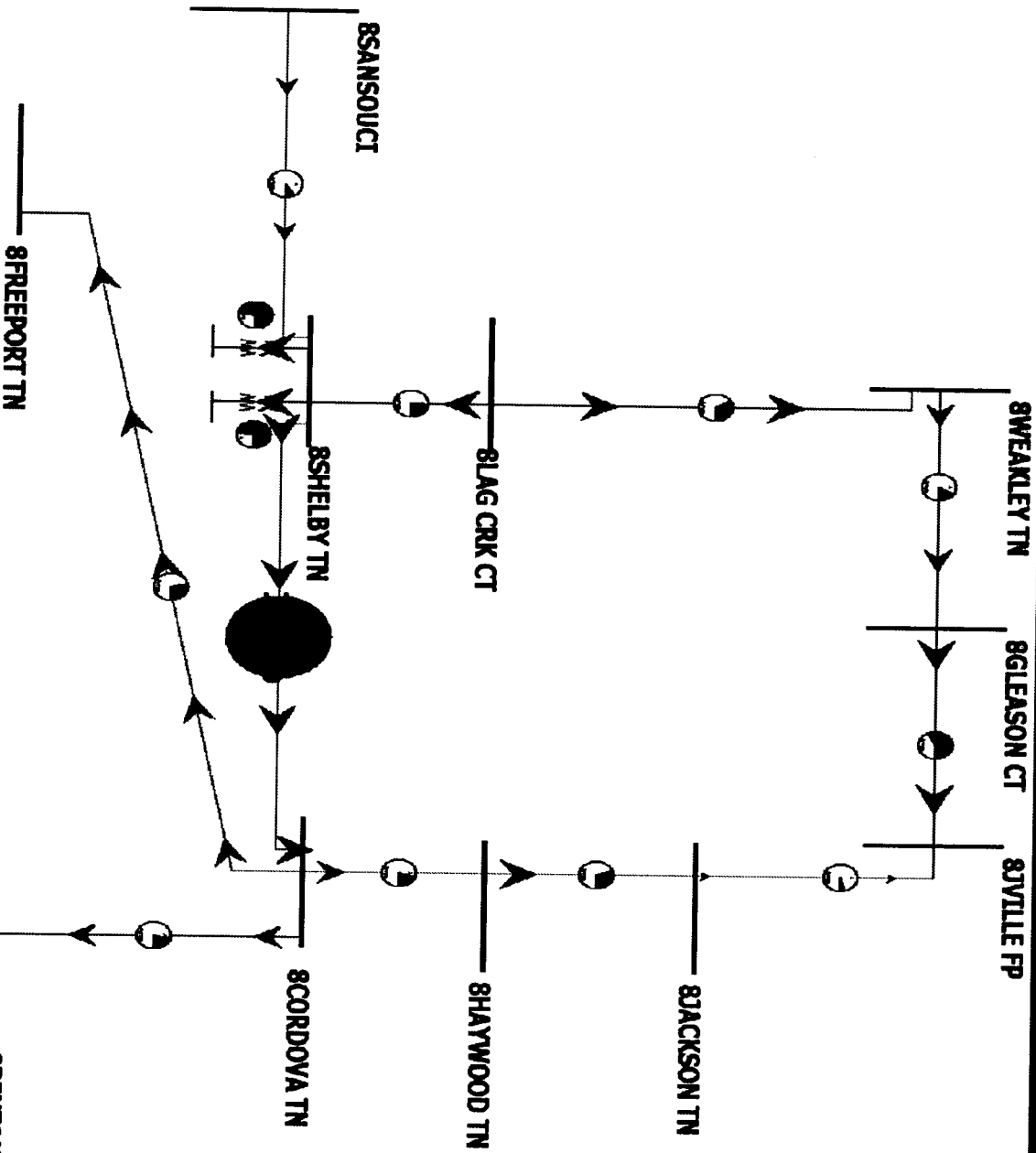


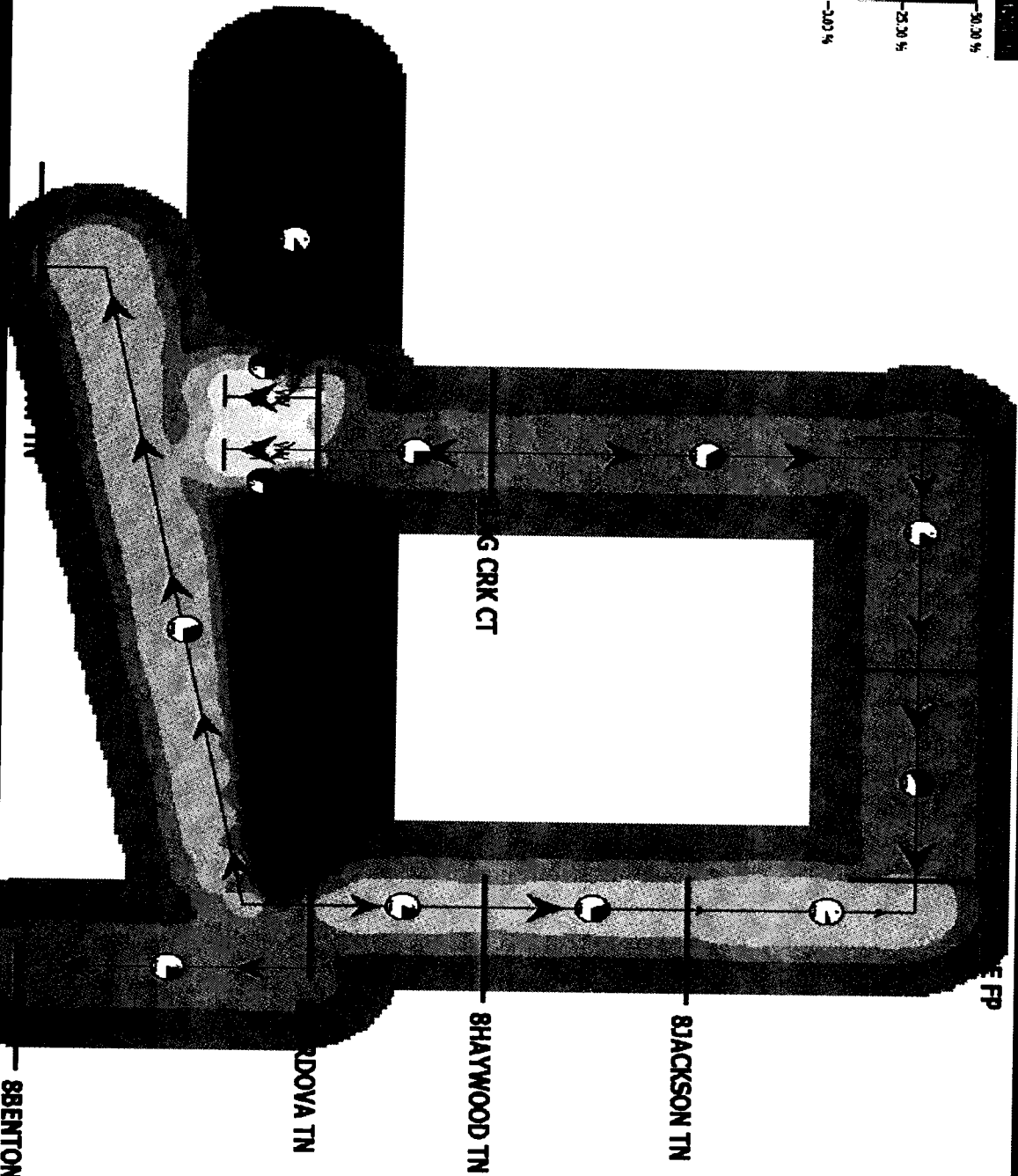
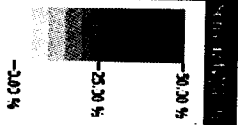
15S without the proposed HVDC



HVDC Steady-State Model

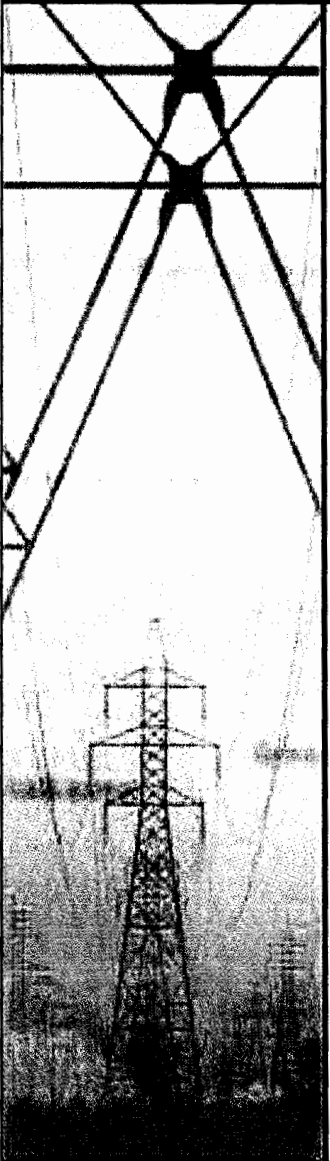






SBENTON MS

Transmission Planning



- **Identified thermal overload violations**

- One 500 kV TL and three 500/161 kV TRs were identified as the limiting elements in the TVA system.
- 30 161 kV thermal overload violations were identified in the TVA system.

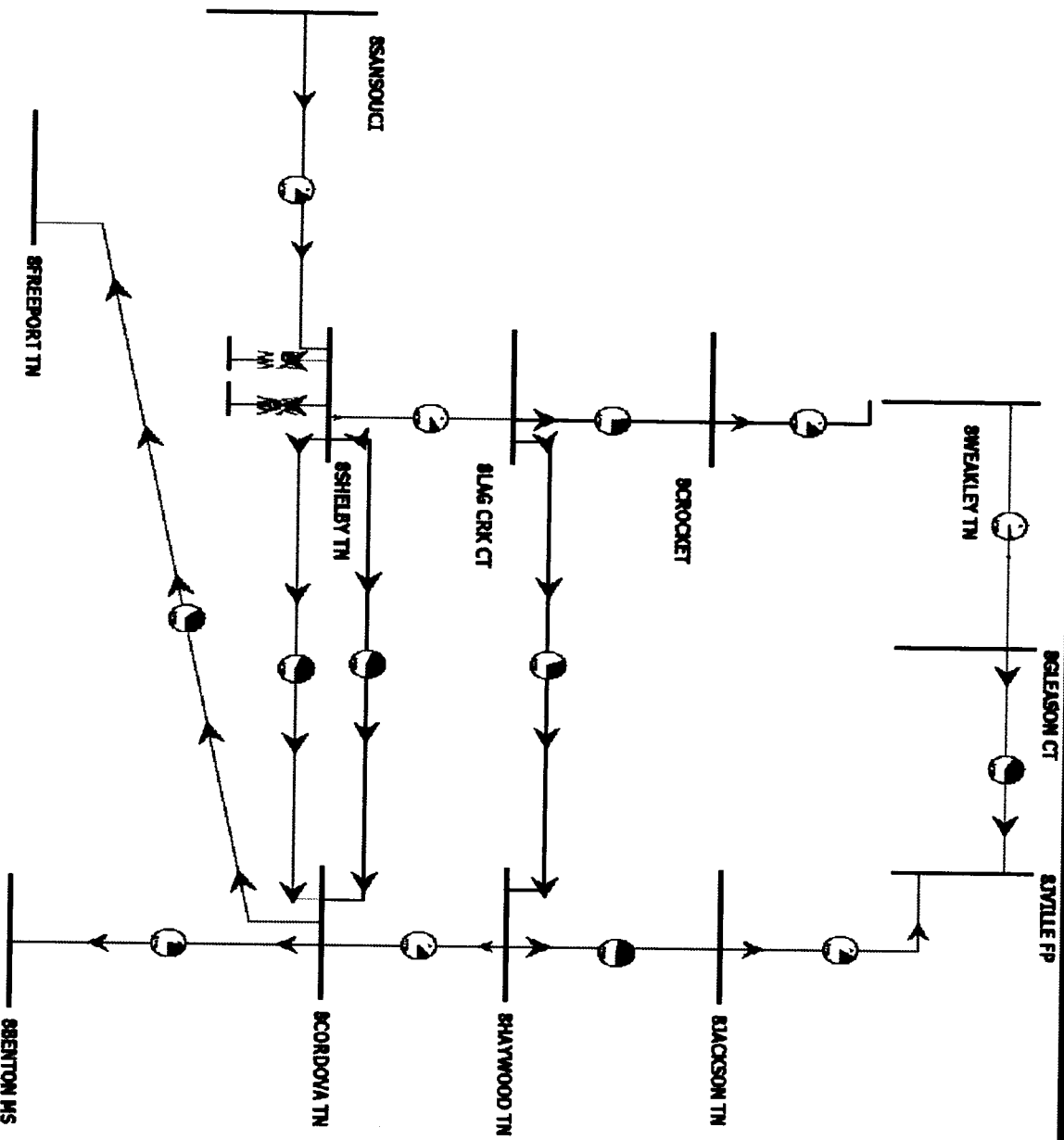


- **Proposed Network upgrades**

- New 500 kV substation (Crockett) – TVA's ULRTP
- Shelby – Cordova 500 kV TL
- Lagoon Creek – Haywood 500 kV TL

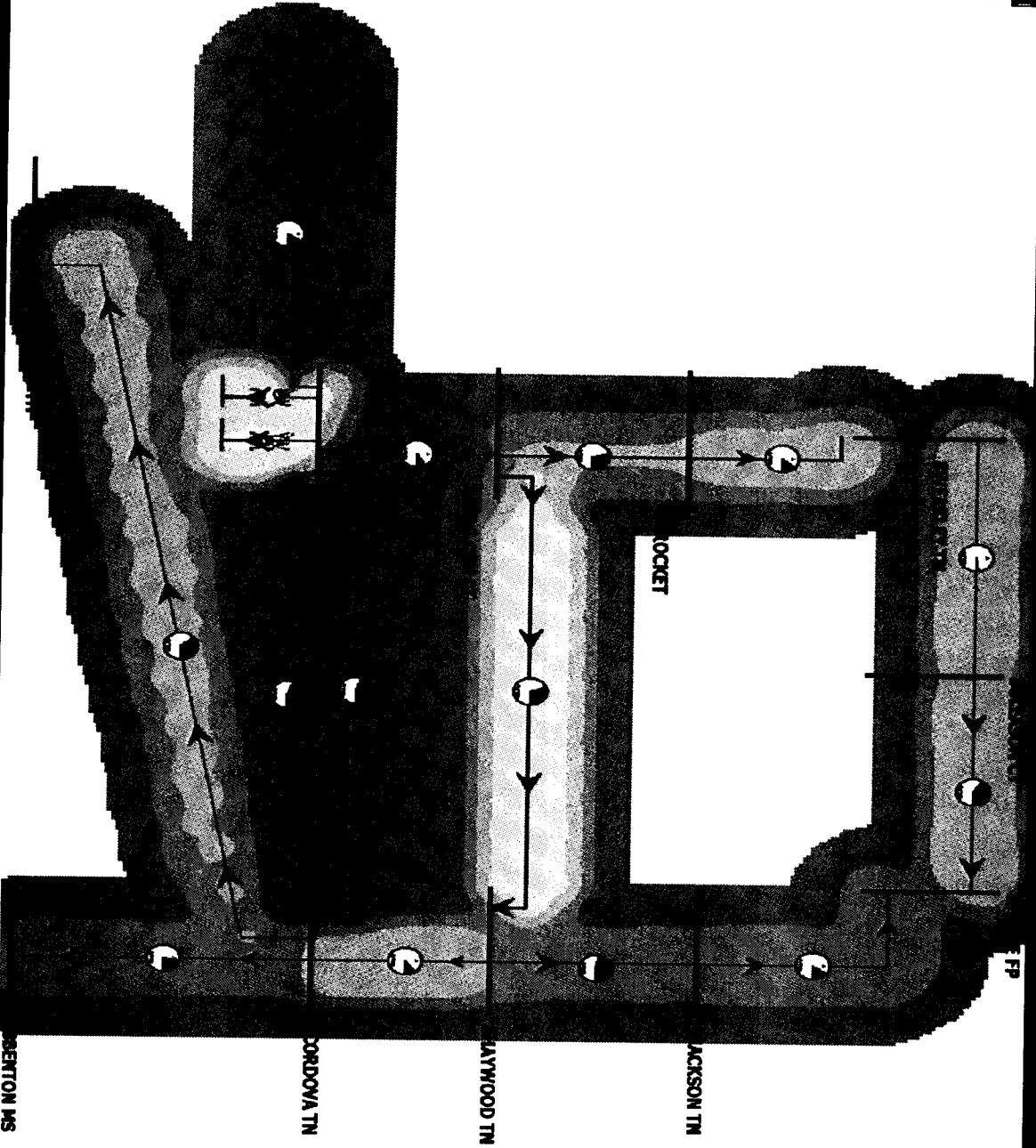
- **All 500 kV TL and 500/161 kV TR violations and 16 161 kV problems were eliminated by the proposed upgrades.**

- **14 potential 161 kV problems remain in the TVA system.**





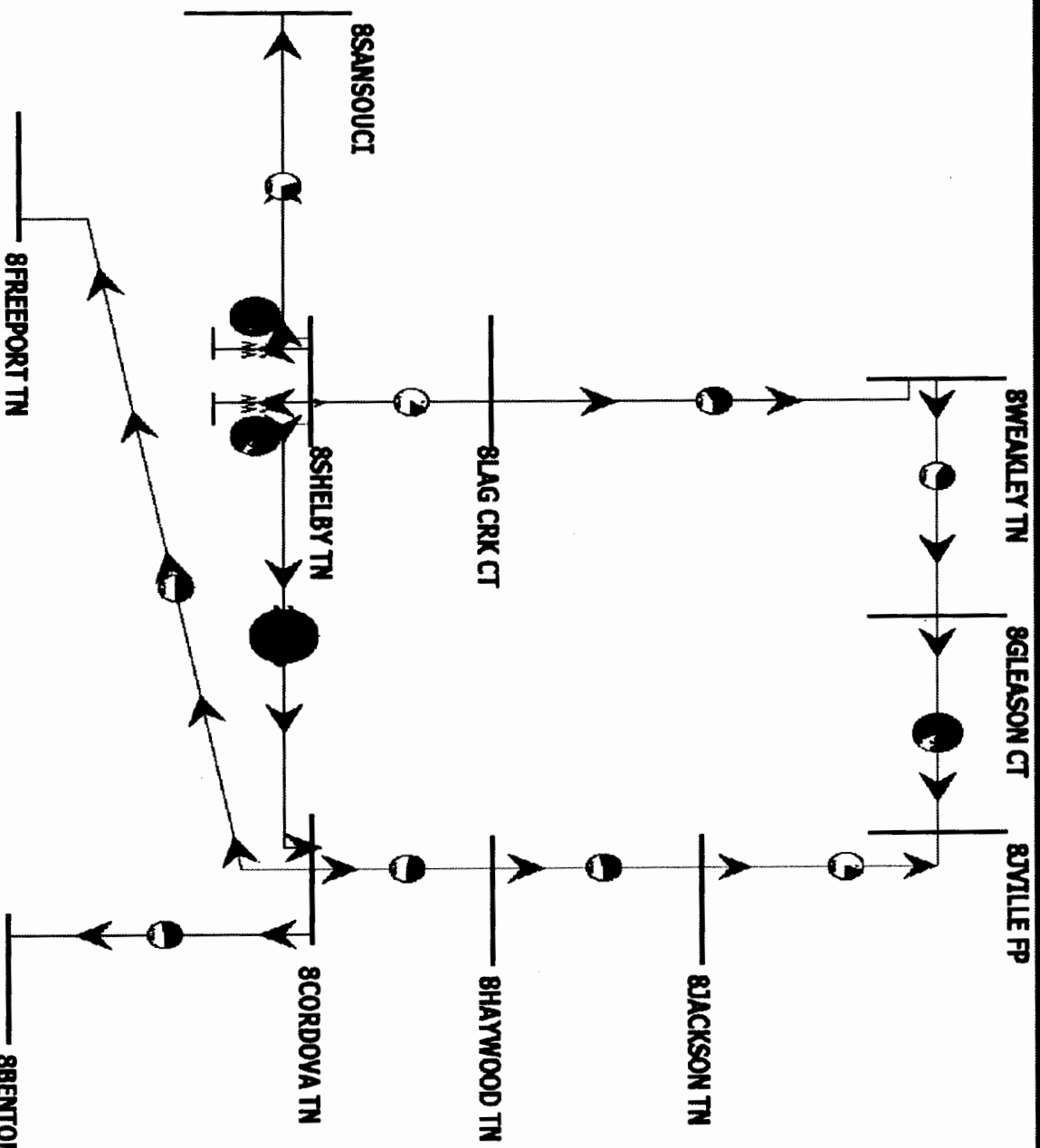
90.00 %
-25.00 %
-9.00 %





- **Identified thermal overload violations**

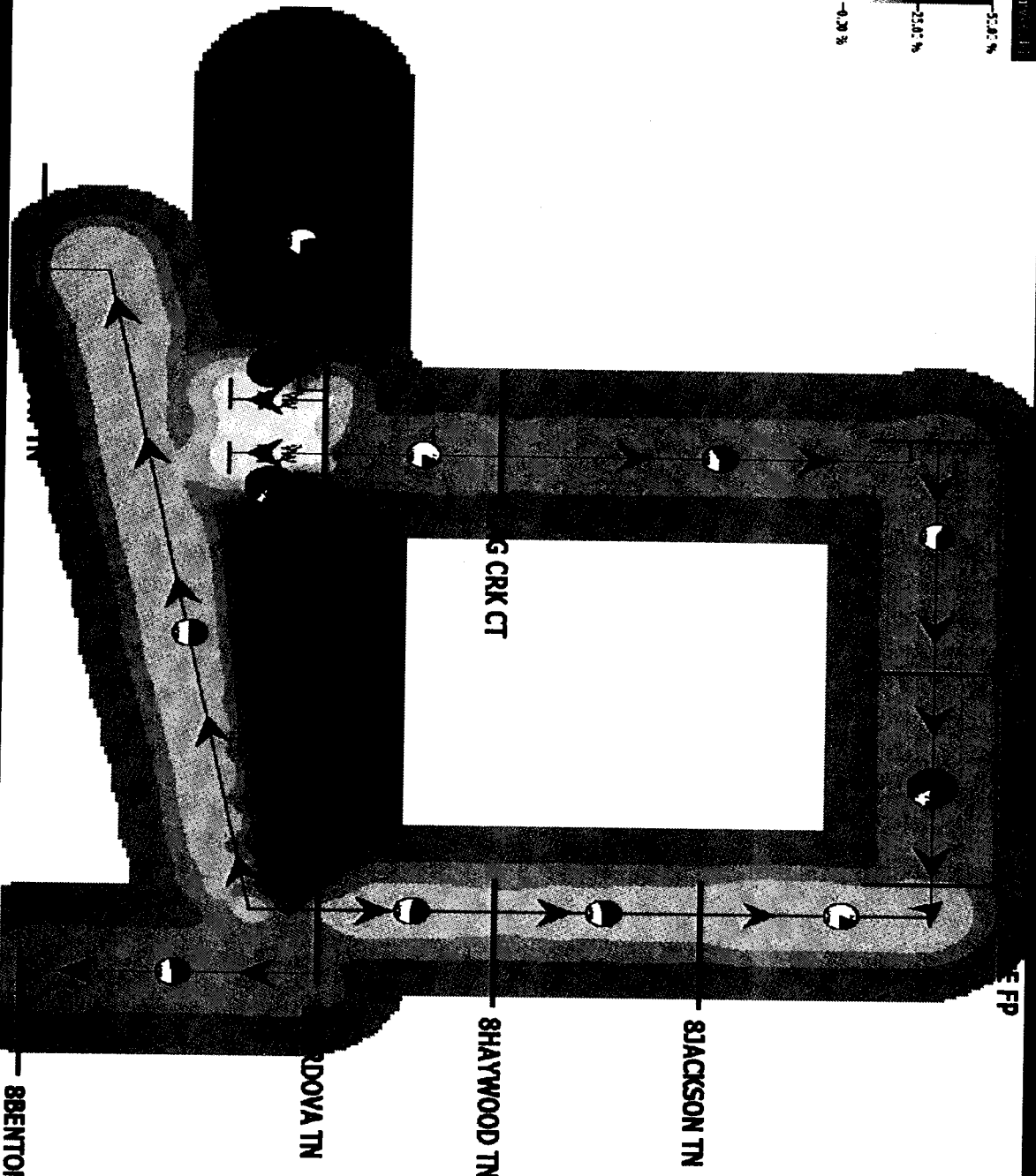
- Three 500 kV TLs and four 500/161 kV TRs were identified as the limiting elements in the TVA system.
- 78 161 kV thermal overload violations were identified in the TVA system.
- A large voltage collapse could occur in the TVA and neighboring utilities.





Source: USGS

55.0%
25.0%
-0.20%



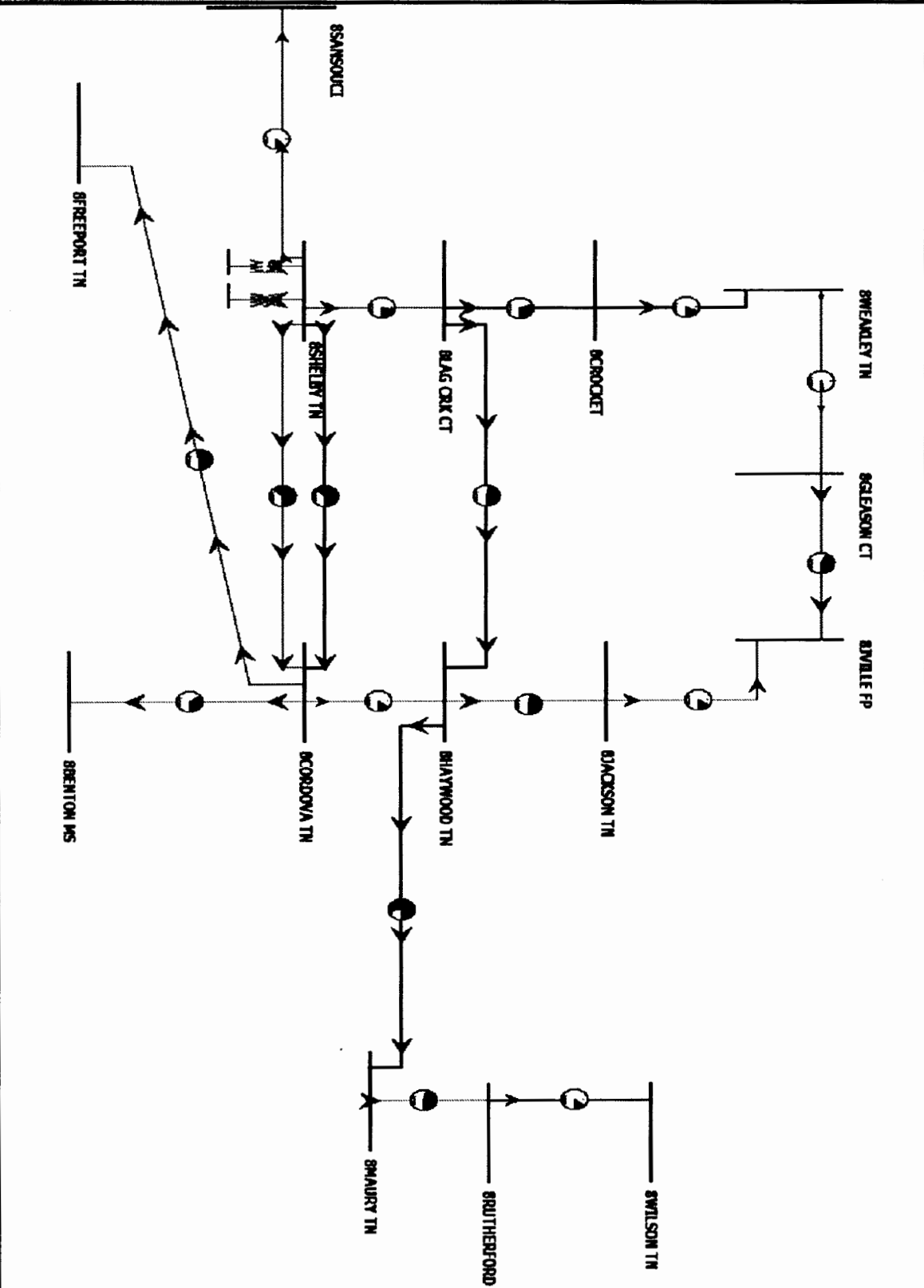


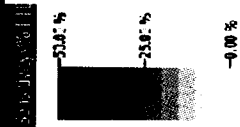
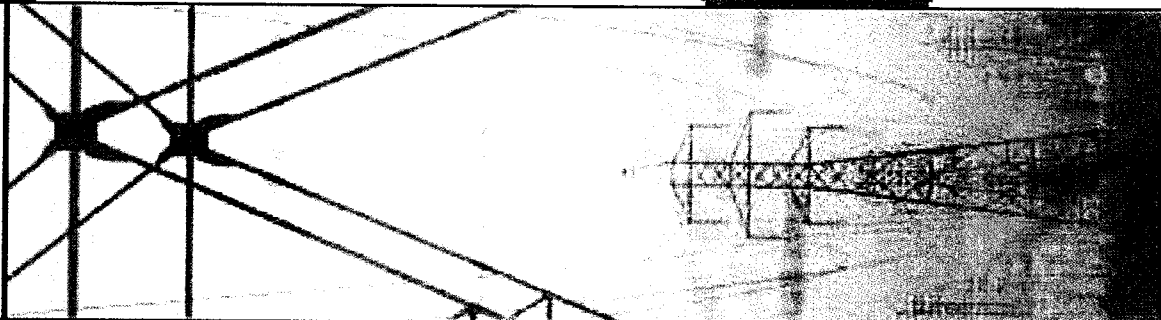
- **Proposed Network upgrades**

- New 500 kV substation (Crockett) – TVA's ULRTP
- Two Shelby – Cordova 500 kV TLs
- Lagoon Creek – Haywood 500 kV TL
- Haywood – Maury 500 kV TL
- Rutherford – Wilson 500 kV TL

- **All 500 kV TL and 500/161 kV TR violations and 44 161 kV problems were eliminated by the proposed upgrades.**

- **34 potential 161 kV problems remain in the TVA system.**

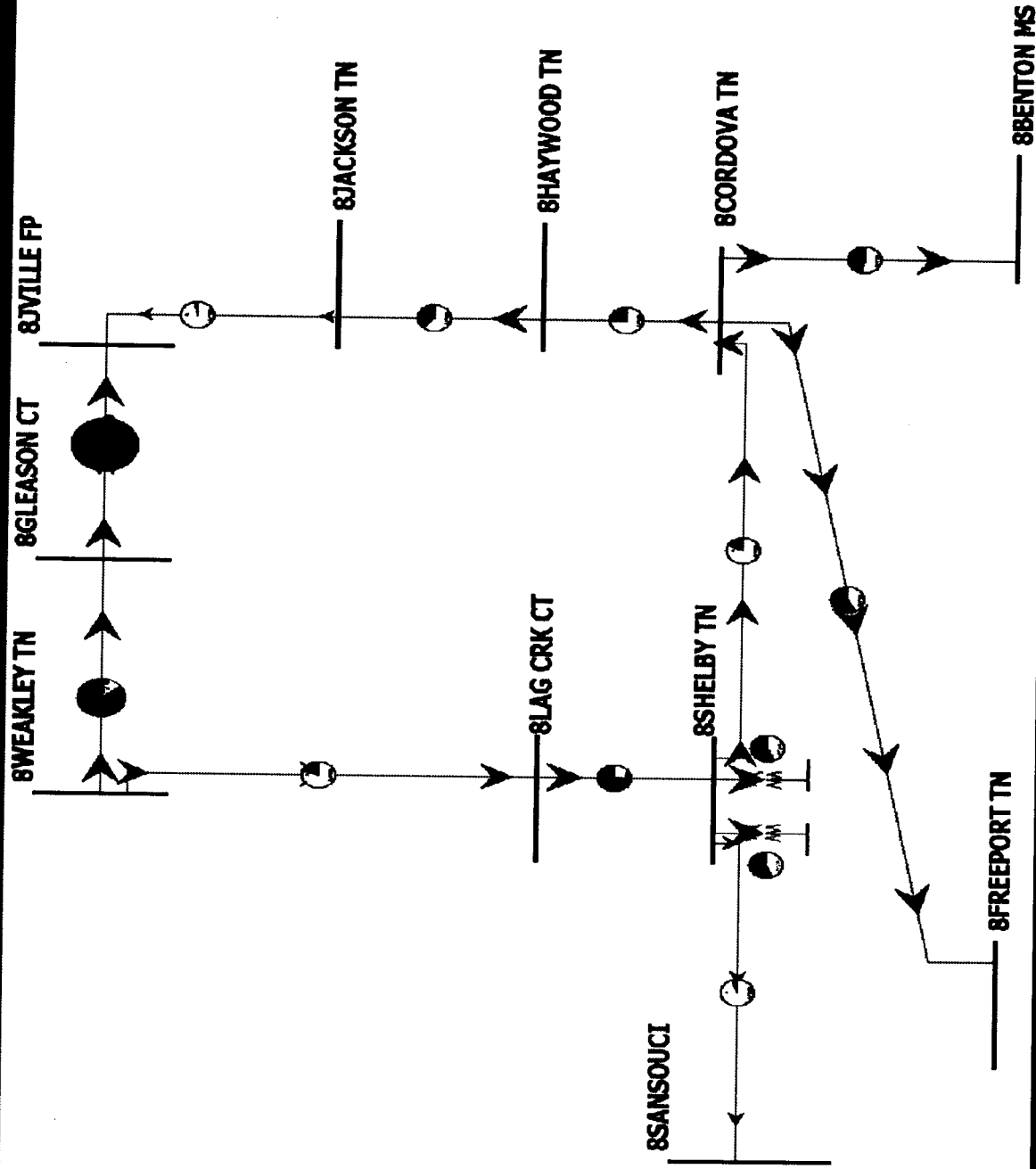
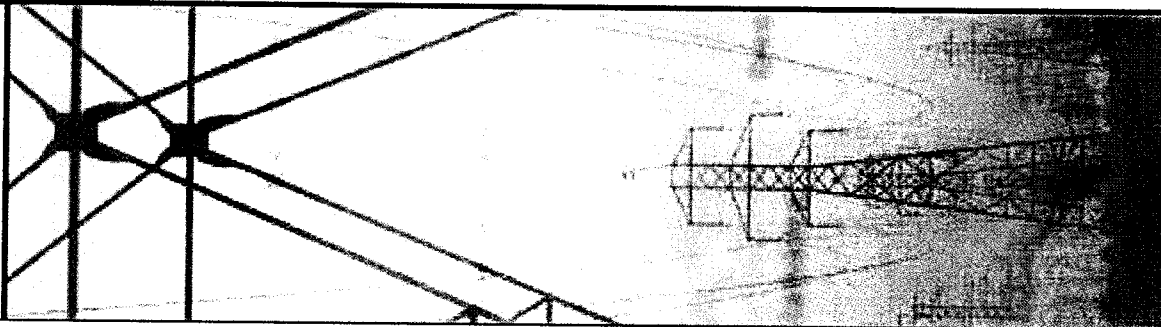


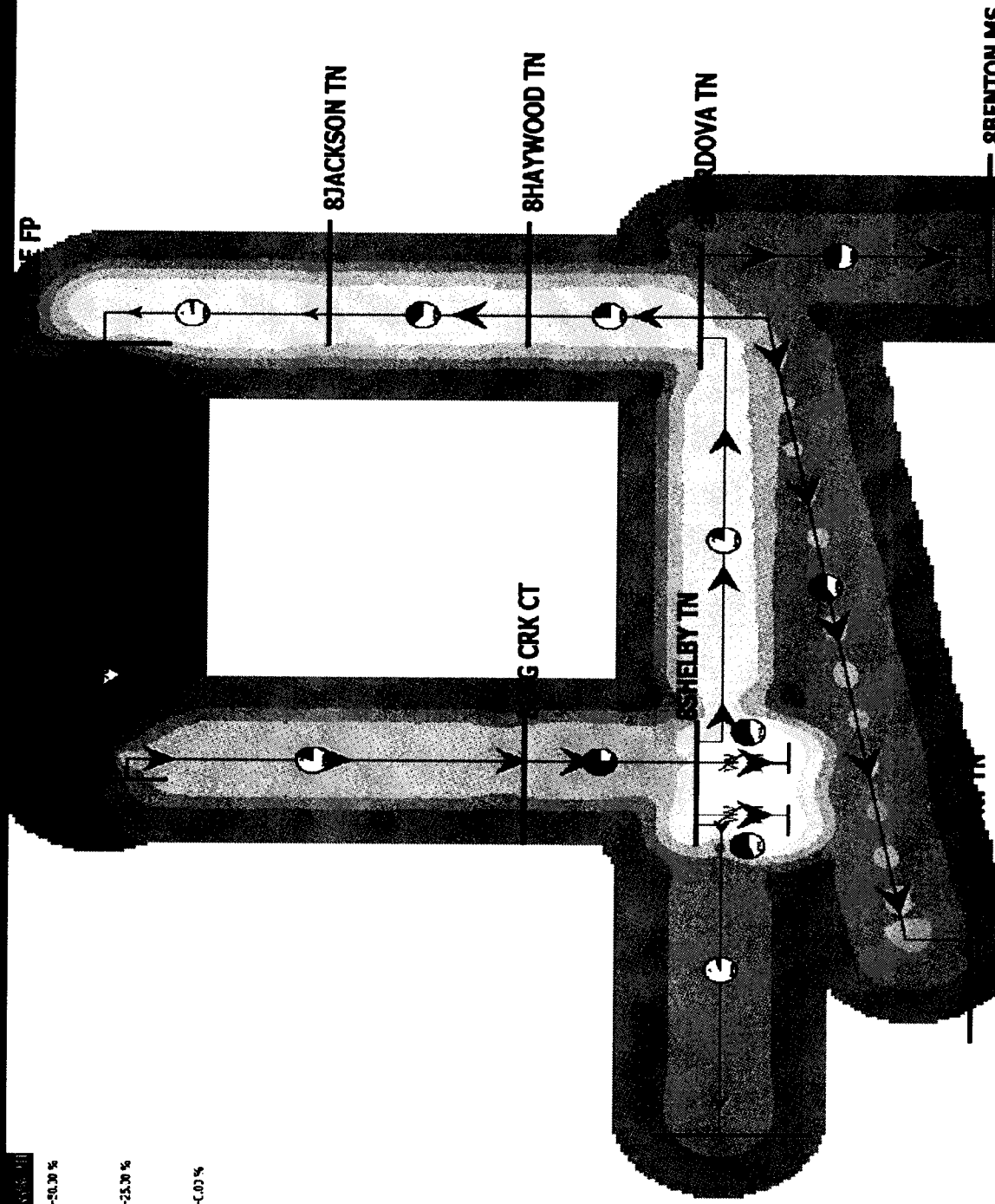
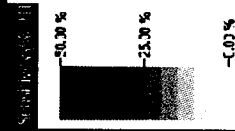
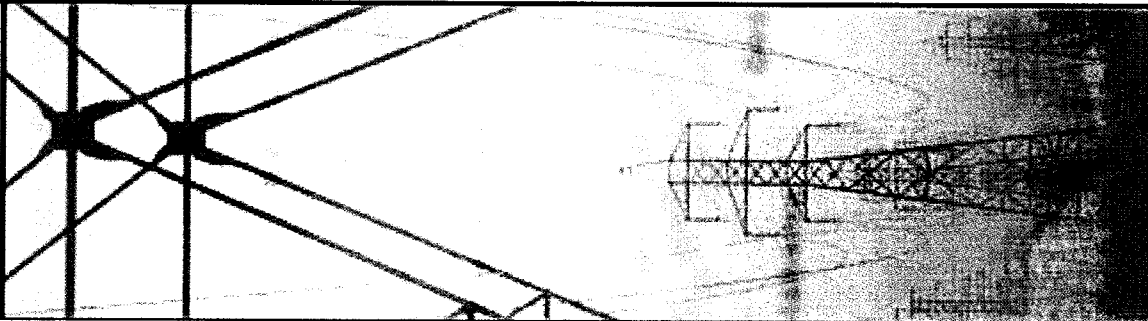




- **Identified thermal overload violations**

- Four 500 kV TLs and two 500/161 kV TRs were identified as the limiting elements in the TVA system.
- 60 161 kV thermal overload violations were identified in the TVA system.
- A large voltage collapse could occur in the TVA and neighboring utilities.



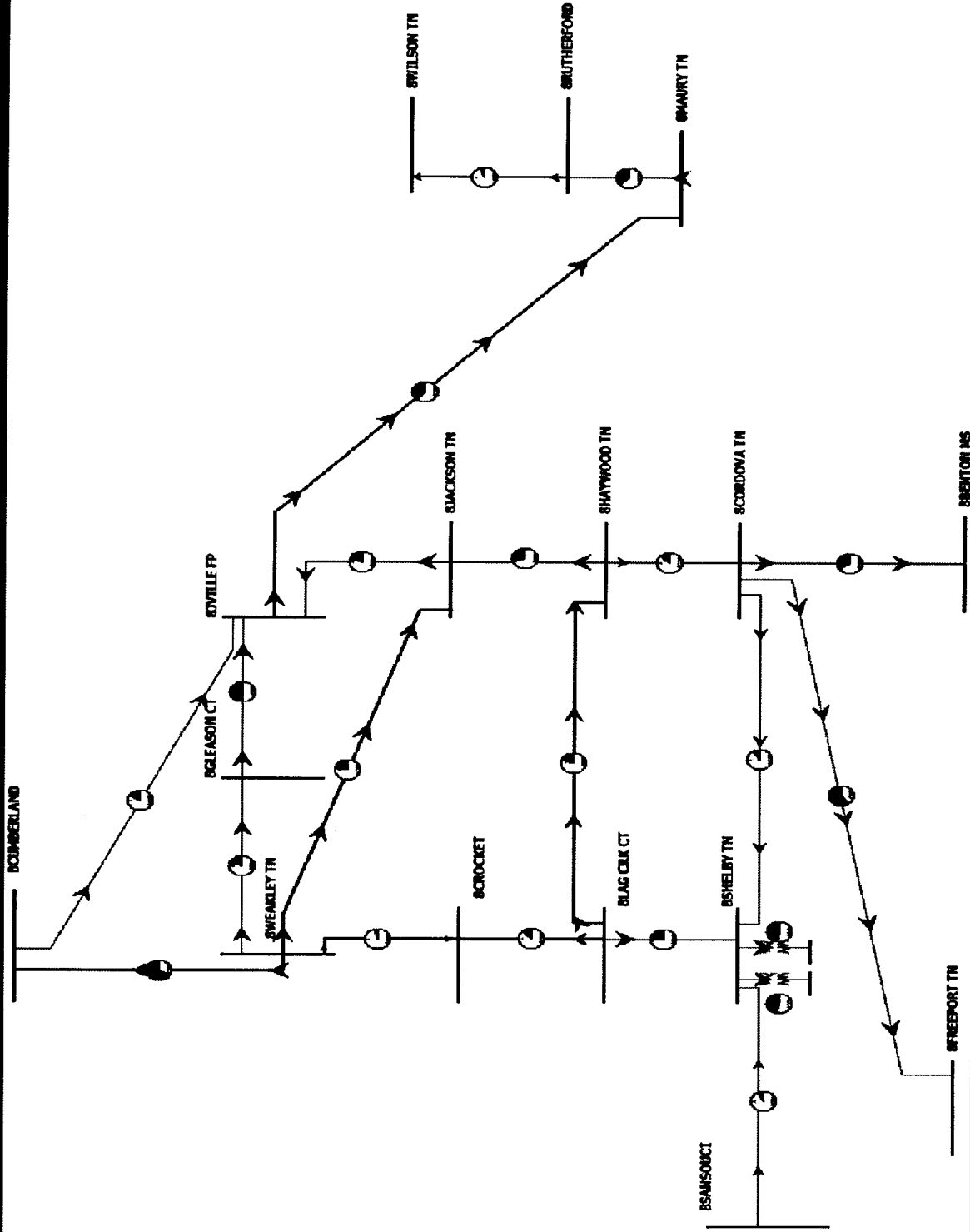
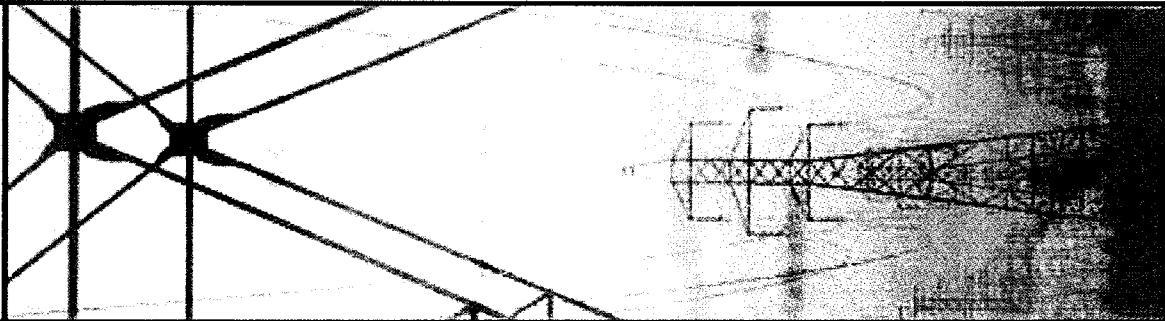


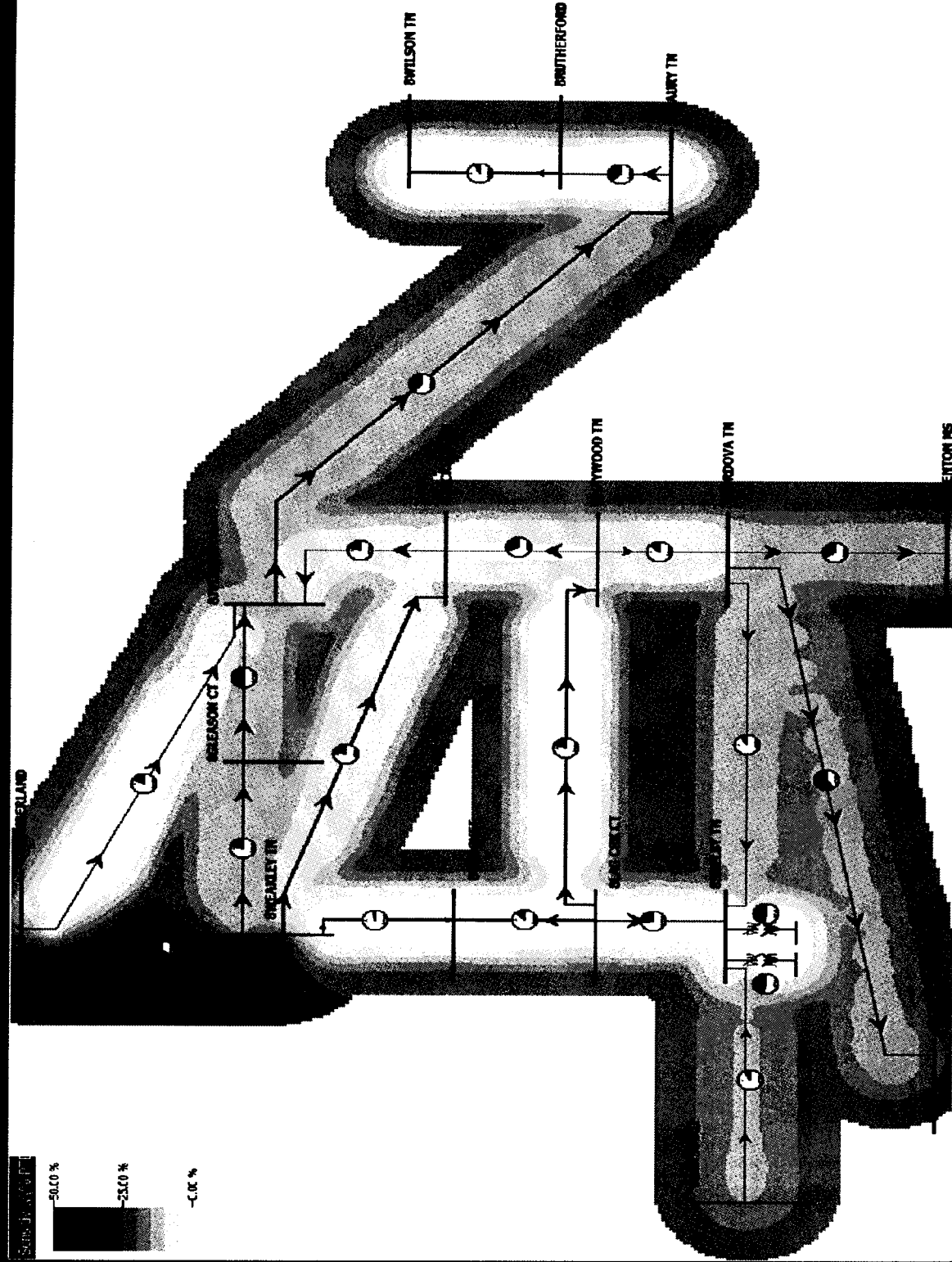
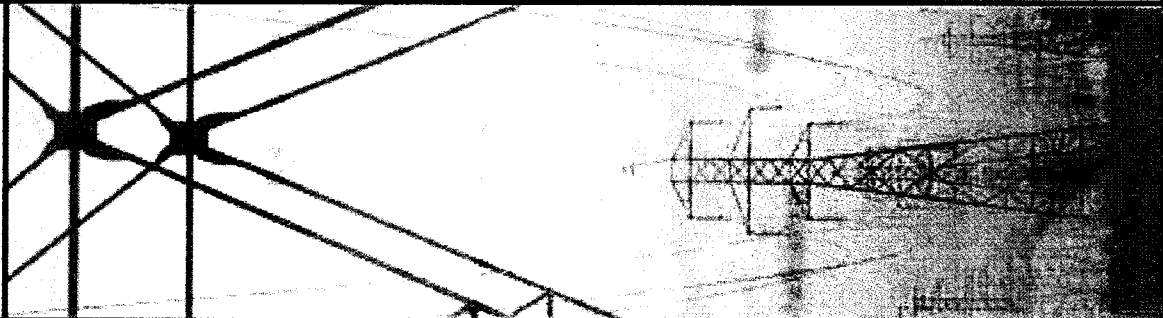


- **Proposed Network upgrades**

- New 500 kV substation (Crockett) – TVA's ULRTP
- Weakley – Cumberland 500 kV TL
- Lagoon Creek – Haywood 500 kV TL
- Weakley – Jackson 500 kV TL
- Johnsonville – Maury 500 kV TL
- Rutherford – Wilson 500 kV TL

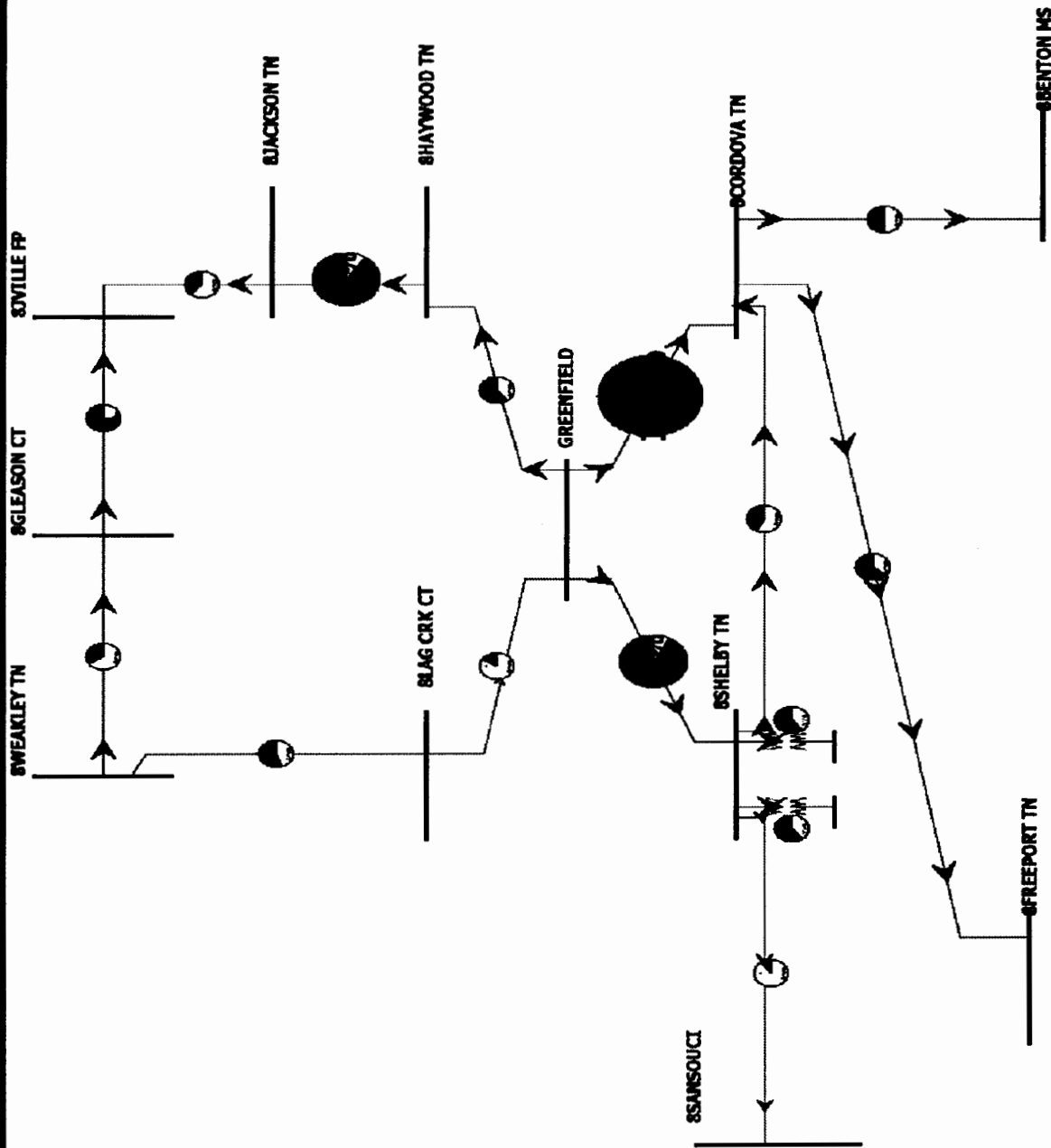
- **All 500 kV TL and 500/161 kV TR violations and 36 161 kV problems were eliminated by the proposed upgrades.**
- **24 potential 161 kV problems remain in the TVA system.**

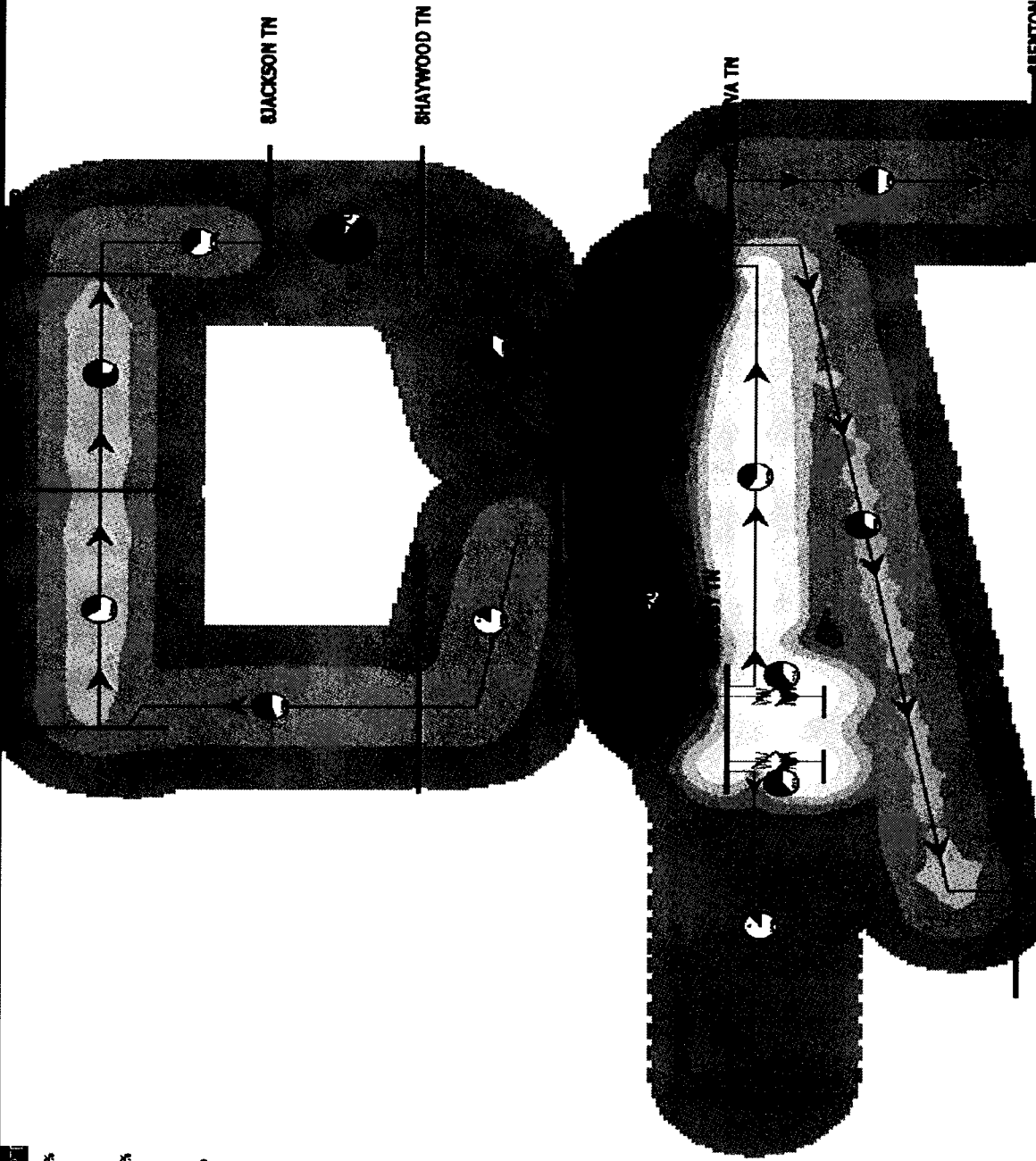
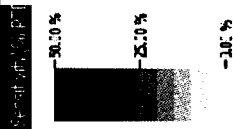
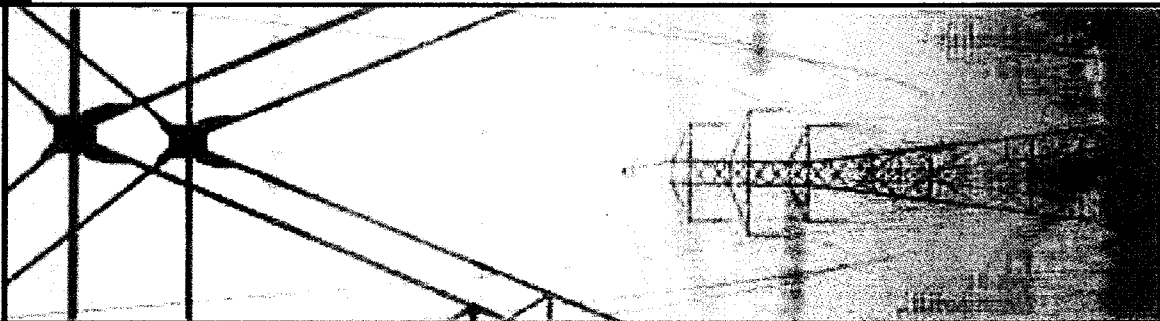




- **Identified thermal overload violations**

- Five 500 kV TLs and four 500/161 kV TRs were identified as the limiting elements in the TVA system.
- 76 161 kV thermal overload violations were identified in the TVA system.
- A large voltage collapse could occur in the TVA and neighboring utilities.





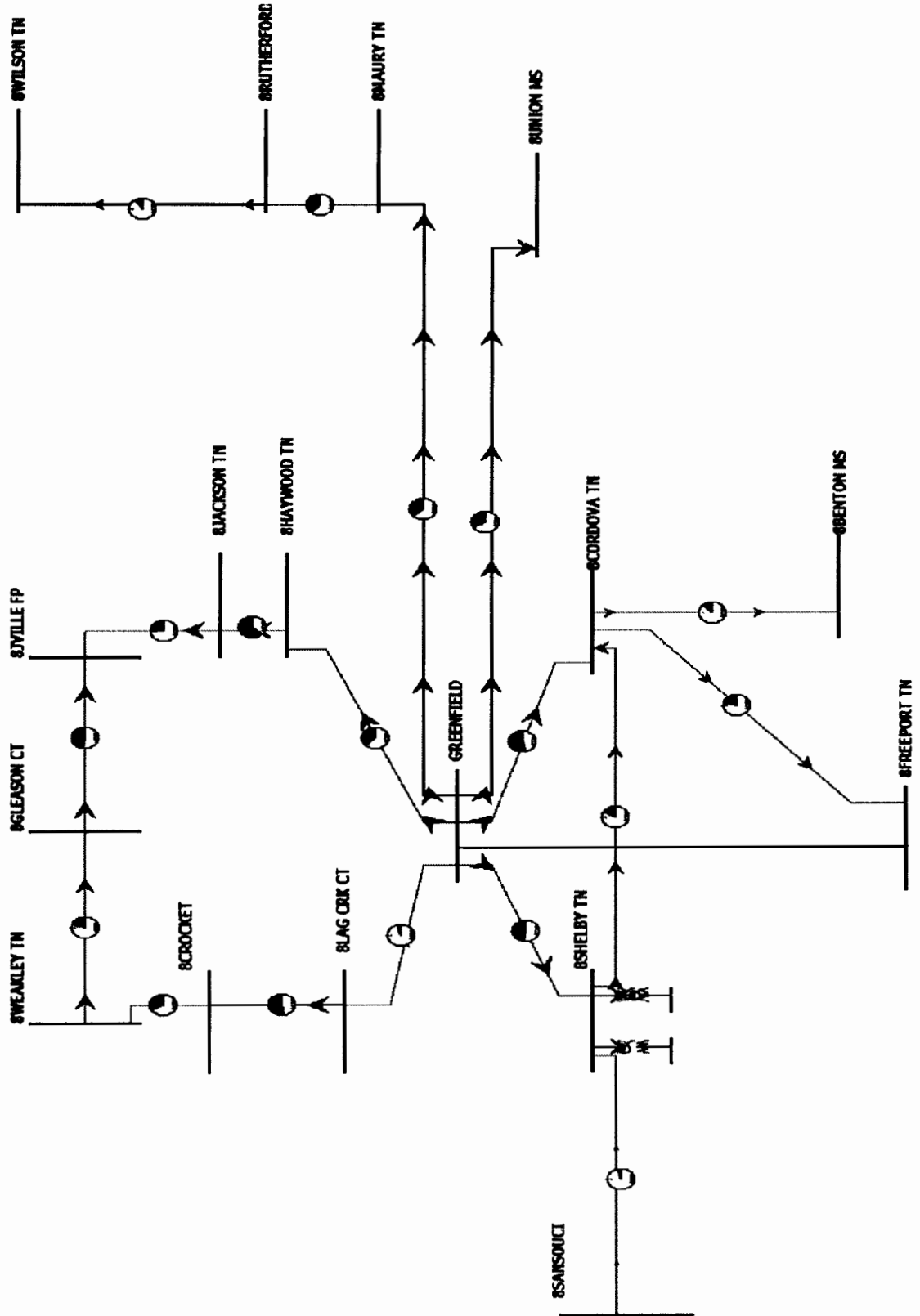
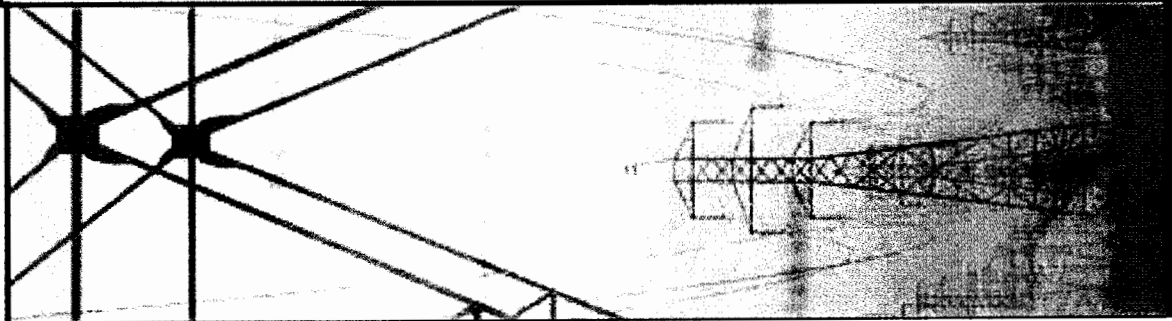


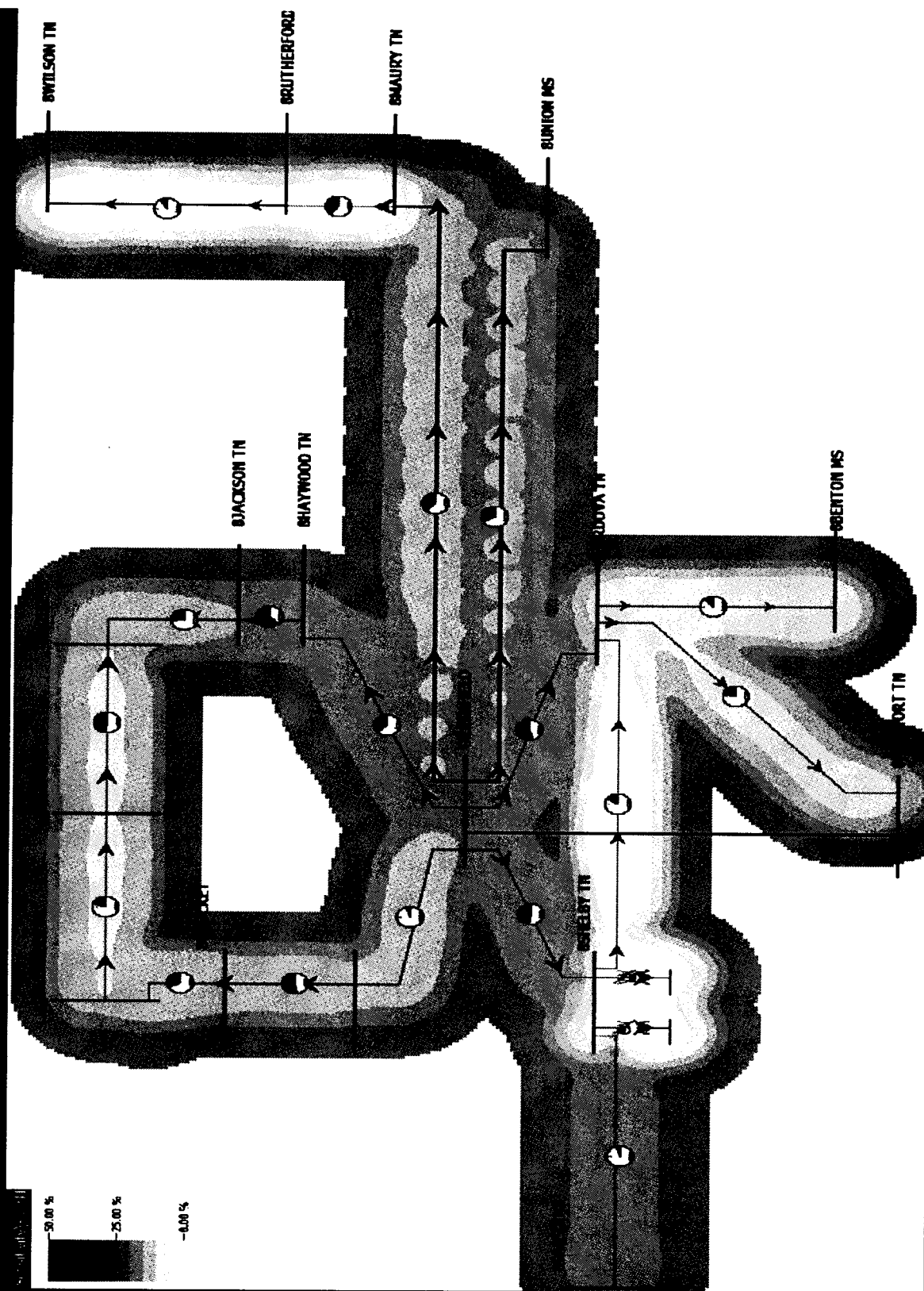
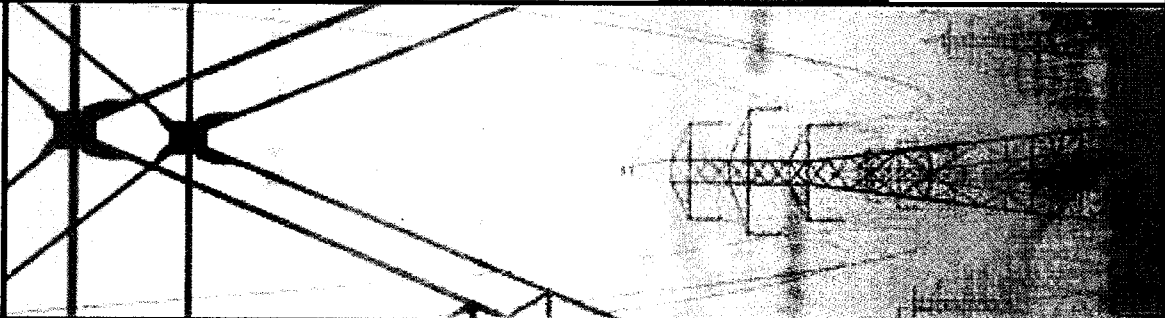
- **Proposed Network upgrades**

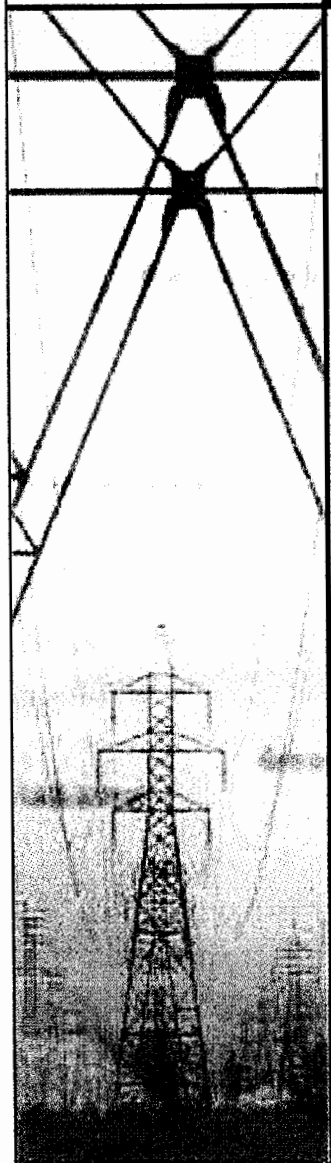
- New 500 kV substation (Crockett) – TVA's ULRTP
- Greenfield – Maury 500 kV TL
- Greenfield – Freeport 500 kV TL
- Greenfield – Union 500 kV TL
- Rutherford – Wilson 500 kV TL

- **All 500 kV TL and 500/161 kV TR violations and 29 161 kV problems were eliminated by the proposed upgrades.**

- **47 potential 161 kV problems remain in the TVA system.**







- The Greenfield option requires the construction of more 500 kV TLs than other options – It is the most expensive option.
- In order to identify the total estimate and solutions of each option better, a joint study between TVA and other companies (mainly Entergy) in the early stages could be beneficial.
- More detailed studies are required to include results of power flow and other studies (short circuit, transient, harmonic , etc).

Plains and Eastern Response to
Staff Data Request 19

Attachment 01

CONFIDENTIAL – FILED UNDER SEAL

Plains and Eastern Response to
Staff Data Request 19


Attachment 02



Tom Leatherwood

Shelby County Register

As evidenced by the instrument number shown below, this document
has been recorded as a permanent record in the archives of the
Office of the Shelby County Register.

	
13044145	
04/11/2013 - 08:17 AM	
7 PGS	
LYNDAL 1075128-13044145	
VALUE	0.00
MORTGAGE TAX	0.00
TRANSFER TAX	0.00
RECORDING FEE	35.00
DP FEE	2.00
REGISTER'S FEE	0.00
WALK THRU FEE	0.00
TOTAL AMOUNT	37.00
TOM LEATHERWOOD	
REGISTER OF DEEDS SHELBY COUNTY TENNESSEE	

MEMORANDUM OF OPTION

**THIS DOCUMENT PREPARED BY,
AND AFTER RECORDING RETURN
TO:**

James B. McLaren, Jr.
Adams and Reese LLP
80 Monroe Avenue, Suite 700
Memphis, Tennessee 38103

MEMORANDUM OF OPTION AGREEMENT

STATE OF TENNESSEE

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF SHELBY

THAT, by that certain Option Agreement dated December 31, 2012 (the "**Option Agreement**"), by and among Patricia C. Meadows, Lee C. Wilson, Paula A. Johnson, Clifton T. Phillips, Helen McGill, Helen Flippin, Lee C. Henwood, Drew F. Henwood, John R. Henwood, Charles C. Castles IV, Devin C. Castles-Bussewitz, Harry C. McCalla, Jr., Executor for Estate of Elizabeth F. McCalla, and Elizabeth M. Wriggins, Executor for Estate of Elizabeth F. McCalla (collectively, the "**Owner**") and Plains and Eastern Clean Line LLC ("**Purchaser**"), Owner has granted to Purchaser for a period commencing on the date of the Option Agreement and continuing until January 3, 2018, an option to purchase fee simple title to that certain parcel of real property consisting of 199.98 acres, situated in Shelby County, Tennessee, as legally described on Exhibit A attached hereto and incorporated herein, together with (1) all buildings, structures, fixtures and other improvements located, if any, on the Land; and (2) all other appurtenances pertaining to the Land, including, without limitation, all development rights, entitlements, water rights, claims, strips and gores, easements benefiting the Land, and rights in and to adjoining roadways.

The purpose of this memorandum is to give notice of the existence of Purchaser's option rights granted in the Option Agreement, to which Option Agreement reference is made for a full description of the terms and conditions thereof. In the event any of the terms and provisions of this memorandum conflict with the terms and provisions of the Option Agreement, the terms and provisions of the Option Agreement shall control.

This Memorandum of Option Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument.

EXECUTED as of December 31, 2012 (the "**Effective Date**").

OWNER:

Patricia C Meadows
PATRICIA C MEADOWS

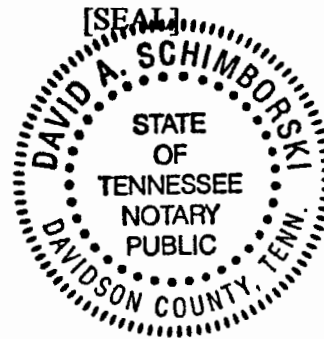
STATE OF Tennessee)
COUNTY OF Davidson)

Personally appeared before me, the undersigned, a Notary Public in and for said county and state, Patricia C Meadows, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who acknowledged that [s]he executed the within instrument for the purposes therein contained.

Witness my hand and seal, this 31 day of December,
20 12.

David A. Schimborski
Notary Public

My Commission Expires: 5-5-14



My Commission Expires

PURCHASER:

By: [Signature] CL
 Name: Michael Scully
 Title: President

STATE OF TEXAS)
 COUNTY OF HARRIS)

Before me, the undersigned, a Notary Public of the state and county aforesaid, personally appeared MICHAEL SCULLY, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath, acknowledged him/herself to be the _____ (capacity) of Plains and Eastern Clean Line LLC the within named bargainor, a limited liability company, and that s/he as such _____, executed the foregoing instrument for the purpose therein contained, by signing the name of the limited liability company by him/herself as MICHAEL SCULLY

Witness my hand and seal, this 8th day of JANUARY, 20 13.

[Signature]
 Notary Public

My Commission Expires: JULY 22, 2015

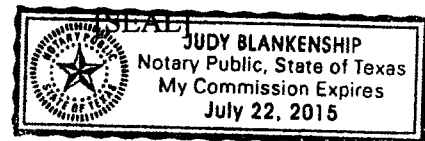


EXHIBIT A
TO MEMORANDUM OF OPTION AGREEMENT

DESCRIPTION OF LAND

Parcel I:

Description of a 75.59 Acre parcel being the Lois Castles Estate property as recorded at Deed Book 613 Page 324 — Tract 1 (also see Instrument Nos. CP 7007, CX 3032, and CX 3038), said property being situated in the First Civil District of Shelby County, Tennessee and located West of Miller Road.

Beginning at a cross tie fence corner being the Southeast corner of this 75.59 Acre parcel being the Lois Castles Estate property as recorded at Deed Book 613 Page 324 — Tract 1 (also see Instrument Nos. CP 7007, CX 3032, and CX 3038), also being the Northeast corner of the United States of America property (TVA Substation tract, Tract No. SHLSS-1) as recorded at Instrument No. G6 1682, also being angle point in the West line of the Hope Castles Estate property as recorded at Deed Book 613 Page 321; thence in a Northwestwardly direction, along the South line of this parcel, also being a North line of the United States of America property (TVA Substation tract, Tract No. SHLSS-1), North 86 degrees 08 minutes 12 seconds West, passing a found 1 1/2 inch iron pipe with cap at 1606.11 feet being the Northwest corner of the United States of America property (TVA Substation tract, Tract No. SHLSS-1) and the Northeast corner of the Mansi T. Trivedi property as recorded at Instrument No. 10089846 and continuing along the North line of the Trivedi property, and passing a set 1/2 inch rebar with cap on the top bank of Big Creek at 2618.96 feet, but in all a distance of 2703.20 feet to the Southwest corner of this parcel being in the centerline of Big Creek; thence in a Northerly direction, along the centerline meanders of Big Creek, also being the West line of this parcel; the following thirty three (33) courses; North 39 degrees 27 minutes 29 seconds East, a distance of 86.89 feet to an angle point; thence North 40 degrees 38 minutes 10 seconds East, a distance of 132.54 feet to an angle point; thence North 17 degrees 16 minutes 45 seconds East, a distance of 86.16 feet to an angle point; thence North 03 degrees 54 minutes 36 seconds East, a distance of 60.02 feet to an angle point; thence North 10 degrees 29 minutes 33 seconds West, a distance of 90.93 feet to an angle point; thence North 02 degrees 14 minutes 37 seconds West, a distance of 43.17 feet to an angle point; thence North 13 degrees 23 minutes 19 seconds East, a distance of 78.09 feet to an angle point; thence North 14 degrees 59 minutes 38 seconds East, a distance of 54.11 feet to an angle point; thence North 12 degrees 01 minutes 26 seconds West, a distance of 21.01 feet to an angle point; thence North 66 degrees 33 minutes 06 seconds West, a distance of 33.18 feet to an angle point; thence North 75 degrees 08 minutes 29 seconds West, a distance of 76.32 feet to an angle point; thence North 83 degrees 57 minutes 41 seconds West, a distance of 53.69 feet to an angle point; thence North 83 degrees 23 minutes 44 seconds West, a distance of 182/3 feet to an angle point; thence South 87 degrees 42 minutes 57 seconds West, a distance of 143.68 feet to an angle point; thence South 70 degrees 16

minutes 02 seconds West, a distance of 4876 feet to an angle point; thence South 83 degrees 02 minutes 23 seconds West, a distance of 38.92 feet to an angle point; thence North 68 degrees 53 minutes 40 seconds West, a distance of 44.14 feet to an angle point; thence North 24 degrees 47 minutes 18 seconds West, a distance of 51.60 feet to an angle point; thence North 15 degrees 50 minutes 23 seconds East, a distance of 39.08 feet to an angle point; thence North 41 degrees 12 minutes 00 seconds East, a distance of 70.88 feet to an angle point; thence North 01 degrees 01 minutes 47 seconds West, a distance of 25.07 feet to an angle point; thence North 29 degrees 21 minutes 21 seconds West, a distance of 49.57 feet to an angle point; thence North 50 degrees 58 minutes 59 seconds West, a distance of 84.25 feet to an angle point; thence North 61 degrees 08 minutes 23 seconds West, a distance of 60.49 feet to an angle point; thence North 70 degrees 24 minutes 42 seconds West, a distance of 54.45 feet to an angle point; thence North 59 degrees 12 minutes 38 seconds West, a distance of 37.60 feet to an angle point; thence in North 33 degrees 13 minutes 59 seconds West, a distance of 36.29 feet to an angle point; thence North 04 degrees 30 minutes 53 seconds East, a distance of 29.76 feet to an angle point; thence North 59 degrees 31 minutes 53 seconds East, a distance of 35.80 feet to an angle point; thence North 81 degrees 05 minutes 10 seconds East, a distance of 52.70 feet to an angle point; thence North 64 degrees 50 minutes 54 seconds East, a distance of 37.27 feet to an angle point; thence North 38 degrees 57 minutes 15 seconds East, a distance of 83.62 feet to an angle point; thence North 16 degrees 13 minutes 38 seconds West, a distance of 16.02 feet to the Northwest corner of this parcel being in the centerline of Big Creek, also being the Southwest corner of the Martha C. Allen Living Trust property as recorded at Deed Book 1559 Page 384 (Tipton County Registers Office); thence in a Southeastwardly direction, along a North line of this parcel, also being the South line of the Martha C. Allen Living Trust property, South 86 degrees 35 minutes 43 seconds East, passing a set 1/2 inch rebar with cap on the top bank of said creek at 57.44 feet and passing a found 1/2 inch rebar with cap at 1150.12 feet being the Southeast corner of the Martha C. Allen Living Trust property and the Southwest corner of the Barry D. Frost property as recorded at Deed Book 1120 Page 584 (Tipton County Registers Office) and continuing along the South line of the Frost property, but in all a distance of 3248.55 feet to a found 1/2 inch rebar with cap being an exterior corner of this parcel, also being an interior corner of the Frost property; thence in a Southwestwardly direction, along an East line of this parcel, also being a West line of the Frost property South 07 degrees 16 minutes 36 seconds West, a distance of 138.43 feet to a found 1/2 inch rebar with cap being an interior corner of this parcel, also being the an exterior property, South 08 degrees 54 minutes 50 seconds West, a distance of 999.67 feet to the Point of Beginning and containing 75.59 Acres, more or less.

However, there is excepted out that portion occupied by the Right of Way of Miller Road.

However, there exists a 75 feet wide railroad spur easement for the Tennessee Valley Authority (Unites States of America), Tract No. SSRR-8 as recorded at Instrument Nos. N5 3795, N5 3796, N5 3797, N5 3798, N5 3799, N5 3800, R1 4549 and R8 7058 and as shown on plat of survey.

However, there exists a 8 foot wide electric transmission line easement for Memphis Light, Gas & Water as recorded at Deed Book 3065 Page 188 as shown on plat of survey.

Parcel II:

Description of a 144.22 Acre parcel being the Hope Castles Estate property as recorded at Deed Book 613 Page 321 (also see Deed Book 4529 Page 152 and Instrument Nos. CP 7006, CX 3031, and CX 3037), said property being situated in the First Civil District of Shelby County, Tennessee and located on the North and South and East side of Miller Road.

Beginning at a cross tie fence corner being angle point in the West line of this 144.22 Acre parcel being the Hope Castles Estate property as recorded at Deed Book 613 Page 321 (also see Deed Book 4529 Page 152 and Instrument Nos. CP 7006, CX 3031, and CX 3037), also being the Southeast corner of the Lois Castles Estate property as recorded at Deed Book 613 Page 324 — Tract 1, also being the Northeast corner of the United States of America property (TVA Substation tract, Tract No. SHLSS-1) as recorded at Instrument No. G6 1682; thence in a Northeastwardly direction, along a West line of this parcel, also being the East line of the Lois Castles Estate property, North 08 degrees 54 minutes 50 seconds East, a distance of 999.67 feet to a found pk nail in Miller Road (5.25 feet West of the centerline) being an angle point, also being the Northeast corner of the Lois Castles Estate property, also being the Southeast corner of the Barry D. Frost property as recorded at Deed Book 1120 Page 584 (Tipton County Registers Office); thence continuing in a Northeastwardly direction, along a West line of this parcel, also being an East line of the Frost property, North 07 degrees 06 minutes 36 seconds East, a distance of 63.21 feet to an angle point in the centerline of Miller Road (Bethel Road in Tipton County); thence continuing in a Northeastwardly direction, along the centerline of Miller Road (Bethel Road), also being a West line of this parcel, the following nine (9) courses; North 04 degrees 20 minutes 20 seconds East, a distance of 30.92 feet to an angle point; thence North 07 degrees 02 minutes 07 seconds East, a distance of 25.13 feet to an angle point; thence North 06 degrees 44 minutes 04 seconds East, a distance of 66.37 feet to an angle point; thence North 05 degrees 02 minutes 15 seconds East, a distance of 108.17 feet to an angle point; thence North 05 degrees 52 minutes 06 seconds East, a distance of 96.48 feet to an angle point; thence North 07 degrees 00 minutes 39 seconds East, a distance of 64.21 feet to an angle point; thence North 07 degrees 49 minutes 44 seconds East, a distance of 74.20 feet to an angle point; thence North 07 degrees 15 minutes 20 seconds East, a distance of 195.22 feet to an angle point; thence North 07 degrees 08 minutes 30 seconds East, a distance of 241.65 feet to a set cotton picker spindle in said centerline being the Northwest corner of this parcel, also being the Southwest corner of the Memphis Stone & Gravel property as recorded at Deed Book 1196 Page 718 (Tipton County Registers Office); thence in a Southeastwardly direction, along the North line of this parcel, also being the South line of the Memphis Stone & Gravel property, South 80 degrees 43 minutes 07 seconds East, passing a 30 inch Elm tree on a fence at 29.87 feet, but in all a distance of 2461.63 feet to a set ½ inch rebar with cap being the Northeast corner of this parcel, also being in the South line of the Memphis Stone & Gravel Company, also being the Northwest corner of the Chad Stewart property as recorded at Instrument No. 08029819; thence in a Southwestwardly direction,

along an East line of this parcel, also being the West line of the Stewart property, South 08 degrees 13 minutes 19 seconds West, a distance of 1526.25 feet to a found pk nail in the centerline of Miller Road being the Southwest corner of the Chad Stewart property, also being the Northwest corner of the Rick Hudson property as recorded at Instrument No. 08023838; thence in a Southwestwardly direction, continuing along an East line of this parcel, also being the West line of the Hudson property, South 08 degrees 24 minutes 06 seconds West, a distance of 1037.75 feet to a set 1/2 inch rebar with cap being the Southeast corner of this parcel, also being the Southwest corner of the Hudson property, also being in the North line of the Larry A. Duncan property as recorded at Instrument No. FC 1777; thence in a Northwestwardly direction, along a South line of this parcel, also being a North line of the Duncan property, also being the North line of the Frank McCalla et al property (Probate Court 281-515), North 80 degrees 55 minutes 05 seconds West, a distance of 2444.62 feet to a set 1/2 inch rebar with cap being the Southwest corner of this parcel, also being the Northwest corner of the Frank McCalla et al property, also being in the East line of the United States of America property (TVA Substation tract, Tract No. SHLSS-1); thence in a Northeastwardly direction, along a West line of this parcel, also being the East line of the United States of America property (WA Substation tract, Tract No. SHLSS-1), North 08 degrees 10 minutes 53 seconds East, a distance of 608.11 feet to the Point of Beginning and containing 144.22 Acres, more or less.

However, there is excepted out that portion occupied by the Right of Way of Miller Road.

However, there exists a 150 foot wide transmission line easement for the Tennessee Valley Authority (United States of America), Tract No. MNM-89 as recorded at Deed Book 1919 page 618 and Plat Book 12 Page 20 (also see Deed Book 4077 Page 458 and Instrument No. T8 2642) and as shown on plat of survey.

However, there exists a 100 foot transmission line easement for Memphis Power & Light Company as recorded at Chattel Book 275 Page 359 and for the Tennessee Valley Authority (United States of America) as recorded at Deed Book 1611 Page 140 (also see Plat Book 12 Page 20) and as shown on plat of survey.

However, there exists a 8 foot wide electric transmission line easement for Memphis Light, Gas & Water as recorded at Deed Book 3065 Page 186 as shown on plat of survey.